

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

**June 9, 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, Reinhart, Swan, Withers and President LaMar

**NOTICE**

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

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**COMMUNICATIONS TO THE BOARD**

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1.     A. Written:

       B. Oral:

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

       Recommendation: Determine 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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**WORKSHOP**

**Resolution No. 2014-29**

3.     **FISCAL YEAR 2014-15 CAPITAL BUDGET**

       Recommendation: That the Board adopt a resolution approving the District's capital budget for Fiscal Year 2014-15.

Reso. No. 2014-

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**CONSENT CALENDAR**

**Items 4-10**

4.     **MINUTES OF REGULAR BOARD MEETING**

       Recommendation: That the minutes of the May 27, 2014 Regular Board meeting be approved as presented.

**CONSENT CALENDAR - Continued**

**Items 4-10**

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

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

6. NOTICE OF RELEASE OF COVENANT FOR ACCESS AND SAMPLING RIGHTS RELATED TO GROUNDWATER REMEDIATION IN QUITCLAIM DEEDS – GREAT PARK NEIGHBORHOODS

Recommendation: That the Board adopt a resolution approving execution of the Notice of Release of Covenant for Access and Sampling Rights related to Groundwater Remediation in Quitclaim Deeds – Great Park Neighborhoods.

Reso. No. 2014-

7. AMENDING OF BOND DOCUMENTS AND CONTINUING DISCLOSURE FOR BOND ISSUES RELATED TO IMPROVEMENT DISTRICT CONSOLIDATION

Recommendation: That the Board adopt a resolution authorizing notices, disclosure, Supplemental Indentures and certain other actions in connection with Improvement District consolidation (Consolidated Series 1993, 1995, 2009A and 2009B; Series 2010B; and Consolidated Refunding Series 2008A).

Reso. No. 2014-

8. VERIFICATION OF OF SUFFICIENT WATER SUPPLIES FOR UPTOWN NEWPORT BEACH (TENTATIVE TRACT MAP 17438)

Recommendation: That the Board approve the Verification of Sufficient Water Supplies for Uptown Newport Beach (Tentative Tract Map 17438).

9. 2014 STATE LEGISLATIVE UPDATE

Recommendation: That the Board take a "SUPPORT IF AMENDED" position on SB 985 (Pavley).

10. ELECTION OF THE LOCAL AGENCY FORMATION COMMISSION (LAFCO) ALTERNATE SPECIAL DISTRICT MEMBER

Recommendation: That the Board review and discuss the candidates for the Alternate Special District Member seat on the Orange County Local Agency Formation Commission (LAFCO) and authorize President LaMar to cast the District's ballot and submit it to LAFCO no later than the June 13, 2014, deadline.

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## **ACTION CALENDAR**

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11. **FISCAL YEAR 2014-15 GENERAL COUNSEL SERVICES FOR BOWIE, ARNESON, WILES, AND GIANNONE**

Recommendation: That the Board authorize the General Manager to execute the Engagement Agreement with Bowie, Arneson, Wiles, and Giannone effective July 1, 2014, for general counsel services in the amount not to exceed \$525,000, subject to the not-to-exceed amounts within such total amount as provided in separate detail.

12. **WATER SMART SOFTWARE INC. VARIANCE NO. 1**

Recommendation: That the Board authorize the General Manager to execute Variance No. 1 to the Professional Services Agreement between IRWD and Water Smart Software Inc. in the amount of \$98,550.

13. **ON-CALL DATABASE ADMINISTRATION CONSULTANTS**

Recommendation: That the Board authorize the General Manager to execute two Professional Services Agreements, one with LCS Technologies, Inc. in the amount of \$120,000 and the other with Outsource Technical in the amount of \$60,000 for on-call database administration services.

14. **SOUTH ORANGE COUNTY AGENCIES' METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA REPRESENTATIVE CANDIDATE NOMINATIONS**

Recommendation: That the Board consider the individuals who have written to IRWD to express their interest in the vacant Municipal Water District of Orange County (MWDOC) Metropolitan Water District of Southern California (MET) Director seat, as required by the December 2013 "MET representative selection process for south county agencies," and authorize IRWD to submit Supervisor Bill Campbell (Ret.) as the Board-approved candidate to the nomination committee before the June 16, 2014, submittal date.

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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.

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**OTHER BUSINESS - Continued**

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15. A. General Manager's Report

B. Directors' Comments

C. 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.

June 9, 2014

Prepared by: E. Akiyoshi/M. Hoolihan

Submitted by: K. Burton

Approved by: Paul Cook 

## WORKSHOP

### FISCAL YEAR 2014-15 CAPITAL BUDGET

#### SUMMARY:

The projected expenditures for the proposed FY 2014-15 Capital Budget are \$153.7 million. Staff recommends that the Board adopt a resolution approving the FY 2014-15 Capital Budget. A final Capital Budget notebook will be distributed following adoption.

#### BACKGROUND:

The projected capital expenditures for the upcoming fiscal year are presented annually to the Engineering and Operations Committee and Board for review. The presentation, attached as Exhibit "A", includes an update on FY 2013-14 budget-to-actual capital expenditures, projected FY 2014-15 capital expenditures, and a schedule for adopting the FY 2014-15 Capital Budget.

In the current fiscal year, FY 2013-14, budgeted expenditures were originally estimated at \$110.3 million. Actual expenditures are projected at approximately \$84.2 million (equating to 76% of projected expenditures) through the end of the current fiscal year. The construction phases for the Baker Water Treatment Plant and the Michelson Water Recycling Plant (MWRP) Biosolids and Energy Recovery Facilities started later than originally scheduled, resulting in capital expenditures this year being lower than originally anticipated.

Staff estimates that capital expenditures for FY 2014-15 will be approximately \$153.7 million; the construction work on two projects (the MWRP Biosolids and Energy Recovery Facilities and the Baker Water Treatment Plant) makes up 60% of the projected expenditures.

#### FISCAL IMPACTS:

The following table shows the major projects for FY 2014-15. The FY 2014-15 Capital Budget, attached as Exhibit "B," provides details on all the capital projects anticipated to have expenditures in FY 2014-15.

Project	FY 2014-15 (\$, millions)
MWRP – Solids Handling	53.8
Baker Water Treatment Plant	38.8
Development – Planning Area 51 (Great Park)	8.6
Business Software (CC&B, Asset Management, ID Consolidation)	7.4
Development – Planning Area 18S (Hidden Valley)	4.3
OPA Well 1	3.5
OCS D / CORF	2.7
Peters Canyon Water Capture and Reuse Pipeline	2.6
Water Banking	2.4
Santiago Canyon Potable Improvements	2.1
<b>Subtotal</b>	<b>\$126.2</b>
<b>Total All Projects</b>	<b>\$153.7</b>

ENVIRONMENTAL COMPLIANCE:

Not required.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee on May 20, 2014. The draft FY 2014-15 Capital Budget summary presented to the Committee was \$153.7 million. Improvement District (ID) Splits have since been adjusted for the following projects and are reflected in the capital budget:

- Project 11379 (1047) – Legacy Park Tustin Ranch Road: The costs were moved from ID 112 to ID 113.
- Project 11619 (3566) – Enterprise Asset Management Software: The costs were moved from the replacement fund to the regional allocation.
- Project 21619 (3567) – Enterprise Asset Management Software: The costs were moved from the replacement fund to the regional allocation.
- Project 11743 (4919) – Silverado Canyon Road 12-Inch Domestic Water Pipeline: The costs were moved from 100% replacement to 72.7% replacement and 27.3% ID 110.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2014 –

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY  
CALIFORNIA, APPROVING THE DISTRICT'S CAPITAL  
BUDGET FOR FISCAL YEAR 2014-15

Workshop: Fiscal Year 2014-15 Capital Budget

June 9, 2014


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**LIST OF EXHIBITS:**

Exhibit "A" – FY 2014-15 Capital Budget Presentation


Exhibit "B" – FY 2014-15 Capital Budget Book

Exhibit "C" – Resolution




# Fiscal Year 2014/15 Capital Budget

**Board of Directors Workshop  
June 9, 2014**




The slide features a blue background with a white square graphic in the top left corner. The main title is in white text. Below the title, the workshop details are listed in white text. The Irvine Ranch Water District logo is positioned in the bottom right corner of the slide.



## Capital Budget Presentation Outline

- Review Fiscal Year (FY) 2013/14 budget
  - Update on expenditures for FY 2013/14
- Present proposed FY 2014/15 budget
  - FY 2014/15 Capital Budget Summary
  - Review Long Term Capital Program

Irvine Ranch Water District



The slide has a blue header with a white square graphic on the left. The title is in white text. The main content is a bulleted list in black text on a white background. The Irvine Ranch Water District logo is in the bottom right corner, and the text 'Irvine Ranch Water District' is at the bottom left of the slide.



## FY 2013/14 Budgeted vs. Projected Expenditures

Description	Budgeted Expenditures (\$ Millions)	Projected Expenditures (\$ Millions)
Top 10 project groups	\$85.1	\$58.1
Other projects	\$25.2	\$26.1
<b>FY 2013/14 Total</b>	<b>\$110.3</b>	<b>\$84.2</b>

Irvine Ranch Water District

## FY 2013/14 Top 10 Budgeted vs Projected Expenditures

No.	Description	Budgeted Expenditures (\$ Millions)	Projected Expenditures (\$ Millions)
1	MWRP Biosolids & Energy Recovery Facility	\$40.8	\$36.0
2	Baker Water Treatment Plant	\$16.5	\$3.5
3	Replacement - Business Software	\$7.3	\$4.9
4	Planning Area 30/51 (Great Park Area)	\$5.0	\$4.3
5	OPA/Regional Groundwater Project	\$4.5	\$1.2
6	Water Banking	\$3.1	\$0.4
7	Well 115 Replacement Project	\$2.9	\$3.2
8	Syphon Reservoir	\$1.8	\$2.2
9	Planning Area 18 (Laguna Alta)	\$1.7	\$0.8
10	Planning Area 9B (Stonegate)	\$1.6	\$1.6
	<b>Subtotal</b>	<b>\$85.1</b>	<b>\$58.1</b>
	Other Projects	\$25.2	\$26.1
	<b>Total</b>	<b>\$110.3</b>	<b>\$84.2</b>

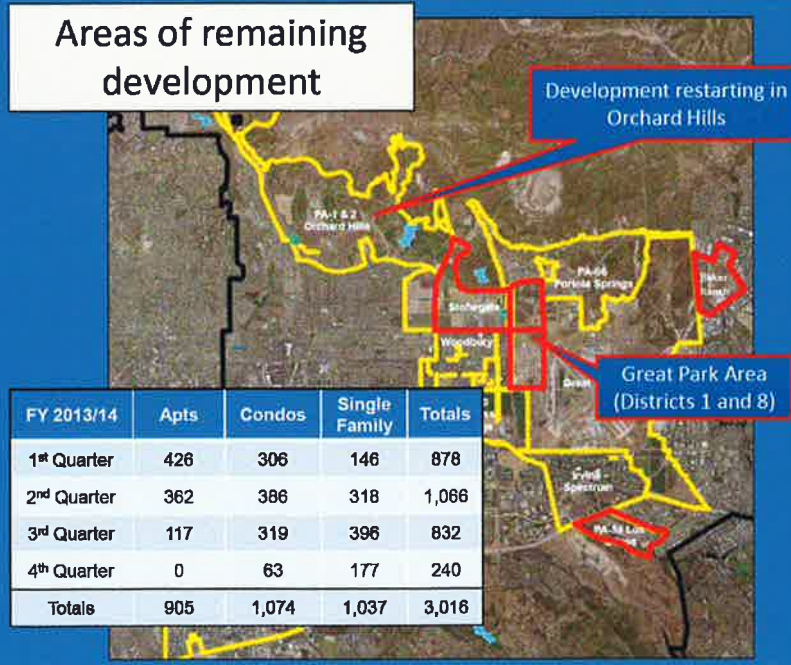


## Development Projects

- **FY 2013/14 Development Activity**
  - Released approximately 3,016 dwelling units through April 2013
  - Focused on multi-family units in areas with existing infrastructure
    - Stonegate (PA 9B)
    - Los Olivos (PA 39)
    - Cypress Village (PA 40)
    - Great Park Neighborhoods (District 8)
- **FY 2014/15 Development Activity**
  - Projected releases = Similar to 2013/14
  - Multi-family and single family dwelling units continue to be developed in: Hidden Canyon(PA 18 South), Baker Ranch (Shea/Baker LF Opportunities Study Area)
  - Continued expansion
    - Great Park Neighborhoods (Districts 1 and 8)
    - Orchard Hills (PA 1&2)

Irvine Ranch Water District

### Areas of remaining development



## FY 2014/15 Projected Expenditures

- FY 2014/15 projected expenditures = \$153.7 M
  - Domestic water expenditures = \$66.5 M
  - Sewer expenditures = \$87.2 M
- Top 10 Project Groups = \$126.2 M

Irvine Ranch Water District

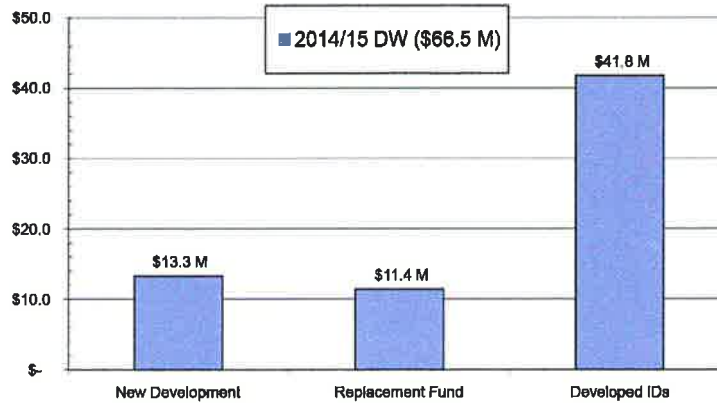
## FY 2014/15 Top 10 Projects and Groups

Rank	Description	Est. FY14/15 Exp. (\$ Millions)
1	MWRP - Solids Handling	53.8
2	Baker WTP	38.8
3	Development - PA51 (Great Park Neighborhoods)	8.6
4	Business Software (CC&B, Enterprise Asset Mgmt)	7.4
5	Development - PA18S (Hidden Valley)	4.3
6	OPA Well	3.5
7	OCSD / CORF	2.7
8	Peters Canyon Water Capture and Reuse Pipeline	2.6
9	Water Banking	2.4
10	Santiago Canyon DW Improvements	2.1
	<b>Subtotal</b>	<b>\$126.2</b>
	Other Projects	\$27.5
	<b>Total</b>	<b>\$153.7</b>



## Capital Budget Funding Sources

### Domestic Water Projects\*

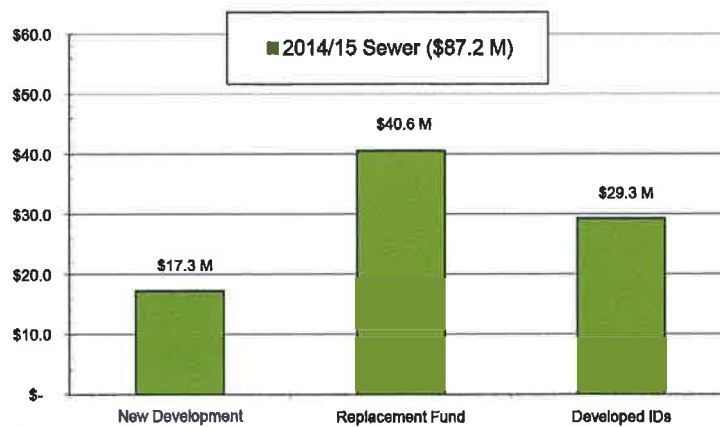


\*Excludes anticipated offsets

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## Capital Budget Funding Sources

### Sewer/Recycled Water Projects\*



\*Excludes anticipated offsets

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## Flagged Projects – Current Proposed Project

- **15051 (1402) Wells 51/52/53 Treatment Alternatives Study**

Irvine Ranch Water District

## Long Term Capital Program Summary

- **Long-Term Capital Program (LTCP) includes every active, and proposed project, beyond July 1, 2014**
- **Estimated remaining LTCP expenditures is \$638.8 M**
- **Proposed increase to the LTCP is \$30.4 M**
  - **≈ \$24.5 to Replacement IDs**
  - **≈ \$5.9 to New Development and Developed IDs**

Irvine Ranch Water District



## Proposed Increases to Long Term Capital Program

Project Groups	Proposed Changes to LTCP (\$ Millions)	Total Remaining Capital Offsets (\$ Millions)	Increases Including Offsets (\$ Millions)
Replacement IDs	\$24.5	\$0	\$24.5
Santiago Hills Development	\$9.0	\$0	\$9.0
Other Increases	\$9.0	(\$2.0)	\$7.0
Other Decreases	(\$10.1)	\$0	(\$10.1)
<b>Total</b>	<b>\$32.4</b>	<b>(\$2.0)</b>	<b>\$30.4</b>

Adjustments to Master Development Projects

Development infrastructure  
Santiago DW Improvements  
ILP North Conversion

## Long-Term Capital Program by Funding Source

Funding Source	Estimated Unexpended LTCP (07/01/13)	Mid-Year Approved Increases	Estimated FY 13/14 Expenditures	Proposed LTCP Increases	Estimated Remaining Unexpended LTCP (07/01/14)
Replacement IDs (101/201)*	\$159.9	\$1.5	\$27.1	\$24.5	\$158.8
Developed and New Development IDs	\$507.8	\$23.4	\$57.1	\$5.9	\$480.0
<b>Total</b>	<b>\$667.7</b>	<b>\$24.9</b>	<b>\$84.2</b>	<b>\$30.4</b>	<b>\$638.8</b>

\*Excludes Replacement Planning Model expenditures

Irvine Ranch Water District



## Changes from the E&O Committee

- Updated Enterprise Asset Management Projects from replacement to regional allocations
- Updated Santiago Canyon Domestic Water project from 100% replacement to replacement and existing users
- Moved a Tustin Legacy development project from ID 112 to ID 113

Irvine Ranch Water District

## Recommendation

**THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION  
BY TITLE:**

**RESOLUTION NO. 2014 –**

**RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY  
CALIFORNIA, APPROVING THE DISTRICT'S CAPITAL  
BUDGET FOR FISCAL YEAR 2014-15**

Irvine Ranch Water District



**06/09/14 DRAFT**

**FISCAL YEAR 2014/15  
CAPITAL BUDGET**

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5.	SEWER IMPROVEMENT DISTRICT ALLOCATIONS
6.	PROJECT EXPENDITURES BY IMPROVEMENT DISTRICT AND SOURCE OF FUNDS
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**IRVINE RANCH WATER DISTRICT  
2014/15 Capital Budget  
Project Expenditures by Project Number**

<u>EPMS No.</u>	<u>EBS No.</u>	<u>Project Title</u>	<u>FY Direct</u>	<u>FY Dir + GA</u>	<u>Total Direct</u>	<u>Total Dir + GA</u>	<u>Flag</u>	<u>Phase**</u>
10392	1409	DATS & WELL 77 LEASE PAYMENT 14/15	411,300	411,300	445,000	445,000	No	Pending
10423	1519	PA9 JEFFREY RD 12" ZN3 - IRVINE BLVD TO PORTOLA	37,700	37,700	1,187,000	1,386,900	No	Design
10446	1648	PA18 ZN 3-4 BPS	1,670,600	1,700,600	3,073,500	3,166,100	No	Planning
10517	1798	LAKE FOREST CONTROL AND TELEMETRY SYS REPLACEMEN	18,400	25,600	319,000	430,000	No	Construction
10556	1839	CPTS RESTORE AND INSTALL	77,000	114,000	221,700	369,700	No	Planning
10917	1664	NEWPORT COAST CP JOINT BONDING	36,700	60,800	1,852,400	2,019,800	No	Design
11056	1790	ENG PLANNING STUDY RESERVE 14/15 DW	198,000	346,000	198,000	346,000	No	Pending
11097	1200	GIS SUPPORT APPLICATIONS 14/15	60,000	94,200	60,000	94,200	No	Pending
11116	1264	ASSET OPTIMIZATION - LAKE FOREST DEVELOPMENT	1,346,300	1,346,300	6,500,000	6,685,000	No	Planning
11131	1332	HYDRAULIC MODELING 14/15 DW	44,000	62,500	44,000	62,500	No	Pending
11153	1371	HARDING TRUCK TRAIL RES DEMO	9,400	24,300	265,700	339,800	No	Construction
11271	1334	OCWD ANNEXATION FEE 14/15	426,600	426,600	426,600	426,600	No	Planning
11289	2812	STRAND RANCH FACILITIES AND MONITORING PROGRAM	58,400	62,600	17,739,700	18,442,700	No	Planning
11379	1047	LEGACY PARK TUSTIN RANCH ROAD	2,100	2,100	990,900	1,083,200	No	Construction
11405	1250	OPA / REGIONAL GROUNDWATER PROJECT	3,537,600	3,690,700	9,146,700	9,760,800	No	Construction
11434	1414	SAND CANYON 16" DW PIPELINE ANODE REPLACEMENT	44,500	63,000	237,600	293,200	No	Design
11455	1459	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	434,400	502,400	1,853,400	2,177,200	No	Construction
11469	1520	GREAT PARK COORDINATION AND SAMP UPDATE	47,500	74,100	99,000	154,500	No	Planning
11598	1336	HQ LIGHTING RETROFIT & CEILING REPLACE	56,500	83,100	225,000	331,500	No	Planning
11615	3236	UTILITY BILLING ORACLE CC AND B IMPLEMENTATION	2,450,800	2,685,300	6,672,600	7,532,900	No	Design
11619	3566	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	806,400	1,155,500	2,432,100	3,264,700	No	Planning
11627	3717	WELL 115 REPLACEMENT WELL/WELLHEAD & SITE ACQUIS.	1,097,900	1,158,200	4,178,200	4,539,100	No	Design
11642	3723	PLANNING AND BUDGETING SOFTWARE REPLACEMENT	18,000	18,800	638,000	665,800	No	Planning
11645	3766	STOCKDALE WEST RANCH JOINT BANKING PROJECT	822,300	994,200	2,743,400	3,178,200	No	Planning
11646	5149	SERVICE LINE, VALVE & MAIN REPLACEMENT-DW 14/15	916,900	935,400	916,900	935,400	No	Pending
11647	3767	RAISE DW SYSTEM VALVES 14/15 UNDER RA	115,500	124,800	115,500	124,800	No	Pending
11648	3768	GEN SYS MODS-DW 14/15	190,300	231,100	190,300	231,100	No	Pending
11649	3769	CSR METER REPLACEMENT-DW 14/15	203,500	212,800	203,500	212,800	No	Pending
11652	3770	RESIDENTIAL METER REPLACEMENT-DW 14/15	336,600	347,700	336,600	347,700	No	Pending
11653	5492	1" TO 2" METER REPLACEMENT-DW 14/15	130,200	155,000	130,200	155,000	No	Pending
11665	4130	SJM BUILDING CAMPUS MOLD REMEDIATION	1,500	1,500	369,600	395,600	No	Construction
11668	4153	PA51 MARINE WAY DW ZN3	344,700	412,400	612,700	797,800	No	Design
11671	4261	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - DW	376,600	423,800	723,800	890,300	No	Design

**IRVINE RANCH WATER DISTRICT**  
**2014/15 Capital Budget**  
**Project Expenditures by Project Number**

<u>EPMS No.</u>	<u>EBS No.</u>	<u>Project Title</u>	<u>FY Direct</u>	<u>FY Dir + GA</u>	<u>Total Direct</u>	<u>Total Dir + GA</u>	<u>Flag</u>	<u>Phase**</u>
11672	4327	WELL REHAB PROGRAM DW 13/14 THRU 15/16	660,400	742,000	1,705,200	1,916,100	No	Design
11673	4268	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - DW	341,700	388,000	424,000	516,600	No	Design
11687	4409	RMS AT 3 DOMESTIC WATER RESERVOIRS	1,868,000	2,000,300	2,501,200	2,695,500	No	Planning
11691	4440	WELL MAINTENANCE AND REHABILITATION 14/15	165,000	165,000	165,000	165,000	No	Design
11693	4326	DRWF #2 & #5 REHABILITATION	256,500	284,900	937,200	1,077,800	No	Construction
11703	4422	MECH & ELEC SYS REPLACEMENT - DW 14/15	660,000	660,000	660,000	660,000	No	Pending
11711	4394	ID CONSOLIDATION PROJECT ACCOUNTING IMPLEMENTATIO	412,900	551,800	550,000	735,000	No	Design
11714	4366	TUSTIN LEGACY-TUSTIN RANCH, BARRANCA, ARMSTRONG D	1,600	1,600	343,200	417,300	No	Construction
11716	4510	TUSTIN LEGACY WARNER - LEGACY TO TUSTIN RANCH DW	19,300	22,500	196,900	252,500	No	Design
11717	4512	PA 5B 12" ZONE 3 DW	82,700	108,400	112,200	158,600	No	Planning
11718	4589	SAND CANYON MEDICAL OFFICE TENANT IMPROVEMENT	25,500	25,500	334,400	334,400	No	Planning
11719	4620	PA51 LN ST FROM C ST TO LY ST DW	149,600	177,400	172,700	219,100	No	Design
11721	4645	PA51 C ST FROM LQ ST TO O ST DW	133,100	170,200	161,700	217,400	No	Design
11723	4650	PA51 LY ST FROM LQ ST TO IRVINE BLVD DW	34,100	52,700	51,700	88,900	No	Design
11739	4680	PA 18S HIDDEN CANYON 12" DW	181,300	212,200	315,700	399,100	No	Design
11743	4919	SILVERADO CANYON RD 12" DW PIPE IMPROVEMENTS	2,118,100	2,163,400	2,569,500	2,699,100	No	Design
11746	4988	TUSTIN LEGACY WARNER FROM ARMSTRONG TO LEGACY DV	41,200	50,100	60,500	77,300	No	Construction
11747	5027	BAKER WATER TREATMENT PLANT	38,762,300	39,754,400	96,852,000	99,331,000	No	Construction
11748	5431	WRMP UPDATE 14/15 DW	132,000	243,000	132,000	243,000	No	Planning
11751	5116	BOOSTER PUMP STATION CHECK VALVE REPLACEMENT	177,600	208,500	267,300	315,500	No	Design
11752	5453	WELLS 12 AND 13 ROOF HATCHES	72,600	109,700	340,500	400,700	No	Pending
11754	5473	WELLS 11 AND 15 SURGE TANK REPLACEMENT	13,900	23,100	198,600	250,400	No	Pending
11755	5410	COASTAL ZN2 PRV MODIFICATION (DPRI6)	2,000	4,700	187,100	228,500	No	Pending
11759	5155	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	38,500	47,800	79,200	97,800	No	Planning
11761	5150	2014 IRVINE ANNUAL ST REHAB, DW	464,200	501,200	464,200	501,200	No	Construction
11764	5500	WATER BANKING AGREEMENTS 14/16	241,800	611,300	484,000	1,224,000	No	Planning
11765	5499	STOCKDALE STORAGE FOR RECOVERY CAPACITY	889,300	952,600	2,139,500	2,232,100	No	Design
11779	5406	EL MODENA INLET MODIFICATION	156,200	184,100	156,200	184,100	No	Design
11781	5443	PORTABLE DIESEL GENERATOR REPLACEMENT - DW	293,100	293,100	880,000	880,000	No	Planning
11785	5405	EL MODENA NTS POND INFILTRATION	321,200	349,100	321,200	349,100	No	Design
11786	5487	ASPHALT REPAIR - DW 14/15	23,100	25,000	23,100	25,000	No	Pending
11787	5411	COMPRESSED NATURAL GAS MOTOR FUEL	68,700	72,400	68,800	72,500	No	Planning
11788	5226	SJM CAMPUS PAVING	151,400	164,400	231,000	257,000	No	Design

5/30/2014

\*\* "Pending" phase refers to projects not yet initiated.

Project Expenditures by Number - 2

**IRVINE RANCH WATER DISTRICT  
2014/15 Capital Budget  
Project Expenditures by Project Number**

<u>EPMS No.</u>	<u>EBS No.</u>	<u>Project Title</u>	<u>FY Direct</u>	<u>FY Dir + GA</u>	<u>Total Direct</u>	<u>Total Dir + GA</u>	<u>Flag</u>	<u>Phase**</u>
11790	5474	EOCWD FACILITIES DEMOLITION AT OPA RESERVOIR SITE	192,500	229,600	192,500	229,600	No	Design
11791	5404	LAKE FOREST Z2-2RA PRV AT COMMERCENTRE	95,900	114,400	244,200	281,300	No	Design
11792	5343	EMBEDDED ENERGY PLAN	154,400	186,100	180,000	217,000	No	Planning
11793	5501	WATER BANKING PLANNING 14/15	115,500	208,000	115,500	208,000	No	Planning
11794	5272	STRAND RANCH WELL SETTING OPTIMIZATION/MONITORING	226,300	241,300	501,600	534,900	No	Construction
11797	5338	MARSH MITIGATION CREDIT INVENTORY	31,200	39,200	36,300	45,600	No	Planning
11799	5401	EOCWD INTERCONNECT CONTROL PANEL REPLACEMENT	140,500	154,500	158,700	177,300	No	Design
11801	5519	EAST IRVINE ZONE 1 TO 3 BPS PIPE/METER	13,900	23,100	198,600	250,400	No	Pending
15051	1402	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	122,800	156,900	133,100	170,100	Yes	Planning
15428	1448	WELL 53 SITE ACQUISITION & WELL DRILLING	40,400	67,000	2,405,700	2,479,800	No	Planning
20114	1543	OCS D CORF 13/14	377,900	377,900	1,877,000	1,877,000	No	Construction
20115	1552	OCS D CORF 14/15	1,601,400	1,601,400	2,005,000	2,005,000	No	Construction
20190	1590	LAKE FOREST SEWER MUIRLANDS, EL TORO TO LAWRP	2,900	7,400	2,913,900	3,080,500	No	Pending
20214	1599	MWRP EXPANSION PHASE II	62,900	64,300	68,980,600	71,799,500	No	Construction
20410	1665	NEWPORT COAST CP JOINT BONDING	10,900	17,900	617,200	665,300	No	Design
20468	1060	FOOTHILL SEWER DIVERSION TO LAWRP	4,000	10,500	854,700	1,002,800	No	Planning
20588	1504	OCS D EQUITY 13/14	100	100	100	100	No	Construction
20589	1508	OCS D EQUITY 14/15	738,700	738,700	1,111,000	1,111,000	No	Construction
20812	1410	OCS D SOLIDS HANDLING 14/15	1,391,000	1,391,000	1,391,000	1,391,000	No	Construction
20914	4438	MWRP SYS REPLACEMENTS 14/15	332,200	335,900	332,200	335,900	No	Construction
20947	5299	RAISE MANHOLES TO GRADE 14/15 UNDER RA	110,000	110,000	110,000	110,000	No	Pending
20959	5482	SEWER GEN SYS MODS 14/15	330,000	330,000	330,000	330,000	No	Pending
21010	4420	LAWRP SYSTEM REPLACEMENTS 14/15	132,000	132,000	132,000	132,000	No	Construction
21053	4575	CHIQUITA GENERAL SYSTEM MODIFICATIONS 14/15	44,000	44,000	44,000	44,000	No	Construction
21056	1366	ENG PLANNING STUDY RESERVE 14/15 SEWER	171,600	312,200	171,600	312,200	No	Pending
21071	1477	LAWRP BIOSOLIDS FACILITY	29,400	34,800	4,163,500	4,459,600	No	Planning
21097	1694	GIS SUPPORT APPLICATIONS 14/15	60,000	94,200	60,000	94,200	No	Pending
21119	3750	SOCWA ETM CROSSING PROTECTION	47,500	71,100	731,500	759,300	No	Planning
21131	1740	HYDRAULIC MODELING 14/15 SEWER	44,000	62,500	44,000	62,500	No	Pending
21139	4266	PA51 REACH B SEWER, OCTA R/W TO LV ST	174,400	197,300	2,588,300	2,986,100	No	Design
21141	4267	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - SEWER	793,200	904,200	1,064,800	1,277,600	No	Construction
21142	4467	MWRP SECONDARY REHABILITATION	169,500	280,500	2,551,600	2,782,900	No	Design
21146	4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	52,369,300	53,896,100	196,465,500	202,200,500	No	Construction

5/30/2014

\*\* "Pending" phase refers to projects not yet initiated.

Project Expenditures by Number - 3

**IRVINE RANCH WATER DISTRICT  
2014/15 Capital Budget  
Project Expenditures by Project Number**

<u>EPMS No.</u>	<u>EBS No.</u>	<u>Project Title</u>	<u>FY Direct</u>	<u>FY Dir + GA</u>	<u>Total Direct</u>	<u>Total Dir + GA</u>	<u>Flag</u>	<u>Phase**</u>
21147	4397	LAWRP SYSTEM UPGRADES	2,500	6,700	1,486,100	1,578,700	No	Pending
21153	4518	TUSTIN LEGACY - LEGACY VILLAS SEWER	2,300	2,300	506,000	626,400	No	Construction
21154	4614	PA51 REACH A SEWER IMPROVMENTS	1,200,900	1,301,500	2,481,200	2,814,200	No	Construction
21156	4648	PA51 LQ ST FROM O ST TO LY ST SEWER	215,600	243,400	255,200	310,800	No	Design
21158	4653	PA51 C ST FROM TRABUCO RD TO LQ ST SEWER	288,700	344,300	403,700	524,000	No	Design
21159	4824	PA51 LV ST FROM RIDGE VALLEY TO LY ST 18" SEWER	254,200	309,700	310,200	421,200	No	Design
21163	4985	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	2,566,600	2,729,000	10,844,700	11,298,000	No	Design
21164	4284	MICHELSON LIFT STATION RELOCATION	34,500	98,300	75,000	213,800	No	Construction
21165	5016	PA51 C ST FROM LV ST TO TRABUCO SEWER	309,300	383,300	370,700	491,000	No	Design
21166	5098	2014 SEWER REHABILITATION	293,200	355,200	348,700	441,400	No	Design
21167	5469	FPS 2 ROOF REPLACEMENT	15,400	21,500	256,000	293,000	No	Planning
21168	5470	NEWPORT COAST SLS RECOATING	12,800	19,400	256,000	293,000	No	Construction
21169	5450	SMH RING/COVER REPLACEMENT (24 SMH)	31,700	46,600	368,000	409,400	No	Pending
21170	5186	SJM SLS UPGRADE	10,100	17,300	153,500	194,900	No	Pending
21181	5174	MAIN ST DIVERSION STRUCTURE GROUND SETTLING	2,900	7,400	191,400	241,400	No	Design
21182	5448	PLANO LIFT STATION FORCE MAIN RELOCATION (SMWD)	293,600	299,600	478,500	487,800	No	Construction
21188	5427	WATER RECYCLING PLANT MASTER PLAN UPDATE 2014-16	182,000	243,200	550,000	735,000	No	Planning
21191	5409	OPS DATABASE MANAGEMENT SYSTEM	346,500	374,300	346,500	374,300	No	Pending
21205	5520	MAINTENANCE ACCESS FOR FOUR SEWER REACHES	31,700	46,600	368,000	409,400	No	Pending
21209	5521	LAWRP PONDS BIOSOLIDS REMOVAL & DISPOSAL	1,779,900	1,946,500	1,779,900	1,946,500	No	Pending
21379	1066	LEGACY PARK TUSTIN RANCH ROAD	2,300	2,300	1,090,400	1,180,600	No	Construction
21455	1152	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	200,700	217,800	968,000	1,088,300	No	Construction
21469	1167	GREAT PARK COORDINATION AND SAMP UPDATE	47,500	74,100	99,000	154,500	No	Planning
21560	1436	LAKE FOREST WW OFFSITE IMPROVEMENTS	300	300	4,051,000	4,676,300	No	Planning
21598	1549	HQ LIGHTING RETROFIT & CEILING REPLACE	56,500	83,100	225,000	331,500	No	Planning
21615	3237	UTILITY BILLING ORACLE CC AND B IMPLEMENTATION	2,450,800	2,685,300	6,672,600	7,532,900	No	Design
21619	3567	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	806,400	1,155,500	2,432,100	3,264,700	No	Planning
21642	3727	PLANNING AND BUDGETING SOFTWARE REPLACEMENT	18,000	18,800	638,000	665,800	No	Planning
21646	5490	SEWER LATERAL & MAIN REPLACEMENT 14/15	218,900	237,400	218,900	237,400	No	Pending
21671	4263	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - SS	225,400	260,800	436,700	557,000	No	Design
21703	4432	MECH & ELEC SYS REPLACEMENT - SEWER 14/15	400,000	400,000	400,000	400,000	No	Planning
21711	4395	ID CONSOLIDATION PROJECT ACCOUNTING IMPLEMENTATIO	412,900	551,800	550,000	735,000	No	Design
21723	4651	PA51 LY ST FROM LQ ST TO IRVINE BLVD SEWER	1,450,600	1,598,600	1,662,200	1,958,200	No	Design

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\*\* "Pending" phase refers to projects not yet initiated.

Project Expenditures by Number - 4

**IRVINE RANCH WATER DISTRICT**  
**2014/15 Capital Budget**  
**Project Expenditures by Project Number**

<u>EPMS No.</u>	<u>EBS No.</u>	<u>Project Title</u>	<u>FY Direct</u>	<u>FY Dir + GA</u>	<u>Total Direct</u>	<u>Total Dir + GA</u>	<u>Flag</u>	<u>Phase**</u>
21748	5412	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	576,800	761,500	1,155,000	1,525,000	No	Planning
21759	5157	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	38,500	47,800	79,200	97,800	No	Planning
21761	5151	2014 IRVINE ANNUAL ST REHAB, SEWER	277,200	295,700	277,200	295,700	No	Construction
21781	5445	PORTABLE DIESEL GENERATOR REPLACEMENT - SEWER	293,100	293,100	880,000	880,000	No	Planning
21786	5489	ASPHALT REPAIR - SEWER 14/15	23,100	25,000	23,100	25,000	No	Pending
30214	1706	MWRP EXPANSION PHASE II	40,900	41,900	45,652,700	46,937,900	No	Construction
30280	1762	PA9B PHASE 5 GATEWAY PARK RW PIPES	7,600	11,400	506,100	620,900	No	Design
30331	1813	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	111,100	141,900	282,700	384,500	No	Planning
30366	1015	TECHNOLOGY WAY ZONE "B" TRANSMISSION MAIN	77,600	81,800	1,061,500	1,144,800	No	Construction
30380	3779	SALT MANAGEMENT PLAN DEVELOPMENT	114,600	149,300	396,400	516,700	No	Planning
30381	3780	SAN JOAQUIN RESERVOIR LINER REPLACEMENT	124,800	186,100	2,625,000	2,717,500	No	Pending
30382	3808	SYPHON RESERVOIR EXPANSION	3,200	5,500	60,169,200	61,020,200	No	Planning
30388	4147	PA51 MARINE WAY RW ZNB	209,500	252,600	376,200	496,500	No	Design
30389	4176	PA9 JEFFREY RD PIPELINES, ZNB AND ZNC	47,300	47,300	1,113,200	1,205,800	No	Construction
30390	4228	PA9B RW AND SYPHON LATERAL PIPELINE, PH3	2,600	2,600	854,700	956,600	No	Construction
30391	4408	LAWRP TERTIARY FACILITY REPAIR AND RECOATING	3,500	9,400	1,180,300	1,273,000	No	Design
30393	4265	PA51 REACH B RW, OCTA R/W TO LV ST	44,100	44,100	887,700	1,045,000	No	Design
30394	4278	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - RW	331,000	405,100	398,200	537,100	No	Design
30402	4328	WELL REHAB PROGRAM RW 13/14 THRU 15/16	340,200	394,600	877,800	1,018,400	No	Planning
30408	4388	MULTI-ZONE REGIONAL PS - ZONE A TO SYPHON	25,400	39,100	2,989,500	3,285,600	No	Design
30409	4457	MULTI-ZONE REGIONAL PS - ZONE B	22,800	36,500	2,532,700	2,791,800	No	Design
30410	4400	MULTI-ZONE REGIONAL PS - ZONE C	29,400	43,100	3,624,700	3,920,800	No	Design
30415	4396	CATHODIC PROTECTION FOR GAP PIPE SEGMENT	48,200	59,400	121,000	154,300	No	Design
30416	4318	PA40 PH3B RW CAPITAL FACILITIES	700	700	165,000	200,200	No	Construction
30420	4514	PA 5B 36" ZONE A RW	303,200	363,000	777,700	1,018,200	No	Design
30421	4515	PA 5B 8" ZONE B RW	19,100	27,700	57,200	94,400	No	Design
30422	1024	PA9 JEFFREY RD PIPELINES, 36" ZNA, 36" SYPHON	124,100	124,100	2,962,200	3,180,600	No	Design
30424	4528	PA40 NEIGHBORHOOD 2G BACKBONE RW FACILITIES	300	300	108,900	144,100	No	Design
30426	4557	PA 6 PHASE 1 NEIGHBORHOOD 3 ZONE C RW	307,800	374,400	766,700	1,025,800	No	Planning
30427	4647	PA51 LY ST FROM TRABUCO RD TO LQ ST RW	166,100	212,400	205,700	289,000	No	Design
30428	4717	PA1 ORCHARD HILLS NH 2 - 6" ZNB & 6" ZNC RW	105,000	142,100	238,700	322,000	No	Design
30429	4752	PA5B PHASE 1B 36" ZNA RW	441,100	533,700	519,200	676,600	No	Design
30430	4753	PA5B PHASE 2 6" ZNC RW	39,600	58,200	57,200	94,400	No	Design

5/30/2014

\*\* "Pending" phase refers to projects not yet initiated.

Project Expenditures by Number - 5

**IRVINE RANCH WATER DISTRICT  
2014/15 Capital Budget  
Project Expenditures by Project Number**

<u>EPMS No.</u>	<u>EBS No.</u>	<u>Project Title</u>	<u>FY Direct</u>	<u>FY Dir + GA</u>	<u>Total Direct</u>	<u>Total Dir + GA</u>	<u>Flag</u>	<u>Phase**</u>
30433	4951	PORTOLA SPRINGS RECYCLED WATER PIPELINE	6,000	6,500	284,500	321,500	No	Construction
30435	4959	RATTLESNAKE CHLORINE GAS REMOVAL	1,576,600	1,713,000	1,706,400	1,882,200	No	Design
30446	1063	PA18 ZN B-C BPS	1,091,200	1,121,200	2,076,000	2,168,600	No	Design
30447	4984	TUSTIN LEGACY ARMSTRONG ZONE A & WARNER ZONE A RW	529,100	617,800	773,300	976,800	No	Construction
30449	4990	PA1 ORCHARD HILLS 6" ZNC RW	67,300	85,900	84,700	121,900	No	Design
30453	5156	LAGUNA CANYON RD RW PIPELINE CORROSION REPLACE	26,600	38,800	588,500	644,100	No	Pending
30455	5153	SJR ACTUATOR REPAIR/REPLACEMENT	7,800	20,900	254,700	310,200	No	Planning
30461	5154	SJR SEISMIC RE-EVALUATION (DSOD REQ'T)	74,800	106,900	150,700	215,500	No	Planning
30463	5159	SJR LINER DEPRESSION REPAIR	95,200	141,500	95,200	141,500	No	Planning
30481	5446	LAWRP STANDBY GENERATOR NO. 3 REPLACEMENT	6,500	17,400	765,600	885,900	No	Pending
30482	5503	WELL 78 SPARE PUMP AND MOTOR PURCHASE	276,100	276,100	276,100	276,100	No	Design
30487	5168	PA 18S HIDDEN CANYON 36" RW PIPELINE	1,147,700	1,243,800	1,998,200	2,275,700	No	Construction
30491	5408	OPA NON-POTABLE PIPELINE	178,700	225,100	1,012,000	1,141,700	No	Design
30495	5476	RATTLESNAKE BPS PUMP REPLACEMENT	24,800	27,400	176,000	194,500	No	Design
30496	5407	ILP NORTH CONVERSION (RATTLESNAKE TO PETERS CYN)	264,100	365,600	7,602,100	7,879,600	No	Planning
30499	5344	EMBEDDED ENERGY PLAN	154,400	186,100	180,000	217,000	No	Planning
30501	5243	PA 6 NEIGHBORHOOD 4B 6" RW ZONE D	100,900	132,900	162,800	214,700	No	Design
30502	5522	WEIR CANYON VALVE VAULT PLC UPGRADE	102,300	116,300	108,900	127,500	No	Design
30517	1096	LAKE FOREST CONTROL AND TELEMTRY SYS REPLACEMEN	12,200	21,200	168,300	297,800	No	Construction
30556	1132	CPTS RESTORE AND INSTALL	49,500	77,300	177,700	288,800	No	Planning
30797	1308	PA6 RW PIPELINES	54,200	58,000	857,000	933,800	No	Design
30917	1474	NEWPORT COAST CP JOINT BONDING	44,400	75,700	2,461,400	2,684,300	No	Design
31056	1593	ENG PLANNING STUDY RESERVE 14/15 RW	176,000	287,000	176,000	287,000	No	Pending
31097	1785	GIS SUPPORT APPLICATIONS 14/15	60,000	94,200	60,000	94,200	No	Pending
31131	1721	HYDRAULIC MODELING 14/15 RW	44,000	62,500	44,000	62,500	No	Pending
31156	4649	PA51 LQ ST FROM O ST TO LY ST RW	63,800	76,800	78,100	104,100	No	Design
31159	4825	PA51 LV ST FROM RIDGE VALLEY TO LY ST 12" RW	265,200	320,700	321,200	423,000	No	Design
31379	3435	LEGACY PARK TUSTIN RANCH ROAD	2,500	2,500	1,210,700	1,331,000	No	Construction
31384	1106	HYDRAULIC MODEL UPDATE / CALIBRATION - NONPOTABLE	88,500	111,300	467,500	587,800	No	Pending
31598	1257	HQ LIGHTING RETROFIT & CEILING REPLACE	12,700	19,900	50,000	78,700	No	Planning
31605	1229	PA40 PH2 RW FACILITIES	400	400	216,700	263,000	No	Construction
31640	3735	PA39 PH2 RW FACILITIES	2,000	3,000	226,600	261,800	No	Planning
31646	3781	SERVICE LINE, VALVE & MAIN REPLACEMENT-RW 14/15	342,100	360,600	342,100	360,600	No	Pending

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\*\* "Pending" phase refers to projects not yet initiated.

Project Expenditures by Number - 6

**IRVINE RANCH WATER DISTRICT  
2014/15 Capital Budget  
Project Expenditures by Project Number**

<u>EPMS No.</u>	<u>EBS No.</u>	<u>Project Title</u>	<u>FY Direct</u>	<u>FY Dir + GA</u>	<u>Total Direct</u>	<u>Total Dir + GA</u>	<u>Flag</u>	<u>Phase**</u>
31647	5303	RAISE RW SYSTEM VALVES 14/15 UNDER RA	38,500	47,800	38,500	47,800	No	Pending
31648	5485	GEN SYS MODS-RW 14/15	82,500	104,800	82,500	104,800	No	Pending
31649	5495	CSR METER REPLACEMENT-RW 14/15	57,200	60,900	57,200	60,900	No	Pending
31653	5497	1" TO 2" METER REPLACEMENT-RW 14/15	54,500	68,400	54,500	68,400	No	Pending
31671	4264	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - RW	99,000	116,700	194,700	250,300	No	Design
31703	4429	MECH & ELEC SYS REPLACEMENT - RW 14/15	440,000	440,000	440,000	440,000	No	Pending
31714	4368	TUSIN LEGACY-TUSTIN RANCH, BARRANCA & ARMSTRONG R	3,500	3,500	689,700	800,700	No	Construction
31716	4511	TUSTIN LEGACY WARNER - LEGACY TO TUSTIN RANCH RW	20,500	23,700	207,900	263,500	No	Design
31717	4513	PA 5B 6" & 8" ZONE B RW & 6" ZONE C RW	87,700	109,000	233,200	325,800	No	Design
31719	4621	PA51 LN ST FROM C ST TO LY ST RW	85,800	108,000	105,600	140,800	No	Design
31721	4646	PA51 C ST FROM LQ ST TO O ST RW	232,100	269,200	266,200	331,100	No	Design
31723	4652	PA51 LY ST FROM LQ ST TO IRVINE BLVD RW	782,600	949,100	938,300	1,252,800	No	Design
31739	4681	PA 18S HIDDEN CANYON 6" & 8" RW	181,300	212,200	315,700	399,100	No	Design
31746	4989	TUSTIN LEGACY WARNER FROM ARMSTRONG TO LEGACY RV	185,800	222,800	282,700	375,300	No	Construction
31748	5432	WRMP UPDATE 14/15 RW	132,000	243,000	132,000	243,000	No	Planning
31759	5158	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	38,500	47,800	79,200	97,800	No	Planning
31761	5152	2014 IRVINE ANNUAL ST REHAB, RW	39,600	48,900	39,600	48,900	No	Construction
31781	5444	PORTABLE DIESEL GENERATOR REPLACEMENT - RW	293,100	293,100	880,000	880,000	No	Planning
31786	5488	ASPHALT REPAIR - RW 14/15	23,100	25,000	23,100	25,000	No	Pending
<b>Grand Total:</b>			<b>\$153,706,500</b>	<b>\$164,440,400</b>	<b>\$677,349,500</b>	<b>\$714,912,500</b>		

5/30/2014

\*\* "Pending" phase refers to projects not yet initiated.

Project Expenditures by Number - 7

**IRVINE RANCH WATER DISTRICT**  
**2014/15 Capital Budget**  
**Flagged Projects**

<u>EPMS No.</u>	<u>EBS No.</u>	<u>Project Title</u>
15051	1402	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY



**IRVINE RANCH WATER DISTRICT**  
**FY 2014/15 Capital Budget**  
**Top 10 Project Groups**

<b>Rank by FY 14/15 Expenditure</b>	<b>Name of Group</b>	<b>FY 14/15 Projected Expenditures (\$ Millions)</b>	<b>Expended to Date (\$ Millions)</b>	<b>Projected Future Expenditures (\$ Millions)</b>	<b>Project Total (\$ Millions)</b>
1	MWRP - Solids Handling	53.8	41.6	117.9	213.3
2	Baker WTP	38.8	7.5	57.7	104.0
3	Development - PA51 (Great Park Neighborhoods)	8.6	0.0	7.0	15.6
4	Business Software (CC&B, Enterprise Asset Mgmt)	7.4	6.2	7.0	20.6
5	Development - PA18 (Hidden Valley)	4.3	0.8	2.7	7.8
6	OPA Well	3.5	3.1	2.5	9.1
7	OCSD / CORF	2.7	0.5	1.8	5.0
8	Peters Cyn Water Capture	2.6	0.1	8.1	10.8
9	Water Banking	2.4	14.8	6.5	23.7
10	Santiago Cyn DW Improvements	2.1	0.1	0.4	2.6
	<b>Subtotal for Top 10 Project Groups</b>	<b>\$126.2</b>	<b>\$74.7</b>	<b>\$211.6</b>	<b>\$412.5</b>
	<b>Total All Projects</b>	<b>\$153.7</b>			

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

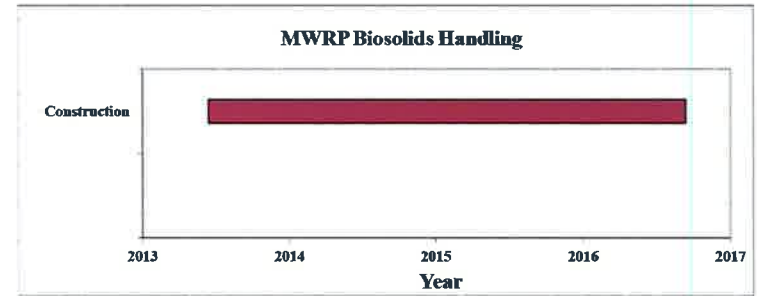
**Project Group Name: MWRP Biosolids and Energy Recovery Facilities**

The project includes the construction of facilities for sludge thickening, acid-phase anaerobic digestion, dewatering, drying and pelletization, energy generation using micro-turbines, and use of pellets as a fertilizer or e-fuel. It will also include a solids receiving station to allow processing of dewatered sludge from the Los Alisos Water Recycled Water Plant (LAWRP). A FOG receiving station is included to increase methane production by the digesters and energy production capabilities. IRWD will cease conveyance of MWRP residuals to the OCSD system by 2016.



**FY 2014/15 Key Milestones:**  
Continue MWRP Biosolids and Energy Recovery Facilities Construction

**Date**  
Dec-16



**Project Group Budget, Source of Funds, and Offset Summary**

	<b>New Capital</b>	<b>Replacement</b>	<b>Enhancement</b>	<b>Total</b>	<b>Comments</b>
<b>Total Budget</b>	\$ 16,288,574	\$ 121,803,265	\$ 75,223,222	\$ 213,315,060	
<b>Existing Offsets</b>	\$ -	\$ -	\$ -	\$ -	
<b>Potential Future Offsets</b>	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 16,288,574	\$ 121,803,265	\$ 75,223,222	\$ 213,315,060	

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

Oracle No.	Project	Proj Total Dir	FY14-15 Dir	Projected Future Expenditure	Expended to Date	Stage
1617	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES (Design)	\$ 15,459,200	\$ -	\$ -	\$ 15,459,200	Design
1410	OCSD SOLIDS HANDLING 14/15	\$ 1,391,000	\$ 1,391,000	\$ -	\$ -	Design
4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	\$ 196,465,500	\$ 52,369,300	\$ 117,968,446	\$ 26,127,754	Construction
<b>TOTAL</b>		<b>\$ 213,315,700</b>	<b>\$ 53,760,300</b>	<b>\$ 117,968,446</b>	<b>\$ 41,586,954</b>	

**Project Status**

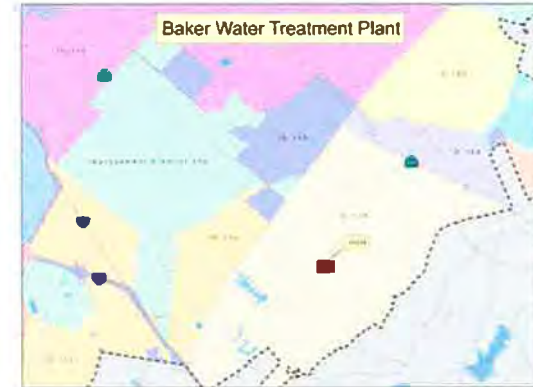
In March, 2013, the Board of Directors awarded the construction contract to Filance Balfour Beatty Joint Venture. Construction is ongoing with the MWRP Biosolids Facilities in operation by December 2016.

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

**Project Group Name: Baker Water Treatment Plant**

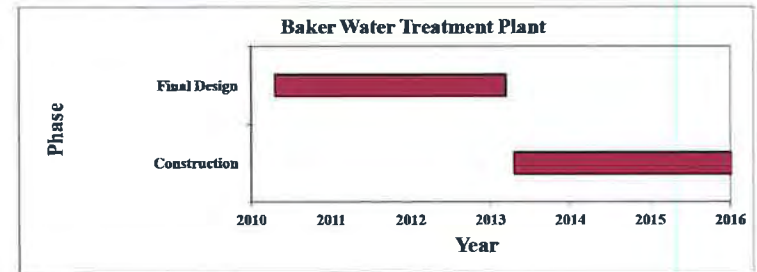
**Project Description**

The Baker Water Treatment Plant (Baker WTP) will treat up to 28 mgd of raw water imported from Metropolitan Water District to drinking water standards to supply potable water to IRWD and other participating water agencies in southern Orange County. Raw water from Irvine Lake can also be supplied to the plant during emergencies or when excess local runoff water is available in the lake. The raw water conveyance system consists of the Baker Pipeline and a raw water pump station near Peters Canyon Reservoir. The new treatment plant will consist of chlorine dioxide pre-treatment (for Irvine Lake water), pressurized membrane filtration, ultraviolet disinfection, and chloramination for residual disinfection. Product water will be stored in two existing 16 MG reservoirs at the site and pumped by a new product water pump station to participating agencies via the South County Pipeline. IRWD will take its share of treated water directly from the 16 MG reservoirs through the existing distribution system. The project will be constructed under two separate contracts - one for the water treatment plant and one for the raw water pump station.



**FY 2014/15 Key Milestones:**

Design complete	Aug. 1, 2013
Advertise for bidding (WTP)	Aug. 8, 2013
Advertise for bidding (Raw Water Pump Station)	Sept. 3, 2013
Bid opening (WTP / Raw Water Pump Station)	Sept. 26, 2013 / Oct. 1, 2013
Construction Award (WTP / Raw Water Pump Station)	Dec. 18, 2013
Construction complete (WTP)	April 5, 2016
Construction complete (Raw Water Pump Station)	April 6, 2015



**Project Group Budget, Source of Funds, and Offset Summary**

	New Capital	Replacement	Enhancement	Total	Comments
<b>Total Budget</b>	\$ 20,168,337	\$ -	\$ 83,792,163	\$ 103,960,500	
Existing Offsets	\$ (15,126,253)	\$ -	\$ (62,844,122)	\$ (77,970,375)	
Potential Future Offsets	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 5,042,084	\$ -	\$ 20,948,041	\$ 25,990,125	

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

Oracle No.	Project	Proj Total Dir	FY14-15 Dir	Projected Future Expenditure	Expended to Date	Stage
1417	BAKER WATER TREATMENT PLANT (Design)	\$ 7,108,500	\$ -	\$ -	\$ 7,108,500	Design
5027	BAKER WATER TREATMENT PLANT	\$ 96,852,000	\$ 38,762,300	\$ 57,712,516	\$ 377,184	Design
<b>TOTAL</b>		<b>\$ 103,960,500</b>	<b>\$ 38,762,300</b>	<b>\$ 57,712,516</b>	<b>\$ 7,485,684</b>	

**Project Status**

Construction contracts were awarded for the Baker WTP and the Raw Water Pump Station in December 2013. Completion of the raw water pump station is anticipated in April 2015 while the Baker WTP construction is scheduled for April 2016.

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

**Project Group Name: Planning Areas 30 and 51 Development**

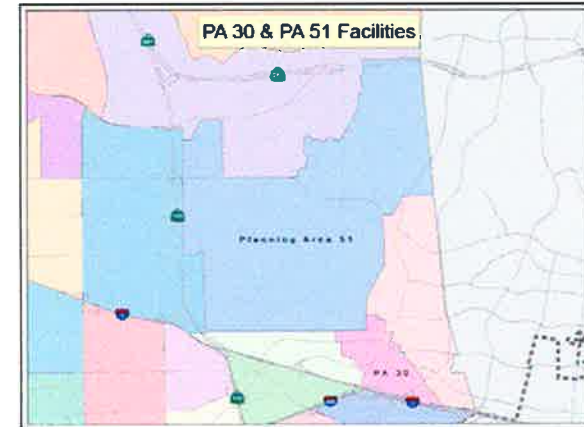
**Project Description**

The Fiscal Year 2014/15 development activities for the Planning Areas 30 and 51 include the infrastructure required to support the Great Park Neighborhoods "District 1" area. The primary capital facilities planned for this year include:

Reach A Sewer: 2,500 LF of 12-inch sewer from Technology Drive to Marine Way.

Ridge Valley: 12-inch domestic water pipeline, 12-inch sewer, and 6-inch to 12-inch recycled water pipeline from Irvine Boulevard to Marine Way.

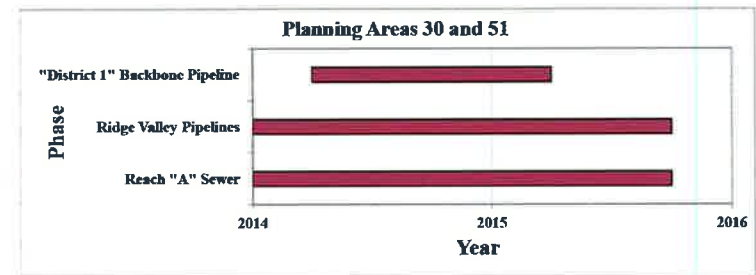
"District 1" Backbone Pipelines: 12-inch domestic water pipelines, 12-inch and 18-inch sewer, and 6-inch to 16-inch recycled water pipelines throughout various "District 1" backbone streets.



**FY 2014/15 Key Milestones**

- Reach "A" Sewer
- Ridge Valley Pipelines
- "District 1" Backbone Pipelines

- Date
- Scp-14
- Sep-14
- Mar-15



**Project Group Budget, Source of Funds, and Offset Summary**

	New Capital	Replacement	Enhancement	Total	Comments
<b>Total Budget</b>	\$ 15,491,500	\$ -	\$ -	\$ 15,491,500	
Existing Offsets	\$ -	\$ -	\$ -	\$ -	
Potential Future Offsets	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 15,491,500	\$ -	\$ -	\$ 15,491,500	

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

Oracle No.	Project	Proj Total Dir	FY14-15 Dir	Projected Future Expenditure	Expended to Date	Stage
4645	PA51 C ST FROM LQ ST TO O ST DW	\$ 161,700	\$ 133,100	\$ 28,600	\$ -	Construction
4646	PA51 C ST FROM LQ ST TO O ST RW	\$ 266,200	\$ 232,100	\$ 34,100	\$ -	Construction
5016	PA51 C ST FROM LV ST TO TRABUCO SEWER	\$ 370,700	\$ 309,300	\$ 61,400	\$ -	Construction
4653	PA51 C ST FROM TRABUCO RD TO LQ ST SEWER	\$ 403,700	\$ 288,700	\$ 115,000	\$ -	Construction
4620	PA51 LN ST FROM C ST TO LY ST DW	\$ 172,700	\$ 149,600	\$ 23,100	\$ -	Construction
4621	PA51 LN ST FROM C ST TO LY ST RW	\$ 105,600	\$ 85,800	\$ 19,800	\$ -	Construction
4649	PA51 LQ ST FROM O ST TO LY ST RW	\$ 78,100	\$ 63,800	\$ 14,300	\$ -	Construction
4648	PA51 LQ ST FROM O ST TO LY ST SEWER	\$ 255,200	\$ 215,600	\$ 39,600	\$ -	Construction
4825	PA51 LV ST FROM RIDGE VALLEY TO LY ST 12" RW	\$ 321,200	\$ 265,200	\$ 56,000	\$ -	Construction
4824	PA51 LV ST FROM RIDGE VALLEY TO LY ST 18" SEWER	\$ 310,200	\$ 254,200	\$ 56,000	\$ -	Construction
4650	PA51 LY ST FROM LQ ST TO IRVINE BLVD DW	\$ 51,700	\$ 34,100	\$ 17,600	\$ -	Design
4652	PA51 LY ST FROM LQ ST TO IRVINE BLVD RW	\$ 938,300	\$ 782,600	\$ 155,700	\$ -	Design
4651	PA51 LY ST FROM LQ ST TO IRVINE BLVD SEWER	\$ 1,662,200	\$ 1,450,600	\$ 211,600	\$ -	Design
4647	PA51 LY ST FROM TRABUCO RD TO LQ ST RW	\$ 205,700	\$ 166,100	\$ 39,600	\$ -	Design
4153	PA51 MARINE WAY DW ZN3	\$ 612,700	\$ 344,700	\$ 268,000	\$ -	Design
4147	PA51 MARINE WAY RW ZNB	\$ 376,200	\$ 209,500	\$ 166,700	\$ -	Design
4614	PA51 REACH A SEWER IMPROVMENTS	\$ 2,481,200	\$ 1,200,900	\$ 1,280,300	\$ -	Construction
4265	PA51 REACH B RW, OCTA R/W TO LV ST	\$ 887,700	\$ 44,100	\$ 839,732	\$ 3,868	Construction
4266	PA51 REACH B SEWER, OCTA R/W TO LV ST	\$ 2,588,300	\$ 174,400	\$ 2,406,931	\$ 6,969	Construction
4268	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - DW	\$ 424,000	\$ 341,700	\$ 82,300	\$ -	Construction
4278	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - RW	\$ 398,200	\$ 331,000	\$ 67,200	\$ -	Construction
4267	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - SEWER	\$ 1,064,800	\$ 793,200	\$ 271,600	\$ -	Construction
4261	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - DW	\$ 723,800	\$ 376,600	\$ 347,200	\$ -	Construction
4264	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - RW	\$ 194,700	\$ 99,000	\$ 95,700	\$ -	Construction
4263	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - SS	\$ 436,700	\$ 225,400	\$ 211,300	\$ -	Construction
<b>Total</b>		<b>\$ 15,491,500</b>	<b>\$ 8,571,300</b>	<b>\$ 6,909,363</b>	<b>\$ 10,837</b>	

**Project Status**

Construction of the Reach A Sewer and Ridge Valley pipelines is scheduled to be complete September 2014. Construction of other "District 1" pipelines in backbone streets are scheduled to be complete March 2015.

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

**Project Group Name: Business Software**

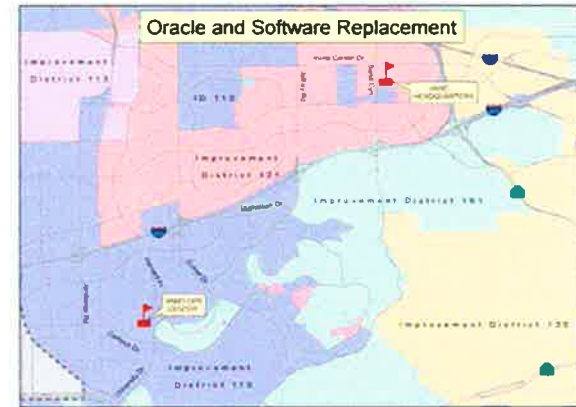
The Utility Billing Oracle Customer Care and Billing (CC&B) implementation will focus on upgrading the District's existing Utility Billing and Customer Service Request system.

- Customers will benefit from a streamlined and enhanced experience interacting with IRWD.
- Existing systems' outdated architecture limits the District's ability to support and maintain the legacy system into the future.
- Implementation of Oracle CC&B puts the framework in place to allow future expansion, consolidations, and new services.

The Enterprise Asset Management software (EAMS) implementations will focus on upgrading the many system currently used to track and maintain District assets. Activities during the next fiscal year will be focused on the pre-implementation phase and include asset management strategic planning, EAMS enterprise standards, asset data definition, asset criticality rating, data collection, business process development, staffing analysis, and performance metrics. The implementation phase is scheduled to occur after the Oracle CC&B implementation is completed.

The ID Consolidation Project Accounting implementation will focus on implementing changes to the Oracle Financial system to accommodate the recent consolidation of Improvement Districts (ID's) and simplify the project accounting structure.

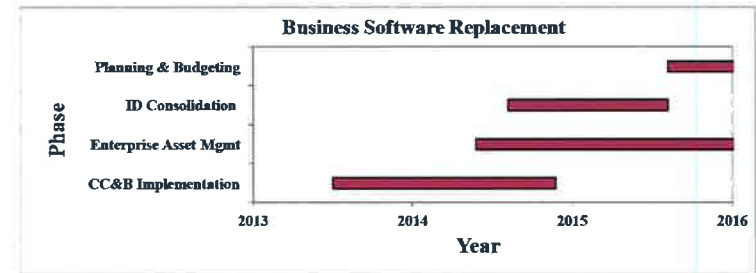
The Budgeting and Planning software replacement will focus on the requirements phase and is scheduled to occur after the ID Consolidation Project Accounting implementation is completed.



**FY 2014/15 Key Milestones**

- Begin Customer Care and Billing Implementation
- Customer Care and Billing Go-live
- Customer Care and Billing Completion
- Begin Enterprise Asset Management Implementation
- Enterprise Asset Management Completion
- Begin ID Consolidation & Project Accounting Implementation
- ID Consolidation Project Accounting Completion
- Begin Planning & Budgeting Implementation
- Planning & Budgeting Completion

- Date**
- Apr-13
- Aug-14
- Nov-14
- Aug-15
- Sep-16
- Jul-14
- Jun-15
- Jul-15
- Dec-15



**Project Group Budget, Source of Funds, and Offset Summary**

	New Capital	Replacement	Enhancement	Total	Comments
<b>Total Budget</b>	\$ -	\$ 20,585,400	\$ -	\$ 20,585,400	
Existing Offsets	\$ -	\$ -	\$ -	\$ -	
Potential Future Offsets	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ -	\$ 20,585,400	\$ -	\$ 20,585,400	



**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

Oracle No.	Project	Proj Total Dir	FY14-15 Dir	Projected Future Expenditure	Expended to Date	Stage
3566	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	\$ 2,432,100	\$ 806,400	\$ 1,531,072	\$ 94,628	Design
3567	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	\$ 2,432,100	\$ 806,400	\$ 1,538,035	\$ 87,665	Design
4394	ID CONSOLIDATION PROJECT ACCOUNTING IMPLEMENTATION	\$ 550,000	\$ 412,900	\$ 137,100	\$ -	Design
4395	ID CONSOLIDATION PROJECT ACCOUNTING IMPLEMENTATION	\$ 550,000	\$ 412,900	\$ 137,100	\$ -	Design
3723	PLANNING AND BUDGETING SOFTWARE REPLACEMENT	\$ 638,000	\$ 18,000	\$ 620,000	\$ -	Design
3727	PLANNING AND BUDGETING SOFTWARE REPLACEMENT	\$ 638,000	\$ 18,000	\$ 620,000	\$ -	Design
3236	UTILITY BILLING ORACLE CC AND B IMPLEMENTATION	\$ 6,672,600	\$ 2,450,800	\$ 221,800	\$ 4,000,000	Design
3237	UTILITY BILLING ORACLE CC AND B IMPLEMENTATION	\$ 6,672,600	\$ 2,450,800	\$ 2,226,331	\$ 1,995,469	Design
<b>TOTAL</b>		<b>\$ 20,585,400</b>	<b>\$ 7,376,200</b>	<b>\$ 7,031,438</b>	<b>\$ 6,177,762</b>	

**Project Status**

The Oracle CC&B software is currently being implemented with an anticipated completion date of approximately November 2014.

The Enterprise Asset Management software implementation is currently in the pre-implementation phase with an anticipated completion date of approximately September 2016.

The ID Consolidation and Project Accounting implementation is currently scheduled to start in June 2014 with an anticipated completion date of approximately June 2015.

The Budgeting and Planning software replacement implementation is currently scheduled to start in late June 2015 with an anticipated completion date of approximately December 2016.

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

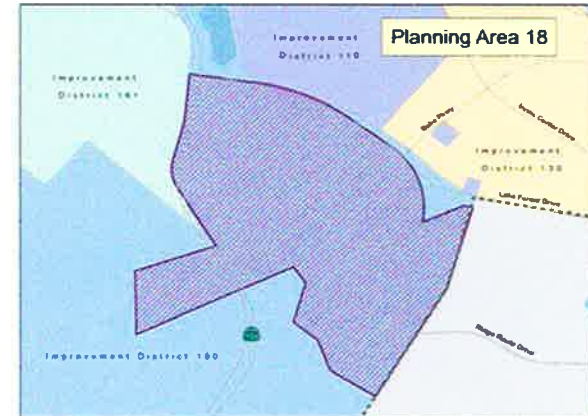
**Project Group Name: Planning Area 18 Facilities**

**Project Description**

Planning Area 18 South (PA 18S), which is being developed by Toll Bros., is located within the City of Irvine and is bordered by Interstate 405 (San Diego Freeway) to the north, State Route 133 (Laguna Canyon Freeway) to the west, PA 39 and San Diego Creek to the east, and Laguna Canyon Road to the south.

A closed loop Zone 3 to 4 domestic water pump station and a closed loop Zone B to C recycled water pump station are proposed to serve PA 18S. The domestic water and recycled water pump stations will be combined into a single facility to provide for the area's domestic water, recycled water, and fire flow demands. A second site located separately from the combined facility will consist of a pressure reducing station and hookups for an emergency Zone 3 to 4 trailer mounted pump system to provide emergency fire flows in case of unforeseen outages of the primary domestic water pump station.

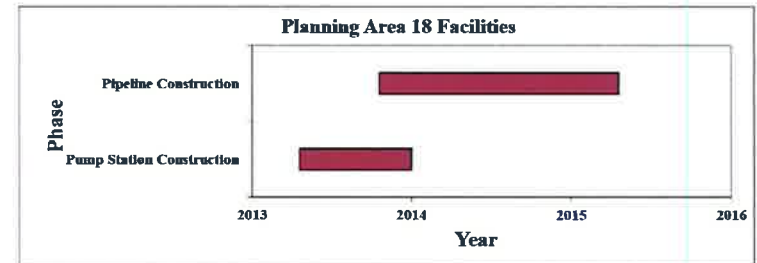
The capital pipeline facilities consist of approximately 2,000 LF of 12-inch domestic water pipeline, 2,400 LF of 6-inch to 8-inch recycled water pipeline, and 3,900 LF of 36-inch recycled water pipeline.



**FY 2014-15 Key Milestones**

Pump Station Construction Complete  
Pipeline Construction Complete

**Date**  
Mar-15  
Dec-14



**Project Group Budget, Source of Funds, and Offset Summary**

	New Capital	Replacement	Enhancement	Total	Comments
<b>Total Budget</b>	\$ 6,314,419	\$ -	\$ 1,464,681	\$ 7,779,100	
Existing Offsets	\$ -	\$ -	\$ -	\$ -	
Potential Future Offsets	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 6,314,419	\$ -	\$ 1,464,681	\$ 7,779,100	

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

Oracle No.	Project	Proj Total Dir	FY14-15 Dir	Projected Future Expenditure	Expended to Date	Stage
1063	PA18 ZN B-C BPS	\$ 2,076,000	\$ 1,091,200	\$ 684,884	\$ 299,916	Design
1648	PA18 ZN 3-4 BPS	\$ 3,073,500	\$ 1,670,600	\$ 950,219	\$ 452,681	Design
4680	PA 18S HIDDEN CANYON 12" DW	\$ 315,700	\$ 181,300	\$ 134,400	\$ -	Design
4681	PA 18S HIDDEN CANYON 6" & 8" RW	\$ 315,700	\$ 181,300	\$ 134,400	\$ -	Design
5168	PA 18S HIDDEN CANYON 36" RW PIPELINE	\$ 1,998,200	\$ 1,147,700	\$ 850,500	\$ -	Design
<b>TOTAL</b>		<b>\$ 7,779,100</b>	<b>\$ 4,272,100</b>	<b>\$ 2,754,404</b>	<b>\$ 752,596</b>	

**Project Status**

Construction of the pump station is scheduled to be complete March 2015. The pipelines are scheduled to be complete December 2014.

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

**Project Group Name: OPA Well Project**

The former Orange Park Acres Mutual Water Company is now the Orange Park Acres (OPA) Service Area within Irvine Ranch Water District.

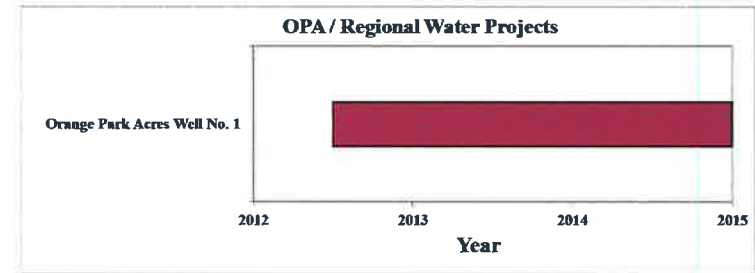
After OPA Well No. 3 was destroyed in 2012, a new well, OPA Well No. 1, was drilled on the same site. The wellhead equipping and disinfection facility design is complete and construction is underway. The new wellhead and disinfection facility will include a new well pump, an equalization wet well, a booster pump station to deliver the water to the OPA Zone 5 system, a chloramination facility, a well building, a chemical building, and other appurtenant facilities. Upon completion, the well will be operated to deliver about 900 AF/year.



**FY 2014/15 Key Milestones**

- Design Complete
- Advertise for Bidding
- Construction Award
- Construction Complete

- Date
- Jul-13
- Oct-13
- Dec-13
- Feb-15



**Project Group Budget, Source of Funds, and Offset Summary**

	New Capital	Replacement	Enhancement	Total	Comments
<b>Total Budget</b>	\$ 1,774,460	\$ -	\$ 7,372,240	\$ 9,146,700	
Existing Offsets	\$ -	\$ -	\$ -	\$ -	
Potential Future Offsets	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 1,774,460	\$ -	\$ 7,372,240	\$ 9,146,700	

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

Oracle No.	Project	Proj Total Dir	FY14-15 Dir	Projected Future Expenditure	Expended to Date	Stage
1250	OPA / REGIONAL GROUNDWATER PROJECT	\$ 9,146,700	\$ 3,537,600	\$ 2,487,375	\$ 3,121,725	Design
<b>TOTAL</b>		<b>\$ 9,146,700</b>	<b>\$ 3,537,600</b>	<b>\$ 2,487,375</b>	<b>\$ 3,121,725</b>	

**Project Status**

The wellhead equipping and disinfection facility construction is underway and completion is anticipated in January 2015.

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

**Project Group Name: OCSD CORF and Equity**

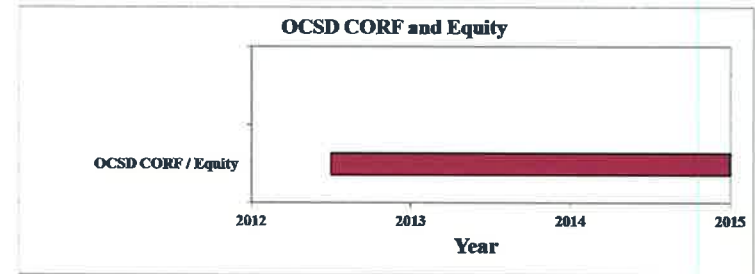
OCSD's Capital Outlay Revolving Fund (CORF) funds OCSD projects such as plant upgrades for secondary treatment and the Groundwater Replenishment System (GWRS).



**FY 2014/15 Key Milestones**

- Design Complete
- Advertise for Bidding
- Construction Award
- Construction Complete

- Date
- Jul-13
- Jul-13
- Aug-13
- Feb-15



**Project Group Budget, Source of Funds, and Offset Summary**

	New Capital	Replacement	Enhancement	Total	Comments
<b>Total Budget</b>	\$ 888,754	\$ -	\$ 4,104,246	\$ 4,993,000	
Existing Offsets	\$ -	\$ -	\$ -	\$ -	
Potential Future Offsets	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 888,754	\$ -	\$ 4,104,246	\$ 4,993,000	

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

Oracle No.	Project	Proj Total Dir	FY14-15 Dir	Projected Future Expenditure	Expended to Date	Stage
1543	OCSD CORF 13/14	\$ 1,877,000	\$ 377,900	\$ 961,398	\$ 537,702	Design
1552	OCSD CORF 14/15	\$ 2,005,000	\$ 1,601,400	\$ 403,600	\$ -	Design
1508	OCSD EQUITY 14/15	\$ 1,111,000	\$ 738,700	\$ 372,300	\$ -	Design
<b>TOTAL</b>		<b>\$ 4,993,000</b>	<b>\$ 2,718,000</b>	<b>\$ 1,737,298</b>	<b>\$ 537,702</b>	

**Project Status**

OCSD invoices IRWD on a quarterly basis for IRWD's share of funding OCSD construction. IRWD will continue to pay a portion of the CORF on an annual basis.

For FY 13/14 CORF payments, staff expects to pay 80% in FY13/14 and 20% in FY 14/15. For FY 14/15 CORF payments, staff expects to pay 80% in FY 14/15 and will carryover 20% to FY 15/16.

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

**Project Group Name: Peters Canyon Water Capture and Reuse**

**Project Description**

The Orange County Flood Control District (OC Flood), City of Irvine, City of Tustin, California Department of Transportation (Caltrans), the Transportation Corridor Agency (TCA) and Irvine Ranch Water District (IRWD) are collectively proceeding with the Peters Canyon Channel Water Capture and Reuse Pipeline Project for the disposal of Peters Canyon Channel flows that contain high nitrate and selenium concentrations. The purpose of the Reuse Pipeline is to divert these high selenium nuisance flows from specific locations within the Cities of Irvine and Tustin and to deliver these flows to the Orange County Sanitation District's (OCSD) sewer system for treatment and reuse. The project begins at the existing Caltrans GWIF on Walnut, with three diversion structures along the pipeline alignment at Como Channel, Edinger, and Moffett Ave., ultimately connecting to the OCSD trunk sewer at Main Street. Per the cooperative agreement among the project partners executed on December 12, 2013, IRWD will be reimbursed for all capital costs during design and construction. IRWD shall operate and maintain the pipeline for the term of the agreement and contribute annual operations and maintenance costs in the amount of \$60,000 each year, increased each subsequent year by the approved CPI.

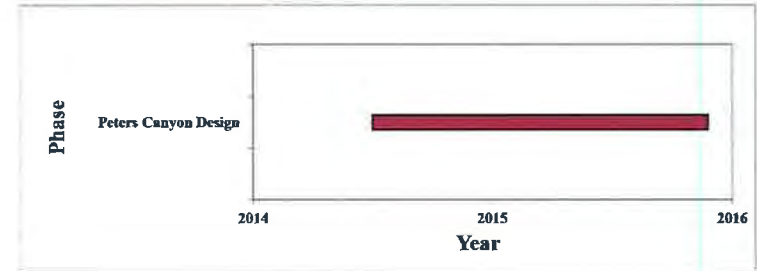


**FY 2014/15 Key Milestones**

Notice to Proceed - Design  
Final Design Complete  
Bid Opening  
Notice of Award - Construction  
Notice to Proceed - Construction  
Completion of Peter Canyon Water Capture design

**Date**

Jan-14  
Oct-14  
Dec-14  
Jan-15  
Feb-15  
Sep-16



**Project Group Budget, Source of Funds, and Offset Summary**

	New Capital	Replacement	Enhancement	Total	Comments
<b>Total Budget</b>	\$ 1,930,357	\$ -	\$ 8,914,343	\$ 10,844,700	
Existing Offsets	\$ (1,930,357)	\$ -	\$ (8,914,343)	\$ (10,844,700)	
Potential Future Offsets	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ (0)	\$ -	\$ 0	\$ -	



**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

Oracle No.	Project	Proj Total Dir	FY14-15 Dir	Projected Future Expenditure	Expended to Date	Stage
4985	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	\$ 10,844,700	\$ 2,566,600	\$ 8,166,083	\$ 112,017	Design
<b>TOTAL</b>		<b>\$ 10,844,700</b>	<b>\$ 2,566,600</b>	<b>\$ 8,166,083</b>	<b>\$ 112,017</b>	

**Project Status**

Tetra Tech was issued the notice to proceed for design of the project on January 7, 2014. Initial coordination meetings have been held with permitting staff from each of the project partners to determine submittal requirements. Discussions are ongoing with OCSD about the final connection at Main Street and the Urban Runoff Diversion Program requirements. Tetra Tech continues work on validation of the concept feasibility study prepared by RBF Consulting in 2013, the 60% design submittal, and coordination with various HOA's and permitting agencies.

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

**Project Group Name: Water Banking**

**Project Description**

Water Banking projects provide IRWD with contingency water storage in Kern County to augment IRWD supply during dry-year periods. This group includes the following projects and features:

- Interim Strand Ranch Recharge Project** - 125 acres of recharge facilities
- Strand Ranch Integrated Banking Project** - 502 acres of recharge facilities, 50,000 af of storage, and 36 cfs of recovery capacity
- Strand Ranch - Cross Valley Canal Turnout Construction** - Two 100 cfs turnouts
- Cross Valley Canal Capacity Purchase** - 5 cfs capacity
- Water Bank Expansion** - Purchase of Stockdale West Ranch (323 acres) and a future long-term lease of storage capacity from Rosedale-Rio Bravo Water Storage District
- Jackson Ranch** - 884 acres, 1757 AF Table A State Water Project entitlement, 9,495 AF minimum storage and 1,433 AF minimum recovery in Kern Water Bank
- Stockdale West Ranch** - 269 acres of recharge facilities constructed; to complete CEQA, design and construct 3 future wells, pipelines and turn-in facilities
- Strand Ranch Well Optimization & Monitoring Project** - Lowering of pumps in Strand Ranch wells to increase pumping at lower groundwater levels and install wellhead monitoring and remote

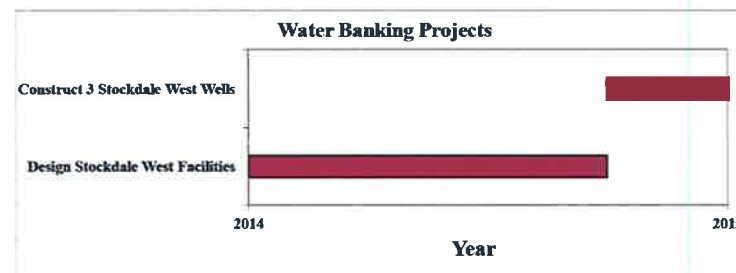


**FY 2014/15 Key Milestones**

- Design Stockdale West wells, wellhead equipping and conveyance facilities
- Construct 3 Stockdale West wells
- Wellhead equipping and conveyance facilities

**Date**

- Sep-14
- Apr-15
- Oct-15



**Project Group Budget, Source of Funds, and Offset Summary**

	New Capital	Replacement	Enhancement	Total	Comments
<b>Total Budget</b>	\$ 4,699,708	\$ -	\$ 19,525,592	\$ 24,225,300	
Existing Offsets	\$ -	\$ -	\$ -	\$ -	
Potential Future Offsets	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 4,699,708	\$ -	\$ 19,525,592	\$ 24,225,300	

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

Oracle No.	Project	Proj Total Dir	FY14-15 Dir	Projected Future Expenditure	Expended to Date	Stage
2812	STRAND RANCH FACILITIES AND MONITORING PROGRAM	\$ 17,739,700	\$ 58,400	\$ 3,128,600	\$ 14,552,700	Design
3766	STOCKDALE WEST RANCH JOINT BANKING PROJECT	\$ 2,743,400	\$ 822,300	\$ 1,673,201	\$ 247,899	Design
5499	STOCKDALE STORAGE FOR RECOVERY CAPACITY	\$ 2,139,500	\$ 889,300	\$ 1,250,200	\$ -	Design
5272	STRAND RANCH WELL SETTING OPTIMIZATION/MONITORING	\$ 501,600	\$ 226,300	\$ 275,300	\$ -	Design
5500	WATER BANKING AGREEMENTS 14/16	\$ 484,000	\$ 241,800	\$ 242,200	\$ -	Design
5501	WATER BANKING PLANNING 14/15	\$ 115,500	\$ 115,500	\$ -	\$ -	Design
5272	STRAND RANCH WELL SETTING OPTIMIZATION/MONITORING	\$ 501,600	\$ 226,300	\$ 275,300	\$ -	Design
<b>TOTAL</b>		<b>\$ 24,225,300</b>	<b>\$ 2,579,900</b>	<b>\$ 6,844,801</b>	<b>\$ 14,800,599</b>	

**Project Status**

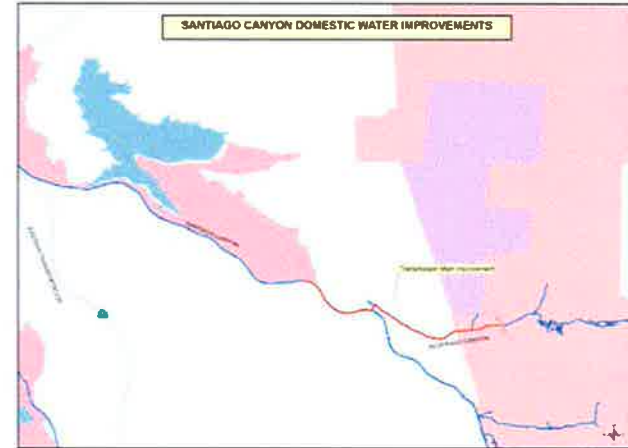
Complete Wheeling Agreement among MWD, MWDOC and IRWD and wheel 1,000 AF to IRWD service area. Also complete Exchange Agreement with MWD for up to 4,000 AF (Water Banking Agreements)  
 Certify EIR for Stockdale Integrated Banking Project (Stockdale West Joint Banking Project)  
 Design three wells, pipelines and turn-ins and begin construction on Stockdale West property (Stockdale West Joint Banking Project)  
 Complete lease of 50,000 AF storage from Rosedale-Rio Bravo Water Storage District and construct two wells as part of storage lease (Stockdale Storage for Recovery Capacity)  
 Construction management, oversight and testing for construction of new SREX-4 well and other project close out activities (Strand Ranch Facilities)  
 Complete lowering of Strand Ranch well pumps to optimize production and install remote telemetry units for additional monitoring (Strand Ranch Well)  
 Complete Water Banking Business Plan, expansion of Water Rights Inventory and additional property search (Water Banking Planning)

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

**Project Group Name: Santiago Canyon Potable Water Distribution System Improvements**

Silverado Canyon is served by an existing 8-inch steel pipeline that runs from Fleming BPS into the canyon.

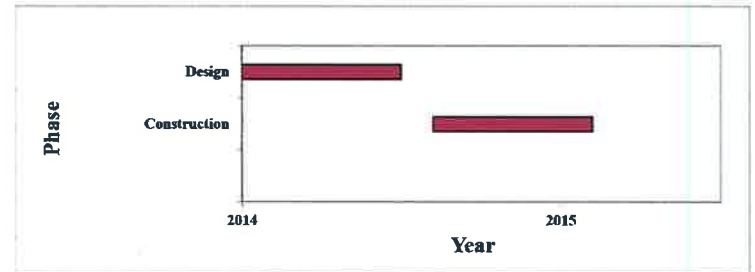
The Silverado Canyon Road 12-inch Domestic Water Pipeline Replacement Project will construct approximately 7,200 linear feet of 12-inch pipeline to replace the existing 8-inch pipeline to provide the required fire flow to the proposed St. Michael's Abbey.



**FY 2014/15 Key Milestones**

- Design Complete
- Construction Award
- Construction Complete

- Date**  
May-14  
Jun-14  
Dec-14



**Project Group Budget, Source of Funds, and Offset Summary**

	New Capital	Replacement	Enhancement	Total	Comments
<b>Total Budget</b>	\$ -	\$ 1,868,027	\$ 701,474	\$ 2,569,500	
Existing Offsets	\$ -	\$ -	\$ -	\$ -	
Potential Future Offsets	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ -	\$ 1,868,027	\$ 701,474	\$ 2,569,500	

**Irvine Ranch Water District  
Capital Improvement Project  
Fiscal Year 2014/15**

Oracle No.	Project	Proj Total Dir	FY13-14 Dir	Projected Future Expenditure	Expended to Date	Stage
4919	SILVERADO CANYON RD 12" DW PIPE IMPROVEMENTS	\$ 2,569,500	\$ 2,118,100	\$ 374,344	\$ 77,056	Design
<b>TOTAL \$</b>		<b>2,569,500</b>	<b>\$ 2,118,100</b>	<b>\$ 374,344</b>	<b>\$ 77,056</b>	

**Project Status**

The project is currently in design with the bid period anticipated in May 2014 and the Construction Award in June 2014.

**IRVINE RANCH WATER DISTRICT**  
**Fiscal Year 2014/15**  
**Water Improvement District (ID) Allocation**

Improvement District (ID) Allocation - % of Project Budget

EBS No.	EPMS No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	101	110	112	113	125	153	154	185	188
1047	11379	LEGACY PARK TUSTIN RANCH ROAD	\$2,100	\$990,900	Local				100.0%					
1200	11097	GIS SUPPORT APPLICATIONS 14/15	\$60,000	\$60,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1250	11405	OPA / REGIONAL GROUNDWATER	\$3,537,600	\$9,146,700	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1264	11116	ASSET OPTIMIZATION - LAKE FOREST	\$1,346,300	\$6,500,000	Replacement	100.0%								
1332	11131	HYDRAULIC MODELING 14/15 DW	\$44,000	\$44,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1334	11271	OCWD ANNEXATION FEE 14/15	\$426,600	\$426,600	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1336	11598	HQ LIGHTING RETROFIT & CEILING	\$56,500	\$225,000	Replacement	100.0%								
1371	11153	HARDING TRUCK TRAIL RES DEMO	\$9,400	\$265,700	Replacement	100.0%								
1402	15051	WELLS 51/52/53 TREATMENT	\$122,800	\$133,100	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1409	10392	DATS & WELL 77 LEASE PAYMENT	\$411,300	\$445,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1414	11434	SAND CANYON 16" DW PIPELINE	\$44,500	\$237,600	Replacement	100.0%								
1448	15428	WELL 53 SITE ACQUISITION & WELL	\$40,400	\$2,405,700	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1459	11455	IRWD PIPELINES RELOCATION FOR SC	\$434,400	\$1,853,400	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1519	10423	PA9 JEFFREY RD 12" ZN3 - IRVINE BLVD	\$37,700	\$1,187,000	Local						100.0%			
1520	11469	GREAT PARK COORDINATION AND	\$47,500	\$99,000	Local				100.0%					
1648	10446	PA18 ZN 3-4 BPS	\$1,670,600	\$3,073,500	Local						100.0%			
1664	10917	NEWPORT COAST CP JOINT BONDING	\$36,700	\$1,852,400	Local					100.0%				
1790	11056	ENG PLANNING STUDY RESERVE 14/15	\$198,000	\$198,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1798	10517	LAKE FOREST CONTROL AND	\$18,400	\$319,000	Replacement	100.0%								
1839	10556	CPTS RESTORE AND INSTALL	\$77,000	\$221,700	Replacement	100.0%								
2812	11289	STRAND RANCH FACILITIES AND	\$58,400	\$17,739,700	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%

EBS No.	EPMS No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	101	110	112	113	125	153	154	185	188
3236	11615	UTILITY BILLING ORACLE CC AND B	\$2,450,800	\$6,672,600	Replacement	100.0%								
3566	11619	ENTERPRISE ASSET MGMT SOFTWARE	\$806,400	\$2,432,100	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
3717	11627	WELL 115 REPLACEMENT	\$1,097,900	\$4,178,200	Regional	41.0%	19.2%	1.9%	1.8%	28.0%	6.5%	0.2%	0.9%	0.3%
3723	11642	PLANNING AND BUDGETING	\$18,000	\$638,000	Replacement	100.0%								
3766	11645	STOCKDALE WEST RANCH JOINT	\$822,300	\$2,743,400	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
3767	11647	RAISE DW SYSTEM VALVES 14/15	\$115,500	\$115,500	Replacement	100.0%								
3768	11648	GEN SYS MODS-DW 14/15	\$190,300	\$190,300	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
3769	11649	CSR METER REPLACEMENT-DW 14/15	\$203,500	\$203,500	Replacement	100.0%								
3770	11652	RESIDENTIAL METER REPLACEMENT-	\$336,600	\$336,600	Replacement	100.0%								
4130	11665	SJM BUILDING CAMPUS MOLD	\$1,500	\$369,600	Regional	50.0%	16.3%	1.7%	1.5%	23.8%	5.6%	0.2%	0.8%	0.3%
4153	11668	PA51 MARINE WAY DW ZN3	\$344,700	\$612,700	Local			100.0%						
4261	11671	PA51 RIDGE VALLEY, TRABUCO TO	\$376,600	\$723,800	Local			100.0%						
4268	11673	PA51 RIDGE VALLEY, MARINE WAY TO	\$341,700	\$424,000	Local			100.0%						
4326	11693	DRWF #2 & #5 REHABILITATION	\$256,500	\$937,200	Replacement	100.0%								
4327	11672	WELL REHAB PROGRAM DW 13/14	\$660,400	\$1,705,200	Replacement	100.0%								
4366	11714	TUSTIN LEGACY-TUSTIN RANCH,	\$1,600	\$343,200	Local				100.0%					
4394	11711	ID CONSOLIDATION PROJECT	\$412,900	\$550,000	Replacement	100.0%								
4409	11687	RMS AT 3 DOMESTIC WATER	\$1,868,000	\$2,501,200	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
4422	11703	MECH & ELEC SYS REPLACEMENT - DW	\$660,000	\$660,000	Replacement	100.0%								
4440	11691	WELL MAINTENANCE AND	\$165,000	\$165,000	Replacement	100.0%								
4510	11716	TUSTIN LEGACY WARNER - LEGACY TO	\$19,300	\$196,900	Local				100.0%					
4512	11717	PA 5B 12" ZONE 3 DW	\$82,700	\$112,200	Local						100.0%			
4589	11718	SAND CANYON MEDICAL OFFICE	\$25,500	\$334,400	Replacement	100.0%								
4620	11719	PA51 LN ST FROM C ST TO LY ST DW	\$149,600	\$172,700	Local			100.0%						

EBS No.	EPMS No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	101	110	112	113	125	153	154	185	188
4645	11721	PA51 C ST FROM LQ ST TO O ST DW	\$133,100	\$161,700	Local			100.0%						
4650	11723	PA51 LY ST FROM LQ ST TO IRVINE	\$34,100	\$51,700	Local			100.0%						
4680	11739	PA 18S HIDDEN CANYON 12" DW	\$181,300	\$315,700	Local						100.0%			
4919	11743	SILVERADO CANYON RD 12" DW PIPE	\$2,118,100	\$2,569,500	Sub-Regional	72.7%	27.3%							
4988	11746	TUSTIN LEGACY WARNER FROM	\$41,200	\$60,500	Local				100.0%					
5027	11747	BAKER WATER TREATMENT PLANT	\$38,762,300	\$96,852,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5116	11751	BOOSTER PUMP STATION CHECK	\$177,600	\$267,300	Replacement	100.0%								
5149	11646	SERVICE LINE, VALVE & MAIN	\$916,900	\$916,900	Replacement	100.0%								
5150	11761	2014 IRVINE ANNUAL ST REHAB, DW	\$464,200	\$464,200	Replacement	100.0%								
5155	11759	OPS BLDGS 54 AND 55 STORAGE FIRE	\$38,500	\$79,200	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5226	11788	SJM CAMPUS PAVING	\$151,400	\$231,000	Regional	50.0%	16.3%	1.7%	1.5%	23.8%	5.6%	0.2%	0.8%	0.3%
5243	30501	PA 6 NEIGHBORHOOD 4B 6" RW ZONE	\$100,900	\$162,800	Local						100.0%			
5272	11794	STRAND RANCH WELL SETTING	\$226,300	\$501,600	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5338	11797	MARSH MITIGATION CREDIT	\$31,200	\$36,300	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5343	11792	EMBEDDED ENERGY PLAN	\$154,400	\$180,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5401	11799	EOCWD INTERCONNECT CONTROL	\$140,500	\$158,700	Replacement	100.0%								
5404	11791	LAKE FOREST Z2-2RA PRV AT	\$95,900	\$244,200	Local								100.0%	
5405	11785	EL MODENA NTS POND INFILTRATION	\$321,200	\$321,200	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5406	11779	EL MODENA INLET MODIFICATION	\$156,200	\$156,200	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5410	11755	COASTAL ZN2 PRV MODIFICATION	\$2,000	\$187,100	Local					100.0%				
5411	11787	COMPRESSED NATURAL GAS MOTOR	\$68,700	\$68,800	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5431	11748	WRMP UPDATE 14/15 DW	\$132,000	\$132,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5443	11781	PORTABLE DIESEL GENERATOR	\$293,100	\$880,000	Replacement	100.0%								
5453	11752	WELLS 12 AND 13 ROOF HATCHES	\$72,600	\$340,500	Replacement	100.0%								



EBS No.	EPMS No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	101	110	112	113	125	153	154	185	188
5473	11754	WELLS 11 AND 15 SURGE TANK	\$13,900	\$198,600	Replacement	100.0%								
5474	11790	EOCWD FACILITIES DEMOLITION AT	\$192,500	\$192,500	Replacement	100.0%								
5487	11786	ASPHALT REPAIR - DW 14/15	\$23,100	\$23,100	Replacement	100.0%								
5492	11653	1" TO 2" METER REPLACEMENT-DW	\$130,200	\$130,200	Replacement	100.0%								
5499	11765	STOCKDALE STORAGE FOR RECOVERY	\$889,300	\$2,139,500	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5500	11764	WATER BANKING AGREEMENTS 14/16	\$241,800	\$484,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5501	11793	WATER BANKING PLANNING 14/15	\$115,500	\$115,500	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5519	11801	EAST IRVINE ZONE 1 TO 3 BPS	\$13,900	\$198,600	Replacement	100.0%								
		Total	\$66,521,400	\$183,563,400		\$11.4	\$17.2	\$3.1	\$1.6	\$24.2	\$7.7	\$0.2	\$0.9	\$0.3

**IRVINE RANCH WATER DISTRICT**  
**Fiscal Year 2014/15**  
**Sewer Improvement District (ID) Allocation**

Improvement District (ID) Allocation - % of Project Budget

EBS No.	EPMS No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	Improvement District (ID) Allocation - % of Project Budget										
						201	210	212	213	225	240	253	256	285	288	
1665	20410	NEWPORT COAST CP JOINT BONDING	\$10,900	\$617,200	Local								100.0			
4266	21139	PA51 REACH B SEWER, OCTA R/W TO LV ST	\$174,400	\$2,588,300	Local			100.0								
4267	21141	PA51 RIDGE VALLEY, MARINE WAY TO	\$793,200	\$1,064,800	Local			100.0								
4518	21153	TUSTIN LEGACY - LEGACY VILLAS SEWER	\$2,300	\$506,000	Local				100.0							
4614	21154	PA51 REACH A SEWER IMPROVMENTS	\$1,200,900	\$2,481,200	Local			100.0								
4648	21156	PA51 LQ ST FROM O ST TO LY ST SEWER	\$215,600	\$255,200	Local			100.0								
4653	21158	PA51 C ST FROM TRABUCO RD TO LQ ST	\$288,700	\$403,700	Local			100.0								
4824	21159	PA51 LV ST FROM RIDGE VALLEY TO LY ST	\$254,200	\$310,200	Local			100.0								
5016	21165	PA51 C ST FROM LV ST TO TRABUCO SEWER	\$309,300	\$370,700	Local			100.0								
1066	21379	LEGACY PARK TUSTIN RANCH ROAD	\$2,300	\$1,090,400	Local			100.0								
1167	21469	GREAT PARK COORDINATION AND SAMP	\$47,500	\$99,000	Local				100.0							
1436	21560	LAKE FOREST WW OFFSITE IMPROVEMENTS	\$300	\$4,051,000	Local									100.0		
4263	21671	PA51 RIDGE VALLEY, TRABUCO TO IRVINE	\$225,400	\$436,700	Local			100.0								
4651	21723	PA51 LY ST FROM LQ ST TO IRVINE BLVD	\$1,450,600	\$1,662,200	Local			100.0								
1762	30280	PA9B PHASE 5 GATEWAY PARK RW PIPES	\$7,600	\$506,100	Local								100.0			
4147	30388	PA51 MARINE WAY RW ZNB	\$209,500	\$376,200	Local			100.0								
4176	30389	PA9 JEFFREY RD PIPELINES, ZNB AND ZNC	\$47,300	\$1,113,200	Local								100.0			
4265	30393	PA51 REACH B RW, OCTA R/W TO LV ST	\$44,100	\$887,700	Local			100.0								
4278	30394	PA51 RIDGE VALLEY, MARINE WAY TO	\$331,000	\$398,200	Local			100.0								
4318	30416	PA40 PH3B RW CAPITAL FACILITIES	\$700	\$165,000	Local								100.0			
4515	30421	PA 5B 8" ZONE B RW	\$19,100	\$57,200	Local								100.0			
4528	30424	PA40 NEIGHBORHOOD 2G BACKBONE RW	\$300	\$108,900	Local								100.0			
4557	30426	PA 6 PHASE 1 NEIGHBORHOOD 3 ZONE C RW	\$307,800	\$766,700	Local								100.0			

EBS No.	EPMS No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	201	210	212	213	225	240	253	256	285	288
4647	30427	PA51 LY ST FROM TRABUCO RD TO LQ ST RW	\$166,100	\$205,700	Local			100.0							
4717	30428	PA1 ORCHARD HILLS NH 2 - 6" ZNB & 6" ZNC	\$105,000	\$238,700	Local							100.0			
4752	30429	PA5B PHASE 1B 36" ZNA RW	\$441,100	\$519,200	Local							100.0			
4753	30430	PA5B PHASE 2 6" ZNC RW	\$39,600	\$57,200	Local							100.0			
4951	30433	PORTOLA SPRINGS RECYCLED WATER	\$6,000	\$284,500	Local							100.0			
1063	30446	PA18 ZN B-C BPS	\$1,091,200	\$2,076,000	Local							100.0			
4984	30447	TUSTIN LEGACY ARMSTRONG ZONE A &	\$529,100	\$773,300	Local				100.0						
4990	30449	PA1 ORCHARD HILLS 6" ZNC RW	\$67,300	\$84,700	Local							100.0			
5408	30491	OPA NON-POTABLE PIPELINE	\$178,700	\$1,012,000	Local					100.0					
1308	30797	PA6 RW PIPELINES	\$54,200	\$857,000	Local							100.0			
1474	30917	NEWPORT COAST CP JOINT BONDING	\$44,400	\$2,461,400	Local						100.0				
4649	31156	PA51 LQ ST FROM O ST TO LY ST RW	\$63,800	\$78,100	Local			100.0							
4825	31159	PA51 LV ST FROM RIDGE VALLEY TO LY ST	\$265,200	\$321,200	Local			100.0							
3435	31379	LEGACY PARK TUSTIN RANCH ROAD	\$2,500	\$1,210,700	Local				100.0						
1229	31605	PA40 PH2 RW FACILITIES	\$400	\$216,700	Local							100.0			
3735	31640	PA39 PH2 RW FACILITIES	\$2,000	\$226,600	Local							100.0			
4264	31671	PA51 RIDGE VALLEY, TRABUCO TO IRVINE	\$99,000	\$194,700	Local			100.0							
4368	31714	TUSIN LEGACY-TUSTIN RANCH, BARRANCA &	\$3,500	\$689,700	Local				100.0						
4511	31716	TUSTIN LEGACY WARNER - LEGACY TO	\$20,500	\$207,900	Local				100.0						
4513	31717	PA 5B 6" & 8" ZONE B RW & 6" ZONE C RW	\$87,700	\$233,200	Local							100.0			
4621	31719	PA51 LN ST FROM C ST TO LY ST RW	\$85,800	\$105,600	Local			100.0							
4646	31721	PA51 C ST FROM LQ ST TO O ST RW	\$232,100	\$266,200	Local			100.0							
4652	31723	PA51 LY ST FROM LQ ST TO IRVINE BLVD RW	\$782,600	\$938,300	Local			100.0							
4681	31739	PA 18S HIDDEN CANYON 6" & 8" RW	\$181,300	\$315,700	Local							100.0			
4989	31746	TUSTIN LEGACY WARNER FROM	\$185,800	\$282,700	Local				100.0						
1543	20114	OCS D CORF 13/14	\$377,900	\$1,877,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
1552	20115	OCS D CORF 14/15	\$1,601,400	\$2,005,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3

EBS No.	EPMS No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	201	210	212	213	225	240	253	256	285	288
1599	20214	MWRP EXPANSION PHASE II	\$62,900	\$68,980,600	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
1060	20468	FOOTHILL SEWER DIVERSION TO LAWRP	\$4,000	\$854,700	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
1504	20588	OCSO EQUITY 13/14	\$100	\$100	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
1508	20589	OCSO EQUITY 14/15	\$738,700	\$1,111,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
1410	20812	OCSO SOLIDS HANDLING 14/15	\$1,391,000	\$1,391,000	Regional	57.1	14.2	1.5	1.5	20.8		4.1	0.1	0.6	0.1
5482	20959	SEWER GEN SYS MODS 14/15	\$330,000	\$330,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
1366	21056	ENG PLANNING STUDY RESERVE 14/15	\$171,600	\$171,600	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
1694	21097	GIS SUPPORT APPLICATIONS 14/15	\$60,000	\$60,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
1740	21131	HYDRAULIC MODELING 14/15 SEWER	\$44,000	\$44,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
4286	21146	MWRP BIOSOLIDS AND ENERGY RECOVERY	\$52,369,300	\$196,465,500	Regional	57.1	14.2	1.5	1.5	20.8		4.1	0.1	0.6	0.1
4397	21147	LAWRP SYSTEM UPGRADES	\$2,500	\$1,486,100	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
4985	21163	PETERS CANYON WATER CAPTURE AND	\$2,566,600	\$10,844,700	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
5186	21170	SJM SLS UPGRADE	\$10,100	\$153,500	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
5427	21188	WATER RECYCLING PLANT MASTER PLAN	\$182,000	\$550,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
5409	21191	OPS DATABASE MANAGEMENT SYSTEM	\$346,500	\$346,500	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
1152	21455	IRWD PIPELINES RELOCATION FOR SC GRADE	\$200,700	\$968,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
3567	21619	ENTERPRISE ASSET MGMT SOFTWARE	\$806,400	\$2,432,100	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
5412	21748	SCSMP UPDATE AND LONG-TERM FLOW	\$576,800	\$1,155,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
5157	21759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS	\$38,500	\$79,200	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
1706	30214	MWRP EXPANSION PHASE II	\$40,900	\$45,652,700	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
1813	30331	SANTIAGO DAM & OUTLET TWR SEISMIC	\$111,100	\$282,700	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
1015	30366	TECHNOLOGY WAY ZONE "B" TRANSMISSION	\$77,600	\$1,061,500	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
3779	30380	SALT MANAGEMENT PLAN DEVELOPMENT	\$114,600	\$396,400	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
3808	30382	SYPHON RESERVOIR EXPANSION	\$3,200	\$60,169,200	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
4388	30408	MULTI-ZONE REGIONAL PS - ZONE A TO	\$25,400	\$2,989,500	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
4396	30415	CATHODIC PROTECTION FOR GAP PIPE	\$48,200	\$121,000	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
4514	30420	PA 5B 36" ZONE A RW	\$303,200	\$777,700	B - 37 Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	

EBS No.	EPMS No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	201	210	212	213	225	240	253	256	285	288
1024	30422	PA9 JEFFREY RD PIPELINES, 36" ZNA, 36"	\$124,100	\$2,962,200	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
4959	30435	RATTLESNAKE CHLORINE GAS REMOVAL	\$1,576,600	\$1,706,400	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
5154	30461	SJR SEISMIC RE-EVALUATION (DSOD REQ'T)	\$74,800	\$150,700	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
5168	30487	PA 18S HIDDEN CANYON 36" RW PIPELINE	\$1,147,700	\$1,998,200	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
5407	30496	ILP NORTH CONVERSION (RATTLESNAKE TO	\$264,100	\$7,602,100	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
5344	30499	EMBEDDED ENERGY PLAN	\$154,400	\$180,000	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
1096	30517	LAKE FOREST CONTROL AND TELEMETRY SYS	\$12,200	\$168,300	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
1593	31056	ENG PLANNING STUDY RESERVE 14/15 RW	\$176,000	\$176,000	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
1785	31097	GIS SUPPORT APPLICATIONS 14/15	\$60,000	\$60,000	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
1721	31131	HYDRAULIC MODELING 14/15 RW	\$44,000	\$44,000	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
1106	31384	HYDRAULIC MODEL UPDATE / CALIBRATION -	\$88,500	\$467,500	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
5485	31648	GEN SYS MODS-RW 14/15	\$82,500	\$82,500	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
5432	31748	WRMP UPDATE 14/15 RW	\$132,000	\$132,000	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
5158	31759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS	\$38,500	\$79,200	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
1590	20190	LAKE FOREST SEWER MUIRLANDS, EL TORO	\$2,900	\$2,913,900	Replacement	100.0									
4438	20914	MWRP SYS REPLACEMENTS 14/15	\$332,200	\$332,200	Replacement	100.0									
5299	20947	RAISE MANHOLES TO GRADE 14/15 UNDER	\$110,000	\$110,000	Replacement	100.0									
4420	21010	LAWRP SYSTEM REPLACEMENTS 14/15	\$132,000	\$132,000	Replacement	100.0									
4575	21053	CHIQUITA GENERAL SYSTEM MODIFICATIONS	\$44,000	\$44,000	Replacement	100.0									
1477	21071	LAWRP BIOSOLIDS FACILITY	\$29,400	\$4,163,500	Replacement	100.0									
3750	21119	SOCWA ETM CROSSING PROTECTION	\$47,500	\$731,500	Replacement	100.0									
4467	21142	MWRP SECONDARY REHABILITATION	\$169,500	\$2,551,600	Replacement	100.0									
4284	21164	MICHELSON LIFT STATION RELOCATION	\$34,500	\$75,000	Replacement	100.0									
5098	21166	2014 SEWER REHABILITATION	\$293,200	\$348,700	Replacement	100.0									
5469	21167	FPS 2 ROOF REPLACEMENT	\$15,400	\$256,000	Replacement	100.0									
5470	21168	NEWPORT COAST SLS RECOATING	\$12,800	\$256,000	Replacement	100.0									
5450	21169	SMH RING/COVER REPLACEMENT (24 SMH)	\$31,700	\$368,000	Replacement	100.0									

EBS No.	EPMS No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	201	210	212	213	225	240	253	256	285	288
5174	21181	MAIN ST DIVERSION STRUCTURE GROUND	\$2,900	\$191,400	Replacement	100.0									
5448	21182	PLANO LIFT STATION FORCE MAIN	\$293,600	\$478,500	Replacement	100.0									
5520	21205	MAINTENANCE ACCESS FOR FOUR SEWER	\$31,700	\$368,000	Replacement	100.0									
5521	21209	LAWRP PONDS BIOSOLIDS REMOVAL &	\$1,779,900	\$1,779,900	Replacement	100.0									
1549	21598	HQ LIGHTING RETROFIT & CEILING REPLACE	\$56,500	\$225,000	Replacement	100.0									
3237	21615	UTILITY BILLING ORACLE CC AND B	\$2,450,800	\$6,672,600	Replacement	100.0									
3727	21642	PLANNING AND BUDGETING SOFTWARE	\$18,000	\$638,000	Replacement	100.0									
5490	21646	SEWER LATERAL & MAIN REPLACEMENT	\$218,900	\$218,900	Replacement	100.0									
4432	21703	MECH & ELEC SYS REPLACEMENT - SEWER	\$400,000	\$400,000	Replacement	100.0									
4395	21711	ID CONSOLIDATION PROJECT ACCOUNTING	\$412,900	\$550,000	Replacement	100.0									
5151	21761	2014 IRVINE ANNUAL ST REHAB, SEWER	\$277,200	\$277,200	Replacement	100.0									
5445	21781	PORTABLE DIESEL GENERATOR	\$293,100	\$880,000	Replacement	100.0									
5489	21786	ASPHALT REPAIR - SEWER 14/15	\$23,100	\$23,100	Replacement	100.0									
3780	30381	SAN JOAQUIN RESERVOIR LINER	\$124,800	\$2,625,000	Replacement	100.0									
4408	30391	LAWRP TERTIARY FACILITY REPAIR AND	\$3,500	\$1,180,300	Replacement	100.0									
4328	30402	WELL REHAB PROGRAM RW 13/14 THRU	\$340,200	\$877,800	Replacement	100.0									
5156	30453	LAGUNA CANYON RD RW PIPELINE	\$26,600	\$588,500	Replacement	100.0									
5153	30455	SJR ACTUATOR REPAIR/REPLACEMENT	\$7,800	\$254,700	Replacement	100.0									
5159	30463	SJR LINER DEPRESSION REPAIR	\$95,200	\$95,200	Replacement	100.0									
5446	30481	LAWRP STANDBY GENERATOR NO. 3	\$6,500	\$765,600	Replacement	100.0									
5503	30482	WELL 78 SPARE PUMP AND MOTOR	\$276,100	\$276,100	Replacement	100.0									
5476	30495	RATTLESNAKE BPS PUMP REPLACEMENT	\$24,800	\$176,000	Replacement	100.0									
5522	30502	WEIR CANYON VALVE VAULT PLC UPGRADE	\$102,300	\$108,900	Replacement	100.0									
1132	30556	CPTS RESTORE AND INSTALL	\$49,500	\$177,700	Replacement	100.0									
1257	31598	HQ LIGHTING RETROFIT & CEILING REPLACE	\$12,700	\$50,000	Replacement	100.0									
3781	31646	SERVICE LINE, VALVE & MAIN REPLACEMENT-	\$342,100	\$342,100	Replacement	100.0									
5303	31647	RAISE RW SYSTEM VALVES 14/15 UNDER RA	\$38,500	\$38,500	Replacement	100.0									

EBS No.	EPMS No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	201	210	212	213	225	240	253	256	285	288
5495	31649	CSR METER REPLACEMENT-RW 14/15	\$57,200	\$57,200	Replacement	100.0									
5497	31653	1" TO 2" METER REPLACEMENT-RW 14/15	\$54,500	\$54,500	Replacement	100.0									
4429	31703	MECH & ELEC SYS REPLACEMENT - RW 14/15	\$440,000	\$440,000	Replacement	100.0									
5152	31761	2014 IRVINE ANNUAL ST REHAB, RW	\$39,600	\$39,600	Replacement	100.0									
5444	31781	PORTABLE DIESEL GENERATOR	\$293,100	\$880,000	Replacement	100.0									
5488	31786	ASPHALT REPAIR - RW 14/15	\$23,100	\$23,100	Replacement	100.0									
4228	30390	PA9B RW AND SYPHON LATERAL PIPELINE,	\$2,600	\$854,700	Sub-Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
4457	30409	MULTI-ZONE REGIONAL PS - ZONE B	\$22,800	\$2,532,700	Sub-Regional			54.2		23.1		22.7			
4400	30410	MULTI-ZONE REGIONAL PS - ZONE C	\$29,400	\$3,624,700	Sub-Regional			50.5		27.8		21.7			
		Total	\$87,185,100	\$493,786,100		\$40.6	\$11.0	\$8.8	\$2.0	\$17.7	\$0.4	\$5.9	\$0.1	\$0.5	\$0.1

**IRVINE RANCH WATER DISTRICT**  
**Fiscal Year 2014/2015**  
**Allocation of FY Project Expenditures by Improvement District**

<b>ID</b>	<b>EPMS No.</b>	<b>Project Title</b>	<b>Alloc</b>	<b>FY Direct</b>	<b>FY Direct+GA</b>
<b>101 - Rep</b>					
	11615	UTILITY BILLING ORACLE CC AND B IMPLEMENTATION	100.0%	\$2,450,800	\$2,685,300
	11743	SILVERADO CANYON RD 12" DW PIPE IMPROVEMENTS	72.7%	\$1,539,859	\$1,572,792
	11116	ASSET OPTIMIZATION - LAKE FOREST DEVELOPMENT	100.0%	\$1,346,300	\$1,346,300
	11646	SERVICE LINE, VALVE & MAIN REPLACEMENT-DW 14/15	100.0%	\$916,900	\$935,400
	11672	WELL REHAB PROGRAM DW 13/14 THRU 15/16	100.0%	\$660,400	\$742,000
	11703	MECH & ELEC SYS REPLACEMENT - DW 14/15	100.0%	\$660,000	\$660,000
	11761	2014 IRVINE ANNUAL ST REHAB, DW	100.0%	\$464,200	\$501,200
	11627	WELL 115 REPLACEMENT WELL/WELLHEAD & SITE ACQUIS.	41.0%	\$450,139	\$474,862
	11711	ID CONSOLIDATION PROJECT ACCOUNTING IMPLEMENTATION	100.0%	\$412,900	\$551,800
	11652	RESIDENTIAL METER REPLACEMENT-DW 14/15	100.0%	\$336,600	\$347,700
	11781	PORTABLE DIESEL GENERATOR REPLACEMENT - DW	100.0%	\$293,100	\$293,100
	11693	DRWF #2 & #5 REHABILITATION	100.0%	\$256,500	\$284,900
	11649	CSR METER REPLACEMENT-DW 14/15	100.0%	\$203,500	\$212,800
	11790	EOCWD FACILITIES DEMOLITION AT OPA RESERVOIR SITE	100.0%	\$192,500	\$229,600
	11751	BOOSTER PUMP STATION CHECK VALVE REPLACEMENT	100.0%	\$177,600	\$208,500
	11691	WELL MAINTENANCE AND REHABILITATION 14/15	100.0%	\$165,000	\$165,000
	11799	EOCWD INTERCONNECT CONTROL PANEL REPLACEMENT	100.0%	\$140,500	\$154,500
	11653	1" TO 2" METER REPLACEMENT-DW 14/15	100.0%	\$130,200	\$155,000
	11647	RAISE DW SYSTEM VALVES 14/15 UNDER RA	100.0%	\$115,500	\$124,800
	10556	CPTS RESTORE AND INSTALL	100.0%	\$77,000	\$114,000
	11788	SJM CAMPUS PAVING	50.0%	\$75,700	\$82,200



ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>101 - Rep</b>					
	11752	WELLS 12 AND 13 ROOF HATCHES	100.0%	\$72,600	\$109,700
	11598	HQ LIGHTING RETROFIT & CEILING REPLACE	100.0%	\$56,500	\$83,100
	11434	SAND CANYON 16" DW PIPELINE ANODE REPLACEMENT	100.0%	\$44,500	\$63,000
	11718	SAND CANYON MEDICAL OFFICE TENANT IMPROVEMENT	100.0%	\$25,500	\$25,500
	11786	ASPHALT REPAIR - DW 14/15	100.0%	\$23,100	\$25,000
	10517	LAKE FOREST CONTROL AND TELEMETRY SYS REPLACEMENT	100.0%	\$18,400	\$25,600
	11642	PLANNING AND BUDGETING SOFTWARE REPLACEMENT	100.0%	\$18,000	\$18,800
	11801	EAST IRVINE ZONE 1 TO 3 BPS PIPE/METER	100.0%	\$13,900	\$23,100
	11754	WELLS 11 AND 15 SURGE TANK REPLACEMENT	100.0%	\$13,900	\$23,100
	11153	HARDING TRUCK TRAIL RES DEMO	100.0%	\$9,400	\$24,300
	11665	SJM BUILDING CAMPUS MOLD REMEDIATION	50.0%	\$750	\$750
				<b>\$11,361,748</b>	<b>\$12,263,704</b>
<b>110</b>					
	11747	BAKER WATER TREATMENT PLANT	32.6%	\$12,636,510	\$12,959,934
	11405	OPA / REGIONAL GROUNDWATER PROJECT	32.6%	\$1,153,258	\$1,203,168
	11687	RMS AT 3 DOMESTIC WATER RESERVOIRS	32.6%	\$608,968	\$652,098
	11743	SILVERADO CANYON RD 12" DW PIPE IMPROVEMENTS	27.3%	\$578,241	\$590,608
	11765	STOCKDALE STORAGE FOR RECOVERY CAPACITY	32.6%	\$289,912	\$310,548
	11645	STOCKDALE WEST RANCH JOINT BANKING PROJECT	32.6%	\$268,070	\$324,109
	11619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	32.6%	\$262,886	\$376,693
	11627	WELL 115 REPLACEMENT WELL/WELLHEAD & SITE ACQUIS.	19.2%	\$211,170	\$222,768
	11455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	32.6%	\$141,614	\$163,782
	11271	OCWD ANNEXATION FEE 14/15	32.6%	\$139,072	\$139,072
	10392	DATS & WELL 77 LEASE PAYMENT 14/15	32.6%	\$134,084	\$134,084

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>110</b>					
	11785	EL MODENA NTS POND INFILTRATION	32.6%	\$104,711	\$113,807
	11764	WATER BANKING AGREEMENTS 14/16	32.6%	\$78,827	\$199,284
	11794	STRAND RANCH WELL SETTING OPTIMIZATION/MONITORING	32.6%	\$73,774	\$78,664
	11056	ENG PLANNING STUDY RESERVE 14/15 DW	32.6%	\$64,548	\$112,796
	11648	GEN SYS MODS-DW 14/15	32.6%	\$62,038	\$75,339
	11779	EL MODENA INLET MODIFICATION	32.6%	\$50,921	\$60,017
	11792	EMBEDDED ENERGY PLAN	32.6%	\$50,334	\$60,669
	11748	WRMP UPDATE 14/15 DW	32.6%	\$43,032	\$79,218
	15051	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	32.6%	\$40,033	\$51,149
	11793	WATER BANKING PLANNING 14/15	32.6%	\$37,653	\$67,808
	11788	SJM CAMPUS PAVING	16.3%	\$24,678	\$26,797
	11787	COMPRESSED NATURAL GAS MOTOR FUEL	32.6%	\$22,396	\$23,602
	11097	GIS SUPPORT APPLICATIONS 14/15	32.6%	\$19,560	\$30,709
	11289	STRAND RANCH FACILITIES AND MONITORING PROGRAM	32.6%	\$19,038	\$20,408
	11131	HYDRAULIC MODELING 14/15 DW	32.6%	\$14,344	\$20,375
	15428	WELL 53 SITE ACQUISITION & WELL DRILLING	32.6%	\$13,170	\$21,842
	11759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	32.6%	\$12,551	\$15,583
	11797	MARSH MITIGATION CREDIT INVENTORY	32.6%	\$10,171	\$12,779
	11665	SJM BUILDING CAMPUS MOLD REMEDIATION	16.3%	\$245	\$245
				<b>\$17,165,809</b>	<b>\$18,147,954</b>
<b>112 ET</b>					
	11747	BAKER WATER TREATMENT PLANT	3.3%	\$1,279,156	\$1,311,895
	11671	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - DW	100.0%	\$376,600	\$423,800
	11668	PA51 MARINE WAY DW ZN3	100.0%	\$344,700	\$412,400

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>112 ET</b>					
	11673	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - DW	100.0%	\$341,700	\$388,000
	11719	PA51 LN ST FROM C ST TO LY ST DW	100.0%	\$149,600	\$177,400
	11721	PA51 C ST FROM LQ ST TO O ST DW	100.0%	\$133,100	\$170,200
	11405	OPA / REGIONAL GROUNDWATER PROJECT	3.3%	\$116,741	\$121,793
	11687	RMS AT 3 DOMESTIC WATER RESERVOIRS	3.3%	\$61,644	\$66,010
	11723	PA51 LY ST FROM LQ ST TO IRVINE BLVD DW	100.0%	\$34,100	\$52,700
	11765	STOCKDALE STORAGE FOR RECOVERY CAPACITY	3.3%	\$29,347	\$31,436
	11645	STOCKDALE WEST RANCH JOINT BANKING PROJECT	3.3%	\$27,136	\$32,809
	11619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	3.3%	\$26,611	\$38,132
	11627	WELL 115 REPLACEMENT WELL/WELLHEAD & SITE ACQUIS.	1.9%	\$21,376	\$22,550
	11455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	3.3%	\$14,335	\$16,579
	11271	OCWD ANNEXATION FEE 14/15	3.3%	\$14,078	\$14,078
	10392	DATS & WELL 77 LEASE PAYMENT 14/15	3.3%	\$13,573	\$13,573
	11785	EL MODENA NTS POND INFILTRATION	3.3%	\$10,600	\$11,520
	11764	WATER BANKING AGREEMENTS 14/16	3.3%	\$7,979	\$20,173
	11794	STRAND RANCH WELL SETTING OPTIMIZATION/MONITORING	3.3%	\$7,468	\$7,963
	11056	ENG PLANNING STUDY RESERVE 14/15 DW	3.3%	\$6,534	\$11,418
	11648	GEN SYS MODS-DW 14/15	3.3%	\$6,280	\$7,626
	11779	EL MODENA INLET MODIFICATION	3.3%	\$5,155	\$6,075
	11792	EMBEDDED ENERGY PLAN	3.3%	\$5,095	\$6,141
	11748	WRMP UPDATE 14/15 DW	3.3%	\$4,356	\$8,019
	15051	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	3.3%	\$4,052	\$5,178
	11793	WATER BANKING PLANNING 14/15	3.3%	\$3,812	\$6,864
	11788	SJM CAMPUS PAVING	1.7%	\$2,498	\$2,713
	11787	COMPRESSED NATURAL GAS MOTOR FUEL	3.3%	\$2,267	\$2,389

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>112 ET</b>					
	11097	GIS SUPPORT APPLICATIONS 14/15	3.3%	\$1,980	\$3,109
	11289	STRAND RANCH FACILITIES AND MONITORING PROGRAM	3.3%	\$1,927	\$2,066
	11131	HYDRAULIC MODELING 14/15 DW	3.3%	\$1,452	\$2,063
	15428	WELL 53 SITE ACQUISITION & WELL DRILLING	3.3%	\$1,333	\$2,211
	11759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	3.3%	\$1,271	\$1,577
	11797	MARSH MITIGATION CREDIT INVENTORY	3.3%	\$1,030	\$1,294
	11665	SJM BUILDING CAMPUS MOLD REMEDIATION	1.7%	\$25	\$25
				<b>\$3,058,910</b>	<b>\$3,401,777</b>
<b>113 TU</b>					
	11747	BAKER WATER TREATMENT PLANT	3.0%	\$1,162,869	\$1,192,632
	11405	OPA / REGIONAL GROUNDWATER PROJECT	3.0%	\$106,128	\$110,721
	11687	RMS AT 3 DOMESTIC WATER RESERVOIRS	3.0%	\$56,040	\$60,009
	11469	GREAT PARK COORDINATION AND SAMP UPDATE	100.0%	\$47,500	\$74,100
	11746	TUSTIN LEGACY WARNER FROM ARMSTRONG TO LEGACY DW	100.0%	\$41,200	\$50,100
	11765	STOCKDALE STORAGE FOR RECOVERY CAPACITY	3.0%	\$26,679	\$28,578
	11645	STOCKDALE WEST RANCH JOINT BANKING PROJECT	3.0%	\$24,669	\$29,826
	11619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	3.0%	\$24,192	\$34,665
	11627	WELL 115 REPLACEMENT WELL/WELLHEAD & SITE ACQUIS.	1.8%	\$19,433	\$20,500
	11716	TUSTIN LEGACY WARNER - LEGACY TO TUSTIN RANCH DW	100.0%	\$19,300	\$22,500
	11455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	3.0%	\$13,032	\$15,072
	11271	OCWD ANNEXATION FEE 14/15	3.0%	\$12,798	\$12,798
	10392	DATS & WELL 77 LEASE PAYMENT 14/15	3.0%	\$12,339	\$12,339
	11785	EL MODENA NTS POND INFILTRATION	3.0%	\$9,636	\$10,473
	11764	WATER BANKING AGREEMENTS 14/16	3.0%	\$7,254	\$18,339

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>113 TU</b>					
	11794	STRAND RANCH WELL SETTING OPTIMIZATION/MONITORING	3.0%	\$6,789	\$7,239
	11056	ENG PLANNING STUDY RESERVE 14/15 DW	3.0%	\$5,940	\$10,380
	11648	GEN SYS MODS-DW 14/15	3.0%	\$5,709	\$6,933
	11779	EL MODENA INLET MODIFICATION	3.0%	\$4,686	\$5,523
	11792	EMBEDDED ENERGY PLAN	3.0%	\$4,632	\$5,583
	11748	WRMP UPDATE 14/15 DW	3.0%	\$3,960	\$7,290
	15051	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	3.0%	\$3,684	\$4,707
	11793	WATER BANKING PLANNING 14/15	3.0%	\$3,465	\$6,240
	11788	SJM CAMPUS PAVING	1.5%	\$2,271	\$2,466
	11379	LEGACY PARK TUSTIN RANCH ROAD	100.0%	\$2,100	\$2,100
	11787	COMPRESSED NATURAL GAS MOTOR FUEL	3.0%	\$2,061	\$2,172
	11097	GIS SUPPORT APPLICATIONS 14/15	3.0%	\$1,800	\$2,826
	11289	STRAND RANCH FACILITIES AND MONITORING PROGRAM	3.0%	\$1,752	\$1,878
	11714	TUSTIN LEGACY-TUSTIN RANCH, BARRANCA, ARMSTRONG DW	100.0%	\$1,600	\$1,600
	11131	HYDRAULIC MODELING 14/15 DW	3.0%	\$1,320	\$1,875
	15428	WELL 53 SITE ACQUISITION & WELL DRILLING	3.0%	\$1,212	\$2,010
	11759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	3.0%	\$1,155	\$1,434
	11797	MARSH MITIGATION CREDIT INVENTORY	3.0%	\$936	\$1,176
	11665	SJM BUILDING CAMPUS MOLD REMEDIATION	1.5%	\$23	\$23
				<b>\$1,638,163</b>	<b>\$1,766,107</b>
<b>125-DevID_Potable</b>					
	11747	BAKER WATER TREATMENT PLANT	47.5%	\$18,412,093	\$18,883,340
	11405	OPA / REGIONAL GROUNDWATER PROJECT	47.5%	\$1,680,360	\$1,753,083
	11687	RMS AT 3 DOMESTIC WATER RESERVOIRS	47.5%	\$887,300	\$950,143

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>125-DevID_Potable</b>					
	11765	STOCKDALE STORAGE FOR RECOVERY CAPACITY	47.5%	\$422,418	\$452,485
	11645	STOCKDALE WEST RANCH JOINT BANKING PROJECT	47.5%	\$390,593	\$472,245
	11619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	47.5%	\$383,040	\$548,863
	11627	WELL 115 REPLACEMENT WELL/WELLHEAD & SITE ACQUIS.	28.0%	\$307,686	\$324,586
	11455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	47.5%	\$206,340	\$238,640
	11271	OCWD ANNEXATION FEE 14/15	47.5%	\$202,635	\$202,635
	10392	DATS & WELL 77 LEASE PAYMENT 14/15	47.5%	\$195,368	\$195,368
	11785	EL MODENA NTS POND INFILTRATION	47.5%	\$152,570	\$165,823
	11764	WATER BANKING AGREEMENTS 14/16	47.5%	\$114,855	\$290,368
	11794	STRAND RANCH WELL SETTING OPTIMIZATION/MONITORING	47.5%	\$107,493	\$114,618
	11056	ENG PLANNING STUDY RESERVE 14/15 DW	47.5%	\$94,050	\$164,350
	11648	GEN SYS MODS-DW 14/15	47.5%	\$90,393	\$109,773
	11779	EL MODENA INLET MODIFICATION	47.5%	\$74,195	\$87,448
	11792	EMBEDDED ENERGY PLAN	47.5%	\$73,340	\$88,398
	11748	WRMP UPDATE 14/15 DW	47.5%	\$62,700	\$115,425
	15051	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	47.5%	\$58,330	\$74,528
	11793	WATER BANKING PLANNING 14/15	47.5%	\$54,863	\$98,800
	10917	NEWPORT COAST CP JOINT BONDING	100.0%	\$36,700	\$60,800
	11788	SJM CAMPUS PAVING	23.8%	\$35,958	\$39,045
	11787	COMPRESSED NATURAL GAS MOTOR FUEL	47.5%	\$32,633	\$34,390
	11097	GIS SUPPORT APPLICATIONS 14/15	47.5%	\$28,500	\$44,745
	11289	STRAND RANCH FACILITIES AND MONITORING PROGRAM	47.5%	\$27,740	\$29,735
	11131	HYDRAULIC MODELING 14/15 DW	47.5%	\$20,900	\$29,688
	15428	WELL 53 SITE ACQUISITION & WELL DRILLING	47.5%	\$19,190	\$31,825
	11759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	47.5%	\$18,288	\$22,705

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>125-DevID_Potable</b>					
	11797	MARSH MITIGATION CREDIT INVENTORY	47.5%	\$14,820	\$18,620
	11755	COASTAL ZN2 PRV MODIFICATION (DPR16)	100.0%	\$2,000	\$4,700
	11665	SJM BUILDING CAMPUS MOLD REMEDIATION	23.8%	\$356	\$356
				<b>\$24,207,703</b>	<b>\$25,647,522</b>
<b>153-FutDevID_Potable</b>					
	11747	BAKER WATER TREATMENT PLANT	11.1%	\$4,302,615	\$4,412,738
	10446	PA18 ZN 3-4 BPS	100.0%	\$1,670,600	\$1,700,600
	11405	OPA / REGIONAL GROUNDWATER PROJECT	11.1%	\$392,674	\$409,668
	11687	RMS AT 3 DOMESTIC WATER RESERVOIRS	11.1%	\$207,348	\$222,033
	11739	PA 18S HIDDEN CANYON 12" DW	100.0%	\$181,300	\$212,200
	30501	PA 6 NEIGHBORHOOD 4B 6" RW ZONE D	100.0%	\$100,900	\$132,900
	11765	STOCKDALE STORAGE FOR RECOVERY CAPACITY	11.1%	\$98,712	\$105,739
	11645	STOCKDALE WEST RANCH JOINT BANKING PROJECT	11.1%	\$91,275	\$110,356
	11619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	11.1%	\$89,510	\$128,261
	11717	PA 5B 12" ZONE 3 DW	100.0%	\$82,700	\$108,400
	11627	WELL 115 REPLACEMENT WELL/WELLHEAD & SITE ACQUIS.	6.5%	\$71,901	\$75,851
	11455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	11.1%	\$48,218	\$55,766
	11271	OCWD ANNEXATION FEE 14/15	11.1%	\$47,353	\$47,353
	10392	DATS & WELL 77 LEASE PAYMENT 14/15	11.1%	\$45,654	\$45,654
	10423	PA9 JEFFREY RD 12" ZN3 - IRVINE BLVD TO PORTOLA	100.0%	\$37,700	\$37,700
	11785	EL MODENA NTS POND INFILTRATION	11.1%	\$35,653	\$38,750
	11764	WATER BANKING AGREEMENTS 14/16	11.1%	\$26,840	\$67,854
	11794	STRAND RANCH WELL SETTING OPTIMIZATION/MONITORING	11.1%	\$25,119	\$26,784
	11056	ENG PLANNING STUDY RESERVE 14/15 DW	11.1%	\$21,978	\$38,406

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>153-FutDevID_Potable</b>					
	11648	GEN SYS MODS-DW 14/15	11.1%	\$21,123	\$25,652
	11779	EL MODENA INLET MODIFICATION	11.1%	\$17,338	\$20,435
	11792	EMBEDDED ENERGY PLAN	11.1%	\$17,138	\$20,657
	11748	WRMP UPDATE 14/15 DW	11.1%	\$14,652	\$26,973
	15051	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	11.1%	\$13,631	\$17,416
	11793	WATER BANKING PLANNING 14/15	11.1%	\$12,821	\$23,088
	11788	SJM CAMPUS PAVING	5.6%	\$8,403	\$9,124
	11787	COMPRESSED NATURAL GAS MOTOR FUEL	11.1%	\$7,626	\$8,036
	11097	GIS SUPPORT APPLICATIONS 14/15	11.1%	\$6,660	\$10,456
	11289	STRAND RANCH FACILITIES AND MONITORING PROGRAM	11.1%	\$6,482	\$6,949
	11131	HYDRAULIC MODELING 14/15 DW	11.1%	\$4,884	\$6,938
	15428	WELL 53 SITE ACQUISITION & WELL DRILLING	11.1%	\$4,484	\$7,437
	11759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	11.1%	\$4,274	\$5,306
	11797	MARSH MITIGATION CREDIT INVENTORY	11.1%	\$3,463	\$4,351
	11665	SJM BUILDING CAMPUS MOLD REMEDIATION	5.6%	\$83	\$83
				<b>\$7,721,114</b>	<b>\$8,169,915</b>
<b>154</b>					
	11747	BAKER WATER TREATMENT PLANT	0.4%	\$155,049	\$159,018
	11405	OPA / REGIONAL GROUNDWATER PROJECT	0.4%	\$14,150	\$14,763
	11687	RMS AT 3 DOMESTIC WATER RESERVOIRS	0.4%	\$7,472	\$8,001
	11765	STOCKDALE STORAGE FOR RECOVERY CAPACITY	0.4%	\$3,557	\$3,810
	11645	STOCKDALE WEST RANCH JOINT BANKING PROJECT	0.4%	\$3,289	\$3,977
	11619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	0.4%	\$3,226	\$4,622
	11627	WELL 115 REPLACEMENT WELL/WELLHEAD & SITE ACQUIS.	0.2%	\$2,591	\$2,733



ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>154</b>					
	11455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	0.4%	\$1,738	\$2,010
	11271	OCWD ANNEXATION FEE 14/15	0.4%	\$1,706	\$1,706
	10392	DATS & WELL 77 LEASE PAYMENT 14/15	0.4%	\$1,645	\$1,645
	11785	EL MODENA NTS POND INFILTRATION	0.4%	\$1,285	\$1,396
	11764	WATER BANKING AGREEMENTS 14/16	0.4%	\$967	\$2,445
	11794	STRAND RANCH WELL SETTING OPTIMIZATION/MONITORING	0.4%	\$905	\$965
	11056	ENG PLANNING STUDY RESERVE 14/15 DW	0.4%	\$792	\$1,384
	11648	GEN SYS MODS-DW 14/15	0.4%	\$761	\$924
	11779	EL MODENA INLET MODIFICATION	0.4%	\$625	\$736
	11792	EMBEDDED ENERGY PLAN	0.4%	\$618	\$744
	11748	WRMP UPDATE 14/15 DW	0.4%	\$528	\$972
	15051	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	0.4%	\$491	\$628
	11793	WATER BANKING PLANNING 14/15	0.4%	\$462	\$832
	11788	SJM CAMPUS PAVING	0.2%	\$303	\$329
	11787	COMPRESSED NATURAL GAS MOTOR FUEL	0.4%	\$275	\$290
	11097	GIS SUPPORT APPLICATIONS 14/15	0.4%	\$240	\$377
	11289	STRAND RANCH FACILITIES AND MONITORING PROGRAM	0.4%	\$234	\$250
	11131	HYDRAULIC MODELING 14/15 DW	0.4%	\$176	\$250
	15428	WELL 53 SITE ACQUISITION & WELL DRILLING	0.4%	\$162	\$268
	11759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	0.4%	\$154	\$191
	11797	MARSH MITIGATION CREDIT INVENTORY	0.4%	\$125	\$157
	11665	SJM BUILDING CAMPUS MOLD REMEDIATION	0.2%	\$3	\$3
				<b>\$203,528</b>	<b>\$215,428</b>

185-LF\_OSA

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>185-LF_OSA</b>					
	11747	BAKER WATER TREATMENT PLANT	1.6%	\$620,197	\$636,070
	11791	LAKE FOREST Z2-2RA PRV AT COMMERCENTRE	100.0%	\$95,900	\$114,400
	11405	OPA / REGIONAL GROUNDWATER PROJECT	1.6%	\$56,602	\$59,051
	11687	RMS AT 3 DOMESTIC WATER RESERVOIRS	1.6%	\$29,888	\$32,005
	11765	STOCKDALE STORAGE FOR RECOVERY CAPACITY	1.6%	\$14,229	\$15,242
	11645	STOCKDALE WEST RANCH JOINT BANKING PROJECT	1.6%	\$13,157	\$15,907
	11619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	1.6%	\$12,902	\$18,488
	11627	WELL 115 REPLACEMENT WELL/WELLHEAD & SITE ACQUIS.	0.9%	\$10,364	\$10,933
	11455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	1.6%	\$6,950	\$8,038
	11271	OCWD ANNEXATION FEE 14/15	1.6%	\$6,826	\$6,826
	10392	DATS & WELL 77 LEASE PAYMENT 14/15	1.6%	\$6,581	\$6,581
	11785	EL MODENA NTS POND INFILTRATION	1.6%	\$5,139	\$5,586
	11764	WATER BANKING AGREEMENTS 14/16	1.6%	\$3,869	\$9,781
	11794	STRAND RANCH WELL SETTING OPTIMIZATION/MONITORING	1.6%	\$3,621	\$3,861
	11056	ENG PLANNING STUDY RESERVE 14/15 DW	1.6%	\$3,168	\$5,536
	11648	GEN SYS MODS-DW 14/15	1.6%	\$3,045	\$3,698
	11779	EL MODENA INLET MODIFICATION	1.6%	\$2,499	\$2,946
	11792	EMBEDDED ENERGY PLAN	1.6%	\$2,470	\$2,978
	11748	WRMP UPDATE 14/15 DW	1.6%	\$2,112	\$3,888
	15051	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	1.6%	\$1,965	\$2,510
	11793	WATER BANKING PLANNING 14/15	1.6%	\$1,848	\$3,328
	11788	SJM CAMPUS PAVING	0.8%	\$1,211	\$1,315
	11787	COMPRESSED NATURAL GAS MOTOR FUEL	1.6%	\$1,099	\$1,158
	11097	GIS SUPPORT APPLICATIONS 14/15	1.6%	\$960	\$1,507
	11289	STRAND RANCH FACILITIES AND MONITORING PROGRAM	1.6%	\$934	\$1,002

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>185-LF_OSA</b>					
	11131	HYDRAULIC MODELING 14/15 DW	1.6%	\$704	\$1,000
	15428	WELL 53 SITE ACQUISITION & WELL DRILLING	1.6%	\$646	\$1,072
	11759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	1.6%	\$616	\$765
	11797	MARSH MITIGATION CREDIT INVENTORY	1.6%	\$499	\$627
	11665	SJM BUILDING CAMPUS MOLD REMEDIATION	0.8%	\$12	\$12
				<b>\$910,014</b>	<b>\$976,110</b>
<b>188</b>					
	11747	BAKER WATER TREATMENT PLANT	0.5%	\$193,812	\$198,772
	11405	OPA / REGIONAL GROUNDWATER PROJECT	0.5%	\$17,688	\$18,454
	11687	RMS AT 3 DOMESTIC WATER RESERVOIRS	0.5%	\$9,340	\$10,002
	11765	STOCKDALE STORAGE FOR RECOVERY CAPACITY	0.5%	\$4,447	\$4,763
	11645	STOCKDALE WEST RANCH JOINT BANKING PROJECT	0.5%	\$4,112	\$4,971
	11619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	0.5%	\$4,032	\$5,778
	11627	WELL 115 REPLACEMENT WELL/WELLHEAD & SITE ACQUIS.	0.3%	\$3,239	\$3,417
	11455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	0.5%	\$2,172	\$2,512
	11271	OCWD ANNEXATION FEE 14/15	0.5%	\$2,133	\$2,133
	10392	DATS & WELL 77 LEASE PAYMENT 14/15	0.5%	\$2,057	\$2,057
	11785	EL MODENA NTS POND INFILTRATION	0.5%	\$1,606	\$1,746
	11764	WATER BANKING AGREEMENTS 14/16	0.5%	\$1,209	\$3,057
	11794	STRAND RANCH WELL SETTING OPTIMIZATION/MONITORING	0.5%	\$1,132	\$1,207
	11056	ENG PLANNING STUDY RESERVE 14/15 DW	0.5%	\$990	\$1,730
	11648	GEN SYS MODS-DW 14/15	0.5%	\$952	\$1,156
	11779	EL MODENA INLET MODIFICATION	0.5%	\$781	\$921
	11792	EMBEDDED ENERGY PLAN	0.5%	\$772	\$931

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>188</b>					
	11748	WRMP UPDATE 14/15 DW	0.5%	\$660	\$1,215
	15051	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	0.5%	\$614	\$785
	11793	WATER BANKING PLANNING 14/15	0.5%	\$578	\$1,040
	11788	SJM CAMPUS PAVING	0.3%	\$379	\$411
	11787	COMPRESSED NATURAL GAS MOTOR FUEL	0.5%	\$344	\$362
	11097	GIS SUPPORT APPLICATIONS 14/15	0.5%	\$300	\$471
	11289	STRAND RANCH FACILITIES AND MONITORING PROGRAM	0.5%	\$292	\$313
	11131	HYDRAULIC MODELING 14/15 DW	0.5%	\$220	\$313
	15428	WELL 53 SITE ACQUISITION & WELL DRILLING	0.5%	\$202	\$335
	11759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	0.5%	\$193	\$239
	11797	MARSH MITIGATION CREDIT INVENTORY	0.5%	\$156	\$196
	11665	SJM BUILDING CAMPUS MOLD REMEDIATION	0.3%	\$4	\$4
				<b>\$254,411</b>	<b>\$269,284</b>
<b>201-Rep</b>					
	21146	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	57.1%	\$29,902,870	\$30,774,673
	21615	UTILITY BILLING ORACLE CC AND B IMPLEMENTATION	100.0%	\$2,450,800	\$2,685,300
	21209	LAWRP PONDS BIOSOLIDS REMOVAL & DISPOSAL	100.0%	\$1,779,900	\$1,946,500
	20812	OCSO SOLIDS HANDLING 14/15	57.1%	\$794,261	\$794,261
	31703	MECH & ELEC SYS REPLACEMENT - RW 14/15	100.0%	\$440,000	\$440,000
	21711	ID CONSOLIDATION PROJECT ACCOUNTING IMPLEMENTATION	100.0%	\$412,900	\$551,800
	21703	MECH & ELEC SYS REPLACEMENT - SEWER 14/15	100.0%	\$400,000	\$400,000
	31646	SERVICE LINE, VALVE & MAIN REPLACEMENT-RW 14/15	100.0%	\$342,100	\$360,600
	30402	WELL REHAB PROGRAM RW 13/14 THRU 15/16	100.0%	\$340,200	\$394,600
	20914	MWRP SYS REPLACEMENTS 14/15	100.0%	\$332,200	\$335,900

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>201-Rep</b>					
	21182	PLANO LIFT STATION FORCE MAIN RELOCATION (SMWD)	100.0%	\$293,600	\$299,600
	21166	2014 SEWER REHABILITATION	100.0%	\$293,200	\$355,200
	21781	PORTABLE DIESEL GENERATOR REPLACEMENT - SEWER	100.0%	\$293,100	\$293,100
	31781	PORTABLE DIESEL GENERATOR REPLACEMENT - RW	100.0%	\$293,100	\$293,100
	21761	2014 IRVINE ANNUAL ST REHAB, SEWER	100.0%	\$277,200	\$295,700
	30482	WELL 78 SPARE PUMP AND MOTOR PURCHASE	100.0%	\$276,100	\$276,100
	21646	SEWER LATERAL & MAIN REPLACEMENT 14/15	100.0%	\$218,900	\$237,400
	21142	MWRP SECONDARY REHABILITATION	100.0%	\$169,500	\$280,500
	21010	LAWRP SYSTEM REPLACEMENTS 14/15	100.0%	\$132,000	\$132,000
	30381	SAN JOAQUIN RESERVOIR LINER REPLACEMENT	100.0%	\$124,800	\$186,100
	20947	RAISE MANHOLES TO GRADE 14/15 UNDER RA	100.0%	\$110,000	\$110,000
	30502	WEIR CANYON VALVE VAULT PLC UPGRADE	100.0%	\$102,300	\$116,300
	30463	SJR LINER DEPRESSION REPAIR	100.0%	\$95,200	\$141,500
	31649	CSR METER REPLACEMENT-RW 14/15	100.0%	\$57,200	\$60,900
	21598	HQ LIGHTING RETROFIT & CEILING REPLACE	100.0%	\$56,500	\$83,100
	31653	1" TO 2" METER REPLACEMENT-RW 14/15	100.0%	\$54,500	\$68,400
	30556	CPTS RESTORE AND INSTALL	100.0%	\$49,500	\$77,300
	21119	SOCWA ETM CROSSING PROTECTION	100.0%	\$47,500	\$71,100
	21053	CHIQUITA GENERAL SYSTEM MODIFICATIONS 14/15	100.0%	\$44,000	\$44,000
	31761	2014 IRVINE ANNUAL ST REHAB, RW	100.0%	\$39,600	\$48,900
	31647	RAISE RW SYSTEM VALVES 14/15 UNDER RA	100.0%	\$38,500	\$47,800
	21164	MICHELSON LIFT STATION RELOCATION	100.0%	\$34,500	\$98,300
	21205	MAINTENANCE ACCESS FOR FOUR SEWER REACHES	100.0%	\$31,700	\$46,600
	21169	SMH RING/COVER REPLACEMENT (24 SMH)	100.0%	\$31,700	\$46,600
	21071	LAWRP BIOSOLIDS FACILITY	100.0%	\$29,400	\$34,800

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>201-Rep</b>					
	30453	LAGUNA CANYON RD RW PIPELINE CORROSION REPLACE	100.0%	\$26,600	\$38,800
	30495	RATTLESNAKE BPS PUMP REPLACEMENT	100.0%	\$24,800	\$27,400
	21786	ASPHALT REPAIR - SEWER 14/15	100.0%	\$23,100	\$25,000
	31786	ASPHALT REPAIR - RW 14/15	100.0%	\$23,100	\$25,000
	21642	PLANNING AND BUDGETING SOFTWARE REPLACEMENT	100.0%	\$18,000	\$18,800
	21167	FPS 2 ROOF REPLACEMENT	100.0%	\$15,400	\$21,500
	21168	NEWPORT COAST SLS RECOATING	100.0%	\$12,800	\$19,400
	31598	HQ LIGHTING RETROFIT & CEILING REPLACE	100.0%	\$12,700	\$19,900
	30455	SJR ACTUATOR REPAIR/REPLACEMENT	100.0%	\$7,800	\$20,900
	30481	LAWRP STANDBY GENERATOR NO. 3 REPLACEMENT	100.0%	\$6,500	\$17,400
	30391	LAWRP TERTIARY FACILITY REPAIR AND RECOATING	100.0%	\$3,500	\$9,400
	20190	LAKE FOREST SEWER MUIRLANDS, EL TORO TO LAWRP	100.0%	\$2,900	\$7,400
	21181	MAIN ST DIVERSION STRUCTURE GROUND SETTLING	100.0%	\$2,900	\$7,400
				<b>\$40,568,931</b>	<b>\$42,686,334</b>
<b>210</b>					
	21146	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	14.2%	\$7,436,388	\$7,653,192
	21163	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	33.1%	\$849,545	\$903,299
	20115	OCSD CORF 14/15	33.1%	\$530,063	\$530,063
	21619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	33.1%	\$266,918	\$382,471
	20589	OCSD EQUITY 14/15	33.1%	\$244,510	\$244,510
	30435	RATTLESNAKE CHLORINE GAS REMOVAL	14.6%	\$230,184	\$250,098
	20812	OCSD SOLIDS HANDLING 14/15	14.2%	\$197,521	\$197,521
	21748	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	33.1%	\$190,921	\$252,057
	30487	PA 18S HIDDEN CANYON 36" RW PIPELINE	14.6%	\$167,564	\$181,595

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>210</b>					
	20114	OCSO CORF 13/14	33.1%	\$125,085	\$125,085
	21191	OPS DATABASE MANAGEMENT SYSTEM	33.1%	\$114,692	\$123,893
	20959	SEWER GEN SYS MODS 14/15	33.1%	\$109,230	\$109,230
	21455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	33.1%	\$66,432	\$72,092
	21188	WATER RECYCLING PLANT MASTER PLAN UPDATE 2014-16	33.1%	\$60,242	\$80,499
	21056	ENG PLANNING STUDY RESERVE 14/15 SEWER	33.1%	\$56,800	\$103,338
	30420	PA 5B 36" ZONE A RW	14.6%	\$44,267	\$52,998
	30496	ILP NORTH CONVERSION (RATTLESNAKE TO PETERS CYN)	14.6%	\$38,559	\$53,378
	31056	ENG PLANNING STUDY RESERVE 14/15 RW	14.6%	\$25,696	\$41,902
	30499	EMBEDDED ENERGY PLAN	14.6%	\$22,542	\$27,171
	20214	MWRP EXPANSION PHASE II	33.1%	\$20,820	\$21,283
	21097	GIS SUPPORT APPLICATIONS 14/15	33.1%	\$19,860	\$31,180
	31748	WRMP UPDATE 14/15 RW	14.6%	\$19,272	\$35,478
	30422	PA9 JEFFREY RD PIPELINES, 36" ZNA, 36" SYPHON	14.6%	\$18,119	\$18,119
	30380	SALT MANAGEMENT PLAN DEVELOPMENT	14.6%	\$16,732	\$21,798
	30331	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	14.6%	\$16,221	\$20,717
	21131	HYDRAULIC MODELING 14/15 SEWER	33.1%	\$14,564	\$20,688
	31384	HYDRAULIC MODEL UPDATE / CALIBRATION - NONPOTABLE	14.6%	\$12,921	\$16,250
	21759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	33.1%	\$12,744	\$15,822
	31648	GEN SYS MODS-RW 14/15	14.6%	\$12,045	\$15,301
	30366	TECHNOLOGY WAY ZONE "B" TRANSMISSION MAIN	14.6%	\$11,330	\$11,943
	30461	SJR SEISMIC RE-EVALUATION (DSOD REQ'T)	14.6%	\$10,921	\$15,607
	31097	GIS SUPPORT APPLICATIONS 14/15	14.6%	\$8,760	\$13,753
	30415	CATHODIC PROTECTION FOR GAP PIPE SEGMENT	14.6%	\$7,037	\$8,672
	31131	HYDRAULIC MODELING 14/15 RW	14.6%	\$6,424	\$9,125

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>210</b>					
	30214	MWRP EXPANSION PHASE II	14.6%	\$5,971	\$6,117
	31759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	14.6%	\$5,621	\$6,979
	30408	MULTI-ZONE REGIONAL PS - ZONE A TO SYPHON	14.6%	\$3,708	\$5,709
	21170	SJM SLS UPGRADE	33.1%	\$3,343	\$5,726
	30517	LAKE FOREST CONTROL AND TELEMETRY SYS REPLACEMENT	14.6%	\$1,781	\$3,095
	20468	FOOTHILL SEWER DIVERSION TO LAWRP	33.1%	\$1,324	\$3,476
	21147	LAWRP SYSTEM UPGRADES	33.1%	\$828	\$2,218
	30382	SYPHON RESERVOIR EXPANSION	14.6%	\$467	\$803
	30390	PA9B RW AND SYPHON LATERAL PIPELINE, PH3	14.6%	\$380	\$380
	20588	OCSO EQUITY 13/14	33.1%	\$33	\$33
				<b>\$11,008,382</b>	<b>\$11,694,662</b>
<b>212 ET</b>					
	21723	PA51 LY ST FROM LQ ST TO IRVINE BLVD SEWER	100.0%	\$1,450,600	\$1,598,600
	21154	PA51 REACH A SEWER IMPROVMENTS	100.0%	\$1,200,900	\$1,301,500
	21141	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - SEWER	100.0%	\$793,200	\$904,200
	31723	PA51 LY ST FROM LQ ST TO IRVINE BLVD RW	100.0%	\$782,600	\$949,100
	21146	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	1.5%	\$763,859	\$786,129
	30394	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - RW	100.0%	\$331,000	\$405,100
	21165	PA51 C ST FROM LV ST TO TRABUCO SEWER	100.0%	\$309,300	\$383,300
	21158	PA51 C ST FROM TRABUCO RD TO LQ ST SEWER	100.0%	\$288,700	\$344,300
	31159	PA51 LV ST FROM RIDGE VALLEY TO LY ST 12" RW	100.0%	\$265,200	\$320,700
	21159	PA51 LV ST FROM RIDGE VALLEY TO LY ST 18" SEWER	100.0%	\$254,200	\$309,700
	31721	PA51 C ST FROM LQ ST TO O ST RW	100.0%	\$232,100	\$269,200
	21671	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - SS	100.0%	\$225,400	\$260,800



ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>212 ET</b>					
	21156	PA51 LQ ST FROM O ST TO LY ST SEWER	100.0%	\$215,600	\$243,400
	30388	PA51 MARINE WAY RW ZNB	100.0%	\$209,500	\$252,600
	21139	PA51 REACH B SEWER, OCTA R/W TO LV ST	100.0%	\$174,400	\$197,300
	30435	RATTLESNAKE CHLORINE GAS REMOVAL	10.7%	\$168,696	\$183,291
	30427	PA51 LY ST FROM TRABUCO RD TO LQ ST RW	100.0%	\$166,100	\$212,400
	30487	PA 18S HIDDEN CANYON 36" RW PIPELINE	10.7%	\$122,804	\$133,087
	31671	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - RW	100.0%	\$99,000	\$116,700
	21163	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	3.4%	\$87,264	\$92,786
	31719	PA51 LN ST FROM C ST TO LY ST RW	100.0%	\$85,800	\$108,000
	31156	PA51 LQ ST FROM O ST TO LY ST RW	100.0%	\$63,800	\$76,800
	20115	OCSO CORF 14/15	3.4%	\$54,448	\$54,448
	30393	PA51 REACH B RW, OCTA R/W TO LV ST	100.0%	\$44,100	\$44,100
	30420	PA 5B 36" ZONE A RW	10.7%	\$32,442	\$38,841
	30496	ILP NORTH CONVERSION (RATTLESNAKE TO PETERS CYN)	10.7%	\$28,259	\$39,119
	21619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	3.4%	\$27,418	\$39,287
	20589	OCSO EQUITY 14/15	3.4%	\$25,116	\$25,116
	20812	OCSO SOLIDS HANDLING 14/15	1.5%	\$20,289	\$20,289
	21748	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	3.4%	\$19,611	\$25,891
	31056	ENG PLANNING STUDY RESERVE 14/15 RW	10.7%	\$18,832	\$30,709
	30499	EMBEDDED ENERGY PLAN	10.7%	\$16,521	\$19,913
	30410	MULTI-ZONE REGIONAL PS - ZONE C	50.5%	\$14,847	\$21,766
	31748	WRMP UPDATE 14/15 RW	10.7%	\$14,124	\$26,001
	30422	PA9 JEFFREY RD PIPELINES, 36" ZNA, 36" SYPHON	10.7%	\$13,279	\$13,279
	20114	OCSO CORF 13/14	3.4%	\$12,849	\$12,849
	30409	MULTI-ZONE REGIONAL PS - ZONE B	54.2%	\$12,358	\$19,783

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>212 ET</b>					
	30380	SALT MANAGEMENT PLAN DEVELOPMENT	10.7%	\$12,262	\$15,975
	30331	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	10.7%	\$11,888	\$15,183
	21191	OPS DATABASE MANAGEMENT SYSTEM	3.4%	\$11,781	\$12,726
	20959	SEWER GEN SYS MODS 14/15	3.4%	\$11,220	\$11,220
	31384	HYDRAULIC MODEL UPDATE / CALIBRATION - NONPOTABLE	10.7%	\$9,470	\$11,909
	31648	GEN SYS MODS-RW 14/15	10.7%	\$8,828	\$11,214
	30366	TECHNOLOGY WAY ZONE "B" TRANSMISSION MAIN	10.7%	\$8,303	\$8,753
	30461	SJR SEISMIC RE-EVALUATION (DSOD REQ'T)	10.7%	\$8,004	\$11,438
	21455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	3.4%	\$6,824	\$7,405
	31097	GIS SUPPORT APPLICATIONS 14/15	10.7%	\$6,420	\$10,079
	21188	WATER RECYCLING PLANT MASTER PLAN UPDATE 2014-16	3.4%	\$6,188	\$8,269
	21056	ENG PLANNING STUDY RESERVE 14/15 SEWER	3.4%	\$5,834	\$10,615
	30415	CATHODIC PROTECTION FOR GAP PIPE SEGMENT	10.7%	\$5,157	\$6,356
	31131	HYDRAULIC MODELING 14/15 RW	10.7%	\$4,708	\$6,688
	30214	MWRP EXPANSION PHASE II	10.7%	\$4,376	\$4,483
	31759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	10.7%	\$4,120	\$5,115
	30408	MULTI-ZONE REGIONAL PS - ZONE A TO SYPHON	10.7%	\$2,718	\$4,184
	21379	LEGACY PARK TUSTIN RANCH ROAD	100.0%	\$2,300	\$2,300
	20214	MWRP EXPANSION PHASE II	3.4%	\$2,139	\$2,186
	21097	GIS SUPPORT APPLICATIONS 14/15	3.4%	\$2,040	\$3,203
	21131	HYDRAULIC MODELING 14/15 SEWER	3.4%	\$1,496	\$2,125
	21759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	3.4%	\$1,309	\$1,625
	30517	LAKE FOREST CONTROL AND TELEMETRY SYS REPLACEMENT	10.7%	\$1,305	\$2,268
	21170	SJM SLS UPGRADE	3.4%	\$343	\$588
	30382	SYPHON RESERVOIR EXPANSION	10.7%	\$342	\$589

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>212 ET</b>					
	30390	PA9B RW AND SYPHON LATERAL PIPELINE, PH3	10.7%	\$278	\$278
	20468	FOOTHILL SEWER DIVERSION TO LAWRP	3.4%	\$136	\$357
	21147	LAWRP SYSTEM UPGRADES	3.4%	\$85	\$228
	20588	OCS D EQUITY 13/14	3.4%	\$3	\$3
				<b>\$8,784,392</b>	<b>\$10,057,743</b>
<b>213 TU</b>					
	21146	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	1.5%	\$763,859	\$786,129
	30447	TUSTIN LEGACY ARMSTRONG ZONE A & WARNER ZONE A RW	100.0%	\$529,100	\$617,800
	31746	TUSTIN LEGACY WARNER FROM ARMSTRONG TO LEGACY RW	100.0%	\$185,800	\$222,800
	21163	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	3.4%	\$87,264	\$92,786
	30435	RATTLESNAKE CHLORINE GAS REMOVAL	4.1%	\$64,641	\$70,233
	20115	OCS D CORF 14/15	3.4%	\$54,448	\$54,448
	21469	GREAT PARK COORDINATION AND SAMP UPDATE	100.0%	\$47,500	\$74,100
	30487	PA 18S HIDDEN CANYON 36" RW PIPELINE	4.1%	\$47,056	\$50,996
	21619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	3.4%	\$27,418	\$39,287
	20589	OCS D EQUITY 14/15	3.4%	\$25,116	\$25,116
	31716	TUSTIN LEGACY WARNER - LEGACY TO TUSTIN RANCH RW	100.0%	\$20,500	\$23,700
	20812	OCS D SOLIDS HANDLING 14/15	1.5%	\$20,289	\$20,289
	21748	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	3.4%	\$19,611	\$25,891
	20114	OCS D CORF 13/14	3.4%	\$12,849	\$12,849
	30420	PA 5B 36" ZONE A RW	4.1%	\$12,431	\$14,883
	21191	OPS DATABASE MANAGEMENT SYSTEM	3.4%	\$11,781	\$12,726
	20959	SEWER GEN SYS MODS 14/15	3.4%	\$11,220	\$11,220
	30496	ILP NORTH CONVERSION (RATTLESNAKE TO PETERS CYN)	4.1%	\$10,828	\$14,990

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>213 TU</b>					
	31056	ENG PLANNING STUDY RESERVE 14/15 RW	4.1%	\$7,216	\$11,767
	21455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	3.4%	\$6,824	\$7,405
	30499	EMBEDDED ENERGY PLAN	4.1%	\$6,330	\$7,630
	21188	WATER RECYCLING PLANT MASTER PLAN UPDATE 2014-16	3.4%	\$6,188	\$8,269
	21056	ENG PLANNING STUDY RESERVE 14/15 SEWER	3.4%	\$5,834	\$10,615
	31748	WRMP UPDATE 14/15 RW	4.1%	\$5,412	\$9,963
	30422	PA9 JEFFREY RD PIPELINES, 36" ZNA, 36" SYPHON	4.1%	\$5,088	\$5,088
	30380	SALT MANAGEMENT PLAN DEVELOPMENT	4.1%	\$4,699	\$6,121
	30331	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	4.1%	\$4,555	\$5,818
	31384	HYDRAULIC MODEL UPDATE / CALIBRATION - NONPOTABLE	4.1%	\$3,629	\$4,563
	31714	TUSIN LEGACY-TUSTIN RANCH, BARRANCA & ARMSTRONG RW	100.0%	\$3,500	\$3,500
	31648	GEN SYS MODS-RW 14/15	4.1%	\$3,383	\$4,297
	30366	TECHNOLOGY WAY ZONE "B" TRANSMISSION MAIN	4.1%	\$3,182	\$3,354
	30461	SJR SEISMIC RE-EVALUATION (DSOD REQ'T)	4.1%	\$3,067	\$4,383
	31379	LEGACY PARK TUSTIN RANCH ROAD	100.0%	\$2,500	\$2,500
	31097	GIS SUPPORT APPLICATIONS 14/15	4.1%	\$2,460	\$3,862
	21153	TUSTIN LEGACY - LEGACY VILLAS SEWER	100.0%	\$2,300	\$2,300
	20214	MWRP EXPANSION PHASE II	3.4%	\$2,139	\$2,186
	21097	GIS SUPPORT APPLICATIONS 14/15	3.4%	\$2,040	\$3,203
	30415	CATHODIC PROTECTION FOR GAP PIPE SEGMENT	4.1%	\$1,976	\$2,435
	31131	HYDRAULIC MODELING 14/15 RW	4.1%	\$1,804	\$2,563
	30214	MWRP EXPANSION PHASE II	4.1%	\$1,677	\$1,718
	31759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	4.1%	\$1,579	\$1,960
	21131	HYDRAULIC MODELING 14/15 SEWER	3.4%	\$1,496	\$2,125
	21759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	3.4%	\$1,309	\$1,625

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>213 TU</b>					
	30408	MULTI-ZONE REGIONAL PS - ZONE A TO SYPHON	4.1%	\$1,041	\$1,603
	30517	LAKE FOREST CONTROL AND TELEMETRY SYS REPLACEMENT	4.1%	\$500	\$869
	21170	SJM SLS UPGRADE	3.4%	\$343	\$588
	20468	FOOTHILL SEWER DIVERSION TO LAWRP	3.4%	\$136	\$357
	30382	SYPHON RESERVOIR EXPANSION	4.1%	\$131	\$226
	30390	PA9B RW AND SYPHON LATERAL PIPELINE, PH3	4.1%	\$107	\$107
	21147	LAWRP SYSTEM UPGRADES	3.4%	\$85	\$228
	20588	OCSD EQUITY 13/14	3.4%	\$3	\$3
				<b>\$2,044,242</b>	<b>\$2,293,472</b>
<b>225-DevID_Potable</b>					
	21146	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	20.8%	\$10,896,218	\$11,213,892
	21163	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	48.5%	\$1,244,801	\$1,323,565
	30435	RATTLESNAKE CHLORINE GAS REMOVAL	51.0%	\$804,066	\$873,630
	20115	OCSD CORF 14/15	48.5%	\$776,679	\$776,679
	30487	PA 18S HIDDEN CANYON 36" RW PIPELINE	51.0%	\$585,327	\$634,338
	21619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	48.5%	\$391,104	\$560,418
	20589	OCSD EQUITY 14/15	48.5%	\$358,270	\$358,270
	20812	OCSD SOLIDS HANDLING 14/15	20.8%	\$289,418	\$289,418
	21748	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	48.5%	\$279,748	\$369,328
	20114	OCSD CORF 13/14	48.5%	\$183,282	\$183,282
	30491	OPA NON-POTABLE PIPELINE	100.0%	\$178,700	\$225,100
	21191	OPS DATABASE MANAGEMENT SYSTEM	48.5%	\$168,053	\$181,536
	20959	SEWER GEN SYS MODS 14/15	48.5%	\$160,050	\$160,050
	30420	PA 5B 36" ZONE A RW	51.0%	\$154,632	\$185,130

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>225-DevID_Potable</b>					
	30496	ILP NORTH CONVERSION (RATTLESNAKE TO PETERS CYN)	51.0%	\$134,691	\$186,456
	21455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	48.5%	\$97,340	\$105,633
	31056	ENG PLANNING STUDY RESERVE 14/15 RW	51.0%	\$89,760	\$146,370
	21188	WATER RECYCLING PLANT MASTER PLAN UPDATE 2014-16	48.5%	\$88,270	\$117,952
	21056	ENG PLANNING STUDY RESERVE 14/15 SEWER	48.5%	\$83,226	\$151,417
	30499	EMBEDDED ENERGY PLAN	51.0%	\$78,744	\$94,911
	31748	WRMP UPDATE 14/15 RW	51.0%	\$67,320	\$123,930
	30422	PA9 JEFFREY RD PIPELINES, 36" ZNA, 36" SYPHON	51.0%	\$63,291	\$63,291
	30380	SALT MANAGEMENT PLAN DEVELOPMENT	51.0%	\$58,446	\$76,143
	30331	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	51.0%	\$56,661	\$72,369
	31384	HYDRAULIC MODEL UPDATE / CALIBRATION - NONPOTABLE	51.0%	\$45,135	\$56,763
	31648	GEN SYS MODS-RW 14/15	51.0%	\$42,075	\$53,448
	30366	TECHNOLOGY WAY ZONE "B" TRANSMISSION MAIN	51.0%	\$39,576	\$41,718
	30461	SJR SEISMIC RE-EVALUATION (DSOD REQ'T)	51.0%	\$38,148	\$54,519
	31097	GIS SUPPORT APPLICATIONS 14/15	51.0%	\$30,600	\$48,042
	20214	MWRP EXPANSION PHASE II	48.5%	\$30,507	\$31,186
	21097	GIS SUPPORT APPLICATIONS 14/15	48.5%	\$29,100	\$45,687
	30415	CATHODIC PROTECTION FOR GAP PIPE SEGMENT	51.0%	\$24,582	\$30,294
	31131	HYDRAULIC MODELING 14/15 RW	51.0%	\$22,440	\$31,875
	21131	HYDRAULIC MODELING 14/15 SEWER	48.5%	\$21,340	\$30,313
	30214	MWRP EXPANSION PHASE II	51.0%	\$20,859	\$21,369
	31759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	51.0%	\$19,635	\$24,378
	21759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	48.5%	\$18,673	\$23,183
	30408	MULTI-ZONE REGIONAL PS - ZONE A TO SYPHON	51.0%	\$12,954	\$19,941
	30410	MULTI-ZONE REGIONAL PS - ZONE C	27.8%	\$8,173	\$11,982

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>225-DevID_Potable</b>					
	30517	LAKE FOREST CONTROL AND TELEMETRY SYS REPLACEMENT	51.0%	\$6,222	\$10,812
	30409	MULTI-ZONE REGIONAL PS - ZONE B	23.1%	\$5,267	\$8,432
	21170	SJM SLS UPGRADE	48.5%	\$4,899	\$8,391
	20468	FOOTHILL SEWER DIVERSION TO LAWRP	48.5%	\$1,940	\$5,093
	30382	SYPHON RESERVOIR EXPANSION	51.0%	\$1,632	\$2,805
	30390	PA9B RW AND SYPHON LATERAL PIPELINE, PH3	51.0%	\$1,326	\$1,326
	21147	LAWRP SYSTEM UPGRADES	48.5%	\$1,213	\$3,250
	20588	OCSO EQUITY 13/14	48.5%	\$49	\$49
				<b>\$17,714,438</b>	<b>\$19,037,958</b>
<b>240</b>					
	30435	RATTLESNAKE CHLORINE GAS REMOVAL	7.7%	\$121,398	\$131,901
	30487	PA 18S HIDDEN CANYON 36" RW PIPELINE	7.7%	\$88,373	\$95,773
	30917	NEWPORT COAST CP JOINT BONDING	100.0%	\$44,400	\$75,700
	30420	PA 5B 36" ZONE A RW	7.7%	\$23,346	\$27,951
	30496	ILP NORTH CONVERSION (RATTLESNAKE TO PETERS CYN)	7.7%	\$20,336	\$28,151
	31056	ENG PLANNING STUDY RESERVE 14/15 RW	7.7%	\$13,552	\$22,099
	30499	EMBEDDED ENERGY PLAN	7.7%	\$11,889	\$14,330
	20410	NEWPORT COAST CP JOINT BONDING	100.0%	\$10,900	\$17,900
	31748	WRMP UPDATE 14/15 RW	7.7%	\$10,164	\$18,711
	30422	PA9 JEFFREY RD PIPELINES, 36" ZNA, 36" SYPHON	7.7%	\$9,556	\$9,556
	30380	SALT MANAGEMENT PLAN DEVELOPMENT	7.7%	\$8,824	\$11,496
	30331	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	7.7%	\$8,555	\$10,926
	31384	HYDRAULIC MODEL UPDATE / CALIBRATION - NONPOTABLE	7.7%	\$6,815	\$8,570
	31648	GEN SYS MODS-RW 14/15	7.7%	\$6,353	\$8,070

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>240</b>					
	30366	TECHNOLOGY WAY ZONE "B" TRANSMISSION MAIN	7.7%	\$5,975	\$6,299
	30461	SJR SEISMIC RE-EVALUATION (DSOD REQ'T)	7.7%	\$5,760	\$8,231
	31097	GIS SUPPORT APPLICATIONS 14/15	7.7%	\$4,620	\$7,253
	30415	CATHODIC PROTECTION FOR GAP PIPE SEGMENT	7.7%	\$3,711	\$4,574
	31131	HYDRAULIC MODELING 14/15 RW	7.7%	\$3,388	\$4,813
	30214	MWRP EXPANSION PHASE II	7.7%	\$3,149	\$3,226
	31759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	7.7%	\$2,965	\$3,681
	30408	MULTI-ZONE REGIONAL PS - ZONE A TO SYPHON	7.7%	\$1,956	\$3,011
	30517	LAKE FOREST CONTROL AND TELEMETRY SYS REPLACEMENT	7.7%	\$939	\$1,632
	30382	SYPHON RESERVOIR EXPANSION	7.7%	\$246	\$424
	30390	PA9B RW AND SYPHON LATERAL PIPELINE, PH3	7.7%	\$200	\$200
				<b>\$417,369</b>	<b>\$524,477</b>
<b>253-FutDevID_Sewer</b>					
	21146	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	4.1%	\$2,156,777	\$2,219,657
	30446	PA18 ZN B-C BPS	100.0%	\$1,091,200	\$1,121,200
	30429	PA5B PHASE 1B 36" ZNA RW	100.0%	\$441,100	\$533,700
	30426	PA 6 PHASE 1 NEIGHBORHOOD 3 ZONE C RW	100.0%	\$307,800	\$374,400
	21163	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	9.6%	\$246,394	\$261,984
	31739	PA 18S HIDDEN CANYON 6" & 8" RW	100.0%	\$181,300	\$212,200
	30435	RATTLESNAKE CHLORINE GAS REMOVAL	10.3%	\$162,390	\$176,439
	20115	OCSO CORF 14/15	9.6%	\$153,734	\$153,734
	30487	PA 18S HIDDEN CANYON 36" RW PIPELINE	10.3%	\$118,213	\$128,111
	30428	PA1 ORCHARD HILLS NH 2 - 6" ZNB & 6" ZNC RW	100.0%	\$105,000	\$142,100
	31717	PA 5B 6" & 8" ZONE B RW & 6" ZONE C RW	100.0%	\$87,700	\$109,000



ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>253-FutDevID_Sewer</b>					
	21619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	9.6%	\$77,414	\$110,928
	20589	OCSO EQUITY 14/15	9.6%	\$70,915	\$70,915
	30449	PA1 ORCHARD HILLS 6" ZNC RW	100.0%	\$67,300	\$85,900
	20812	OCSO SOLIDS HANDLING 14/15	4.1%	\$57,287	\$57,287
	21748	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	9.6%	\$55,373	\$73,104
	30797	PA6 RW PIPELINES	100.0%	\$54,200	\$58,000
	30389	PA9 JEFFREY RD PIPELINES, ZNB AND ZNC	100.0%	\$47,300	\$47,300
	30430	PA5B PHASE 2 6" ZNC RW	100.0%	\$39,600	\$58,200
	20114	OCSO CORF 13/14	9.6%	\$36,278	\$36,278
	21191	OPS DATABASE MANAGEMENT SYSTEM	9.6%	\$33,264	\$35,933
	20959	SEWER GEN SYS MODS 14/15	9.6%	\$31,680	\$31,680
	30420	PA 5B 36" ZONE A RW	10.3%	\$31,230	\$37,389
	30496	ILP NORTH CONVERSION (RATTLESNAKE TO PETERS CYN)	10.3%	\$27,202	\$37,657
	21455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	9.6%	\$19,267	\$20,909
	30421	PA 5B 8" ZONE B RW	100.0%	\$19,100	\$27,700
	31056	ENG PLANNING STUDY RESERVE 14/15 RW	10.3%	\$18,128	\$29,561
	21188	WATER RECYCLING PLANT MASTER PLAN UPDATE 2014-16	9.6%	\$17,472	\$23,347
	21056	ENG PLANNING STUDY RESERVE 14/15 SEWER	9.6%	\$16,474	\$29,971
	30499	EMBEDDED ENERGY PLAN	10.3%	\$15,903	\$19,168
	31748	WRMP UPDATE 14/15 RW	10.3%	\$13,596	\$25,029
	30422	PA9 JEFFREY RD PIPELINES, 36" ZNA, 36" SYPHON	10.3%	\$12,782	\$12,782
	30380	SALT MANAGEMENT PLAN DEVELOPMENT	10.3%	\$11,804	\$15,378
	30331	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	10.3%	\$11,443	\$14,616
	31384	HYDRAULIC MODEL UPDATE / CALIBRATION - NONPOTABLE	10.3%	\$9,116	\$11,464
	31648	GEN SYS MODS-RW 14/15	10.3%	\$8,498	\$10,794

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>253-FutDevID_Sewer</b>					
	30366	TECHNOLOGY WAY ZONE "B" TRANSMISSION MAIN	10.3%	\$7,993	\$8,425
	30461	SJR SEISMIC RE-EVALUATION (DSOD REQ'T)	10.3%	\$7,704	\$11,011
	30280	PA9B PHASE 5 GATEWAY PARK RW PIPES	100.0%	\$7,600	\$11,400
	30410	MULTI-ZONE REGIONAL PS - ZONE C	21.7%	\$6,380	\$9,353
	31097	GIS SUPPORT APPLICATIONS 14/15	10.3%	\$6,180	\$9,703
	20214	MWRP EXPANSION PHASE II	9.6%	\$6,038	\$6,173
	30433	PORTOLA SPRINGS RECYCLED WATER PIPELINE	100.0%	\$6,000	\$6,500
	21097	GIS SUPPORT APPLICATIONS 14/15	9.6%	\$5,760	\$9,043
	30409	MULTI-ZONE REGIONAL PS - ZONE B	22.7%	\$5,176	\$8,286
	30415	CATHODIC PROTECTION FOR GAP PIPE SEGMENT	10.3%	\$4,965	\$6,118
	31131	HYDRAULIC MODELING 14/15 RW	10.3%	\$4,532	\$6,438
	21131	HYDRAULIC MODELING 14/15 SEWER	9.6%	\$4,224	\$6,000
	30214	MWRP EXPANSION PHASE II	10.3%	\$4,213	\$4,316
	31759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	10.3%	\$3,966	\$4,923
	21759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	9.6%	\$3,696	\$4,589
	30408	MULTI-ZONE REGIONAL PS - ZONE A TO SYPHON	10.3%	\$2,616	\$4,027
	31640	PA39 PH2 RW FACILITIES	100.0%	\$2,000	\$3,000
	30517	LAKE FOREST CONTROL AND TELEMTRY SYS REPLACEMENT	10.3%	\$1,257	\$2,184
	21170	SJM SLS UPGRADE	9.6%	\$970	\$1,661
	30416	PA40 PH3B RW CAPITAL FACILITIES	100.0%	\$700	\$700
	31605	PA40 PH2 RW FACILITIES	100.0%	\$400	\$400
	20468	FOOTHILL SEWER DIVERSION TO LAWRP	9.6%	\$384	\$1,008
	30382	SYPHON RESERVOIR EXPANSION	10.3%	\$330	\$567
	30424	PA40 NEIGHBORHOOD 2G BACKBONE RW FACILITIES	100.0%	\$300	\$300
	30390	PA9B RW AND SYPHON LATERAL PIPELINE, PH3	10.3%	\$268	\$268

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>253-FutDevID_Sewer</b>					
	21147	LAWRP SYSTEM UPGRADES	9.6%	\$240	\$643
	20588	OCSO EQUITY 13/14	9.6%	\$10	\$10
				<b>\$5,948,133</b>	<b>\$6,540,860</b>
<b>256</b>					
	21146	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	0.1%	\$67,399	\$69,364
	21163	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	0.3%	\$7,700	\$8,187
	20115	OCSO CORF 14/15	0.3%	\$4,804	\$4,804
	21619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	0.3%	\$2,419	\$3,467
	20589	OCSO EQUITY 14/15	0.3%	\$2,216	\$2,216
	20812	OCSO SOLIDS HANDLING 14/15	0.1%	\$1,790	\$1,790
	21748	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	0.3%	\$1,730	\$2,285
	20114	OCSO CORF 13/14	0.3%	\$1,134	\$1,134
	21191	OPS DATABASE MANAGEMENT SYSTEM	0.3%	\$1,040	\$1,123
	20959	SEWER GEN SYS MODS 14/15	0.3%	\$990	\$990
	21455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	0.3%	\$602	\$653
	21188	WATER RECYCLING PLANT MASTER PLAN UPDATE 2014-16	0.3%	\$546	\$730
	21056	ENG PLANNING STUDY RESERVE 14/15 SEWER	0.3%	\$515	\$937
	20214	MWRP EXPANSION PHASE II	0.3%	\$189	\$193
	21097	GIS SUPPORT APPLICATIONS 14/15	0.3%	\$180	\$283
	21131	HYDRAULIC MODELING 14/15 SEWER	0.3%	\$132	\$188
	21759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	0.3%	\$116	\$143
	21170	SJM SLS UPGRADE	0.3%	\$30	\$52
	20468	FOOTHILL SEWER DIVERSION TO LAWRP	0.3%	\$12	\$32
	21147	LAWRP SYSTEM UPGRADES	0.3%	\$8	\$20

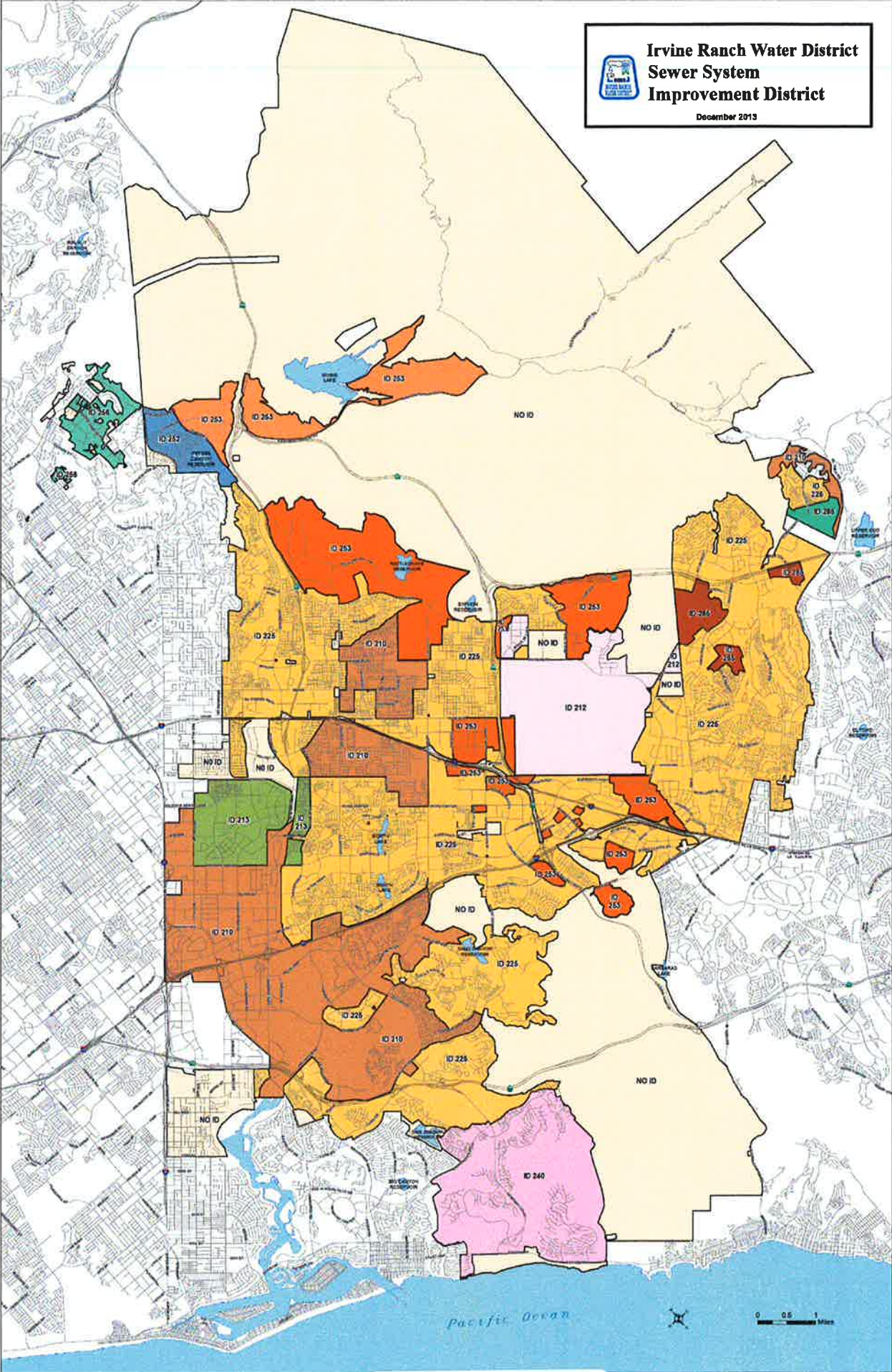
ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>256</b>					
	20588	OCSO EQUITY 13/14	0.3%	\$0	\$0
				<b>\$93,552</b>	<b>\$98,589</b>
<b>285-LF_OSA_Ssewer</b>					
	21146	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	0.6%	\$292,064	\$300,579
	21163	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	1.3%	\$33,366	\$35,477
	30435	RATTLESNAKE CHLORINE GAS REMOVAL	1.5%	\$23,649	\$25,695
	20115	OCSO CORF 14/15	1.3%	\$20,818	\$20,818
	30487	PA 18S HIDDEN CANYON 36" RW PIPELINE	1.5%	\$17,216	\$18,657
	21619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	1.3%	\$10,483	\$15,022
	20589	OCSO EQUITY 14/15	1.3%	\$9,603	\$9,603
	20812	OCSO SOLIDS HANDLING 14/15	0.6%	\$7,758	\$7,758
	21748	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	1.3%	\$7,498	\$9,900
	20114	OCSO CORF 13/14	1.3%	\$4,913	\$4,913
	30420	PA 5B 36" ZONE A RW	1.5%	\$4,548	\$5,445
	21191	OPS DATABASE MANAGEMENT SYSTEM	1.3%	\$4,505	\$4,866
	20959	SEWER GEN SYS MODS 14/15	1.3%	\$4,290	\$4,290
	30496	ILP NORTH CONVERSION (RATTLESNAKE TO PETERS CYN)	1.5%	\$3,962	\$5,484
	31056	ENG PLANNING STUDY RESERVE 14/15 RW	1.5%	\$2,640	\$4,305
	21455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	1.3%	\$2,609	\$2,831
	21188	WATER RECYCLING PLANT MASTER PLAN UPDATE 2014-16	1.3%	\$2,366	\$3,162
	30499	EMBEDDED ENERGY PLAN	1.5%	\$2,316	\$2,792
	21056	ENG PLANNING STUDY RESERVE 14/15 SEWER	1.3%	\$2,231	\$4,059
	31748	WRMP UPDATE 14/15 RW	1.5%	\$1,980	\$3,645
	30422	PA9 JEFFREY RD PIPELINES, 36" ZNA, 36" SYPHON	1.5%	\$1,862	\$1,862

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>285-LF_OSA_Sewer</b>					
	30380	SALT MANAGEMENT PLAN DEVELOPMENT	1.5%	\$1,719	\$2,240
	30331	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	1.5%	\$1,667	\$2,129
	31384	HYDRAULIC MODEL UPDATE / CALIBRATION - NONPOTABLE	1.5%	\$1,328	\$1,670
	31648	GEN SYS MODS-RW 14/15	1.5%	\$1,238	\$1,572
	30366	TECHNOLOGY WAY ZONE "B" TRANSMISSION MAIN	1.5%	\$1,164	\$1,227
	30461	SJR SEISMIC RE-EVALUATION (DSOD REQ'T)	1.5%	\$1,122	\$1,604
	31097	GIS SUPPORT APPLICATIONS 14/15	1.5%	\$900	\$1,413
	20214	MWRP EXPANSION PHASE II	1.3%	\$818	\$836
	21097	GIS SUPPORT APPLICATIONS 14/15	1.3%	\$780	\$1,225
	30415	CATHODIC PROTECTION FOR GAP PIPE SEGMENT	1.5%	\$723	\$891
	31131	HYDRAULIC MODELING 14/15 RW	1.5%	\$660	\$938
	30214	MWRP EXPANSION PHASE II	1.5%	\$614	\$629
	31759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	1.5%	\$578	\$717
	21131	HYDRAULIC MODELING 14/15 SEWER	1.3%	\$572	\$813
	21759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	1.3%	\$501	\$621
	30408	MULTI-ZONE REGIONAL PS - ZONE A TO SYPHON	1.5%	\$381	\$587
	21560	LAKE FOREST WW OFFSITE IMPROVEMENTS	100.0%	\$300	\$300
	30517	LAKE FOREST CONTROL AND TELEMETRY SYS REPLACEMENT	1.5%	\$183	\$318
	21170	SJM SLS UPGRADE	1.3%	\$131	\$225
	20468	FOOTHILL SEWER DIVERSION TO LAW RP	1.3%	\$52	\$137
	30382	SYPHON RESERVOIR EXPANSION	1.5%	\$48	\$83
	30390	PA9B RW AND SYPHON LATERAL PIPELINE, PH3	1.5%	\$39	\$39
	21147	LAW RP SYSTEM UPGRADES	1.3%	\$33	\$87
	20588	OCSD EQUITY 13/14	1.3%	\$1	\$1
				<b>\$476,223</b>	<b>\$511,457</b>

ID	EPMS No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>288</b>					
	21146	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	0.1%	\$67,399	\$69,364
	21163	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	0.3%	\$7,700	\$8,187
	20115	OCSO CORF 14/15	0.3%	\$4,804	\$4,804
	21619	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	0.3%	\$2,419	\$3,467
	20589	OCSO EQUITY 14/15	0.3%	\$2,216	\$2,216
	20812	OCSO SOLIDS HANDLING 14/15	0.1%	\$1,790	\$1,790
	21748	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	0.3%	\$1,730	\$2,285
	20114	OCSO CORF 13/14	0.3%	\$1,134	\$1,134
	21191	OPS DATABASE MANAGEMENT SYSTEM	0.3%	\$1,040	\$1,123
	20959	SEWER GEN SYS MODS 14/15	0.3%	\$990	\$990
	21455	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	0.3%	\$602	\$653
	21188	WATER RECYCLING PLANT MASTER PLAN UPDATE 2014-16	0.3%	\$546	\$730
	21056	ENG PLANNING STUDY RESERVE 14/15 SEWER	0.3%	\$515	\$937
	20214	MWRP EXPANSION PHASE II	0.3%	\$189	\$193
	21097	GIS SUPPORT APPLICATIONS 14/15	0.3%	\$180	\$283
	21131	HYDRAULIC MODELING 14/15 SEWER	0.3%	\$132	\$188
	21759	OPS BLDGS 54 AND 55 STORAGE FIRE REQTS IMPS	0.3%	\$116	\$143
	21170	SJM SLS UPGRADE	0.3%	\$30	\$52
	20468	FOOTHILL SEWER DIVERSION TO LAWRP	0.3%	\$12	\$32
	21147	LAWRP SYSTEM UPGRADES	0.3%	\$8	\$20
	20588	OCSO EQUITY 13/14	0.3%	\$0	\$0
				<b>\$93,552</b>	<b>\$98,589</b>
				<b>\$153,670,614</b>	<b>\$164,401,941</b>



**Irvine Ranch Water District  
Sewer System  
Improvement District**  
December 2013





# EXHIBIT "C"

RESOLUTION NO. 2014 –

RESOLUTION OF THE BOARD OF DIRECTORS OF IRVINE  
RANCH WATER DISTRICT, ORANGE COUNTY, CALIFORNIA,  
APPROVING DISTRICT'S CAPITAL BUDGET  
FOR FISCAL YEAR 2014-15

WHEREAS, the Board of Directors of the Irvine Ranch Water District (IRWD) has considered the capital project needs of IRWD for Fiscal Year 2014-15; and

WHEREAS, a Capital Budget as set forth in the attached Exhibit "A" has been prepared and reviewed by this Board of Directors; and

WHEREAS, during the review of the Capital Budget by the Board of Directors, the Board "flagged" certain projects for further review by the Board; and

WHEREAS, Article XIII B of the Constitution of the State of California provides that the appropriations of local agencies will be limited each year to those of the previous year, adjusted for changes in population, cost of living and transfers in sources of funding; and

WHEREAS, Section 8 of Article XIII B excludes from its limitations user charges and fees and regulatory fees, to the extent such fees and charges do not produce revenue exceeding the costs reasonably borne in providing the regulation, product or service, and Section 9 of Article XIII B excludes from the appropriations subject to limitation an appropriation for a qualified capital outlay project, defined by statute as an appropriation for a fixed asset (including land and construction) with a useful life of 10 or more years and a value which equals or exceeds one hundred thousand dollars (\$100,000); and

WHEREAS, the expenditures identified in the Capital Budget are to be funded entirely from excluded user fees and charges and other monies that are not proceeds of taxes, such as proceeds of bonds or other indebtedness, and/or are expenditures for qualified capital outlay projects.

NOW, THEREFORE, the Board of Directors of IRWD DOES HEREBY RESOLVE, DETERMINE AND ORDER as follows:

Section 1. The revenues which have been collected from connection fees and have been deposited in the capital funds of the Improvement Districts, to the extent not previously or hereafter committed or appropriated to pay reimbursement, bonding and other financing or fund-management related costs for capital facilities, are hereby appropriated to pay costs of the projects shown in the Capital Budget. The Expenditure Authorization to be approved for each project shall set forth the Improvement Districts' allocated shares of the costs of each project to be derived from such revenues and from proceeds of bonds and any other funding sources or contributions.

Section 2. That relative to appropriations subject to limitation under Article XIII B of the Constitution of the State of California, it is hereby determined that IRWD's Capital Budget for Fiscal Year 2014-15 is to be funded totally by revenues other than the proceeds of taxes, and/or that the expenditures identified in such Capital Budget are for qualified capital outlay projects, and that the documentation used in making such determination has been on file in the offices of IRWD for not less than 15 days prior to the date hereof, pursuant to Section 7910 of the Government Code of the State of California.

Section 3. Subject in all respects to prior pledges for debt service requirements, including those contained in Resolution Nos. 1992-48 and 2002-10, the Treasurer is hereby authorized and directed to allocate to the Replacement Fund and to the Enhancement Fund, 32% and 24%, respectively, of the general 1% ad valorem property tax revenues for the 2014-15 fiscal year, to be expended for qualified capital outlay projects.

Section 4. That IRWD's Capital Budget for Fiscal Year 2014-15 is in compliance with the provisions of Article XIII B of the Constitution of the State of California.

Section 5. That the budget for IRWD Capital Projects expected to occur during Fiscal Year 2014-15, shown in the attached Exhibit "A" as total cost and by this reference incorporated herein, be and the same is hereby approved.

Section 6. That the projects set forth in the attached Exhibit "A" identified with "Yes" in the Flag column are "flagged" for further review by the Board of Directors prior to implementation of the next phase of the respective projects.

Section 7. That implementation of the previously approved phase of each "flagged" project be continued within the limits of approved expenditure authorizations.

ADOPTED, SIGNED and APPROVED this 9th day of June, 2014.

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

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

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

By \_\_\_\_\_

June 9, 2014  
Prepared and  
Submitted by: L. Bonkowski  
Approved by: P. Cook 

CONSENT CALENDAR

MINUTES OF BOARD MEETING

SUMMARY:

Provided are the minutes of the May 27, 2014 Regular Board Meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE MAY 27, 2014 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – Minutes

## EXHIBIT "A"

### MINUTES OF REGULAR MEETING – MAY 27, 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 May 27, 2014 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

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

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Finance Clary, Executive Director of Engineering and Planning Burton, Executive Director of Operations Shields, Executive Director of Water Resources Weghorst, Director of Water Resources Sanchez, Director of Human Resources Roney, Director of Risk Management and Treasury Jacobson, Director of Public Affairs Beeman, Director of Administrative Services Mossbarger, Ms. Christine Compton, Ms. Shannon Reed, Ms. Ericka Blaska, Ms. Amy McNulty, Mr. Scott Toland, Legal Counsel Arneson, Secretary Bonkowski, Mr. Barkev Mererlian, Mr. Jim Reed, Mr. John Boone, Ms. James Fisler, Dr. Betty Olson, Mr. John Jaeger, and other members of the public and staff.

#### WRITTEN COMMUNICATION:

Secretary Bonkowski said that a letter was received from Tropical Plaza dated May 23, 2014 relative to Item No. 22 on the Action Calendar entitled Michelson Water Recycling Plant Phase II Expansion Landscape Construction Award.

#### ORAL COMMUNICATION

1) Mrs. Joan Irvine Smith's assistant addressed the Board of Directors with respect to the Dyer Road Wellfield. She said it was her understanding that currently wells 2, 4, C-8, C-9, 10, 13, 14, 15 and 17 will operate in accordance with the District's annual pumping plan. Wells 1, 3, 5, 6, 7, 11, 12, and 16 will be off. This was confirmed by Mr. Cook, General Manager of the District.

On October 31, 2013, the District received its fully executed copy of the Annexation Agreement with the Orange County Water District. This was confirmed by Mr. Cook.

With respect to the Groundwater Emergency Service Plan, IRWD has an agreement in place with various south Orange County water agencies, MWDOC and OCWD, to produce additional groundwater for use within IRWD and transfer imported water from IRWD to south Orange County in case of emergencies. This was confirmed by Mr. Cook.

2) Mr. Jim Fisler, incumbent Special District Alternate member for the Orange County Local Agency Formation Commission, is running for re-election and asked for the Board's vote. A copy of Mr. Fisler's bio was placed before each Director.

3) Dr. Betty Olson asked for the Board's consideration for the open Metropolitan Water District Director position representing the Municipal Water District of Orange County and its member agencies. A copy of Dr. Olson's bio was placed before each Director.

4) Mr. John Jaeger spoke to the Board relative to the District's proposed rate increase. President LaMar invited Mr. Jaeger to put his comments in writing for staff to respond.

ITEMS TOO LATE TO BE AGENDIZED: None.

PRESENTATION - SCIENCE FAIR WINNERS

Ms. Cheryl Kelly recognized students for their water-related projects entered in the Irvine Unified School District Science Fair.

CONSENT CALENDAR

On MOTION by Withers, seconded and unanimously carried, CONSENT CALENDAR ITEMS 4 THROUGH 20 WERE APPROVED AS FOLLOWS:

4. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the April 28, 2014 Regular Board Meeting be approved as presented.

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.

6. APRIL 2014 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Monthly Interest Rate Swap Summary for April 2014, and Disclosure Report of Reimbursements to Board members and staff; approve the April 2014 Summary of payroll ACH payments in the total amount of \$1,429,785 and approve the April 2014 accounts payable disbursement summary of warrants 347428 through 348231, workers' compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$26,322,911.

7. 2014 STATE LEGISLATIVE UPDATE

Recommendation: Receive and file.

8. UPCOMING PROJECTS STATUS REPORT

Recommendation: Receive and file.

CONSENT CALENDAR (CONTINUED)

9. PROPOSED SALARY GRADE CHANGES FOR FISCAL YEAR 2014-15

Recommendation: That the Board approve the proposed changes in the District's budgeted positions as outlined in the adopted FY 2014-15 Operating Budget; and approve the Salary Grade Schedule changes effective July 1, 2014; and adopt the following resolution by title rescinding Resolution No. 2014-22 and establishing revised Schedule of Positions and Salary Rate Changes.

RESOLUTION NO. 2014 - 25

RESOLUTION OF THE BOARD OF DIRECTORS  
OF IRVINE RANCH WATER DISTRICT,  
RESCINDING RESOLUTION NO. 2014-22 AND  
ESTABLISHING A REVISED SCHEDULE OF POSITIONS  
AND SALARY RATE RANGES

10. QUITCLAIM OF REAL PROPERTY TO BROOKFIELD LF 147 LLC  
(PROPOSED TRACT NO. 17446)

Recommendation: That the Board adopt the following resolution by title approving execution of the Quitclaim Deed to Brookfield LF 147 LLC.

RESOLUTION NO. 2014 - 26

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT  
APPROVING EXECUTION OF THE QUITCLAIM DEED TO  
BROOKFIELD LF 147 LLC

11. QUITCLAIM OF REAL PROPERTY TO THE IRVINE LAND COMPANY LLC

Recommendation: That the Board adopt the following resolution by title approving execution of the Quitclaim Deed to The Irvine Land Company LLC.

RESOLUTION NO. 2014 - 27

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT  
APPROVING EXECUTION OF THE QUITCLAIM DEED TO  
THE IRVINE LAND COMPANY LLC

CONSENT CALENDAR (CONTINUED)

12. QUITCLAIM DEED OF REAL PROPERTY TO EL TORO WATER DISTRICT

Recommendation: That the Board adopt the following resolution by title approving execution of the Quitclaim Deed to El Toro Water District.

RESOLUTION NO. 2014 - 28

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT  
APPROVING EXECUTION OF THE QUITCLAIM DEED TO  
EL TOTO WATER DISTRICT

13. INITIAL DISINFECTION FACILITY CHLORINE INJECTION LINE REPLACEMENT  
FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Initial Disinfection Facility chlorine line replacement, project 11669 (4285); 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.

14. VALVE VAULT AND VAULT LID REPLACEMENT FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Valve Vault and Vault Lid Replacement, project 11358 (1800); 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.

15. PLANNING AREA 51 HERITAGE FIELDS DISTRICT 1 CAPITAL FACILITIES

Recommendation: That the Board authorize the addition of projects 11719 (4620), 31719 (4621), 21156 (4648), 31156 (4649), 21158 (4653), 11721 (4645), 31721 (4646), 21159 (4824), 31159 (4825), and 21165 (5016) to the FY 2013-14 Capital Budget in the amounts of \$172,700, \$105,600, \$255,200, \$78,100, \$403,700, \$161,700, \$266,200, \$310,200, \$321,200, and \$370,700, respectively; the Board authorize a budget increase in the amount of \$902,000 from \$162,800 to \$1,064,800 for project 21141 (4267); and the Board approve Expenditure Authorizations for projects 21141 (4267), 11719 (4620), 31719 (4621), 21156 (4648), 31156 (4649), 21158 (4653), 11721 (4645), 31721 (4646), 21159 (4824), 31159 (4825), and 21165 (5016) in the amounts of \$1,064,800, \$172,700, \$105,600, \$255,200, \$78,100, \$403,700, \$161,700, \$266,200, \$310,200, \$321,200, and \$370,700, respectively, for the Planning Area 51 Capital Facilities.



CONSENT CALENDAR (CONTINUED)

16. TUSTIN LEGACY ARMSTRONG AVENUE AND WARNER AVENUE  
CAPITAL IMPROVEMENTS

Recommendation: That the Board authorize the addition of projects 11746 (4988), 31746 (4989), and 30447 (4984) in the amount of \$60,500, \$282,700, and \$773,300, respectively, to the FY 2013-14 Capital Budget; and approve Expenditure Authorizations for projects 11746 (4988), 31746 (4989), and 30447 (4984) in the amount of \$60,500, \$282,700, and \$773,300, respectively, for the Tustin Legacy Armstrong Avenue and Warner Avenue Improvements, projects 11746 (4988), 31746 (4989), and 30447 (4984).

17. CALSCAPE WATER USE EFFICIENCY OUTREACH PROGRAM CONSULTANT  
SELECTION

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with Crocker & Crocker in the amount of \$150,000 for the CALscape Outreach Program.

18. SOUTHERN CALIFORNIA GAS COMPANY PROGRAM PARTNERSHIP

Recommendation: That the Board authorize the General Manager to execute the Inter-Utility Service and Non-disclosure Agreement with Southern California Gas Company for participation and co-funding of up to \$100,000 in the Energy Savings Assistance Program that will result in cost-effective water savings.

19. SECOND AMENDMENT TO AGREEMENT FOR PARTICIPATION AND FUNDING  
IN SPECIFIED MWDOC REBATE PROGRAMS

Recommendation: That the Board authorize the General Manager to execute the Second Amendment to the Agreement for Participation and Funding by IRWD in specified Municipal Water District of Orange County Rebate Programs, subject to non-substantive changes, for specified rebate programs with \$500,000 in funding for Fiscal Year 2014-15.

20. MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY  
RECOVERY FACILITIES VARIANCE

Recommendation: That the Board authorize the General Manager to execute Variance No. 2 in the amount of \$112,665 with Black and Veatch to prepare the Odor Control Maintenance and Monitoring Plan for the Michelson Water Recycling Plant Biosolids and Energy Recovery Facilities, Project 21146 (4286).

## ACTION CALENDAR

### BAKER WATER TREATMENT PLANT CONSTRUCTION - HEARING ON R.B. SHEET METAL SUBCONTRACTOR SUBSTITUTION

General Manager Cook reported that staff has received a written request from PCL Construction, Inc., the Baker Water Treatment Plant contractor, to substitute a named subcontractor, R.B. Sheet Metal, listed in its bid schedule on the grounds of being unresponsive in honoring its bid proposal. Mr. Cook said that pursuant to California Public Contract Code 4107, IRWD is obligated to send notice of the request for substitution to the subcontractor, and in the event of an objection, IRWD is obligated to investigate the positions of both companies and to establish a hearing with the "awarding authority", in this case the IRWD Board of Directors, such that each party may state its position.

Mr. Cook said that staff has conducted an investigation and recommends that the Board approve PCL's request to substitute its named sheet metal subcontractor, R.B. Sheet Metal, on the grounds that (1) R.B. Sheet Metal's promise to sign its subcontract is contingent upon a favorable determination of a product substitution request, inconsistent with the applicable contract requirements and (2) the proposed substitute product is not deemed equivalent to the specified product.

President LaMar declared this to be the time and place for a hearing on the R.B. Sheet Metal Subcontractor Substitution item, and declared the hearing open. He asked the Secretary how the hearing was noticed.

Secretary Bonkowski said that the hearing was noticed by certified letter dated May 19, 2014 to R.B. Sheet Metal, providing the five working days notice required by statute. **ON MOTION** by SWAN, seconded and unanimously carried, **THE CERTIFIED LETTER DATED MAY 19, 2014 TO R.B. SHEET METAL PRESENTED BY THE SECRETARY WAS RECEIVED AND FILED.**

President LaMar asked Legal Counsel Arneson to describe the nature of the proceedings. Legal Counsel Arneson said that due to PCL Construction's written request to substitute a named subcontractor, R.B. Sheet Metal as it is unresponsive in honoring its bid proposal, the District was obligated to send a notice of the request for substitution to the subcontractor; investigate the positions of both companies; and hold a hearing so that each party may state its position.

President LaMar inquired of the Secretary whether there have been any written communications. Secretary Bonkowski said that the District is in receipt of four letters as follows: April 3, 2014 – PCL request for substitution; 2) April 10, 2014 – District notice to R.B. Sheet Metal of receipt of request; 3) R.B. Sheet Metal objections to substitution which is undated; however, it was received April 17, 2014; and 4) May 19, 2014 – District notice to R.B. Sheet Metal of preliminary findings and inviting response, and giving notice of hearing.

President LaMar inquired of the staff how they investigated the PCL request for substitution, and the subcontractor's objections. Executive Director of Engineering Burton reported that upon

receipt of R.B. Sheet Metal's objection letter, staff contacted PCL and R.B. Sheet Metal to gain a clear understanding of each company's concerns. He said that PCL explained that during the bidding period it is customary for PCL to require each of its respective subcontractors to establish bids that meet the project specifications and drawings. As PCL received final bids, R.B. Sheet Metal did not disclose that its bid was contingent upon substitutions or presumed "equivalents" to the specified manufacturer for each of the scope items. He said that once PCL received our Notice to Proceed, it began to issue contracts with its listed subcontractors. At that point in time, R.B. Sheet Metal disclosed that its bid was contingent on an "equivalent". PCL explained that R.B. Sheet Metal would need to sign its subcontract in order to submit the substitution for consideration by the owner. PCL also explained that if the substitution was not accepted, R.B. Sheet Metal would need to provide the specified products. R.B. Sheet Metal refused to sign PCL subcontract, which prompted PCL to issue the subcontractor substitution request.

Mr. Burton said that R.B. Sheet Metal was contacted via phone by staff to hear their position on the matter and that they confirmed that their bid was based on an alternative manufacturer of which they believe is equal to the named supplier and have successfully installed on other projects and emphasized that the specification listed a single manufacturer as the bid basis, and that they are allowed to provide an alternative. Staff confirmed that alternatives are allowed unless the specifications explicitly state "no equal". He said that due to the objection staff would allow R.B. Sheet Metal to send their literature directly to IRWD for evaluation by our staff and the project's Architect of Record. He said that staff received the detailed product comparisons from R.B. Sheet Metal via email which was forwarded to the Architect of Record for his review, concurrent with staff review. He said that the Architect provided his review comments to staff, and IRWD issued its Preliminary Findings letter to R.B. Sheet Metal, requesting that it provide a response to the preliminary findings. He said that staff attempted to follow-up with R.B. Sheet Metal via phone on five occasions in order to discuss our findings with messages to their receptionist and voicemails were left during these attempts. He further said that since R.B. Sheet Metal did not return any of staff's calls, staff sent notification of the hearing pursuant to Public Contract Code.

President LaMar inquired whether representatives of PCL and R.B. Sheet Metal would like to address the Board. A representative from PCL was in the audience and noted that they had accepted R.B. Sheet Metal's proposal on bid day based on the understanding that it was per the plans and specifications. There was not a representative from R.B. Sheet Metal in the audience.

President LaMar inquired whether there are any comments or questions from members of the Board of Directors. Director Reinhart commented that subcontractors must bid on the specifications as provided and that the product must be equivalent or better. There being no further comments President LaMar asked that the hearing be closed.

On MOTION by Reinhart, seconded and unanimously carried, THE BOARD APPROVED PCL CONSTRUCTION, INC.'S REQUEST TO SUBSTITUTE THEIR NAMED SHEET METAL SUBCONTRACTOR, R.B. SHEET METAL, INC., ON THE GROUNDS THAT (1) R.B. SHEET METAL'S PROMISE TO SIGN ITS SUBCONTRACT IS CONTINGENT UPON A FAVORABLE DETERMINATION OF A PRODUCT SUBSTITUTION REQUEST, INCONSISTENT WITH THE APPLICABLE CONTRACT REQUIREMENTS, AND (2) THE

PROPOSED SUBSTITUTE PRODUCT IS NOT DEEMED EQUIVALENT TO THE SPECIFIED PRODUCT”.

MICHELSON WATER RECYCLING PLANT PHASE II EXPANSION LANDSCAPE CONSTRUCTION AWARD

General Manager Cook reported that the District had received written communications from Tropical Landscape requesting consideration for rejecting bids which had been placed before each Director.

Executive Director of Engineering Burton reported that the Michelson Water Recycling Plant (MWRP) Phase II Expansion Landscape project will include complete landscape, hardscape and irrigation system, including clearing and grubbing, fine grading, site preparation, planting of trees and shrubs, installation of irrigation valves, piping and appurtenances, and installation of concrete and decomposed granite drives and walkways.

Mr. Burton said that the original 2009 landscape and irrigation plans were revised to coordinate with the Michelson Water Recycling Plants expansion project’s construction changes and the project was advertised on April 28, 2014 to a select list of five landscape contractors: Nature’s Image, Pinnacle Landscape, Tropical Plaza Nursery, TruGreen LandCare and Valley Crest Landscape Development. The pre-bid job walk was held on May 5, 2014 with three contractors in attendance. Only two contractors submitted bids on May 15, 2014; Valley Crest’s bid was \$940,400 and Tropical Plaza’s bid was \$978,326. The engineer’s estimate was \$1,155,345 with a \$63,000 contingency. Mr. Burton noted that letter that the District received from Tropical Plaza and said that he contacted its President, Mr. Les Fields, who had concerns relative to the engineer’s estimate and the bidding process with only two bids submitted. He said that once he explained the bidding process, Mr. Fields realized there was a misunderstanding on his part. Director Reinhart commented on Tropical Plaza’s comment relative to the engineer’s estimate, and said that when the engineer provides an estimate, it is used as an estimate of value and that the contractor weighs in a lot of factors to determine its bid. Director Matheis thanked Shadetree Partnership’s General Manager Bonkowski and Nursery Manager Asman for their efforts with providing 10,000 shrubs and 500 trees to be planted at this facility. She also recognized Shadetree’s docent Mr. John Boone for his volunteer efforts. On MOTION by Reinhart, seconded and unanimously carried, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH VALLEY CREST LANDSCAPE DEVELOPMENT, INC. IN THE AMOUNT OF \$940,400 FOR THE MICHELSON WATER RECYCLING PLANT PHASE II EXPANSION LANDSCAPE, PROJECTS 20214 (1599) AND 30214 (1706).**

STOCKDALE WEST WELLHEAD EQUIPPING AND CONVEYANCE FACILITIES CONSULTANT SELECTION

General Manager Cook reported that the Rosedale-Rio Bravo Water Storage District and Irvine Ranch Water District (IRWD) are jointly developing the Stockdale Integrated Banking Project which includes constructing water banking facilities on Rosedale’s and IRWD’s respective Stockdale properties. As part of the Stockdale Project, IRWD plans to construct three new extraction wells on the Stockdale West Ranch property.

On MOTION by Reinhart, seconded and unanimously carried, THE BOARD APPROVED AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$272,600, AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH URS CORPORATION IN THE AMOUNT OF \$225,785 FOR ENGINEERING SERVICES FOR THE STOCKDALE WEST WELLHEAD EQUIPPING AND CONVEYANCE FACILITIES, PROJECT 11645 (3766).

EXCHANGE AGREEMENT WITH METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Executive Director of Water Policy Weghorst reported that staff received a request from Metropolitan Water District of Southern California (MWD) for banked water recovered from the District's Strand Ranch Integrated Banking Project (Strand Ranch). Mr. Weghorst said that this water would be used by MWD in 2014 in exchange for MWD water returned to IRWD within 10 years. He said that staff reviewed a draft agreement for the exchange with the Water Banking Committee in April and the Committee authorized staff to work with MWD to finalize the agreement to complete a one-for-one exchange of up to 4,000 acre-feet for the mutual benefit of both agencies.

Director Swan reported that this item was reviewed by the Water Banking Committee on April 22, 2014. Following discussion, on MOTION by Swan, seconded and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE THE AGREEMENT FOR EXCHANGE OF WATER BETWEEN THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA AND IRVINE RANCH WATER DISTRICT FOR UP TO 4,000 ACRE-FEET OF BANKED WATER SUBJECT TO NON-SUBSTANTIVE CHANGES.

ORACLE SOFTWARE LICENSES – ADDITIONAL ORACLE CUSTOMER CARE AND BILLING SOFTWARE LICENSES AND UNLIMITED LICENSE AGREEMENT FOR TECHNOLOGY LICENSES

Director of Administration Mossbarger reported on the two major components of Oracle software licensing: Applications and Technology. Mr. Mossbarger said that application licenses are generally purchased as part of the initial software implementation and technology licenses are required for the underlying technology architecture used for databases, high availability, reliability, and diagnostics. He said to continue utilizing Oracle software without interruption, licenses must be renewed before the current license agreements expire. He said that in 2011, the Board approved the procurement of the Oracle Customer Care and Billing (CC&B) application software licenses and a unlimited license agreement (ULA) for technology licenses where the CC&B application software licenses were purchased at a significant discount. The technology licenses acquired under the ULA have provided the District with significant savings over the 42-month period when compared to buying the technology licenses individually.

Mr. Mossbarger said that in 2011, the Oracle CC&B application licenses were purchased based on the number of customer accounts that utilize the system and the number of customer accounts that utilize the CC&B software has increased since the original purchase and the District will need to procure additional licenses. He said that after a lengthy negotiation process with Oracle,

staff secured license discounts from Oracle which will expire at the end of May 2014. He said that the total cost of the additional CC&B applications licenses is \$153,550 plus first-year maintenance support of \$33,781, for a total of \$187,331 (charged to the CC&B capital project). The maintenance and support beyond the implementation will be included in IRWD's annual operating budget.

Mr. Mossbarger said that IRWD entered into the original ULA agreement in May 2011 with the term set to expire in November 2014. He said that staff reviewed the new technology projects planned for the next three years which include ID Consolidation; Operational Data Warehouse non-Oracle; Enterprise Asset Management non-Oracle; Oracle Utility Customer Self Service; and Business Intelligence Upgrades. He said that staff has worked with Oracle to identify the technology licenses required for these projects. In addition, staff negotiated annual maintenance and support price increase caps of no increase in the first two years, and 2% in the third and fourth year for all existing Oracle licenses and any new licenses placed in service under the ULA. Price holds for additional software product licenses were also negotiated. The cost of the ULA Extension is \$1,373,774 in license fees and \$302,230 in first year maintenance and support, for a total of \$1,676,004. This amount includes a credit for the original ULA for the remaining six months.

Following discussion, staff was asked to submit an item to the Finance and Personnel Committee to review all costs to date and to also submit periodic and annual reports for the Board's review. On MOTION by Reinhart, seconded and unanimously carried, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE AGREEMENTS WITH ORACLE FOR THE PURCHASE OF ADDITIONAL CUSTOMER CARE AND BILLING APPLICATION LICENSES AND THE UNLIMITED LICENSE AGREEMENT FOR TECHNOLOGY LICENSES NOT-TO-EXCEED \$2,401,500.**

#### PROPOSED IRWD STORMWATER AND DRY WEATHER RUNOFF MANAGEMENT AND CAPTURE POLICY PRINCIPLES

Government Relations Manager Compton reported discussion surrounding stormwater and dry weather runoff capture and use at the state level has been accelerated by SB 985, authored by Senator Fran Pavley (D-Calabasas). Ms. Compton said that SB 985 would require the development of stormwater resources plans that identify and prioritize stormwater and dry weather runoff capture projects. It would also require that the State Water Resources Control Board establish a policy for compliance with the plan requirement, and would make compliance a requirement for receiving grants for stormwater and dry weather runoff capture projects from bond funds.

She said that given that discussions concerning stormwater and dry weather runoff capture and use are underway, staff has proposed a policy principles paper on stormwater and dry weather runoff management and capture to guide the District's advocacy efforts.

Director Matheis said that this policy was reviewed and approved by the Water Resources Policy and communications Committee on May 21, 2014. A motion was made by Matheis and seconded by Reinhart to approve the item, but prior to the vote, a discussion was held by the Board to encourage expansion to the Federal law, not just the state, include language to

encourage capturing stormwater runoff, and to check and revise as needed the consistency with IRWD's position on recycled water impoundment overflow. Director LaMar asked that the policy also be submitted to the Water Resources Policy and Communications Committee for an update. There being no further comments, **THE BOARD UNANIMOUSLY APPROVED (WITH A 5-0 VOTE) THE STORMWATER AND DRY WEATHER RUNOFF MANAGEMENT AND CAPTURE POLICY PRINCIPLES.**

#### IRWD GROUNDWATER MANAGEMENT POLICY PRINCIPLES

Executive Director of Water Policy Weghorst reported that the loss of reliable deliveries from the State Water Project and the Central Valley Project are driving more dependence on groundwater within California and particularly in the Central Valley. Mr. Weghorst said that many groundwater basins in the state are managed by local and regional agencies, but many others have no management structure or plans in place. This has left some regions faced with tackling the complex social and economic issues associated with conflicts between overlying rights to extract groundwater and the finite groundwater resources that are available.

Mr. Weghorst said that the Administration and the Legislature have engaged stakeholders on how to empower local agencies to better manage groundwater basins in their regions. IRWD has been participating in the debate on how to improve local management of groundwater resources in California through the following efforts: 1) commenting on the State Water Resources Control Board (SWRCB) Groundwater Workplan Concept Paper in December 2013; 2) contributing to discussions held at State-sponsored workshops in Sacramento in March and April 2014; and 3) submitting comments to the Administration on improving groundwater management in California on April 23, 2014.

He said that based on IRWD's standing in the water industry, the opinion of the District is regularly solicited on issues of vital interest to the water resources community. To assist in the District's advocacy efforts on groundwater management issues, staff has prepared an IRWD Groundwater Management Policy Principles paper. He further said that staff has had discussion with the District's water banking partners and these principles adhere to them.

Director Matheis said that this item was reviewed and approved by the Water Resources Policy and Communications Committee on May 21, 2014. Discussion was held and staff was asked to make revisions to delete adjudication language and add groundwater storage language noting that the levels will be increasing during wet weather and drawing down during dry weather conditions, and that the policy should focus on managed basins. President LaMar asked that this item be added to the Water Resources Policy and Communications Committee meeting agenda to discuss options for the policy to be more recognizable to the public. On MOTION by Matheis, seconded and unanimously carried, **THAT THE BOARD APPROVE THE GROUNDWATER MANAGEMENT POLICY PRINCIPLES AS MODIFIED.**

#### LETTER OF SUPPORT AND COMMENTS ON THE BAY DELTA CONSERVATION PLAN AND ASSOCIATED DRAFT EIR/EIS

General Manager Cook reported that the Draft Bay Delta Conservation Plan (BDCP) and associated Draft Environmental Impact Report/Environmental Impact Statement (DEIR/EIS)

have been released for public review and comment. Mr. Cook said that the 180-day comment period runs until June 13, 2014. He said that given the importance of the Delta to the state and IRWD, staff recommends that the District submit a letter of support and comments on the BDCP and associated DEIR/EIS before the June 13, 2014 deadline.

Ms. Compton reported that the BDCP is a joint state and federal effort to develop and implement a 50-year plan that includes a set of water system and ecosystem improvements in the Sacramento-San Joaquin Delta. The BDCP includes a 50-year habitat conservation plan in the form of a Habitat Conservation Plan / Natural Community Conservation Plan (HCP/NCCP), and proposes the construction of a new water conveyance facility at an estimated cost of \$16 billion. It also proposes to restore and/or protect approximately 150,000 acres of habitat within the Delta at an estimate cost of \$4.4 billion. If adopted and implemented, the BDCP will serve as the foundation for achieving the legislatively established co-equal goals of high-quality water supply reliability and ecosystem restoration. The Draft BDCP and associated DEIR/EIS outlining the preferred project and environmental analysis were released on December 9, 2013 by the California Natural Resources Agency. The BDCP and associated DEIR/EIS evaluated 15 conveyance facilities and a "no action" alternative. The alternatives studied included tunnels, pipelines, canals and a through-Delta alternative. The alternatives studied also looked at conveyance facilities of various sizes and levels of diversion capacity. The facilities evaluated ranged from 3,000 cubic feet per second (cfs) to 15,000 cfs. The BDCP and associated DEIR/EIS recommend Preferred Alternative (No. 4). Preferred Alternative (No. 4) would consist of three intakes and two 30-mile, gravity flow tunnels with a 9,000 cfs capacity.

Director Matheis said that this item was reviewed and approved by the Water Resources Policy and Communications Committee on May 21, 2014. Director Matheis made a motion which was seconded by Director Reinhart. Prior to voting, Director Swan said he would like to table the item as he felt that the policy was premature and did not concur with some of the positions in the comment letter. President LaMar expressed his opinion on the District's letter which he believed to be excellent, and he said he believed that now was the time for the District to weigh in on this matter. Director Swan made a motion to table the item. This motion was not seconded. Directors Matheis and Withers said that it was important for the District to make comments at this time. Director Swan commented that he felt the District's response was premature at this time. Following discussion, the Board voted on the pending motion (WITH A 4-1 VOTE [Withers, LaMar, Matheis, and Reinhart voting aye with Swan voting no]) AND AUTHORIZED STAFF TO SEND THE PROPOSED LETTER OF SUPPORT AND COMMENT LETTER ON THE BAY DELTA CONSERVATION PLAN AND THE ASSOCIATED DRAFT ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL IMPACT STATEMENT TO THE APPROPRIATE STATE AND FEDERAL AGENCIES BEFORE THE JUNE 13, 2014 DEADLINE. Director Withers then asked staff to add an item to a future Water Resources Policy and Communications Committee meeting to discuss options for distributing IRWD policies to the public.

#### GENERAL MANAGER'S REPORT

General Manager Cook provided an update of his comments in the Weekly Report relative to Water Resources Reform and Development Act which passed in the House and Senate. He said that he is preparing a comment letter to the State Water Resources Control Board relative



to permit requirements in that the District would also like to be able to continue to work under individual permits.

### DIRECTORS' COMMENTS

Director Matheis reported on her attendance at the ACWA conference in Monterey, and that on Thursday, she will be attending an Independent Special District of Orange County quarterly meeting.

Director Withers reported on his attendance at the 60th anniversary of Orange County Sanitation District celebration with staff.

Director Reinhart reported on his attendance at a meeting with El Toro Water District along with Director LaMar and General Cook regarding mutual issues; an Orange County Water Summit; a tour of the District's Biosolids and Energy project; and a Municipal Water District of Orange County Board meeting where its budget was approved.

Director Swan reported on his attendance at an Orange County Water District Committee meeting; an Orange County Forum, a Coyote Canyon community event where IRWD was recognized; a WACO Planning meeting, and a Newport Bay Watershed Executive Committee meeting where they focused on the creek in Lake Forest. He said that this Thursday and Friday he will be attending an ACWA Board meeting in Sacramento. He then asked staff to obtain additional information on the MWD selection process.

Director LaMar reported on his attendance at the meeting with El Toro Water District; an NWRI Operating Committee meeting, a MWRP tour held with a Santa Margarita Water District Director McCuster; an Orange County Forum event; a Coyote Canyon community event, a MWDOC Public Affairs Committee meeting and Legislative Committee meeting. He said that today he and Director Reinhart attending a South County Agency meeting relative to the selection process for a new MWD Director from the south county area. He asked the General Manager Cook to provide periodic updates to the Board on the process. Director Swan asked for a copy of the December 2013 write-up relative to this process.

### ADJOURNMENT

There being no further business, President LaMar adjourned the meeting at 8:00 p.m.

APPROVED and SIGNED this 9th day of June, 2014.

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President, IRVINE RANCH WATER DISTRICT

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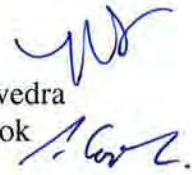
Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

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Legal Counsel - Bowie, Arneson, Wiles & Giannone

June 9, 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

5/27/14 South Orange County Agencies Meeting  
6/04/14 Monthly meeting w/General Manager Paul Cook re: District activities

Mary Aileen Matheis

6/05/14 Watershed Management Area Executive Committee Meeting  
6/11/14 ACWA Water Bond Meeting @IRWD  
6/12/14 Inaugural Address with Irvine Mayor Steven Choi

Peer Swan

5/17/14 Waco Planning Committee Meeting  
5/28/14 MWD-Southern California Water Dialogue Meeting  
6/11/14 ACWA Water Bond Meeting @IRWD

John Withers

6/12/14 Inaugural Address with Irvine Mayor Steven Choi

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

June 9, 2014

Prepared by: R. Thatcher/M. Hoolihan

Submitted by: K. Burton

Approved by: Paul Cook 

## CONSENT CALENDAR

### NOTICE OF RELEASE OF COVENANT FOR ACCESS AND SAMPLING RIGHTS RELATED TO GROUNDWATER REMEDIATION IN QUITCLAIM DEEDS - GREAT PARK NEIGHBORHOODS

#### SUMMARY:

When FivePoint Communities acquired portions of the former Marine Corp Air Station (MCAS) El Toro in 2005 as Heritage Fields LLC, Orange County Water District (OCWD) and IRWD were working with the Navy on groundwater remediation within the base as part of the Irvine Desalter Project (IDP). A covenant was placed in each of the quitclaim deeds to Heritage Fields allowing OCWD and IRWD the right to take soil samples to test for hazardous substances as part of the IDP. FivePoint has requested that IRWD and OCWD release the covenant from all of the property of the former MCAS El Toro and staff recommends that the Board grant this request subject to execution of the release of this covenant by OCWD. OCWD staff is presenting the release request to their Property Committee on June 27, 2014 with approval by their Board expected at the July 2, 2014 Board meeting. Staff recommends the Board adopt a resolution approving execution of the Notice of Release of Covenant for Access and Sampling Rights related to Groundwater Remediation in Quitclaim Deeds – Great Park Neighborhoods.

#### BACKGROUND:

FivePoint acquired the property at the former MCAS El Toro as four parcels by four separate quitclaim deeds entitled “Quitclaim Deed and Environmental Restriction Pursuant to Civil Code Section 1471”. As part of the acquisition of Parcels 1 through 4 of the base property per the deeds recorded July 12, 2005 as Instrument Nos. 2005000536288, 2005000536290, 2005000536292, 2005000536294, and deed recorded June 6, 2011 as Instrument No. 2011000276333 of Official Records of Orange County, a covenant entitled “Covenant for Access and Sampling Rights Related to Groundwater Remediation” was placed in each of the 2005 deeds and a covenant entitled “Access by Orange County Water District and Irvine Ranch Water District related to Groundwater Remediation” in the 2011 deed, all allowing OCWD and IRWD the right to enter the property to take soil samples for the purpose of confirming that none of the current operations of the property owner resulted in the release of hazardous substances that could impact the treatment system associated with the IDP.

FivePoint is in the process of planning, design and construction of the residential and commercial developments for the Great Park Neighborhoods and approximately 67% of the Great Park itself. FivePoint has requested that OCWD and IRWD release the area from the described covenants. In March 2013, IRWD and OCWD released this covenant for a portion of the Great Park Neighborhoods known as District 8. FivePoint is requesting that this covenant be released for the remainder of the former MCAS El Toro property. IRWD staff has reviewed the request and has determined that this covenant is not necessary for the continued groundwater remediation

work on the former base and that FivePoint's current plan of developing this property allows for the Notice of Release to proceed. OCWD staff is presenting the release request to their Property Committee on June 27, 2014 with approval by their Board expected at the July 2, 2014 Board meeting. The resolution authorizing this Notice of Release is attached as Exhibit "A", the Notice of Release form is attached as Exhibit "B", and a map showing the location of the released area is attached as Exhibit "C".

Staff recommends that the areas requested by FivePoint be released from the covenant previously described and that the Board approve the attached resolution releasing this covenant. The resolution states that approval of execution by District officers is subject to execution of the release by OCWD.

FISCAL IMPACT:

None.

ENVIRONMENTAL COMPLIANCE:

This project 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 that may result in a direct physical change in the environment or reasonably foreseeable indirect physical change in the environment.

COMMITTEE REVIEW:

Quitclaims and releases are not routinely taken to Committee prior to submittal for Board approval.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2014 - \_\_

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT APPROVING EXECUTION OF  
THE NOTICE OF RELEASE OF COVENANT FOR ACCESS AND  
SAMPLING RIGHTS RELATED TO GROUNDWATER REMEDIATION IN  
QUITCLAIM DEEDS - GREAT PARK NEIGHBORHOODS

LIST OF EXHIBITS:

Exhibit "A" – Resolution  
Exhibit "B" – Notice of Release  
Exhibit "C" – Location Map

## EXHIBIT "A"

RESOLUTION NO. 2014 -

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT APPROVING EXECUTION OF  
THE NOTICE OF RELEASE OF COVENANT FOR ACCESS AND  
SAMPLING RIGHTS RELATED TO GROUNDWATER REMEDIATION AND  
QUITCLAIM DEEDS - GREAT PARK NEIGHBORHOODS

WHEREAS, FivePoint Communities acquired title as Heritage Fields LLC the former MCAS El Toro Base per quitclaim deeds recorded July 12, 2005 as Instrument No. 2005000536288, 2005000536290, 2005000536292, 2005000536294 and 2011000276333, all of Official Records of Orange County, California; and

WHEREAS, Irvine Ranch Water District ("IRWD") and Orange County Water District ("OCWD") are performing groundwater mediation within MCAS El Toro as part of the Irvine Desalter Project ("IDP"); and

WHEREAS, a covenant entitled "Covenant for Access and Sampling Rights Related to Groundwater Remediation," was placed in each of the 2005 deeds and a covenant entitled "Access by Orange County Water District and Irvine Ranch Water District related to Groundwater Remediation" in the 2011 deed allows OCWD and IRWD the right to enter the property to take soil samples with the purpose of confirming that none of the current operations of the property owner resulted the release of hazardous substances that could impact the treatment system associated with the IDP; and

WHEREAS, Fivepoint Communities is in the process of planning, design, and construction of the residential and commercial developments for the Great Park Neighborhoods and 67% of the Great Park itself and has requested OCWD and IRWD release this area from said covenant mentioned above; and

WHEREAS, IRWD has previously released this covenant from the area known as District 8 and staff has reviewed their request and determined the covenant can be released from the remaining areas; and

WHEREAS, the proposed Notice of Release has been presented to this Board of Directors, copy of which is attached hereto as Exhibit "B".

NOW, THEREFORE, BE IT RESOLVED, the Notice of Release attached hereto as Exhibit "B", herein described is hereby approved, subject to execution by OCWD, and execution by the District's officers is authorized.

ADOPTED, SIGNED and APPROVED this 9th day of June, 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  
IRWD Legal Counsel

By \_\_\_\_\_

# EXHIBIT "B"

**RECORDED AT THE REQUEST OF,  
AND WHEN RECORDED MAIL TO:**

Heritage Fields El Toro, LLC  
c/o Fivepoint Communities Management, Inc.  
25 Enterprise  
Aliso Viejo, CA 92656-2708

**WITH CONFORMED COPIES TO:**

Janice Durant, District Secretary  
Orange County Water District  
18700 Ward Street  
P.O. Box 8300  
Fountain Valley, CA 92728-8300

Leslie Bonkowski, District Secretary  
Irvine Ranch Water District  
15600 Sand Canyon Avenue  
P.O. Box 57000  
Irvine, CA 92619-7000

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*(Space Above This Line For Recorder's Use)*

**Documentary Transfer Tax: \$ 0 No Consideration  
[Exempt from Documentary Transfer Tax per  
Rev. & Taxation Code Sec. 11911(a)]**

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Signature of Declarant or Agent determining tax

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**NOTICE OF RELEASE**

ORANGE COUNTY WATER DISTRICT, a district created by special act of the California Legislature (Ch. 924, Stats 1933), and IRVINE RANCH WATER DISTRICT, a California Water District organized under and existing pursuant to Section 34000 et seq. of the California Water Code, DO HEREBY RELEASE the rights acquired by them pursuant to those certain covenants set forth on Exhibit "A" attached hereto and incorporated herein by this reference (the "Released Covenants").

[signatures appear on next page]



DATED: \_\_\_\_\_

**ORANGE COUNTY WATER DISTRICT,**  
a district created by special act of the  
California Legislature (Ch. 924, Stats 1933)

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

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

DATED: \_\_\_\_\_

**IRVINE RANCH WATER DISTRICT,**  
a California Water District

By: \_\_\_\_\_  
Steven E. LaMar  
President

By: \_\_\_\_\_  
Leslie Bonkowski  
District Secretary

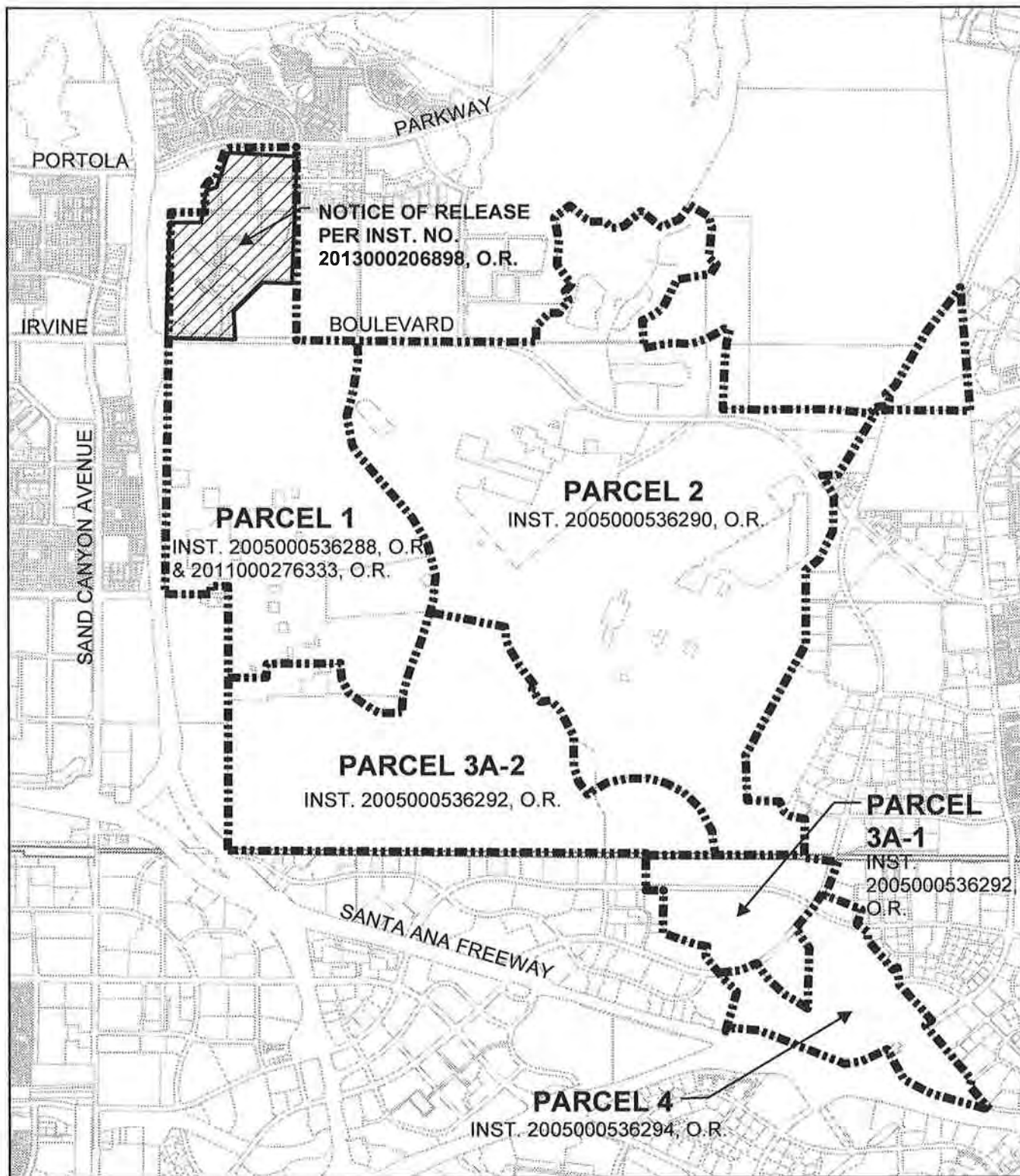


**EXHIBIT "A"**

**RELEASED COVENANTS**

1. Section III, Paragraph G, entitled "Covenant for Access and Sampling Rights Related to Groundwater Remediation," of that certain QUITCLAIM DEED AND ENVIRONMENTAL RESTRICTION PURSUANT TO CIVIL CODE SECTION 1471, recorded in the Official Records of Orange County on July 12, 2005, as Instrument No. 2005000536288.
2. Section III, Paragraph G, entitled "Covenant for Access and Sampling Rights Related to Groundwater Remediation," of that certain QUITCLAIM DEED AND ENVIRONMENTAL RESTRICTION PURSUANT TO CIVIL CODE SECTION 1471, recorded in the Official Records of Orange County on July 12, 2005, as Instrument No. 2005000536290.
3. Section III, Paragraph G, entitled "Covenant for Access and Sampling Rights Related to Groundwater Remediation," of that certain QUITCLAIM DEED AND ENVIRONMENTAL RESTRICTION PURSUANT TO CIVIL CODE SECTION 1471, recorded in the Official Records of Orange County on July 12, 2005, as Instrument No. 2005000536292.
4. Section III, Paragraph E, entitled "Covenant for Access and Sampling Rights Related to Groundwater Remediation," of that certain QUITCLAIM DEED AND ENVIRONMENTAL RESTRICTION PURSUANT TO CIVIL CODE SECTION 1471, recorded in the Official Records of Orange County on July 12, 2005, as Instrument No. 2005000536294.
5. Section IV, entitled "Access by Orange County Water District and Irvine Ranch Water District related to Groundwater Remediation," of that certain QUITCLAIM DEED AND ENVIRONMENTAL RESTRICTION PURSUANT TO CIVIL CODE SECTION 1471, recorded in the Official Records of Orange County on June 3, 2011, as Instrument No. 2011000276333.

EXHIBIT "C"



**GREAT PARK NEIGHBORHOOD PARCELS TO BE RELEASED FROM IRWD/OCWD ACCESS FOR SOILS TESTING COVENANT**



BOUNDARY OF HERITAGE FIELDS ORIGINAL ACQUISITION

PARCEL BOUNDARY

AREA RELEASED FROM GROUNDWATER REMEDIATION COVENANT PER INST. NO. 2013000206398, O.R.



June 9, 2014  
 Prepared by: Tanja Fournier  
 Submitted by: Rob Jacobson/Cheryl Clary  
 Approved by: Paul Cook 

CONSENT CALENDAR

AMENDING OF BOND DOCUMENTS AND CONTINUING DISCLOSURE  
FOR BOND ISSUES RELATED TO ID CONSOLIDATION

SUMMARY:

As a result of November 2013 Improvement Districts (ID) consolidation, staff recommends that the Board approve the following documents related to six of the District’s outstanding bond issues that contain the general obligation of several IDs that were consolidated into ID Nos. 125 and 225:

- Supplemental Indentures of Trust, as outlined in Exhibit “A”;
- Addendum to Remarketing Statements, as outlined in Exhibit “B”;
- Notice of Completion of the Irvine Ranch Water District Improvement District Consolidation, as outlined in Exhibit “C”;
- Consents of Banks to First Supplemental Indenture of Trust, as outlined in Exhibit “D”; and
- Resolution providing for Board approval of the above listed documents and other actions, as outlined in Exhibit “E”.

BACKGROUND:

On November 11, 2013, the District completed its Long-Term Capital Funding Plan, which resulted in combining water ID Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186 into ID No 125, and sewer ID Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, into ID No. 225.

As a result of the consolidation, certain of the IDs listed above were included in the following bond issues and were assumed and became the liability of Improvement District No. 125 or Improvement District No. 225, as referenced:

<u>Bonds</u>	<u>Outstanding Principal Amount (April 1, 2014)</u>
Consolidated Series 1993	\$36,100,000
Consolidated Series 1995	\$16,200,000
Consolidated Refunding Series 2008A	\$55,200,000
Consolidated Series 2009A	\$70,000,000
Consolidated Series 2009B	\$70,000,000
Series 2010B (Federally Taxable - Build America Bonds)	\$175,000,000

Consent Calendar: Amending of Bond Documents and Continuing Disclosure for Bond Issues  
Related to ID Consolidation

June 9, 2014

Page 2

Legal counsel has prepared the necessary documents that amend the Trust Indentures and Remarketing Statements to substitute the previous ID's with the new ID's 125 and 225, A Consent of the Letter of Credit Banks to the Supplemental Indentures (required under the existing Indentures), A Notice of Completion of the Improvement District Consolidation, that will be posted as "Continuing Disclosure" on the Electronic Municipal Market Access (EMMA) website of the Municipal Securities Rulemaking Board, and a Resolution providing for Board approval of the above listed documents.

FISCAL IMPACTS:

None.

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 June 3, 2014.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2014 - \_\_\_\_\_

RESOLUTION OF THE BOARD OF DIRECTORS OF  
THE IRVINE RANCH WATER DISTRICT AUTHORIZING  
NOTICES, DISCLOSURE, SUPPLEMENTAL INDENTURES  
AND CERTAIN OTHER ACTIONS IN CONNECTION WITH  
IMPROVEMENT DISTRICT CONSOLIDATION  
(CONSOLIDATED SERIES 1993, 1995, 2009A AND 2009B;  
SERIES 2010B; AND CONSOLIDATED REFUNDING SERIES 2008A)

LIST OF EXHIBITS:

- Exhibit "A" – Supplemental Indentures of Trust
- Exhibit "B" – Addendums to Remarketing Statements
- Exhibit "C" – Notice of Completion of the IRWD ID Consolidation
- Exhibit "D" – Consent of Letter of Credit Banks to First Supplemental Indenture of Trust
- Exhibit "E" – Resolution approving the above listed documents

Exhibit "A"

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FIRST SUPPLEMENTAL INDENTURE OF TRUST

by and between the

IRVINE RANCH WATER DISTRICT

and

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,  
as Trustee

Dated as of June 1, 2014

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Relating to

BONDS OF IRVINE RANCH WATER DISTRICT,  
CONSOLIDATED SERIES 1993

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## FIRST SUPPLEMENTAL INDENTURE OF TRUST

**THIS FIRST SUPPLEMENTAL INDENTURE OF TRUST**, dated as of June 1, 2014, by and between the IRVINE RANCH WATER DISTRICT, a California water district and THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., a national banking association, as successor trustee;

### WITNESSETH:

**WHEREAS**, pursuant to the Original Indenture (capitalized terms used herein shall have the meanings given such terms pursuant to Section 12.03 hereof) IRWD has issued the Bonds constituting the consolidated general obligations of Improvement Districts Nos. 140, 240, 105 and 250 as provided in the Original Indenture; and

**WHEREAS**, pursuant to Section 36454 *et seq.* of the California Water Code, the Board of Directors (the "Board") of IRWD ordered the consolidation of Improvement District Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated "Improvement District No. 125"; and

**WHEREAS**, pursuant to Section 36454.1 of the California Water Code, the Included Amount of the Bonds constituting the general obligation of Improvement District Nos. 105 and 140 were assumed by and became the liability of Improvement District No. 125; and

**WHEREAS**, pursuant to Section 36454 *et seq.* of the California Water Code, the Board ordered the consolidation of Improvement District Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated "Improvement District No. 225"; and

**WHEREAS**, pursuant to Section 36454.1 of the California Water Code, the Included Amount of the Bonds constituting the general obligation of Improvement District No. 250 were assumed by and became the liability of Improvement District No. 225; and

**WHEREAS**, the Board of IRWD desires to amend the definition of "Improvement Districts" in the Original Indenture and supplement the Original Indenture to reflect the aforementioned consolidations; and

**WHEREAS**, Section 9.01(b) of the Indenture provides that the provisions of the Indenture may be amended or supplemented without the written consent of any Owners, but with the written consent of the Bank when a Letter of Credit is in effect and so long as the Bank is not in default on the Letter of Credit; and

**WHEREAS**, The Bank of New York Mellon is currently the Bank under the Indenture and is not in default on the Letter of Credit; and

**WHEREAS**, IRWD has received written consent from the Bank to the amendments and supplements contained in this First Supplemental Indenture; and



**WHEREAS**, IRWD has determined that all acts and things which are necessary in connection with the authorization, execution and delivery of this First Supplemental Indenture have been done and performed in due time, form and manner;

**NOW, THEREFORE, THIS FIRST SUPPLEMENTAL INDENTURE OF TRUST WITNESSETH:**

That IRWD, in consideration of the premises, the acceptance by the Trustee of the trusts created by the Indenture, as amended and supplemented from time to time, and for other valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, it is agreed by and between IRWD and the Trustee as follows:

## **ARTICLE XII**

### **AUTHORITY; DEFINITIONS**

**SECTION 12.01. Supplemental Indenture of Trust.** This First Supplemental Indenture is amendatory and supplementary of the Original Indenture.

**SECTION 12.02. Authority for this First Supplemental Indenture.** This First Supplemental Indenture is entered into in accordance with Article IX of the Original Indenture.

**SECTION 12.03. Definitions.** (a) Except as otherwise defined by this First Supplemental Indenture, all terms which are defined in Section 1.01 of the Original Indenture, shall have the same meanings, respectively, in this First Supplemental Indenture as such terms are given in said Section 1.01 of the Original Indenture.

(b) **Additional Definition.** The following term shall, for all purposes of the Indenture, have the meaning set forth below:

**“First Supplemental Indenture”** means this First Supplemental Indenture of Trust, dated as of June 1, 2014, by and between the Irvine Ranch Water District and The Bank of New York Mellon Trust Company, N.A., as successor trustee, relating to the Bonds of Irvine Ranch Water District, Consolidated Series 1993.

**“Original Indenture”** means the Indenture of Trust, dated as of May 1, 1993, by and between the Irvine Ranch Water District and The Bank of New York, as trustee, relating to the Bonds of Irvine Ranch Water District, Consolidated Series 1993.

## **ARTICLE XIII**

### **AMENDMENT OF ORIGINAL INDENTURE**

**SECTION 13.01. Amendment of Section 1.01.** The definition of the term “Improvement Districts” in Section 1.01 of the Original Indenture is hereby amended in its entirety to read as follows:

**“Improvement Districts”** means Improvement District No. 125, Improvement District No. 225, and Improvement District No. 240 of IRWD, or any successor improvement district to any thereof.

**SECTION 13.02. Addition of Section 1.03.** The following Section 1.03 is added to Article I of the Original Indenture:

**SECTION 1.03. Interpretation; Construction.** The headings or titles of the several articles and sections hereof and the table of contents appended hereto shall be solely for convenience of reference and shall not affect the meaning, construction or effect hereof, and words of any gender shall be deemed and construed to include all genders. All references herein to “Articles,” “Sections” and other subdivisions or clauses are to the corresponding articles, sections, subdivisions or clauses hereof; and the words “hereby,” “herein,” “hereof,” “hereto,” “herewith,” “hereunder” and other words of similar import refer to the Indenture as a whole and not to any particular articles, section, subdivision or clause thereof. References to definitions of terms used herein shall be to the definition of such terms in Section 1.01. References in the Indenture to Improvement District No. 140 shall be deemed to be references to Improvement District No. 125 (or any successor improvement district thereto). References in the Indenture to Improvement District No. 105 shall be deemed to be references to Improvement District No. 125 (or any successor improvement district thereto). References in the Indenture to Improvement District No. 250 shall be deemed to be references to Improvement District No. 225 (or any successor improvement district thereto).

#### ARTICLE XIV

#### MISCELLANEOUS

**SECTION 14.01. Indenture to Remain in Effect.** Save and except as amended by this First Supplemental Indenture, the Original Indenture shall remain in full force and effect.

**SECTION 14.02. Notice to Rating Agencies.** Pursuant to Section 11.15 of the Indenture, the Trustee shall give notice of this First Supplemental Indenture to Moody’s and S&P.

**SECTION 14.03. Counterparts.** This First Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

**SECTION 14.04. Effective Date.** The effective date of this First Supplemental Indenture shall be the date of its execution by the parties hereof, which is \_\_\_\_\_, 2014.

**IN WITNESS WHEREOF**, IRWD has caused the First Supplemental Indenture of Trust to be signed in its name and on its behalf by the President of its Board of Directors, and its seal to be hereunto affixed and attested by its Secretary, thereunto duly authorized, and to evidence its acceptance of the trusts hereby created, the Trustee has caused the First Supplemental Indenture to be signed in its name and on its behalf by its duly authorized signatory.

**IRVINE RANCH WATER DISTRICT**

By: \_\_\_\_\_  
Steven E. LaMar, President of the  
Board of Directors of the  
Irvine Ranch Water District

[SEAL]

ATTEST:

\_\_\_\_\_  
Leslie Bonkowski, Secretary of  
the Board of Directors of  
the Irvine Ranch Water District

**THE BANK OF NEW YORK MELLON  
TRUST COMPANY, N.A., as Trustee**

By: \_\_\_\_\_  
Authorized Signatory

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**SECOND SUPPLEMENTAL INDENTURE OF TRUST**

by and between the

**IRVINE RANCH WATER DISTRICT**

and

**THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,  
as Trustee**

Dated as of June 1, 2014

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Relating to

**BONDS OF IRVINE RANCH WATER DISTRICT,  
CONSOLIDATED SERIES 1995**

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## SECOND SUPPLEMENTAL INDENTURE OF TRUST

**THIS SECOND SUPPLEMENTAL INDENTURE OF TRUST**, dated as of June 1, 2014, by and between the IRVINE RANCH WATER DISTRICT, a California water district and THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., a national banking association, as successor trustee;

### WITNESSETH:

**WHEREAS**, pursuant to the Indenture of Trust, dated as of December 1, 1995 (the "Original Indenture"), by and between IRWD (capitalized terms used herein shall have the meanings given such terms pursuant to Section 15.03 hereof) and the Trustee, IRWD has issued the Bonds constituting the consolidated general obligations of Improvement Districts Nos. 105, 140, 240, and 250 as provided in the Original Indenture; and

**WHEREAS**, the Original Indenture was previously amended and supplemented pursuant to a First Supplemental Indenture of Trust, dated as of April 1, 2011, by and between IRWD and the Trustee; and

**WHEREAS**, pursuant to Section 36454 *et seq.* of the California Water Code, the Board of Directors (the "Board") of IRWD ordered the consolidation of Improvement District Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated "Improvement District No. 125"; and

**WHEREAS**, pursuant to Section 36454.1 of the California Water Code, the Included Amount of the Bonds constituting the general obligation of Improvement District Nos. 105 and 140 were assumed by and became the liability of Improvement District No. 125; and

**WHEREAS**, pursuant to Section 36454 *et seq.* of the California Water Code, the Board ordered the consolidation of Improvement District Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated "Improvement District No. 225"; and

**WHEREAS**, pursuant to Section 36454.1 of the California Water Code, the Included Amount of the Bonds constituting the general obligation of Improvement District No. 250 were assumed by and became the liability of Improvement District No. 225; and

**WHEREAS**, the Board of IRWD desires to amend the definition of "Improvement Districts" in the Original Indenture and supplement the Original Indenture to reflect the aforementioned consolidations; and

**WHEREAS**, Section 9.01(b) of the Indenture provides that the provisions of the Indenture may be amended or supplemented without the written consent of any Owners, but with the written consent of the Bank when a Letter of Credit is in effect and so long as the Bank is not in default on the Letter of Credit; and

**WHEREAS**, Sumitomo Mitsui Banking Corporation, acting through its New York Branch, is currently the Bank under the Indenture and is not in default on the Letter of Credit; and

**WHEREAS**, IRWD has received written consent from the Bank to the amendments and supplements contained in this Second Supplemental Indenture; and

**WHEREAS**, IRWD has determined that all acts and things which are necessary in connection with the authorization, execution and delivery of this Second Supplemental Indenture have been done and performed in due time, form and manner;

**NOW, THEREFORE, THIS SECOND SUPPLEMENTAL INDENTURE OF TRUST WITNESSETH:**

That IRWD, in consideration of the premises, the acceptance by the Trustee of the trusts created by the Indenture, as amended and supplemented from time to time, and for other valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, it is agreed by and between IRWD and the Trustee as follows:

## **ARTICLE XV**

### **AUTHORITY; DEFINITIONS**

**SECTION 15.01. Supplemental Indenture of Trust.** This Second Supplemental Indenture is amendatory and supplementary of the Original Indenture, as amended and supplemented by the First Supplemental Indenture.

**SECTION 15.02. Authority for this Second Supplemental Indenture.** This Second Supplemental Indenture is entered into in accordance with Article IX of the Original Indenture.

**SECTION 15.03. Definitions.** (a) Except as otherwise defined by this Second Supplemental Indenture, all terms which are defined in Section 1.01 of the Original Indenture shall have the same meanings, respectively, in this Second Supplemental Indenture as such terms are given in said Section 1.01 of the Original Indenture, as amended and supplemented by the First Supplemental Indenture.

(b) **Additional Definition.** The following term shall, for all purposes of the Indenture, have the meaning set forth below:

**“Second Supplemental Indenture”** means this Second Supplemental Indenture of Trust, dated as of June 1, 2014, by and between the Irvine Ranch Water District and The Bank of New York Mellon Trust Company, N.A., as successor trustee, relating to the Bonds of Irvine Ranch Water District, Consolidated Series 1995.

## ARTICLE XVI

### AMENDMENT OF ORIGINAL INDENTURE

**SECTION 16.01. Amendment of Section 1.01.** The definition of the term “Improvement Districts” in Section 1.01 of the Original Indenture is hereby amended in its entirety to read as follows:

“**Improvement Districts**” means Improvement District No. 125, Improvement District No. 225, and Improvement District No. 240 of IRWD, or any successor improvement district to any thereof.

**SECTION 16.02. Addition of Section 1.03.** The following Section 1.03 is added to Article I of the Original Indenture:

**SECTION 1.03. Interpretation; Construction.** The headings or titles of the several articles and sections hereof and the table of contents appended hereto shall be solely for convenience of reference and shall not affect the meaning, construction or effect hereof, and words of any gender shall be deemed and construed to include all genders. All references herein to “Articles,” “Sections” and other subdivisions or clauses are to the corresponding articles, sections, subdivisions or clauses hereof; and the words “hereby,” “herein,” “hereof,” “hereto,” “herewith,” “hereunder” and other words of similar import refer to the Indenture as a whole and not to any particular articles, section, subdivision or clause thereof. References to definitions of terms used herein shall be to the definition of such terms in Section 1.01. References in the Indenture to Improvement District No. 140 shall be deemed to be references to Improvement District No. 125 (or any successor improvement district thereto). References in the Indenture to Improvement District No. 105 shall be deemed to be references to Improvement District No. 125 (or any successor improvement district thereto). References in the Indenture to Improvement District No. 250 shall be deemed to be references to Improvement District No. 225 (or any successor improvement district thereto).

## ARTICLE XVII

### MISCELLANEOUS

**SECTION 17.01. Indenture to Remain in Effect.** Save and except as amended by this Second Supplemental Indenture, the Original Indenture, as amended and supplemented by the First Supplemental Indenture, shall remain in full force and effect.

**SECTION 17.02. Notice to Rating Agencies.** Pursuant to Section 11.15 of the Indenture, the Trustee shall give notice of this Second Supplemental Indenture to Moody’s and S&P.

**SECTION 17.03. Counterparts.** This Second Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

**SECTION 17.04. Effective Date.** The effective date of this Second Supplemental Indenture shall be the date of its execution by the parties hereof, which is \_\_\_\_\_, 2014.



**IN WITNESS WHEREOF**, IRWD has caused the Second Supplemental Indenture of Trust to be signed in its name and on its behalf by the President of its Board of Directors, and its seal to be hereunto affixed and attested by its Secretary, thereunto duly authorized, and to evidence its acceptance of the trusts hereby created, the Trustee has caused the Second Supplemental Indenture to be signed in its name and on its behalf by its duly authorized signatory.

**IRVINE RANCH WATER DISTRICT**

By: \_\_\_\_\_  
Steven E. LaMar, President of the  
Board of Directors of the  
Irvine Ranch Water District

[SEAL]

ATTEST:

\_\_\_\_\_  
Leslie Bonkowski, Secretary of  
the Board of Directors of  
the Irvine Ranch Water District

**THE BANK OF NEW YORK MELLON  
TRUST COMPANY, N.A., as Trustee**

By: \_\_\_\_\_  
Authorized Signatory

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FIRST SUPPLEMENTAL INDENTURE OF TRUST

by and between the

IRVINE RANCH WATER DISTRICT

and

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,  
as Trustee

Dated as of June 1, 2014

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Relating to

BONDS OF IRVINE RANCH WATER DISTRICT,  
CONSOLIDATED REFUNDING SERIES 2008A

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## FIRST SUPPLEMENTAL INDENTURE OF TRUST

**THIS FIRST SUPPLEMENTAL INDENTURE OF TRUST**, dated as of June 1, 2014, by and between the IRVINE RANCH WATER DISTRICT, a California water district and THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., a national banking association, as successor trustee;

### WITNESSETH:

**WHEREAS**, pursuant to the Original Indenture (capitalized terms used herein shall have the meanings given such terms pursuant to Section 12.03 hereof) IRWD has issued the Bonds constituting the consolidated general obligations of Improvement Districts Nos. 105, 113, 135, 161, 182, 213, 235, 250 and 261 as provided in the Original Indenture; and

**WHEREAS**, pursuant to Section 36454 *et seq.* of the California Water Code, the Board of Directors (the "Board") of IRWD ordered the consolidation of Improvement District Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated "Improvement District No. 125"; and

**WHEREAS**, pursuant to Section 36454.1 of the California Water Code, the Included Amount of the Bonds constituting the general obligation of Improvement District Nos. 105, 135, 161 and 182 were assumed by and became the liability of Improvement District No. 125; and

**WHEREAS**, pursuant to Section 36454 *et seq.* of the California Water Code, the Board ordered the consolidation of Improvement District Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated "Improvement District No. 225"; and

**WHEREAS**, pursuant to Section 36454.1 of the California Water Code, the Included Amount of the Bonds constituting the general obligation of Improvement District Nos. 235, 250 and 261 were assumed by and became the liability of Improvement District No. 225; and

**WHEREAS**, the Board of IRWD desires to amend the definition of "Improvement Districts" in the Original Indenture and supplement the Original Indenture to reflect the aforementioned consolidations; and

**WHEREAS**, Section 9.01(b) of the Indenture provides that the provisions of the Indenture may be amended or supplemented without the written consent of any Owners, but with the prior written consent of the Bank when a Letter of Credit is in effect so long as the Bank has not wrongfully dishonored a properly presented and conforming drawing on the Letter of Credit; and

**WHEREAS**, Sumitomo Mitsui Banking Corporation, acting through its New York Branch, is currently the Bank under the Indenture and has not wrongfully dishonored a properly presented and conforming drawing on the Letter of Credit; and

**WHEREAS**, IRWD has received written consent from the Bank to the amendments and supplements contained in this First Supplemental Indenture; and

**WHEREAS**, IRWD has determined that all acts and things which are necessary in connection with the authorization, execution and delivery of this First Supplemental Indenture have been done and performed in due time, form and manner;

**NOW, THEREFORE, THIS FIRST SUPPLEMENTAL INDENTURE OF TRUST WITNESSETH:**

That IRWD, in consideration of the premises, the acceptance by the Trustee of the trusts created by the Indenture, as amended and supplemented from time to time, and for other valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, it is agreed by and between IRWD and the Trustee as follows:

## **ARTICLE XII**

### **AUTHORITY; DEFINITIONS**

**SECTION 12.01. Supplemental Indenture of Trust.** This First Supplemental Indenture is amendatory and supplementary of the Original Indenture.

**SECTION 12.02. Authority for this First Supplemental Indenture.** This First Supplemental Indenture is entered into in accordance with Article IX of the Original Indenture.

**SECTION 12.03. Definitions.** (a) Except as otherwise defined by this First Supplemental Indenture, all terms which are defined in Section 1.01 of the Original Indenture, shall have the same meanings, respectively, in this First Supplemental Indenture as such terms are given in said Section 1.01 of the Original Indenture.

(b) **Additional Definition.** The following term shall, for all purposes of the Indenture, have the meaning set forth below:

**“First Supplemental Indenture”** means this First Supplemental Indenture of Trust, dated as of June 1, 2014, by and between the Irvine Ranch Water District and The Bank of New York Mellon Trust Company, N.A., as successor trustee, relating to the Bonds of Irvine Ranch Water District, Consolidated Refunding Series 2008A.

**“Original Indenture”** means the Indenture of Trust, dated as of April 1, 2008, by and between the Irvine Ranch Water District and The Bank of New York Trust Company, N.A., as trustee, relating to the Bonds of Irvine Ranch Water District, Consolidated Refunding Series 2008A.

## ARTICLE XIII

### AMENDMENT OF ORIGINAL INDENTURE

**SECTION 13.01. Amendment of Section 1.01.** The definition of the term “Improvement Districts” in Section 1.01 of the Original Indenture is hereby amended in its entirety to read as follows:

“**Improvement Districts**” means Improvement District No. 113, Improvement District No. 125, Improvement District No. 213, and Improvement District No. 225 of IRWD, or any successor improvement district to any thereof.

**SECTION 13.02. Addition of Section 1.03.** The following Section 1.03 is added to Article I of the Original Indenture:

**SECTION 1.03. Interpretation; Construction.** The headings or titles of the several articles and sections hereof and the table of contents appended hereto shall be solely for convenience of reference and shall not affect the meaning, construction or effect hereof, and words of any gender shall be deemed and construed to include all genders. All references herein to “Articles,” “Sections” and other subdivisions or clauses are to the corresponding articles, sections, subdivisions or clauses hereof; and the words “hereby,” “herein,” “hereof,” “hereto,” “herewith,” “hereunder” and other words of similar import refer to the Indenture as a whole and not to any particular articles, section, subdivision or clause thereof. References to definitions of terms used herein shall be to the definition of such terms in Section 1.01. References in the Indenture to any of Improvement District No. 105, Improvement District No. 135, Improvement District No. 161 and Improvement District No. 182 shall be deemed to be references to Improvement District No. 125 (or any successor improvement district thereto). References in the Indenture to any of Improvement District No. 235, Improvement District No. 250 and Improvement District No. 261 shall be deemed to be references to Improvement District No. 225 (or any successor improvement district thereto).

## ARTICLE XIV

### MISCELLANEOUS

**SECTION 14.01. Indenture to Remain in Effect.** Save and except as amended by this First Supplemental Indenture, the Original Indenture shall remain in full force and effect.

**SECTION 14.02. Notice to Rating Agencies.** Pursuant to Section 11.14 of the Indenture, the Trustee shall give notice of this First Supplemental Indenture to each Rating Agency.

**SECTION 14.03. Counterparts.** This First Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

**SECTION 14.04. Effective Date.** The effective date of this First Supplemental Indenture shall be the date of its execution by the parties hereof, which is \_\_\_\_\_, 2014.

**IN WITNESS WHEREOF**, IRWD has caused the First Supplemental Indenture of Trust to be signed in its name and on its behalf by the President of its Board of Directors, and its seal to be hereunto affixed and attested by its Secretary, thereunto duly authorized, and to evidence its acceptance of the trusts hereby created, the Trustee has caused the First Supplemental Indenture to be signed in its name and on its behalf by its duly authorized signatory.

**IRVINE RANCH WATER DISTRICT**

By: \_\_\_\_\_  
Steven E. LaMar, President of the  
Board of Directors of the  
Irvine Ranch Water District

[SEAL]

ATTEST:

\_\_\_\_\_  
Leslie Bonkowski, Secretary of  
the Board of Directors of  
the Irvine Ranch Water District

**THE BANK OF NEW YORK MELLON  
TRUST COMPANY, N.A., as Trustee**

By: \_\_\_\_\_  
Authorized Signatory

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SECOND SUPPLEMENTAL INDENTURE OF TRUST

by and between the

IRVINE RANCH WATER DISTRICT

and

U.S. BANK NATIONAL ASSOCIATION,  
as Trustee

Dated as of June 1, 2014

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Relating to

BONDS OF IRVINE RANCH WATER DISTRICT,  
CONSOLIDATED SERIES 2009A

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## SECOND SUPPLEMENTAL INDENTURE OF TRUST

**THIS SECOND SUPPLEMENTAL INDENTURE OF TRUST**, dated as of June 1, 2014, by and between the IRVINE RANCH WATER DISTRICT, a California water district and U.S. BANK NATIONAL ASSOCIATION, a national banking association, as trustee;

### WITNESSETH:

**WHEREAS**, pursuant to the Indenture of Trust, dated as of June 1, 2009 (the "Original Indenture"), by and between IRWD (capitalized terms used herein shall have the meanings given such terms pursuant to Section 1.03 hereof) and the Trustee, IRWD has issued the Bonds constituting the consolidated general obligations of Improvement Districts Nos. 105, 112, 113, 121, 130, 140, 161, 182, 184, 186, 188, 212, 213, 221, 230, 240, 250, 261, 282, 284, 286 and 288; and

**WHEREAS**, the Original Indenture was previously amended and supplemented pursuant to a First Supplemental Indenture of Trust, dated as of July 1, 2013, by and between IRWD and the Trustee; and

**WHEREAS**, pursuant to Section 36454 *et seq.* of the California Water Code, the Board of Directors (the "Board") of IRWD ordered the consolidation of Improvement District Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated "Improvement District No. 125"; and

**WHEREAS**, pursuant to Section 36454.1 of the California Water Code, the Included Amount of the Bonds constituting the general obligation of Improvement District Nos. 105, 121, 130, 140, 161, 182, 184 and 186 were assumed by and became the liability of Improvement District No. 125; and

**WHEREAS**, pursuant to Section 36454 *et seq.* of the California Water Code, the Board ordered the consolidation of Improvement District Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated "Improvement District No. 225"; and

**WHEREAS**, pursuant to Section 36454.1 of the California Water Code, the Included Amount of the Bonds constituting the general obligation of Improvement District Nos. 221, 230, 250, 261, 282, 284 and 286 were assumed by and became the liability of Improvement District No. 225; and

**WHEREAS**, the Board of IRWD desires to amend the definition of "Improvement Districts" in the Original Indenture and supplement the Original Indenture to reflect the aforementioned consolidations; and

**WHEREAS**, Section 9.01(b) of the Original Indenture provides that the provisions of the Indenture may be amended or supplemented without the written consent of any Owners, but with the prior written consent of the Bank when a Letter of Credit is in effect so long as the Bank has

not wrongfully dishonored a properly presented and conforming drawing on the Letter of Credit; and

**WHEREAS**, U.S. Bank National Association is currently the Bank under the Indenture and has not wrongfully dishonored a properly presented and conforming drawing on the Letter of Credit; and

**WHEREAS**, IRWD has received written consent from the Bank to the amendments and supplements contained in this Second Supplemental Indenture; and

**WHEREAS**, IRWD has determined that all acts and things which are necessary in connection with the authorization, execution and delivery of this Second Supplemental Indenture have been done and performed in due time, form and manner;

**NOW, THEREFORE, THIS SECOND SUPPLEMENTAL INDENTURE OF TRUST WITNESSETH:**

That IRWD, in consideration of the premises, the acceptance by the Trustee of the trusts created by the Indenture, as amended and supplemented from time to time, and for other valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, it is agreed by and between IRWD and the Trustee as follows:

## ARTICLE I

### AUTHORITY; DEFINITIONS

**SECTION 1.01. Supplemental Indenture of Trust.** This Second Supplemental Indenture is amendatory and supplementary of the Original Indenture, as amended and supplemented by the First Supplemental Indenture.

**SECTION 1.02. Authority for this Second Supplemental Indenture.** This Second Supplemental Indenture is entered into in accordance with Article IX of the Original Indenture.

**SECTION 1.03. Definitions.** (a) Except as otherwise defined by this Second Supplemental Indenture, all terms which are defined in Section 1.01 of the Original Indenture shall have the same meanings, respectively, in this Second Supplemental Indenture as such terms are given in said Section 1.01 of the Original Indenture, as amended and supplemented by the First Supplemental Indenture.

(b) **Additional Definition.** The following term shall, for all purposes of the Indenture, have the meaning set forth below:

**“Second Supplemental Indenture”** means this Second Supplemental Indenture of Trust, dated as of June 1, 2014, by and between the Irvine Ranch Water District and U.S. Bank National Association, as trustee, relating to the Bonds of Irvine Ranch Water District, Consolidated Series 2009A.

## ARTICLE II

### AMENDMENT OF ORIGINAL INDENTURE

**SECTION 2.01. Amendment of Section 1.01.** The definition of the term “Improvement Districts” in Section 1.01 of the Original Indenture is hereby amended in its entirety to read as follows:

**“Improvement Districts”** means Improvement District No. 112, Improvement District No. 113, Improvement District No. 125, Improvement District No. 188, Improvement District No. 212, Improvement District No. 213, Improvement District No. 225, Improvement District No. 240, and Improvement District No. 288 of IRWD, or any successor improvement district to any thereof.

**SECTION 2.02. Amendment of Section 1.03.** Section 1.03 of the Original Indenture is amended and restated in its entirety to read as follows:

**SECTION 1.03. Interpretation; Construction.** Unless otherwise expressly stated, all times referred to in this Indenture shall be New York City time. The headings or titles of the several articles and sections hereof and the table of contents appended hereto shall be solely for convenience of reference and shall not affect the meaning, construction or effect hereof, and words of any gender shall be deemed and construed to include all genders. All references herein to “Articles,” “Sections” and other subdivisions or clauses are to the corresponding articles, sections, subdivisions or clauses hereof; and the words “hereby,” “herein,” “hereof,” “hereto,” “herewith,” “hereunder” and other words of similar import refer to the Indenture as a whole and not to any particular articles, section, subdivision or clause thereof. References to definitions of terms used herein shall be to the definition of such terms in Section 1.01. References in the Indenture to any of Improvement District No. 105, Improvement District No. 121, Improvement District No. 130, Improvement District No. 140, Improvement District No. 161, Improvement District No. 182, Improvement District No. 184 and Improvement District No. 186 shall be deemed to be references to Improvement District No. 125 (or any successor improvement district thereto). References in the Indenture to any of Improvement District No. 221, Improvement District No. 230, Improvement District No. 250, Improvement District No. 261, Improvement District No. 282, Improvement District No. 284 and Improvement District No. 286 shall be deemed to be references to Improvement District No. 225 (or any successor improvement district thereto).

## ARTICLE III

### MISCELLANEOUS

**SECTION 3.01. Indenture to Remain in Effect.** Save and except as amended by this Second Supplemental Indenture, the Original Indenture, as amended and supplemented by the First Supplemental Indenture, shall remain in full force and effect.

**SECTION 3.02. Notice to Rating Agencies.** Pursuant to Section 11.13 of the Indenture, the Trustee shall give notice of this Second Supplemental Indenture to each Rating Agency.

**SECTION 3.03. Counterparts.** This Second Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

**SECTION 3.04. Effective Date.** The effective date of this Second Supplemental Indenture shall be the date of its execution by the parties hereof, which is \_\_\_\_\_, 2014.

**IN WITNESS WHEREOF**, IRWD has caused the Second Supplemental Indenture of Trust to be signed in its name and on its behalf by the President of its Board of Directors, and its seal to be hereunto affixed and attested by its Secretary, thereunto duly authorized, and to evidence its acceptance of the trusts hereby created, the Trustee has caused the Second Supplemental Indenture to be signed in its name and on its behalf by its duly authorized signatory.

**IRVINE RANCH WATER DISTRICT**

By: \_\_\_\_\_  
Steven E. LaMar, President of the  
Board of Directors of the  
Irvine Ranch Water District

[SEAL]

ATTEST:

\_\_\_\_\_  
Leslie Bonkowski, Secretary of  
the Board of Directors of  
the Irvine Ranch Water District

**U.S. BANK NATIONAL ASSOCIATION**, as  
Trustee

By: \_\_\_\_\_  
Authorized Signatory

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**FIRST SUPPLEMENTAL INDENTURE OF TRUST**

by and between the

**IRVINE RANCH WATER DISTRICT**

and

**U.S. BANK NATIONAL ASSOCIATION,  
as Trustee**

**Dated as of June 1, 2014**

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Relating to

**BONDS OF IRVINE RANCH WATER DISTRICT,  
CONSOLIDATED SERIES 2009B**

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## FIRST SUPPLEMENTAL INDENTURE OF TRUST

**THIS FIRST SUPPLEMENTAL INDENTURE OF TRUST**, dated as of June 1, 2014, by and between the IRVINE RANCH WATER DISTRICT, a California water district and U.S. BANK NATIONAL ASSOCIATION, a national banking association, as trustee;

### WITNESSETH:

**WHEREAS**, pursuant to the Original Indenture (capitalized terms used herein shall have the meanings given such terms pursuant to Section 1.03 hereof) IRWD has issued the Bonds constituting the consolidated general obligations of Improvement Districts Nos. 105, 112, 113, 121, 130, 140, 161, 182, 184, 186, 188, 212, 213, 221, 230, 240, 250, 261, 282, 284, 286 and 288;

**WHEREAS**, pursuant to Section 36454 *et seq.* of the California Water Code, the Board of Directors (the "Board") of IRWD ordered the consolidation of Improvement District Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated "Improvement District No. 125"; and

**WHEREAS**, pursuant to Section 36454.1 of the California Water Code, the Included Amount of the Bonds constituting the general obligation of Improvement District Nos. 105, 121, 130, 140, 161, 182, 184 and 186 were assumed by and became the liability of Improvement District No. 125; and

**WHEREAS**, pursuant to Section 36454 *et seq.* of the California Water Code, the Board ordered the consolidation of Improvement District Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated "Improvement District No. 225"; and

**WHEREAS**, pursuant to Section 36454.1 of the California Water Code, the Included Amount of the Bonds constituting the general obligation of Improvement District Nos. 221, 230, 250, 261, 282, 284 and 286 were assumed by and became the liability of Improvement District No. 225; and

**WHEREAS**, the Board of IRWD desires to amend the definition of "Improvement Districts" in the Original Indenture and supplement the Original Indenture to reflect the aforementioned consolidations; and

**WHEREAS**, Section 9.01(b) of the Original Indenture provides that the provisions of the Indenture may be amended or supplemented without the written consent of any Owners, but with the prior written consent of the Bank when a Letter of Credit is in effect so long as the Bank has not wrongfully dishonored a properly presented and conforming drawing on the Letter of Credit; and

**WHEREAS**, Bank of America, N.A., is currently the Bank under the Indenture and has not wrongfully dishonored a properly presented and conforming drawing on the Letter of Credit; and

**WHEREAS**, IRWD has received written consent from the Bank to the amendments and supplements contained in this First Supplemental Indenture; and

**WHEREAS**, IRWD has determined that all acts and things which are necessary in connection with the authorization, execution and delivery of this First Supplemental Indenture have been done and performed in due time, form and manner;

**NOW, THEREFORE, THIS FIRST SUPPLEMENTAL INDENTURE OF TRUST WITNESSETH:**

That IRWD, in consideration of the premises, the acceptance by the Trustee of the trusts created by the Indenture, as amended and supplemented from time to time, and for other valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, it is agreed by and between IRWD and the Trustee as follows:

## **ARTICLE I**

### **AUTHORITY; DEFINITIONS**

**SECTION 1.01. Supplemental Indenture of Trust.** This First Supplemental Indenture is amendatory and supplementary of the Original Indenture.

**SECTION 1.02. Authority for this First Supplemental Indenture.** This First Supplemental Indenture is entered into in accordance with Article IX of the Original Indenture.

**SECTION 1.03. Definitions.** (a) Except as otherwise defined by this First Supplemental Indenture, all terms which are defined in Section 1.01 of the Original Indenture, as amended and supplemented by the First Supplemental Indenture, shall have the same meanings, respectively, in this First Supplemental Indenture as such terms are given in said Section 1.01 of the Original Indenture, as amended and supplemented by the First Supplemental Indenture.

(b) **Additional Definition.** The following term shall, for all purposes of the Indenture, have the meaning set forth below:

**“First Supplemental Indenture”** means this First Supplemental Indenture of Trust, dated as of June 1, 2014, by and between the Irvine Ranch Water District and U.S. Bank National Association, as trustee, relating to the Bonds of Irvine Ranch Water District, Consolidated Series 2009B.

**“Original Indenture”** means the Indenture of Trust, dated as of June 1, 2009, by and between the Irvine Ranch Water District and U.S. Bank National Association, as trustee, relating to the Bonds of Irvine Ranch Water District, Consolidated Series 2009B.



## ARTICLE II

### AMENDMENT OF ORIGINAL INDENTURE

**SECTION 2.01. Amendment of Section 1.01.** The definition of the term “Improvement Districts” in Section 1.01 of the Original Indenture is hereby amended in its entirety to read as follows:

**“Improvement Districts”** means Improvement District No. 112, Improvement District No. 113, Improvement District No. 125, Improvement District No. 188, Improvement District No. 212, Improvement District No. 213, Improvement District No. 225, Improvement District No. 240, and Improvement District No. 288 of IRWD, or any successor improvement district to any thereof.

**SECTION 2.02. Amendment of Section 1.03.** Section 1.03 of the Original Indenture is amended and restated in its entirety to read as follows:

**SECTION 1.03. Interpretation; Construction.** Unless otherwise expressly stated, all times referred to in this Indenture shall be New York City time. The headings or titles of the several articles and sections hereof and the table of contents appended hereto shall be solely for convenience of reference and shall not affect the meaning, construction or effect hereof, and words of any gender shall be deemed and construed to include all genders. All references herein to “Articles,” “Sections” and other subdivisions or clauses are to the corresponding articles, sections, subdivisions or clauses hereof; and the words “hereby,” “herein,” “hereof,” “hereto,” “herewith,” “hereunder” and other words of similar import refer to the Indenture as a whole and not to any particular articles, section, subdivision or clause thereof. References to definitions of terms used herein shall be to the definition of such terms in Section 1.01. References in the Indenture to any of Improvement District No. 105, Improvement District No. 121, Improvement District No. 130, Improvement District No. 140, Improvement District No. 161, Improvement District No. 182, Improvement District No. 184 and Improvement District No. 186 shall be deemed to be references to Improvement District No. 125 (or any successor improvement district thereto). References in the Indenture to any of Improvement District No. 221, Improvement District No. 230, Improvement District No. 250, Improvement District No. 261, Improvement District No. 282, Improvement District No. 284 and Improvement District No. 286 shall be deemed to be references to Improvement District No. 225 (or any successor improvement district thereto).

## ARTICLE III

### MISCELLANEOUS

**SECTION 3.01. Indenture to Remain in Effect.** Save and except as amended by this First Supplemental Indenture, the Original Indenture shall remain in full force and effect.

**SECTION 3.02. Notice to Rating Agencies.** Pursuant to Section 11.13 of the Indenture, the Trustee shall give notice of this First Supplemental Indenture to each Rating Agency.

**SECTION 3.03. Counterparts.** This First Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

**SECTION 3.04. Effective Date.** The effective date of this First Supplemental Indenture shall be the date of its execution by the parties hereof, which is \_\_\_\_\_, 2014.

**IN WITNESS WHEREOF**, IRWD has caused the First Supplemental Indenture of Trust to be signed in its name and on its behalf by the President of its Board of Directors, and its seal to be hereunto affixed and attested by its Secretary, thereunto duly authorized, and to evidence its acceptance of the trusts hereby created, the Trustee has caused the First Supplemental Indenture to be signed in its name and on its behalf by its duly authorized signatory.

**IRVINE RANCH WATER DISTRICT**

By: \_\_\_\_\_  
Steven E. LaMar, President of the  
Board of Directors of the  
Irvine Ranch Water District

[SEAL]

ATTEST:

\_\_\_\_\_  
Leslie Bonkowski, Secretary of  
the Board of Directors of  
the Irvine Ranch Water District

**U.S. BANK NATIONAL ASSOCIATION**, as  
Trustee

By: \_\_\_\_\_  
Authorized Signatory

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SECOND SUPPLEMENTAL INDENTURE OF TRUST

by and between the

IRVINE RANCH WATER DISTRICT

and

U.S. BANK NATIONAL ASSOCIATION,  
as Trustee

Dated as of June 1, 2014

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Relating to

BONDS OF IRVINE RANCH WATER DISTRICT,  
SERIES 2010B (FEDERALLY TAXABLE – BUILD AMERICA BONDS)

---

## SECOND SUPPLEMENTAL INDENTURE OF TRUST

**THIS SECOND SUPPLEMENTAL INDENTURE OF TRUST**, dated as of June 1, 2014, by and between the IRVINE RANCH WATER DISTRICT, a California water district and U.S. BANK NATIONAL ASSOCIATION, a national banking association, as trustee;

### WITNESSETH:

**WHEREAS**, pursuant to the Indenture of Trust, dated as of December 1, 2010 (the “Original Indenture”), by and between IRWD (capitalized terms used herein shall have the meanings given such terms pursuant to Section 1.03 hereof) and the Trustee, IRWD has issued the Bonds constituting the consolidated general obligations of Improvement Districts Nos. 105, 112, 113, 121, 130, 161, 182, 184, 188, 212, 221, 230, 250, 261, 282 and 284; and

**WHEREAS**, the Original Indenture was previously amended and supplemented pursuant to a First Supplemental Indenture of Trust, dated as of January 1, 2011, by and between IRWD and the Trustee; and

**WHEREAS**, pursuant to Section 36454 *et seq.* of the California Water Code, the Board of Directors (the “Board”) of IRWD ordered the consolidation of Improvement District Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated “Improvement District No. 125”; and

**WHEREAS**, pursuant to Section 36454.1 of the California Water Code, the Included Amount of the Bonds constituting the general obligation of Improvement District Nos. 105, 121, 130, 161, 182 and 184 were assumed by and became the liability of Improvement District No. 125; and

**WHEREAS**, pursuant to Section 36454 *et seq.* of the California Water Code, the Board ordered the consolidation of Improvement District Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated “Improvement District No. 225”; and

**WHEREAS**, pursuant to Section 36454.1 of the California Water Code, the Included Amount of the Bonds constituting the general obligation of Improvement District Nos. 221, 230, 250, 261, 282 and 284 were assumed by and became the liability of Improvement District No. 225; and

**WHEREAS**, the Board of IRWD desires to amend the definition of “Improvement Districts” in the Original Indenture and supplement the Original Indenture to reflect the aforementioned consolidations; and

**WHEREAS**, Section 8.01(b) of the Original Indenture provides that the provisions of the Indenture may be amended or supplemented without the written consent of any Owners for certain purposes; and

**WHEREAS**, IRWD has determined that all acts and things which are necessary in connection with the authorization, execution and delivery of this Second Supplemental Indenture have been done and performed in due time, form and manner;

**NOW, THEREFORE, THIS SECOND SUPPLEMENTAL INDENTURE OF TRUST WITNESSETH:**

That IRWD, in consideration of the premises, the acceptance by the Trustee of the trusts created by the Indenture, as amended and supplemented from time to time, and for other valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, it is agreed by and between IRWD and the Trustee as follows:

## **ARTICLE I**

### **AUTHORITY; DEFINITIONS**

**SECTION 1.01. Supplemental Indenture of Trust.** This Second Supplemental Indenture is amendatory and supplementary of the Original Indenture, as amended and supplemented by the First Supplemental Indenture.

**SECTION 1.02. Authority for this Second Supplemental Indenture.** This Second Supplemental Indenture is entered into in accordance with Article VIII of the Original Indenture.

**SECTION 1.03. Definitions.** (a) Except as otherwise defined by this Second Supplemental Indenture, all terms which are defined in Section 1.01 of the Original Indenture shall have the same meanings, respectively, in this Second Supplemental Indenture as such terms are given in said Section 1.01 of the Original Indenture, as amended and supplemented by the First Supplemental Indenture.

(b) **Additional Definition.** The following term shall, for all purposes of the Indenture, have the meaning set forth below:

**“First Supplemental Indenture”** means the First Supplemental Indenture of Trust, dated as of January 1, 2011, by and between the Irvine Ranch Water District and U.S. Bank National Association, as trustee, relating to the Bonds of Irvine Ranch Water District, Series 2010B (Federally Taxable – Build America Bonds).

**“Second Supplemental Indenture”** means this Second Supplemental Indenture of Trust, dated as of June 1, 2014, by and between the Irvine Ranch Water District and U.S. Bank National Association, as trustee, relating to the Bonds of Irvine Ranch Water District, Series 2010B (Federally Taxable – Build America Bonds).

## ARTICLE II

### AMENDMENT OF ORIGINAL INDENTURE

**SECTION 2.01. Amendment of Section 1.01.** The definition of the term “Improvement Districts” in Section 1.01 of the Original Indenture is hereby amended in its entirety to read as follows:

“**Improvement Districts**” means Improvement District No. 112, Improvement District No. 113, Improvement District No. 125, Improvement District No. 188, Improvement District No. 212, and Improvement District No. 225 of IRWD, or any successor improvement district to any thereof.

**SECTION 2.02. Amendment of Section 1.03.** The following is added after the last sentence of Section 1.03 of the Original Indenture:

References in the Indenture to any of Improvement District No. 105, Improvement District No. 121, Improvement District No. 130, Improvement District No. 161, Improvement District No. 182 and Improvement District No. 184 shall be deemed to be references to Improvement District No. 125 (or any successor improvement district thereto). References in the Indenture to any of Improvement District No. 221, Improvement District No. 230, Improvement District No. 250, Improvement District No. 261, Improvement District No. 282 and Improvement District No. 284 shall be deemed to be references to Improvement District No. 225 (or any successor improvement district thereto).

## ARTICLE III

### MISCELLANEOUS

**SECTION 3.01. Indenture to Remain in Effect.** Save and except as amended by this Second Supplemental Indenture, the Original Indenture, as amended and supplemented by the First Supplemental Indenture, shall remain in full force and effect.

**SECTION 3.02. Counterparts.** This Second Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

**SECTION 3.03. Effective Date.** The effective date of this Second Supplemental Indenture shall be the date of its execution by the parties hereof, which is \_\_\_\_\_, 2014.

**IN WITNESS WHEREOF**, IRWD has caused the Second Supplemental Indenture of Trust to be signed in its name and on its behalf by the President of its Board of Directors, and its seal to be hereunto affixed and attested by its Secretary, thereunto duly authorized, and to evidence its acceptance of the trusts hereby created, the Trustee has caused the Second Supplemental Indenture to be signed in its name and on its behalf by its duly authorized signatory.

**IRVINE RANCH WATER DISTRICT**

By: \_\_\_\_\_  
Steven E. LaMar, President of the  
Board of Directors of the  
Irvine Ranch Water District

[SEAL]

ATTEST:

\_\_\_\_\_  
Leslie Bonkowski, Secretary of  
the Board of Directors of  
the Irvine Ranch Water District

**U.S. BANK NATIONAL ASSOCIATION**, as  
Trustee

By: \_\_\_\_\_  
Authorized Signatory



Exhibit "B"

**ADDENDUM DATED JUNE \_\_\_\_ 2014 TO  
REMARKETING STATEMENT DATED JUNE 4, 2012**

**Relating To**

**BONDS OF IRVINE RANCH WATER DISTRICT  
CONSOLIDATED SERIES 1993  
CUSIP NO.<sup>1</sup>: 463632 3W7**

The following updates certain information contained in the above-described Remarketing Statement (the "Remarketing Statement"). Capitalized terms used in this Addendum and not otherwise defined shall have the meanings given such terms in the Remarketing Statement.

**Consolidation of Certain Improvement Districts**

On November 11, 2013, the District completed its Long-Term Capital Funding Plan, which resulted in combining certain developed and developing areas into two separate improvement districts. The District ordered (a) the consolidation of Improvement District Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186, as modified by certain annexations and detachments ordered by the Board of Directors of the District, into a single water improvement district designated "Improvement District No. 125," and (b) the consolidation of Improvement District Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, as modified by certain annexations and detachments ordered by the Board of Directors of the District, into a single sewer improvement district designated "Improvement District No. 225" (the "Consolidation"). As a result of such Consolidation, certain of the improvement districts with liability for the Series 1993 Bonds were consolidated into Improvement District No. 125 or 225. Pursuant to the California Water Code, the included amount of each of the District's outstanding bonds, including the Series 1993 Bonds, constituting the general obligation of each improvement district consolidated into Improvement District No. 125 or Improvement District No. 225 was assumed by and became the liability of Improvement District No. 125 or Improvement District No. 225, respectively.

For more information about Improvement District Nos. 125 and 225, and the applicable improvement districts and included percentages for each series of the District's outstanding bonds, including the Series 1993 Bonds, see the Notice of Completion of the Irvine Ranch Water District Improvement District Consolidation filed by the District on the Electronic Municipal Market Access (EMMA) website of the Municipal Securities Rulemaking Board on June \_\_\_\_, 2014.

The District plans to execute a supplemental indenture for its Series 1993 Bonds to update the definition of "Improvement Districts" therein and, accordingly, the respective included amounts and included percentages to reflect the changes resulting from the above-described Consolidation.

IRVINE RANCH WATER DISTRICT

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

<sup>1</sup> Copyright 2014, American Bankers Association. CUSIP numbers are provided for convenience of reference only. The District does not take any responsibility for the accuracy of such CUSIP numbers.

**ADDENDUM DATED JUNE \_\_\_ 2014 TO  
SUPPLEMENT TO OFFICIAL STATEMENT DATED APRIL 13, 2011**

**Relating To**

**BONDS OF IRVINE RANCH WATER DISTRICT  
CONSOLIDATED SERIES 1995  
CUSIP NO.<sup>1</sup>: 463632 4A4**

The following updates certain information contained in the above-described Supplement to Official Statement (the "Supplement to Official Statement"). Capitalized terms used in this Addendum and not otherwise defined shall have the meanings given such terms in the Supplement to Official Statement.

**Consolidation of Certain Improvement Districts**

On November 11, 2013, the District completed its Long-Term Capital Funding Plan, which resulted in combining certain developed and developing areas into two separate improvement districts. The District ordered (a) the consolidation of Improvement District Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186, as modified by certain annexations and detachments ordered by the Board of Directors of the District, into a single water improvement district designated "Improvement District No. 125," and (b) the consolidation of Improvement District Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, as modified by certain annexations and detachments ordered by the Board of Directors of the District, into a single sewer improvement district designated "Improvement District No. 225" (the "Consolidation"). As a result of such Consolidation, certain of the improvement districts with liability for the Series 1995 Bonds were consolidated into Improvement District No. 125 or 225. Pursuant to the California Water Code, the included amount of each of the District's outstanding bonds, including the Series 1995 Bonds, constituting the general obligation of each improvement district consolidated into Improvement District No. 125 or Improvement District No. 225 was assumed by and became the liability of Improvement District No. 125 or Improvement District No. 225, respectively.

For more information about Improvement District Nos. 125 and 225, and the applicable improvement districts and included percentages for each series of the District's outstanding bonds, including the Series 1995 Bonds, see the Notice of Completion of the Irvine Ranch Water District Improvement District Consolidation filed by the District on the Electronic Municipal Market Access (EMMA) website of the Municipal Securities Rulemaking Board on June \_\_\_, 2014.

The District plans to execute a supplemental indenture for its Series 1995 Bonds to update the definition of "Improvement Districts" therein and, accordingly, the respective included amounts and included percentages to reflect the changes resulting from the above-described Consolidation.

IRVINE RANCH WATER DISTRICT

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

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**ADDENDUM DATED JUNE \_\_\_\_ 2014 TO  
SUPPLEMENT TO OFFICIAL STATEMENT DATED APRIL 13, 2011**

**Relating To**

**BONDS OF IRVINE RANCH WATER DISTRICT  
CONSOLIDATED REFUNDING SERIES 2008A  
CUSIP NO.<sup>1</sup>: 463632 4D8**

The following updates certain information contained in the above-described Supplement to Official Statement (the "Supplement to Official Statement"). Capitalized terms used in this Addendum and not otherwise defined shall have the meanings given such terms in the Supplement to Official Statement.

**Consolidation of Certain Improvement Districts**

On November 11, 2013, the District completed its Long-Term Capital Funding Plan, which resulted in combining certain developed and developing areas into two separate improvement districts. The District ordered (a) the consolidation of Improvement District Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186, as modified by certain annexations and detachments ordered by the Board of Directors of the District, into a single water improvement district designated "Improvement District No. 125," and (b) the consolidation of Improvement District Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, as modified by certain annexations and detachments ordered by the Board of Directors of the District, into a single sewer improvement district designated "Improvement District No. 225" (the "Consolidation"). As a result of such Consolidation, certain of the improvement districts with liability for the Series 2008A Bonds were consolidated into Improvement District No. 125 or 225. Pursuant to the California Water Code, the included amount of each of the District's outstanding bonds, including the Series 2008A Bonds, constituting the general obligation of each improvement district consolidated into Improvement District No. 125 or Improvement District No. 225 was assumed by and became the liability of Improvement District No. 125 or Improvement District No. 225, respectively.

For more information about Improvement District Nos. 125 and 225, and the applicable improvement districts and included percentages for each series of the District's outstanding bonds, including the Series 2008A Bonds, see the Notice of Completion of the Irvine Ranch Water District Improvement District Consolidation filed by the District on the Electronic Municipal Market Access (EMMA) website of the Municipal Securities Rulemaking Board on June \_\_\_\_, 2014.

The District plans to execute a supplemental indenture for its Series 2008A Bonds to update the definition of "Improvement Districts" therein and, accordingly, the respective included amounts and included percentages to reflect the changes resulting from the above-described Consolidation.

IRVINE RANCH WATER DISTRICT

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

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<sup>1</sup> Copyright 2014, American Bankers Association. CUSIP numbers are provided for convenience of reference only. The District does not take any responsibility for the accuracy of such CUSIP numbers.

**ADDENDUM DATED JUNE \_\_\_ 2014 TO  
OFFICIAL STATEMENT DATED MAY 21, 2009**

**Relating To**

**BONDS OF IRVINE RANCH WATER DISTRICT  
CONSOLIDATED SERIES 2009A  
CUSIP NO.<sup>1</sup>: 463632 4H9**

**BONDS OF IRVINE RANCH WATER DISTRICT  
CONSOLIDATED SERIES 2009B  
CUSIP NO.<sup>1</sup>: 463632 4K2**

The following updates certain information contained in the above-described Official Statement (the "Official Statement"). Capitalized terms used in this Addendum and not otherwise defined shall have the meanings given such terms in the Official Statement.

**Consolidation of Certain Improvement Districts**

On November 11, 2013, the District completed its Long-Term Capital Funding Plan, which resulted in combining certain developed and developing areas into two separate improvement districts. The District ordered (a) the consolidation of Improvement District Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186, as modified by certain annexations and detachments ordered by the Board of Directors of the District, into a single water improvement district designated "Improvement District No. 125," and (b) the consolidation of Improvement District Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, as modified by certain annexations and detachments ordered by the Board of Directors of the District, into a single sewer improvement district designated "Improvement District No. 225" (the "Consolidation"). As a result of such Consolidation, certain of the improvement districts with liability for the Series 2009A Bonds and the Series 2009B Bonds were consolidated into Improvement District No. 125 or 225. Pursuant to the California Water Code, the included amount of each of the District's outstanding bonds, including the Series 2009A Bonds and the Series 2009B Bonds, constituting the general obligation of each improvement district consolidated into Improvement District No. 125 or Improvement District No. 225 was assumed by and became the liability of Improvement District No. 125 or Improvement District No. 225, respectively.

For more information about Improvement District Nos. 125 and 225, and the applicable improvement districts and included percentages for each series of the District's outstanding bonds, including the Series 2009A Bonds and the Series 2009B, see the Notice of Completion of the Irvine Ranch Water District Improvement District Consolidation filed by the District on the Electronic Municipal Market Access (EMMA) website of the Municipal Securities Rulemaking Board on June \_\_\_, 2014.

The District plans to execute a supplemental indenture for each of its Series 2009A Bonds and its Series 2009B Bonds to update the definition of "Improvement Districts" therein and, accordingly, the respective included amounts and included percentages to reflect the changes resulting from the above-described Consolidation.

IRVINE RANCH WATER DISTRICT

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

<sup>1</sup> Copyright 2014, American Bankers Association. CUSIP numbers are provided for convenience of reference only. The District does not take any responsibility for the accuracy of such CUSIP numbers.

**ADDENDUM DATED JUNE \_\_\_\_ 2014 TO  
OFFICIAL STATEMENT DATED DECEMBER 8, 2010**

**Relating To**

**BONDS OF IRVINE RANCH WATER DISTRICT  
SERIES 2010 (FEDERALLY TAXABLE – BUILD AMERICA BONDS)  
CUSIP NO.<sup>1</sup>: 463632 4P1**

The following updates certain information contained in the above-described Official Statement (the “Official Statement”). Capitalized terms used in this Addendum and not otherwise defined shall have the meanings given such terms in the Official Statement.

**Consolidation of Certain Improvement Districts**

On November 11, 2013, the District completed its Long-Term Capital Funding Plan, which resulted in combining certain developed and developing areas into two separate improvement districts. The District ordered (a) the consolidation of Improvement District Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186, as modified by certain annexations and detachments ordered by the Board of Directors of the District, into a single water improvement district designated “Improvement District No. 125,” and (b) the consolidation of Improvement District Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, as modified by certain annexations and detachments ordered by the Board of Directors of the District, into a single sewer improvement district designated “Improvement District No. 225” (the “Consolidation”). As a result of such Consolidation, certain of the improvement districts with liability for the Series 2010 Bonds were consolidated into Improvement District No. 125 or 225. Pursuant to the California Water Code, the included amount of each of the District’s outstanding bonds, including the Series 2010 Bonds, constituting the general obligation of each improvement district consolidated into Improvement District No. 125 or Improvement District No. 225 was assumed by and became the liability of Improvement District No. 125 or Improvement District No. 225, respectively.

For more information about Improvement District Nos. 125 and 225, and the applicable improvement districts and included percentages for each series of the District’s outstanding bonds, including the Series 2010 Bonds, see the Notice of Completion of the Irvine Ranch Water District Improvement District Consolidation filed by the District on the Electronic Municipal Market Access (EMMA) website of the Municipal Securities Rulemaking Board on June \_\_\_\_, 2014.

The District plans to execute a supplemental indenture for its Series 2010 Bonds to update the definition of “Improvement Districts” therein and, accordingly, the respective included amounts and included percentages to reflect the changes resulting from the above-described Consolidation.

IRVINE RANCH WATER DISTRICT

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

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<sup>1</sup> Copyright 2014, American Bankers Association. CUSIP numbers are provided for convenience of reference only. The District does not take any responsibility for the accuracy of such CUSIP numbers.



Exhibit "C"



**IRVINE RANCH WATER DISTRICT**

15600 Sand Canyon Ave., P.O. Box 57000, Irvine, CA 92619-7000 (949) 453-5300

**NOTICE OF COMPLETION OF THE IRVINE RANCH WATER DISTRICT  
IMPROVEMENT DISTRICT CONSOLIDATION**

The Irvine Ranch Water District (the "District") hereby provides notice of the following notice of improvement district consolidations related to the following bond issues:

<b>Bonds</b>	<b>Original Principal Amount Issued</b>	<b>Outstanding Principal Amount (as of April 1, 2014)</b>	<b>CUSIP Number*</b>
Bonds of Irvine Ranch Water District Consolidated Series 1993	\$38,300,000	\$36,100,000	463632 3W7
Bonds of Irvine Ranch Water District Consolidated Series 1995	\$40,000,000	\$16,200,000	463632 4A4
Bonds of Irvine Ranch Water District Consolidated Refunding Series 2008A	\$60,215,000	\$55,200,000	463632 4D8
Bonds of Irvine Ranch Water District Consolidated Series 2009A	\$75,000,000	\$70,000,000	463632 4H9
Bonds of Irvine Ranch Water District Consolidated Series 2009B	\$75,000,000	\$70,000,000	463632 4K2
Bonds of Irvine Ranch Water District Series 2010B (Federally Taxable - Build America Bonds)	\$175,000,000	\$175,000,000	463632 4P1

**Notice of Improvement District Consolidation**

On November 11, 2013, the District completed its Long-Term Capital Funding Plan, which resulted in combining certain developed and developing areas into two separate improvement districts. The District ordered (a) the consolidation of Improvement District Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186, as modified by certain annexations and detachments ordered by the Board of Directors of the District (the "Board"), into a single water improvement district designated "Improvement District No. 125," and (b) the consolidation of Improvement District Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, as modified by certain annexations and detachments ordered by the Board, into a single sewer improvement district designated "Improvement District No. 225" (the "Consolidation").

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As a result of such Consolidation, certain of the improvement districts with liability for one or more of the above-described series of bonds were consolidated into Improvement District No. 125 or 225. Pursuant to the California Water Code, the included amount of each of the District's bonds constituting the general obligation of each improvement district consolidated into Improvement District No. 125 or Improvement District No. 225 (the "Bonds") was assumed by and became the liability of Improvement District No. 125 or Improvement District No. 225, respectively. Certain information with respect to Improvement District Nos. 125 and 225 is set forth in Appendix A attached hereto.

As a result of such Consolidation and with respect to each consolidated improvement district, the applicable improvement districts and their respective included percentages for each series of Bonds have been adjusted. The adjustment of the included percentages reflects each consolidated improvement district's assumption of liability for the included amounts of the improvement districts consolidated into such consolidated improvement district for each series of Bonds. The following tables set forth with respect to each series of Bonds the applicable improvement districts and their respective included percentages at the time of issuance of such series of Bonds and as a result of the Consolidation.



**Bonds of Irvine Ranch Water District  
Consolidated Series 1993  
CUSIP No.\*: 463632 3W7**

Outstanding Principal Amount (as of April 1, 2014): \$36,100,000

**Original ID Allocation**

Improvement Districts Included	105	140	240	250
Percentages	14.67%	15.20%	43.73%	26.40%

**Consolidated ID Allocation**

Improvement Districts Included	125	225	240
Percentages	29.87%	26.40%	43.73%

As indicated above, Improvement District Nos. 105 and 140 were among the improvement districts consolidated into Improvement District No. 125.

Additionally, Improvement District No. 250 was among the improvement districts consolidated into Improvement District No. 225. Improvement District No. 240 was not among the sewer improvement districts consolidated into Improvement District No. 225.

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**Bonds of Irvine Ranch Water District  
Consolidated Series 1995  
CUSIP No. \*: 463632 4A4**

Outstanding Principal Amount (as of April 1, 2014): \$16,200,000

**Original ID Allocation**

Improvement Districts Included Percentages	105	140	240	250
	25.26%	11.61%	25.26%	37.87%

**Consolidated ID Allocation**

Improvement Districts Included Percentages	125	225	240
	36.87%	37.87%	25.26%

As indicated above, Improvement District Nos. 105 and 140 were among the improvement districts consolidated into Improvement District No. 125.

Additionally, Improvement District No. 250 was among the improvement districts consolidated into Improvement District No. 225. Improvement District No. 240 was not among the sewer improvement districts consolidated into Improvement District No. 225.

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**Bonds of Irvine Ranch Water District  
Consolidated Refunding Series 2008A**  
CUSIP No.\* : 463632 4D8

Outstanding Principal Amount (as of April 1, 2014): \$55,200,000

**Original ID Allocation**

Improvement Districts Included	113	135	105	161	182	213	235	250	261
Percentages	2.50%	8.28%	28.33%	1.83%	0.60%	18.50%	4.98%	33.15%	1.83%

**Consolidated ID Allocation**

Improvement Districts Included	113	125	213	225
Percentages	2.50%	39.04%	18.50%	39.96%

As indicated above, Improvement District Nos. 135, 105, 161 and 182 were among the improvement districts consolidated into Improvement District No. 125. Improvement District No. 113 was not among the water improvement districts consolidated into Improvement District No. 125.

Additionally, Improvement District Nos. 235, 250 and 261 were among the improvement districts consolidated into Improvement District No. 225. Improvement District No. 213 was not among the sewer improvement districts consolidated into Improvement District No. 225.

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**Bonds of Irvine Ranch Water District  
Consolidated Series 2009A  
CUSIP No. \*: 463632 4H9**

Outstanding Principal Amount (as of April 1, 2014): \$70,000,000

**Original ID Allocation**

Improvement Districts Included	105	112	113	121	130	140	161	182	184	186	188
Percentages	20.33%	1.83%	2.00%	3.87%	3.53%	1.20%	2.40%	1.13%	0.80%	0.67%	0.12%

Improvement Districts Included	212	213	221	230	240	250	261	282	284	286	288
Percentages	4.87%	4.27%	10.40%	11.13%	3.00%	20.87%	5.27%	0.65%	1.13%	0.33%	0.20%

**Consolidated ID Allocation**

Improvement Districts Included	112	113	125	188	212	213	225	240	288
Percentages	1.83%	2.00%	33.93%	0.12%	4.87%	4.27%	49.78%	3.00%	0.20%

As indicated above, Improvement District Nos. 105, 121, 130, 140, 161, 182, 184 and 186 were among the improvement districts consolidated into Improvement District No. 125. Improvement District Nos. 112, 113 and 188 were not among the water improvement districts consolidated into Improvement District No. 125.

Additionally, Improvement District Nos. 221, 230, 250, 261, 282, 284 and 286 were among the improvement districts consolidated into Improvement District No. 225. Improvement District Nos. 212, 213, 240 and 288 were not among the sewer improvement districts consolidated into Improvement District No. 225.

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**Bonds of Irvine Ranch Water District  
Consolidated Series 2009B  
CUSIP No.\* : 463632 4K2**

Outstanding Principal Amount (as of April 1, 2014): \$70,000,000

**Original ID Allocation**

Improvement Districts Included Percentages	105	112	113	121	130	140	161	182	184	186	188
	20.33%	1.83%	2.00%	3.87%	3.53%	1.20%	2.40%	1.13%	0.80%	0.67%	0.12%

Improvement Districts Included Percentages	212	213	221	230	240	250	261	282	284	286	288
	4.87%	4.27%	10.40%	11.13%	3.00%	20.87%	5.27%	0.65%	1.13%	0.33%	0.20%

**Consolidated ID Allocation**

Improvement Districts Included Percentages	112	113	125	188	212	213	225	240	288
	1.83%	2.00%	33.93%	0.12%	4.87%	4.27%	49.78%	3.00%	0.20%

As indicated above, Improvement District Nos. 105, 121, 130, 140, 161, 182, 184 and 186 were among the improvement districts consolidated into Improvement District No. 125. Improvement District Nos. 112, 113 and 188 were not among the water improvement districts consolidated into Improvement District No. 125.

Additionally, Improvement District Nos. 221, 230, 250, 261, 282, 284 and 286 were among the improvement districts consolidated into Improvement District No. 225. Improvement District Nos. 212, 213, 240 and 288 were not among the sewer improvement districts consolidated into Improvement District No. 225.

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**Bonds of Irvine Ranch Water District  
Series 2010B  
(Federally Taxable - Build America Bonds)  
CUSIP No.\* : 463632 4P1**

Outstanding Principal Amount (as of April 1, 2014): \$175,000,000

**Original ID Allocation**

Improvement Districts Included Percentages	105	112	113	121	130	161	182	184	188
	13.60%	1.71%	3.03%	8.23%	6.69%	4.00%	1.71%	1.57%	0.74%

Improvement Districts Included Percentages	212	221	230	250	261	282	284
	4.80%	3.37%	12.11%	24.67%	9.77%	2.00%	2.00%

**Consolidated ID Allocation**

Improvement Districts Included Percentages	112	113	125	188	212	225
	1.71%	3.03%	35.80%	0.74%	4.80%	53.92%

As indicated above, Improvement District Nos. 105, 121, 130, 161, 182, and 184 were among the improvement districts consolidated into Improvement District No. 125. Improvement District Nos. 112, 113 and 188 were not among the water improvement districts consolidated into Improvement District No. 125.

Additionally, Improvement District Nos. 221, 230, 250, 261, 282 and 284 were among the improvement districts consolidated into Improvement District No. 225. Improvement District No. 212 was not among the sewer improvement districts consolidated into Improvement District No. 225.

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**Bonds of Irvine Ranch Water District**  
**Refunding Series 2011A-1**  
CUSIP No. : 463632 4Q9

Outstanding Principal Amount (as of April 1, 2014): \$56,040,000

**Original ID Allocation**

Improvement Districts Included Percentages	105	113	213	250
	46.70%	5.00%	6.30%	42.00%

**Consolidated ID Allocation**

Improvement Districts Included Percentages	113	125	213	225
	5.00%	46.70%	6.30%	42.00%

As indicated above, Improvement District No. 105 was among the improvement districts consolidated into Improvement District No. 125. Improvement District No. 113 was not among the water improvement districts consolidated into Improvement District No. 125.

Additionally, Improvement District No. 250 was among the improvement districts consolidated into Improvement District No. 225. Improvement District No. 213 was not among the sewer improvement districts consolidated into Improvement District No. 225.

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**Bonds of Irvine Ranch Water District**  
**Refunding Series 2011A-2**  
 CUSIP No.\* : 463632 4R7

Outstanding Principal Amount (as of April 1, 2014): \$37,360,000

**Original ID Allocation**

Improvement Districts Included Percentages	105	113	213	250
	46.70%	5.00%	6.30%	42.00%

**Consolidated ID Allocation**

Improvement Districts Included Percentages	113	125	213	225
	5.00%	46.70%	6.30%	42.00%

As indicated above, Improvement District No. 105 was among the improvement districts consolidated into Improvement District No. 125. Improvement District No. 113 was not among the water improvement districts consolidated into Improvement District No. 125.

Additionally, Improvement District No. 250 was among the improvement districts consolidated into Improvement District No. 225. Improvement District No. 213 was not among the sewer improvement districts consolidated into Improvement District No. 225.

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\* Copyright 2014, American Bankers Association. CUSIP numbers are provided for convenience of reference only. The District does not take any responsibility for the accuracy of such CUSIP numbers.



## APPENDIX A

The following is a general description of Improvement District Nos. 125 and 225 of the Irvine Ranch Water District (the "District").

**General.** Improvement District No. 125 (water) covers approximately 35,438 acres of the District, including several contiguous and non-contiguous areas in the central and coastal parts of the District. Improvement District No. 225 (sewer) covers approximately 32,862 acres of the District, including several contiguous and non-contiguous areas in the central part of the District. Currently, the majority of the land within Improvement District Nos. 125 and 225 consists of developed residential property. The District expects certain areas within Improvement District Nos. 125 and 225 to be subject to infill development and redevelopment in the future. The District expects such additional development in Improvement District Nos. 125 and 225 to continue through at least 2020. The estimated Fiscal Year 2014 assessed value of the land in Improvement District No. 125 is \$27,277,417,155. The estimated Fiscal Year 2014 assessed value of the land in Improvement District No. 225 is \$22,829,540,910.

The following table presents the assessed valuations of land in Improvement District No. 125 for the Fiscal Year ending June 30, 2014. Assessed valuations of land in Improvement District No. 125 are not available for Fiscal Years prior to Fiscal Year 2014 because Improvement District No. 125 did not exist prior to November 11, 2013.

### IRVINE RANCH WATER DISTRICT Improvement District No. 125 Assessed Valuations (Land Only)

<i>Fiscal Year</i>	<i>Local Secured</i>	<i>Unsecured<sup>(1)</sup></i>	<i>Total</i>
2014	\$27,277,013,090	\$404,065 <sup>(2)</sup>	\$27,277,417,155

<sup>(1)</sup> Assessed value of unsecured land only, reflecting possessory interests in tax exempt utility property and gas and oil leases.

<sup>(2)</sup> Certain secured values that were omitted from the secured tax roll and allocated to the unsecured tax roll by the County Assessor in Fiscal Year 2014 have been omitted from the table.

Source: California Municipal Statistics, Inc.

The following table presents the assessed valuations of land in Improvement District No. 225 for the Fiscal Year ending June 30, 2014. Assessed valuations of land in Improvement District No. 225 are not available for Fiscal Years prior to Fiscal Year 2014 because Improvement District No. 225 did not exist prior to November 11, 2013.

### IRVINE RANCH WATER DISTRICT Improvement District No. 225 Assessed Valuations (Land Only)

<i>Fiscal Year</i>	<i>Local Secured</i>	<i>Unsecured<sup>(1)</sup></i>	<i>Total</i>
2014	\$22,829,136,845	\$404,065 <sup>(2)</sup>	\$22,829,540,910

<sup>(1)</sup> Assessed value of unsecured land only, reflecting possessory interests in tax exempt utility property and gas and oil leases.

<sup>(2)</sup> Certain secured values that were omitted from the secured tax roll and allocated to the unsecured tax roll by the County Assessor in Fiscal Year 2014 have been omitted from the table.

Source: California Municipal Statistics, Inc.

The following table sets forth information with respect to land only local secured assessed valuation in Improvement District No. 125 (excluding tax exempt utility property and gas and oil leases) by land use for the Fiscal Year ending June 30, 2014:

**IRVINE RANCH WATER DISTRICT  
Improvement District No. 125  
Assessed Valuation and Parcels by Land Use**

	<i>Fiscal Year 2014 Assessed Valuation<sup>(1)</sup></i>	<i>% of Total</i>	<i>No. of Parcels<sup>(2)</sup></i>	<i>% of Total</i>
<b>Non-Residential:</b>				
Commercial	\$ 2,682,287,127	9.83%	1,434	1.39%
Industrial	1,483,529,535	5.44	1,129	1.09
Miscellaneous	<u>43,543,864</u>	<u>0.16</u>	<u>200</u>	<u>0.19</u>
Subtotal Non-Residential	\$ 4,209,360,526	15.43%	2,763	2.68%
<b>Residential:</b>				
Single Family Residence	\$ 15,654,267,400	57.39%	34,104	33.08%
Condominium/Townhouse	6,388,624,169	23.42	27,854	27.01
Timeshare Parcels	271,023,274	0.99	37,848	36.71
2+ Residential Units/Apartments	517,791,020	1.90	221	0.21
Vacant Residential	<u>235,946,701</u>	<u>0.87</u>	<u>321</u>	<u>0.31</u>
Subtotal Residential	\$ 23,067,652,564	84.57%	100,348	97.32%
<b>Total</b>	<u>\$ 27,277,013,090</u>	<u>100.00%</u>	<u>103,111</u>	<u>100.00%</u>

<sup>(1)</sup> Land Only Local Secured Assessed Valuation; excludes tax exempt utility property and gas and oil leases.

<sup>(2)</sup> Excludes parcels with no taxable value.

Source: California Municipal Statistics, Inc.

The following table sets forth information with respect to land only local secured assessed valuation in Improvement District No. 225 (excluding tax exempt utility property and gas and oil leases) by land use for the Fiscal Year ending June 30, 2014:

**IRVINE RANCH WATER DISTRICT  
Improvement District No. 225  
Assessed Valuation and Parcels by Land Use**

	<i>Fiscal Year 2014 Assessed Valuation<sup>(1)</sup></i>	<i>% of Total</i>	<i>No. of Parcels<sup>(2)</sup></i>	<i>% of Total</i>
<b>Non-Residential:</b>				
Commercial	\$ 2,617,977,352	11.47%	1,393	2.14%
Industrial	1,472,347,285	6.45	1,108	1.70
Miscellaneous	<u>43,104,768</u>	<u>0.19</u>	<u>201</u>	<u>0.31</u>
Subtotal Non-Residential	\$ 4,133,429,405	18.11%	2,702	4.15%
<b>Residential:</b>				
Single Family Residence	\$ 11,814,467,880	51.75%	33,631	51.71%
Condominium/Townhouse	6,109,562,036	26.76	28,173	43.32
2+ Residential Units/Apartments	555,710,984	2.43	228	0.35
Vacant Residential	<u>215,966,540</u>	<u>0.95</u>	<u>303</u>	<u>0.47</u>
Subtotal Residential	\$ 18,695,707,440	81.89%	62,335	95.85%
<b>Total</b>	<u>\$ 22,829,136,845</u>	<u>100.00%</u>	<u>65,037</u>	<u>100.00%</u>

<sup>(1)</sup> Land Only Local Secured Assessed Valuation; excludes tax exempt utility property and gas and oil leases.

<sup>(2)</sup> Excludes parcels with no taxable value.

Source: California Municipal Statistics, Inc.

**Principal Taxpayers.** The following table lists the major taxpayers in Improvement District No. 125 based on land only local secured assessed valuations for the Fiscal Year ending June 30, 2014:

**IRVINE RANCH WATER DISTRICT  
Improvement District No. 125  
Largest Local Secured Taxpayers**

	<i>Property Owner</i>	<i>Primary Land Use</i>	<i>Fiscal Year 2014 Assessed Valuation</i>	<i>% of Total<sup>(1)</sup></i>
1.	The Irvine Company	Residential and Commercial	\$1,035,308,219	3.80%
2.	Heritage Fields El Toro LLC	Residential and Commercial	162,652,426	0.60
3.	Shea/Baker Ranch Associates LLC	Residential	66,355,164	0.24
4.	Irvine Apartment Communities LP	Apartments	57,369,989	0.21
5.	American Stores Company LLC	Commercial	51,316,798	0.19
6.	Walton CWCA Spectrum 56 LLC	Industrial	40,255,933	0.15
7.	PPC Irvine Center Investment LLC	Commercial	32,772,600	0.12
8.	Kia Motors America Inc.	Commercial	32,709,294	0.12
9.	Northwestern Mutual Life Ins. Co.	Industrial	30,353,837	0.11
10.	100 Bayview LLC	Commercial	29,350,560	0.11
	<b>TOTAL</b>		<u>\$1,538,444,820</u>	<u>5.64%</u>

<sup>(1)</sup> Fiscal Year 2014 Local Secured Assessed Valuation (Land Only): \$27,277,013,090.  
Source: California Municipal Statistics, Inc.

The following table lists the major taxpayers in Improvement District No. 225 based on land only local secured assessed valuations for the Fiscal Year ending June 30, 2014:

**IRVINE RANCH WATER DISTRICT  
Improvement District No. 225  
Largest Local Secured Taxpayers**

	<i>Property Owner</i>	<i>Primary Land Use</i>	<i>Fiscal Year 2014 Assessed Valuation</i>	<i>% of Total<sup>(1)</sup></i>
1.	The Irvine Company	Residential and Commercial	\$ 960,383,821	4.21%
2.	Heritage Fields El Toro LLC	Residential and Commercial	162,652,426	0.71
3.	Irvine Apartment Communities LP	Apartments	78,907,131	0.35
4.	Shea/Baker Ranch Associates LLC	Residential	66,355,164	0.29
5.	American Stores Company LLC	Commercial	51,316,798	0.22
6.	Walton CWCA Spectrum 56 LLC	Industrial	40,255,933	0.18
7.	PPC Irvine Center Investment LLC	Commercial	32,772,600	0.14
8.	Kia Motors America Inc.	Commercial	32,709,294	0.14
9.	Northwestern Mutual Life Ins. Co.	Industrial	30,353,837	0.13
10.	100 Bayview LLC	Commercial	29,350,560	0.13
	<b>TOTAL</b>		<u>\$1,485,057,564</u>	<u>6.51%</u>

<sup>(1)</sup> Fiscal Year 2014 Local Secured Assessed Valuation (Land Only): \$22,829,136,845.  
Source: California Municipal Statistics, Inc.

**Statement of Direct and Overlapping Debt.** Set forth in the table below is a direct and overlapping debt report (the "Debt Reports-I.D. 125/225") for Improvement District Nos. 125 and 225, respectively, prepared by California Municipal Statistics, Inc. and effective December 31, 2013. The Debt Reports-I.D. 125/225 were prepared by California Municipal Statistics, Inc., and the District expresses no opinion on the completeness or accuracy of such reports and makes no representation in connection therewith.

California Municipal Statistics, Inc. reports that the Debt Reports-I.D. 125/225 generally include long-term obligations sold in the public credit markets by public agencies whose boundaries overlap the boundaries of Improvement District No. 125 and No. 225 in whole or in part. Such long-term obligations generally are not payable from revenues of the District or Improvement District No. 125 and No. 225 (except as indicated) nor are they necessarily obligations secured by land within Improvement District No. 125 and No. 225.

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**IRVINE RANCH WATER DISTRICT**  
**Improvement District No. 125**  
**Direct and Overlapping Debt Statement**

Fiscal Year 2014 Land Only Assessed Valuation: \$27,277,417,155

<u>DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT:</u>	<u>% Applicable<sup>(1)</sup></u>	<u>Debt 12/31/13</u>
Metropolitan Water District	2.499%	\$ 4,125,474
Coast Community College District	5.248	33,189,071
Rancho Santiago Community College District	1.039	2,965,620
Laguna Beach Unified School District	15.202	4,328,009
Newport Mesa Unified School District	14.581	34,535,704
Saddleback Valley Unified School District	33.886	42,981,002
Tustin Unified School District School Facilities Improvement District No. 2002-1	4.236	2,332,417
Tustin Unified School District School Facilities Improvement District No. 2008-1	4.346	3,134,987
Tustin Unified School District School Facilities Improvement District No. 2012-1	35.643	12,475,050
<b>Irvine Ranch Water District Improvement District No. 125</b>	<b>100.000</b>	<b>195,652,000<sup>(2)</sup></b>
Irvine Ranch Water District Improvement District No. 225	97.791	239,552,240
Irvine Ranch Water District Improvement District No. 112/212	12.188	2,532,666
Irvine Ranch Water District Improvement District No. 240	100.000	26,292,000
Community Facilities Districts	0.737-100.000	692,946,044
County 1915 Act Bonds	100.000	83,818,296
City 1915 Act Bonds	Various	<u>721,463,022</u>
<b>TOTAL DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT</b>		<b>\$2,102,323,602</b>
 <u>OVERLAPPING GENERAL FUND DEBT:</u>		
Orange County General Fund Obligations	12.341%	\$ 20,999,569
Orange County Pension Obligations	12.341	27,218,728
Orange County Board of Education Certificates of Participation	12.341	1,946,176
Orange Unified School District Certificates of Participation and Benefit Obligations	2.177	2,670,038
City of Lake Forest Certificates of Participation	83.177	8,575,549
City of Newport Beach Certificates of Participation	23.686	28,294,111
Municipal Water District of Orange County Water Facilities Corporation	14.787	<u>1,149,689</u>
<b>TOTAL GROSS OVERLAPPING GENERAL FUND DEBT</b>		<b>\$ 90,853,860</b>
Less: MWDOC Water Facilities Corporation (100% supported)		<u>1,149,689</u>
<b>TOTAL NET OVERLAPPING GENERAL FUND DEBT</b>		<b>\$ 89,704,171</b>
 <b>OVERLAPPING TAX INCREMENT DEBT (Successor Agencies)</b>		 <b>\$ 9,001,684</b>
 <b>GROSS COMBINED TOTAL DEBT</b>		 <b>\$2,202,179,146<sup>(3)</sup></b>
<b>NET COMBINED TOTAL DEBT</b>		<b>\$2,201,029,457</b>

Ratios to Fiscal Year 2014 Land Only Assessed Valuation:

**Direct Debt (\$195,652,000) .....0.72%**  
**Total Direct and Overlapping Tax and Assessment Debt.....7.71%**

Ratios to Adjusted All Property Assessed Valuation:

Gross Combined Total Debt.....4.03%  
 Net Combined Total Debt .....4.03%

<sup>(1)</sup> Based on all property assessed valuation of \$54,600,862,069.

<sup>(2)</sup> Improvement District No. 125 was formed by consolidating former Improvement District Nos. 105, 106, 120, 121, 130, 135, 140, 161, 182, 184 and 186.

<sup>(3)</sup> Excludes tax and revenue anticipation notes, enterprise revenue, mortgage revenue and tax allocation bonds and non-bonded capital lease obligations.

Source: California Municipal Statistics, Inc.

Exhibit "D"

**CONSENT OF BANK TO FIRST SUPPLEMENTAL  
INDENTURE OF TRUST**

The Bank of New York Mellon (the "Bank"), as provider of an irrevocable letter of credit in support of the Bonds of Irvine Ranch Water District, Consolidated Series 1993, originally issued in the aggregate principal amount of \$38,300,000 (the "Bonds"), hereby consents to those certain amendments and supplements to the Indenture of Trust, dated as of May 1, 1993 (the "Indenture"), by and between Irvine Ranch Water District ("IRWD") and The Bank of New York Mellon Trust Company, N.A. (successor-in-interest to the Bank of New York), as Trustee (the "Trustee"), as are set forth in the First Supplemental Indenture of Trust, dated as of June 1, 2014, by and between IRWD and the Trustee, a copy of which First Supplemental Indenture of Trust is attached hereto as Exhibit A.

This consent is given in compliance with Section 9.01(b) of the Indenture and as required by the Reimbursement Agreement, dated as of June 1, 2012, between IRWD and the Bank.

Dated: \_\_\_\_\_, 2014

**THE BANK OF NEW YORK MELLON,**  
as Bank

By: \_\_\_\_\_  
Authorized Officer

**CONSENT OF BANK TO SECOND SUPPLEMENTAL  
INDENTURE OF TRUST**

Sumitomo Mitsui Banking Corporation, acting through its New York Branch (the "Bank"), as provider of an irrevocable letter of credit in support of the Bonds of Irvine Ranch Water District, Consolidated Series 1995, originally issued in the aggregate principal amount of \$40,000,000 (the "Bonds"), hereby consents to those certain amendments and supplements to the Indenture of Trust, dated as of December 1, 1995, as supplemented by the First Supplemental Indenture of Trust, dated as of April 1, 2011 (collectively, the "Indenture"), each by and between Irvine Ranch Water District ("IRWD") and The Bank of New York Mellon Trust Company, N.A. (successor-in-interest to the Bank of New York), as Trustee (the "Trustee"), as are set forth in the Second Supplemental Indenture of Trust, dated as of June 1, 2014, by and between IRWD and the Trustee, a copy of which Second Supplemental Indenture of Trust is attached hereto as Exhibit A.

This consent is given in compliance with Section 9.01(b) of the Indenture and as required by the Reimbursement Agreement, dated as of April 1, 2011, between IRWD and the Bank.

Dated: \_\_\_\_\_, 2014

**SUMITOMO MITSUI BANKING  
CORPORATION, ACTING THROUGH  
ITS NEW YORK BRANCH, as Bank**

By: \_\_\_\_\_  
Authorized Officer

**CONSENT OF BANK TO FIRST SUPPLEMENTAL  
INDENTURE OF TRUST**

Sumitomo Mitsui Banking Corporation, acting through its New York Branch (the "Bank"), as provider of an irrevocable letter of credit in support of the Bonds of Irvine Ranch Water District, Consolidated Refunding Series 2008A, originally issued in the aggregate principal amount of \$60,215,000 (the "Bonds"), hereby consents to those certain amendments and supplements to the Indenture of Trust, dated as of April 1, 2008 (the "Indenture"), by and between Irvine Ranch Water District ("IRWD") and The Bank of New York Mellon Trust Company, N.A. (successor-in-interest to The Bank of New York Trust Company, N.A.), as Trustee (the "Trustee"), as are set forth in the First Supplemental Indenture of Trust, dated as of June 1, 2014, by and between IRWD and the Trustee, a copy of which First Supplemental Indenture of Trust is attached hereto as Exhibit A.

This consent is given in compliance with Section 9.01(b) of the Indenture and as required by the Reimbursement Agreement, dated as of April 1, 2011, between IRWD and the Bank.

Dated: \_\_\_\_\_, 2014

**SUMITOMO MITSUI BANKING  
CORPORATION, ACTING THROUGH  
ITS NEW YORK BRANCH, as Bank**

By: \_\_\_\_\_  
Authorized Officer



**CONSENT OF BANK TO SECOND SUPPLEMENTAL  
INDENTURE OF TRUST**

U.S. Bank National Association (the "Bank"), as provider of an irrevocable letter of credit in support of the Bonds of Irvine Ranch Water District, Consolidated Series 2009A, originally issued in the aggregate principal amount of \$75,000,000 (the "Bonds"), hereby consents to those certain amendments and supplements to the Indenture of Trust, dated as of June 1, 2009, as supplemented by the First Supplemental Indenture of Trust, dated as of July 1, 2013 (collectively, the "Indenture"), each by and between Irvine Ranch Water District ("IRWD") and U.S. Bank National Association, as Trustee (the "Trustee"), as are set forth in the Second Supplemental Indenture of Trust, dated as of June 1, 2014, by and between IRWD and the Trustee, a copy of which Second Supplemental Indenture of Trust is attached hereto as Exhibit A.

This consent is given in compliance with Section 9.01(b) of the Indenture and as required by the Amended and Restated Reimbursement Agreement, dated as of April 1, 2011, as amended by the First Amendment to Amended and Restated Reimbursement Agreement, dated as of July 15, 2013, each between IRWD and the Bank.

Dated: \_\_\_\_\_, 2014

**U.S. BANK NATIONAL  
ASSOCIATION, as Bank**

By: \_\_\_\_\_  
Authorized Officer

**CONSENT OF BANK TO FIRST SUPPLEMENTAL  
INDENTURE OF TRUST**

Bank of America, N.A. (the "Bank"), as provider of an irrevocable letter of credit in support of the Bonds of Irvine Ranch Water District, Consolidated Series 2009B, originally issued in the aggregate principal amount of \$75,000,000 (the "Bonds"), hereby consents to those certain amendments and supplements to the Indenture of Trust, dated as of June 1, 2009 (the "Indenture"), by and between Irvine Ranch Water District ("IRWD") and U.S. Bank National Association, as Trustee (the "Trustee"), as are set forth in the First Supplemental Indenture of Trust, dated as of June 1, 2014, by and between IRWD and the Trustee, a copy of which First Supplemental Indenture of Trust is attached hereto as Exhibit A.

This consent is given in compliance with Section 9.01(b) of the Indenture and as required by the Amended and Restated Reimbursement Agreement, dated as of April 1, 2011, as amended by the First Amendment to Amended and Restated Reimbursement Agreement, dated as of July 15, 2013, each between IRWD and the Bank.

Dated: \_\_\_\_\_, 2014

**BANK OF AMERICA, N.A., as Bank**

By: \_\_\_\_\_  
Authorized Officer

Exhibit "E"

RESOLUTION NO. 2014-\_\_\_

RESOLUTION OF THE BOARD OF DIRECTORS OF  
THE IRVINE RANCH WATER DISTRICT AUTHORIZING  
NOTICES, DISCLOSURE, SUPPLEMENTAL INDENTURES  
AND CERTAIN OTHER ACTIONS IN CONNECTION WITH  
IMPROVEMENT DISTRICT CONSOLIDATIONS  
(CONSOLIDATED SERIES 1993, 1995, 2009A AND 2009B; SERIES  
2010B; AND CONSOLIDATED REFUNDING SERIES 2008A)

WHEREAS, the Irvine Ranch Water District ("IRWD") has issued the following series of its Bonds: Bonds of Irvine Ranch Water District, Consolidated Series 1993 (the "Series 1993 Bonds"), Bonds of Irvine Ranch Water District, Consolidated Series 1995 (the "Series 1995 Bonds"), Bonds of Irvine Ranch Water District, Consolidated Refunding Series 2008A (the "Series 2008A Bonds"), Bonds of Irvine Ranch Water District, Consolidated Series 2009A (the "Series 2009A Bonds"), Bonds of Irvine Ranch Water District, Consolidated Series 2009B (the "Series 2009B Bonds") and Bonds of Irvine Ranch Water District, Series 2010B (Federally-Taxable Build America Bonds) (the "Series 2010B Bonds" and, together with the Series 1993 Bonds, the Series 1995 Bonds, the Series 2008A Bonds, the Series 2009A Bonds and the Series 2009B Bonds, the "Bonds"); and

WHEREAS, the 1993 Bonds were issued constituting the several general obligations of Improvement District Nos. 105, 140, 240 and 250, pursuant to an Indenture of Trust relating to the 1993 Bonds, dated as of May 1, 1993, by and between the District and The Bank of New York Mellon Trust Company, N.A., as successor trustee; and

WHEREAS, the 1995 Bonds were issued constituting the several general obligations of Improvement District Nos. 105, 140, 240 and 250, pursuant to an Indenture of Trust relating to the 1995 Bonds, dated as of December 1, 1995, which was subsequently amended and supplemented by a First Supplemental Indenture of Trust, dated as of April 1, 2011, each by and between the District and The Bank of New York Mellon Trust Company, N.A., as successor trustee; and

WHEREAS, the 2008A Bonds were issued constituting the several general obligations of Improvement District Nos. 105, 113, 135, 161, 182, 213, 235, 250 and 261, pursuant to an Indenture of Trust relating to the 2008A Bonds, dated as of April 1, 2008, by and between the District and The Bank of New York Mellon Trust Company, N.A., as successor trustee; and

WHEREAS, the 2009A Bonds were issued constituting the several general obligations of Improvement District Nos. 105, 112, 113, 121, 130, 140, 161, 182, 184, 186, 188, 212, 213, 221, 230, 240, 250, 261, 282, 284, 286 and 288, pursuant to an Indenture of Trust relating to the 2009A Bonds, dated as of June 1, 2009, which was subsequently amended and supplemented by a First Supplemental Indenture of Trust, dated as of July 1, 2013, each by and between the District and U.S. Bank National Association, as trustee; and

WHEREAS, the 2009B Bonds were issued constituting the several general obligations of Improvement District Nos. 105, 112, 113, 121, 130, 140, 161, 182, 184, 186, 188, 212, 213, 221, 230, 240, 250, 261, 282, 284, 286 and 288, pursuant to an Indenture of Trust relating to the 2009B Bonds, dated as of June 1, 2009, by and between the District and U.S. Bank National Association, as trustee; and

WHEREAS, the 2010B Bonds were issued constituting the several general obligations of Improvement District Nos. 105, 112, 113, 121, 130, 161, 182, 184, 188, 212, 221, 230, 250, 261, 282 and 284, pursuant to an Indenture of Trust relating to the 2010B Bonds, dated as of December 1, 2010, which was subsequently amended and supplemented by the First Supplemental Indenture of Trust dated as of January 1, 2011, each by and between the District and U.S. Bank National Association, as trustee; and

WHEREAS, pursuant to Section 36454 *et seq.* of the California Water Code, the Board of Directors (the "Board") of the District ordered the consolidation of Improvement District Nos. 102, 105, 106, 121, 130, 135, 140, 161, 182, 184 and 186, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated "Improvement District No. 125"; and

WHEREAS, pursuant to Section 36454.1 of the California Water Code, the included amounts and/or included percentages of each series of the Bonds that constituted the general obligation of one or more of Improvement District Nos. 105, 121, 130, 135, 140, 161, 182, 184 and 186 were assumed by and became the liability of Improvement District No. 125; and

WHEREAS, pursuant to Section 36454 *et seq.* of the California Water Code, the Board ordered the consolidation of Improvement District Nos. 2(202), 206, 221, 230, 235, 250, 261, 282, 284 and 286, as modified by certain annexations and detachments ordered by the Board, into a single improvement district designated "Improvement District No. 225"; and

WHEREAS, pursuant to Section 36454.1 of the California Water Code, the included amounts and/or included percentages of the respective series of the Bonds that constituted the general obligation of one or more of Improvement District Nos. 221, 230, 235, 250, 261, 282, 284 and 286 were assumed by and became the liability of Improvement District No. 225; and

WHEREAS, this Board desires to approve the form of a notice to be filed with EMMA notifying the owners of the Bonds of the improvement district consolidations; and

WHEREAS, there has been placed on file with the Secretary of the District the form of a notice of completion of improvement district consolidation, to be filed with EMMA notifying the owners of the respective Bonds of such improvement district consolidations (the "Notice"); and

WHEREAS, this Board desires to approve the form of an addendum to each of the latest official statements (or remarketing statements used in connection with the remarketing of the respective series of the Bonds) for the respective series of the Bonds to reflect the aforementioned improvement district consolidations; and

WHEREAS, there has been placed on file with the Secretary of the District the forms of addenda to each of the latest official statements or remarketing statements relating to the respective series of the Bonds (referred to herein as the "Disclosure Statements"); and

WHEREAS, to reflect the aforementioned improvement district consolidations and to make certain other amendments, the Board of Directors desires to amend the definition of "Improvement Districts" in the above-identified indentures of trust for the respective series of

Bonds, other than the indenture for the Series 1993 Bonds, with respect to which this Board of Directors has previously approved a supplemental indenture of trust for such purposes (such indentures, excluding the indenture relating to the Series 1993 Bonds, referred to herein as the "Indentures"); and

WHEREAS, Section 9.01(b) of each the Indentures, or, in the case of the indenture of trust relating to the Series 2008B Bonds, Section 8.01(b), provides that the provisions of the Indenture may be amended or supplemented without the written consent of the owners of the respective Bonds, and, for each Indenture except for the Series 2010B Indenture, with the written consent of the letter of credit-issuing bank when a letter of credit is in effect so long as the bank is not in default on the letter of credit, in order to make such provisions for the purpose of curing any ambiguity or of correcting, curing or supplementing any defective provision contained herein or in regard to questions arising thereunder which IRWD may deem desirable or necessary, and which shall not adversely affect the interests of the owners of the respective Bonds; and

WHEREAS, there has been placed on file with the Secretary of the District the form of a supplemental indenture of trust relating to each of the Indentures, and this Board desires to approve the form and authorize the execution of a supplemental indenture of trust amending and supplementing each Indenture; and

WHEREAS, except in the case of the Series 2010B Indenture, with respect to which conditions regarding a bank letter of credit are not applicable, the bank is not in default with respect to its letter of credit issued with respect to any of the Indentures, and IRWD has received written consent from each of such banks to the amendments and supplements contained in the form of the supplemental indenture of trust;

NOW THEREFORE, the Board of Directors of IRWD DOES HEREBY RESOLVE, DETERMINE and ORDER as follows:

Section 1. The form of the Notice as presented to this meeting, with such changes thereto as the Treasurer of IRWD shall approve and incorporate therein, is approved, and the Treasurer is authorized and directed to execute and file such Notice.

Section 2. The forms of the addenda, to be dated the date(s) determined by the Treasurer and in substantially the forms presented to the Board at this meeting (each, an "Addendum" and together, the "Addenda"), are hereby approved with such changes thereto as the Treasurer with the concurrence of the President shall approve (such approval and concurrence to be conclusively evidenced by execution and delivery thereof). The Board hereby approves the use of the Addenda to the Disclosure Statements by the remarketing agents, if any, for the respective series, including delivery of the Addenda in electronic form, in connection with any remarketing of the respective Bonds, and the Board hereby further approves the use by the remarketing agents of any supplements or amendments to each Addendum, including delivery of any such supplements or amendments in electronic form, which the Treasurer shall determine are necessary so that such Addendum does not include any untrue statement of a material fact and does not omit to state a material fact necessary to make the statements therein not misleading. The Treasurer of IRWD is hereby authorized and directed to execute the Addenda and any

amendments or supplements thereto, in the name and on behalf of IRWD and thereupon to cause the Addenda and any such amendments or supplements to be delivered to the respective remarketing agents.

Section 3. A supplemental indenture of trust relating to each Indenture, by and between the District and the respective trustee, to be dated as of June 1, 2014, is hereby approved in the form on file with the Secretary upon adoption of this resolution, and the President and Secretary of the District are authorized and directed to execute each supplemental indenture of trust in such form, with such changes, insertions and deletions as are approved by the Treasurer of the District with the concurrence of the President, which approval will be conclusively evidenced by execution and delivery thereof.

Section 4. The foregoing authorizations shall further include any and all of the following: preparation and/or approval, execution and delivery of any notices, instruments, disclosure or other documents to be delivered or distributed in conjunction with the authorized actions; and any other actions to implement such authorizations.

Section 5. The President, Secretary and each other officer of IRWD hereby is authorized and directed to execute and deliver any and all documents and instruments and to do and cause to be done any and all acts and things necessary or proper for carrying out the transactions contemplated by this resolution.

ADOPTED, SIGNED AND APPROVED this \_\_\_\_ day of \_\_\_\_\_, 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 - IRWD

By 

00175207/060214

June 9, 2014

Prepared by: K. Welch/M. Hoolihan

Submitted by: P. Weghorst

Approved by: Paul Cook

## CONSENT CALENDAR

### VERIFICATION OF SUFFICIENT WATER SUPPLIES FOR UPTOWN NEWPORT BEACH (TENTATIVE TRACT MAP 17438)

#### SUMMARY:

In March 2014, staff received a request by the City of Newport Beach (City) to complete a Verification of Sufficient Water Supplies (WSV) for the Uptown Newport Beach proposed project within IRWD Planning Area NB-01 (Newport Beach PA 2011-134). Staff has completed the WSV for the Uptown Newport Beach project and recommends the Board approve the document.

#### BACKGROUND:

The City's proposed project is located within the designation of the Uptown Newport Village Specific Plan and includes redevelopment of a 25-acre site from industrial/office to a residential village with retail. The project location is between Jamboree Road and Von Karman Avenue and currently includes one office building and the Tower Jazz Semiconductor site (formerly Conexant). On March 14, 2011, the Board approved a Water Supply Assessment (WSA) for the Uptown Newport Beach project as requested by the City in accordance with SB 610. The overall WSA was approved for 1,244 dwelling units and 11,500 square feet of commercial use.

As required under SB 221, and as part of the tract map approval process for projects including 500 or more dwelling units, the City has requested a WSV for Tentative Tract Map 17438 for the proposed project. The project will be constructed in two phases. Phase 1 development will include 680 residential units and 11,500 square feet of retail constructed on the office building site. Phase 2 will include 564 dwelling units constructed on the Tower Jazz building site and this phase could begin as early as 2017 or as late as 2027, depending on the lease extension of the site. The completed WSV is attached as Exhibit "A".

The WSV for the requested tract map is based upon the WSA containing IRWD's determination that a sufficient water supply is available. The completed WSV has been updated to include current water supplies and demand projections since the WSA was approved. This information, together with the WSA completed by IRWD in 2011, reflects IRWD's confirmation that the project water demands, together with demands from any other developments that have previously received WSVs or will-serve or other projects that have come to IRWD's attention either through developers or through the respective land use agency approval process, are, in the aggregate, within the demands identified by that WSA. In accordance with this procedure, this WSV is based on the respective WSA and information contained in the WSV. In addition to reliance on the WSA, SB 221 requires several elements not covered or required in WSAs. These

elements are primarily covered in Sections 1(b)(ii), 1(b)(iii), and 1(b)(iv) of the “Detailed Verification” section of the attached WSV.

Tower Jazz Semiconductor is one of the District’s largest potable water user with an average annual use of 1,300 acre-feet per year. As a result of the planned redevelopment of this site to a lower overall water use, estimates show a net decrease in potable water demands for this project of 869 acre-feet per year of potable water and no net increase of non-potable water demands associated with this redevelopment land use. These demands were included in the WSA that was approved on March 14, 2011.

FISCAL IMPACTS:

None.

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 June 5, 2014.

RECOMMENDATION:

THAT THE BOARD APPROVE THE VERIFICATION OF SUFFICIENT WATER SUPPLIES FOR UPTOWN NEWPORT BEACH (TENTATIVE TRACT MAP 17438).

LIST OF EXHIBITS:

Exhibit “A” – Verification of Sufficient Water Supplies for Uptown Newport Beach (Tentative Tract Map 17438)



# EXHIBIT "A"

## IRVINE RANCH WATER DISTRICT VERIFICATION OF SUFFICIENT WATER SUPPLY Government Code §66473.7

To: (Lead Agency)  
City of Newport Beach  
P.O. Box 1768  
Newport Beach, CA 92658-8915

(Applicant)  
The Shopoff Group  
8951 Research Drive  
Irvine, CA 92618

### Project Information

Project Title: Uptown Newport Village (PA 2010-134)

Tentative Map Application No. 17438  Verification requested prior to tentative map application

Number of residential units in Project: 1,244

Uses in Project including non-residential (type, no. of employees, sq. ft. of floor space, acreage):  
(see Exhibit B)

Acreage to be devoted to landscape (excluding individual residence yards): (see Exhibit B)

The projected water demand for the Project was included in IRWD's most recently adopted urban water management plan.

A water supply assessment that included the Project was adopted by IRWD on March 14, 2011. A copy is attached hereto and incorporated herein by this reference (see Exhibit C).

### Verification of Availability of Sufficient Water Supply

On \_\_\_\_\_, 2014, the Board of Directors of the Irvine Ranch Water District (IRWD) approved the within Verification and made the following determination regarding the above-described Project:

- A sufficient water supply is available for the Project.  
The total water supplies available to IRWD during normal, single-dry and multiple-dry years within a 20-year projection will meet the projected water demand of the Project in addition to the demand of existing and other planned future uses, including, but not limited to, agricultural and manufacturing uses.
- A sufficient water supply is not available for the Project.

The foregoing determination is based on the following Water Supply Verification Information and supporting information in the records of IRWD.

---

Signature \_\_\_\_\_ Date \_\_\_\_\_ Title \_\_\_\_\_

## **WATER SUPPLY VERIFICATION INFORMATION**

### **Purpose of Verification**

Irvine Ranch Water District (“IRWD”) is the public water system that will supply water service (both potable and nonpotable) to the project identified on the cover page of this verification (the “Project”). As a public water system, IRWD is required by Section 66473.7 of the Government Code (the “Verification Law”) to provide the City with a verification of the availability of a sufficient water supply for non-exempt subdivisions of more than 500 residential units in conjunction with (or prior to) the City’s approval of a tentative map. The City has found the Project to include a subdivision that is subject to verification and not exempt under the Verification Law.

The Verification Law provides that a verification shall be supported by substantial evidence, which may include, but is not limited to, any of the following (i) IRWD’s most recently adopted urban water management plan; (ii) a water supply assessment previously adopted for the project under Water Code 10910, *et seq.*; or (iii) other analytical information substantially similar to the assessment of service reliability required by Water Code Section 10635 to be included in the urban water management plan. The Verification Law also specifies the elements to be contained in a verification with respect to (i) supplies relied upon that are not currently available; (ii) reasonably foreseeable impacts of the subdivision on the availability of water resources for agricultural and industrial uses within IRWD’s service area that are not currently receiving water; and (iii) rights to extract additional groundwater needed to supply the subdivision.

A verification does not entitle the Project to service or to any right, priority or allocation in any supply, capacity or facility, or affect IRWD’s obligation to provide service to its existing customers or any potential future customers. In order to receive service, the Project applicant is required to file a completed Application(s) for Service and Agreement with the Irvine Ranch Water District on IRWD’s forms, together with all fees and charges, plans and specifications, bonds and conveyance of necessary easements, and meet all other requirement as specified therein.

### **Methodology of Verification for Project With Prior Water Supply Assessment**

As referenced on the cover page of this verification (the “Verification”), the Project was included within an assessment of water supply approved by IRWD. The Assessment contained IRWD’s determination that a sufficient water supply is available for the Project. As described in the Assessment, IRWD does not allocate particular supplies to any project, but identifies total supplies for its service area. However, upon approval of each assessment containing a determination of a sufficient supply, IRWD attributes the demands identified by that assessment to IRWD’s existing and committed demand. Thereafter, each verification approved by IRWD for a subdivision covered by that assessment is based on the assessment, and reflects IRWD’s confirmation that the water demands of the subdivision, together with any other subdivisions or developments that have previously received verifications, will-serves or other approval by IRWD under the same assessment, are, in the aggregate, within the demand identified by that assessment. In accordance with that procedure, this Verification is based on the Assessment. The Assessment’s determination of sufficiency extends through 2030, and is supplemented herein to include the full 20-year projection required in this Verification.

In addition, this Verification includes the elements required by the Verification Law that are not included within the required contents of assessments.

### Supporting Documentation

As noted above, the principal supporting document for this Verification is the Assessment. Other documentation supports the Assessment and this Verification: IRWD prepares two planning documents to guide water supply decision-making. IRWD's principal planning document is IRWD's "Water Resources Master Plan" ("WRMP"). The WRMP is a comprehensive document compiling data and analyses that IRWD considers necessary for its planning needs. IRWD also prepares an Urban Water Management Plan ("UWMP"), a document required by statute. The UWMP is based on the WRMP, but contains defined elements as listed in the statute (Water Code Section 10631, *et seq.*), and as a result, is more limited than the WRMP in the treatment of supply and demand issues. (The UWMP is required to be updated in years ending with "five" and "zero," and IRWD's most recent update was adopted in June 2011.)

In addition to the Assessment, the most recent WRMP and the 2010 UWMP mentioned above, other supporting documentation referenced herein is found in Section 5 of this Verification. This includes the Metropolitan Water District of Southern California's Regional Urban Water Management Plan (RUWMP) detailing an evaluation by Metropolitan Water District of Southern California (MWD), the wholesaler of IRWD's imported water supplies, of the reliability of MWD's supplies. (2010 RUWMP adopted in November 2010.)

The Verification Law requires written proof of entitlement for "not currently available" (referred to herein as "under development") supplies. The Assessment includes such information for both currently available and under development supplies. Due to the number of contracts, statutes and other documents comprising IRWD's written proof of entitlement to its water supplies, in lieu of attachment of such items, they are identified by title and summarized in Section 2 of the Assessment and is supplemented herein. Copies of the summarized items have been provided to the City and can be obtained from IRWD.

### Sufficiency Calculation Methodology

The methodology for IRWD's comparison of its demands and supplies is set forth in the Assessment, in the section entitled "Assessment Methodology" and subsections thereof entitled "water use factors; dry-year increases;" "planning horizon;" "assessment of demands;" "assessment of supplies;" and "comparison of demand and supply."

### Summary of Results of Demand-Supply Comparisons

The Assessment contains Figures 1 through 8 comparing projected potable and nonpotable water supplies and demands which provide an overview of IRWD potable and nonpotable water supply capabilities through 2030. It also contains Figures 1a through 3a which compare project potable water supplies and demands in all of the five year increments, under a temporary MWD allocation scenario under normal year, single dry-year and multiple dry-year conditions. All Figures have been revised (pages 6 through 17) in order to reflect updated information on supplies, as well as updating the 20-year planning horizon through 2035. In addition, since the date of the approved Assessment for this project (March 14, 2011), IRWD has recalibrated and updated demand projections based on water use and development phasing.

Under shortage scenarios, IRWD may need to supplement supplies with production of groundwater, which can exceed the applicable basin production percentage on a short-term basis, providing additional reliability during dry years or emergencies.<sup>1</sup> In addition, IRWD has developed water banking projects in Kern County, California which be called upon for delivery of supplemental banked water to IRWD under a short-term MWD allocation.<sup>2</sup> In addition, if needed resultant net shortage levels can be addressed by demand reduction programs as described in IRWD's Water Shortage Contingency Plan.

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<sup>1</sup> In these scenarios, it is anticipated that other water suppliers who produce water from the Orange County Basin will also experience cutbacks of imported supplies and will increase groundwater production and that Orange County Water District (OCWD) imported replenishment water may also be cutback. The OCWD's "2010-11 Engineer's Report on the groundwater conditions, water supply and basin utilization" references a report (OCWD Report on Evaluation of Orange County Groundwater Basin Storage and Operational Strategy) which recommends a basin management strategy that provides general guidelines for annual basin refill or storage decrease based on the level of accumulated overdraft. It states, "Although it is considered to be generally acceptable to allow the basin to decline to 500,000 AF overdraft for brief periods due to severe drought conditions and lack of supplemental water...an accumulated overdraft of 100,000 AF best represents an optimal basin management target. This optimal target level provides sufficient storage space to accommodate anticipated recharge from a single wet year while also providing enough water in storage for at least 2 or 3 consecutive years of drought." MWD replenishment water is a supplemental source of recharge water and OCWD estimates other main supply sources for recharge are available.

<sup>2</sup> IRWD has developed water banking projects (Water Bank) in Kern County, California and has entered into a 30-year water banking partnership with Rosedale-Rio Bravo Water Storage District (RRB) to operate IRWD's Strand Ranch portion of the Water Bank. The Water Bank can improve IRWD's water supply reliability by capturing lower cost water available during wet hydrologic periods for use during dry periods. The Water Bank can enhance IRWD's ability to respond to drought conditions and potential water supply interruptions.

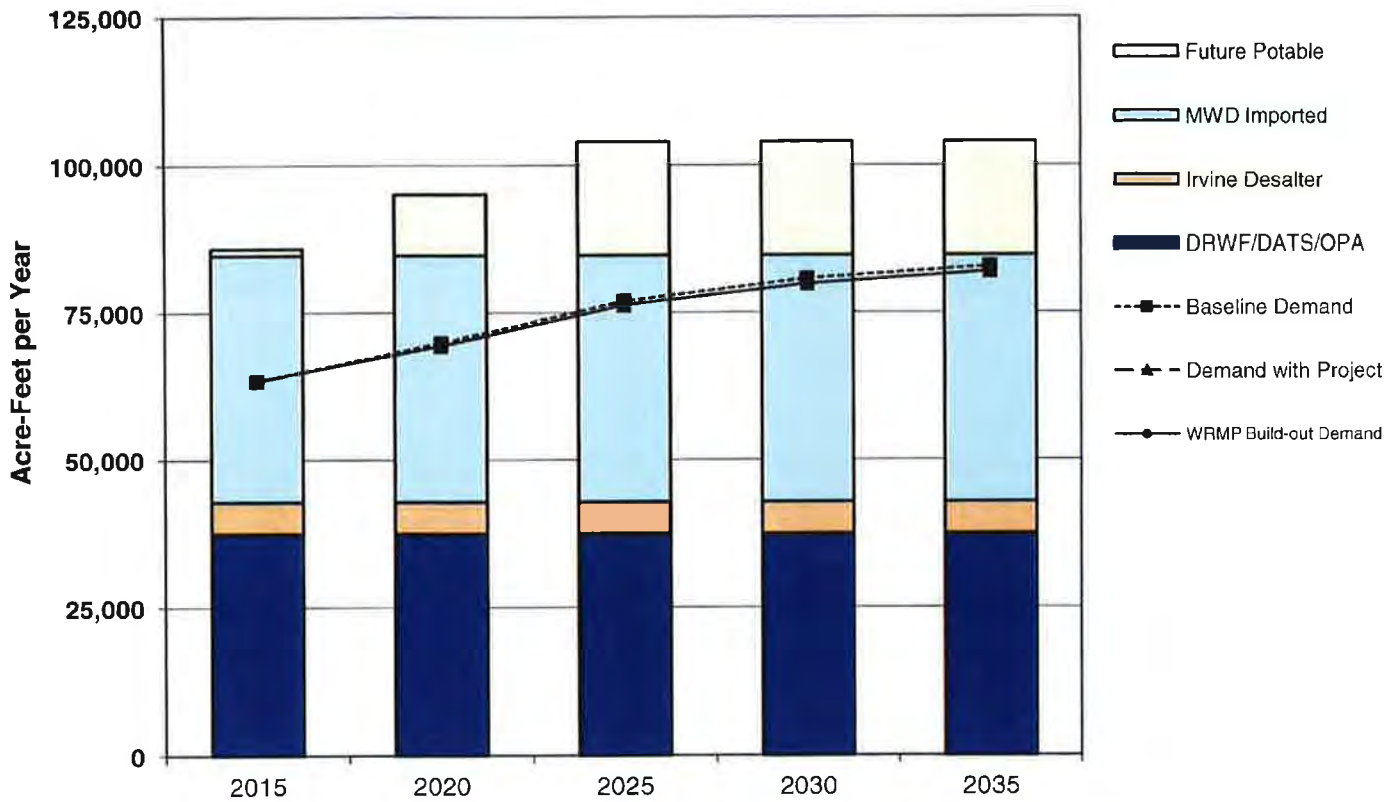
## Detailed Verification

### 1. Determination of sufficiency of water supply

#### (a) Supply and demand comparison

Comparisons of IRWD's average annual and peak (maximum day) demands and supplies, under *baseline* (existing and committed demand, without the Project), *with-project* (baseline plus Project), and *full build-out* development projections, are shown in the following Figures 1-4 (potable water), Figures 5-8 (nonpotable water) and Figures 1a, 2a, and 3a (short term MWD allocation potable water). See also the Assessment, Section 1, incorporated herein by reference.

**Figure 1  
IRWD Normal-Year Supply & Demand - Potable Water**

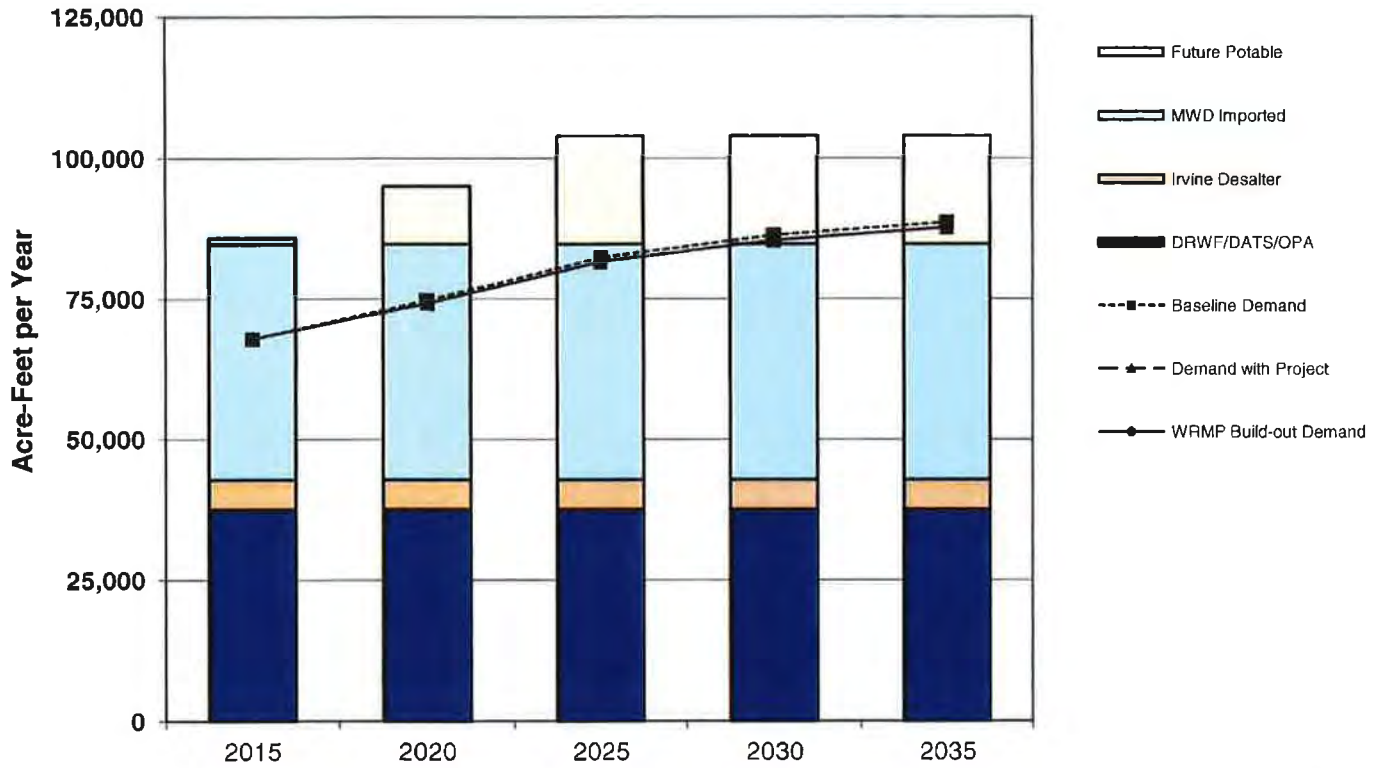


(in acre-feet per year)	2015	2020	2025	2030	2035
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
<b>Supplies Under Development</b>					
Future Potable	1,118	10,328	19,211	19,211	19,211
Maximum Supply Capability	92,217	101,427	110,311	110,311	110,311
Baseline Demand	63,403	69,844	76,949	80,720	82,863
Demand with Project	63,403	69,332	76,266	79,852	81,993
WRMP Build-out Demand	63,403	69,332	76,266	79,852	81,993
Reserve Supply with Project	28,815	32,095	34,044	30,459	28,317

Notes: By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

**Figure 2  
IRWD Single Dry-Year Supply & Demand - Potable Water**

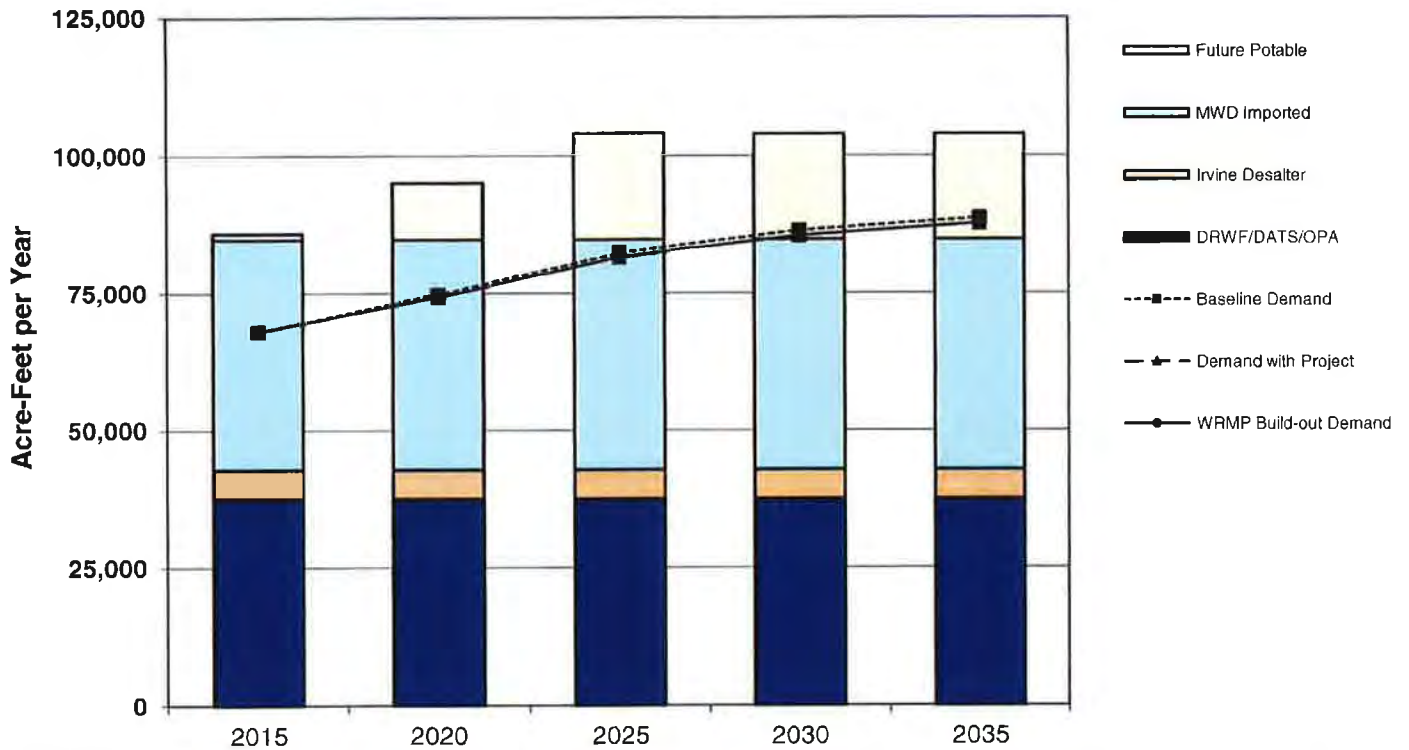


(in acre-feet per year)	2015	2020	2025	2030	2035
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
<b>Supplies Under Development</b>					
Future Potable	1,118	10,328	19,211	19,211	19,211
Maximum Supply Capability	92,217	101,427	110,311	110,311	110,311
Baseline Demand	67,841	74,733	82,336	86,371	88,663
Demand with Project	67,841	74,185	81,605	85,442	87,733
WRMP Build-out Demand	67,841	74,185	81,605	85,442	87,733
Reserve Supply with Project	24,376	27,242	28,706	24,869	22,578

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan (11/8/05) and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

**Figure 3  
IRWD Multiple Dry-Year Supply & Demand - Potable Water**



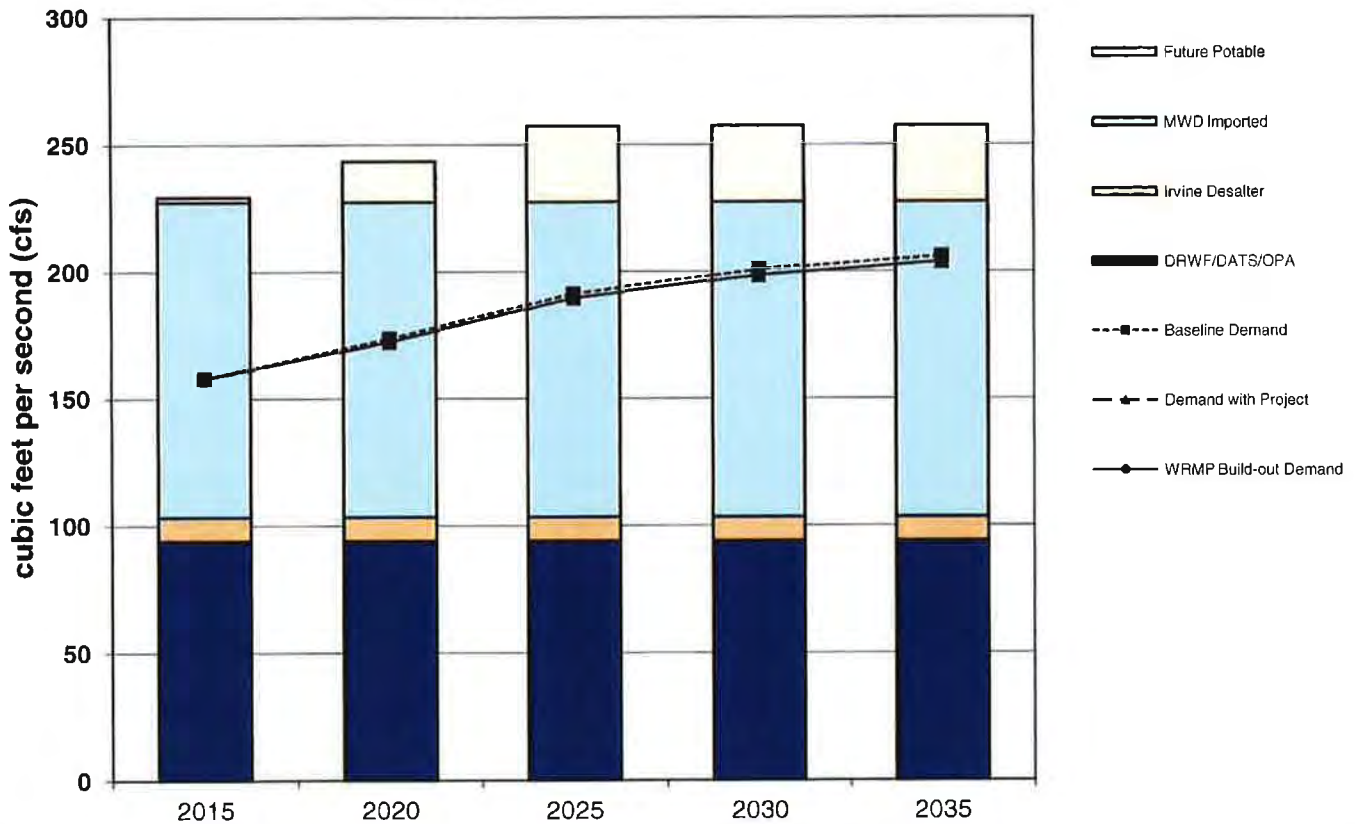
(in acre-feet per year)	2015	2020	2025	2030	2035
<u>Current Potable Supplies</u>					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
<u>Supplies Under Development</u>					
Future Potable	1,118	10,328	19,211	19,211	19,211
Maximum Supply Capability	92,217	101,427	110,311	110,311	110,311
Baseline Demand	67,841	74,733	82,336	86,371	88,663
Demand with Project	67,841	74,185	81,605	85,442	87,733
WRMP Build-out Demand	67,841	74,185	81,605	85,442	87,733
Reserve Supply with Project	24,376	27,242	28,706	24,869	22,578

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan (11/8/05) and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

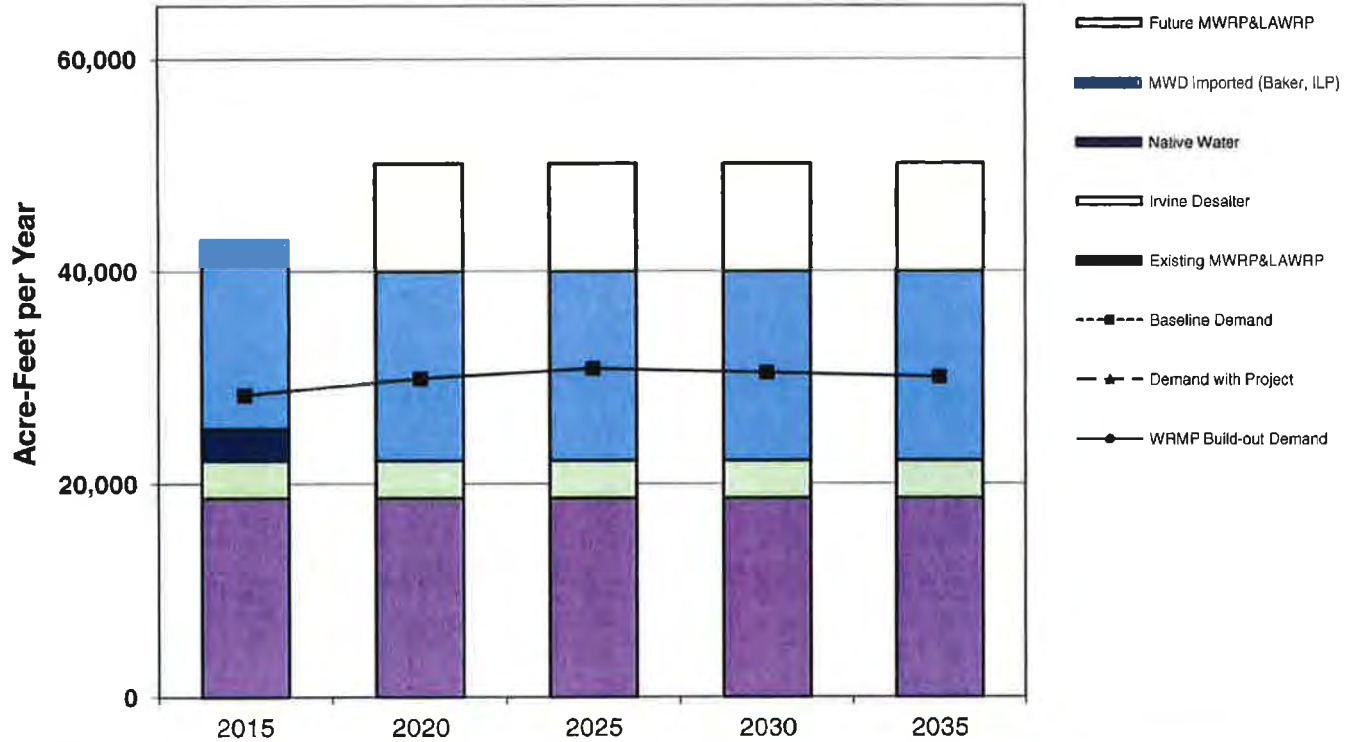


**Figure 4  
IRWD Maximum-Day Supply & Demand - Potable Water**



(in cfs)	2015	2020	2025	2030	2035
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF)	124.1	124.1	124.1	124.1	124.1
DRWF/DATS/OPA	93.9	93.9	93.9	93.9	93.9
Irvine Desalter	9.5	9.5	9.5	9.5	9.5
Wells 21 & 22	10.9	10.9	10.9	10.9	10.9
<b>Supplies Under Development</b>					
Future Potable	2.0	16.1	29.7	29.7	29.7
Maximum Supply Capability	240.4	254.5	268.1	268.1	268.1
Baseline Demand	157.6	173.6	191.3	200.7	206.0
Demand with Project	157.6	172.4	189.6	198.5	203.9
WRMP Build-out Demand	157.6	172.4	189.6	198.5	203.9
Reserve Supply with Project	82.8	82.1	78.5	69.6	64.2

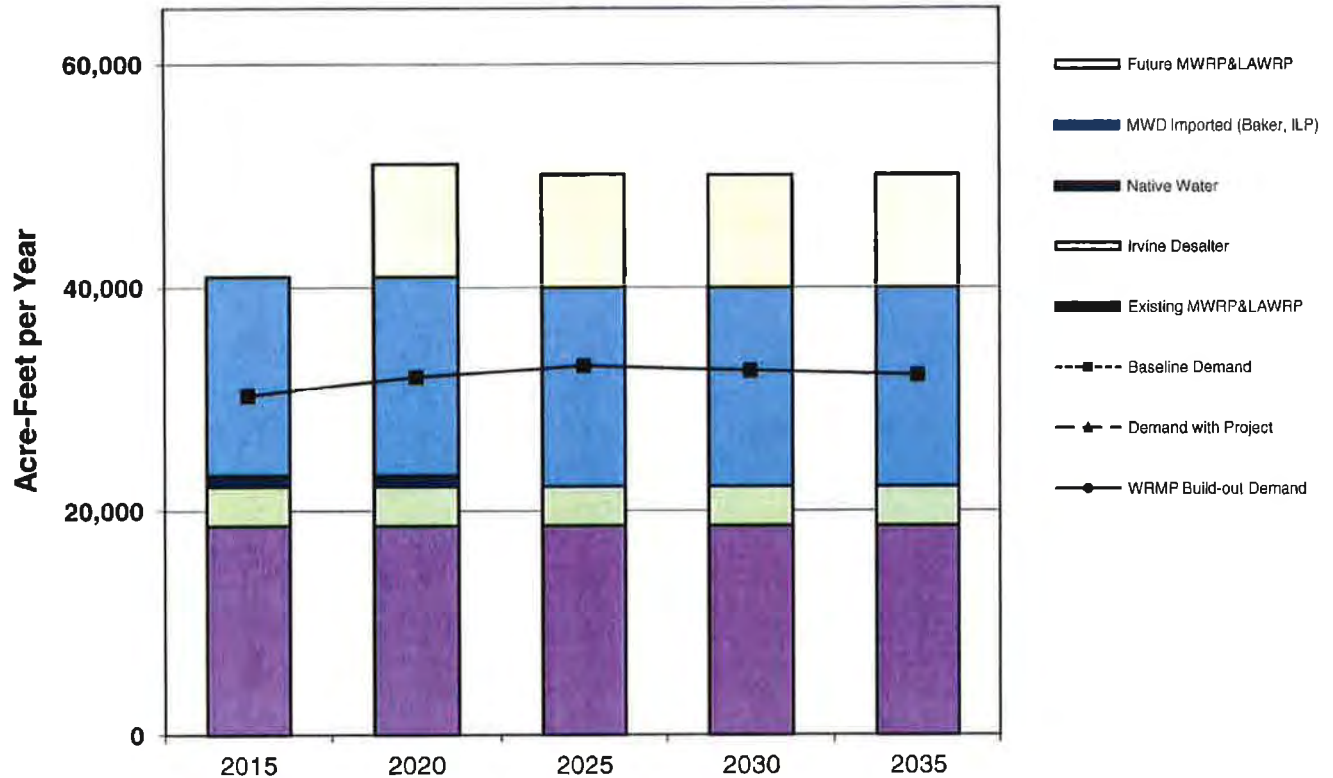
**Figure 5  
IRWD Normal-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2015	2020	2025	2030	2035
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	17,826	17,826	17,826	17,826	17,826
Irvine Desalter	3,514	3,514	3,514	3,514	3,514
Native Water	3,000	-	-	-	-
<b>Supplies Under Development</b>					
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
Maximum Supply Capability	42,997	50,097	50,097	50,097	50,097
Baseline Demand	28,344	29,907	30,823	30,432	30,037
Demand with Project	28,344	29,907	30,823	30,432	30,037
WRMP Build-out Demand	28,344	29,907	30,823	30,432	30,037
Reserve Supply with Project	14,653	20,190	19,274	19,665	20,059

Note: Downward trend reflects reduction in agricultural use over time.  
 Native water will be treated to potable through the Baker Water Treatment Plant after 2016.  
 MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

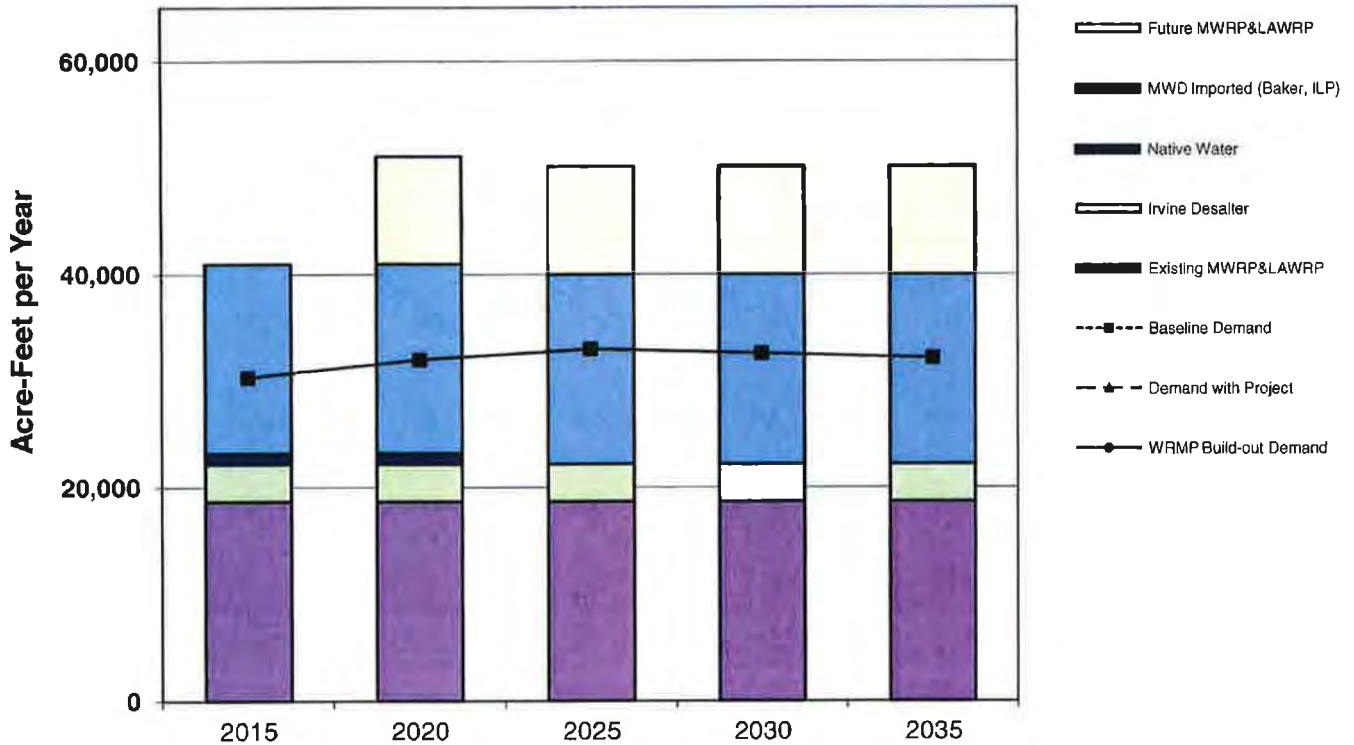
**Figure 6**  
**IRWD Single Dry-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2015	2020	2025	2030	2035
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	17,826	17,826	17,826	17,826	17,826
Irvine Desalter	3,514	3,514	3,514	3,514	3,514
Native Water	1,000	1,000	-	-	-
<b>Supplies Under Development</b>					
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
Maximum Supply Capability	40,997	51,097	50,097	50,097	50,097
Baseline Demand	30,328	32,001	32,981	32,562	32,140
Demand with Project	30,328	32,001	32,981	32,562	32,140
WRMP Build-out Demand	30,328	32,001	32,981	32,562	32,140
Reserve Supply with Project	10,669	19,096	17,116	17,535	17,957

Note: Downward trend reflects reduction in agricultural use over time.  
Native water will be treated to potable through the Baker Water Treatment Plant after 2016.  
MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

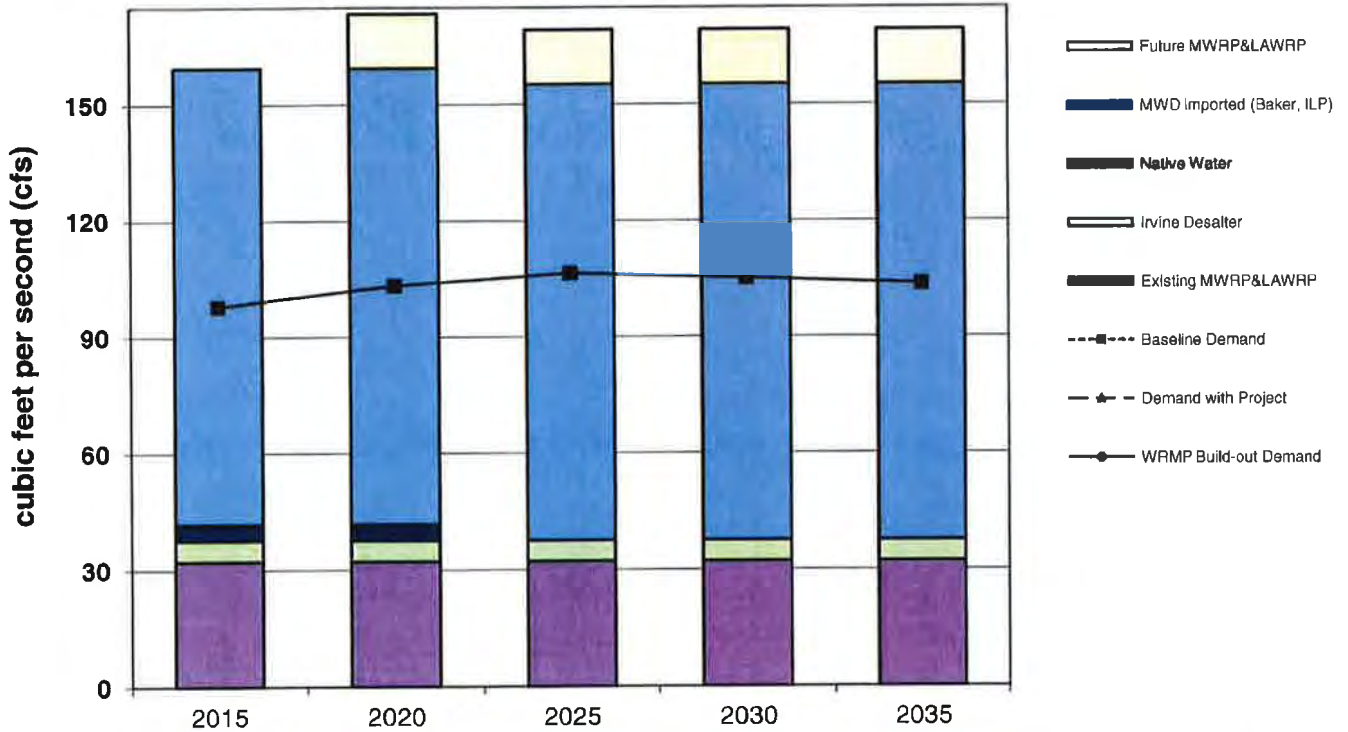
**Figure 7  
IRWD Multiple Dry-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2015	2020	2025	2030	2035
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	17,826	17,826	17,826	17,826	17,826
Irvine Desalter	3,514	3,514	3,514	3,514	3,514
Native Water	1,000	1,000	-	-	-
<b>Supplies Under Development</b>					
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
<b>Maximum Supply Capability</b>	<b>40,997</b>	<b>51,097</b>	<b>50,097</b>	<b>50,097</b>	<b>50,097</b>
Baseline Demand	30,328	32,001	32,981	32,562	32,140
Demand with Project	30,328	32,001	32,981	32,562	32,140
WRMP Build-out Demand	30,328	32,001	32,981	32,562	32,140
<b>Reserve Supply with Project</b>	<b>10,669</b>	<b>19,096</b>	<b>17,116</b>	<b>17,535</b>	<b>17,957</b>

Note: Downward trend reflects reduction in agricultural use over time.  
 Native water will be treated to potable through the Baker Water Treatment Plant after 2016.  
 MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

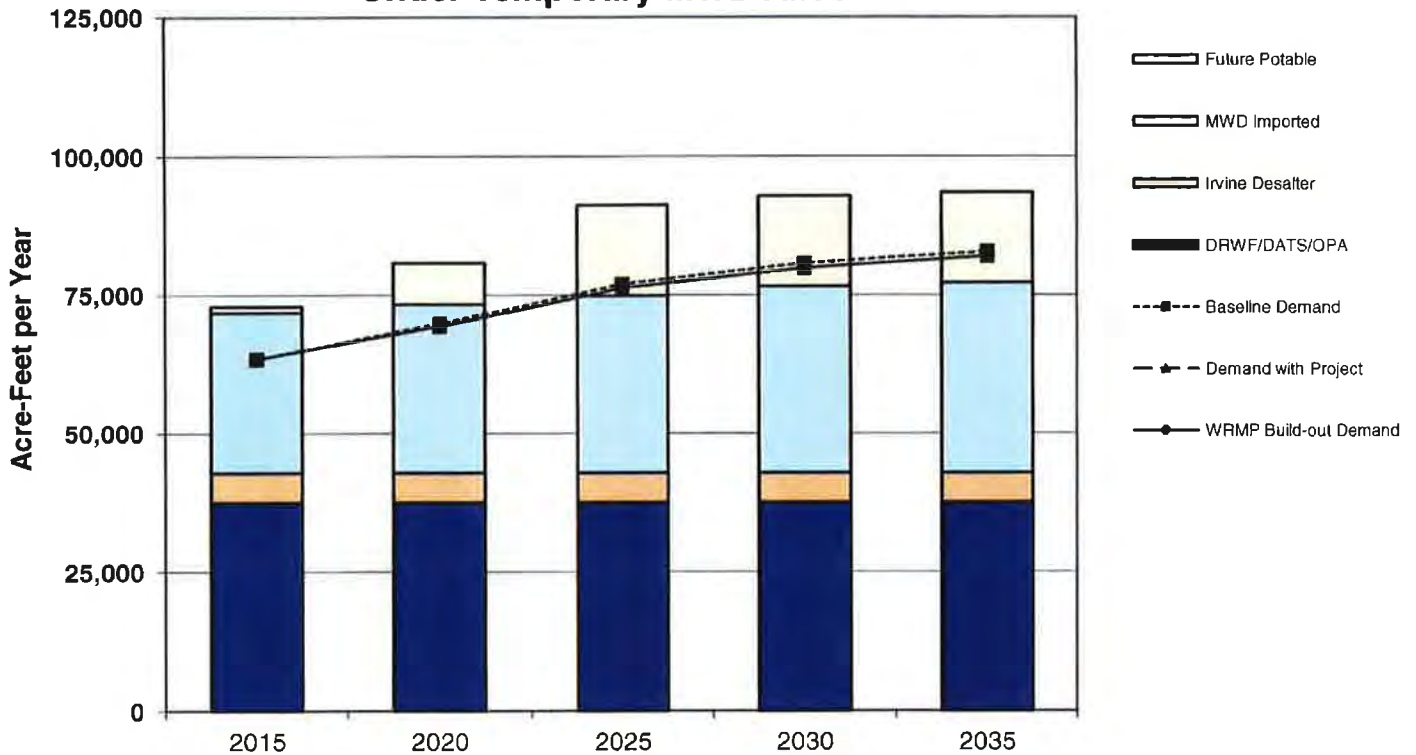
**Figure 8**  
**IRWD Maximum-Dry Supply & Demand - Nonpotable Water**



(in cfs)	2015	2020	2025	2030	2035
<u>Current Nonpotable Supplies</u>					
Existing MWRP&LAWRP	32.2	32.2	32.2	32.2	32.2
MWD Imported (Baker, ILP)	117.7	117.7	117.7	117.7	117.7
Irvine Desalter	5.4	5.4	5.4	5.4	5.4
Native Water	4.2	4.2	-	-	-
<u>Supplies Under Development</u>					
Future MWRP&LAWRP	-	14.0	14.0	14.0	14.0
Maximum Supply Capability	159.5	173.4	169.2	169.2	169.2
Baseline Demand	97.9	103.3	106.4	105.1	103.7
Demand with Project	97.9	103.3	106.4	105.1	103.7
WRMP Build-out Demand	97.9	103.3	106.4	105.1	103.7
Reserve Supply with Project	61.6	70.2	62.8	64.1	65.5

Note: Downward trend reflects reduction in agricultural use over time.  
 Native water will be treated to potable through the Baker Water Treatment Plant after 2016.

**Figure 1a  
IRWD Normal-Year Supply & Demand - Potable Water  
Under Temporary MWD Allocation\***

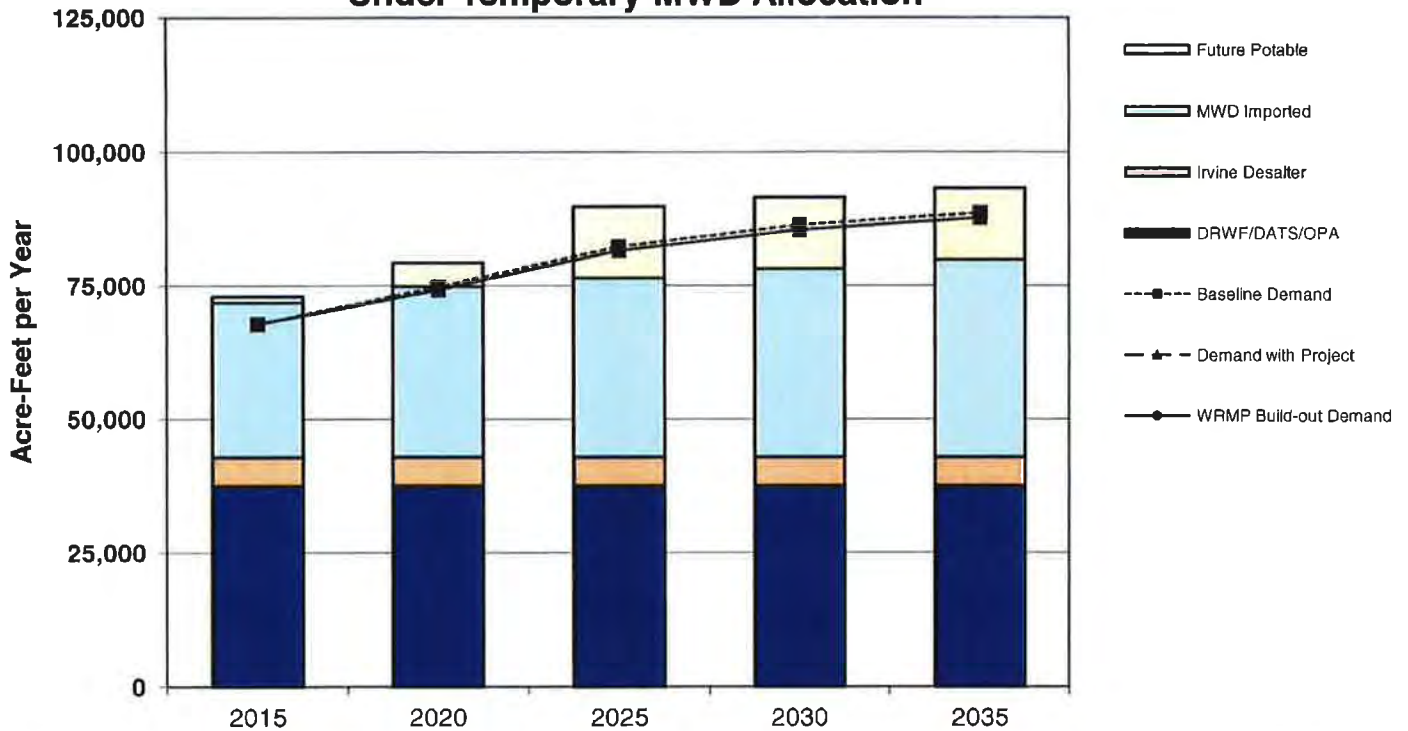


(in acre-feet per year)	2015	2020	2025	2030	2035
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF)	29,000	30,479	32,034	33,668	34,345
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
<b>Supplies Under Development</b>					
Future Potable	1,118	7,469	16,352	16,352	16,352
Maximum Supply Capability	79,288	87,119	97,557	99,191	99,868
Baseline Demand	63,403	69,844	76,949	80,720	82,863
Demand with Project	63,403	69,332	76,266	79,852	81,993
WRMP Build-out Demand	63,403	69,332	76,266	79,852	81,993
Reserve Supply with Project	15,885	17,787	21,291	19,339	17,875

Notes: By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

\*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term 10% allocation, Shortage Stage 2 in all of the 5-year increments. However, it is likely that such a scenario would only be temporary. Under a MWD Allocation, IRWD could supplement supplies with groundwater production which can exceed applicable basin percentages on a short-term basis or transfer water from IRWD's water bank. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP. Under a MWD allocation, the Baker WTP supplies (under "Future Potable") will be limited to available native water only.

**Figure 2a**  
**IRWD Single Dry-Year Supply & Demand - Potable Water**  
**Under Temporary MWD Allocation\***

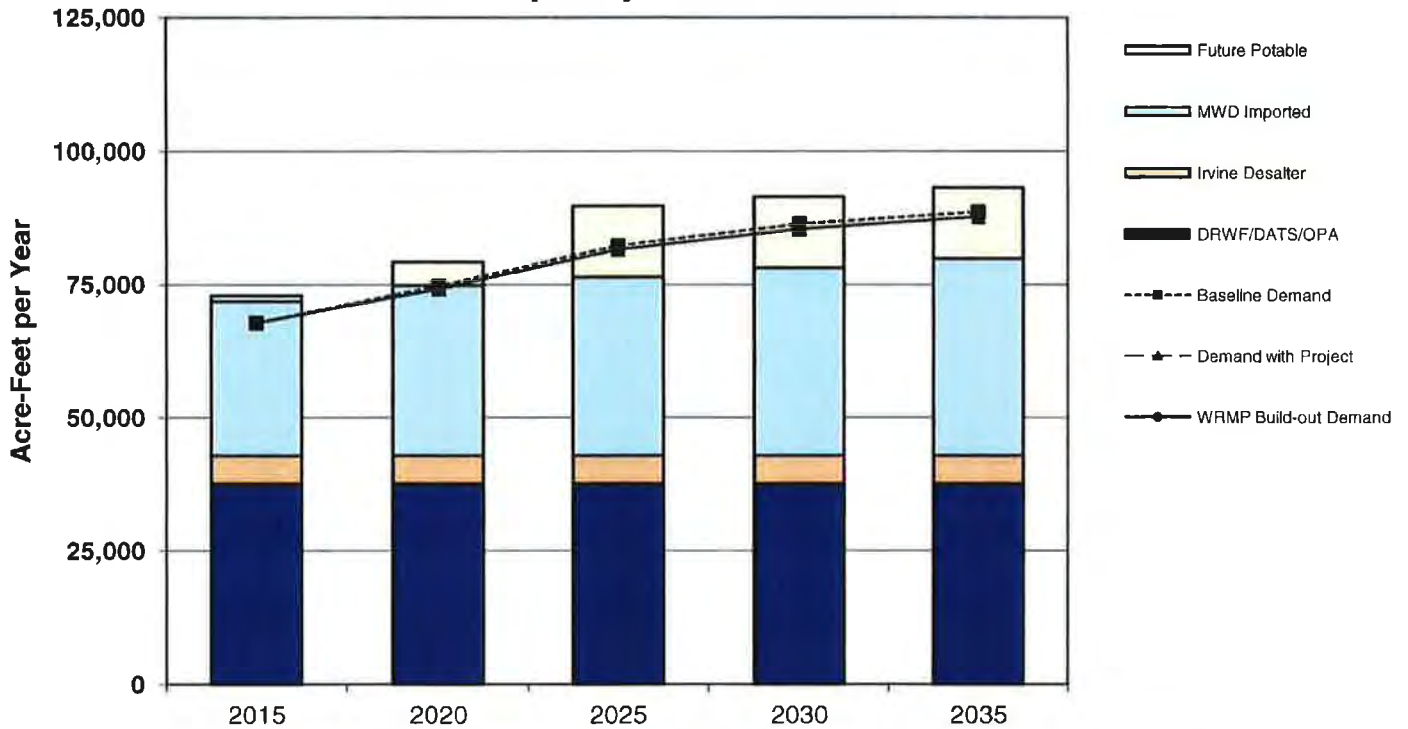


(in acre-feet per year)	2015	2020	2025	2030	2035
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF)	29,000	32,003	33,603	35,284	37,048
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
<b>Supplies Under Development</b>					
Future Potable	1,118	4,469	13,352	13,352	13,352
Maximum Supply Capability	79,288	85,643	96,126	97,806	99,571
Baseline Demand	67,841	74,733	82,336	86,371	88,663
Demand with Project	67,841	74,185	81,605	85,442	87,733
WRMP Build-out Demand	67,841	74,185	81,605	85,442	87,733
Reserve Supply with Project	11,447	11,458	14,521	12,365	11,838

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

\*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term 10% allocation, Shortage Stage 2 in all of the 5-year increments. However, it is likely that such a scenario would only be temporary. Under a MWD Allocation, IRWD could supplement supplies with groundwater production which can exceed applicable basin percentages on a short-term basis or transfer water from IRWD's water bank. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP. Under a MWD allocation, the Baker WTP supplies (under "Future Potable") will be limited to available native water only.

**Figure 3a  
IRWD Multiple Dry-Year Supply & Demand - Potable Water  
Under Temporary MWD Allocation\***



(in acre-feet per year)	2015	2020	2025	2030	2035
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF)	29,000	32,003	33,603	35,284	37,048
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
<b>Supplies Under Development</b>					
Future Potable	1,118	4,469	13,352	13,352	13,352
Maximum Supply Capability	79,288	85,643	96,126	97,806	99,571
Baseline Demand	67,841	74,733	82,336	86,371	88,663
Demand with Project	67,841	74,185	81,605	85,442	87,733
WRMP Build-out Demand	67,841	74,185	81,605	85,442	87,733
Reserve Supply with Project	11,447	11,458	14,521	12,365	11,838

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

\*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term 10% allocation, Shortage Stage 2 in all of the 5-year increments. However, it is likely that such a scenario would only be temporary. Under a MWD Allocation, IRWD could supplement supplies with groundwater production which can exceed applicable basin percentages on a short-term basis or transfer water from IRWD's water bank. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP. Under a MWD allocation, the Baker WTP supplies (under "Future Potable") will be limited to available native water only.



## Information concerning supplies

(a)(1) Existing sources of identified water supply for the proposed project: IRWD does not allocate particular supplies to any project, but identifies total supplies for its service area, as updated in the following table:

	Max Day (cfs)	Avg. Annual (AFY)	Annual by Category (AFY)
<b>Current Supplies</b>			
<b>Potable - Imported</b>			
East Orange County Feeder No. 2	41.4	16,652	1
Allen-McColloch Pipeline*	64.7	26,024	1
Orange County Feeder	18.0	7,240	1
			49,916
<b>Potable - Groundwater</b>			
Dyer Road Wellfield	80.0	28,000	2
OPA Well	1.4	914	
Deep Aquifer Treatment System-DATS	12.5	8,618	2
Wells 21 & 22	10.9	6,329	2
Irvine Desalter	9.5	5,309	3
			49,170
Total Potable Current Supplies	238.4		99,086
<b>Nonpotable - Reclaimed Water</b>			
MWRP (18 mgd)	23.9	17,340	4
LAWRP (5.5 mgd)	8.3	5,975	4
			23,315
<b>Nonpotable - Imported</b>			
Baker Aqueduct	52.7	12,221	5
Irvine Lake Pipeline	65.0	9,000	6
			21,221
<b>Nonpotable - Groundwater</b>			
Irvine Desalter-Nonpotable	5.4	3,514	7
			3,514
<b>Nonpotable Native</b>			
Irvine Lake	4.2	3,048	8
			3,048
Total Nonpotable Current Supplies	159.5		51,098
Total Combined Current Supplies	397.9		150,185
<b>Supplies Under Development</b>			
<b>Potable Supplies</b>			
Well 106	2.0	1,118	
Well 53	5.6	3,658	
Future OPA Wells	8.0	5,225	
Baker Water Treatment Plant	10.5	6,858	
Wells 51 & 52	3.6	2,351	
Total Potable Under Development Supplies	29.7	19,211	19,211
<b>Nonpotable Supplies: MWRP&amp;LAWRP Reclaimed</b>			
	20.0	14,450	14,450
Total Under Development	49.7		33,661
Total Supplies			
Potable Supplies	268.1		118,297
Nonpotable Supplies	179.4		65,548
Total Supplies (Current and Under Development)	447.5		183,846

1 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 1.8 (see Footnote 3, page 22).

2 Contract amount - See Potable Supply-Groundwater(iii).

3 Contract amount - See Potable Supply-Groundwater (iv) and (v). Maximum day well capacity is compatible with contract amount.

4 MWRP 18.0 mgd treatment capacity (17,400 AFY RW production) and LAWRP 5.5 mgd tertiary treatment capacity (5,975 AFY)

5 By 2020, Baker capacity will be allocated to Baker Water Treatment Plant (WTP) participants and IRWD will own 46.50 cfs in Baker Aqueduct after Baker WTP, of which 10.5 cfs will be for potable treatment. IRWD will have 35 cfs remaining capacity for non-potable uses. The nonpotable average use is based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 2.5 (see Footnote 3, page 22).

6 Based on IRWD's proportion of Irvine Lake imported water storage; Actual ILP capacity would allow the use of additional imported water from MWD through the Santiago Lateral.

7 Contract amount - See Nonpotable Supply-Groundwater (i) and (ii). Maximum day well capacity (cfs) is compatible with contract amount.

8 Based on 70+ years historical average of Santiago Creek Inflow into Irvine Lake. By 2020, native water will be treated through Baker WTP.

9 Future estimated MWRP & LAWRP reclaimed water production.

\*64.7 cfs is current assigned capacity; based on increased peak flow, IRWD can purchase 10 cfs more (see page 23 (b)(1)(iii))

**(b) Factors considered in determining the sufficiency of the water supply:**

**(i) The availability of water supplies over a historical record of at least 20 years.**

Source	1980	1985	1990	1995	2000	2005	2010
Potable – imported	29,510	43,320	44,401	28,397	36,777	19,306	19,306
Potable – groundwater	827	38	10,215	20,020	20,919	37,160	37,160
Nonpotable - reclaimed	9,196	12,399	11,589	10,518	14,630	15,296	15,296
Nonpotable - imported*	9,556	12,260	24,899	2,333	16,343	5,304	5,304
Nonpotable – groundwater	-	36	816	1,834	2,890	2,285	2,285
Nonpotable – native	11,909	3,587	2,778	5,980	4,949	7,251	7,251
Total	60,998	71,639	94,699	69,082	96,508	86,602	86,602

See also the Assessment, Section 1, incorporated herein by reference.

**(ii) The applicability of a water shortage contingency analysis prepared pursuant to Water Code Section 10632 that includes actions to be undertaken by IRWD in response to water supply shortages.**

The supply and demand comparisons incorporated from the Assessment into this Verification (see 1(a)) do not reflect the implementation of water shortage emergency measures. In February 2009, IRWD updated Section 15 of its Rules and Regulations – Water Conservation and Water Supply Shortage Program and also updated its Water Shortage Contingency Plan, which is a supporting document for Section 15. Section 15 of the Rules and Regulations serves as IRWD’s “conservation ordinance”. As stated in IRWD’s Water Shortage Contingency Plan, use of local supplies, storage and other supply augmentation measures can mitigate shortages, and are assumed to be in use to the maximum extent possible during declared shortage levels. However, in order to be conservative, IRWD has not reduced its single-dry or multiple-dry year demand projections or increased its single-dry or multiple-dry year supply projections in the Assessment to account for any water savings that could be achieved by these measures.

**(iii) Reduction by IRWD in water supply allocated to a specific water use sector, pursuant to a resolution, ordinance or contract uses.**

The supply and demand comparisons incorporated from the Assessment into this Verification (see 1(a)) do not reflect any allocated reductions by IRWD. As noted under the preceding item (ii), IRWD’s water shortage contingency plan and Rules and Regulations provide for voluntary and mandatory water conservation measures that could be invoked in declared water shortage emergencies. These include reductions to certain water uses. However, in order to be conservative, IRWD has not reduced its single-dry or multiple-dry year demand projections or increased its single-dry or multiple-dry year supply projections in the Assessment to account for water savings that could be achieved by any allocated reductions.

With respect to items (ii) and (iii) above, it is noted that MWD has in effect a management plan for dealing with periodic surplus and shortage conditions, known as Metropolitan Report No. 1150, *Water Surplus and Drought Management Plan (RUWMP, II-15 and also in 2010 RUWMP pages 2-20 through 2-22)*. MWD’s demand projections account for the effects of long-term conservation best management practices.

**(iv) The amount of water that IRWD can reasonably rely on receiving from other water supply projects, such as conjunctive use, reclaimed water, water conservation, and water transfer, including programs identified under federal, state and local water initiatives such as CALFED and Colorado River tentative agreements, based on the inclusion of information with respect to such supplies in Section 2, below.**

Local. IRWD directly relies (for a portion of its full build-out annual demand in single and multiple dry-year projections) on the following under development supplies (see 1(a), above): the Irvine Wells (see the Assessment, Section 2(b)(1)(vi) – “POTABLE SUPPLY – GROUNDWATER”). In addition to Orange County Water District (OCWD) reports listed in the Assessment Reference List, OCWD has also prepared a Long Term Facilities Plan (“LTFP”) which provides updated information and was received by the OCWD Board in July 2009. The LTFP Chapter 3 describes the efforts being undertaken by OCWD to eliminate long-term overdraft in the Basin. OCWD has an optimal basin management target of 100,000 acre-feet of accumulated overdraft which provides sufficient storage space to accommodate increased supplies from one wet year while also provides enough water in storage to offset decreased supplies during a two- to three year drought. (Source: “Evaluation of Orange County Groundwater Basin Storage and Operational Strategy”, February 2007 as referenced in *2010-11 Engineer’s Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District*).

With the implementation of OCWD’s preferred projects, the Basin yield in the year 2030 would be up to 500,000 AF. The amount that can be produced will be a function of which projects will be implemented by OCWD and how much increased recharge capacity is created by those projects, total demands by all producers, and the resulting Basin Production Percentage (“BPP”) that OCWD sets based on these factors.

IRWD’s own reclaimed water expansion program is also shown as an under development supply. IRWD also has a currently available reclaimed water supply from its own existing reclamation program. The reclaimed water supplies are discussed in Section 2 below (see the Assessment, Section 1 – Figures 5, 6, 7 and 8 (supplies denominated “MWRP” and “LAWRP”), Section 2(a), and Section 2(b)(1) - “NONPOTABLE SUPPLY – RECLAIMED”), IRWD has completed construction of the Michelson Water Reclamation Plant Phase 2 Capacity Expansion Project. With this expansion, IRWD has increased its capacity on the existing MWRP site to produce sufficient reclaimed water to meet the projected demand in the year 2035. Additional reclamation capacity will augment local nonpotable supplies and improve reliability.

As noted in the Assessment, IRWD’s demand projections reflect the effect of IRWD’s water conservation pricing and other conservation practices; in particular, IRWD’s water use factors used to derive its demand projections are based on average water use and incorporate the effect of IRWD’s tiered-rate conservation pricing and its other long-term water conservation programs. System losses at a rate of approximately 5% are built into the water use factors. As discussed above, IRWD’s supply and demand projections do not take into account water savings that could be achieved by water shortage emergency measures.

Imported. MWD, the supplier of IRWD’s imported supplies, relies upon several of the listed projects and programs. MWD supports and provides financial incentives to water reclamation, groundwater recovery, water conservation, ocean desalination and other local resource development programs. MWD calculates its demand forecast by first estimating total retail demand for the region and then factoring in impacts of conservation. Next, it derives

projections of local supplies using data on current and expected local supply programs and Integrated Resource Planning (IRP) Local Resource Program Target. The difference between the resulting local demands is the expected regional demand on MWD. These estimates of demands on MWD were developed for a single dry year, multiple dry years and average years. (2010 *RUWMP*, pages 2-12 to 2-14)

MWD also relies upon the implementation of the CALFED Bay-Delta Program, as an under development supply, to attain an increase in its existing Bay-Delta deliveries. Other under development programs relied upon by MWD include: additional transfers and storage agreements such as ICS Exchange, Agreements with CVWD, Additional Palo Verde Irrigation District Transfers, Arizona Programs – CAP, Hayfield Groundwater Extraction Project, Mojave Groundwater Storage Program, North of Delta/In-Delta Transfers, San Bernardino Valley Water MWD Central Feeder, Shasta Return, and Semitropic Agricultural Water Reuse. (2010 *RUWMP*, Sections 3.1, 3.2, and 3.3) See also MWD's 2010 *RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to MWD's current and under development supplies.

In addition, as stated above, IRWD has developed water banking projects in Kern County, California which be called upon for delivery of supplemental banked water to IRWD, if needed, in response to shortage conditions or potential water supply interruptions.

## **2. Required information concerning *under-development* supplies**

The following information is added:

IRWD has begun construction of the Baker Water Treatment Plan project (the Baker WTP) in partnership with El Toro Water District, Mouton-Niguel Water District, Santa Margarita Water District and Trabuco Canyon Water District. The Baker WTP will be supplied with untreated imported water from MWD and native Irvine Lake water supply. IRWD will own 10.5 cfs of treatment capacity rights in the Baker WTP.<sup>3</sup>

### **(a) Written contracts or other proof of valid rights to the identified supplies**

See the Assessment, Section 2(b)(1), incorporated herein by reference. See also MWD's 2010 *RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to written contracts and other proof related to MWD's supplies.

### **(b) Adopted capital outlay program to finance delivery of the supplies**

See the Assessment, Section 2(b)(2), incorporated herein by reference. With respect to future groundwater wells (PR Nos. 11405, 11473) the MWRP Phase 2 expansion (PR. Nos. 20214 and 30214), and Baker WTP (PR No. 11218) IRWD adopted its fiscal year 2013-14 capital budget on June 10, 2013 (Resolution No. 2013-21), budgeting portions of the funds for such projects. IRWD has financed its expected 24% share of the costs of the Baker WTP from general obligation bonds. See also MWD's 2010 *RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to capital outlay programs related to MWD's supplies.

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<sup>3</sup> The Baker WTP shall be supplied nonpotable imported water through the existing Baker Pipeline. IRWD's existing Baker Pipeline capacity (See Assessment, Section 2(b)(1) NONPOTABLE SUPPLY – IMPORTED) shall be apportioned to the Baker WTP participants based on Baker WTP capacity ownership, and IRWD shall retain 10.5 cfs of pipeline capacity through the Baker WTP for potable supply and shall retain 36 cfs in Reach 1U of the Baker Pipeline capacity for nonpotable supply.

general obligation bonds. See also MWD's 2010 *RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to capital outlay programs related to MWD's supplies.

**(c) Federal, state and local permits to construct of delivery infrastructure**

See the Assessment, Section 2(b)(3), incorporated herein by reference. See also MWD's 2010 *RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to permits related to MWD's supplies.

**(d) Regulatory approvals for conveyance or delivery of the supplies**

See the Assessment, Section 2(b)(4), incorporated herein by reference. See also MWD's 2010 *RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to regulatory approvals related to MWD's supplies.

**3. Foreseeable impacts of the Project on the availability of water for agricultural and industrial uses in IRWD's service area not currently receiving water**

Based on city planning and other information known to IRWD, there are no agricultural or industrial uses in IRWD's service area that are not within either existing and committed demand or future demand, both of which are included within the supply and demand comparison and determination of sufficiency (see 1(a)).

**4. Information concerning the right to extract additional groundwater included in the supply identified for the Project:**

Where the water supply for the Project includes groundwater, the verification is required to include an evaluation of the extent to which IRWD or the landowner has the right to extract the additional groundwater needed to supply the Project. See the Assessment, Section 2(b)(1), "POTABLE SUPPLY – GROUNDWATER" and "NONPOTABLE SUPPLY – GROUNDWATER," and Section 4, incorporated herein by reference.

**5. References**

*Water Resources Master Plan*, Irvine Ranch Water District, March, 2002 (supplemented January, 2004)

*2010 Urban Water Management Plan*, Irvine Ranch Water District, June, 2011

*Section 15 of the Rules and Regulations – Water Conservation and Water Supply Shortage Program*, Irvine Ranch Water District, February, 2009

*Water Shortage Contingency Plan*, Irvine Ranch Water District, February, 2009

*2010 Integrated Resources Plan Update*, Metropolitan Water District of Southern California, October, 2010

*2010 Regional Urban Water Management Plan*, Metropolitan Water District of Southern California, November, 2010

*The Regional Urban Water Management Plan for the Metropolitan Water District of Southern California*, Metropolitan Water District of Southern California, November, 2005

*Integrated Water Resources Plan Update*, Metropolitan Water District of Southern California, July, 2004

*Proposed Framework for Metropolitan Water District's Delta Action Plan*, Metropolitan Water District of Southern California, May 8, 2007

*Board Information Report*, Metropolitan Water District of Southern California, October 9, 2007

*2007 IRP Implementation Report*, Metropolitan Water District of Southern California, October, 2007

*Master Plan Report*, Orange County Water District, April, 1999

*Groundwater Management Plan*, Orange County Water District, March, 2004

*Final Draft Long-Term Facilities Plan*, Orange County Water District, January, 2006

*Orange County Water District Report on Evaluation of Orange County Groundwater Basin Storage and Operational Strategy*, February, 2007

*2010-11 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District*, Orange County Water District, February 2012

*Progress on Incorporating Climate Change into Management of California's Water Resources*, California Department of Water Resources, July, 2006

**Exhibit A**

Depiction of Project Area

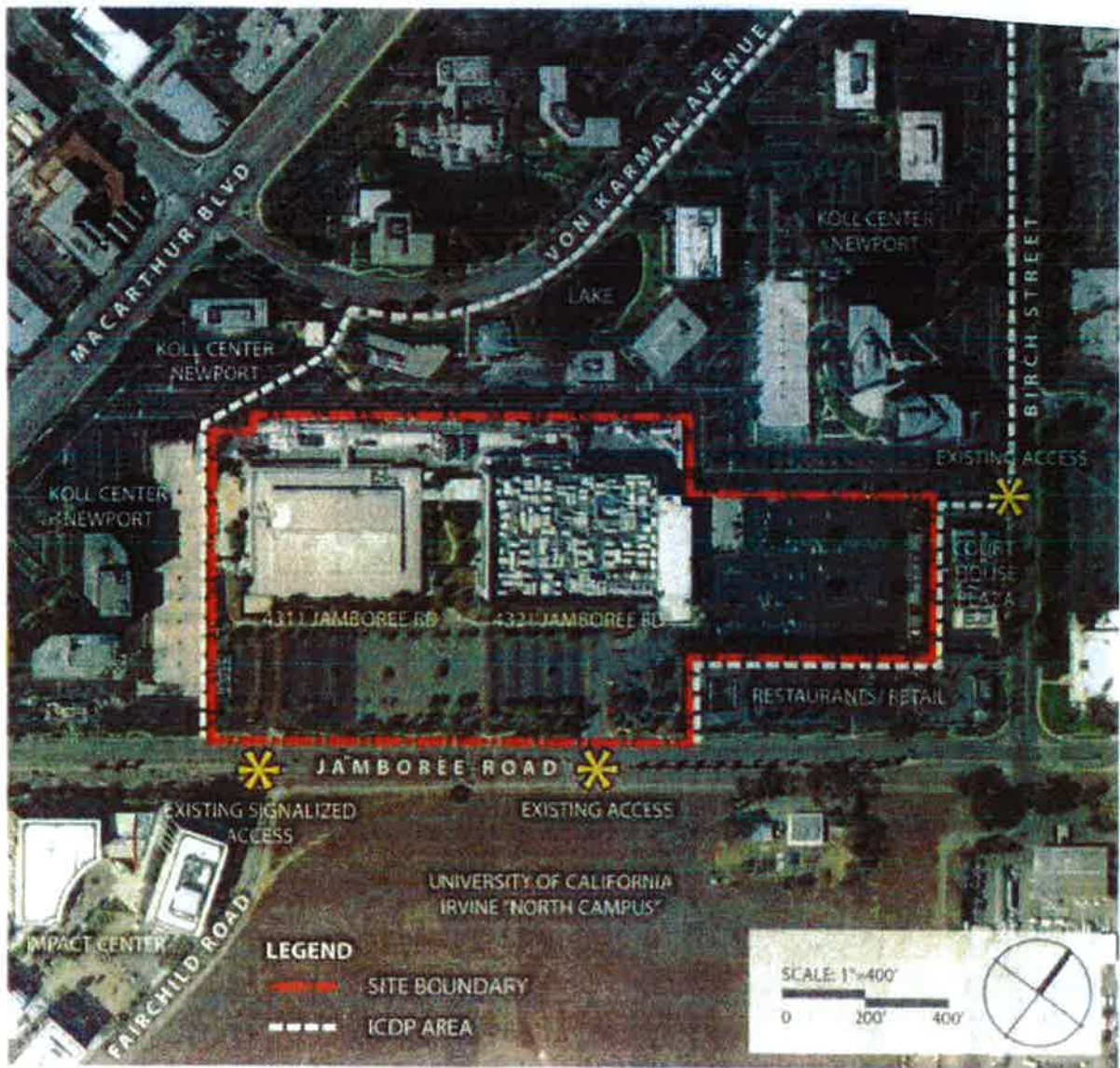


Figure 1-3 Aerial photo of the future Uptown Newport project site.



**Exhibit B**  
**Uses Included in Project**



**COMMUNITY DEVELOPMENT DEPARTMENT**  
**PLANNING DIVISION**  
100 Civic Center Drive, P.O. Box 1768, Newport Beach, CA 92658-8915  
(949) 644-3200 Fax: (949) 644-3229  
[www.newportbeachca.gov](http://www.newportbeachca.gov)

March 17, 2014

Kellie Welch  
Irvine Ranch Water District  
15600 Sand Canyon Avenue  
P.O. Box 57000  
Irvine, CA 92619-7000

Re: Request for Verification of Sufficient Water Supplies (Government Code §66473.7(b)(1))

The City of Newport Beach hereby requests verification of the availability of a sufficient water supply for the below-described project. Under Government Code §66473.7(b)(1), written verification of the availability of a sufficient water supply is required in conjunction with or prior to the approval of any tentative map that includes a residential subdivision of more than 500 dwelling units, subject to certain exemptions.

The City has determined that the subject project (1) includes a subdivision meeting the criteria requiring verification of availability of sufficient water supply and (2) does not fall within one of the statutory exemptions for previously developed urban sites, sites surrounded by urban use, or low-income housing sites.

**Proposed Project Information**

Project Title: Uptown Newport Beach

Location of project: 4311 & 4321 Jamboree Road

Planning Area(s): Uptown Newport Village (PA2011-134)

(Enclose a project map and exhibits) See Attached.

Was the project included as part of a previously completed Water Supply Assessment (Water Code §10910)?  yes  no

If yes, date and project title of Water Supply Assessment: Water Supply Assessment for Uptown Newport Village Specific Plan Project dated March 18, 2011

If no, state reason:  CEQA documentation not requiring a Water Supply Assessment was completed prior to January 1, 2002  other: \_\_\_\_\_

Was a Water Supply Verification previously completed for the project?  yes  no

If yes, indicate reason for re-verification:  tract map expiration  new Water Supply Assessment required due to project revisions, changed circumstances or new information.

- Tentative Map Application No.\* \_\_\_\_\_  Tentative Tract No.\* 17438  
 Verification is being requested prior to tentative map application (Government Code §66473.7(1) (Indicate next project approval sought: \_\_\_\_\_  
\_\_\_\_\_)

(\*A copy of the tentative map application including the proposed subdivision was sent to IRWD on: \_\_\_\_\_ (Government Code §66455.3))

Type of development included in the project:

- Residential: No. of dwelling units: 1,244  
 Shopping center or business: 11,500 Sq. ft. of floor space.  
 Commercial office: No. of employees \_\_\_\_\_ Sq. ft. of floor space \_\_\_\_\_  
 Hotel or motel: No. of rooms \_\_\_\_\_  
 Industrial, manufacturing, processing or industrial park: No. of employees \_\_\_\_\_  
No. of acres \_\_\_\_\_ Sq. ft. of floor space \_\_\_\_\_  
 Mixed use (check and complete all above that apply)  
 Other.

Total acreage of project: 25 acres

Acreage devoted to landscape:

Greenbelt \_\_\_\_\_ golf course \_\_\_\_\_ parks 2.0 acres  
Agriculture \_\_\_\_\_ other landscaped areas \_\_\_\_\_

Other factors or uses that would affect the quantity of water needed, such as peak flow requirements:

The project will be constructed in two phases. The Phase I development will include demolition of the office building at 4311 Jamboree Road and development of the westerly portion of the property. The Phase I development would include approximately 680 residential units and 11,500 sq. ft of Retail and 1 acre of park. The Phase II will include demolition of the Tower Jazz building at 4321 Jamboree Road and would develop the remaining eastern portion of the property. The Phase II development could occur could begin as early as 2017 or as late as 2027. The Phase II development would include approximately 564 residential units and 1 acre of park.

Is the project included in the existing General Plan? Yes, MU-H2 If no, describe the existing General Plan Designation.

The City acknowledges that IRWD's verification will be based on the information hereby provided to IRWD concerning the project. If it is necessary for corrected or additional information to be submitted to enable IRWD to complete the verification, the request will be considered incomplete until IRWD's receipt of the corrected or additional information. If the project changes or the tentative map approval expires after the issuance of a

Water Supply Verification, the City will request a new Water Supply Verification if required. In the event of changes in the project, circumstances or conditions of the availability of new information, it will be necessary for the City to request a new Water Supply Assessment prior to completion of the new Water Supply Verification.

The City acknowledges that the Water Supply Verification shall not constitute a "will-serve" or in any way entitle the project applicant to service or to any right, priority or allocation in any supply, capacity or facility, and that the issuance of the Water Supply Verification shall not affect IRWD's obligation to provide service to its existing customers or any potential future customers including the project applicant. In order to receive service, the project applicant shall be required to file a completed Application(s) for Service and Agreement with the Irvine Ranch Water District on IRWD's forms, together with all fees and charges, plans and specifications, bonds and conveyance of necessary easements, and meet all other requirement as specified therein.

CITY OF Newport Beach /COUNTY OF ORANGE

By: Rosalinh Ung



REQUEST RECEIVED:

Date: March 19, 2014

By: Kellie Welch  
Irvine Ranch Water District

REQUEST COMPLETE:

Date: March 24, 2014

By: Kellie Welch  
Irvine Ranch Water District

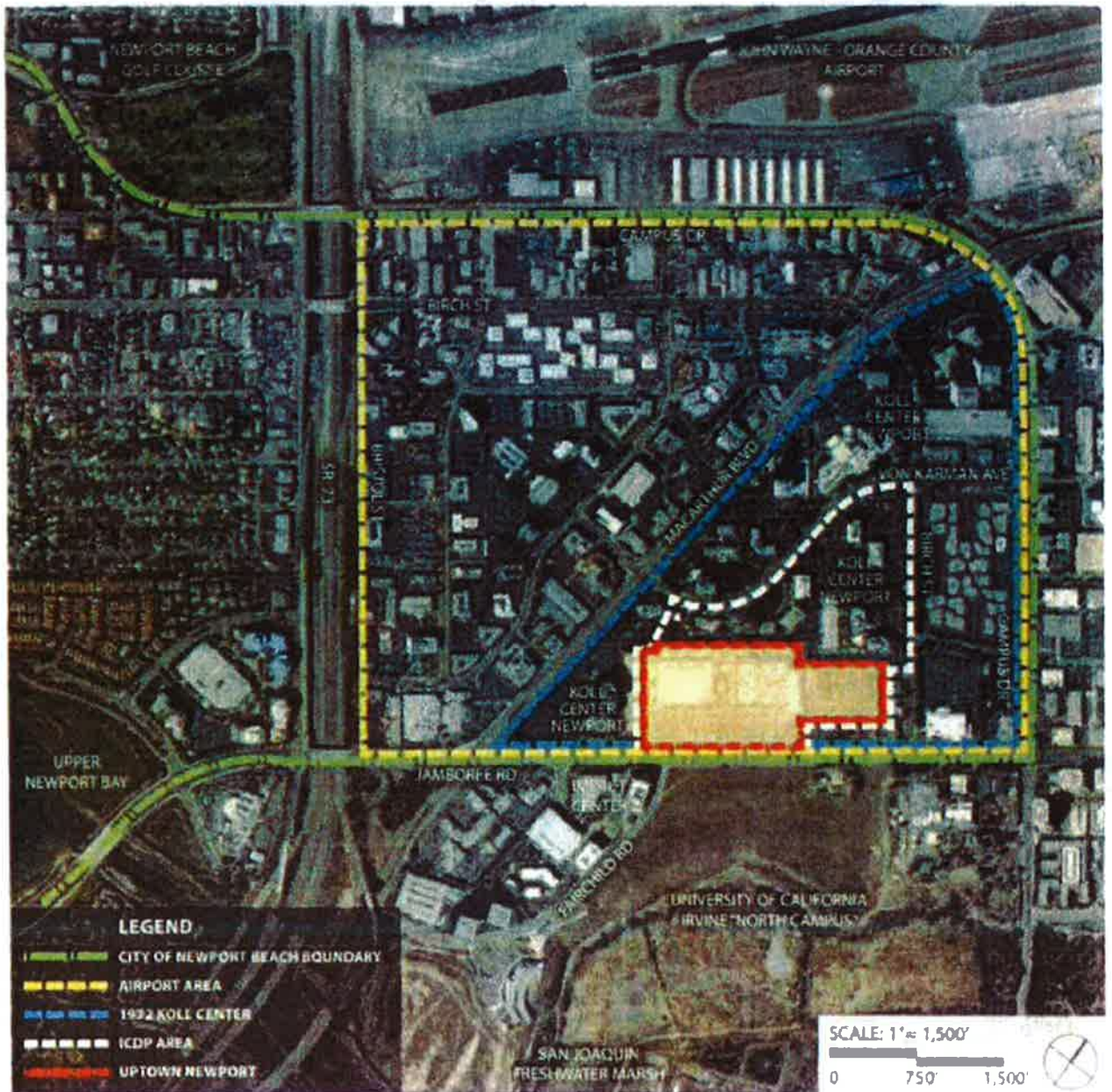


Figure 1 2: The Airport Area and the Uptown Newport Planned Community Development Area

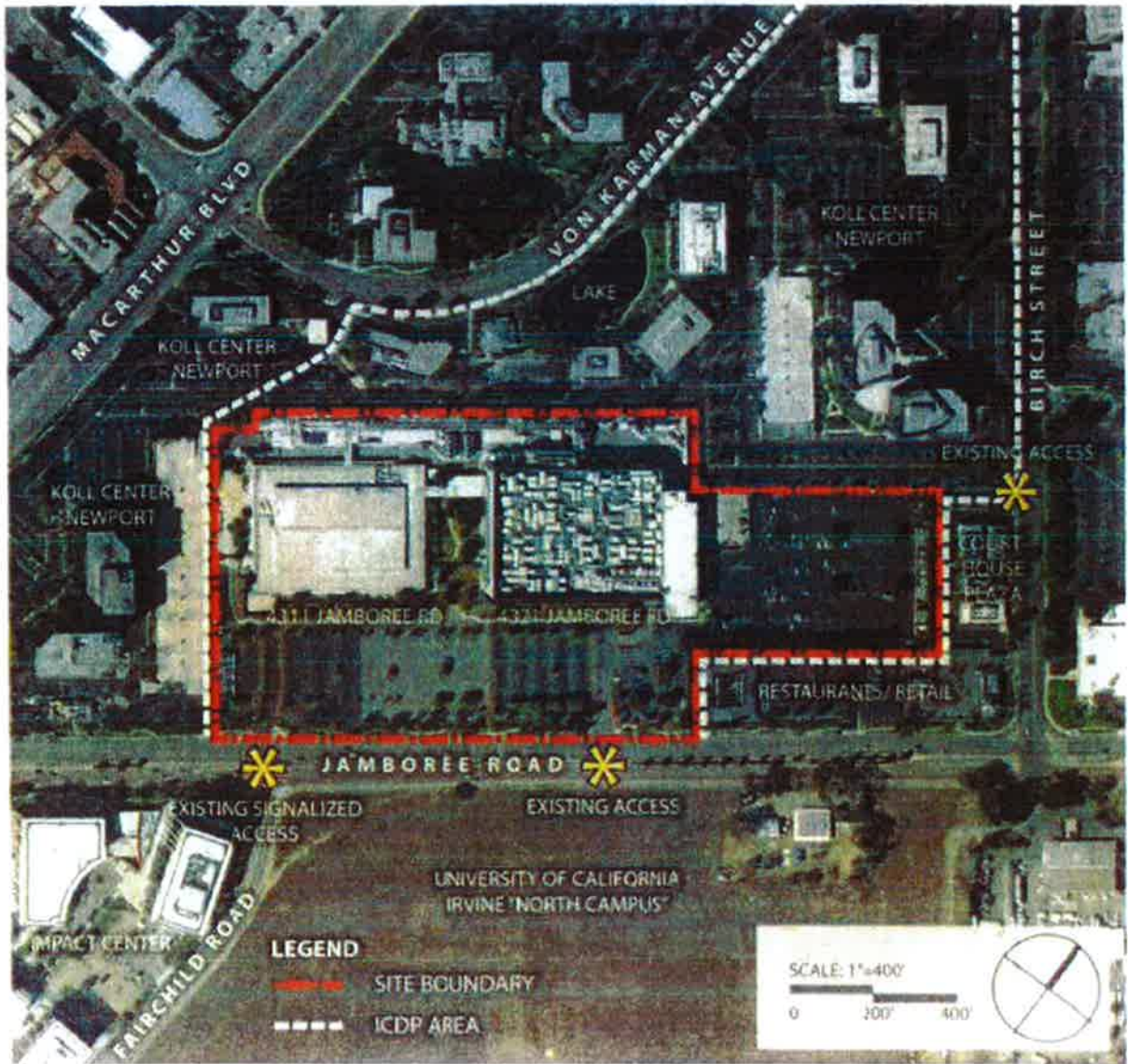


Figure 1-3 Aerial photo of the future Uptown Newport project site



Figure 1-6 Master Site Plan

**Exhibit C**

**Water Supply Assessment**





## **Water Supply Assessment Information**

### **Purpose of Assessment**

Irvine Ranch Water District (“IRWD”) has been identified by the City as a public water system that will supply water service (both potable and nonpotable) to the project identified on the cover page of this assessment (the “Project”). As the public water system, IRWD is required by Section 10910 *et seq.* of the Water Code to provide the City with an assessment of water supply availability (“assessment”) for defined types of projects. The Project has been found by the City to be a project requiring an assessment. The City is required to include this assessment in the environmental document for the Project, and, based on the record, make a determination whether projected water supplies are sufficient for the Project and existing and planned uses.

Water Code Section 10910 (the “Assessment Law”) contains the requirements for the information to be set forth in the assessment.

### **Prior Water Supply Assessments**

IRWD does not allocate particular supplies to any project, but identifies total supplies for its service area. Because of IRWD’s aggregation of demands and supplies, each assessment completed by IRWD is expected to be generally similar to the most recent assessment, with changes as needed to take into account changes, if any, in demands and supplies, and any updated and corrected information obtained by IRWD. Previously assessed projects’ water demands will be included in the baseline. A newly assessed project’s water demand will have been included in previous water supply assessments for other projects (as part of IRWD’s “full build-out” demand) to the extent of any land use planning or other water demand information for the project that was available to IRWD.

The Project’s water demand was included (as part of IRWD’s “full build-out” demand) in previous water supply assessments performed by IRWD, based on land use planning information then available to IRWD. In this water supply assessment, the Project demand will be revised in accordance with updated information provided by the applicant and included in the “with project” demand.

### **Supporting Documentation**

IRWD prepares two planning documents to guide water supply decision-making. IRWD’s principal planning document is IRWD’s “Water Resources Master Plan” (“WRMP”). The WRMP is a comprehensive document compiling data and analyses that IRWD considers necessary for its planning needs. IRWD also prepares an Urban Water Management Plan (“UWMP”), a document required by statute. The UWMP is based on the WRMP, but contains defined elements as listed in the statute (Water Code Section 10631, *et seq.*), and as a result, is more limited than the WRMP in the treatment of supply and demand issues. Therefore, IRWD primarily relies on its most recent WRMP. (The UWMP is required to be updated in years ending with “five” and “zero,” and IRWD’s next update of that document is anticipated in June 2011.)

In addition to the WRMP and the 2005 UWMP mentioned above, other supporting documentation referenced herein is found in Section 6 of this assessment.

Due to the number of contracts, statutes and other documents comprising IRWD's written proof of entitlement to its water supplies, in lieu of attachment of such items, they are identified by title and summarized in Section 2(b) of this assessment (written contracts/proof of entitlement). Copies of the summarized items can be obtained from IRWD.

### Assessment Methodology

**Water use factors; dry-year increases.** IRWD employs water use factors to enable it to assign water demands to the various land use types and aggregate the demands. The water use factors are based on average water use and incorporate the effect of IRWD's tiered-rate conservation pricing and its other water conservation programs. The factors are derived from historical usage (billing data) and a detailed review of water use factors within the IRWD service areas conducted as a part of the WRMP. Water demands also reflect normal hydrologic conditions (precipitation). Lower levels of precipitation and higher temperatures will result in higher water demands, due primarily to the need for additional water for irrigation. To reflect this, base (normal) WRMP water demands have been increased 7% in the assessment during both "single-dry" and "multiple-dry" years. This is consistent with IRWD's 2005 UWMP and historical regional demand variation as documented in the Metropolitan Water District of Southern California's ("MWD's") Integrated Resources Plan (1996) (Volume 1, page 2-10).

**Planning horizon.** For consistency with IRWD's WRMP, the assessment reviews demands and supplies through the year 2031, which is considered to represent build-out or "ultimate development".

**Assessment of demands.** Water demands are reviewed in this assessment for three development projections (to 2031):

- Existing and committed demand (without the Project) ("baseline"). This provides a baseline condition as of the date of this assessment, consisting of demand from existing development, plus demand from development that has both approved zoning and (if required by the Assessment Law) an adopted water supply assessment.
- Existing and committed demand, plus the Project ("with-project"). This projection adds the Project water demands to the baseline demands.
- Full WRMP build-out ("full build-out"). In addition to the Project, this projection adds potential demands for all presently undeveloped areas of IRWD based on current general plan information, modified by more specific information available to IRWD, as more fully described in Chapter 2 of the WRMP.

**Assessment of supplies.** For comparison with demands, water supplies are classified as *currently available* or *under development*:

- *Currently available* supplies include those that are presently operational, and those that will be operational within the next several years. Supplies expected to be operational in the next several years are those having completed or substantially completed the environmental and regulatory review process, as well as having necessary contracts (if any) in place to move forward. These supplies are in various stages of planning, design, or construction.

- In general, supplies *under development* may necessitate the preparation and completion of environmental documents, regulatory approvals, and/or contracts prior to full construction and implementation.

IRWD is also evaluating the development of additional supplies that are not included in either *currently available* or *under-development* supplies for purposes of this assessment. As outlined in the WRMP, prudent water supply and financial planning dictates that development of supplies be phased over time consistent with the growth in demand.

Water supplies available to IRWD include several sources: groundwater pumped from the Orange County groundwater basin (including the Irvine Subbasin); captured local (native) surface water; reclaimed wastewater, and supplemental imported water supplied by MWD through the Municipal Water District of Orange County (“MWDOC”). The supply-demand comparisons in this assessment are broken down among the various sources, and are further separated into potable and nonpotable water sources.

***Comparison of demand and supply.*** The three demand projections noted above (baseline, with-project and full build-out) are compared with supplies in the following ways:

- On a total *annual* quantity basis (stated in acre-feet per year (AFY)).
- On a *peak-flow* (maximum day) basis (stated in cubic feet per second (cfs)).
- Under three climate conditions: base (normal) conditions and single-dry and multiple-dry year conditions. (Note: These conditions are compared for *annual* demands and not for *peak-flow* demands. *Peak-flow* is a measure of a water delivery system’s ability to meet the highest day’s demand of the fluctuating demands that will be experienced in a year’s time. Peak demands occur during the hot, dry season and as a result are not appreciably changed by dry-year conditions; dry-year conditions do affect *annual* demand by increasing the quantity of water needed to supplement normal wet-season precipitation.)

#### Summary of Results of Demand-Supply Comparisons

Listed below are Figures provided in this assessment, comparing projected potable and nonpotable water supplies and demands under the three development projections:

- Figure 1: Normal Year Supply and Demand – Potable Water
- Figure 2: Single Dry-Year Supply and Demand – Potable Water
- Figure 3: Multiple Dry-Year Supply and Demand – Potable Water
- Figure 4: Maximum-Day Supply and Demand – Potable Water
- Figure 5: Normal Year Supply and Demand – Nonpotable Water
- Figure 6: Single Dry-Year Supply and Demand – Nonpotable Water
- Figure 7: Multiple Dry-Year Supply and Demand – Nonpotable Water
- Figure 8: Maximum-Day Supply and Demand – Nonpotable Water

It can be observed in the Figures that IRWD’s *supplies* remain essentially constant between normal, single-dry and multiple-dry years. This result is due to the fact that groundwater and MWD imported water account for all of IRWD’s potable supply, and reclaimed water, groundwater and imported water comprise most of IRWD’s nonpotable supply. Groundwater production typically remains constant or increases in cycles of dry years, even if

overdraft of the basin temporarily increases, as groundwater producers reduce their demand on imported supplies to secure reliability. (See Section 4 herein.) As to imported water, MWD's 2010 Regional Urban Water Management Plan (RUWMP) shows that MWD can maintain reliable supplies under the conditions that have existed in past dry periods through 2035, including a repeat of the 1990-1992 multiple dry-year hydrology and the 1977 single dry-year hydrology. (See Section 2(b) (1) "IMPORTED SUPPLY - ADDITIONAL INFORMATION," below, for a summary of information provided by MWD.) Reclaimed water production also remains constant, and is considered "drought-proof" as a result of the fact that sewage flows remain virtually unaffected by dry years. Only a small portion of IRWD's nonpotable supply, native water captured in Irvine Lake, is reduced in single-dry and multiple-dry years. The foregoing factors also serve to explain why there is no difference in IRWD's supplies between single-dry and multiple-dry years.

A review of the Figures indicates the following:

- *Currently available* supplies of potable water are adequate to meet projected annual demands for both the *baseline* and *with-project* demand projections under the normal and both dry-year conditions through the year 2015. (Figures 1, 2 and 3.)
- Meeting both single- and multiple-dry-year annual demands for *full build-out* will require the completion of *under-development* supplies. (Figures 2 and 3.)
- Adequate *currently available* potable water supply capacity is available to meet *peak-flow* (maximum day) demands for all demand projections through the year 2031. (Figure 4.)
- With respect to nonpotable water, *currently available* supplies are adequate to meet projected annual demands for both the *baseline* and *with-project* demand projections under both dry-year conditions through the year 2020. (Figures 5, 6, 7 and 8). IRWD is proceeding with the implementation of *under-development* nonpotable supplies, as shown in the Figures, to improve local reliability during dry-year conditions.

The foregoing Figures provide an overview of IRWD potable and nonpotable water supply capabilities. More detailed information on the anticipated development and use of supplies, which incorporates source costs and reliability issues, is provided in the WRMP.

**Margins of safety.** The Figures and other information described in this assessment show that IRWD's assessment of supply availability contains several margins of safety or buffers:

- "Reserve" water supplies (excess of supplies over demands) will be available to serve as a buffer against inaccuracies in demand projections, future changes in land use, or alterations in supply availability.
- The potential exists for the treatment and conversion of some reserve nonpotable supplies to potable water.
- Conservative estimates of annual potable and nonpotable *imported* supplies have been made based on connected delivery capacity (by application of peaking factors as described below in Section 2, footnote 1); additional supplies are expected to be available from these sources, based on legal entitlements, historical uses and

information provided by MWD. In addition to MWD's existing regional supply assessments, this assessment has considered MWD information concerning recent events. See "**Recent Actions on Delta Pumping**," below.

- Information provided by MWD, as the imported water supplier, concerning the adequacy of its regional supplies, summarized herein, demonstrates MWD's inclusion of reserves in its regional supply assessments. In addition to MWD's existing regional supply assessments, this assessment has considered MWD information concerning recent events. See "**Recent Actions on Delta Pumping**," below.

- Although groundwater supply amounts shown in this assessment assume production levels within applicable basin production percentages described herein, production of groundwater can exceed applicable basin production percentages on a short-term basis, providing additional reliability during dry years or emergencies.

**Recent Actions on Delta Pumping.** The Sacramento/San Joaquin Delta (Delta) is a vulnerable component in both the State and Federal systems to convey water from northern portions of California to areas south of the Delta. Issues associated with the Delta have generally been known for years; however, most recently, the continuing decline in the number of endangered Delta smelt resulted in the filing of litigation challenging permits for the operation of the Delta pumping facilities. On August 31, 2007, a Federal court ordered interim protective measures for the endangered Delta smelt, including operational limits on Delta pumping, which will have an effect on State Water Project (SWP) operations and supplies in 2008 and subsequent years. On June 4, 2009, a federal biological opinion imposed rules that will further restrict water diversions from the Delta to protect endangered salmon and other endangered fish species. At present, several proceedings concerning Delta operations are ongoing to evaluate options to address Delta smelt impacts and other environmental concerns. In addition to the regulatory and judicial proceedings to address immediate environmental concerns, the Delta Vision process and Bay-Delta Conservation Plan process are defining long-term solutions for the Delta (MWD 2010 IRP Update). Prior to the 2007 court decision, MWD's Board approved a Delta Action Plan in May 2007 that described short, mid and long-term conditions and the actions to mitigate potential supply shortages and to develop and implement long-term solutions. To comprehensively address the impacts of the SWP cutback on MWD's water supply development targets, MWD brought to its Board a strategy and work plan to update the long-term Integrated Resources Plan (IRP) in December 2007. As part of the IRP Update, MWD developed a region-wide collaborative process that included a broad-based stakeholder involvement. MWD held several stakeholder forums in 2008 and 2009 and the MWD Board adopted the 2010 IRP Update on October 12, 2010. In the 2010 IRP Update, MWD identified changes to the long-term plan and established direction to address the range of potential changes in water supply planning. The IRP also discusses dealing with uncertainties related to impacts of climate change (see additional discussion of this below) as well as actions to protect endangered fisheries. Based on MWD's Findings and Conclusions as stated in the MWD 2010 IRP Update, MWD's reliability goal that full-service demands at the retail level will be satisfied for all foreseeable hydrologic conditions remains unchanged in the 2010 IRP Update, and MWD will accomplish this through its core resources strategies. The 2010 IRP Update emphasizes an evolving approach and suite of actions to address the water supply challenges that are posed by uncertain weather patterns, regulatory and environmental restrictions, water quality impacts and changes in the state and the region. MWD's Adaptive Resource Management Strategy includes three components: Core Resources Strategy, Supply Buffer Implementation and Foundational Actions which together provides the basis for the 2010 IRP Update. The 2010 IRP Update expands the concept of developing a planning buffer from the 2004 IRP Update by

implementing a supply buffer equal to 10 percent of the total retail demand. MWD will collaborate with the member agencies to implement this buffer through complying with Senate Bill 7 which calls for the state to reduce per capita water use 20 percent by the year 2020.

IRWD's Evaluation of Effect of Reduced MWD Supplies to IRWD: MWD states it is sufficiently reliable to meet full-service demands at the retail level for all foreseeable hydrologic conditions. For purposes of ensuring a conservative analysis, IRWD has compiled information from the prior "MWD IRP Implementation Report" (October 2010) and MWD's RUWMP (November 2010), to provide information in this assessment relative to how reduced SWP supplies could potentially affect IRWD's supplies from MWD.

Based on IRWD's evaluation of MWD's SWP supplies, IRWD estimates that the 22% used by MWD's October 2007 IRP Implementation Report as a potential reduction of MWD's SWP supplies conservatively translates to approximately 16% reduction in all of MWD's imported supplies over the years 2010 through 2028.<sup>1</sup> For this purpose it is assumed that MWD's total supplies consist only of imported SWP and Colorado deliveries. As shown in MWD's RUWMP (Tables A.3-7), SWP deliveries on average over the 20-year period are 1,752,000 acre-feet and Colorado average supplies are 656,000 acre-feet. A 22% reduction of SWP supplies equates to 385,400 acre-feet which is 16% of MWD's total imported supplies. Based on this estimate, this assessment projects a 16% reduction in MWD supplies available to IRWD for the years 2010 through 2028, using IRWD's connected capacity without any water supply allocation imposed by MWD. This reduction in MWD supplies is reflected in Figures 1, 2, 3, 5, 6, and 7.

As an alternative means of analyzing the 22% stated reduction, Figures 1a, 2a, and 3a show IRWD estimated supplies in all of the 5-year increments (average and single and multiple dry years) under a short-term MWD allocation scenario whereby MWD declares Shortage Stage 2 and a 10% cutback is applied to IRWD's actual usage rather than its connected capacity. In February 2009, MWD adopted a Water Supply Allocation Plan based on its declared level of shortage. In response to potential water shortages and a request by MWD to have water service providers within its service area adopt a water conservation ordinance, in February 2009, IRWD updated Section 15 of its Rules and Regulations – Water Conservation and Water Supply Shortage Program and also updated its Water Shortage Contingency Plan which is a supporting document for Section 15. Section 15 of the Rules and Regulations serves as IRWD's "conservation ordinance". As stated in IRWD's Water Shortage Contingency Plan, use of local supplies, storage and other supply augmentation measures can mitigate shortages, and are assumed to be in use to the maximum extent possible during declared shortage levels.

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<sup>1</sup> MWD's 2010 RUWMP cites to DWR's Water Allocation Analysis dated March 22, 2010, which incorporated the Delta smelt biological opinion's effect on SWP operations, export restrictions could reduce deliveries to MWD by 150 to 200 thousand acre-feet for 2010. Assuming this estimated SWP reduction amount is included in the final RUWMP adopted by MWD, that amount in acre feet would be equivalent to about 12% reduction in SWP supplies, a smaller percentage reduction than MWD's 2007 figure of 22% that was used by IRWD for purposes of this analysis.

Under shortage scenarios, IRWD may need to supplement supplies with production of groundwater, which can exceed the applicable basin production percentage on a short-term basis, providing additional reliability during dry years or emergencies.<sup>2</sup> In addition, if needed resultant net shortage levels can be addressed by demand reduction programs as described in IRWD's Water Shortage Contingency Plan.

Listed below are Figures provided comparing projected potable water supplies and demands in all of the five year increments, under a temporary MWD allocation scenario:

Figure 1a: Normal Year Supply and Demand (MWD Allocated) – Potable Water  
Figure 2a: Single Dry-Year Supply and Demand (MWD Allocated) – Potable Water  
Figure 3a: Multiple Dry-Year Supply and Demand (MWD Allocated) – Potable Water

It can be noted that IRWD's above approach is conservative, in that IRWD evaluates the effect of the 16% reduction through 2031 and shows the effect of current allocation scenarios in all of the five-year increments but MWD reports that it has made significant progress in other water resource categories such as transfers, groundwater storage and developing other local resources, and supplies will be available from these resources over the long-term.

**Climate Change.** The California Department of Water Resources ("DWR") released a report "Progress on Incorporating Climate Change into Management of California's Water Resources" (July 2006), considering the impacts of climate change on the State's water supply. DWR emphasizes that "the report represents an example of an impacts assessment based on four scenarios defining an expected range of potential climate change impacts." DWR's major goal is to extend the analysis for long-term water resource planning from "assessing impacts" to "assessing risk." The report presents directions for further work in incorporating climate change into the management of California's water resources. Emphasis is placed on associating probability estimates with potential climate change scenarios in order to provide policymakers with both ranges of impacts and the likelihoods associated with those impacts. DWR's report acknowledges "that all results presented in this report are preliminary, incorporate several assumptions, reflect a limited number of climate change scenarios, and do not address the likelihood of each scenario. Therefore, these results are not sufficient by themselves to make policy decisions."

In MWD's 2010 IRP Update, MWD recognizes there is a significant uncertainty in the impact of climate change on water supply and changes in weather patterns could significantly affect water supply reliability. MWD plans to hedge against supply and environmental uncertainties by implementing a supply buffer equivalent to 10 percent of total retail demand. This buffer will be implemented through meeting the SB7 water use efficiency goals, implementing aggressive adaptive actions, development of local supplies and transfers.

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<sup>2</sup> In these scenarios, it is anticipated that other water suppliers who produce water from the Orange County Basin will also experience cutbacks of imported supplies and will increase groundwater production and that Orange County Water District (OCWD) imported replenishment water may also be cutback. The OCWD's "2008-2009 Engineer's Report on the groundwater conditions, water supply and basin utilization" references a report which recommends a basin management strategy that provides general guidelines for annual basin refill or storage decrease based on the level of accumulated overdraft. It states, "an accumulated overdraft of 500,000 AF is only acceptable for short durations due to drought conditions...and an optimal basin management target of 100,000 AF of accumulated overdraft provides sufficient storage space to accommodate increased supplies from one wet year while also providing enough water in storage to offset decreased supplies during a two- to three-year drought." MWD replenishment water is a supplemental source of recharge water and OCWD estimates other main supply sources for recharge are available.



Per MWD's RUWMP, MWD continues to incorporate current climate change science into its planning efforts. As stated in MWD's RUWMP, the 2010 IRP Update supports the MWD Board adopted principles on climate change by: 1) Supporting reasonable, economically viable, and technologically feasible management strategies for reducing impacts on water supply and 2) Supporting flexible "no regret" solutions that provide water supply and quality benefits while increasing the ability to manage future climate change impacts, and 3) Evaluating staff recommendations regarding climate change and water resources against the California Environmental Quality Act to avoid adverse effects on the environment. Potential climate change impacts on state, regional and local water supplies and relevant information for the Orange County hydrologic basin and Santa Ana Watershed have not been sufficiently developed at this time to permit IRWD to assess and quantify the effect of any such impact on its conclusions in the Assessment.

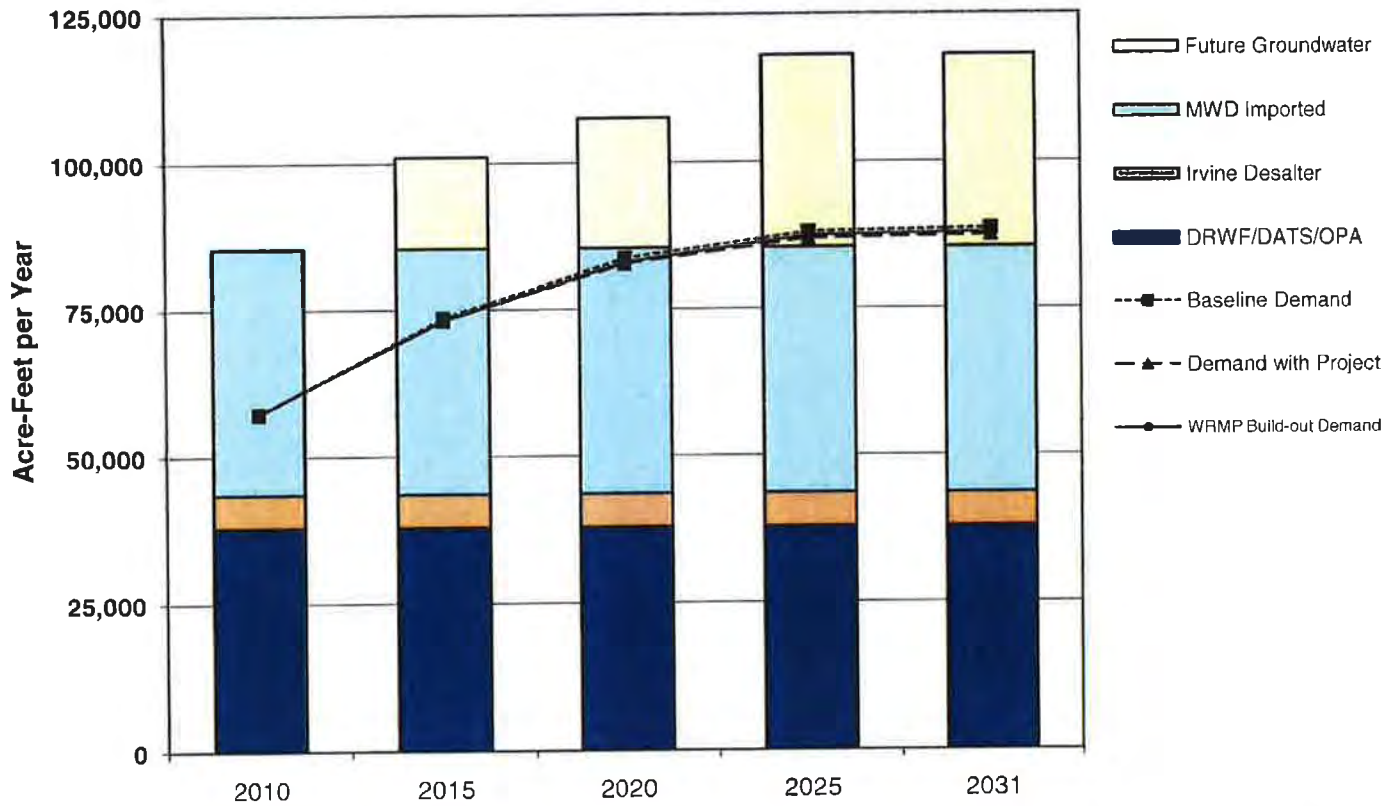
***Catastrophic Supply Interruption Planning.*** MWD has developed Emergency Storage Requirements (2010 RUWMP) to safeguard the region from catastrophic loss of water supply. MWD has made substantial investments in emergency storage and MWD has based its planning on a 100% reduction in its supplies for a period of six months. The emergency plan outlines that under such a catastrophe, non-firm service deliveries would be suspended, and firm supplies would be restricted by a mandatory cutback of 25 percent from normal year demand deliveries. In addition, MWD discusses the long term Delta plan in its 2010 RUWMP (pages 3-18 to 3-21). IRWD has addressed supply interruption planning in its WRMP and UWMP.

### **Detailed Assessment**

#### **1. Supply and demand comparison**

Comparisons of IRWD's average annual and peak (maximum day) demands and supplies, under *baseline* (existing and committed demand, without the Project), *with-project* (baseline plus Project), and *full build-out* development projections, are shown in the following Figures 1-4 (potable water), Figures 5-8 (nonpotable water) and Figures 1a, 2a, and 3a (short term MWD allocation potable water). See also the Assessment, Section 1, incorporated herein by reference and "Recent Actions on Delta Pumping" above.

**Figure 1  
IRWD Normal-Year Supply & Demand - Potable Water**

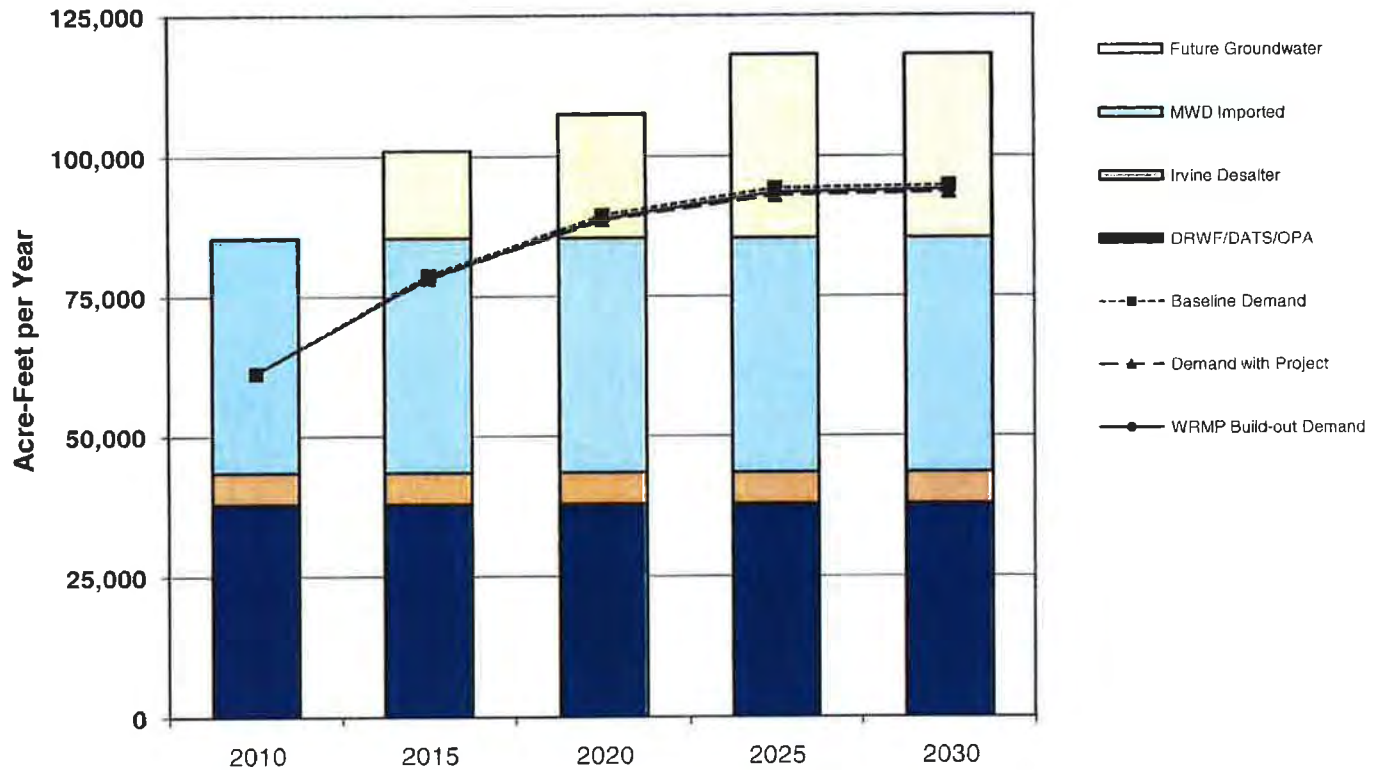


(in acre-feet per year)	2010	2015	2020	2025	2031
<u>Current Potable Supplies</u>					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
<u>Supplies Under Development</u>					
Future Groundwater	-	15,600	22,100	32,600	32,600
<b>Maximum Supply Capability</b>	<b>85,469</b>	<b>101,069</b>	<b>107,569</b>	<b>118,069</b>	<b>118,069</b>
Baseline Demand	57,286	73,571	83,696	88,086	88,579
Demand with Project	57,286	73,137	82,784	86,947	87,434
WRMP Build-out Demand	57,286	73,161	83,042	87,432	87,922
<b>Reserve Supply with Project</b>	<b>28,183</b>	<b>27,933</b>	<b>24,785</b>	<b>31,122</b>	<b>30,636</b>

Notes: By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

**Figure 2**  
**IRWD Single Dry-Year Supply & Demand - Potable Water**

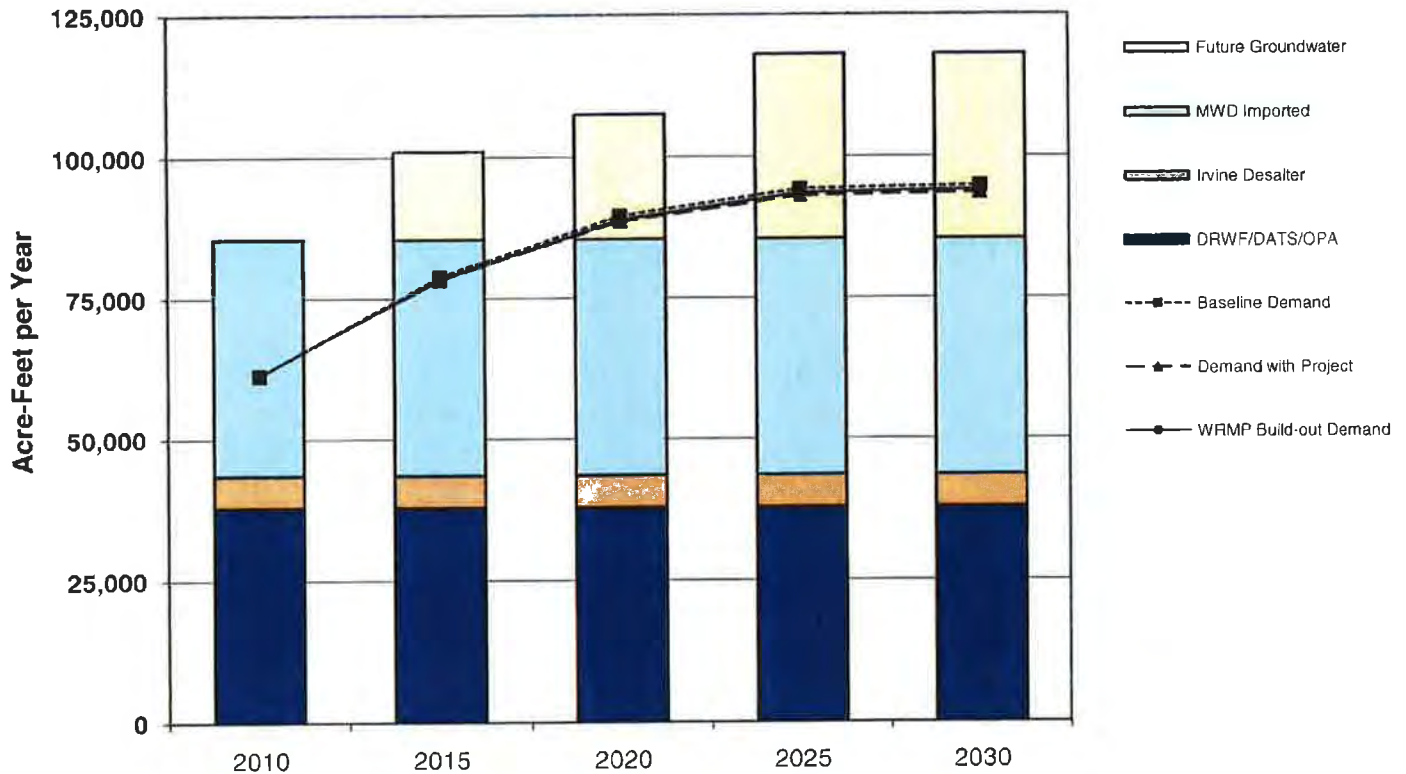


(in acre-feet per year)	2010	2015	2020	2025	2030
<u>Current Potable Supplies</u>					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
<u>Supplies Under Development</u>					
Future Groundwater	-	15,600	22,100	32,600	32,600
Maximum Supply Capability	85,469	101,069	107,569	118,069	118,069
Baseline Demand	61,296	78,721	89,555	94,252	94,780
Demand with Project	61,296	78,256	88,579	93,033	93,554
WRMP Build-out Demand	61,296	78,282	88,855	93,552	94,076
Reserve Supply with Project	24,174	22,787	18,714	24,517	23,993

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan (11/8/05) and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

**Figure 3  
IRWD Multiple Dry-Year Supply & Demand - Potable Water**

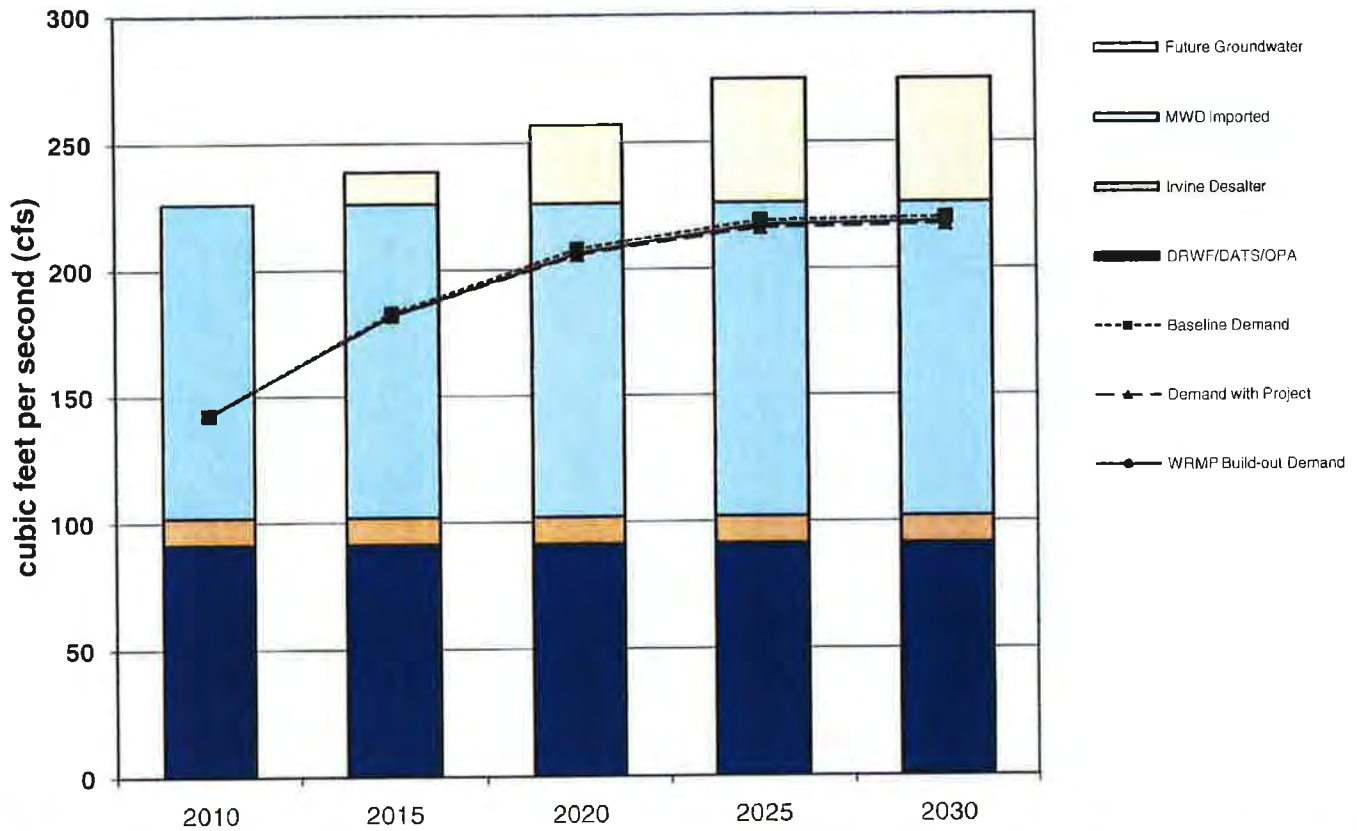


(in acre-feet per year)	2010	2015	2020	2025	2030
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
<b>Supplies Under Development</b>					
Future Groundwater	-	15,600	22,100	32,600	32,600
Maximum Supply Capability	85,469	101,069	107,569	118,069	118,069
Baseline Demand	61,296	78,721	89,555	94,252	94,780
Demand with Project	61,296	78,256	88,579	93,033	93,554
WRMP Build-out Demand	61,296	78,282	88,855	93,552	94,076
Reserve Supply with Project	24,173	22,813	18,990	25,036	24,515

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan (11/8/05) and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

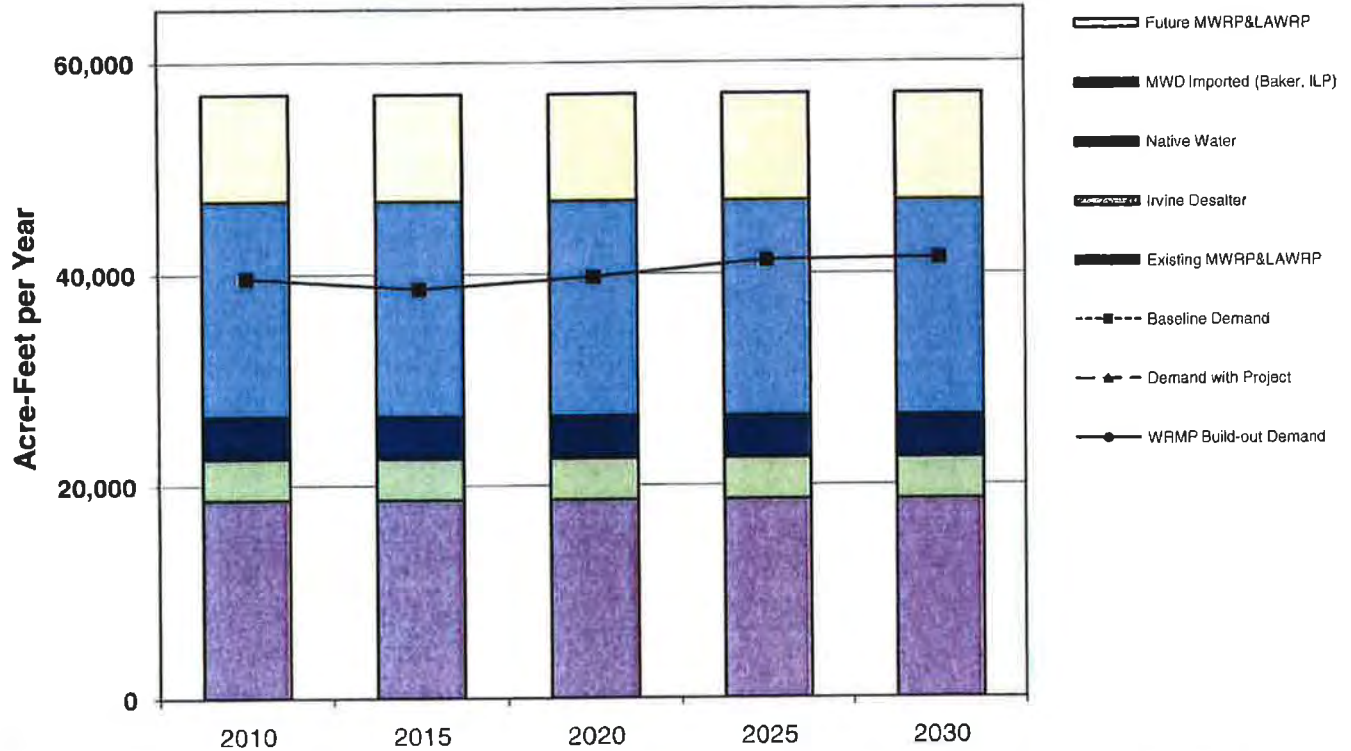
MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

**Figure 4**  
**IRWD Maximum-Day Supply & Demand - Potable Water**



(in cfs)	2010	2015	2020	2025	2030
<u>Current Potable Supplies</u>					
MWD Imported (EOCF#2, AMP, OCF)	124.1	124.1	124.1	124.1	124.1
DRWF/DATS/OPA	91.4	91.4	91.4	91.4	91.4
Irvine Desalter	10.6	10.6	10.6	10.6	10.6
<u>Supplies Under Development</u>					
Future Groundwater	-	12.7	30.7	48.7	48.7
<b>Maximum Supply Capability</b>	<b>226.1</b>	<b>238.8</b>	<b>256.8</b>	<b>274.8</b>	<b>274.8</b>
Baseline Demand	142.4	182.9	208.1	219.0	220.2
Demand with Project	142.4	181.8	205.8	216.2	217.4
WRMP Build-out Demand	142.4	181.9	206.5	217.4	218.6
<b>Reserve Supply with Project</b>	<b>83.7</b>	<b>56.9</b>	<b>50.4</b>	<b>57.4</b>	<b>56.2</b>

**Figure 5  
IRWD Normal-Year Supply & Demand - Nonpotable Water**

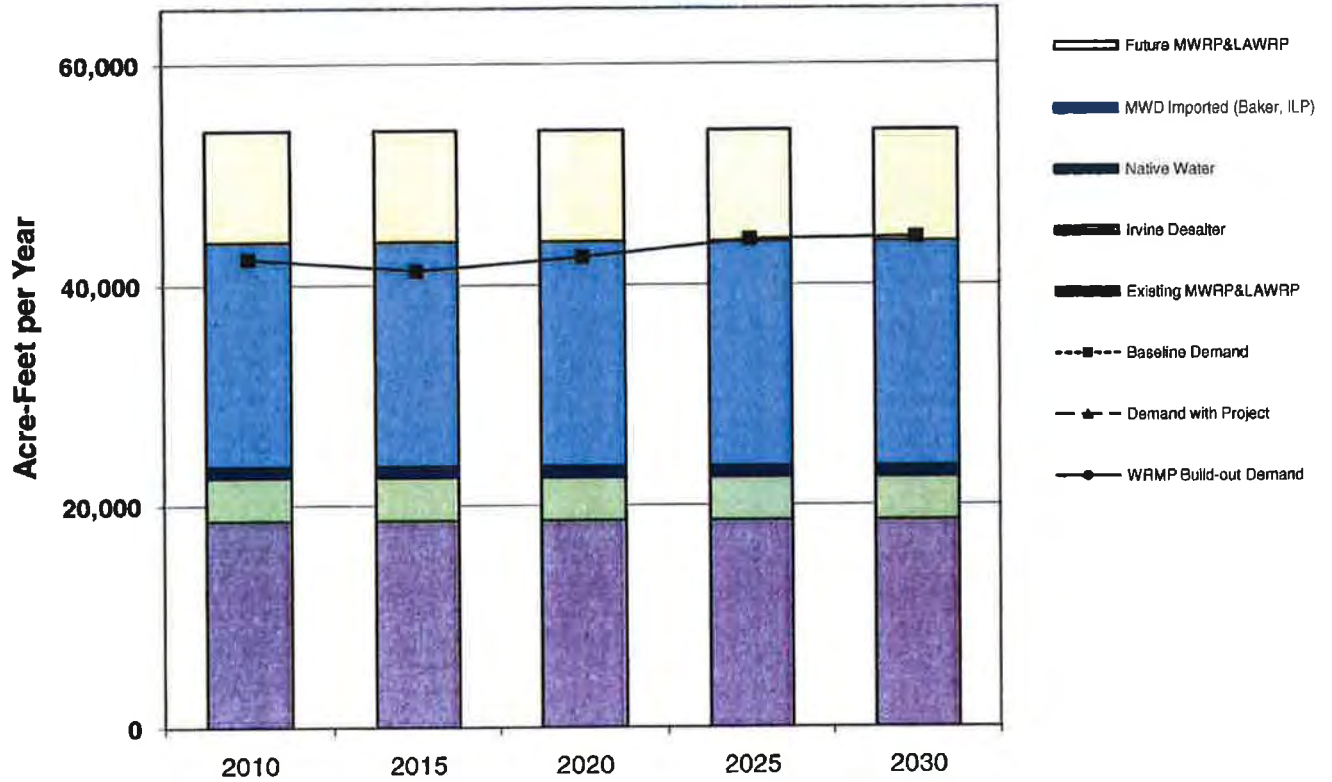


(in acre-feet per year)	2010	2015	2020	2025	2030
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	20,380	20,380	20,380	20,380	20,380
Irvine Desalter	3,898	3,898	3,898	3,898	3,898
Native Water	4,000	4,000	4,000	4,000	4,000
<b>Supplies Under Development</b>					
Future MWRP&LAWRP	10,100	10,100	10,100	10,100	10,100
Maximum Supply Capability	57,035	57,035	57,035	57,035	57,035
Baseline Demand	39,603	38,591	39,730	41,241	41,418
Demand with Project	39,600	38,591	39,730	41,241	41,419
WRMP Build-out Demand	39,603	38,592	39,731	41,242	41,419
Reserve Supply with Project	17,432	17,432	18,443	17,304	15,616

Note: Downward trend reflects reduction in agricultural use over time.

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

**Figure 6**  
**IRWD Single Dry-Year Supply & Demand - Nonpotable Water**

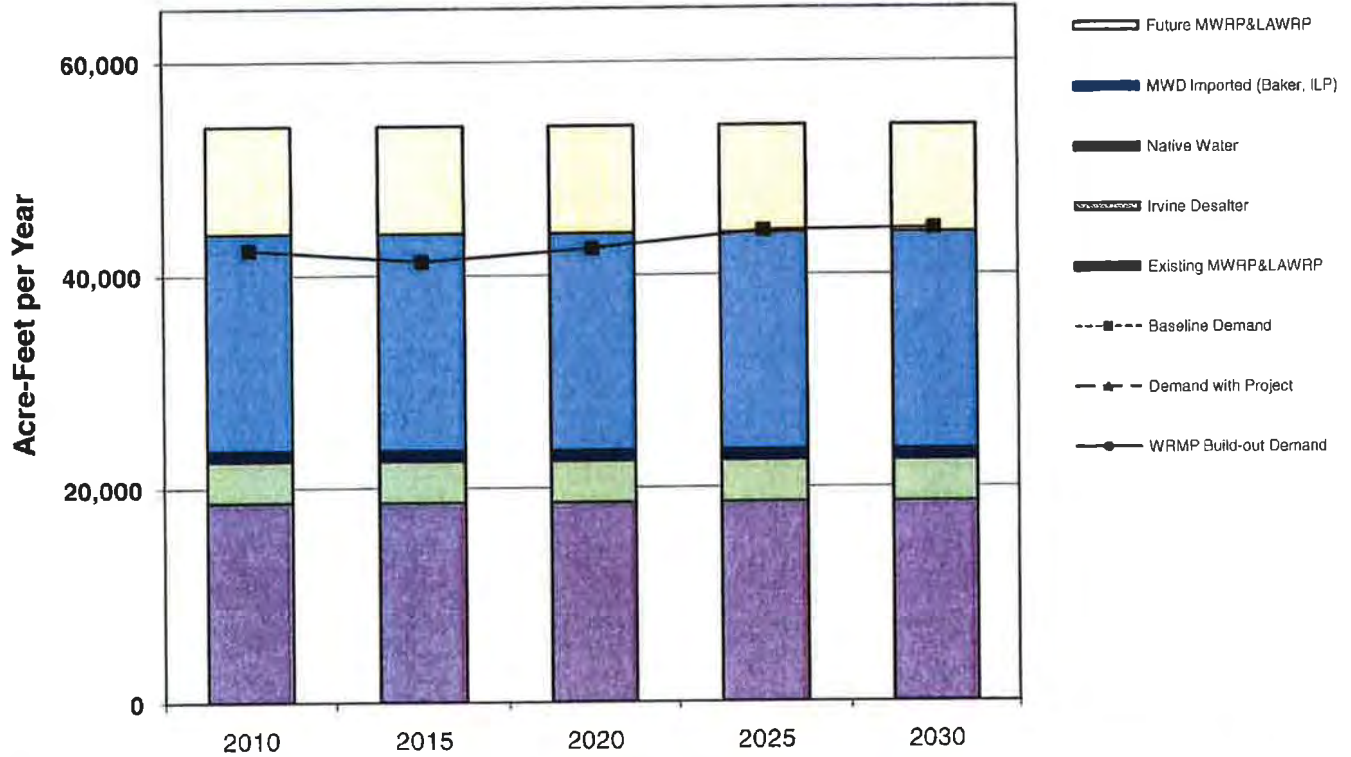


(in acre-feet per year)	2010	2015	2020	2025	2030
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	20,380	20,380	20,380	20,380	20,380
Irvine Desalter	3,898	3,898	3,898	3,898	3,898
Native Water	1,000	1,000	1,000	1,000	1,000
<b>Supplies Under Development</b>					
Future MWRP&LAWRP	10,100	10,100	10,100	10,100	10,100
Maximum Supply Capability	54,035	54,035	54,035	54,035	54,035
Baseline Demand	42,375	41,293	42,511	44,128	44,317
Demand with Project	42,372	41,293	42,511	44,128	44,318
WRMP Build-out Demand	42,375	41,293	42,512	44,129	44,318
Reserve Supply with Project	11,663	12,742	11,524	9,907	9,717

Note: Downward trend reflects reduction in agricultural use over time.

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

**Figure 7  
IRWD Multiple Dry-Year Supply & Demand - Nonpotable Water**



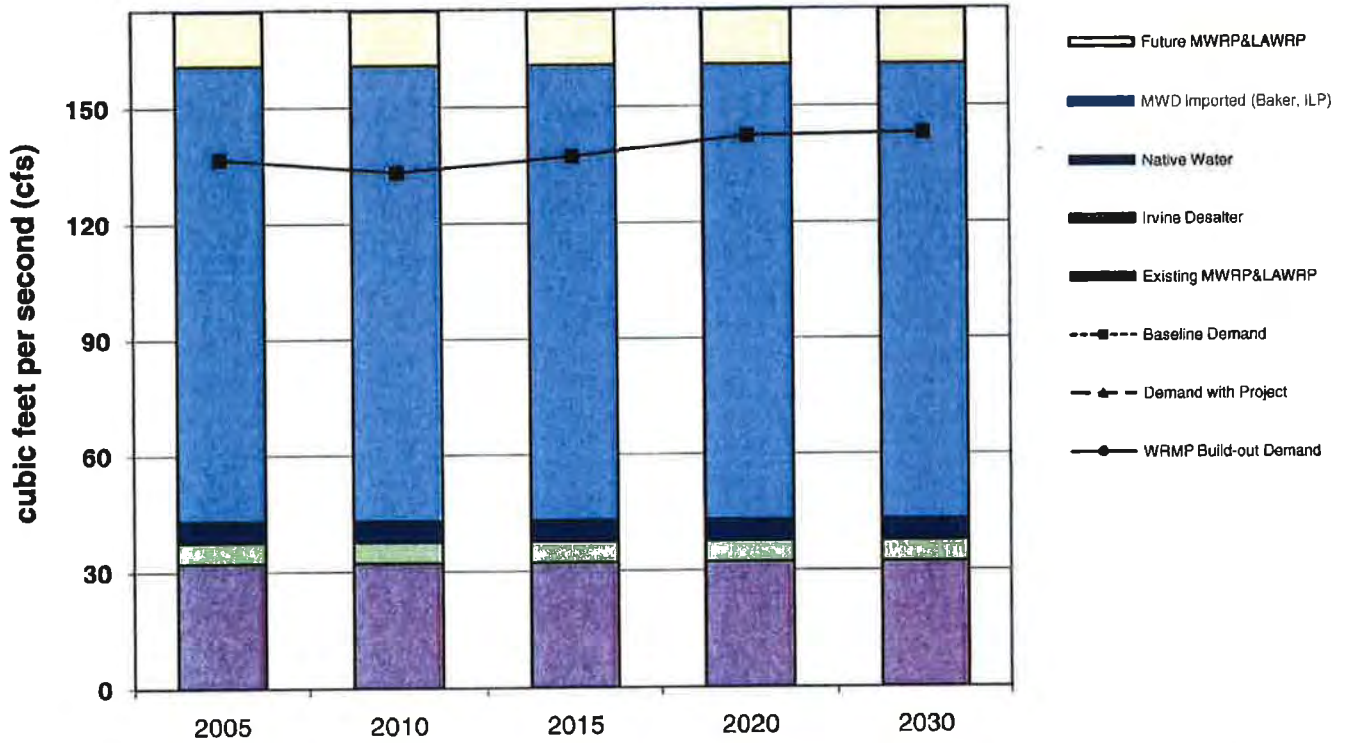
(in acre-feet per year)	2010	2015	2020	2025	2030
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	20,380	20,380	20,380	20,380	20,380
Irvine Desalter	3,898	3,898	3,898	3,898	3,898
Native Water	1,000	1,000	1,000	1,000	1,000
<b>Supplies Under Development</b>					
Future MWRP&LAWRP	10,100	10,100	10,100	10,100	10,100
Maximum Supply Capability	54,035	54,035	54,035	54,035	54,035
Baseline Demand	42,375	41,293	42,511	44,128	44,317
Demand with Project	42,372	41,293	42,511	44,128	44,318
WRMP Build-out Demand	42,375	41,293	42,512	44,129	44,318
Reserve Supply with Project	11,663	12,742	11,524	9,907	9,717

Note: Downward trend reflects reduction in agricultural use over time.

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.



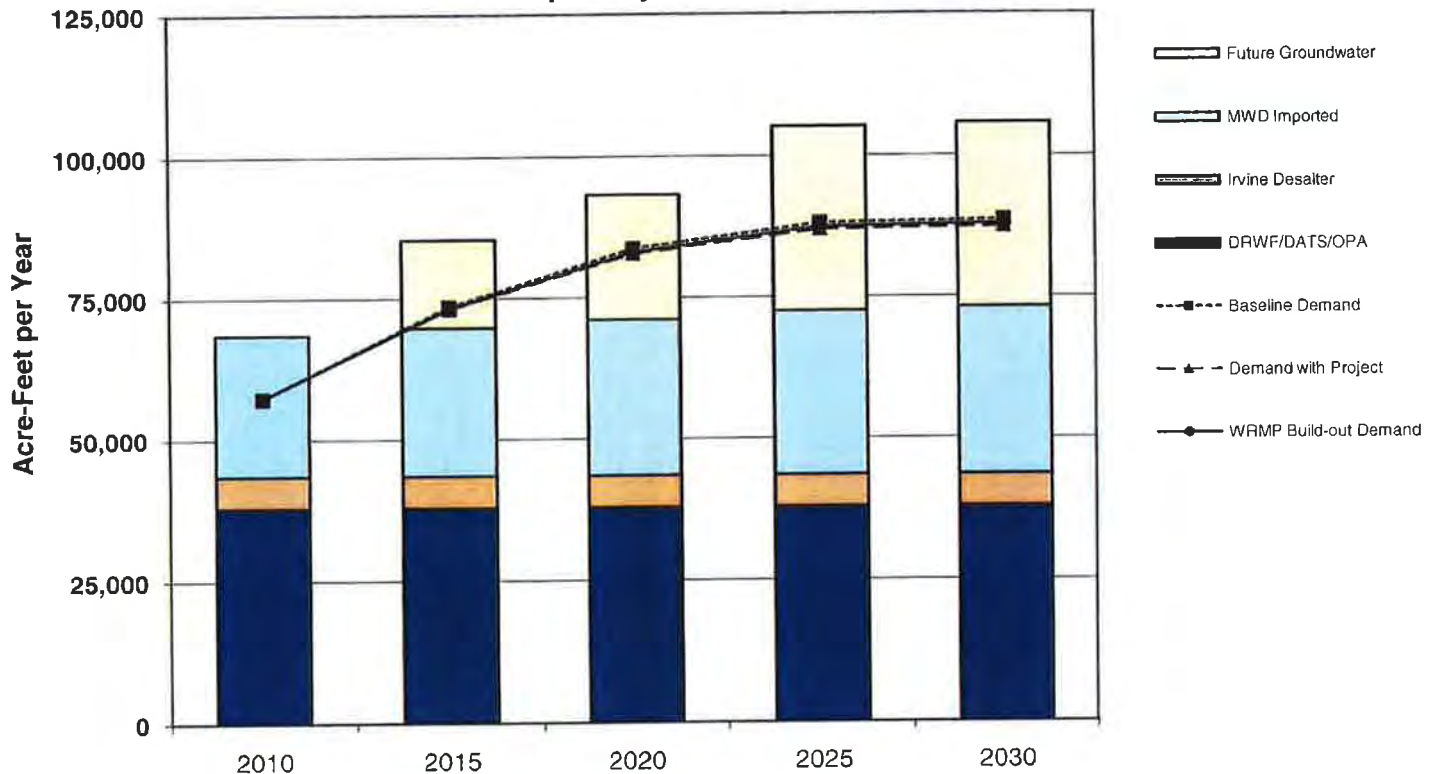
**Figure 8**  
**IRWD Maximum-Dry Supply & Demand - Nonpotable Water**



(in cfs)	2005	2010	2015	2020	2030
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	32.2	32.2	32.2	32.2	32.2
Irvine Desalter	5.4	5.4	5.4	5.4	5.4
Native Water	5.5	5.5	5.5	5.5	5.5
MWD Imported (Baker, ILP)	117.7	117.7	117.7	117.7	117.7
<b>Supplies Under Development</b>					
Future MWRP&LAWRP	14.0	14.0	14.0	14.0	14.0
Maximum Supply Capability	174.7	174.7	174.7	174.7	174.7
Baseline Demand	136.8	133.3	137.2	142.4	143.0
Demand with Project	136.7	133.3	137.2	142.4	143.0
WRMP Build-out Demand	136.8	133.3	137.2	142.4	143.0
Reserve Supply with Project	38.0	41.5	37.5	32.3	31.7

Note: Downward trend reflects reduction in agricultural use over time.

**Figure 1a  
IRWD Normal-Year Supply & Demand - Potable Water  
Under Temporary MWD Allocation\***

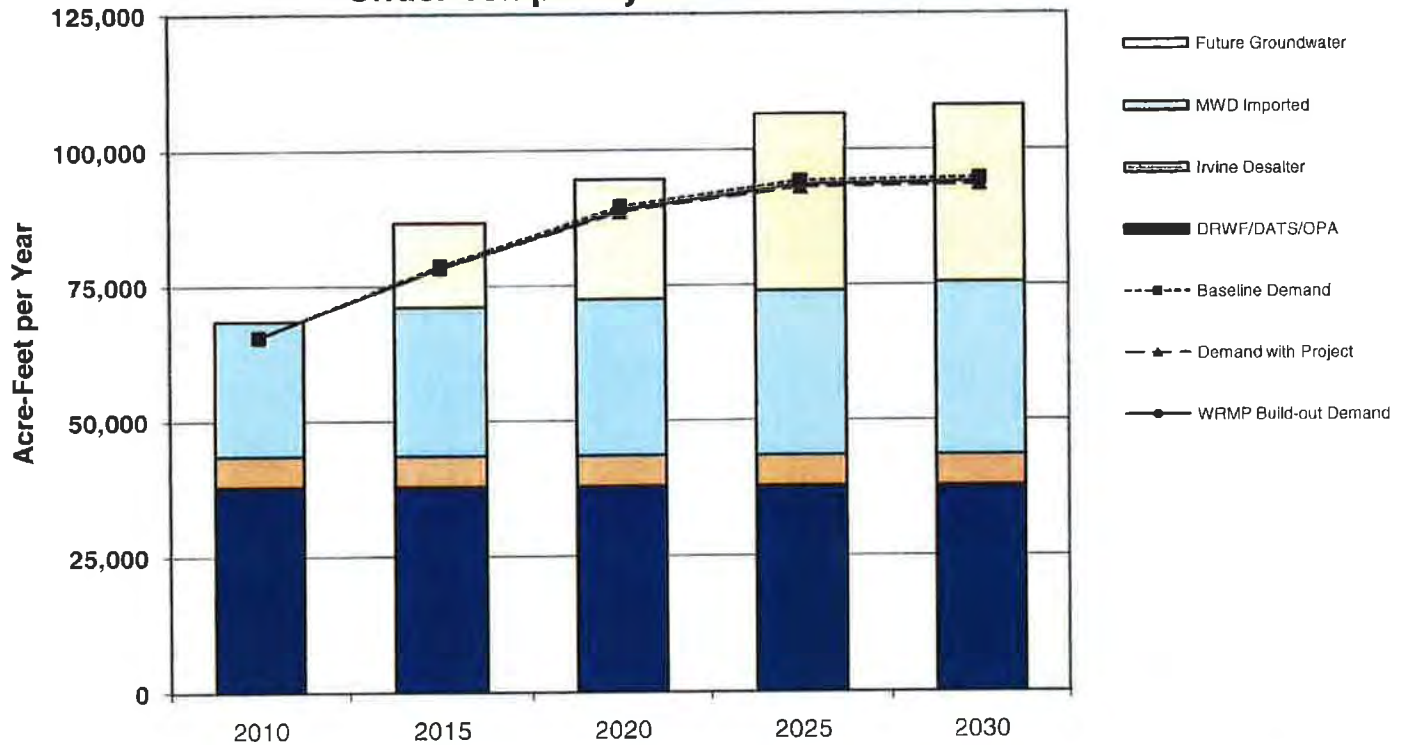


(in acre-feet per year)	2010	2015	2020	2025	2030
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF)	25,000	26,275	27,616	29,024	29,608
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
<b>Supplies Under Development</b>					
Future Groundwater	-	15,600	22,100	32,600	32,600
<b>Maximum Supply Capability</b>	<b>68,540</b>	<b>85,415</b>	<b>93,256</b>	<b>105,164</b>	<b>105,748</b>
Baseline Demand	57,286	73,571	83,696	88,086	88,579
Demand with Project	57,286	73,137	82,784	86,947	87,434
WRMP Build-out Demand	57,286	73,161	83,042	87,432	87,922
<b>Reserve Supply with Project</b>	<b>11,254</b>	<b>12,279</b>	<b>10,472</b>	<b>18,217</b>	<b>18,314</b>

Notes: By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

\*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term 10% allocation, Shortage Stage 2 in all of the 5-year increments. However, it is likely that such a scenario would only be temporary. Under a MWD Allocation, IRWD could supplement supplies with groundwater production which can exceed applicable basin percentages on a short-term basis. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP.

**Figure 2a**  
**IRWD Single Dry-Year Supply & Demand - Potable Water**  
**Under Temporary MWD Allocation\***

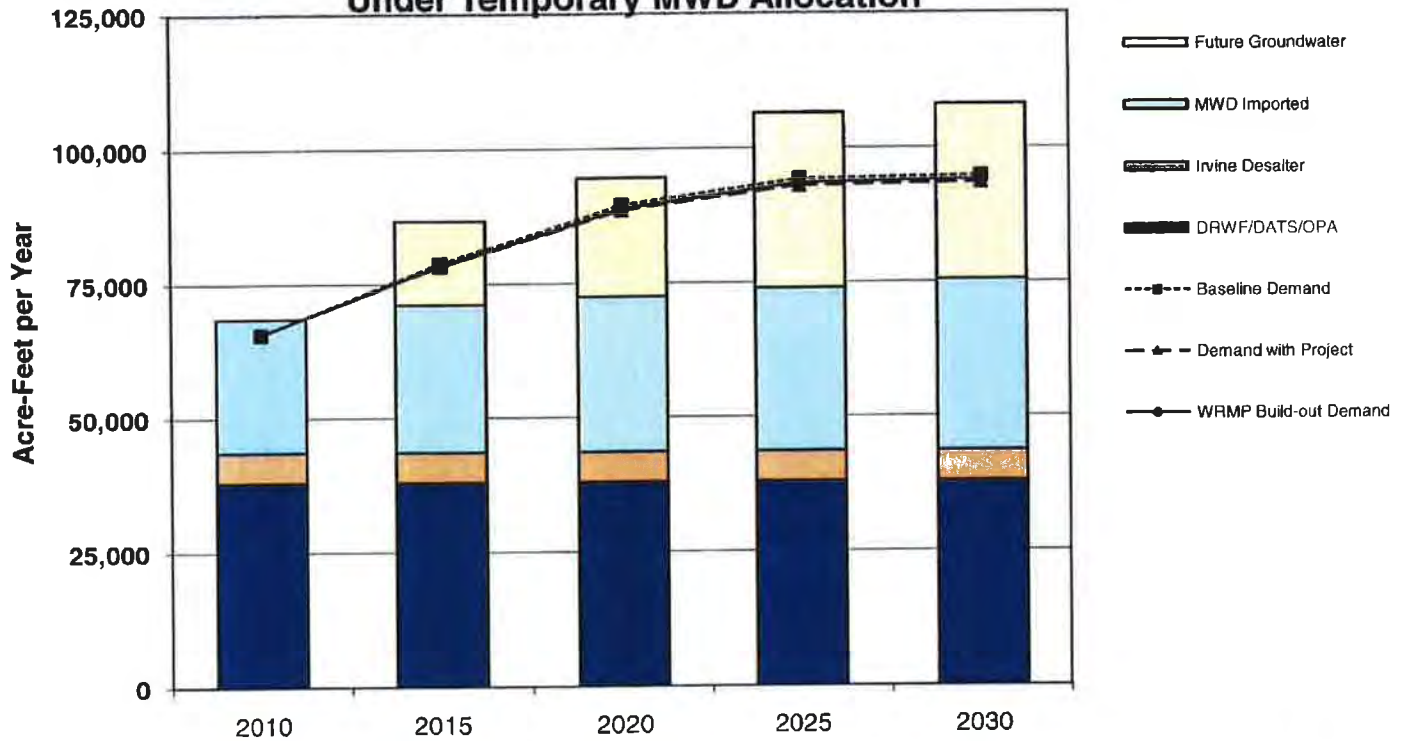


(in acre-feet per year)	2010	2015	2020	2025	2030
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF)	25,000	27,589	28,968	30,417	31,938
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
<b>Supplies Under Development</b>					
Future Groundwater	-	15,600	22,100	32,600	32,600
<b>Maximum Supply Capability</b>	<b>68,540</b>	<b>86,729</b>	<b>94,608</b>	<b>106,557</b>	<b>108,078</b>
<b>Baseline Demand</b>	<b>65,586</b>	<b>78,721</b>	<b>89,555</b>	<b>94,252</b>	<b>94,780</b>
<b>Demand with Project</b>	<b>65,587</b>	<b>78,256</b>	<b>88,579</b>	<b>93,033</b>	<b>93,554</b>
<b>WRMP Build-out Demand</b>	<b>65,586</b>	<b>78,282</b>	<b>88,855</b>	<b>93,552</b>	<b>94,076</b>
<b>Reserve Supply with Project</b>	<b>2,954</b>	<b>8,447</b>	<b>5,753</b>	<b>13,004</b>	<b>14,002</b>

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan (11/8/05) and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

\*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term 10% allocation, Shortage Stage 2 in all of the 5-year increments. However, it is likely that such a scenario would only be temporary. Under a MWD Allocation, IRWD could supplement supplies with groundwater production which can exceed applicable basin percentages on a short-term basis. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP.

**Figure 3a**  
**IRWD Multiple Dry-Year Supply & Demand - Potable Water**  
**Under Temporary MWD Allocation\***



(in acre-feet per year)	2010	2015	2020	2025	2030
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF)	25,000	27,589	28,968	30,417	31,938
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
<b>Supplies Under Development</b>					
Future Groundwater	-	15,600	22,100	32,600	32,600
Maximum Supply Capability	68,540	86,729	94,608	106,557	108,078
Baseline Demand	65,586	78,721	89,555	94,252	94,780
Demand with Project	65,587	78,256	88,579	93,033	93,554
WRMP Build-out Demand	65,586	78,282	88,855	93,552	94,076
Reserve Supply with Project	2,954	8,473	6,030	13,524	14,524

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan (11/8/05) and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

\*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term 10% allocation, Shortage Stage 2 in all of the 5-year increments. However, it is likely that such a scenario would only be temporary. Under a MWD Allocation, IRWD could supplement supplies with groundwater production which can exceed applicable basin percentages on a short-term basis. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP.

**2. Information concerning supplies**

(a)(1) Existing sources of identified water supply for the proposed project: IRWD does not allocate particular supplies to any project, but identifies total supplies for its service area, as shown in the following table:

	Max Day (cfs)	Avg. Annual (AFY)	Annual by Category (AFY)
<b>Current Supplies</b>			
<b>Potable - Imported</b>			
East Orange County Feeder No. 2	41.4	16,652	1
Allen-McColloch Pipeline*	64.7	26,024	1
Orange County Feeder	18.0	7,240	1
			49,916
<b>Potable - Groundwater</b>			
Dyer Road Wellfield	80.0	28,000	2
OPA Well	1.4	1,000	
Deep Aquifer Treatment System-DATS	10.0	8,900	2
Irvine Desalter	10.6	5,640	3
			43,540
Total Potable Current Supplies	226.1		93,456
<b>Nonpotable - Reclaimed Water</b>			
MWRP (18 mgd)	23.9	17,340	4
LAWRP (5.5 mgd)	8.3	5,975	4
			23,315
<b>Nonpotable - Imported</b>			
Baker Aqueduct	52.7	15,262	5
Irvine Lake Pipeline	65.0	9,000	6
			24,262
<b>Nonpotable - Groundwater</b>			
Irvine Desalter-Nonpotable	5.4	3,898	7
			3,898
<b>Nonpotable Native</b>			
Irvine Lake	5.5	4,000	8
			4,000
Total Nonpotable Current Supplies	160.8		55,475
Total Combined Current Supplies	386.9		148,931
<b>Supplies Under Development</b>			
<b>Potable Supplies</b>			
Wells 21 & 22	6.0	6,300	
Well 106	2.2	1,300	
Well 53	4.5	3,000	
Future OPA Wells	8.0	5,000	
Anaheim wellfield	10.0	6,500	
Wells 51 & 52	9.0	5,500	
Tustin Legacy wells	9.0	5,000	9
Total Potable Under Development Supplies	48.7	32,600	32,600
Nonpotable Supplies: Future MWRP&LAWRP Reclaimed	20.0	14,450	10
Total Under Development	117.4		47,050
<b>Total Supplies</b>			
Potable Supplies	274.8		126,056
Nonpotable Supplies	180.7		69,925
Total Supplies (Current and Under Development)	455.6		195,981

1 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 1.8 (see Footnote 3, page 22).

2 Contract amount - See Potable Supply-Groundwater(iii).

3 Contract amount - See Potable Supply-Groundwater (iv) and (v). Maximum day well capacity is compatible with contract amount.

4 MWRP 18.0 mgd treatment capacity (17,400 AFY RW production) and LAWRP 5.5 mgd tertiary treatment capacity (5,975 AFY)

5 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 2.5 (see Footnote 3, page 22).

6 Based on IRWD's proportion of Irvine Lake imported water storage; Actual ILP capacity would allow the use of additional imported water from MWD through the Santiago Lateral.

7 Contract amount - See Nonpotable Supply-Groundwater (i) and (ii). Maximum day well capacity (cfs) is compatible with contract amount.

8 Based on 70 years historical average of Santiago Creek Inflow into Irvine Lake.

9 Estimated combined capacity of wells.

10 Future estimated MWRP & LAWRP reclaimed water production.

\*64.7 cfs is current assigned capacity; based on increased peak flow, IRWD can purchase 10 cfs more (see page 23 (b)(1)(iii))

**(b) Required information concerning currently available and under-development water supply entitlements, water rights and water service contracts:**

(1) Written contracts or other proof of entitlement.<sup>3 4</sup>

**•POTABLE SUPPLY - IMPORTED<sup>5</sup>**

***Potable imported water service connections (currently available).***

*(i)* Potable imported water is delivered to IRWD at various service connections to the imported water delivery system of The Metropolitan Water District of Southern California ("MWD"): service connections CM-01A and OC-7 (Orange County Feeder); CM-10, CM-12, OC-38, OC-39, OC-57, OC-58, OC-63 (East Orange County Feeder No. 2); and OC-68, OC-71, OC-72, OC-73/73A, OC-74, OC-75, OC-83, OC-84, OC-87 (Allen-McColloch Pipeline). IRWD's entitlements regarding service from the MWD delivery system facilities are described in the following paragraphs and summarized in the above Table ((2)(a)(1)). IRWD receives imported water service through Municipal Water District of Orange County ("MWDOC"), a member agency of MWD.

***Allen-McColloch Pipeline ("AMP") (currently available).***

*(ii)* Agreement For Sale and Purchase of Allen-McColloch Pipeline, dated as of July 1, 1994 (Metropolitan Water District Agreement No. 4623) ("AMP Sale Agreement"). Under the AMP Sale Agreement, MWD purchased the Allen-McColloch Pipeline (formerly known as the "Diemer Intertie") from MWDOC, the MWDOC Water Facilities Corporation and certain agencies, including IRWD and Los Alisos Water District ("LAWD"),<sup>6</sup> identified as "Participants" therein. Section 5.02 of the AMP Sale Agreement obligates MWD to meet IRWD's and the other Participants' requests for deliveries and specified minimum hydraulic grade lines at each connection serving a Participant, subject to availability of water. MWD

<sup>3</sup> In some instances, the contractual and other legal entitlements referred to in the following descriptions are stated in terms of flow capacities, in cubic feet per second ("cfs"). In such instances, the cfs flows are converted to volumes of AFY for purposes of analyzing supply sufficiency in this assessment, by dividing the capacity by a peaking factor of 1.8 (potable) or 2.5 (nonpotable), consistent with maximum day peaking factors used in the WRMP. The resulting reduction in assumed available annual AFY volumes through the application of these factors recognizes that connected capacity is provided to meet peak demands and that seasonal variation in demand and limitations in local storage prevent these capacities from being utilized at peak capacity on a year-round basis. However, the application of these factors produces a conservatively low estimate of annual AFY volumes from these connections; additional volumes of water are expected to be available from these sources.

<sup>4</sup> In the following discussion, contractual and other legal entitlements are characterized as either potable or nonpotable, according to the characterization of the source of supply. Some of the nonpotable supplies surplus to nonpotable demand could potentially be rendered potable by the addition of treatment facilities; however, IRWD has no current plans to do so.

<sup>5</sup> See Imported Supply - Additional Information, below, for information concerning the availability of the MWD supply.

<sup>6</sup> IRWD has succeeded to LAWD's interests in the AMP and other LAWD water supply facilities and rights mentioned in this assessment, by virtue of the consolidation of IRWD and LAWD on December 31, 2000.

agrees to operate the AMP as any other MWD pipeline. MWD has the right to operate the AMP on a “utility basis,” meaning that MWD need not observe capacity allocations of the Participants but may use available capacity to meet demand at any service connection.

The AMP Sale Agreement obligates MWD to monitor and project AMP demands and to construct specified pump facilities or make other provision for augmenting MWD’s capacity along the AMP, at MWD’s expense, should that be necessary to meet demands of all of the Participants (Section 5.08).

*(iii)* Agreement For Allocation of Proceeds of Sale of Allen-McColloch Pipeline, dated as of July 1, 1994 (“AMP Allocation Agreement”). This agreement, entered into concurrently with the AMP Sale Agreement, provided each Participant, including IRWD, with a capacity allocation in the AMP, for the purpose of allocating the sale proceeds among the Participants in accordance with their prior contractual capacities adjusted to conform to their respective future demands. IRWD’s capacity under the AMP Allocation Agreement (including its capacity as legal successor agency to LAWD) is 64.69 cfs at IRWD’s first four AMP connections, 49.69 cfs at IRWD’s next five downstream AMP connections and 35.01 and 10.00 cfs, respectively at IRWD’s remaining two downstream connections. The AMP Allocation Agreement further provides that if a Participant’s peak flow exceeds its capacity, the Participant shall “purchase” additional capacity from the other Participants who are using less than their capacity, until such time as MWD augments the capacity of the AMP. The foregoing notwithstanding, as mentioned in the preceding paragraph, the allocated capacities do not alter MWD’s obligation under the AMP Sale Agreement to meet all Participants’ demands along the AMP, and to augment the capacity of the AMP if necessary. Accordingly, under these agreements, IRWD can legally increase its use of the AMP beyond the above-stated capacities, but would be required to reimburse other Participants from a portion of the proceeds IRWD received from the sale of the AMP.

*(iv)* Improvement Subleases (or “FAP” Subleases) [MWDOC and LAWD; MWDOC and IRWD], dated August 1, 1989; 1996 Amended and Restated Allen-McColloch Pipeline Subleases [MWDOC and LAWD; MWDOC and IRWD], dated March 1, 1996. IRWD subleases its AMP capacity, including the capacity it acquired as successor to LAWD. To facilitate bond financing for the construction of the AMP, it was provided that the MWDOC Water Facilities Corporation, and subsequently MWDOC, would have ownership of the pipeline, and the Participants would be sublessees. As is the case with the AMP Sale Agreement, the subleases similarly provide that water is subject to availability.

***East Orange County Feeder No. 2 (“EOCF#2”) (currently available).***

*(v)* Agreement For Joint Exercise of Powers For Construction, Operation and Maintenance of East Orange County Feeder No. 2, dated July 11, 1961, as amended on July 25, 1962 and April 26, 1965; Agreement Re Capacity Rights In Proposed Water Line, dated September 11, 1961 (“IRWD MWDOC Assignment Agreement”); Agreement Regarding Capacity Rights In the East Orange County Feeder No. 2, dated August 28, 2000 (“IRWD Coastal Assignment Agreement”). East Orange County Feeder No. 2 (“EOCF#2”), a feeder linking Orange County

with MWD's feeder system, was constructed pursuant to a joint powers agreement among MWDOC (then called Orange County Municipal Water District), MWD, Coastal Municipal Water District ("Coastal"), Anaheim and Santa Ana. A portion of IRWD's territory is within MWDOC and the remainder is within the former Coastal (which was consolidated with MWDOC in 2001). Under the IRWD MWDOC Assignment Agreement, MWDOC assigned 41 cfs of capacity to IRWD in the reaches of EOCF#2 upstream of the point known as Coastal Junction (reaches 1 through 3), and 27 cfs in reach 4, downstream of Coastal Junction. Similarly, under the IRWD Coastal Assignment Agreement, prior to Coastal's consolidation with MWDOC, Coastal assigned to IRWD 0.4 cfs of capacity in reaches 1 through 3 and 0.6 cfs in reach 4 of EOCF#2. Delivery of water through EOCF#2 is subject to the rules and regulations of MWD and MWDOC, and is further subject to application and agreement of IRWD respecting turnouts.

***Orange County Feeder (currently available)***

*(vi)* Agreement, dated March 13, 1956. This 1956 Agreement between MWDOC's predecessor district and the Santa Ana Heights Water Company ("SAHWC") provides for delivery of MWD imported supply to the former SAHWC service area. SAHWC's interests were acquired on behalf of IRWD through a stock purchase and IRWD annexation of the SAHWC service area in 1997. The supply is delivered through a connection to MWD's Orange County Feeder designated as OC-7.

*(vii)* Agreement For Transfer of Interest In Pacific Coast Highway Water Transmission and Storage Facilities From The Irvine Company To the Irvine Ranch Water District, dated April 23, 1984; Joint Powers Agreement For the Construction, Operation and Maintenance of Sections 1a, 1b and 2 of the Coast Supply Line, dated June 9, 1989; Agreement, dated January 13, 1955 ("1955 Agreement"). The jointly constructed facility known as the Coast Supply Line ("CSL"), extending southward from a connection with MWD's Orange County Feeder at Fernleaf Street in Newport Beach, was originally constructed pursuant to a 1952 agreement among Laguna Beach County Water District ("LBCWD"), The Irvine Company (TIC) and South Coast County Water District. Portions were later reconstructed. Under the above-referenced transfer agreement in 1984, IRWD succeeded to TIC's interests in the CSL. The CSL is presently operated under the above-referenced 1989 joint powers agreement, which reflects IRWD's ownership of 10 cfs of capacity. The 1989 agreement obligates LBCWD, as the managing agent and trustee for the CSL, to purchase water and deliver it into the CSL for IRWD. LBCWD purchases such supply, delivered by MWD to the Fernleaf connection, pursuant to the 1955 Agreement with Coastal (now MWDOC).

• **POTABLE SUPPLY - GROUNDWATER**

*(i)* Orange County Water District Act, Water Code App., Ch. 40 ("Act"). IRWD is an operator of groundwater-producing facilities in the Orange County Groundwater Basin (the "Basin"). Although the rights of the producers within the Basin vis a vis one another have not been adjudicated, they nevertheless exist and have not been abrogated by the Act (§40-77). The rights consist of



municipal appropriators' rights and may include overlying and riparian rights. The Basin is managed by OCWD under the Act, which functions as a statutorily-imposed physical solution. The Act empowers OCWD to impose replenishment assessments and basin equity assessments on production and to require registration of water-producing facilities and the filing of certain reports; however, OCWD is expressly prohibited from limiting extraction unless a producer agrees (§ 40-2(6) (c)) and from impairing vested rights to the use of water (§ 40-77). Thus, producers may install and operate production facilities under the Act; OCWD approval is not required. OCWD is required to annually investigate the condition of the Basin, assess overdraft and accumulated overdraft, and determine the amount of water necessary for replenishment (§40-26). OCWD has studied the Basin replenishment needs and potential projects to address growth in demand until 2020. This is described in detail in the OCWD Master Plan Report, dated April, 1999. OCWD's analysis has been expanded and updated through 2025 in its Final Draft Long-Term Facilities Plan (January, 2006), which is expected to be received and filed by its Board in July 2009.

*(ii) Irvine Ranch Water District v. Orange County Water District*, OCSC No. 795827. A portion of IRWD is outside the jurisdictional boundary of OCWD. IRWD is eligible to annex the Santa Ana River Watershed portion of this territory to OCWD, under OCWD's current annexation policy (Resolution No. 86-2-15, adopted on February 19, 1986 and reaffirmed on June 2, 1999), and anticipates doing so. However, this September 29, 1998, Superior Court ruling indicates that IRWD is entitled to deliver groundwater from the Basin to the IRWD service area irrespective of whether such area is also within OCWD.

***Dyer Road Wellfield (DWRWF) / Deep Aquifer Treatment System (DATS)  
(currently available)***

*(iii) Agreement For Water Production and Transmission Facilities*, dated March 18, 1981, as amended May 2, 1984, September 19, 1990 and November 3, 1999 (the "DRWF Agreement"). The DRWF Agreement, among IRWD, OCWD and Santa Ana, concerns the development of IRWD's Dyer Road Wellfield ("DRWF"), within the Basin. The DRWF consists of 16 wells pumping from the non-colored water zone of the Basin and 2 wells (with colored-water treatment facilities) pumping from the deep, colored-water zone of the Basin (the colored-water portion of the DRWF is sometimes referred to as the Deep Aquifer Treatment System or "DATS".) Under the DRWF Agreement, an "equivalent" basin production percentage (BPP) has been established for the DRWF, currently 28,000 AFY of non-colored water and 8,000 AFY of colored water, provided any amount of the latter 8,000 AFY not produced results in a matching reduction of the 28,000 AFY BPP. Although typically IRWD production from the DRWF does not materially exceed the equivalent BPP, the equivalent BPP is not an extraction limitation; it results in imposition of monetary assessments on the excess production. The DRWF Agreement also establishes monthly pumping amounts for the DRWF. With the addition of the Concentrated Treatment System (CATS), IRWD has increased the yield of DATS.

***Irvine Subbasin / Irvine Desalter (currently available)***

*(iv) First Amended and Restated Agreement*, dated March 11, 2002, as

amended June 15, 2006, restating May 5, 1988 agreement (“Irvine Subbasin Agreement”). TIC has historically pumped agricultural water from the Irvine Subbasin. (As in the rest of the Basin of which this subbasin is a part, the groundwater rights have not been adjudicated, and OCWD provides governance and management under the Act.) The 1988 agreement between IRWD and TIC provided for the joint use and management of the Irvine Subbasin. The 1988 agreement further provided that the 13,000 AFY annual yield of the Irvine Subbasin would be allocated 1,000 AFY to IRWD and 12,000 AFY to TIC. Under the restated Irvine Subbasin Agreement, the foregoing allocations were superseded as a result of TIC’s commencement of the building its Northern Sphere Area project, with the effect that the Subbasin production capability, wells and other facilities, and associated rights have been transferred from TIC to IRWD, and IRWD has assumed the production from the Subbasin. In consideration of the transfer, IRWD is required to count the supplies attributable to the transferred Subbasin production in calculating available supplies for the Northern Sphere Area project and other TIC development and has agreed that they will not be counted toward non-TIC development.

A portion of the existing Subbasin water production facilities produce water which is of potable quality. IRWD could treat some of the water produced from the Subbasin for potable use, by means of the Desalter and other projects. Although, as noted above, the Subbasin has not been adjudicated and is managed by OCWD, TIC reserved water rights from conveyances of its lands as development over the Subbasin has occurred, and under the Irvine Subbasin Agreement TIC has transferred its rights to IRWD.

*(v)* Second Amended and Restated Agreement Between Orange County Water District and Irvine Ranch Water District Regarding the Irvine Desalter Project, dated June 11, 2001, and other agreements referenced therein. This agreement provides for the extraction and treatment of subpotable groundwater from the Irvine Subbasin, a portion of the Basin. As is the case with the remainder of the Basin, IRWD’s entitlement to extract this water is not adjudicated, but the use of the entitlement is governed by the OCWD Act. (See also, discussion of Irvine Subbasin in the preceding paragraph.) A portion of the product water has been delivered into the IRWD potable system, and the remainder has been delivered into the IRWD nonpotable system.

***Orange Park Acres (currently available)***

On June 1, 2008, through annexation and merger, IRWD acquired the water system of the former Orange Park Acres Mutual Water company, including well [OPA Well]. The well is operated within the Orange County Groundwater Basin.

***Irvine Wells (under development)***

*(vi)* IRWD is pursuing the installation of production facilities in the west Irvine, Anaheim, Tustin Legacy and Tustin Ranch portions of the Basin. These groundwater supplies are considered to be under development; however, four wells have been drilled and have previously produced groundwater, three wells have been drilled but have not been used as production wells to date, a site for an additional well and treatment facility has been acquired by IRWD. The

production facilities can be constructed and operated under the Act; no statutory or contractual approval is required to do so. An agreement with the City of Anaheim would be developed for production within Anaheim. Appropriate environmental review would be conducted for each facility. See discussion of the Act under Potable Supply - Groundwater, paragraph (i), above.

•**NONPOTABLE SUPPLY - RECLAIMED**

***Water Reclamation Plants (currently available)***

Water Code Section 1210. IRWD supplies its own reclaimed water from wastewater collected by IRWD and delivered to IRWD's Michelson Water Reclamation Plant (MWRP) and Los Alisos Water Reclamation Plant (LAWRP). MWRP currently has a permitted capacity of 18 million gallons per day (MGD) and LAWRP currently has a permitted capacity of 5.5 MGD. Water Code Section 1210 provides that the owner of a wastewater treatment plant operated for the purposes of treating wastes from a sanitary sewer system holds the exclusive right to the treated effluent as against anyone who has supplied the water discharged into the sewer system. IRWD's permits for the operation of MWRP and LAWRP allow only irrigation and other customer uses of reclaimed water, and do not permit stream discharge of reclaimed water; thus, no issue of downstream appropriation arises, and IRWD is entitled to deliver all of the effluent to meet contractual and customer demands.

***Water Reclamation Plant Expansion (under development)***

IRWD has prepared a Final Environmental Impact Report for the Michelson Water Reclamation Plant Phase 2 and 3 Capacity Expansion Project (February, 2006) and the expansion project is under construction. With this expansion, IRWD plans to increase its capacity on the existing MWRP site to produce sufficient reclaimed water to meet the projected demand in the year 2031. (Initial upgrades that are within existing permit authorizations and CEQA compliance are completed) Additional reclamation capacity will augment local nonpotable supplies and improve reliability.

•**NONPOTABLE SUPPLY - IMPORTED<sup>7</sup>**

***Baker Pipeline (currently available)***

Santiago Aqueduct Commission Joint Powers Agreement, dated September 11, 1961, as amended December 20, 1974, January 13, 1978, November 1, 1978, September 1, 1981, October 22, 1986, and July 8, 1999 (the "SAC Agreement"); Agreement Between Irvine Ranch Water District and Carma-Whiting Joint Venture Relative to Proposed Annexation of Certain Property to Irvine Ranch Water District, dated May 26, 1981 (the "Whiting Annexation Agreement"). Service connections OC-13/13A, OC-33/33A. The imported untreated water pipeline initially known as the Santiago Aqueduct and now known as the Baker

<sup>7</sup> See Imported Supply - Additional Information, below, for information concerning the availability of the MWD supply.

Pipeline was constructed under the SAC Agreement, a joint powers agreement. The Baker Pipeline is connected to MWD's Santiago Lateral. IRWD's capacity in the Baker Pipeline includes the capacity it subleases as successor to LAWD, as well as capacity rights IRWD acquired through the Whiting Annexation Agreement. (To finance the construction of AMP parallel untreated reaches which were incorporated into the Baker Pipeline, replacing original SAC untreated reaches that were made a part of the AMP potable system, it was provided that the MWDOC Water Facilities Corporation, and subsequently MWDOC, would have ownership, and the participants would be sublessees.) IRWD has 52.70 cfs in the first reach, 12.50 cfs in each of the second, third and fourth reaches and 7.51 cfs in the fifth reach of the Baker Pipeline. Water is subject to availability from MWD.

•NONPOTABLE SUPPLY - NATIVE

***Irvine Lake (currently available)***

(i) Permit For Diversion and Use of Water (Permit No. 19306) issued pursuant to Application No. 27503; License For Diversion and Use of Water (License 2347) resulting from Application No. 4302 and Permit No. 3238; License For Diversion and Use of Water (License 2348) resulting from Application No. 9005 and Permit No. 5202. The foregoing permit and licenses, jointly held by IRWD (as successor to The Irvine Company (TIC) and Carpenter Irrigation District (CID)) and Serrano Water District (SWD), secure appropriative rights to the flows of Santiago Creek. Under Licenses 2347 and 2348, IRWD and SWD have the right to diversion by storage at Santiago Dam (Irvine Lake) and a submerged dam, of a total of 25,000 AFY. Under Permit No. 19306, IRWD and SWD have the right to diversion by storage of an additional 3,000 AFY by flashboards at Santiago Dam (Irvine Lake). (Rights under Permit No. 19306 may be junior to an OCWD permit to divert up to 35,000 AFY of Santiago Creek flows to spreading pits downstream of Santiago Dam.) The combined total of native water that may be diverted to storage under these licenses and permit is 28,000 AFY. A 1996 amendment to License Nos. 2347, 2348 and 2349 [replaced by Permit No. 19306 in 1984] limits the withdrawal of water from the Lake to 15,483 AFY under the licenses. This limitation specifically references the licenses and doesn't reference water stored pursuant to other legal entitlements. The use and allocation of the native water is governed by the agreements described in the next paragraph.

(ii) Agreement, dated February 6, 1928 ("1928 Agreement"); Agreement, dated May 15, 1956, as amended November 12, 1973 ("1956 Agreement"); Agreement, dated as of December 21, 1970 ("1970 Agreement"); Agreement Between Irvine Ranch Water District and The Irvine Company Relative to Irvine Lake and the Acquisition of Water Rights In and To Santiago Creek, As Well As Additional Storage Capacity in Irvine Lake, dated as of May 31, 1974 ("1974 Agreement"). The 1928 Agreement was entered into among SWD, CID and TIC, providing for the use and allocation of native water in Irvine Lake. Through the 1970 Agreement and the 1974 Agreement, IRWD acquired the interests of CID and TIC, leaving IRWD and SWD as the two co-owners. TIC retains certain reserved rights. The 1928 Agreement divides the stored native water by a formula which allocates to IRWD one-half of the first 1,000 AF, plus increments that generally

yield three-fourths of the amount over 1,000 AF.<sup>8</sup> The agreements also provide for evaporation and spill losses and carryover water remaining in the Lake at the annual allocation dates. Given the dependence of native water on rainfall, for purposes of this assessment only a small portion of IRWD's share of the 28,000 AFY of native water rights (4,000 AFY in normal years and 1,000 AFY in single and multiple-dry years) is shown in currently available supplies, based on averaging of historical data. However, IRWD's ability to supplement Irvine Lake storage with its imported untreated water supplies, described herein, offsets the uncertainty associated with the native water supply.

•**NONPOTABLE SUPPLY - GROUNDWATER**

***Irvine Subbasin / Irvine Desalter (currently available)***

*(i)* IRWD's entitlement to produce nonpotable water from the Irvine Subbasin is included within the Irvine Subbasin Agreement. See discussion of the Irvine Subbasin Agreement under Potable Supply - Groundwater; paragraph (iv), above.

*(ii)* See discussion of the Irvine Desalter project under Potable Supply - Groundwater, paragraph (v), above. The Irvine Desalter project will produce nonpotable as well as potable water.

•**IMPORTED SUPPLY - ADDITIONAL INFORMATION**

As described above, the imported supply from MWD is contractually subject to availability. To assist local water providers in assessing the adequacy of local water supplies that are reliant in whole or in part on MWD's imported supply; MWD has provided information concerning the availability of the supplies to its entire service area. In its most recently adopted RUWMP, MWD has extended its planning timeframe out through 2035 to ensure that MWD's 2010 RUWMP may be used as a source document for meeting requirements for sufficient supplies. In addition, the RUWMP includes "Justifications for Supply Projections" (Appendix A-3) that details the planning, legal, financial, and regulatory basis for including each source of supply in the plan. The RUWMP summarizes MWD's planning initiatives over the past ten years, which includes the Integrated Resources Plan (IRP), the IRP Update, the Water Surplus and Drought Management Plan, Strategic Plan and Rate Structure. The reliability analysis in MWD's IRP Update (October 2010) showed that MWD can maintain reliable supplies under the conditions that have existed in past dry periods throughout the period 2015 through 2035. The RUWMP includes tables that show the region can provide reliable supplies under both the single driest year (1977) and multiple dry years (1990-92) through 2035. MWD has also identified buffer supplies, including additional State Water Project groundwater storage and transfers that could serve to supply the additional water needed.

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<sup>8</sup> The 1956 Agreement provides for facilities to deliver MWD imported water into the Lake, and grants storage capacity for the imported water. By succession, IRWD owns 9,000 AFY of this 12,000 AFY imported water storage capacity. This storage capacity does not affect availability of the imported supply, which can be either stored or delivered for direct use by customers.

It is anticipated that MWD will revise its regional supply availability analysis periodically to supplement its RUWMP in years when the RUWMP is not being updated.

IRWD is permitted by the statute to rely upon the water supply information provided by the wholesaler concerning a wholesale water supply source, for use in preparing its UWMPs. In turn, the statute provides for the use of UWMP information to support water supply assessments and verifications. In accordance with these provisions, IRWD is entitled to rely upon the conclusions of the MWD RUWMP. As referenced above under Summary of Results of Demand-Supply Comparisons - Recent Actions on Delta Pumping, MWD has provided additional information on its imported water supply.

MWD's reserve supplies, together with the fact that IRWD relies on MWD supplies as supplemental supplies that need not be used to the extent IRWD operates currently available and under-development local supplies, build a margin of safety into IRWD's supply availability.

(2) Adopted capital outlay program to finance delivery of the water supplies.

All necessary delivery facilities currently exist for the use of the *currently available and under-development* supplies assessed herein, with the exception of future groundwater wells, MWRP expansion and IRWD sub-regional and developer-dedicated conveyance facilities necessary to complete the local distribution systems for the Project. IRWD's turnout at each MWD connection and IRWD's regional delivery facilities are sufficiently sized to deliver all of the supply to the sub-regional and local distribution systems.

With respect to future groundwater wells (PR Nos. 10285, 15423, 15427, 15428, 15051 and 15052) and the MWRP Phase 2 expansion (PR. Nos. 20214 and 30214), IRWD adopted its fiscal year 2010/11 capital budget on June 14, 2010 (Resolution No. 2010-16), budgeting portions of the funds for such projects. (A copy is available from IRWD on request.) For these facilities, as well as unbuilt IRWD sub-regional conveyance facilities, the sources of funding are previously authorized general obligation bonds, revenue-supported certificates of participation and/or capital funds held by IRWD Improvement Districts. IRWD has maintained a successful program for the issuance of general obligation bonds and certificates of participation on favorable borrowing terms, and IRWD has received AAA public bond ratings. IRWD has approximately \$673 million (water) and \$867 million (wastewater) of unissued, voter-approved bond authorization. Certificates of participation do not require voter approval. Proceeds of bonds and available capital funds are expected to be sufficient to fund all IRWD facilities for delivery of the supplies under development. Tract-level conveyance facilities are required to be donated to IRWD by the Applicant or its successor(s) at time of development.

See also *MWD's RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to capital outlay programs related to MWD's supplies.

(3) Federal, state and local permits for construction of delivery infrastructure.

Most IRWD delivery facilities are constructed in public right-of-way or future right-of-way. State statute confers on IRWD the right to construct works along, under or across any stream of water, watercourse, street, avenue, highway, railway, canal, ditch or flume (Water Code Section 35603). Although this right cannot be denied, local agencies may require encroachment permits when work is to be performed within a street. If easements are necessary for delivery infrastructure, IRWD requires the developer to provide them. The crossing of watercourses or areas with protected species requires federal and/or state permits as applicable.

See also *MWD's RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to permits related to MWD's supplies.

(4) Regulatory approvals for conveyance or delivery of the supplies.

See response to preceding item (3). In addition, reclamation plant expansion will require approval of amendments to IRWD's permits issued by the Regional Water Quality Control Board.

See also *MWD's RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to regulatory approvals related to MWD's supplies.

**3. Other users and contractholders (identified supply not previously used).**

For each of the water supply sources identified by IRWD, if no water has been received from that source(s), IRWD is required to identify other public water systems or water service contractholders that receive a water supply from, or have existing water supply entitlements, water rights and water service contracts to, that source(s):

Water has been received from all listed sources. A small quantity of Subbasin water is used by Woodbridge Village Association for the purpose of supplying its North and South Lakes. There are no other public water systems or water service contractholders that receive a water supply from, or have existing water supply entitlements, water rights and water service contracts to, the Irvine Subbasin.

**4. Information concerning groundwater included in the supply identified for the Project:**

(a) Relevant information in the Urban Water Management Plan (UWMP):

See Irvine Ranch Water District 2005 UWMP, section III-3.

(b) Description of the groundwater basin(s) from which the Project will be supplied:

The Orange County Groundwater Basin ("Basin") is described at pages 3-1 through 3-14 of the OCWD Master Plan Report, dated April, 1999 ("MPR") and in the more recent Groundwater Management Plan ("GMP") at pages 2-1 through 6-33<sup>9</sup>. The rights of the producers within the Basin vis a vis one another have not been adjudicated. The Basin is managed by the Orange County Water District (OCWD) for the benefit of municipal, agricultural and private groundwater producers. OCWD is responsible for the protection of water rights to the Santa Ana River in Orange County as well as the management and replenishment of the Basin. Current production from the Basin is approximately 366,000 AFY.

The Department of Water Resources has not identified the Basin as overdrafted in its most current bulletin that characterizes the condition of the Basin, Bulletin 118 (2003). The efforts being undertaken by OCWD to eliminate long-term overdraft in the Basin are described in the OCWD MPR, including in particular, Chapters 4, 5, 6, 14 and 15 of the MPR. In addition to Orange County Water District (OCWD) reports listed in the Assessment Reference List, OCWD has also prepared a Long Term Facilities Plan ("LTFP") which provides updated information and was received by the OCWD Board in July 2009. The LTFP Chapter 3 describes the efforts being undertaken by OCWD to eliminate long-term overdraft in the Basin.

Although the water supply assessment statute (Water Code Section 10910(f)) refers to elimination of "long-term overdraft," overdraft includes conditions which may be managed for optimum basin storage, rather than eliminated. OCWD's Act defines annual groundwater overdraft to be the quantity by which production exceeds the natural replenishment of the Basin. Accumulated overdraft is defined in the OCWD Act to be the quantity of water needed in the groundwater basin forebay to prevent landward movement of seawater into the fresh groundwater body. However, seawater intrusion control facilities have been constructed by OCWD since the Act was written, and have been effective in preventing landward movement of seawater. These facilities allow greater utilization of the storage capacity of the Basin.

OCWD has invested over \$250 million in seawater intrusion control (injection barriers), recharge facilities, laboratories, and Basin monitoring to effectively manage the Basin. Consequently, although the Basin is defined to be in an "overdraft" condition, it is actually managed to allow utilization of up to 500,000 acre-feet of storage capacity of the basin during dry periods, acting as an underground reservoir and buffer against drought. OCWD has an optimal basin

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<sup>9</sup> OCWD has also prepared a Long Term Facilities Plan which provides updated information and is expected to be received and filed by its Board in July 2009.



management target of 100,000 acre-feet of accumulated overdraft provides sufficient storage space to accommodate increased supplies from one wet year while also provide enough water in storage to offset decreased supplies during a two- to three year drought. If the Basin is too full, artesian conditions can occur along the coastal area, causing rising water and water logging, an adverse condition. Since the formation of OCWD in 1933, OCWD has made substantial investment in facilities, Basin management and water rights protection, resulting in the elimination and prevention of adverse long-term “mining” overdraft conditions. OCWD continues to develop new replenishment supplies, recharge capacity and basin protection measures to meet projected production from the basin during normal rainfall and drought periods. (Source: 2008-2009 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District; OCWD MPR, *supra*.)

OCWD's efforts include ongoing replenishment programs and planned capital improvements. It should be noted under OCWD's management of overdraft to maximize its use for annual production and recharge operations, overdraft varies over time as the Basin is managed to keep it in balance over the long term. The Basin is not operated on an annual safe-yield basis. (OCWD MPR, section 3.2 and LTFP, section 6)

(c) Description and analysis of the amount and location of groundwater pumped by IRWD from the Basin for the past five years:

The following table shows the amounts pumped, by groundwater source:

(In AFY)

Year (ending 6/30)	DRWF/DATS/OPA	Irvine Subbasin (IRWD)	Irvine Subbasin (TIC)	LAWD <sup>10</sup>
2010	37,151	8695	0	3
2009	38,140	7,614	0	0
2008	36,741	4,539	0	16
2007	37,864	5,407	0	6
2006	37,046	2,825	0	268
2005	36,316	2,285	628	357
2004	30,265	1,938	3,079	101
2003	24,040	2,132	4,234	598
2002	25,855	2,533	5,075	744

(d) Description and analysis of the amount and location of groundwater projected to be

<sup>10</sup> The water produced from IRWD's Los Alisos wells is not included in this assessment. IRWD is presently evaluating the future use of these wells.

pumped by IRWD from the Basin:

IRWD has a developed groundwater supply of 35,200 AFY from its Dyer Road Wellfield (including the Deep Aquifer Treatment System), in the main portion of the Basin.

Although TIC's historical production from the Subbasin declined as its use of the Subbasin for agricultural water diminished, OCWD's and other historical production records for the Subbasin show that production has been as high as 13,000 AFY. Plans are also underway to expand IRWD's main Orange County Groundwater Basin supply (characterized as *under-development* supplies herein). (See Section 2 (a) (1) herein). IRWD anticipates the development of additional production facilities within both the main Basin and the Irvine Subbasin. However, such additional facilities have not been included or relied upon in this assessment. Additional groundwater development will provide an additional margin of safety as well as reduce future water supply costs to IRWD.

The following table summarizes future IRWD groundwater production from currently available and under-development supplies.

(In AFY)

Year (ending 6/30)	DRWF <sup>11</sup>	Future GW <sup>12</sup>	IDP (Potable)	IDP (Nonpotable)
2015	37,900	15,600	5,640	3,898
2020	37,900	22,100	5,640	3,898
2025	37,900	32,600	5,640	3,898
2031	37,900	32,600	5,640	3,898

(e) If not included in the UWMP, analysis of the sufficiency of groundwater projected to be pumped by IRWD from the Basin to meet to meet the projected water demand of the Project:

See responses to 4(b) and 4(d).

The OCWD MPR and LTFP examined future Basin conditions and capabilities, water supply and demand, and identified projects to meet increased replenishment needs of the basin. With the implementation of OCWD's preferred projects, the Basin yield in the year 2025 would be up to 500,000 AF. The amount that can be produced will be a function of which projects will be implemented by OCWD and how much increased recharge capacity is created by those projects, total demands by all producers, and the resulting Basin

<sup>11</sup> See Potable Supply - Groundwater, paragraph (iii), above. DRWF non-colored production above 28,000 AFY and colored water production above 8,000 AFY are subject to contractually-imposed assessments. In addition, seasonal production amounts apply. This also includes 1,000 AFY for the OPA well.

<sup>12</sup> Under development.

Production Percentage (“BPP”) that OCWD sets based on these factors.<sup>13</sup>

Sufficient replenishment supplies are projected by the OCWD MPR to be available to OCWD to meet the increasing demand on the Basin. These supplies include capture of increasing Santa Ana River flows, purchases of replenishment water from MWD, and development of new local supplies. OCWD is moving forward with a number of replenishment supply projects, including the Groundwater Replenishment System project (“GWRS”). The OCWD MPR indicates that the GWRS will produce over 100,000 afy of new replenishment supply from recycled water.

Production of groundwater can exceed applicable basin production percentages on a short-term basis, providing additional reliability during dry years or emergencies. Additional groundwater production is anticipated by OCWD in the Basin in dry years, as producers reduce their use of imported supplies, and the Basin is “mined” in anticipation of the eventual availability of replenishment water. (OCWD MPR, section 14.6.)

See also, Figures 1-8. IRWD assesses sufficiency of supplies on an aggregated basis, as neither groundwater nor other supply sources are allocated to particular projects or customers. Under the Irvine Subbasin Agreement, IRWD is contractually obligated to attribute the Subbasin supply only to TIC development projects for assessment purposes; however, the agreement does not allocate or assign rights in the Subbasin supply to any project.

**5.  This Water Supply Assessment is being completed for a project included in a prior water supply assessment. Date of prior assessment: Check all of the following that apply:**

- Changes in the Project have substantially increased water demand.
- Changes in circumstances or conditions have substantially affected IRWD’s ability to provide a sufficient water supply for the Project.
- Significant new information has become available which was not known and could not have been known at the date of the prior Water Supply Assessment.

**6. References**

*Water Resources Master Plan*, Irvine Ranch Water District, March, 2002 (supplemented January, 2004)

*2005 Urban Water Management Plan*, Irvine Ranch Water District, November, 2005

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<sup>13</sup> OCWD has adopted a basin production percentage of 62% for 2010-11. In prior years OCWD has maintained a basin production percentage that is higher than the current percentage, and IRWD anticipates that such reductions may occur from time to time as a temporary measure employed by OCWD to encourage lower pumping levels as OCWD implements other measures to reduce the current accumulated overdraft in the Basin. Any such reductions are not expected to affect any of IRWD’s currently available groundwater supplies listed in this assessment, which are subject to a contractually-set equivalent basin production percentage as described, or are exempt from the basin production percentage.

*Integrated Water Resources Plan Update*, Metropolitan Water District of Southern California, July, 2004

*Proposed Framework for Metropolitan Water District's Delta Action Plan*, Metropolitan Water District of Southern California, May 8, 2007

*Board Information Report*, Metropolitan Water District of Southern California, October 9, 2007

*2007 IRP Implementation Report*, Metropolitan Water District of Southern California, October, 2007

*Master Plan Report*, Orange County Water District, April, 1999

*Groundwater Management Plan*, Orange County Water District, March, 2004

*Final Draft Long-Term Facilities Plan*, Orange County Water District, January 2006

*2008-2009 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District*, Orange County Water District

*Progress on Incorporating Climate Change into Management of California's Water Resources*, California Department of Water Resources, July 2006

*Section 15 of the Rules and Regulations – Water Conservation and Water Supply Shortage Program*, Irvine Ranch Water District, February 2009

*Water Shortage Contingency Plan*, Irvine Ranch Water District, February 2009

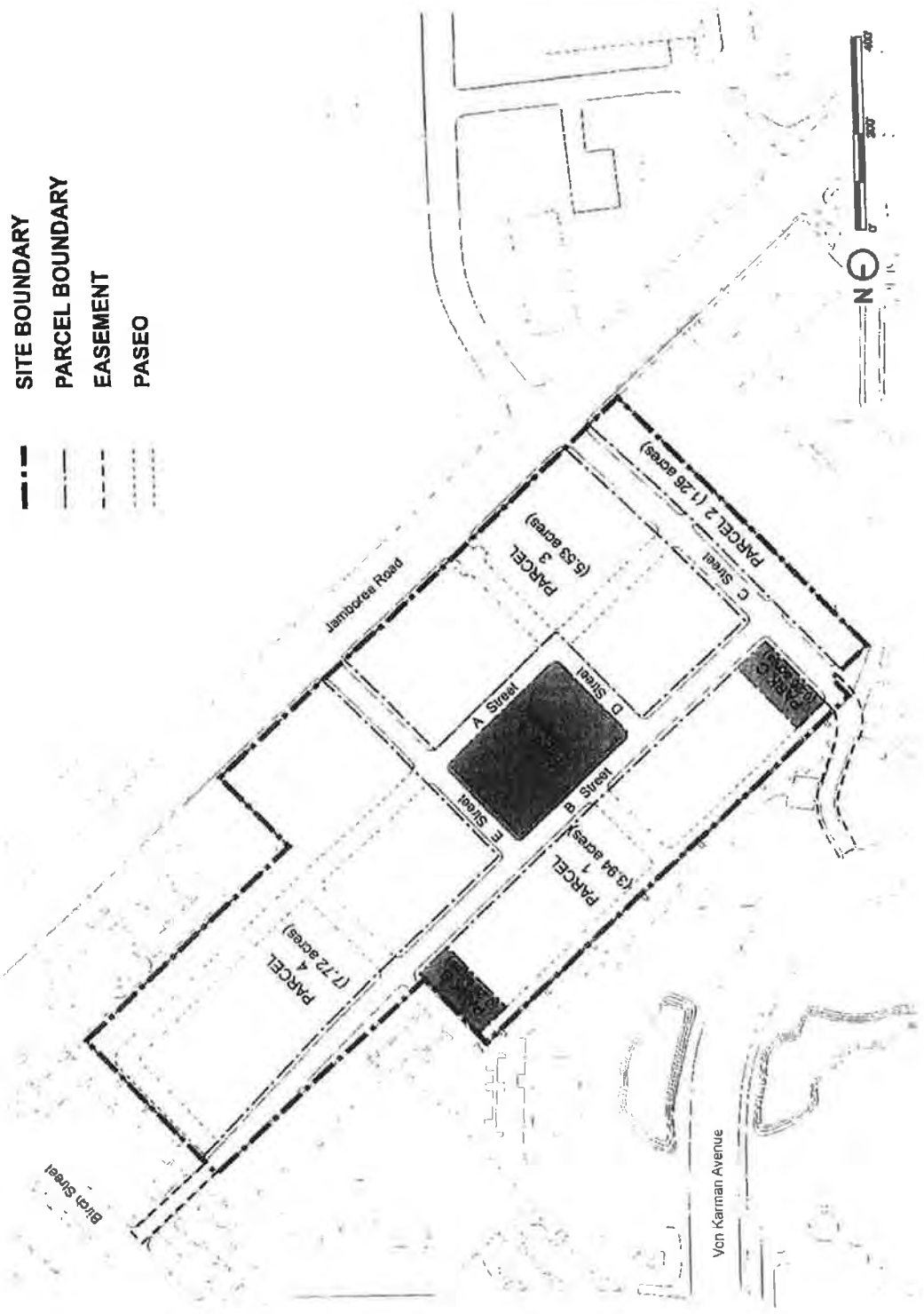
*2010 Integrated Resources Plan Update*, Metropolitan Water District of Southern California, October 2010

*Regional Urban Water Management Plan*, Metropolitan Water District of Southern California, November 2010

**Exhibit A**

**Depiction of Project Area**

**SITE BOUNDARY**  
**PARCEL BOUNDARY**  
**EASEMENT**  
**PASEO**



**FIGURE 3: CONEXANT SITE FRAMEWORK**

**FIGURE 3: CONEXANT SITE FRAMEWORK PLAN**

AIRPORT BUSINESS AREA: KOLL AND CONEXANT PROPERTIES

**Exhibit B**

**Uses Included in Project**



# CITY OF NEWPORT BEACH

## PLANNING DEPARTMENT

October 20, 2010

Irvine Ranch Water District  
15600 Sand Canyon Avenue  
P.O. Box 57000  
Irvine, CA 92619-7000

Re: Request for Water Supply Availability Assessment for Uptown Newport Village Specific Plan Project (PA2010-133) located at 4311-4321 Jamboree Rd, Newport Beach CA

The City of Newport Beach hereby requests an assessment of water supply availability for the below-described project in accordance with Water Code §10910 *et seq.* The City has determined that the project is a "project" as defined in Water Code §10912, and has determined that an environmental impact report is required for the project.

### Proposed Project Information

Project Title: Uptown Newport Village Specific Plan Project (PA2010-133)

Location of project: Airport Business Area, immediately east of John Wayne Airport. The subject site is generally bounded by Jamboree Road, Von Karman Avenue and Birch Street

- (For projects requiring a new assessment under Water Code §10910 (h).) Previous Water Supply Assessment including this project was prepared on: \_\_\_\_\_ This application requests a new Water Supply Assessment, due to the following (check all that apply):
- Changes in the project have substantially increased water demand
  - Changes in circumstances or conditions have substantially affected IRWD's ability to provide a sufficient water supply for the project
  - Significant new information has become available which was not known and could not have been known at the date of the prior Water Supply Assessment
- (Enclose maps and exhibits of the project)

### Type of Development:

- Residential: No. of dwelling units: Up to 1,244 units
- Shopping center or business: No. of employees N/A Sq. ft. of floor space 11,500
- Commercial office: No. of employees N/A Sq. ft. of floor space N/A
- Hotel or motel: No. of rooms N/A



- Industrial, manufacturing, processing or industrial park:* No. of employees N/A  
No. of acres N/A Sq. ft. of floor space N/A
- Mixed use* (check and complete all above that apply)
- Other:* N/A

Total acreage of project: approximately 25 acres

Acreage devoted to landscape:

Greenbelt N/A golf course N/A parks 3.03 acres  
Agriculture N/A other landscaped areas \_\_\_\_\_

Number of schools None Number of public facilities \_\_\_\_\_

Other factors or uses that would affect the quantity of water needed, such as peak flow requirements or potential uses to be added to the project to reduce or mitigate environmental impacts:

None

What is the current land use of the area subject to a land use change under the project?

Industrial, Office and parking areas

Is the project included in the existing General Plan? Yes If no, describe the existing General Plan Designation \_\_\_\_\_

The City acknowledges that IRWD's assessment will be based on the information hereby provided to IRWD concerning the project. If it is necessary for corrected or additional information to be submitted to enable IRWD to complete the assessment, the request will be considered incomplete until IRWD's receipt of the corrected or additional information. If the project, circumstances or conditions change or new information becomes available after the issuance of a Water Supply Assessment, the Water Supply Assessment may no longer be valid. The City will request a new Water Supply Assessment if it determines that one is required.

The City acknowledges that the Water Supply Assessment shall not constitute a "will-serve" or in any way entitle the project applicant to service or to any right, priority or allocation in any supply, capacity or facility, and that the issuance of the Water Supply Assessment shall not affect IRWD's obligation to provide service to its existing customers or any potential future customers including the project applicant. In order to receive service, the project applicant shall be required to file a completed Application(s)

for Service and Agreement with the Irvine Ranch Water District on IRWD's forms, together with all fees and charges, plans and specifications, bonds and conveyance of necessary easements, and meet all other requirement as specified therein.

City of Newport Beach/COUNTY OF ORANGE

By: JW Campbell  
Jim Campbell, Acting Planning Director

REQUEST RECEIVED:

Date: October 25, 2010


By: Kellie Wilson  
Irvine Ranch Water District


REQUEST COMPLETE:


Date: October 28, 2010

By: Kellie Wilson  
Irvine Ranch Water District

June 9, 2014

Prepared by: C. Compton 

Submitted by: P. Weghorst 

Approved by: Paul Cook 

## CONSENT CALENDAR

### 2014 STATE LEGISLATIVE UPDATE

#### SUMMARY:

This report provides an update on the 2014 legislative session and IRWD priorities. As legislation develops, staff will provide updates and recommendations to the Board, as appropriate. A copy of the 2014 State Legislative Matrix is attached as Exhibit "A". A summary comparison of the water bond proposals is attached as Exhibit "B".

Staff recommends that the Board consider the following action/position:

- SB 985 (Pavley): Stormwater Resource Planning – *"SUPPORT IF AMENDED."*

#### BACKGROUND:

The last day for fiscal committees to hear and report to the floor any bills introduced in its house was May 23, 2014, and the house of origin deadline was May 30. Any bill which did not meet the May 30 deadline and does not contain an urgency clause is now dead. The next major legislative deadline is June 15, which is the constitutional deadline for passage of the budget.

#### State Budget:

##### *Revenue Numbers:*

State Controller John Chiang released his last monthly report on the State's finances on May 8, 2014. The Controller's next report is expected to be released on June 12. Staff will provide an update on that report at a future Board meeting.

##### *Fiscal Year 2014-2015 State Budget & Cap-and-Trade Expenditures*

One of IRWD's legislative priorities for 2014 is the promotion of policies which encourage energy reliability in Orange County and energy efficiency in the water and wastewater sectors without an increase in cost to or mandates on local entities. As part of the District's advocacy efforts in this area, IRWD has supported allocating some of the Cap-and-Trade revenues to projects that reduce the greenhouse gas emissions and energy demands in the water and wastewater sectors, and has been monitoring the Fiscal Year 2014-2015 budget negotiations surrounding the Cap-and-Trade revenues.

As required by SB 535 (2011), at least 10 percent of the Cap-and-Trade proceeds must be invested in disadvantaged communities with at least 25 percent benefiting those communities. The communities which qualify as disadvantaged have been identified by the California Environmental Protection Agency using CalEnviroScreen.

As part of his proposed budget in January, Governor Brown proposed an \$850 million Cap-and-Trade Expenditure Plan, which included repayment of \$100 million of the \$500 million borrowed last year. The expenditure of the \$850 million was proposed as follows:

*Cap-and-Trade Expenditure Plan*

<b>Investment Category</b>	<b>Department</b>	<b>Program</b>	<b>Amount</b>
Sustainable Communities and Clean Transportation	High-Speed Rail Authority/Caltrans	High-Speed Rail (\$250 million) Integration of Rail Systems (\$50 million)	\$300,000,000
	Strategic Growth Council	Sustainable Communities	\$100,000,000
	Air Resources Board	Low Carbon Transportation	\$200,000,000
Energy Efficiency and Clean Energy	Department of Community Services and Development	Energy Efficiency Upgrades/Weatherization in disadvantaged communities	\$ 80,000,000
	Department of General Services	Green State Buildings	\$ 20,000,000
	Department of Food and Agriculture	Agricultural Energy and Operational Efficiency	\$ 20,000,000
	Department of Water Resources	Water Action Plan- Water and Energy Efficiency	\$ 20,000,000
Natural Resources and Waste Diversion	Department of Fish and Wildlife	Water Action Plan- Wetlands and Watershed Restoration	\$ 30,000,000
	Department of Forestry and Fire Protection	Fire Prevention and Urban Forestry Projects	\$ 50,000,000
	Cal Recycled	Waste Diversion	\$ 30,000,000
<b>TOTAL</b>			<b>\$850,000,000</b>

Earlier this year, as part of the emergency drought legislation passed in SB 103 and SB 104, \$19 million of the Cap-and-Trade revenues were appropriated to the Department of Water Resources (DWR) for the Water-Energy Efficiency Grant Program. DWR is in the process of establishing the program guidelines and grant eligibility criteria. The draft guidelines are expected to be released in July. Staff will continue to monitor DWR’s progress on these guidelines and update the Board, as appropriate.

Late last month, the Assembly and Senate budget committees considered the Governor’s Cap-and-Trade Expenditure Plan. The budget subcommittee rejected the proposal and approved different funding plans for Fiscal Year 2014-2015. Additionally, Senate President pro Tem Darrell Steinberg has proposed a long-term investment strategy for Cap-and-Trade revenues. He has proposed spending 40 percent of the funds on affordable housing and sustainable communities, 30 percent of the funds on transit, 20 percent of the funds on high speed rail, 10 percent of the funds on State highways and roads, and proposed allocating annual amounts for natural resources, water, waste, transportation fuel consumers, electric vehicle deployment, and a green bank. A copy of the Senator Steinberg’s proposal is attached as Exhibit “C”.

Given the different actions taken by the Assembly and Senate on Cap-and-Trade revenues, this item will likely go to conference unless a deal is reach between the leaders of each house. As budget discussions continue, staff will provide the Board an oral update on any new developments.

IRWD 2014 Legislative Priorities:

*2014 Water Bond:*

The water bond continues to be an active topic of discussion in and around the State Capitol. As previously reported, there were six active water bond bills in the middle of May. A summary comparison of the six bond proposals is attached as Exhibit “B”. Due to Assemblymember Rendon deciding not to move with AB 2554 and to focus his attention on AB 1331, there are now only five active water bond proposals.

Over the last two weeks, the most activity has taken place on SB 848, authored by Senator Lois Wolk (D-Vacaville). SB 848 was passed by the Senate Appropriations Committee on May 23, 2014, as amended, and re-referred to the Senate Rules Committee. The amendments, which are not yet in print, reflect a bipartisan compromise to move the bill forward as Senate discussions continue on the water bond. The amendments will:

- Incorporate the language from the storage chapter of the current \$11.14 billion bond, which allocates \$3 billion for storage and contains a continuous appropriation;
- Reconfirm that the Delta provisions will reflect Senator Wolk’s preference that the funds for Delta ecosystem improvements go to the Delta Conservancy; and
- Add \$1 billion for groundwater remediation.

A summary of the amendments is attached as Exhibit “D”. These amendments will raise the bond proposed by SB 848 from \$6.825 billion to \$10.5 billion, and are a result of discussions between Senate leadership and key Senators including Senator Ben Hueso (D-San Diego) and Senator Anthony Canella (R-Merced). These discussions are expected to continue before the bill is moved from Senate Rules to the Senate Floor, and further amendments will be made with the hope that a two-thirds vote can be obtained. While the Senate is still not close to reaching consensus on a water bond, it appears that Senator Steinberg is committed to moving a bond forward within the next month and a half.

IRWD has continued to engage with members of the Assembly and State Senate, and with IRWD’s association and industry partners, on the water bond to ensure that the adopted bond reformulation is beneficial for the state and the District. As part of this effort, staff continues to work with a coalition of recycled water producers to advocate for sufficient funding for recycled water in the water bond. Staff will provide the Board an oral update on any new developments.

Updates on 2013 Legislation of Interest to IRWD:

Several bills, which were of interest to IRWD during the 2013 session, remain active this year. Their current status is summarized below.

- AB 52 (Gatto) – Native Americans: CEQA: AB 52 (Gatto, D-Los Angeles) would mandate consultation with Native American Tribes at various stages of CEQA review,

prescribe CEQA processes related to the treatment of tribal cultural resources, and define mitigation measures which shall be considered by a lead agency if tribal cultural resources will be impacted by a project. At the end of session, AB 52 remained in the Senate Environmental Quality Committee and became a two-year bill. As discussed with the Water Resources Policy and Communications Committee, staff worked during the 2013 session and continues to work with IRWD's industry and association partners to make the provisions of AB 52 workable for the District. AB 52 is in the Senate Environmental Quality Committee and is scheduled to be heard on June 18, 2014.

- AB 543 (Campos) – CEQA: translation: AB 543 (Campos, D-San Jose), which would require a lead agency to translate certain CEQA notices when a project is proposed that will impact a community comprised of a substantial number of non-English-speaking people, was referred to Senate Environmental Quality. The bill was set for hearing on July 3, 2013, but the hearing was canceled at the author's request. At the end of the 2013 session, the author made AB 543 a two-year bill. AB 543 is currently in the Senate Environmental Quality Committee and is scheduled to be heard on June 18, 2014. IRWD currently has an "OPPOSE" position on this bill.
- AB 823 (Eggman) – California Farmland Protection Act: AB 823 (Eggman, D-Stockton), which would enact the California Farmland Protection Act, become a two-year bill. The bill was double referred to the Assembly Natural Resources Committee and the Assembly Agriculture Committee. It was not heard in the Assembly Agriculture Committee before the policy committee deadline of May 3, 2013, and became a two-year bill. The author did not move the bill forward this year as she pursued another vehicle to address the mitigation of farmland in AB 1961. AB 823 failed to move forward this year and is now dead. IRWD took an "OPPOSE" position the bill. AB 1961 was held on the Assembly Appropriations Suspense File and is now dead.

Staff will provide the Board an oral update on any new developments.

Updates on 2014 Legislation of Interest to IRWD:

*AB 1671(Frazier, D-Fairfield): Sacramento-San Joaquin Delta: Water Conveyance System*

AB 1671 proposed to prohibit DWR from constructing water conveyance facilities from the north Delta to the south Delta unless authorized by the Legislature. The author did not move the bill forward this year, and it is now dead. IRWD took an "OPPOSE" position on this bill.

*AB 1799 (Gordon, D-Los Altos): Land Use: Mitigation Lands*

Existing law provides that project proponents must obtain certain permits from state agencies if a project will impact natural resources. In order to obtain a permit, proponents are required to fully mitigate the impacts of a project, and provide financial assurance for that mitigation usually in the form of an endowment. AB 1799, authored by Assemblymember Richard Gordon (D-Los Altos) proposed to eliminate the requirement of an endowment or other financial assurance mechanism for governmental entities and special districts if the entity provided evidence that it

possesses an investment-grade credit rating by a nationally recognized statistical rating organization, and provided either a resolution adopted by the legislative body of the entity or a contractual agreement with the regulatory agency enforcing the mitigation requirements. On May 23, 2014, AB 1799 was held on the Assembly Appropriations Suspense File, and will not be moving forward this year. IRWD had taken a "SUPPORT" position on AB 1799.

*AB 2104 (Gonzalez, D-San Diego): Common Interest Developments: Water-Efficient Landscapes*

The Davis-Stirling Common Interest Development Act provides for the creation and regulation of common interest developments (HOA). That act provides that any provision of an HOA's governing documents is void and unenforceable if it prohibits, or has the effect of prohibiting, the use of low water-using plants as a group or compliance with a local water-efficient landscape ordinance or water conservation measure. AB 2104, as amended, would extend this statute to provide that any provision of an HOA's governing documents is void and unenforceable if it prohibits, or has the effect of prohibiting, the replacement of existing turf. AB 2104 is currently scheduled to be heard in the Senate Transportation and Housing Committee on June 10. IRWD currently has a "SUPPORT" position on this bill.

*AB 2312 (Nestande, D-Hemet): Metal Theft*

AB 2312 would require a junk dealer or recycler to request receipt of theft alert notifications regarding the theft of commodity metals in the junk dealer's or recycler's geographic region from the theft alert system maintained by the Institute of Scrap Recycling Industries, Inc. (ISRI). The bill would also encourage local law enforcement agencies to report thefts of commodity metals that have occurred within their jurisdiction to that theft alert system, in order to ensure that people who use the system receive timely and thorough information regarding metal thefts. IRWD took a "SUPPORT" position on AB 2312 in order to support the scrap recycling industry's attempt to further address the metal theft problems experienced throughout the state. The bill is scheduled to be heard in the Senate Business, Professions and Economic Development Committee on June 9.

*AB 2434 (Gomez, D-Los Angeles): Income Taxes: Exclusion*

AB 2434, as introduced, would have provided an exclusion from gross income for any amount received as a rebate, voucher, or other financial incentive issued by a local water or energy agency, or by a supplier, for expenses incurred to participate in a water or energy conservation program. As amended on May 19, the bill would now provide an exclusion from gross income for taxable years 2014 to 2019 for any rebate or other financial incentive issued by a local water agency for participation in a turf removal water conservation program. AB 2434 is currently in the Senate Rules Committee for committee assignment. IRWD currently has a "SUPPORT" position on this bill.

*AB 2712 (Daly, D-Anaheim): Orange County Water District*

AB 2712 would require OCWD to take specific actions before undertaking remediation or seeking cost recovery for remediation efforts including to provide notice of its actions to the

Regional Water Quality Control Board and the Department of Toxic Substances Control; to meet and confer with any administering agency and responsible parties; and comply with the requirements of the National Contingency Plan. The bill would also require OCWD to enter into a Memorandum of Understanding with the Department of Toxic Substances Control, the Santa Ana Regional Water Quality Control Board, and the Orange County Health Care Agency to establish a process for reviewing OCWD's proposed groundwater remediation projects. AB 2712 was approved by the Assembly on May 24, and is in the Senate Rules Committee for committee assignment.

*HR 29 (Gomez, D-Los Angeles): Relative to outsourcing public services*

Assemblymember Jimmy Gomez introduced HR 29, an Assembly resolution on outsourcing of public services. The resolution established as Assembly policy that the "Assembly opposes outsourcing of public services and assets, which harms transparency, accountability, shared prosperity, and competition, and supports processes that give public service works the opportunity to develop their own plan on how to deliver, cost-effective, high-quality services." The resolution was passed by the Assembly on a 44 to 22 vote. IRWD had taken an "OPPOSE" position the resolution.

Other 2014 Legislation:

*SB 985 (Pavley, D-Calabasas): Stormwater Resource Planning*

SB 985, introduced by Senator Fran Pavley, would establish requirements for stormwater resource plans, and provide that a stormwater resource plan shall be required to receive grants for stormwater and dry weather runoff capture projects from any bond act approved by the voters after January 1, 2014. Specifically, the bill provides that a city, county or special district may develop a stormwater resource plan and that the plan shall:

- Be developed on a watershed basis;
- Identify and prioritize stormwater and dry weather runoff capture projects for implementation in a quantitative manner, using a metrics-based and integrated evaluation and analysis of multiple benefits to maximize water supply, water quality, flood management, environmental, and other community benefits within the watershed;
- Provide for multiple benefit project design to maximize water supply, water quality, and environmental and other community benefits;
- Provide for community participation in plan development and implementation;
- Be consistent with, and assist in, compliance with total maximum daily load (TMDL) implementation plans and applicable national pollutant discharge elimination system (NPDES) permits;
- Be consistent with all applicable waste discharge permits; and



- Prioritize the use of lands or easements in public ownership for stormwater and dry weather runoff projects

The plans must also identify the opportunities to augment local water supply through groundwater recharge or storage for beneficial use, for source control for both pollution and stormwater runoff volume, to reestablish natural water drainage treatment, and to enhance habitat and open space. The bill would also require the SWRCB to establish a policy by July 1, 2016, to determine compliance with the requirements of SB 985.

On May 27, 2014, the Board adopted IRWD's Stormwater and Dry Weather Runoff Management and Capture Policy Principles. As currently drafted, SB 985 does not consider many of the stormwater capture issues presented in IRWD's policy principles. Staff recommends that the Board consider a "SUPPORT IF AMENDED" position on SB 985, and authorize staff to seek inclusion of IRWD's policy principles in the requirements for stormwater resource plans as proposed in SB 985.

SB 985 is currently in the Assembly. A copy of SB 985 is attached as Exhibit "E". A copy of IRWD's Stormwater and Dry Weather Runoff Management and Capture Policy Principles is attached as Exhibit "F".

#### Other 2014 State Actions:

##### *AB 32 Scoping Plan Update:*

On May 22, 2014, the California Air Resources Board (CARB) adopted the final First Update to the Climate Change Scoping Plan. The adopted plan included language in the water section that stated:

"Establishing a conservation-first policy for water-sector investment and action would help to sustain declining per-capita usage. This policy would be similar to the State's "loading order" policy for energy, which prioritizes investments in energy efficiency ahead of developing new power supplies. The conservation-first policy could be implemented through legislation or joint-agency action. (The State's Energy Action Plan, for example, was jointly approved by the CEC, CPUC, and CAISO)." *First Update to the Climate Change Scoping Plan, page 63.*

Members of the water community flagged this language as problematic and raised concern that the language implied that water supply decision would be required to be made on a lowest energy-use basis instead of on a supply security and reliability basis. CARB staff and board members stated that the language was not meant to threaten adoption of a loading order, but was meant to be an analogy and to state a preference on where water should come from. Despite two board members raising concerns about the language given the water community's sensitivity, the Board adopted the plan with the language included.

The plan also included the following key recommended actions for the water sector:

- Funding - DWR and State Water Resources Control Board (SWRCB) are to give priority to funding integrated management plans that include robust existing or proposed water and energy conservation and efficiency, and measures that achieve greenhouse gas (GHG) emission reductions. Conservation programs should include numeric targets.
- Technology
  - The California Energy Commission (CEC) is to implement new water-related energy conservation measures and efficiency standards.
  - The California Public Utilities Commission (CPUC) is to complete its water-energy nexus rulemaking by 2016, and to continue implementation of joint water-energy utility efficiency programs and partnerships.
  - The SWRCB and CPUC are to incent resource-recovering wastewater treatment projects by 2015.
  - The SWRCB and Regional Water Quality Control Boards (RWQCB) by 2016 are to implement green infrastructure permits to treat and capture urban runoff for local use.
- Administration
  - As directed by the California Water Action Plan, DWR, SWRCB, CPUC, CEC, California Department of Food and Agricultural (CDFA), and CARB are to guide adoption of GHG emission-reducing policies for water sector investments and action by 2015. Conservation measures and regulations are to reduce GHG emissions and maintain water supply reliability during drought periods will be a centerpiece of this administration action.
  - As directed by the California Water Action Plan, DWR, SWRCB, and CPUC, in consultation with the CDFA, are to identify and incent implementation of rate structures that accurately reflect the economic, social, and environmental value of water in California while maintaining affordability for basic services.
  - As directed by the California Water Action Plan, the SWRCB is to develop a comprehensive groundwater management strategy, and DWR and CDFA are to provide technical and financial assistance to exceed SBx7-7 targets.
  - The SWRCB and RWQCBs, by 2016, are to modify State and regional water board policies and permits to achieve conservation, water recycling, stormwater reuse, and wastewater-to-energy goals.
- Education - As directed by the California Water Action Plan, DWR, SWRCB, CPUC, CEC, and the California Independent System Operator (CAISO) are to promote water-energy conservation outreach and education.

A copy of the final First Update to the Climate Change Scoping Plan can be found at [http://www.arb.ca.gov/cc/scopingplan/2013\\_update/first\\_update\\_climate\\_change\\_scoping\\_plan.pdf](http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf).

Staff will monitor the implementation of the key actions listed in the plan for the water sector, and will monitor for proposals seeking to adopt a loading order for the water sector. Staff will provide updates to the Committee, as appropriate.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on June 5, 2014.

RECOMMENDATION:

THAT THE BOARD TAKE A "SUPPORT IF AMENDED" POSITION ON SB 985 (PAVLEY).

LIST OF EXHIBITS:

- Exhibit "A" – 2014 IRWD Legislative Matrix
- Exhibit "B" – Summary of Water Bond Proposals
- Exhibit "C" – Senator Steinberg's Long-Term Investment Strategy for Cap-and-Trade Revenues
- Exhibit "D" – Summary of Approved Amendments to SB 848 (Wolk)
- Exhibit "E" – Text of SB 985 (Pavley)
- Exhibit "F" – Copy of IRWD's Stormwater and Dry Weather Runoff Management and Capture Policy Principles

**EXHIBIT "A"**  
**IRWD 2014 LEGISLATIVE MATRIX**  
**Updated May 28, 2014**

<b>AB 25</b> Campos (D)	Employment: Social Media		Applies existing law that prohibits a private employer from requiring or requesting an employee or applicant for employment to disclose a username or password for the purpose of accessing personal social media, to access personal social media in the presence of the employer, or to divulge any personal social media to public employers. Provides that these provisions apply to public employers generally, including charter cities and counties.	09/13/2013 - In SENATE. Held at desk.	
<b>AB 52</b> Gatto (D)	Native Americans: California Environmental Quality Act		Requires a lead agency to make best efforts to avoid, preserve, and protect specified Native American resources with a project that may have a significant effect on the environment, and to take specified mitigation measures if the project will have a substantial adverse change. Prohibits certain damage unless certain conditions are met. Requires consultation with tribes affiliated with the area prior to determining a negative declaration. Requires the revision of related guidelines.	09/10/2013 - In SENATE. Joint Rule 61(a)12 suspended.;09/10/2013 - In SENATE. Joint Rule 62(a) suspended.	
<b>AB 69</b> Perea (D)	Groundwater: Drinking Water: Nitrate at Risk Fund		Establishes the Nitrate at Risk Fund to be administered by the State Department of Public Health for loans, principal forgiveness loans, or grants to certain water systems operating in a high-nitrate at-risk area for specified purposes. Requires fertilizer sellers to pay a materials charge for deposit in the Fund.	08/12/2013 - From SENATE Committee on AGRICULTURE with author's amendments.;08/12/2013 - In SENATE. Read second time and amended. Re-referred to Committee on AGRICULTURE.	
<b>AB 79</b> Skinner (D)	Budget Act of 2013		Amends the Budget Act of 2013 by revising items of appropriation and making other changes for the purpose of addressing drought conditions in the State.	03/06/2014 - In SENATE. From third reading. To Inactive File.	
<b>AB 80</b> Skinner (D)	Drought Relief		Provides provisions regarding drought relief to include fines for violations of permits and licenses issued by the State Water Resources Control Board, the disbursement of disaster assistance, civil fines for the improper water diversion, emergency regulations regarding the diversion of water and the fines for a related infraction and for groundwater replenishment, rental space for those with economic hardship, the employment training tax, and the providing of funds for water management grants.	03/06/2014 - In SENATE. From third reading. To Inactive File.	
<b>AB 145</b> Perea (D)	State Water Resources Control Board: Drinking Water		Transfers to the State Water Resources Control Board the various duties and responsibilities imposed on the State Department of Public Health by the State Safe Drinking Water Act and the Safe Drinking Water State Revolving Fund Law of 1997. Requires the State Environmental Protection Agency to prepare a project initiation document for the transfer of the state drinking water program from the State Department of Public Health to a Division of Drinking Water Quality.	08/30/2013 - In SENATE Committee on APPROPRIATIONS: Held in committee.	
<b>AB 194</b> Campos (D)	Open Meetings: Actions For Violations		Amends the Ralph M. Brown Act that requires every agenda for a regular meeting or notice for a special meeting of a local legislative body to provide an opportunity for members of the public to address the legislative body on items being considered by the legislative body. Expands the authorization for a district attorney or interested party to seek a judicial determination that an action taken by a legislative body is null and void if the legislative body violates this requirement.	02/06/2014 - To SENATE Committee on GOVERNANCE AND FINANCE.	
<b>AB 229</b> Perez J (D)	Infrastructure and Revitalization Financing Districts		Authorizes the creation by a city, county, city and county, and joint powers authority, of an infrastructure and revitalization financing district and the issuance of debt with voter approval. Authorizes the creation of a district and the issuance of debt. Authorizes a district to finance projects in redevelopment project areas and former	09/11/2013 - In ASSEMBLY. From Unfinished Business. To Inactive File.	

## IRWD 2014 LEGISLATIVE MATRIX

Updated May 28, 2014

Bill No. Author	Title	IRWD Position	Summary/Effects	Status	Notes
<u>AB 243</u> Dickinson (D)	Local Government: Infrastructure Financing Districts		redevelopment project areas and former military bases. Authorizes the creation of an infrastructure and revitalization financing district and the issuance of debt with voter approval. Authorizes a district to finance projects in redevelopment project areas and former redevelopment project areas and former military bases if special conditions are met. Authorizes a district to fund various projects, including watershed land used for the collection and treatment of water for urban uses, flood management, open space, habitat restoration and development purposes.	09/11/2013 - In ASSEMBLY. To Inactive File.	
<u>AB 371</u> Salas (D)	Sewage Sludge: Kern County		Requires the State Water Resources Board to require additional testing on the effects of sewage sludge or other biological solids to occur on properties in unincorporated areas of Kern County where the sludge or other biological solids are imported from another county within the State. Requires the Board to identify pathogens, endotoxins, and other hazards for testing based on the potential for contamination and potential to adversely affect human health. Requires a related report.	02/06/2014 - To SENATE Committee on ENVIRONMENTAL QUALITY.	
<u>AB 436</u> Jones-Sawyer (D)	Inverse Condemnation: Comparative Fault		Applies the doctrine of comparative fault to inverse condemnation actions. Requires a court or arbitrator to reduce the compensation paid to a plaintiff in an inverse condemnation proceeding in direct proportion to his or her percentage of fault, if any, in the damaging of property that constitutes a taking. Provides the circumstances under which the plaintiff shall not recover his or her postoffer costs and shall pay the defendant's postoffer costs, including expert witness costs.	07/02/2013 - In SENATE Committee on JUDICIARY: Not heard.	
<u>AB 515</u> Dickinson (D)	State Environmental Quality Act: Writ of Mandate		Amends the State Environmental Quality Act that requires a court, if it finds that a public agency has violated the requirements of the Act, to issue an order, in the form of a peremptory writ of mandate. Requires the writ to specify the time by which the public agency is to make an initial return of the writ containing specified information. Requires the court to issue a determination indicating whether actions specified in the initial return and subsequent returns are adequate to comply with the writ.	03/17/2014 - From SENATE Committee on ENVIRONMENTAL QUALITY with author's amendments.;03/17/2014 - In SENATE. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL QUALITY.	
<u>AB 543</u> Campos (D)	California Environmental Quality Act: Translation	Oppose	Requires a lead agency to translate certain notices required by the California Environmental Quality Act and a summary of any negative declaration, mitigated negative declaration, or environmental impact report when a group of non-English-speaking people comprises at minimum percentage of the population within the lead agency's jurisdiction and the proposed project is to be located at or near an area where the group of non-English-speaking people comprises that same percentage of residents of the area.	06/13/2013 - Re-referred to SENATE Committee on ENVIRONMENTAL QUALITY.	
<u>AB 616</u> Bocanegra (D)	Local Public Employee Organizations: Dispute: Panels		Relates to local public employee organizations. Requires an organization request for submit a dispute to a factfinding panel to be in writing. Provides if either party disputes that a genuine impasse has been reached, the issue of whether the impasse exists may be submitted to the Public Employees Relations Board for resolution before the dispute is submitted to a factfinding panel. Authorizes each party to select a person to serve as its member of the factfinding panels.	08/30/2013 - In SENATE Committee on APPROPRIATIONS: Held in committee.	

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<b>AB 687</b> Hernandez R (D)	Electricity		Requires the Public Utilities Commission, when authorizing additional direct transactions for retail nonresidential end-use customers, to provide the highest priority to acquire electric services from other providers to entities treating and remediating groundwater that is identified as contaminated on a site listed as a Superfund site in a disadvantaged or severely disadvantaged community or a public drinking water system of such communities. Requires the treatment and remediation using certain moneys.	02/04/2014 - From SENATE Committee on APPROPRIATIONS with author's amendments.;02/04/2014 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.	
<b>AB 993</b> Linder (R)	Contractors: Arbitration		Amends the Contractors' State License Law. Provides a party that submits a dispute with contractor to arbitration waives any right to recover attorney's fees or to challenge the arbitrator's award attorney's fees in a related civil action. Relates to the setting of the time, date, and location for an arbitration related hearing. Requires good cause to exclude any person from a hearing. Revises requirements regarding the recording of the hearing. Authorizes the reopening of a hearing prior to any award.	06/17/2013 - From SENATE Committee on BUSINESS, PROFESSIONS & ECON. DEVELOPMENT: Do pass to Committee on JUDICIARY.	
<b>AB 1043</b> Chau (D)	Drinking Water, Quality, Flood, River Protection		Amends the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006. Eliminates the requirement to develop and adopt regulations and requires that cost subsequently recovered from a party responsible for the contamination be repaid to the State Department of Public Health and deposited in the Groundwater Contamination Cleanup Project Fund which would be created in this bill. Provides the procedures to the issuance of related grants.	05/20/2014 - Withdrawn from SENATE Committee on NATURAL RESOURCES AND WATER.;05/20/2014 - Re-referred to SENATE Committee on ENVIRONMENTAL QUALITY.	
<b>AB 1080</b> Alejo (D)	Community Revitalization & Investment Authorities		Authorizes certain public entities of a community revitalization and investment area to form a community revitalization plan within a community revitalization and investment authority to carry out the Community Redevelopment Law in a specified manner. Requires the authority to adopt a community revitalization plan for a community revitalization and investment area and authorizes the authority to include in that plan a provision for the receipt of tax increment funds.	08/30/2013 - In SENATE Committee on APPROPRIATIONS: Held in committee.	
<b>AB 1249</b> Salas (D)	Regional Water Management Plans: Contamination		Requires an integrated regional water management plan to include an explanation of how the plan addressed nitrate contamination, or an explanation of why the plan does not address such concentration, if an area within the boundaries of the plan has been identified as a nitrate high-risk areas. Imposes those same requirements regarding perchlorate, or hexavalent chromium contamination, irrespective of whether the area has been identified as high risk for those contaminants.	05/20/2014 - From SENATE Committee on ENVIRONMENTAL QUALITY with author's amendments.;05/20/2014 - In SENATE. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL QUALITY.	
<b>AB 1331</b> Reardon (D)	Clean, Safe, and Reliable Drinking Water Act of 2014		Repeals the provisions that would create the Safe, Clean and Reliable Drinking Water Supply Act of 2012. Enacts the Clean, Safe and Reliable Drinking Water Act of 2014.	05/15/2014 - Re-referred to SENATE Committee on	

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			which, if adopted by the voters, would authorize the issuance of bonds in a specified amount pursuant to the State General Obligation Bond Law to finance a clean and safe drinking water program.	GOVERNANCE AND FINANCE.	
<b>AB 1434</b> Yamada (D)	Low-Income Water Rate Assistance Program		Requires the Department of Community Services and Development to develop a plan for the funding and implementation of the Low-Income Water Rate Assistance Program which would include specified elements. Requires the Department to report to the Legislature on its findings regarding the feasibility and desired structure of the program.	05/27/2014 - In ASSEMBLY. Read second time. To third reading.	
<b>AB 1445</b> Logue (R)	Water Infrastructure Act of 2014		Repeals the provisions that would create the Safe, Clean, and Reliable Drinking Water Supply Act of 2012. Enacts the State Water Infrastructure Act of 2014. Authorizes the issuance of bonds in a specified amount to finance a public benefit associated with water storage and water quality improvement projects.	02/14/2014 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.;02/14/2014 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;02/14/2014 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE.	
<b>AB 1448</b> Mullin (D)	Local Government: Part-Time Elected Officials		Prohibits the legislative or governing body of a city, county, city and county, school board, special district, or any other entity of local government from granting lifetime healthcare benefits to an elected official who serves part time. Specifies that these provisions do not prevent the award of, or continuation of, health care benefits that are entirely paid for by the individual.	03/06/2014 - From ASSEMBLY Committee on LOCAL GOVERNMENT with author's amendments.;03/06/2014 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on LOCAL GOVERNMENT.	
<b>AB 1506</b> Perea (D)	San Joaquin River Conservancy: Regulation Adoption		Makes a person who violates any of the posted regulations adopted by the San Joaquin River Conservancy governing lands owned or managed by the conservancy guilty of an infraction punishable by a maximum fine.	05/15/2014 - To SENATE Committee on NATURAL RESOURCES AND WATER.	
<b>AB 1522</b> Gonzalez (D)	Employment: Paid Sick Days		Enacts the Healthy Workplaces, Healthy Families Act of 2014, provides that any employee works for a specified number of days in a calendar year is entitled to paid sick days. Provides the formula for the accrual of such sick days. Authorizes an employer to limit an employee's use of paid sick days. Provides the authorized reasons to be used for taking such sick days. Prohibits discrimination or retaliation against an employee for requesting such sick days. Requires the posting of related notices.	05/27/2014 - In ASSEMBLY. Read second time. To third reading.	

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<b>AB 1527</b> Perea (D)	Public Water Systems: Drinking Water		Requires the Strategic Growth Council to manage and award financial assistance to a city, county, local area formation commission, special district, nonprofit organization or entity for the preparation, planning, and implementation of a public water system consolidation, merger, or extension of service project for the purposes of promoting water conservation. Requires the assistance to be provided from available moneys pursuant to a specified bond act.	05/27/2014 - In ASSEMBLY. Read second time. To third reading.	
<b>AB 1600</b> Gomez (D)	Service Contracts: Outsourcing Alternatives		Establishes, as a condition for a State agency to use personal services contracts, a requirement that the contractor's wages be the higher of the industry's level or the prevailing wage, if applicable.	04/23/2014 - In ASSEMBLY Committee on PUBLIC EMPLOYEES, RETIREMENT AND SOCIAL SECURITY: Not heard.	
<b>AB 1615</b> Gatro (D)	Claims Against the State: Payment		Appropriate funds from the State Board of Chiropractic Examiner's Fund in a prescribed amount to settle claims against the State arising from specified legal action and from the General Fund in a prescribed amount to settle claims against the State arising from a separate legal action. Provides that any appropriated funds in excess of the amount required to pay those claims revert to the fund from which the proceeds were taken.	05/27/2014 - In ASSEMBLY. Read third time, urgency clause adopted. Passed ASSEMBLY. *****To SENATE.	
<b>AB 1632</b> Olsen (R)	Water Rights: Appropriation		Makes a technical, nonsubstantive change in provisions regarding the State Water Resources Control Board allowing permits and licenses appropriations for beneficial purposes of unappropriated water under terms and conditions as in its judgment will best develop, conserve, and utilize in the public interest the water sought to be appropriated.	02/10/2014 - INTRODUCED.	
<b>AB 1636</b> Brown (D)	Water Conservation		Prohibits a city or county, during a drought emergency declared by the Governor, from enforcing a law or ordinance requiring a resident to water his or her lawn. Provides that a requirement imposed by a governmental entity or a public utility to limit, restrict, or conserve water during a drought emergency declared by the Governor does not constitute a diminution of rent or value of a premise or property.	04/24/2014 - Re-referred to ASSEMBLY Committee on LOCAL GOVERNMENT.	
<b>AB 1639</b> Grove (R)	Global Warming Solutions Act of 2006:Greenhouse Gas		Relates to the California Global Warming Solutions Act of 2006 and the Greenhouse Gas Reduction Fund. Amends existing law that creates the High-Speed Rail Authority. Provides that cap-and-trade revenues shall not be appropriated from the fund for purposes of the high-speed rail system, and would make legislative findings and declarations in that regard.	04/28/2014 - In ASSEMBLY. Joint Rule 62(a) suspended.;04/28/2014 - In ASSEMBLY Committee on NATURAL RESOURCES: Failed passage.	
<b>AB 1671</b> Frazier (D)	Sacramento-San Joaquin Delta:Water Conveyance System	Oppose	Prohibits the Department of Water Resources from constructing water facilities as part of a specified water conveyance system unless specifically authorized by the Legislature.	04/08/2014 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Not heard.	
<b>AB 1705</b> Williams (D)	Public Contracts: Payment		Amends existing law that authorizes the retention proceeds withheld from any payment by an awarding entity from the original contractor, by the original contractor	05/15/2014 - To SENATE Committee on	



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			from any subcontractor, and by a subcontractor from any subcontractor, to exceed a specified percentage on projects that are substantially complex. Requires that the bid documents include details explaining the basis for the finding in addition to the actual retention amount.	GOVERNMENTAL ORGANIZATION.	
<b>AB 1707</b> Wilk (R)	Water Quality: Scientific Peer Review		Amends existing law that requires the State Water Resources Control Board and the regional water quality control boards to prescribe waste discharge requirements in accordance with the federal national pollutant discharge elimination system permit program. Relates to an external scientific peer review. Requires the Board to post on its Internet Web site a copy of the external scientific peer review for regulations of the Board.	05/23/2014 - In ASSEMBLY. Read third time. Passed ASSEMBLY. *****To SENATE.	
<b>AB 1728</b> Garcia (D)	Political Reform Act of 1974		Relates to the Political Reform Act of 1974. Revises the definition of agency to include a local government agency formed pursuant to provision of the Water Code. Revises the definition of license, permit, or other entitlement for use with respect to proceedings before a local government agency formed pursuant to the Water Code to apply to all contracts that are not competitively bid.	05/22/2014 - To SENATE Committee on ELECTIONS AND CONSTITUTIONAL AMENDMENTS.	
<b>AB 1729</b> Logue (R)	Local Government: Agricultural Land: Payments		Appropriates a specified amount of money from the General Fund to make subvention payments to counties to reimburse the counties for property tax revenues not received as a result of contracts between the counties and owners of agricultural land in which the owners agree, under the Williamson Act, to continue using such property as agricultural for purposes of property taxation.	03/20/2014 - To ASSEMBLY Committee on APPROPRIATIONS.;03/20/2014 - From ASSEMBLY Committee on APPROPRIATIONS with author's amendments.;03/20/2014 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.	
<b>AB 1731</b> Perea (D)	Integrated Regional Water Management Plans: Funding		Requires, in each integrated regional water management region, that not less than a specified percentage of any funding for integrated regional water management planning purposes be used to facilitate and support the participation of disadvantaged communities in integrated regional water management planning and for projects that address critical water supply or water quality needs for disadvantaged communities.	04/10/2014 - To SENATE Committees on NATURAL RESOURCES AND WATER and ENVIRONMENTAL QUALITY.	
<b>AB 1739</b> Dickinson (D)	Groundwater Basin Management: Sustainability		Amends existing law concerning groundwater management plans adopted by local agencies. Requires a sustainable groundwater management plan to be adopted for certain basins by any groundwater management agency. Prohibits the extraction of groundwater within a groundwater basin for new commercial, multifamily residential, or industrial development, except for the use of a single-family domestic well, unless the groundwater basin has a sustainable groundwater management plan.	05/27/2014 - In ASSEMBLY. Read second time. To third reading.	
<b>AB 1741</b> Frazier (D)	Public Works: Prevailing Wage Rates: Assessments		Relates to the issuance by the Labor Commissioner of a civil wage and penalty assessment for violating laws regulating public works contracts, including the payment of prevailing wages. Specifies that a contractor, subcontractor, or surety may	05/23/2014 - In ASSEMBLY Committee on APPROPRIATIONS:	

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			deposit the full amount of the assessment or notice with the Department of Industrial Relations in the form of cash or a bond issued by a surety company admitted to do business in the State in a form acceptable to the Department.	Held in committee.	
<b>AB 1782</b> Chesbro (D)	Wires: Unlawful Removal		Makes it a crime for any person to unlawfully and maliciously disconnect or cut a line of telegraph, telephone, or cable television, or any line used to conduct electricity, or any part thereof, or appurtenance or apparatus connected therewith. Increases the related criminal fine.	05/19/2014 - In ASSEMBLY. Read third time. Passed ASSEMBLY. *****To SENATE.	
<b>AB 1799</b> Gordon (D)	Land Use: Mitigation Lands	Support	Specifies, where a governmental entity or specified district is the transferee of property, that an endowment or other financial mechanism is not required if the entity or district provides evidence to the local or State agency that it possesses an investment-grade credit rating by a nationally recognized rating organization or other equivalent evidence of financial responsibility and enters into a contractual agreement enforcing mitigation requirements. Requires related reporting.	05/23/2014 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.	
<b>AB 1849</b> Logue (R)	California Environmental Quality Act: Exemptions		Relates to the California Environmental Quality Act. Exempts from the requirements of CEQA, the maintenance, repair, or replacement of an existing levee.	02/27/2014 - To ASSEMBLY Committee on NATURAL RESOURCES.	
<b>AB 1874</b> Gonzalez (D)	Integrated Regional Water Management Plans: Funding		Requires the Department of Water Resources to develop a streamlined application process for certain regional water management groups. Requires, in order to get water management grant funds through the process, the group must file a streamlined application including specified information. Requires awarding funds according to a statutory formula and covers regions. Requires the group to provide a list of projects to be funded and the Department to award the funding within a specified time period.	05/23/2014 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.	
<b>AB 1905</b> Alejo (D)	Water Rights: Appropriation: Livestock Stockpond Use		Provides that impoundment for incidental fire protection purposes is included within livestock stockpond use.	05/22/2014 - To SENATE Committee on NATURAL RESOURCES AND WATER.	
<b>AB 1933</b> Levine (D)	Local Government: Investments		Authorizes the legislative body of a local agency to also invest in United States dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by certain banks. Requires these investments to be rated AA or better and to not exceed 30% of the agency's moneys that may be invested.	05/15/2014 - To SENATE Committee on GOVERNANCE AND FINANCE.	
<b>AB 1961</b> Egman (D)	Land Use: Planning: Sustainable Farmland Strategy		Requires each county to develop a sustainable farmland strategy. Requires the sustainable farmland strategy to include, among other things, a map and inventory of all agriculturally zoned land within the county, a description of the goals, strategies, and related policies and ordinances, to retain agriculturally zoned land where practical and mitigate the lose of such land to other uses or zones.	05/23/2014 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.	
<b>AB 1970</b> Gordon (D)	Global Warming Solutions Act: Community Investment		Creates the Community Investment and Innovation Program and requires moneys to be available from the Greenhouse Gas Reduction Fund for purposes of awarding grants and other financial assistance to eligible applicants who submit plans to develop and implement integrated community-level greenhouse gas emissions reductions in their region. Requires the Strategic Growth Council to administer the program.	05/23/2014 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.	

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<u><b>AB 1983</b></u> Gray (D)	Water Meters: Multiunit Structures		Authorizes the owner or operator of a building containing residential units to install equipment to determine or use an economic allocation methodology to approximate the quantity of water that is provided to the tenants and used in the common areas of that building and to charge tenants separately for water and wastewater service based on usage as determined through the use of that equipment or allocation methodology if certain requirements are met.	03/03/2014 - To ASSEMBLY Committees on HOUSING AND COMMUNITY DEVELOPMENT and WATER, PARKS AND WILDLIFE.	
<u><b>AB 2040</b></u> Garcia (D)	Public Official Compensation		Requires a local agency to report to the Controller the annual compensation of its public officials. Requires a local agency that is required to report and that maintains an Internet Web site to post that information on the Controller's Government Compensation in California Internet Web site. Requires the entities to consult regarding the reporting requirements for such disclosure.	05/27/2014 - In ASSEMBLY. Read second time. To third reading.	
<u><b>AB 2043</b></u> Bigelow (R)	Safe Clean and Reliable Drinking Water Supply Act		Repeals provisions of the Safe, Clean, and Reliable Drinking Water Supply Act of 2012. Enacts the Safe, Clean, and Reliable Water Supply Act of 2014, which, if adopted by votes, would authorize the issuance of bonds in a specified amount to finance a safe drinking water and water supply reliability program.	05/21/2014 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard.	
<u><b>AB 2045</b></u> Rendon (D)	Energy Improvements and Financing		Enacts the Non-Residential Real Property Energy Retrofit Financing Act of 2014. Provides financial assistance through the issuance of revenue bonds, to owners of eligible real properties. Requires that the bonds be secured by the recording of an energy remittance repayment agreement lien. Requires the Energy Resources Conservation and Development Commission to collect installment payments from owners of eligible real properties whose applications it has approved.	05/23/2014 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.	
<u><b>AB 2049</b></u> Dahle (R)	Drinking Water: Point-of-Entry: Point-of-Use Treatment		Limits the use of point-of-entry and point-of-use treatment to water systems with less than 500 service connections.	05/08/2014 - To SENATE Committee on ENVIRONMENTAL QUALITY.	
<u><b>AB 2067</b></u> Weber (D)	Urban Water Management Plans		Requires an urban retail water supplier and an urban wholesale water supplier to provide narratives describing the supplier's water demand management measures. Requires the narrative to address the nature and extent of each water demand management measure implemented to describe the water demand management measures that the supplier plans to implement.	05/08/2014 - To SENATE Committee on NATURAL RESOURCES AND WATER.	
<u><b>AB 2071</b></u> Levine (D)	Recycled Water: Pasture Animals		Requires the State Department of Public Health to determine whether the use of disinfected tertiary treated recycled water for the purpose of providing water to pasture animals would be safe for public and animal health. Requires the establishment of statewide recycling criteria for the use of recycled water for such purposes. Prohibits the use of such water in the water supply for dairy animals that are currently producing dairy products for human consumption.	05/27/2014 - In ASSEMBLY. Read second time. To third reading.	
<u><b>AB 2097</b></u> Morrell (R)	Homeowners Exemption and Renters Credit		Increases the homeowners' property tax exemption. Increases the personal income tax credit for a qualified renter.	03/03/2014 - To ASSEMBLY Committee on REVENUE AND TAXATION.	
<u><b>AB 2100</b></u> Campos (D)	Common Interest Developments: Yard Maintenance: Drought		Prohibits a common interest development association from imposing a fine or assessment against a member of a separate interest for reducing or eliminating	05/15/2014 - To SENATE Committee on	

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			watering of vegetation or lawns during any period for which the Governor has declared a state of emergency, or a local government has declared a local emergency, due to drought.	TRANSPORTATION AND HOUSING.	
<b>AB 2104</b> Gonzalez (D)	Common Interest Developments:Water Efficient Landscapes	Support	Relates to the Davis-Stirling Common Interest Development Act. Provides that a provision of the governing documents or of the architectural or landscaping guidelines or polices shall be void and unenforceable if it prohibits, or includes conditions that have the effect of prohibiting, low water-using plants as a group or as a replacement of existing turf, or if the provisions have the effect of prohibiting or restricting compliance with local water conservation measures.	04/22/2014 - To SENATE Committee on TRANSPORTATION AND HOUSING.	
<b>AB 2114</b> Pan (D)	Taxation: Qualified Heavy Equipment		Imposes a tax on every qualified renter for the privilege of renting qualified heavy equipment. Requires a renter to collect the tax from the qualified rentee at the time of rental. Provides that this tax shall be in lieu of any personal property tax on qualified heavy equipment. Requires the county auditor to increase the total amount of ad valorem property tax revenue and to decrease the amount of ad valorem property tax required to be allocated to the county Educational Revenue Augmentation Fund.	05/23/2014 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.	
<b>AB 2126</b> Bonta (D)	Meyers Miliias Brown Act Mediation		Amends the Meyers-Miliias-Brown Act. Permits either party to contract negotiations to request mediation and agree upon a mediator. Authorizes the Public Employee Relations Board to appoint a mediator upon request. Relates to a waiver of such request if the public agency has a impasse procedure. Authorizes certain collective bargaining negotiation differences to apply to these provisions.	05/27/2014 - In ASSEMBLY. Read second time. To third reading.	
<b>AB 2189</b> Garcia (D)	Water Replenishment Districts: Replenishment Assessment		Requires a water replenishment district board to make specified findings and determinations before holding a public meeting and to identify water-producing facilities within the district that would be subject to a proposed replenishment assessment and give written notice by mail to owners of those facilities. Authorizes the facility owner to submit a written protection in opposition of the assessment. Provides the condition that would prohibit the imposition of the assessment.	05/23/2014 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.	
<b>AB 2211</b> Ting (D)	Counties: Database: Information Regarding Property Tax		Requires each county to make available to taxpayers on its Internet Web site a graph visualization of how general ad valorem property tax revenues are allocated countywide. Requires the Internet Web site to provide taxpayers with certain information about general ad valorem property tax revenues and the types of programs and services funded with general ad valorem property tax revenues, and a link to a budget document where information about specific programs and services is detailed.	05/27/2014 - In ASSEMBLY. Read second time. To third reading.	
<b>AB 2231</b> Gordon (D)	State Controller: Property Tax Postponement		Relates to claims for postponement under the Senior Citizens and Disabled Citizens Property Tax Postponement Law. Makes inoperative a prohibition against a person filing a claim for postponement. Excludes mobilehomes and houseboats from certain provisions. Creates a specified fund. Makes changes concerning eligibility, repayment of postponed taxes, delinquent penalties and interest, electronic funds transfer requirements, the sale of tax-defaulted property, public meetings, and other matters.	05/27/2014 - In ASSEMBLY. Read third time. Passed ASSEMBLY. *****To SENATE.	
<b>AB 2257</b> Cooley (D)	Tax-Defaulted Property: Excess Proceeds from Sale		Eliminates the requirement that any excess proceeds from the sale of tax-defaulted property not claimed be distributed among taxing agencies. Authorizes any excess proceeds to be transferred to the county general fund at the expiration of a specified time period. Relates to the distribution and claim process of any excess proceeds from	05/23/2014 - In ASSEMBLY. Read third time. Passed ASSEMBLY. *****To	

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			the sale.	SENATE.	
<b>AB 2259</b> Ridley-Thomas S (D)	Water Replenishment: Assessments		Requires that a judicial action or proceeding to attack, review, set aside, void, or annul a resolution or motion levying a water replenishment assessment by a water replenishment district pursuant to certain provisions to be connected within a certain number of days of the adoption of the resolution or motion. Requires that an action regarding the replenishment assessment be brought pursuant to specified provisions regarding civil proceedings.	05/21/2014 - From SENATE Committee on JUDICIARY with author's amendments.;05/21/2014 - In SENATE. Read second time and amended. Re-referred to Committee on JUDICIARY.	
<b>AB 2282</b> Gatto (D)	Building Standards: Recycled Water Infrastructure		Requires the Department of Housing and Community Development to conduct research to assist in the development of and to propose adoption, amendment or repeal by the State Building Standards Commission of mandatory building standards for the installation of recycled water infrastructure for newly constructed single-family and multifamily residential buildings. Limits the mandate to install recycled water piping to certain areas within a local jurisdiction. <b>Regards green building standards.</b>	05/27/2014 - In ASSEMBLY. Read third time. Passed ASSEMBLY. *****To SENATE.	
<b>AB 2312</b> Nestande (R)	Metal Theft	Support	Relates to theft of wire, cable, copper, lead, solder, mercury, iron, or brass. Requires a junk dealer or recycler to request to receive theft alert notifications regarding the theft of commodity metals in the junk dealer's or recycler's geographic region from the theft alert system maintained by the Institute of Scrap Recycling Industries, Inc. Requires a junk dealer or recycler who is an applicant for a new weighmaster license or renewal to also include a statement on theft alert notifications.	05/22/2014 - To SENATE Committees on BUSINESS, PROFESSIONS AND ECONOMIC DEVELOPMENT and PUBLIC SAFETY.	
<b>AB 2353</b> Waldron (R)	Environmental Quality: Water Storage Facilities		Exempts a project to expand the storage capacity of an existing surface water storage facility, or to replace an existing surface water storage facility, that is owned and operated by a public entity if that public entity adopts, by resolution, findings and declarations that the project meets specified criteria from the requirements of the California Environmental Quality Act.	04/28/2014 - In ASSEMBLY Committee on NATURAL RESOURCES: Failed passage.	
<b>AB 2403</b> Rendon (D)	Local Government: Assessments, fees, and charges		States that provisions of the State Constitution generally require that assessments, fees, and charges be submitted to property owners for approval or rejection after the provisions of written notice and the holding of a public hearing. Modifies the definition of water to mean water from any source.	05/19/2014 - In ASSEMBLY. Read third time. Passed ASSEMBLY. *****To SENATE.	
<b>AB 2417</b> Nazarian (D)	California Environmental Quality Act: Recycled Water		Amends the California Environmental Quality Act, which exempt specified pipeline projects from certain requirements. Exempts from the Act, a project for the construction and installation of a new pipeline or the maintenance, repair, restoration, reconditioning, relocation, replacement, removal, or demolition of an existing pipeline, not exceeding a specified length, for the distribution of recycled water within a public street, highway, or right-of-way. <b>Requires the filing of a notice of exemption.</b>	05/23/2014 - In ASSEMBLY. Read third time. Passed ASSEMBLY. *****To SENATE.	
<b>AB 2420</b> Nazarian (D)	Well Stimulation Treatments: Local Prohibition		Authorizes a city or county to adopt and enforce a local ordinance prohibiting well stimulation treatments.	04/30/2014 - In ASSEMBLY Committee on LOCAL GOVERNMENT: Failed passage.;04/30/2014 - In	

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				ASSEMBLY Committee on LOCAL GOVERNMENT: Reconsideration granted.	
<b>AB 2434</b> Gomez (D)	Income Taxes: Exclusion	Support	Provides, under the Personal Income Tax and Corporation Tax laws, an exclusion from gross income for any amount received as a rebate, or financial incentive issued by a local water agency or supplier for participation in a turf removal water conservation program.	05/27/2014 - In ASSEMBLY. Read third time. Passed ASSEMBLY. *****To SENATE.	
<b>AB 2442</b> Gordon (D)	Porter Cologne Water Quality Control Act		Prohibits the State Water Resources Control Board, a regional board, and any authorized person, from being civilly liable for any act or omission of the state board, regional board, or any authorized person in connection with any investigation, cleanup, abatement, or other remedial work, unless the act or omission was performed in a grossly negligent manner.	05/22/2014 - To SENATE Committees on ENVIRONMENTAL QUALITY and JUDICIARY.	
<b>AB 2443</b> Rendon (D)	Duplication of Service: Mutual Water Companies		Makes inapplicable the provision that a mutual water company is a private utility entitled to just compensation for a taking in a territory it services at the time of the taking when a political subdivision constructs facilities to provide or extend recycled water service to the territory of the mutual water company.	05/19/2014 - In ASSEMBLY. Read third time. Passed ASSEMBLY. *****To SENATE.	
<b>AB 2446</b> Waldron (R)	San Luis Rey Municipal Water District		Prohibits a standby assessment or availability charge levied for the San Luis Rey Municipal Water District from exceeding a specified amount per acre for land on which the charge is levied or a specified amount per year for a parcel less than a specified size. Requires the proceeds from the assessment or charge to be used for the purposes of management of local water supply and its quality.	05/22/2014 - To SENATE Committee on NATURAL RESOURCES AND WATER.	
<b>AB 2463</b> Dickinson (D)	Water: Plans		Requires the Department of Water Resources to partner with the Regional Water Authority, water suppliers in El Dorado, Placer, Sacramento, and Placer counties, and other interested agencies to develop a plan for investing in water supplies and other facilities in order to contribute to the reliability of water supplies for the Sacramento region's communities and environmental resources while also generating statewide benefits.	05/23/2014 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.	
<b>AB 2471</b> Frazier (D)	Public Contracts: Change Orders		Requires a public entity, when authorized to order changes or additions in the work in a public works contract awarded to the lowest bidder, to issue a change order promptly. Requires if this requirement is not met, the public entity to be liable to the original contractor for the work that has already been performed, a documentation is submitted. Authorizes the submission of a change order for extra work performed by a subcontractor. Authorizes subcontractor request. Requires subcontractor notification.	05/27/2014 - In ASSEMBLY. Read second time. To third reading.	
<b>AB 2492</b> Jones-Sawyer (D)	Local Agencies: Meetings: Real Property Transaction		Authorizes the legislative body of a local agency to grant authority to the negotiator regarding the price and terms of the purchase, sale, exchange, or lease.	05/12/2014 - In ASSEMBLY. Read second time. To third reading.	
<b>AB 2507</b> Bocanegra (D)	Public Records Act: Exemptions		Provides that outside attorney billing records, when they are prepared in connection with a pending civil action in which a public agency is the defendant, are exempt from the State Public Records Act disclosure provisions during the pendency of the	04/22/2014 - In ASSEMBLY Committee on JUDICIARY: Not	

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			litigation.	heard.	
<b>AB 2516</b> Gordon (D)	Sea Level Rise Planning: Database		Requires the Natural Resources Agency to post on its Internet Web site a Planning for Sea Level Rise Database describing steps being taken throughout the state to prepare for, and adapt to, sea level rise. Requires public and private entities to provide input. Requires the Agency to determine the information for database, and to organize the database by geographic area and to provide an entry for each city, county, and city and county within the coastal zone and San Francisco Bay area.	05/27/2014 - In ASSEMBLY. Read second time. To third reading.	
<b>AB 2554</b> Rendon (D)	Clean, Safe, and Reliable Drinking Water Act of 2014		Repeals the Safe, Clean, and Reliable Drinking Water Act of 2012 that would authorize the issuance of bonds to finance a safe drinking water and water supply reliability program via a bond act if passed by the voters at a statewide general election. Enacts the Clean, Safe, and Reliable Drinking Water Act of 2014 to authorize bonds in a specified amount to finance a clean, safe, and reliable drinking water program if passed by the voters at a statewide general election.	04/29/2014 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Do pass to Committee on APPROPRIATIONS.	
<b>AB 2619</b> Gaines B (R)	Dams: Fish: Critically Dry Year		Amends existing law which requires a dam owner to allow sufficient water to pass through a fishway or over, around, or through the dam and which authorizes the Department of Fish and Game to grant permission to the dam owner to allow sufficient water to pass through a culvert, waste gate, or over or around the dam, to keep in good condition any fish that may be planted or exist below the dam. Prohibits such provisions from applying during a critically dry year.	03/28/2014 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.;03/28/2014 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/28/2014 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE.	
<b>AB 2636</b> Gatto (D)	CalConserve Water Use Efficiency Revolving Fund		Transfers to the CalConserve Water Use Efficiency Revolving Fund from the Costa-Machado Water Act of 2000 specified bond proceeds issued and available for agricultural water projects. Requires the Department of Water Resources to use these moneys for loans and grants to local agencies to acquire and construct agricultural water conservation projects consistent with the bond act. Provides the Legislature may appropriate moneys for water-use efficiency project under a specified loan program.	05/27/2014 - In ASSEMBLY. Read second time. To third reading.	
<b>AB 2676</b> Rendon (D)	Controller Reports		Changes the definition of a special district included in the reporting requirements of the Controller to include a public entity, agency, or board provided for by a joint powers agreement that is separate from the parties to the agreement and is responsible for the administration of the agreement. Relates to auditing local redevelopment agencies. Relates to forfeiture requirements local agency officers that fail or refuse to file a financial report to the Controller.	05/23/2014 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.	
<b>AB 2680</b> Nazarian (D)	Water Quality		Makes technical, nonsubstantive changes to the legislative findings and declarations in The Porter-Cologne Water Quality Control Act.	02/21/2014 - INTRODUCED.	
<b>AB 2686</b>	Clean, Safe, and Reliable Water		Repeals the Safe, Clean, and Reliable Drinking Water Supply Act of 2012. Enacts the	05/21/2014 - In	

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Perea (D)	Supply Act of 2014		Clean, Safe, and Reliable Water Supply Act of 2014, which, if adopted by the voters, would authorize the issuance of bonds in an unspecified amount, to finance a clean, safe, and reliable water supply program. Provides for the submission of the bond act to the voters at a statewide general election.	ASSEMBLY Committee on APPROPRIATIONS: Not heard.	
<b>AB 2701</b> Gonzalez (D)	Groundwater Basins: Investigation and Report		Makes a technical, nonsubstantive change to existing law that requires the Department of Water Resources, in conjunction with other public agencies, to conduct an investigation of the state's groundwater basins and to report its findings to the Governor and the Legislature.	02/21/2014 - INTRODUCED.	
<b>AB 2712</b> Daly (D)	Hazardous Materials: Orange County Water District		Requires the Orange County Water District in order to obtain the recovery of the costs of cleaning up or containing contamination, abating the effects of contamination or pollution, or taking other emergency, removal, or remedial action to provide notice of the action to the regional water quality control board and the Department of Toxic Substances Control, to meet and confer with agencies and any responsible party, and to comply with the National Contingency Plan.	05/27/2014 - In ASSEMBLY. Read third time. Passed ASSEMBLY. *****To SENATE.	
<b>AB 2725</b> Brown (D)	Urban Waterway Restoration		Requires the Department of Water Resources to release assumptions and estimates relating to water use for urban waterway restoration. Includes urban waterway restoration that increases water supplies for any beneficial use, as a regional project or program. Includes an urban waterway restoration project as an eligible project for the grant program under the Environmental Water Fund.	03/17/2014 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.	
<b>AB 2738</b> Alejo (D)	Safe Drinking Water State Revolving Fund: Accounts		Relates to notification of an action on a business that discharged a specified chemical. Establishes the fees and charges account within the Safe Drinking Water State Revolving Fund Law of 1997 for deposit of prescribed administrative fees to be expended for certain administrative costs. Authorizes such fees to reimburse the costs for application processing and a loan disbursement fee and an annual adjustment to the fee schedule. Deletes a requirement for payment of charges by the Attorney General.	05/27/2014 - In ASSEMBLY. Read second time. To third reading.	
<b>ACA 8</b> Blumenfeld (D)	Local Government Financing: Voter Approval		Proposes an amendment to the Constitution to create an additional exception to the 1% limit for an ad valorem tax rate imposed by a city, county, city and county, or special district, to service bonded indebtedness incurred to fund specified public improvements and facilities, or buildings used primarily to provide sheriff, police, or fire protection services, that is approved by 55% of the voters of the city, county, city and county, or special district.	06/27/2013 - To SENATE Committees on GOVERNANCE AND FINANCE and ELECTIONS AND CONSTITUTIONAL AMENDMENTS.	
<b>HR 29</b> Gomez (D)	Outsourcing Public Services	Oppose	Opposes outsourcing of public services and assets, which harms transparency, accountability, shared prosperity, and competition, and supports processes that give public service workers the opportunity to develop their own plan on how to delivery cost-effective, high-quality services.	04/03/2014 - In ASSEMBLY. Read third time and amended. To third reading.;04/03/2014 - In ASSEMBLY. Read third time. Adopted by ASSEMBLY.	
<b>SB 1</b> Steinberg (D)	Sustainable Communities Investment Authority		Authorizes certain public entities of a Sustainable Communities Investment Area to form a Sustainable Communities Investment Authority to carry out the Community Redevelopment Law. Provides for tax increment funding receipt under certain	09/12/2013 - In SENATE. To Inactive File.	



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			economic development and planning criteria. Establishes prequalification requirements for receipt of funding. Requires monitoring and enforcement of prevailing wage requirements within the area. Excludes certain types of farmland.		
<b>SB 33</b> Wolk (D)	Infrastructure Financing Districts: Voter Approval		Revises provisions governing infrastructure financing districts. Eliminates the requirement of voter approval for creation of the district and for bond issuance, and authorizes the legislative body to create the district subject to specified procedures. Authorizes the creation of such district subject to specified procedures. Authorizes a district to finance specified actions and project. Prohibits financing until a certain requirement is met. Prohibits assistance to a vehicle dealer or big box retailer.	09/11/2013 - In ASSEMBLY. To Inactive File.	
<b>SB 64</b> Corbett (D)	Global Warming Solutions: Clean Technology Investment		Creates the Clean Technology Investment Account within the Greenhouse Gas Reduction Fund. Requires appropriations of moneys in the fund or other funds to the account in the Budget Act. Makes such funds available for grants to nonprofit public benefit corporations and regional technology alliances to design and implement program that accelerate the development, demonstration, and deployment of technologies that would reduce greenhouse gas emissions and foster job creation in the state.	06/24/2013 - Re-referred to ASSEMBLY Committee on NATURAL RESOURCES.	
<b>SB 103</b> Budget and Fiscal Review Cmt	Budget Act of 2013		Amends the Budget Act of 2013 by revising items of appropriation and making other changes for the purpose of addressing drought conditions in the State.	03/01/2014 - Signed by GOVERNOR.;03/01/2014 - Chaptered by Secretary of State. Chapter No. 2	
<b>SB 104</b> Budget and Fiscal Review Cmt	Drought Relief		Provides provisions regarding drought relief to include fines for violations of permits and licenses issued by the State Water Resources Control Board, the disbursement of disaster assistance, civil fines for the improper water diversion, emergency regulations regarding the diversion of water and the fines for a related infraction and for groundwater replenishment, rental space for those with economic hardship, the employment training tax, and the providing of funds for water management grants.	03/01/2014 - Signed by GOVERNOR.;03/01/2014 - Chaptered by Secretary of State. Chapter No. 3	
<b>SB 176</b> Galgiani (D)	Administrative Procedures		Requires the Office of Administrative Law to allow electronic submission to the Office by a state agency of notices required to be published and information required to be submitted pursuant to specified provisions of existing law. Expands the public discussion required described in existing law to require a state agency proposing to adopt regulations, prior to publication of a notice of proposed adoption, amendment, or repeal, to involve parties that would be subject to the regulations in such discussions.	08/30/2013 - In ASSEMBLY Committee on APPROPRIATIONS: To Suspense File.;08/30/2013 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.	
<b>SB 193</b> Monning (D)	Hazard Evaluation System and Information Service		Relates to the repository of data on toxic materials and harmful physical agents in places of employment. Requires chemical manufacturers, formulators, suppliers, distributors, importers, and their agents to provide Hazard Evaluation System and Information Service the names and addresses of their customers who have purchased specified chemicals or commercial products containing those chemicals, and certain other information upon a request from the Service. Exempts the names and address from disclosure.	08/06/2013 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.	
<b>SB 266</b> Lieu (D)	Prevailing Wages		Requires the body awarding a contract for public work to furnish a copy of the valid notice of completion for the public work or a document evidencing the awarding	04/24/2014 - To ASSEMBLY Committee	

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			body's acceptance of the public work on a particular date, whichever occurs later. Requires that body to notify the Labor Commissioner if there has been no valid notice of completion filed, and no document evidencing the acceptance of the public work on a particular date. Requires civil wage assessments until an applicable document is received.	on LABOR AND EMPLOYMENT.	
<b>SB 536</b> Berryhill T (R)	Property-Related Services		Provides that a county shall not be obligated to provide subsidies to cure any deficiencies in funding of property-related services provided within the jurisdiction of a defined district, under any of certain specified circumstances. Provides that this prohibition would not apply if the county's governing board had agreed to subsidize the district's services before the completion of a majority protest proceeding or election.	06/17/2013 - To ASSEMBLY Committee on LOCAL GOVERNMENT.	
<b>SB 556</b> Corbett (D)	Agency; Ostensible: Nongovernmental Entities		Relates to third person contracts and ostensible agencies. Prohibits a person, firm, corporation, or association that is a nongovernmental entity and contracts to perform labor or services relating to public health or safety for a public entity from displaying on a vehicle or uniform a logo that reasonably could be interpreted as implying the labor or services are being performed by employees of a public agency, unless the vehicle and uniform displays a specified disclosure.	09/11/2013 - In ASSEMBLY. To Inactive File.	
<b>SB 605</b> Lara (D)	California Global Warming Solutions Act: Scoping Plan		Requires the Controller to determine the amount of moneys collected and deposited in the Greenhouse Reduction Fund by the State Air Resources Board. Appropriates moneys from the fund for projects and programs in disadvantaged communities. Authorizes expenditures for administrative purposes. Requires the Board, when updating a greenhouse gas emissions reduction scoping plan, to include specified criteria, and to submit that criteria to the Joint Legislative Budget Committee.	08/30/2013 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard.	
<b>SB 528</b> Beall (D)	Infrastructure Financing: Transit Priority Projects		Eliminates the requirement of voter approval for the adoption of an infrastructure financing plan, the creation of an infrastructure financing district, and the issuance of bonds with respect to a transit priority project. Requires a specified percentage of the revenue for increasing, improving, and preserving the supply of lower and moderate-income housing. Requires a low-income housing replacement ordinance.	08/19/2013 - Withdrawn from Enrollment.;08/19/2013 - Ordered Held at SENATE desk.	
<b>SB 633</b> Pavley (D)	CEQA		Amends the California Environmental Quality Act. Specifies, for purposes of new information exception to the prohibition on requiring a subsequent or supplement environmental impact report, that a specified exception applies if new information was not known and could not have been known by the lead or any responsible agency at the time the report was certified as complete. Authorizes the development of guidelines to exempt projects involving minor temporary uses of land and public gatherings.	08/06/2013 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.	
<b>SB 731</b> Steinberg (D)	Environment: California Environmental Quality Act		Relates to the State Environmental Quality Act. Provides that certain impacts of a residential, mixed-use, or employment center project within a transit priority area shall not be considered significant impacts. Requires guidelines for thresholds of significance for noise and transportation impacts to be made available. Requires preparation of environmental impact reports. Extends the tolling of time for judicial actions and mitigation measures. Relates to sustainable communities planning and grants.	09/11/2013 - From ASSEMBLY Committee on LOCAL GOVERNMENT: Do pass as amended.	
<b>SB 735</b>	Sacramento-San Joaquin Delta		Amends existing law that establishes the Delta Stewardship Council to create a Delta	08/13/2013 - In	

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Wolk (D)	Reform Act		management plan. Authorizes prescribed local entities to enter into a memorandum of understanding or other written agreement with the council and the Department of Fish and Wildlife regarding multispecies conservation plans that describes how the parties would ensure that multispecies conservation plans that have been adopted or are under development are consistent with the Delta Plan.	ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Not heard.	
<b>SB 750</b> Wolk (D)	Building Standards: Water Meters: Multiunits		Requires a water purveyor providing water service to new multiunit residential or mixed use structures to require water measurement to each unit and to permit measurement to be by water meters or submeters. Requires submeters to comply with existing laws and regulations. Prohibits purveyor fees for submeters installed by the owner. Imposes certain requirements on landlords in related to the submetered water service. Relates to separate charge notification to tenant. Authorizes damages for violations.	08/13/2013 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Failed passage.;08/13/2013 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Reconsideration granted.	
<b>SB 757</b> Berryhill T (R)	Junk Dealers		Relates to junk dealers and recyclers. Permits a seller to use a passport from any country or a Matricula Consular issued by Mexico, along with another form of identification bearing an address, or an identification card issued by the United States, as identification. Specifies that the provisions governing secondhand dealers and coin dealers do not apply to junk dealers.	09/06/2013 - In ASSEMBLY. To Inactive File.	
<b>SB 785</b> Wolk (D)	Design-Build		Repeals certain authorizations and enacts provisions that would authorize the Department of General Services, the Department of Corrections and Rehabilitation, and certain local agencies to use the design-build procurement process for specified public works. Authorizes the use of such process by the Marin Healthcare District when contracting for building and improvements construction to a hospital or health facility. Requires specified moneys to be deposited into the State Public Works Enforcement Fund.	05/08/2014 - To ASSEMBLY Committee on LOCAL GOVERNMENT.	
<b>SB 848</b> Wolk (D)	Safe Drinking Water, Water Quality, and Water Supply		Repeals the provisions of existing law that created the Safe, Clean, and Reliable Drinking Water Supply Act of 2012. Enacts the Safe Drinking Water, Water Quality, and Flood Protection Act of 2014 which would authorize the issuance of bonds pursuant to the State General Obligation Bond Law to finance a safe drinking water, water quality, and water supply program.	05/27/2014 - In SENATE. Read second time and amended. Re-referred to Committee on RULES.	
<b>SB 927</b> Cannella (R)	Safe, Clean, and Reliable Drinking Water Supply Act		Renames the Safe, Clean, and Reliable Drinking Water Supply Act of 2012 as the Safe, Clean, and Reliable Drinking Water Supply Act of 2014 and makes conforming changes. Authorizes the issuance of bonds in a specified amount by reducing the amount available for projects related to drought relief and water supply reliability.	04/22/2014 - In SENATE Committee on NATURAL RESOURCES AND WATER: Failed passage.;04/22/2014 - In SENATE Committee on NATURAL RESOURCES AND WATER: Reconsideration granted.	
<b>SB 938</b> Galgiani (D)	Water Rights: Reconsideration of a Decision or Order		Makes a technical, nonsubstantive change to existing law that specifies procedures under which a person may be subject to administrative civil liability for unauthorized diversion or use of water, specifies procedures under which the State Water Resources	02/20/2014 - To SENATE Committee on RULES.	

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			Control Board is authorized to order a reconsideration of all or part of its decision or order.		
<b>SB 946</b> Huff (R)	Community Facilities: Consolidated Sanitation District		Revises the governing body of a consolidated sanitation district located in Orange County to instead include one member of the city council of each city, except the city of Yorba Linda, one member of the county board of supervisors, and one member of the governing body of each sanitary district.	05/12/2014 - To ASSEMBLY Committee on LOCAL GOVERNMENT.	
<b>SB 985</b> Pavley (D)	Stormwater Resource Planning		Amends the Stormwater Resource Planning Act. Requires a stormwater resources plan to identify and prioritize the use of lands or easements in public ownership for stormwater and dry weather runoff projects. Eliminates the requirement that a stormwater resource plan be consistent with any applicable integrated regional water management plan. Requires an entity developing a plan to identify opportunities to use existing publicly owned lands and easements to capture and use stormwater. Relates to grant funds.	05/27/2014 - In SENATE. Read third time. Passed SENATE. *****To ASSEMBLY.	
<b>SB 992</b> Nielsen (R)	Common Interest Developments: Property and Maintenance		Prohibits a common interest development association from imposing a fine or assessment on separate interest owners for yard maintenance issues related to under-watered plants and lawns during any period for which the Governor has declared a state of emergency due to drought.	05/01/2014 - To ASSEMBLY Committee on HOUSING AND COMMUNITY DEVELOPMENT.	
<b>SB 1014</b> Jackson (D)	Pharmaceutical Waste: Home Generated		Requires the adoption of regulations to authorize a participant of a model drug waste disposal program to establish a program to collect and properly dispose of home-generated pharmaceutical waste. Requires an entity that elects to implement such a program to comply with the requirements specified in those regulations. Deems a participant to be in compliance with state laws and regulations concerning the handling, management, and disposal of such waste.	05/27/2014 - In SENATE. Read second time and amended. To third reading.	
<b>SB 1036</b> Pavley (D)	Urban Water Management Plans		Authorizes an urban water supplier to include within an urban water management plan certain energy-related information, including, but not limited to, an estimate of the amount of energy used to extract or divert water supplies. Requires the Department of Water Resources to develop a methodology for the voluntary reporting of energy intensity of urban water systems and to include in the methodology in the guidance for the preparation of urban water management plans.	05/27/2014 - In SENATE. Read second time and amended. To third reading.	
<b>SB 1049</b> Pavley (D)	Integrated Regional Water Management Plans		Amends the Integrated Regional Water Management Planning Act. Includes projects or programs that reduce energy used to acquire, transport, treat, or distribute water, or that develop and maintain computer models and analytic tools to model regional water management strategies as a regional project or program. Requires a regional water management group to include all water suppliers that are within a watershed area, the area over a groundwater basin or subbasin, or the area within a county's boundaries.	05/23/2014 - In SENATE Committee on APPROPRIATIONS: Held in committee.	
<b>SB 1080</b> Fuller (R)	Safe, Clean, and Reliable Drinking Water Supply Act		Relates to the Safe, Clean, and Reliable Drinking Water Supply Act of 2012, which, if approved by the voters, would authorize the issuance of bonds in a specified amount. Declares the intent of the Legislature to enact legislation to reduce the bond amount.	02/27/2014 - To SENATE Committee on RULES.	
<b>SB 1113</b> Knight (R)	Property Taxation: Disabled Veterans Exemption: Refunds		Relates to veterans with disabilities. Provides that if a claim for a refund is filed for a disabled veterans' property tax exemption, the period of time for which a refund is	05/27/2014 - In SENATE. Read third time. Passed	

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			required to be made shall be extended.	SENATE. *****To ASSEMBLY.	
<b>SB 1144</b> Galgiani (D)	Common Interest Developments		Prohibits an association from imposing a fine or assessment on separate interest owners for yard maintenance issues related to under watered plants and lawns during any period for which the governor has declared a state of emergency due to drought. Prohibits a city, county, or city and county from imposing a fine or assessment on separate interest owners for yard maintenance issues.	03/06/2014 - To SENATE Committee on TRANSPORTATION AND HOUSING.	
<b>SB 1168</b> Pavley (D)	Groundwater Management		Enacts the Sustainable Groundwater Management Act. Authorizes unspecified entities to develop a defined sustainable groundwater management plan, to be developed and adopted to encompass an entire basin or subbasin in an unspecified manner, and according to an unspecified schedule. Authorizes the State to take action to cause such a plan to be developed, adopted, and implemented.	05/27/2014 - In SENATE. Read third time. Passed SENATE. *****To ASSEMBLY.	
<b>SB 1214</b> Anderson (R)	State Controller and Property Tax Postponement		Amends the Senior Citizens and Disabled Citizens Property Tax Postponement Law. Extends the prohibition against a person filing a claim for postponement and the Controller from accepting application for postponement under the program. Creates a related fund. Increases the equity interest requirement. Provides additional procedures regarding the filing of a related claim. Regards procedures relating to tax defaulted property. Requires notification of all tax defaulted properties.	05/23/2014 - In SENATE Committee on APPROPRIATIONS: Held in committee.	
<b>SB 1216</b> Morrell (R)	Homeowners' Exemption and Renter's Credit		Increases the homeowners' property tax exemption to a specified amount of the full value of a dwelling. Requires the County Assessor to adjust the amount of the homeowners' exemption. Provides for an increase in the renter's tax credit based on a specified adjusted gross income amount.	04/22/2014 - Re-referred to SENATE Committee on GOVERNANCE AND FINANCE.	
<b>SB 1250</b> Hueso (D)	Safe, Clean and Reliable Drinking Water Supply Act		Repeals the Safe, Clean and Reliable Drinking Water Supply Act of 2012 that would authorize the issuance of bonds to finance a safe drinking water and water supply reliability program. Enacts the Safe, Clean, and Reliable Drinking Water Supply Act of 2014, which, if adopted by voters would authorize the issuance of State General Obligation Bonds in a specified amount to finance a safe drinking water and water supply program.	05/13/2014 - In SENATE Committee on NATURAL RESOURCES AND WATER: Not heard.	
<b>SB 1281</b> Pavley (D)	Oil and Gas Production: Water Use Reporting		Requires the monthly statement to the State Oil and Gas Supervisor to include the source and amount of fluid or gas injected into each well, and the source and amount of water used to generate injected fluid or gas. Requires the statement to include additional information, including the treatment of water and the use of treated or recycled water in oil and gas field activities.	05/27/2014 - In SENATE. Read third time. Passed SENATE. *****To ASSEMBLY.	
<b>SB 1292</b> Hueso (D)	Safe Drinking water State Revolving Fund		Relates to the Safe Drinking Water State Revolving Fund. Increases the maximum amount of a construction grant award for a water system serving severely disadvantaged communities.	05/23/2014 - From SENATE Committee on APPROPRIATIONS: Do pass.;05/23/2014 - In SENATE. Read second time. To third reading.	
<b>SB 1323</b> Lieu (D)	Property Taxation		Revises provisions of existing law regarding the refund of any tax, penalty, or interest resulting from the assessed value of property, that is to be cancelled or refunded, provided an application for exemption is thereafter filed. Updates the tax exemption for property used for parking by a religious-related entity and the congregation size	05/23/2014 - To ASSEMBLY Committee on REVENUE AND TAXATION.	

**IRWD 2014 LEGISLATIVE MATRIX**  
**Updated May 28, 2014**

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>	<b>Notes</b>
			requirement therefor. Relates to an affidavit required for a vessel property tax exemption.		
<b>SB 1362</b> Correa (D)	Hazardous Waste: Disposal: Exemption		Excludes from the definition of the term disposal from existing law that regulates the disposal of hazardous waste, the onsite movement of soil at an active outdoor sport shooting range, if the movement is done to facilitate the removal and recycling of spent ammunition materials existing on the site as a result of the normal use of the range and the residual soil is replaced within the are from which it was originally removed.	04/21/2014 - From SENATE Committee on RULES with author's amendments.;04/21/2014 - In SENATE. Read second time and amended. Re-referred to Committee on RULES.	
<b>SB 1370</b> Galgiani (D)	Reliable Water Supply Bond Act of 2014		Repeals the Safe, Clean, and Reliable Drinking Water Supply Act of 2012. Enacts the Reliable Water Supply Bond Act of 2014 to finance surface water storage projects.	04/08/2014 - In SENATE Committee on NATURAL RESOURCES AND WATER: Heard, remains in Committee.	
<b>SB 1390</b> Correa (D)	Santa Ana River Conservancy Program		Establishes the Santa Ana River Conservancy Program to acquire specified lands within a specified distance on either side of the riverbed of the Santa Ana River. Prescribes the management, powers, and duties of the conservancy for purposes of the program. Creates the Santa Ana River Conservancy Program Account. Authorizes expending funds in the account for land acquisition, capital improvements, and support of the program's operations.	05/27/2014 - In SENATE. Read third time. Passed SENATE. *****To ASSEMBLY.	
<b>SB 1420</b> Wolk (D)	Urban Water Management Plans		Requires an urban water management plan to quantify and report on distribution system water loss. Authorizes water use projections to display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans, when the information is available and applicable to the supplier. Requires the plan, or amendments to be submitted electronically to the Department of Water Resources and include department forms, tables, or displays.	05/27/2014 - In SENATE. Read third time. Passed SENATE. *****To ASSEMBLY.	
<b>SB 1451</b> Hill (D)	Environmental Quality: Judicial Review: Standing		Relates to the California Environmental Quality Act. Requires that the alleged grounds for Act noncompliance shall have been presented to a public agency prior to the close of a public hearing on the project under certain conditions. Limits the standing of a person objecting to the project prior to the close of the hearing before the filing of notice of determination for which no public comment period was provided by the Act. Extends related preclusion provisions.	05/06/2014 - In SENATE Committee on JUDICIARY: Not heard.	
<b>SB 1462</b> Wolk (D)	Local Government: Omnibus Bill		Authorizes the legislative body to include the maturity or maturities of the bonds in the ordinance, resolution, indenture, agreement, or other instrument providing for issuance. Specifies that the description of the boundaries of the proposed district may be accomplished by reference to a map on file in the office of the clerk of either the city or county that is proposing to establish the district.	05/15/2014 - To ASSEMBLY Committee on LOCAL GOVERNMENT.	
<b>SCA 11</b> Hancock (D)	Local Government: Special Taxes: Voter Approval		Proposes an amendment to the Constitution to condition the imposition, extension, or increase of a special tax by a local government upon the approval of 55% of the voters voting on the proposition, if the proposition proposing the tax contains specified requirements.	06/27/2013 - Re-referred to SENATE Committee on APPROPRIATIONS.	

Exhibit "B"  
May 29 2014

Summary of Water Bond Proposals

(Please note that changes from the last version have been placed in red text)

	SB7x 2 <i>(Bond Currently on the November 2014 ballot)</i>	SB 848 (Wolk) <i>(February 20, 2014, Version)</i>	AB 1331 (Rendon) <i>(May 8 2014, Version)</i>	ACWA's <i>(As of March 12, 2014)</i>	IRWD's Asks <i>(As of January 21, 2014)</i>
Water Quality (Clean and Safe Water)	\$1.425 billion	\$900 million	\$1.0 billion	\$1.0 billion	
Water Quality in Disadvantaged Communities	\$90 million <i>(funding placed in Chapter 5)</i>	\$100 million	Funding outlined below.	Funding outlined below.	
State Water Pollution Control Revolving Fund Small Community Grant Fund	\$75 million <i>(funding placed in Chapter 5)</i>	\$380 million	\$ 400 million	\$200 million	
			\$10 million of the \$400 million may be expended by the SWRCB for technical assistance.	*ACWA increased the amount of funding it is advocating be allocated for water quality by \$400 million. Originally a total of \$300 million was allocated for water quality in disadvantaged communities.	
Public Health Emergency Funding			\$100 million	\$100 million	
Water Quality in Private Wells Serving Disadvantaged Communities		\$20 million	\$10 million of the \$100 million may be made available for grants to private well owners that have no other source of water and serve members of a disadvantaged community.		
Safe Drinking Water (Public Infrastructure Improvements)	\$290 million <i>(funding placed in Chapter 5)</i>	\$400 million	\$400 million	\$400 million	
Groundwater Quality	\$1.0 billion <i>(funding placed in Chapter 10)</i>		\$100 million	\$300 million	
Watersheds	\$1.785 billion <i>(Chapter 9)</i>	\$1.075 billion <i>(Chapter 9)</i>	\$0.8 billion <i>(Chapter 9)</i>	\$1.3 billion	
Regional Watershed Funds	\$1.535 billion	\$250 million*	\$1 billion*	\$550 million	
		* For projects outside of the Delta	* \$750 million is now being given to specific conservancies and \$250 million will go to the Secretary of Natural Resources for multibenefit watershed and urban rivers enhancement projects in urban watersheds.		
State Obligations	\$250 Funding is allocated for Klamath River dam removal.	\$500 million Includes funding the State's obligation for the Klamath Basin Restoration Agreement, Quantification Settlement Agreement, San Joaquin River Restoration Settlement, and Tahoe Regional Planning Compact.	\$500 million Includes funding the State's obligation for the Klamath Basin Restoration Agreement, Quantification Settlement Agreement, San Joaquin River Restoration Settlement, Section 3406(d) of Title 34 of Public Law 102-575, and other multiparty settlement agreement in effect as of January 1, 2014, including the Tahoe Regional Planning Compact.	\$0 State's obligations should compete for funding as other project would.	
Natural Resource Agency Support of State Conservancies	\$250 million			\$250 million	
Misc.	\$250 million	\$50 million		\$250 million	

**Summary of Water Bond Proposals, Page 2**  
 (Please note that changes from the last version have been placed in red text)

	<b>SB7x 2</b> <i>(Bond Currently on the November 2014 ballot)</i>	<b>SB 848 (Wolk)</b> <i>(February 20, 2014, Version)</i>	<b>AB 1331 (Rendon)</b> <i>(May 8 2014, Version)</i>	<b>ACWA's</b> <i>(As of March 12, 2014)</i>	<b>IRWD's Asks</b> <i>(As of January 21, 2014)</i>
<b>Regional Water Security/Water Supply Reliability</b>	<b>\$2.65 billion</b>	<b>\$2.0 billion</b>	<b>\$1.0 billion</b>	<b>\$1.55 billion</b>	
<b>Integrated Water Management Plans</b>	<b>\$1.4 billion</b> <i>(funding in Chapter 6)</i>	<b>\$1.5 billion</b>	<b>\$1 billion*</b>	<b>\$1.1 billion</b>	
Orange County's IRWMP Allocation	\$128 million of the \$1.4 billion is designated to the Santa Ana Region, which includes all of Orange County.	\$174 million of the \$1.5 billion is designated to the Santa Ana subregion & \$138 million is designated to the San Diego subregion.	\$119 million of the \$1 billion is designated to the Santa Ana Region. \$96 million of the \$1 billion is designated for the San Diego region, which includes South Orange County.	Advocates that the Santa Ana Region receive \$140.8 million of the \$1.1 billion, and that San Diego receive \$95.7 million.	
Water Conservation	\$250 million <i>(funding in Chapter 11)</i>		\$250 million outside of the IRWMP Allocation	\$250 million outside of the IRWMP Allocation	
Multibenefit Stormwater Management Projects		\$500 million	\$250 million outside of the IRWMP Allocation	\$250 million within the IRWMP Allocation	
Water Recycling & Advanced Treatment Technology Projects	\$1.0 billion <i>(funding in Chapter 11)</i>		\$500 million The \$500 million also allows for the funding of water supply reliability improvements for critical urban water supplies in designated superfund areas with groundwater contamination are now eligible for this funding.	\$500 million* *Recycled water funding should be placed in its own chapter and not combined within the IRWMP chapter.	\$1 billion* *Funding should be provided outside of the IRWMP process
Local and regional drought relief projects					
Local and regional conveyance projects					
<b>Delta Sustainability</b>	<b>\$2.28 billion</b>	<b>\$1.1 billion</b>	<b>\$1.1 billion</b>	<b>\$228 million</b>	<b>\$1.28 billion</b>
Ecosystem Restoration	\$1.5 billion	\$800 million	\$600 million is allocated to the Sacramento-san Joaquin Delta Conservancy		
Flood/Levee Improvements		\$400 million	\$400 million		
<b>Water Storage</b>	<b>\$3.0 billion</b>	<b>\$1,025 million</b>	<b>\$2.3 billion</b>	<b>\$2.0 billion</b>	<b>\$3.0 billion</b>
Continuous Appropriation Provisions	<i>includes continuous appropriation</i>	<i>NO continuous appropriation</i>	<i>NO continuous appropriation.</i>	<i>include continuous appropriation</i>	<i>include continuous appropriation</i>
Eligible Storage Projects	Surface Storage Groundwater storage Groundwater aquifer remediation or contamination prevention	Surface Storage Groundwater storage Groundwater aquifer remediation or contamination prevention Projects that result in a permanent reduction of water exported from the Delta and a transfer of the equivalent water right to instream flow Recycled water storage Conjunctive use & reservoir reoperation	Surface Storage Groundwater storage Groundwater aquifer remediation or contamination prevention Construct & Expand Stormwater Retention Facilities	Surface storage Groundwater storage	Recycled water storage should be added as a permissible use of these funds
<b>Flood Control &amp; Stormwater Management</b>		<b>\$1.5 billion</b>			
Central Valley Flood Protection Plan					
Natural Resources Agency Flood Control Projects					
Control of Runoff from Agricultural Lands					
<b>Total Investment (\$11 billion)</b>	<b>\$11.14 billion</b>	<b>\$8.25 billion</b>	<b>\$8.0 billion</b>	<b>\$9.18 billion</b>	



**Summary of Other Water Bond Proposals**  
 (Please note that changes from the last version have been placed in red text)

	<b>AB 2043 (Bigelow/Conway)</b> <i>(May 19, 2014, Version As-Introduced on February 20, 2014)</i>	<b>AB 2554 (Rendon)</b> <i>(April 23, 2014, Version)</i>	<b>AB 2686 (Perea)</b> <i>(May 1, 2014, Version)</i>	<b>SB 1250 (Hueso)</b> <i>(May 7, 2014, Version)</i>
<b>Water Quality/Clean and Safe Water</b>	<b>\$995 million</b> <i>(Chapter 4 &amp; 9)</i>	<b>\$1.0 billion</b> <i>(Chapter 4 &amp; 9)</i>	<b>\$1.2 billion</b> <i>(Chapter 5 &amp; 11)</i>	<b>\$1.4 billion</b> <i>(Chapter 5 &amp; 10)</i>
Water Quality in Disadvantaged Communities	\$295 million <i>(Chapter 4 &amp; 9)</i>	Funding outlined below.	Funding outlined below.	Funding outlined below.
State Water Pollution Control Revolving Fund Small Community Grant Fund		\$400 million	\$400 million	\$400 million
Public Health Emergency Funding		\$100 million	\$100 million	\$100 million
Water Quality in Private Wells Serving Disadvantaged Communities		\$10 million of the \$100 million may be made available for grants to private well owners that have no other source of water and serve members of a disadvantaged community.	\$10 million of the \$100 million may be made available for grants to private well owners that have no other source of water and serve members of a disadvantaged community.	\$10 million of the \$100 million may be made available for grants to private well owners that have no other source of water and serve members of a disadvantaged community.
Safe Drinking Water (Public Infrastructure Improvements)		\$400 million	\$400 million	\$400 million
Groundwater Quality	\$100 million <i>(Chapter 9)</i>	\$100 million	\$1 billion <i>(Chapter 11)</i>	\$500 million <i>(Chapter 10)</i>
<b>Watersheds</b>		<b>\$1.0 billion</b> <i>(Chapter 6)</i>	<b>\$1.5 billion</b> <i>(Chapter 6)</i>	<b>\$1.05 billion</b> <i>(Chapter 9)</i>
Regional Watershed Funds		\$850 million*	\$750 million*	\$550 million
		* Allocations per region designated. The Santa Ana and San Joaquin regions both were allocated \$76 million. \$100 million is designated for multibenefit area and urban river enhancement programs.	* \$750 million is now being given to specific conservancies and \$250 million, in two different pots, is dedicated for urban creeks, multibenefit watershed and urban rivers enhancement projects in urban watersheds.	* Designated for specific conservancies.
State Obligations		\$500 million Includes funding the State's obligation for the Klamath Basin Restoration Agreement, Quantification Settlement Agreement, San Joaquin River Restoration Settlement, Section 3406(d) of Title 34 of Public Law 102-575, and other multiparty settlement agreements in effect as of January 1, 2014, including the Tahoe Regional Planning Compact.	\$500 million The funds are made available to the Natural Resources Agency to support projects that fulfill State obligations related to interstate or multiparty settlement agreements.	\$500 million Includes funding the State's obligation for the Klamath Basin Restoration Agreement, Quantification Settlement Agreement including the Salton Sea, San Joaquin River Restoration Settlement, Section 3406(d) of Title 34 of Public Law 102-575, and the Tahoe Regional Planning Compact.
Natural Resource Agency Support of State Conservancies				
Misc.		\$150 million for protecting and restoring water reliability, quality and supply in the Sierra Nevadas, to fund project to balance competing demands in coastal watersheds in tourist areas, and statewide priorities for protecting and restoring California's watershed.		

**Summary of Other Water Bond Proposals, Page 2**  
 (Please note that changes from the last version have been placed in red text)

	<b>AB 2043 (Bigelow/Conway)</b> <i>(May 19, 2014, Version As Introduced on February 20, 2014)</i>	<b>AB 2554 (Rendon)</b> <i>(April 23, 2014, Version)</i>	<b>AB 2686 (Perea)</b> <i>(May 1, 2014, Version)</i>	<b>SB 1250 (Hueso)</b> <i>(May 7, 2014, Version)</i>
<b>Regional Water Security/Water Supply Reliability</b>	<b>\$2.54 billion</b> <i>(funding in Chapter 5, 6 &amp; 10)</i>	<b>\$2.0 billion</b> <i>(Chapter 6)</i>	<b>\$1.5 billion</b> <i>(Chapter 7 &amp; Chapter 10)</i>	<b>\$2.35 billion</b> <i>(Chapters 6, 9, 10 &amp; 12)</i>
Integrated Water Management Plans	\$840 million <i>(Chapter 6)</i>	\$1 billion*	\$1 billion*	\$1 billion <i>(Chapter 6)</i>
Orange County's IRWMP Allocation	\$102.4 million of the \$840 million is designated to the Santa Ana Region, which includes all of Orange County	\$128 million of the \$1 billion is designated to the Santa Ana Region. \$17 million of the \$1 billion is designated for the Inland Empire region, which includes South Orange County	\$128 million of the \$1 billion is designated to the Santa Ana Region, which includes all of Orange County	\$128 million of the \$1 billion is designated to the Santa Ana Region, which includes all of Orange County
Water Conservation	\$250 million <i>(Chapter 10)</i>	\$250 million outside of IRWMP Allocation	Up to \$250 million shall be made available from within the Chapter 7's Allocation	\$250 million <i>(Chapter 11)</i>
Multibenefit Stormwater Management Projects		\$250 million outside of IRWMP Allocation	Up to \$250 million shall be made available from within the Chapter 7's Allocation	\$250 million <i>(Chapter 9)</i>
Water Recycling & Advanced Treatment Technology Projects	\$800 million <i>(funding in Chapter 10)</i> * Funding includes recycled water storage	\$500 million Water supply reliability investments for critical urban water supplies in designated superfund areas with groundwater overdrafts are now eligible for the funding.	A separate chapter was inserted. No funding amount was included. <i>(Chapter 10)</i>	\$500 million included in a separate chapter <i>(Chapter 11)</i>
Local and regional drought relief projects	\$200 million <i>(Chapter 5)</i>			
Local and regional conveyance projects	\$350 million <i>(Chapter 6)</i>		Up to \$350 million shall be made available from within the Chapter 7's Allocation	\$350 million <i>(Chapter 6)</i>
<b>Delta Sustainability</b>	<b>\$1.5 billion</b> <i>(Chapter 7)</i>	<b>\$1 billion</b> <i>(Chapter 8)</i>	<b>\$2.25 billion</b>	<b>\$2.25 billion</b> <i>(Chapter 7)</i>
Ecosystem Restoration	\$1.5 billion	\$600 million	Funding is designated to for public benefits association with Delta sustainability projects, which include ecosystem & levee improvement projects.	\$1.5 billion to the Delta Conservancy.
Flood/Levee Improvements		\$400 million		\$1 billion * Funds may be used by local governments for a variety of purposes which include flood protection
<b>Water Storage</b>	<b>\$3.0 billion</b> <i>(Chapter 8)</i>	<b>\$3.0 billion</b> <i>(Chapter 9)</i>	<b>\$3.0 billion</b> <i>(Chapter 9)</i>	<b>\$3.1 billion</b> <i>(Chapters 8 &amp; 13)</i>
Continuous Appropriation Provisions	<i>includes continuous appropriation</i>	<i>includes continuous appropriation</i>	<i>includes continuous appropriation</i>	<i>include continuous appropriation</i>
Eligible Storage Projects	Surface Storage Groundwater storage Groundwater aquifer remediation or contamination prevention Conjunctive use and reservoir reoperation	Surface Storage Groundwater storage Groundwater aquifer remediation or contamination prevention Construct & Expand Stormwater Retention Facilities Emergency response	Surface Storage Groundwater storage Groundwater aquifer remediation or contamination prevention Conjunctive use and reservoir reoperation	Surface Storage Groundwater storage Groundwater aquifer remediation or contamination prevention Conjunctive use and reservoir reoperation  Local and regional surface storage \$100 million <i>(Chapter 13)</i>
<b>Flood Control &amp; Stormwater Management</b>				
Central Valley Flood Protection Plan				
Natural Resources Agency Flood Control Projects				
Control of Runoff from Agricultural Lands				
<b>Total Investment (in billions)</b>	<b>\$8.055 billion</b>	<b>\$8.5 billion</b>	<b>Unspecified at least \$10.25 billion</b>	<b>\$10.15 billion</b>

# **A Long-Term Investment Strategy for Cap-and-Trade Revenue**

## **INTRODUCTION**

California has long been an international leader on clean energy and climate efforts through energy efficiency requirements, renewable energy standards, natural resource conservation, and greenhouse gas emission standards for passenger vehicles.

In 2006, California established the nation's benchmark for greenhouse gas emission reductions with the passage of AB32, the California Global Warming Solutions Act (Pavley). AB32 required the State Air Resources Board to develop a scoping plan, including direct regulations, performance-based standards, and market-based mechanisms to achieve this level of greenhouse gas emission reductions.

The State Air Resources Board has implemented a Cap-and-Trade program under the general authority granted under AB32 to implement market-based mechanisms. But full pollution reductions cannot be achieved without a long-term strategy for investing the program's revenues effectively and affordably.

SB 535 (De Leon 2011) built upon the CA climate program by recognizing the disproportionate impacts of greenhouse gases on disadvantaged and low-income communities in California including, for example, higher rates of respiratory illness, hospitalizations, and premature death from inordinately substandard air quality. It requires that 25 percent of cap and trade revenues be allocated to disadvantaged communities to reduce pollution.

Through SB 375 of 2008 (Steinberg), the legislature recognized that without improved land use and transportation policy, California will not be able to achieve the goals of AB 32 because the transportation sector remained the single largest contributor of greenhouse gases of any sector in the State of California.

This long-term investment strategy of Cap-and-Trade revenue is deliberately designed to achieve the objectives of AB32: a significant reduction in greenhouse gas emissions while mitigating a disproportionate impact of policies' strategy on California's low-income and disadvantaged communities.

Fundamentally, this long-term investment strategy embodies the objectives of Cap-and-Trade by ensuring that all expenditures are used to achieve maximum reductions in greenhouse gases. This long-term investment strategy is designed to curb human-induced global warming by reducing pollution from traffic and vehicle trips through retrofitting our communities with more affordable and efficient transit, housing, and land uses. In doing so, this long term investment strategy will improve public health

and help Californians save money with convenient and affordable alternatives to spending more of their family budgets on ever-increasing fuel costs at the pump.

The objectives of this strategy will not be met overnight. It will take time and a long term commitment to witness the environmental dividends of these investments. That is why it is imperative to act now.

###

## FRAMEWORK

All investments must:

- Lead to reductions in greenhouse gas emissions, consistent with AB32 (Pavley) of 2006;
- Be subject to a competitive ranking process to ensure those projects providing maximum feasible reductions in greenhouse gases are funded;
- Meet all existing constitutional and statutory requirements for use and allocation of Cap-and-Trade funds, including, but not limited to:
  - California Constitution Article XIII,
  - SB375 (Steinberg) – The Sustainable Communities and Climate Protection Act of 2008, relating to transit-oriented development,
  - SB535 (De Leon) – The California Communities Healthy Air Revitalization Trust of 2011, relating to ensuring disadvantaged communities receive at least 25% of funds,
  - SB1018 (Budget Committee) of 2012, relating to agencies carefully reporting, documenting and justifying expenditures of funds to protect against lawsuits.

## INVESTMENT STRATEGY

### I. **A Permanent Source of Funding for Affordable Housing and Sustainable Communities (40%)**

- a. **Purpose:** Support regional sustainable communities strategies including investments in affordable housing, transit-oriented development, land use planning, , active transportation, high density mixed use development, transportation efficiency and demand management projects.
- b. **Parameters:** At least half of these funds (equivalent to at least 20% of total allocations) shall be used for affordable housing, centered in transit-oriented development and consistent with GHG reduction strategies.
- c. **Allocation method:** Distributed through SGC to regions. Projects selected based on competitive GHG performance.

**II. A Permanent Source of Funding for Transit (30%)**

- a. **Purpose:** Transit construction and operations.
- b. **Parameters:**
  - i. At least 5% of the transit amount would have to be used for transit connectivity projects.
  - ii. At least 5% of the transit amount would have to be used for direct transit assistance to consumers (could be in the form of passes, additional access, etc.).
- c. **Allocation method:** Distributed based on GHG performance criteria

**III. A Permanent Source of Funding for High Speed Rail (20%)**

- a. **Purpose:** Ongoing source for construction of HSR.
- b. **Allocation method:** Continuously appropriated. Could be securitized.

**IV. A Permanent Source of Funding for State Highway and Road Rehabilitation and for Complete Streets (10%)**

- a. **Purpose:** Traffic management, repair, deferred maintenance, bikeways, and retrofits of roads and highways.
- b. **Allocation method:** distributed based on competitive GHG performance criteria.

**V. Natural resource, water, and waste (\$200 million annually)**

- a. **Purpose:** Water efficiency infrastructure projects, forestry and landscape issues, wetland development, waste diversion and recycling, energy efficiency, clean vehicles, and "black carbon" reduction.
- b. **Allocation method:** Subject to annual appropriation in the Budget Act.

**VI. Climate dividend for transportation fuel consumers (\$200 million annually)**

- a. **Purpose:** To use portion of cap-and-trade funds to show consumers that California's climate policies are generating new dollars for them where such use would not create new legal vulnerabilities for the use of those funds.
- b. **Allocation method:** Several options, for example, a rebate check on monthly fuel bills; once per year rebate with motor vehicle registrations. These options may require a higher legislative vote threshold depending upon how they are drafted.

**VII. "Charge Ahead" Electric Vehicle Deployment Program (\$200 million annually)**

**Purpose:** Funding a comprehensive vision for cleaning up the state's cars, trucks, buses, and freight movement to meet federally mandated clean air requirements and California's long-term GHG goals.

- a. **Allocation Method.** Appropriated annually in the Budget Act.

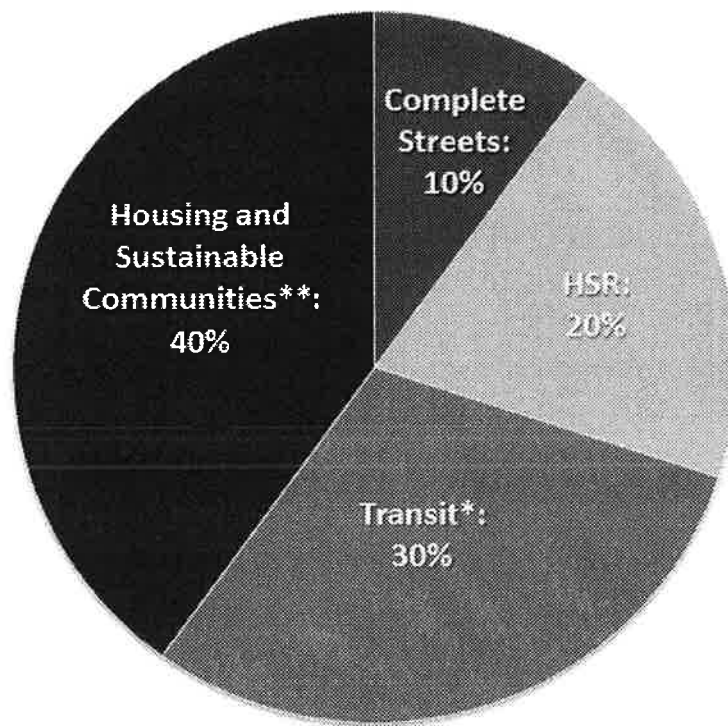
**VIII. Green Bank Funding (not less than \$10 million annually)**

- a. **Purpose:** a state fund to assist the financing of clean energy and other environmentally sustainable projects.
- b. **Allocation method:** appropriated annually in the Budget Act.

## VISUAL SUMMARY

- \$200 million for natural resource, water, and waste.
- \$200 million for climate dividend for consumers.
- \$200 million for electric vehicle deployment
- \$10 million for green bank funding

Remaining balance distributed as follows:



*\*Of Transit amount, at least 5% shall be used for transit connectivity projects and at least 5% shall be used for direct transit assistance to consumers.*

*\*\*Of the Housing and Sustainable Communities amount, at least half shall be used for affordable housing.*



**FISCAL ILLUSTRATION**

Distribution of Cap-and-Trade, assuming revenue of \$5 billion annually:

<b>Category</b>	<b>Amount (millions)</b>
<b>I. Affordable Housing and Sustainable Communities</b>	\$1,756
<b>II. Transit</b>	\$1,317
<b>III. High Speed Rail</b>	\$878
<b>IV. Complete Streets</b>	\$439
<b>V. Natural Resource, Water, Waste</b>	\$200
<b>VI. Climate Dividend</b>	\$200
<b>VII. Electric Vehicle Deployment</b>	\$200
<b>VIII. Green Bank Funding</b>	\$10
<b>TOTAL</b>	<b>\$5,000</b>

# EXHIBIT "D"

## SB 848 (Wolk et al) As Amended in Senate Appropriations Committee

### The Safe Drinking Water, Water Quality & Water Supply Act of 2014 - \$10.5 billion

#### Ch. 4: Safe Drinking Water & Water Quality Projects - \$900 million

- \$400m to SWRCB for safe drinking water projects
- \$100m for public health emergency actions
- \$400m to SWRCB for small community wastewater treatment projects

#### Ch. 5: Water Supply Enhancement Projects - \$2.0 billion

- \$1.5b for Integrated Regional Water Management (IRWM) projects
  - o \$1.4b for regional grants, allocated by hydrologic regions-including groundwater storage, recycled water storage, sediment removal and seismic retrofit of storage facilities
  - o \$100m for groundwater management plans
- \$500m to SWRCB for stormwater capture and reuse

#### Ch. 6: Sacramento San Joaquin Delta - \$1.3 billion

- \$900m to Delta Conservancy for Delta ecosystem restoration and sustainability projects
- \$400m to DWR for Delta levee and flood projects
- Not connected to the BDCP and supported by Delta communities

#### Ch. 7: Watershed and Ecosystem Improvement - \$1.8 billion

- \$600m for state obligations/settlements
- \$875m for statewide watershed improvements
- \$250m to Natural Resources Agency for multi-benefit watershed and urban rivers projects
- \$20m to DPR for state parks drinking water and wastewater projects
- \$30m to SWRCB for resource conservation district watershed activities
- \$25m to SWRCB for projects to manage runoff from agricultural lands

#### Ch. 8: Water Storage Projects- \$3 billion

- Chapter 8 from 2009- continuous appropriation

#### Ch. 9: Groundwater Treatment - \$1 billion

- Statewide eligibility for projects
- Includes funding for clean up and recharge of groundwater basins
- Language TBD

#### Ch. 10: Recycled Water-\$500 million

- Funding for water recycling and advanced treatment technology projects

#### Ch. 11: General Provisions

- Includes a savings clause for water rights, and for the 2009 Delta Reform Act
- Prohibits funding for construction, mitigation or operation of new conveyance
- Prohibits funding for mitigation or compliance obligations for any party
- Contingent enactment with groundwater management legislation

May 22, 2014

# EXHIBIT "E"

AMENDED IN SENATE MAY 7, 2014

AMENDED IN SENATE APRIL 9, 2014

**SENATE BILL**

**No. 985**

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**Introduced by Senator Pavley**

February 11, 2014

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An act to amend Sections 10561, 10562, 10563, and 10573 of, and to add ~~Section 10561.5~~ *Sections 10561.5 and 10565* to, the Water Code, relating to stormwater.

#### LEGISLATIVE COUNSEL'S DIGEST

SB 985, as amended, Pavley. Stormwater resource planning.

Existing law, the Stormwater Resource Planning Act, authorizes a city, county, or special district, to develop a stormwater resource plan that meets certain standards.

This bill would require a stormwater resource plan to identify and prioritize stormwater and dry weather runoff capture projects for implementation in a prescribed quantitative manner and to prioritize the use of lands or easements in public ownership for stormwater and dry weather runoff projects. This bill would eliminate the requirement that a stormwater resource plan be consistent with any applicable integrated regional water management plan. This bill would require an entity developing a stormwater resource plan to identify in the plan opportunities to use existing publicly owned lands and easements to capture and reuse stormwater. *This bill would require the State Water Resources Control Board, by July 1, 2016, to establish a policy for compliance with these provisions. This bill would require the development of a stormwater resource plan and compliance with these provisions to receive grants for stormwater and dry weather runoff capture projects from a bond act approved by the voters after January*

1, 2014. This bill would define dry weather runoff and stormwater for the purposes of the act and conform the definition of stormwater in the Rainwater Capture Act of 2012.

Vote: majority. Appropriation: no. Fiscal committee: ~~no~~-yes.  
State-mandated local program: no.

*The people of the State of California do enact as follows:*

1 SECTION 1. Section 10561 of the Water Code is amended to  
2 read:

3 10561. The Legislature hereby finds and declares all of the  
4 following:

5 (a) In many parts of the state stormwater and dry weather runoff  
6 are underutilized sources of surface water and groundwater  
7 supplies. Instead of being viewed as a resource, they are often seen  
8 as a problem that must be moved to the ocean as quickly as possible  
9 or as a source of contamination, contributing to a loss of usable  
10 water supplies and the pollution and impairment of rivers, lakes,  
11 streams, and coastal waters.

12 (b) Improved management of stormwater and dry weather runoff  
13 can improve water quality, reduce localized flooding, and increase  
14 water supplies for beneficial uses and the environment.

15 (c) Most of California's current stormwater drainage systems  
16 are designed to capture and convey water away from people and  
17 property rather than capturing that water for beneficial uses.

18 (d) Historical patterns of precipitation are predicted to change  
19 and an increasing amount of California's water is predicted to fall  
20 not as snow in the mountains, but as rain in other areas of the state.  
21 This will likely have a profound and transforming effect on  
22 California's hydrologic cycle and much of that water will no longer  
23 be captured by California's reservoirs, many of which are located  
24 to capture snow melt.

25 (e) When properly designed and managed, the capture and use  
26 of stormwater and dry weather runoff can contribute significantly  
27 to local water supplies through onsite storage and ~~reuse use~~, or  
28 letting it infiltrate into the ground to recharge groundwater, either  
29 onsite or at regional facilities, thereby increasing available supplies  
30 of drinking water.

31 (f) New developments and redevelopments should be designed  
32 to be consistent with low-impact development principles to improve

1 the retention, ~~reuse~~ use, and infiltration of stormwater and dry  
2 weather runoff onsite or at regional facilities.

3 (g) Stormwater and dry weather runoff can be managed to  
4 achieve environmental and societal benefits such as wetland  
5 creation, riverside habitats, instream flows, and an increase in  
6 urban green space.

7 (h) Stormwater and dry weather runoff management through  
8 multiobjective projects can achieve additional benefits, including  
9 augmenting recreation opportunities for communities, increased  
10 tree canopy, reduced urban heat island effect, and improved air  
11 quality.

12 (i) *Proper planning and implementation is vital to ensure that*  
13 *the water supply and other benefits potentially available through*  
14 *better management of stormwater and dry weather runoff do not*  
15 *come at the expense of diminished water quality.*

16 (†)

17 (j) The capture and use of stormwater and dry weather runoff  
18 is not only one of the most cost-effective sources of new water  
19 supplies, it is a supply that can often be provided using significantly  
20 less energy than other sources of new water supplies.

21 SEC. 2. Section 10561.5 is added to the Water Code, to read:

22 10561.5. Solely for the purposes of this part, and unless the  
23 context otherwise requires, the following definitions govern the  
24 construction of this part:

25 (a) “Dry weather runoff” means surface waterflow produced  
26 by nonstormwater resulting from residential, commercial, and  
27 industrial activities involving the use of potable and nonpotable  
28 water.

29 (b) “Stormwater” means temporary surface water runoff and  
30 drainage generated by immediately preceding storms. This  
31 definition shall be interpreted consistent with the definition of  
32 “stormwater” in Section 122.26 of Title 40 of the Code of Federal  
33 Regulations.

34 SEC. 3. Section 10562 of the Water Code is amended to read:

35 10562. (a) A city, county, or special district, either individually  
36 or jointly, may develop a stormwater resource plan pursuant to  
37 this part.

38 (b) Stormwater resource plans shall:

39 (1) Be developed on a watershed basis.

- 1 (2) Identify and prioritize stormwater and dry weather runoff  
2 capture projects for implementation in a quantitative manner, using  
3 a metrics-based and integrated evaluation and analysis of multiple  
4 benefits to maximize water supply, water quality, flood  
5 management, environmental, and other community benefits within  
6 the watershed.
- 7 (3) Provide for multiple benefit project design to maximize  
8 water supply, water quality, and environmental and other  
9 community benefits.
- 10 (4) Provide for community participation in plan development  
11 and implementation.
- 12 (5) Be consistent with, and assist in, compliance with total  
13 maximum daily load (TMDL) implementation plans and applicable  
14 national pollutant discharge elimination system (NPDES) permits.
- 15 (6) Be consistent with all applicable waste discharge permits.
- 16 (7) Prioritize the use of lands or easements in public ownership  
17 for stormwater and dry weather runoff projects.
- 18 (c) The proposed or adopted plan shall meet the standards  
19 outlined in this section. The plan need not be referred to as a  
20 “stormwater resource plan.” Existing planning documents may be  
21 utilized as a functionally equivalent plan, including, but not limited  
22 to, watershed management plans, integrated resource plans, urban  
23 water management plans, or similar plans. If a planning document  
24 does not meet the standards of this section, a collection of local  
25 and regional plans may constitute a functional equivalent.
- 26 (d) An entity developing a stormwater resource plan shall  
27 identify in the plan all of the following:
- 28 (1) Opportunities to augment local water supply through  
29 groundwater recharge or storage for beneficial—~~reuse~~ *use* of  
30 stormwater.
- 31 (2) Opportunities for source control for both pollution and  
32 stormwater runoff volume, onsite and local infiltration, and—~~reuse~~  
33 *use* of stormwater.
- 34 (3) Projects to reestablish natural water drainage treatment and  
35 infiltration systems, or mimic natural system functions to the  
36 maximum extent feasible.
- 37 (4) Opportunities to develop or enhance habitat and open space  
38 through stormwater management, including wetlands, riverside  
39 habitats, parkways, and parks.

1 *be required to receive grants for stormwater and dry weather*  
2 *runoff capture projects from a bond act approved by the voters*  
3 *after January 1, 2014.*

4 *SEC. 5. Section 10565 is added to the Water Code, to read:*  
5 *10565. By July 1, 2016, the board shall establish a policy for*  
6 *compliance with this part that shall include, but is not limited to,*  
7 *the following:*

8 (a) *Identifying local agencies and nongovernmental*  
9 *organizations that need to be consulted in developing a stormwater*  
10 *resource plan.*

11 (b) *Defining appropriate quantitative methods for identifying*  
12 *and prioritizing opportunities for stormwater and dry weather*  
13 *runoff capture projects.*

14 (c) *Identifying prerequisites necessary for stormwater resource*  
15 *plans to be considered as a part of an alternative compliance plan*  
16 *for municipal or stormwater national pollutant discharge*  
17 *elimination system (NPDES) permits.*

18 (d) *Other guidance the board deems appropriate to achieve the*  
19 *objectives of this part.*

20 ~~SEC. 4.~~

21 *SEC. 6. Section 10573 of the Water Code is amended to read:*  
22 *10573. Solely for the purposes of this part, and unless the*  
23 *context otherwise requires, the following definitions govern the*  
24 *construction of this part:*

25 (a) *“Developed or developing lands” means lands that have one*  
26 *or more of the characteristics described in subparagraphs (A) to*  
27 *(C), inclusive, of paragraph (4) of subdivision (b) of Section*  
28 *56375.3 of the Government Code.*

29 (b) *“Rain barrel system” is a type of rainwater capture system*  
30 *that does not use electricity or a water pump and is not connected*  
31 *to or reliant on a potable water system.*

32 (c) *“Rainwater” means precipitation on any public or private*  
33 *parcel that has not entered an offsite storm drain system or channel,*  
34 *a flood control channel, or any other stream channel, and has not*  
35 *previously been put to beneficial use.*

36 (d) *“Rainwater capture system” means a facility designed to*  
37 *capture, retain, and store rainwater flowing off a building rooftop*  
38 *for subsequent onsite use.*

1 (e) “Stormwater” has the same meaning as defined in Section  
2 10561.5.

O



## EXHIBIT "F"

### IRWD STORMWATER AND DRY WEATHER RUNOFF MANAGEMENT AND CAPTURE POLICY PRINCIPLES MAY 27, 2014

#### ISSUE SUMMARY:

As California faces another drought, policy discussions throughout the state have again turned to identifying new ways to promote the planning, investment and development of new water resources. Achieving multi-benefit and sustainable solutions for California's water supply issues require that the water community evaluate stormwater and dry weather runoff management and capture as one method to enhancing water quality and water supplies within the state.

Historically, California's stormwater and dry weather runoff management have been designed to capture and convey water away from people and property. As a result, stormwater and dry weather runoff have traditionally been underutilized resources which are too often viewed only as a source of flooding or nuisance flows that needs to be disposed of instead of as a potential water source. While this objective remains critical, the management of these flows must be adapted to include capturing this water for beneficial uses.

As a leader in state and federal water resources public policy and governance, the Irvine Ranch Water District (IRWD) promotes policy initiatives that allow the District, along with other water purveyors in California, to enhance the quality and reliability of local water supplies throughout the state. As a means of providing input into the discussions surrounding stormwater and dry weather runoff management and capture in California, and in order to guide the District's advocacy efforts related to these discussions, the following policy principles have been adopted by the IRWD Board of Directors.

#### POLICY PRINCIPLES:

- Urban water is regulated as a waste and is comprised of both stormwater and non-stormwater. California policy should be amended to treat stormwater and dry weather runoff as a resource wherein flood protection, water quality, and water supply improvements are complementary goals.
- Regional, watershed-specific stormwater and dry weather runoff planning efforts that engage key stakeholders in the planning process, and allow for consideration of local factors that may impact the appropriateness of stormwater and dry weather runoff capture, infiltration and use within a region should be encouraged.
- Stormwater and dry weather runoff capture, use and recharge of groundwater should be encouraged where appropriate and cost effective.
  - Factors such as pollutant loading, local hydrology and geology, land use conditions, environmental impacts, water quality effects and the amounts and variability of precipitation and runoff should be considered in determining the appropriateness of a stormwater and dry weather runoff capture and use projects.

IRWD Policy Principles: Stormwater and Dry Weather Runoff Management and Capture  
May 27, 2014

- Stormwater and dry weather runoff capture, use and recharge projects should not be pursued where the project may impact ongoing pollution clean-up efforts or where the risk of spreading underground contaminants is present.
- Stormwater and dry weather runoff capture, use and recharge projects should be implemented only when there is no impact to existing water rights.
- Low-impact development (LID) standards, as it applies to stormwater, should be implemented where site appropriate and should be balanced with other treatment options such as regional natural treatment systems. LID standards should not be encouraged where they would exacerbate pollution clean-up efforts, where there is a risk of spreading contaminants, where development would occur over bedrock, where infiltration would result in perched water, or where they would exacerbate the challenges associated with high levels of naturally occurring constituents such as selenium.
- Stormwater and dry weather runoff management and capture planning should be done regionally and not on a parcel-by-parcel basis. Regional boards should move away from parcel-by-parcel water quality requirements, and focus on regional compliance in order to encourage large-scale regional stormwater and dry weather runoff capture, retention, diversion, use and recharge.
- State policy should encourage and prioritize stormwater and dry weather runoff management and capture projects which seek to obtain multiple public benefits. Stormwater and dry weather runoff capture projects should be coordinated with habitat, recreation, transportation and other infrastructure improvements to ensure that cost effective solutions are optimized.
  - State and federal agencies should be directed to develop streamlined environmental review and permitting requirements which would accelerate the development and construction of regional stormwater and dry weather runoff capture and use projects. The processes for obtaining a Streambed Alteration Agreement should be examined to ensure that the process does not discourage stormwater and dry weather runoff capture projects.
  - The State should work with the appropriate federal agencies to streamline federal permit requirements to accelerate the development and construction of stormwater and dry weather runoff capture and use projects.
  - In order to encourage stormwater and dry weather runoff capture, use and recharge projects, which also enhance habitat and other environmental resources, state and federal law should clearly provide that maintenance of stormwater and runoff capture facilities is exempt from the California Environmental Quality Act, additional environmental review and additional permitting and mitigation requirements.
  - MS4 water quality permits should consider broader public benefits in order to allow for multi-benefit projects and not only water quality goals. Language should be added to State law to encourage regulatory incentives for stormwater and dry weather runoff capture, infiltration and use to facilitate the application of resource towards these projects.

IRWD Policy Principles: Stormwater and Dry Weather Runoff Management and Capture  
May 27, 2014

- State law should take a “no penalty” approach to overflows from stormwater and dry weather runoff impoundments that release water into the same watershed in which the water was captured.
- State water policy should encourage and recognize wetland treatment processes in removing contaminants in stormwater and dry weather runoff. Recognition could come in the form of offset credits for upstream discharges.
- *Griffiths v. Parajo Water District* should be codified to clarify that all costs associated with stormwater and dry weather runoff capture and recharge projects, for the purpose of water supply augmentation, are costs associated with providing “water service.”
- State funds for regional water supply enhancement and other public funds should be made available for stormwater and dry weather runoff capture projects including associated data collections efforts and programs to improve stormwater quality. Stormwater and dry weather runoff management programs should be sufficiently flexible to focus limited local, state and federal resources on actions that support community priorities and produce measurable results. This will increase opportunities to pool and leverage scarce resources among permittees, and garner additional resources from other stakeholders and partners.
- The State should encourage research on long-term maintenance and anti-clogging measures to ensure stormwater and dry weather runoff capture and infiltration facilities continue to operate at maximum capacity. Clogging of the infiltrating surface and resulting reductions in infiltration rates are a challenge of all artificial recharge systems. Recharge facilities need to be designed and maintained with biological and sediment clogging in mind.

June 9, 2014

Prepared by: C. Compton

Submitted by: P. Weghorst

Approved by: Paul Cook



## CONSENT CALENDAR

### ELECTION OF THE LOCAL AGENCY FORMATION COMMISSION (LAFCO) ALTERNATE SPECIAL DISTRICT MEMBER

#### SUMMARY:

The current terms of office for the Regular Special District Member and the Alternate Special District Member on the Orange County Local Agency Formation Commission (LAFCO) will expire on June 30, 2014. An election for the Alternate Special District Member has been called. The ballots and declaration of qualifications to vote for the alternate are due to the LAFCO Executive Officer by June 13, 2014. Staff recommends the Board authorize President LaMar to cast the District's ballot and submit it to LAFCO no later than the June 13 deadline.

#### BACKGROUND:

In April, LAFCO accepted nominations for both of the Regular Special District and Alternate Special District Member seats. Only one nomination was received for the Regular Special District Member seat which is IRWD's nomination of Director John Withers. In accordance with Government Code Section 56332(c)(1) and the Bylaws of the Orange County Special District Selection Committee, "if only one candidate is nominated for a vacant seat, that candidate shall be deemed selected, with no further proceedings" (Bylaws Article III, Section F). As a result, Director Withers will begin his new four-year term on July 1, 2014.

LAFCO received two nominations for the Alternate Special District Member seat and an election for the alternate seat has been called. Mr. James Fisler of the Mesa Water District, who is the current Alternate Special District Commissioner and Mr. Rich Freschi of the Serrano Water District were both nominated by their respective districts. The candidates' biographies are attached as Exhibit "A".

In accordance with Government Code Section 56332(c) and the Bylaws of the Orange County Special District Selection Committee, the LAFCO Executive Director has prepared a ballot and distributed it by e-mail to the presiding officers and general managers of each Orange County Special District. The ballots and declarations are due back to LAFCO by 3:00 p.m. on June 13, 2014. On June 16, 2014, LAFCO staff will tabulate the ballots and announce the results by e-mail.

Since the distribution of the ballots, Mr. Freschi has pulled his name from consideration for the Alternate Special District Member seat and LAFCO has not yet determined whether the election will be canceled. Until LAFCO has made this determination, staff recommends that IRWD proceed with submitting its ballot by the June 13 deadline.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on June 5, 2014.

RECOMMENDATION:

THAT THE BOARD REVIEW AND DISCUSS THE CANDIDATES FOR THE ALTERNATE SPECIAL DISTRICT MEMBER SEAT ON THE ORANGE COUNTY LOCAL AGENCY FORMATION COMMISSION (LAFCO) AND AUTHORIZE PRESIDENT LAMAR TO CAST THE DISTRICT'S BALLOT AND SUBMIT IT TO LAFCO NO LATER THAN THE JUNE 13, 2014, DEADLINE.

LIST OF EXHIBITS:

Exhibit "A" – LAFCO Alternate Special District Member Candidates' Biographies



*Dedicated to  
Satisfying our Community's  
Water Needs*

**BOARD OF DIRECTORS**

**James R. Fisler**  
*President  
Division II*

**Shawn Dewane**  
*Vice President  
Division V*

**James F. Atkinson**  
*Director  
Division IV*

**Fred R. Bockmiller, Jr., P.E.**  
*Director  
Division I*

**Ethan Temianka**  
*Director  
Division III*

**Paul E. Shoenberger, P.E.**  
*General Manager*

**Coleen L. Monteleone**  
*District Secretary*

**Andrew N. Hamilton**  
*District Treasurer*

**Bowie, Arneson,  
Wiles & Giannone**  
*Legal Counsel*

1965 Placentia Avenue  
Costa Mesa, CA 92627  
tel 949.631.1200  
fax 949.574.1036  
info@MesaWater.org  
**MesaWater.org**

**EXHIBIT "A"**

April 7, 2014

Ms. Carolyn Emery  
Executive Officer  
Orange County LAFCO  
12 Civic Center Plaza, Room 235  
Santa Ana, CA 92701

Dear Ms. Emery:

On March 13, 2014, the Mesa Water District Board of Directors took formal action to nominate Director James R. Fisler for the Alternate Special District Member to the OC Local Agency Formation Commission. Attached are the 2014 Nomination Form and supplemental information.

If you need additional information or have any questions or concerns, please feel free to contact me at (949) 631-1206.

Sincerely,

Denise Garcia  
Executive Assistant/Assistant District Secretary

# 2014 NOMINATION FORM

Candidate for the Local Agency Formation Commission (LAFCO)

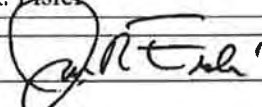
## CANDIDATE INFORMATION FOR **ALTERNATE** SPECIAL DISTRICT MEMBER:

NAME: James R. Fisler  
TITLE: President  
DISTRICT: Mesa Water District

Check box if resume or statement of qualifications is attached.

## SPECIAL DISTRICT SELECTION COMMITTEE MEMBER SUBMITTING NOMINATION

*(Must be the presiding officer or a designated alternate board member.)*

NAME: James R. Fisler DATE: 03/13/14  
SIGNATURE:   
TITLE: President  
DISTRICT: Mesa Water District

A resume or other supplemental information about the candidate may be included and will be distributed with the election ballots. All completed nomination forms and any supplemental information must be returned to Orange County LAFCO by:

1. Email at: [cemery@oclafco.org](mailto:cemery@oclafco.org) or
2. Mail at: Orange County LAFCO  
12 Civic Center Plaza, Room 235  
Santa Ana, CA 92701; or
3. Fax at: (714) 834-2643, Attn: Carolyn Emery

***All forms and supplemental information must be received by LAFCO prior to 3:00 p.m. on Friday, April 18, 2014. Nomination forms or candidate information received after that deadline will not be considered.***

## **Re-Elect James R. Fisler LAFCO Special Districts Alternate Member**

### **James R. Fisler - President Mesa Water District**



James (Jim) R. Fisler was appointed to the Mesa Water District (Mesa Water®) Board of Directors in August 2009, elected in 2010 and re-elected in 2012, and is currently the Board President.

In addition to serving as President of Mesa Water District and being LAFCO's incumbent Special District Alternate member, James Fisler currently is serving on the ACWA Local Government Committee, Finance Advisory Committee for the City of Costa Mesa, is a Board member of the Costa Mesa Friends of the Libraries, and is a Board member of the Costa Mesa Senior Center. Previously, James Fisler served as a Parks and Recreation Commissioner for the City of Costa Mesa and as a Planning Commissioner for the City of Costa Mesa and is a graduate of the Costa Mesa Citizens Police Academy.

Since March 2010, President Fisler has also served as President of the Mesa Water District Improvement Corporation, a California non-profit public benefit corporation formed to assist Mesa Water in financing specific improvements to the District's water system. Previously for Mesa Water, President Fisler served on the District's Engineering & Operations, Finance, Executive, IT Ad Hoc, and Public Information Committees.

After attending LAFCO meetings for over a year as Mesa Water District's liaison to LAFCO, President Fisler developed an interest in serving on the commission and was elected in 2011 to the Local Agency Formation Commission of Orange County (OC LAFCO) as special district alternate. Additionally he serves as Mesa Water District liaison to the Independent Special Districts of Orange County (ISDOC).

James Fisler is committed to LAFCO's mission of fostering orderly development and governance, promoting the efficient delivery of services, facilitating constructive changes in governmental structure and boundaries, and serving as a resource for local governments and citizens and would be honored to receive your vote and continue to serve as the Special District Alternate to OCLAFCO.



**SERRANO WATER DISTRICT  
18021 EAST LINCOLN STREET  
VILLA PARK, CA 92861-6446  
714-538-0079**

**Directors**

Robert F. Rickerl, President  
C.L. "Larry" Pharris, Jr., Vice-President  
Jerry L. Haight  
Richard A. Freschi  
Frank Bryant

Jerry Vilander, General Manager

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April 10, 2014

Ms. Carolyn Emery, Executive Officer  
LAFCO  
12 Civic Center Plaza, Rm. 235  
Santa Ana, CA 92701

Dear Carolyn:

Once again, it is time for another LAFCO election. The ballots will be mailed on April 25 and need to be returned before June 10. This is an important position for ISDOC as LAFCO serves a significant role in several aspects of our local governments.

There is an opening for alternate director and I do respect the current alternate. However, it is critical that we have our very best representing us at the table, and I believe we can do better. I solicit your vote for the alternate position. I have the desire, experience, skills, energy and the time to represent the Independent Special Districts.

I am a native Californian, conservative Republican, and I serve on the board of Serrano Water District, a small district in North County, in addition to being President of ISDOC. I am a widower, and I retired several years ago. I have no hidden agenda or aspire to any higher office. Let's look at my experience:

**BUSINESS**

Founded and sold two diverse companies  
Served as CEO of two companies. Took one "public"  
Executive in Financial Planning five years prior to retiring at age 58

**ELECTED**

Villa Park City Councilman- twelve years. Two term Mayor  
Board Member- Serrano Water District Six years.  
President ISDOC- Independent Special Districts of Orange County -Two years

## **APPOINTED**

Governors Appointment to California Regional Water Quality Control Board  
Area Executive Board Orange County Emergency Management Council  
Orange County Sanitation District-Director  
Orange County Vector Control District-Trustee  
Orange County Fire Authority-Alternate Director

## **NOTEWORTHY CIVIC ACCOMPLISHMENTS**

Founded the official Villa Park Family Picnic  
Reactivated the Villa Park Inland Yacht Parade after a 16 yr. hiatus  
Founded the Villa Park Halloween Fest  
Villa Park Clock Tower-co-founder  
Villa Park Foundation-conceived and assisted implementation

## **COMMUNITY INVOLVEMENT**

St. Joseph Hospital Leadership Council / Presidential Partners  
Orange County Sheriff's Department Advisory Council  
Marines' Memorial Association  
Rotary International –Paul Harris Fellow  
Former Board member Providence Speech and Hearing Center  
Lifetime Member CHP 11-99 Foundation  
American Legion  
B.P.O. Elks

The diversity of experiences I have had: starting and selling two different companies, dealing with Wall Street and taking a company public, having the governor's appointment and serving on the Regional Water Quality Control Board, being mayor of an Orange County city, plus the community involvements provide me an extraordinarily unique combination of skills to represent your district.

My accomplishments demonstrate my energy level. Moreover, you have the last two years of ISDOC governance to consider. We have revised the bylaws in accordance with LAFCO wishes. We have increased transparency by sending announcements and minutes out for each meeting. We have had interesting and provocative programs, from several elected individuals, college professors, newspaper columnists and a publisher.

If elected, I will represent your District with reasonable intellect, vigor, and passion to do that which is correct, proper, and fair. I will visit your District, learn your issues and be available to visit most anytime.

Thank you for reading this. I respectfully request you vote for me for the position of Alternate on the LAFCO board when the ballots arrive at the end of April.

Sincerely,

*Rich Freschi*

Rich Freschi  
Serrano Water District  
ISDOC President

# 2014 NOMINATION FORM

Candidate for the Local Agency Formation Commission (LAFCO)

CANDIDATE INFORMATION FOR **ALTERNATE** SPECIAL DISTRICT MEMBER:

NAME: Richard A. Freschi

TITLE: Director

DISTRICT: Serrano Water District

Check box if resume or statement of qualifications is attached.

SPECIAL DISTRICT SELECTION COMMITTEE MEMBER SUBMITTING NOMINATION

*(Must be the presiding officer or a designated alternate board member.)*

NAME: Robert Rickerl DATE: 4-10-14

SIGNATURE: Robert F. Rickerl

TITLE: President

DISTRICT: Serrano Water District

A resume or other supplemental information about the candidate may be included and will be distributed with the election ballots. All completed nomination forms and any supplemental information must be returned to Orange County LAFCO by:

1. Email at: [cemery@oclafco.org](mailto:cemery@oclafco.org) or
2. Mail at: Orange County LAFCO  
12 Civic Center Plaza, Room 235  
Santa Ana, CA 92701; or
3. Fax at: (714) 834-2643, Attn: Carolyn Emery

*All forms and supplemental information must be received by LAFCO prior to 3:00 p.m. on Friday, April 18, 2014. Nomination forms or candidate information received after that deadline will not be considered.*

# Elect Richard A. “Rich” Freschi Alternate Member LAFCO



## **EXPERIENCE**

### BUSINESS

- Founded and sold two diverse companies
- Served as CEO of two companies. Took one “public”
- Executive in Financial Planning five years prior to retiring at age 58

### ELECTED

- Villa Park City Councilman - twelve years. Two term Mayor
- Board Member - Serrano Water District six years
- President ISDOC - Independent Special Districts of Orange County - two years

### APPOINTED


- Governors Appointment to California Regional Water Quality Control Board
- Area Executive Board Orange County Emergency Management Council
- Orange County Sanitation District-Director
- Orange County Vector Control District - Trustee
- Orange County Fire Authority - Alternate Director

### NOTEWORTHY CIVIC ACCOMPLISHMENTS

- Founded the official Villa Park Family Picnic
- Reactivated the Villa Park Inland Yacht Parade after a 16 year hiatus
- Founded the Villa Park Halloween Fest
- Villa Park Clock Tower co-founder
- Villa Park Foundation conceived and assisted implementation

### COMMUNITY INVOLVEMENT

- St. Joseph Hospital Leadership Council / Presidential Partners
- Orange County Sheriff’s Department Advisory Council
- Marines’ Memorial Association
- Rotary International –Paul Harris Fellow
- Former Board member Providence Speech and Hearing Center
- Lifetime Member CHP 11-99 Foundation
- American Legion
- B.P.O. Elks

June 9, 2014  
Prepared and  
submitted by: N. Savedra  
Approved by: Paul Cook 

**ACTION CALENDAR**

**FISCAL YEAR 2014-15 GENERAL COUNSEL SERVICES  
FOR BOWIE, ARNESON, WILES, AND GIANNONE**

**SUMMARY:**

Bowie, Arneson, Wiles & Giannone (BAWG) has provided a proposed letter of engagement for the purpose of providing legal services to the District for Fiscal Year (FY) 2014-15, effective July 1, 2014. BAWG's services shall not exceed \$525,000 without additional authorization from the District, of which \$425,000 is for general legal services and \$100,000 for the J127 matter.

Attached as Exhibit "A" are the proposed terms of the Legal Services Agreement. BAWG's hourly rates are as follows:

Partner:	\$220/hour
Senior Associate:	\$195/hour
Associate:	\$185/hour
Paralegal:	\$ 85/hour

The proposed hourly rates and the estimated total cost for general legal services for FY 2014-15 will increase by \$10,000 from FY 2013-14. BAWG's hourly rates are based upon a number of factors, including the level of experience of its attorneys.

**FISCAL IMPACTS:**

BAWG's services shall not exceed a total of \$525,000 for FY 2014-15 without additional authorization from the District.

**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 June 3, 2014.

**RECOMMENDATION:**

**THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE ENGAGEMENT AGREEMENT WITH BOWIE, ARNESON, WILES, AND GIANNONE EFFECTIVE JULY 1, 2014 FOR GENERAL COUNSEL SERVICES IN THE AMOUNT NOT TO EXCEED \$525,000, SUBJECT TO THE NOT-TO-EXCEED AMOUNTS WITHIN SUCH TOTAL AMOUNT AS PROVIDED IN SEPARATE DETAIL.**

Action Calendar: FY 2014-15 General Counsel Services for Bowie, Arneson, Wiles and  
Giannone  
June 9, 2014  
Page 2

LIST OF EXHIBITS:

Exhibit "A" – Terms of Legal Services Agreement from Bowie, Arneson, Wiles, and Giannone

**EXHIBIT "A"**

**BOWIE, ARNESON, WILES & GIANNONE**

A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS  
ATTORNEYS AT LAW

ALEXANDER BOWIE\*  
JOAN C. ARNESON  
WENDY H. WILES\*  
PATRICIA B. GIANNONE  
ROBERT E. ANSLOW  
BRIAN W. SMITH  
JEFFREY A. HOSKINSON  
JEFFREY W. FREY  
LYNH N. NGUYEN  
AMANDA A. POPE

4920 CAMPUS DRIVE  
NEWPORT BEACH, CALIFORNIA 92660  
(949) 851-1300

(800) 649-0997  
FAX: (949) 851-2014

REF. OUR FILE  
8001A20

\*A PROFESSIONAL CORPORATION

May 29, 2014

Mr. Paul Cook  
Irvine Ranch Water District  
15600 Sand Canyon Avenue  
Irvine, CA 92619-7000

Dear Paul:

This letter sets forth our firm's engagement to provide general counsel services to Irvine Ranch Water District. Our services shall not exceed the following for the District's fiscal year 2014-15 without additional authorization from the District: (i) \$100,000 for the billing matter J 127; (ii) \$425,000.00 for other than the billing matter J 127. As described in the attached Terms of Legal Services Agreement, billing for miscellaneous general legal services will be on a fixed-fee basis, and all other services will be billed on an hourly basis.

Our firm's hourly rates are based upon a number of factors, including the level of experience of the attorneys. The 2014-15 hourly rates (effective July 1, 2014 but in no event before our next invoicing period commencing after this letter) will be as follows:

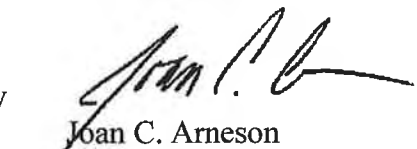
Partner	\$220
Senior Associate	\$195
Associate	\$185
Paralegal	\$85

This letter, together with the attached Terms of Legal Services Agreement, sets forth the terms of our engagement.

We appreciate the opportunity to continue providing general counsel services to the District.

Very truly yours,

BOWIE, ARNESON,  
WILES & GIANNONE

By   
Joan C. Arneson

**BOWIE, ARNESON, WILES & GIANNONE**

Mr. Paul Cook

May 29, 2014

Approval of Engagement

We have read the foregoing letter and attached Terms of Legal Services Agreement and agree to the terms of Bowie, Arneson, Wiles & Giannone’s engagement, effective as of the date on which Bowie, Arneson, Wiles & Giannone first provided services to us under the attached engagement terms.

Date: \_\_\_\_\_, 2014

IRVINE RANCH WATER DISTRICT

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



# BOWIE, ARNESON, WILES & GIANNONE

Mr. Paul Cook

May 29, 2014

## TERMS OF LEGAL SERVICES AGREEMENT

### I. Legal Services Provided

Bowie, Arneson, Wiles & Giannone is retained by Irvine Ranch Water District for the purpose of providing legal services for general legal matters, including litigation and other matters as may be requested from time to time. Such services include bond counsel or co-bond counsel services. We will report regularly and keep you informed of significant developments in matters in which we are providing legal services. During the course of our services, we may express opinions or beliefs to you about the effectiveness of various courses of action, but such expressions shall not be construed as promises or guarantees.

### II. Fees

#### A. Fixed Fee for Miscellaneous General Legal Services

The Miscellaneous General Legal Services ("General Services") provided by Bowie, Arneson, Wiles & Giannone to Irvine Ranch Water District will be charged on a fixed fee basis. The fixed fee for General Services will be paid on the basis of \$55,000.00 for the services billed during the 2014-15 District fiscal year. One-twelfth of said amount will be billed as a monthly installment at the same time as each monthly statement prepared and sent for our hourly-basis services. Proration of the monthly amount will be made as necessary to adjust for any partial billing periods used to match our June and July cycles to the District fiscal year.

For informational purposes, our statements will include hours expended for the work included in the fixed fee. Unless the fixed fee would be unconscionable, the fixed fee will be earned in full and will not be refundable in any part once substantial services have been performed; provided, a refund may be computed based on facts and circumstances in the event of our termination or withdrawal.

The fixed fee will not include expenses, which will be billed and payable as set forth in Section III.

#### B. Scope of Services Included in Fixed Fee

The services to be included within the fixed fee are those of the type that we have typically furnished to you under the invoice entitled "General" in our monthly statements and include the following services as requested by the Board or a staff member: attendance at Board of Directors meetings; attendance at Committee meetings (unless in conjunction with a specific matter being billed on an hourly basis); review of agendas and other material in preparation for Board and Committee meeting attendance; review and assistance with draft minutes; preparation or assistance with preparation of miscellaneous resolutions; assistance with draft agenda item/closed session item preparation; and legal advice, consultation, research, drafting or assistance with drafting of contracts and correspondence, and other assistance on miscellaneous general and/or non-continuing items of limited scope or duration.

#### C. Services Excluded from the Fixed Fee

The fixed fee services will not include services in conjunction with: litigation; administrative hearing or investigatory proceedings; bond counsel or general counsel services related to financings or outstanding bonds; capital or special projects; financial/ real property matters; legislative matters; interagency matters; personnel matters; conflict of interest matters; reorganizations; and other ongoing or extended matters involving negotiation, representation, drafting and similar services that we have typically furnished to you under separate invoices other than "General."

Fees for legal services excluded from the fixed fee are charged on an hourly basis for the time of the legal personnel spent on a matter. The rates are based on several factors, including the expertise and level of experience of the attorneys. The rates are adjusted by the firm from time to time, usually effective for the period July 1-June 30. We will provide advance notice of any rate change. Time on any task is billed in increments of a tenth of an hour. Statements are prepared and sent each month, and are due when presented.

Upon request and arrangement in advance, fees for a particular task or matter may be based on other than hourly rates or monthly billing, such as contingent fees for bond counsel services.

Staffing work assignments will be made, to the extent possible, so as to maximize our legal effectiveness and minimize your legal expenses.

### III. Expenses

In addition to fees, we will bill for reimbursement of actual and reasonable costs and expenses, including, but not limited to, reproduction of documents, long-distance telephone charges, messenger and courier services, facsimile, computerized legal research, document printing, recording charges and non-local mileage and travel expenses. We may also bill for clerical staff time of an unusual nature. Costs and expenses are included in the monthly statements.

### IV. District's Obligations

You agree to provide us with direction and guidance and to keep us informed of significant developments related to matters with respect to which we are providing legal services. You also agree to pay our statements in a timely manner.

### V. Termination of Representation

Our services may be terminated by you at any time by written notice to us. We may withdraw with your consent or for good cause. Good cause may include a failure to cooperate or follow our advice on a material matter, failure to pay our statements in a timely manner, or any fact or circumstance that would render our continuing representation unlawful or unethical. In the event of termination or withdrawal, we are to be paid for fees and charges incurred on your behalf up to the date of termination or withdrawal.

### VII. Miscellaneous

No modifications hereof shall be effective unless set out in writing and signed by you and us.

We maintain errors and omissions insurance coverage applicable to the services to be rendered.

This statement of terms of legal services agreement shall be our entire agreement, subject to amendment by the parties to provide for, among other matters, other fee arrangements.

June 9, 2014

Prepared by: A. McNulty

Submitted by: F. Sanchez/P. Weghorst

Approved by: Paul Cook 

## ACTION CALENDAR

### WATER SMART SOFTWARE INC. VARIANCE NO. 1

#### SUMMARY:

The Water Smart Program, developed and administered on behalf of IRWD by Water Smart Software Inc., provides enhanced water use information to target over-allocation customers separately from their water bills. The Program is an effective tool that promotes water use efficiency and rate support outreach to customers. Staff recommends the Board authorize the General Manager to execute Variance No. 1 in the amount of \$98,550 with Water Smart Software Inc. to continue to administer the Water Smart Program through FY 2014-15 and augment it with a one-time postcard mailing to 5,000 over-allocation customers.

#### BACKGROUND:

The Water Smart Program targets over-allocation customers and provides them with monthly reports on IRWD programs and incentives for water efficiency, as well as personalized ways to save based on the individual customer's usage. The report content is modified for each billing cycle to drive customers to participate in appropriate programs or events. Participants receive the Water Smart reports for 12 monthly billing cycles.

There are currently 7,659 single-family homes receiving monthly electronic reports, with another 2,716 homes receiving hard copy reports by standard mail. The total recipient list is 10,375 of over-allocation customers. Customers receiving the hard copy reports are encouraged to sign up for the monthly electronic water reports, as well as schedule a site survey with IRWD staff.

Customer response to the program has been very positive, and it has proven to be an effective way for staff to target and provide support and assistance to over-allocation customers. A pilot program in 2012 showed an overall reduction in water use of 7% for program participants compared with the control group.

The District's Professional Services Agreement with Water Smart Software, Inc. expires on June 30, 2014. Variance No. 1 to the agreement is attached as Exhibit "A" and would extend the Water Smart Program through the end of FY 2014-15 at a cost of \$98,550. The FY 2014-15 program will continue to target 15,000 single-family customers through direct mail and electronic mail reports on a monthly basis for 12 months. It also includes the addition of a one-time postcard mailing to 5,000 customers encouraging them to register online to participate in the program.

#### FISCAL IMPACTS:

Funding for the Water Smart Program is included in the approved FY 2014-15 Operating Budget.

ENVIRONMENTAL COMPLIANCE:

This program is exempt from CEQA.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on June 5, 2014.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 1 TO THE PROFESSIONAL SERVICES AGREEMENT BETWEEN IRWD AND WATER SMART SOFTWARE INC. IN THE AMOUNT OF \$98,550.

LIST OF EXHIBITS:

Exhibit "A" – Professional Services Variance No. 1

**IRVIN] EXHIBIT "A" ] DISTRICT  
PROFESSIONAL SERVICES VARIANCE**

Project Title: WaterSmart Home Water Use Report FY 14/15  
 Project No.: \_\_\_\_\_ Date: May 29, 2014  
 Purchase Order No.: 516098 Variance No.: 2

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

Description of Variance (*attach any back-up material*):  
This variance is to extend the current program contract through fiscal year 2014/15 and add a one-time postcard mailing. The contract amount will increase by \$98,550 for continued administration of the program and the postcard.

**Engineering & Management Cost Impact:**

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
Postcard Mailing				\$8,550		\$8,550
Program Administration FY 14/15				\$90,000		\$90,000
<b>Total \$ =</b>						<b>\$98,550</b>

**Schedule Impact:**

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
1	Program Administration	July 2012 – June 2013	1 year renewal	July 2014 – June 2015

**Required Approval Determination:**

Total Original Contract <u>\$ 90,000</u> Previous Variances <u>\$0</u> This Variance <u>\$98,550</u> Total Sum of Variances <u>\$98,550</u> New Contract Amount <u>\$185,550</u> Percentage of Total Variances to Original Contract <u>109.5</u> %	<input 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 checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher.
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ENGINEER/CONSULTANT: Water Smart Software Inc.  
 Company Name


IRVINE RANCH WATER DISTRICT

Project Engineer/Manager \_\_\_\_\_ Date \_\_\_\_\_ Department Director \_\_\_\_\_ Date \_\_\_\_\_  
 Engineer's/Consultant's Management \_\_\_\_\_ Date \_\_\_\_\_ General Manager/Comm./Board \_\_\_\_\_ Date \_\_\_\_\_

June 9, 2014

Prepared by: T. Mossbarger

Submitted by: C. Clary

Approved by: Paul Cook 

## ACTION CALENDAR

### ON-CALL DATABASE ADMINISTRATION CONSULTANTS

#### SUMMARY:

The current workload for capital projects and operational support continues to exceed a level that can be supported by the District's Information Services staff. Staff recommends that the Board authorize the General Manager to execute two Professional Services Agreements, one with LCS Technologies in the amount of \$120,000 and the other with Outsource Technical in the amount of \$60,000 for on-call database administration services.

#### BACKGROUND:

Staff currently utilizes database administration resources from LCS Technologies to provide support for the Oracle Financial System and the Oracle Customer Care and Billing (CC&B) implementation project. There is an ongoing need for database administration services for the District's software systems as a result of several major capital projects the District has recently undertaken, such as the CC&B software implementation project, as well as smaller scale software and networking projects. In addition, consultants with the required skills could be retained to fill in for staff vacancies due to back filling regular positions, terminations, or leaves of absence. Staff proposes to retain database administrators through consultant agencies who would provide services on an on-call basis.

#### Consultant Selection Process:

Staff requested proposals from two consultants that have provided excellent service and responsiveness on previous District projects. The two consultants requested to propose for the services were LCS technologies and Outsource Technical. Proposals with related fee schedules were received from both consultants and are attached in a summary matrix in Exhibit "A". The consultants' proposals are attached as Exhibits "B", and "C", respectively.

Staff recommends that the Board authorize the General Manager to execute two Professional Services Agreements: with LCS Technologies in the amount of \$120,000 and Outsource Technical in the amount of \$60,000. The requested amount for LCS Technologies is higher than the other consultant, as staff currently utilizes resources from LCS Technologies and would like to retain the existing on-call resources. Outsource Technical will serve as a backup or additional resource to supplement LCS Technologies. The requested service agreements cover fiscal year 2014-15, ending June 30, 2015.

#### FISCAL IMPACTS:

Professional Services Agreements with LCS Technologies in the amount of \$120,000 and Outsource Technical in the amount of \$60,000 are included in the current fiscal year's budget or

in the current Expenditure Authorizations of affected projects. These professional services will be charged to the appropriate projects or expense account.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on June 3, 2014.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE TWO PROFESSIONAL SERVICES AGREEMENTS, ONE WITH LCS TECHNOLOGIES, INC. IN THE AMOUNT OF \$120,000 AND THE OTHER WITH OUTSOURCE TECHNICAL IN THE AMOUNT OF \$60,000 FOR ON-CALL DATABASE ADMINISTRATION SERVICES.

LIST OF EXHIBITS:

- Exhibit "A" – Consultant Summary Matrix
- Exhibit "B" – LCS Technologies Proposal
- Exhibit "C" – Outsource Technical Proposal

**EXHIBIT A**

**On-Call Database Administration Consultant Selection Matrix**

	LCS Technologies	Outsource Technical	
<b>PERSONNEL</b>			
Project Managent	Steve Simonetto		
Oracle DBA	Neeru Choutkuri		
Oracle Developer			
<b>FEE SCHEDULE</b>			
Project Management	\$150	\$140	
Oracle DBA	\$125	\$135	
<b>Best Value</b>	<b>1</b>	<b>2</b>	



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April 14, 2014

### **ON CALL SERVICES**

Hi Tony,

It was a pleasure talking with you this morning. First, let me tell you that we very much appreciate your business and support. As you know, LCS Technologies, Inc. (LCS) is your single source provider for Oracle services and software.

As you requested, we are providing this proposal for On Call Services to assist Irvine Ranch Water District with ongoing support of your Oracle database environments from July 1, 2014 through June 30, 2015.

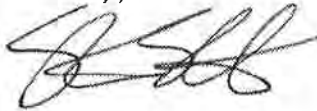
We are providing this proposal on a Time and Materials basis. We will invoice IRWD for actual time and travel expenses incurred. We understand that most of the work will be provided remotely so travel expenses should be minimal.

Our hourly rates for On Call Services are:

- Project Manager \$150
- Database Administrator \$125

Please let me know if you have any questions.

Sincerely,



Steve Simonetto  
CEO  
LCS Technologies, Inc.  
916-761-4097

## EXHIBIT C



2 Corporate Plaza Drive, Suite 125 Newport Beach, CA 92660  
P: 949.442.1980 F: 949.757.0164

April 15, 2014

Irvine Ranch Water District  
Attn: Tony Mossbarger, Director of Information Technology  
15600 Sand Canyon Avenue  
Irvine, CA 92619-7000

Dear Mr. Mossbarger,

### **Proposal for Information Technology (IT) Professional Services and Consulting**

OS Technical (OST) is pleased to submit this proposal to provide Information Technology Professional Services and Consulting in response to your request.

OST is an IT consulting firm providing professional services to both public and private sector clientele. Our emphasis is providing experienced technical consultants on an on-demand basis to support enterprise software projects. OST has been in business for over 15 years and is headquartered in Newport Beach, CA. We have extensive experience providing IT professional services and consultants to numerous clients who continue to do business with us year over year. A few of our clients are Newport Corporation, County of Orange, Irvine Company, PIMCO, Pacific Life and CareMore among others.

OST has been providing IT professional services and consulting for Irvine Ranch Water District (the District) since February 2013 with an emphasis on Oracle R-12 E-Business Suite. During this time we have provided subject matter expertise to support enterprise software implementations, customizations and quality assurance. Services include:

- Attending project meetings as requested by the District
- Producing monthly billings in a form acceptable to the District
- Participating in weekly project status phone calls with Joan Gronek, the Project Lead for the District
- Providing IT Professional Services and Consulting as requested by the District

Our staff executing the delivery of IT professional services and consulting will consist of:

Mr. Steven Shwam, Senior Account Executive -- Mr. Shwam has been with OST for 6 years. He has provided IT professional services and consultants for enterprise software projects for clientele including CareMore, Forever 21, and ICU Medical among others. Steven will be the primary point of contact for the District, providing delivery of IT professional services and consulting per the direction of the District.



Ms. Janet Chung, Recruiting Manager – Ms. Chung has been working with OST for 3 years. Janet has over 14 years of experience sourcing and screening technical professionals for deployment on enterprise software projects. Her competencies include Oracle EBS, .Net and Java.

Irvine Ranch Water District  
December 24, 2013  
Page two

Work will be billed at the following hourly rate ranges:

**Hourly Rates**

Project Management	\$128.00 - \$140.00
Oracle DBA	\$120.00 - \$135.00
Oracle Analyst	\$115.00 - \$125.00
Oracle Developer	\$105.00 - \$150.00
Software QA	\$90.00 - \$100.00
IT Network & Systems Support	\$65.00 - \$85.00

Our project delivery teams are paid current prevailing wage rates and we have insurance coverage that meets or exceeds the minimum District requirements.

If you have any questions, or I can be of further assistance, please call.

Sincerely,

Steven Shwam  
Sr. Account Executive  
OS Technical

June 9, 2014

Prepared by: C. Compton

Submitted by: P. Weghorst

Approved by: Paul Cook



## ACTION CALENDAR

### SOUTH ORANGE COUNTY AGENCIES' METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA REPRESENTATIVE CANDIDATE NOMINATIONS

#### SUMMARY:

Due to a vacancy in one of the four Municipal Water District of Orange County (MWDOC) Metropolitan Water District of Southern California (MET) Director seats, the South County Agencies have the ability to nominate a candidate for appointment to the MWDOC MET Director seat. Per the nomination process adopted by each of the 10 South County Agencies, the South County nominee will be selected by a nomination committee comprised of a representative from each South County Agency.

Individuals wishing to be considered for the South County seat are required to write to at least one South County Agency expressing their interest in the seat. In order for the individual to be considered for nomination, the board/council of a South County Agency must submit the candidate's name to the nomination committee for consideration. At this time, staff recommends that the Board consider the individuals that have written to IRWD expressing their interest in the South County seat, as required by the December 2013 "MET Representative Selection Process for South County Agencies," and authorize IRWD to submit Supervisor Bill Campbell (Ret.) as the Board-approved candidate to the nomination committee before the June 16, 2014, submittal date.

#### BACKGROUND:

MWDOC has four appointments to the MET Board of Directors. In 2011, MWDOC and 10 of its South County member agencies (South County Agencies) entered into an "Agreement between MWDOC and its Member Agencies on Budget, Activities, Charges, and Other Issues" (Agreement) to facilitate a continued working relationship. As part of the Agreement, the South County Agencies have the ability to nominate a candidate for appointment as one of MWDOC's four representatives on the MET Board of Directors (the South County seat). This right was to vest upon the occurrence of the first vacancy in a MWDOC MET representative seat after the effective date of the Agreement which was June 1, 2011.

In March, the first vacancy in one of the four MWDOC MET representative seats occurred with the passing of Colonel Jack Foley. Per the Agreement, the South County Agencies may now nominate a candidate to fill his vacated seat.

#### South County Agencies' Nomination Process:

The Agreement called on the South County Agencies to develop a nomination process for selecting the South County nominee. Late last year, the 10 South County Agencies agreed to and approved a nomination process by which the South County Agencies would select its nominee;

IRWD adopted this process on December 16, 2013. A timeline of the nomination process is attached as Exhibit “A”. A copy of the adopted nomination process is attached as Exhibit “B”.

The approved process requires that the South County Agencies form a nomination committee comprised of one member from each agency. Individuals who wish to be considered for the South County seat are required to submit letters of interest to a least one of the South County Agencies. Each agency is to vet the individuals. A South County Agency’s Board of Directors/Council may then submit candidates for consideration to the nomination committee. The nomination committee will then consider five criteria and select the nominee from the pool of candidates submitted to it.

Following the nomination committee’s selection, based on a simple majority vote, each member of the nomination committee will sign the letter to MWDOC nominating the selected candidate. MWDOC, per the Agreement, is to “consider the nominated MET Candidate seriously, in good faith and in the spirit of this Agreement and can only reject said MET Candidate for cause.”

*Nomination Committee Composition:*

The nomination process adopted by the South County Agencies called for the formation of a nomination committee comprised of one governing board/council member from each of the ten agencies. Last month, the nomination committee was formed and is comprised of the following members:

<b>Agency &amp; Nominated Candidates</b>	<b>Nomination Committee Member</b>
City of San Clemente	Bob Baker, Councilmember
City of San Juan Capistrano	Larry Kramer, Mayor Pro Tem
El Toro Water District	Scott Goldman, Vice President
Emerald Bay Service District	No appointment made to date.
Irvine Ranch Water District	Doug Reinhart, Director
Laguna Beach County Water District	Debby Neev, Vice Chair
Moulton Niguel Water District	Brian Probolsky, Vice President
Santa Margarita Water District	Sandra Jacobs, President
South Coast Water District	Wayne Rayfield, President
Trabuco Canyon Water District	Michael Safranski, President

*Nominee Selection Criteria:*

The approved selection process calls for the nomination committee to consider five criteria and Section 1500 of the MWDOC Administrative Code when selecting the South County nominee. The criteria to be considered by the nomination committee and the weight of each criterion is as follows:

Action Calendar – South County Agencies’ MET Representative Candidate Nominations

June 9, 2014

Page 3

Criteria & Weight	Suggested Questions Under Criteria Category
<p>30 POINTS</p> <p><u>Ability to effectively represent the interest of MET</u></p>	<ol style="list-style-type: none"> <li>1) What do you know about MET and their current major issues? And, what is your understanding of their mission and do you agree with it? Why or why not?</li> <li>2) What do you see as MET’s highest priorities now and in the future?</li> <li>3) How have you been involved with MET?</li> <li>4) What is your understanding of current issues facing MET?</li> <li>5) What do you feel is the most important asset that you possess to be able to work with the exceptionally strong and diverse group, which is the composition of the MET Board of Directors at this time?</li> <li>6) Who do you consider to be MET’s allies and opponents?</li> </ol>
<p>20 POINTS</p> <p><u>Ability of effectively represent MWDOC interest</u></p>	<ol style="list-style-type: none"> <li>1) What do you see as MWDOC’s unique role at MET, if any?</li> <li>2) How do you see Orange County being more effective at MET?</li> <li>3) Do you see an opportunity to improve MWDOC’s way of conducting business by being a MET representative from Orange County? If so, how?</li> <li>4) How would you strike a balance when interests of agencies in Orange County conflict?</li> </ol>
<p>10 POINTS</p> <p><u>Ability to effectively represent the interest of South County</u></p>	<ol style="list-style-type: none"> <li>1) What skills do you possess which allows you to represent all South County agencies, from the small to the very large?</li> <li>2) What do you see as Orange County’s highest priorities at MET, and what key issues do you see emerging in the near future that will significantly impact us?</li> <li>3) How would you keep the South County Agencies informed and involved in what’s happening at MET?</li> <li>4) How would you go about fostering partnerships when alignments on issues are necessary among Orange County agencies as well as between Orange County and MET?</li> </ol>
<p>40 POINTS</p> <p><u>Ability to forge relationships and partnerships</u></p>	<p>Discussed some measure of ability as: Be actively involved; Understand State/Federal water issues; Experience and knowledge</p> <ol style="list-style-type: none"> <li>1) Proven political involvement in MET affairs Please give an example of your past history of forming relationships and/or partnerships?</li> <li>2) What relationships do you have now with other MET agencies and directors?</li> <li>3) There are seven representatives from Orange County, how would you try to meet with and involve them?</li> <li>4) What do you see as Los Angeles and San Diego’s main goals with MET?</li> </ol>
<p>PASS/FAIL</p> <p><u>Time Commitment</u></p>	<ol style="list-style-type: none"> <li>1) What is your understanding of the time commitment to effectively carry out the responsibilities of a MET representative?</li> <li>2) How would you educate yourself to be an effective MET Representative?</li> <li>3) What are your other commitments and priorities?</li> </ol>
<p>PASS/FAIL</p> <p><u>Conflict of Interest</u></p>	<ol style="list-style-type: none"> <li>1) Does the candidate have a conflict of interest?</li> </ol>
<p>PASS/FAIL</p> <p><u>Criminal Felony Record</u></p>	<ol style="list-style-type: none"> <li>1) Does the candidate have a felony conviction?</li> </ol>

Section 1500 of the MWDOC Administrative Code requires that the nominee represent the interests of the MWDOC service area; regularly attend the meetings related to the duties of being a MET Director and allot adequate time to prepare for and participate in the activities associated with the position of a MET Director; participate actively in MET affairs and have a broad base of acquaintanceship and support within Orange County; and reside within the MWDOC service area.

MWDOC also sent each South County Agency a letter outlining its understanding of the procedures and requirements for appointment of the next MWDOC MET representative. A copy of MWDOC letter is attached as Exhibit “C”.

*Known Interested Individuals and Candidates for the South County Seat:*

As of the writing of this report, three individuals have contacted IRWD expressing their interest in the South County seat. Moulton Niguel Water District Director Larry McKenney’s letter of interest is attached as Exhibit “D”. The Santa Margarita Water District Board of Directors submitted Dr. Betty Olson as a candidate to be considered by the nomination committee, and wrote to IRWD asking that the District consider her as a candidate. Dr. Olson’s letter of interest is attached as Exhibit “E”. Former Supervisor Bill Campbell also expressed interest in the South County seat and his letter is attached as Exhibit “F”. Staff will provide the Board with a copy of any additional letters of interest received, and an oral update on any new developments.

Staff recommends that the Board consider the individuals that have written to IRWD to express their interest in the South County seat, as required by the December 2013 “MET Representative Selection Process for South County Agencies,” and authorize IRWD to submit Supervisor Bill Campbell (Ret.) as the Board-approved candidate to the nomination committee before the June 16, 2014, submission deadline.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on June 5, 2014.

RECOMMENDATION:

THAT THE BOARD CONSIDER THE INDIVIDUALS WHO HAVE WRITTEN TO IRWD TO EXPRESS THEIR INTEREST IN THE VACANT MUNICIPAL WATER DISTRICT OF ORANGE COUNTY (MWDOC) METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA (MET) DIRECTOR SEAT, AS REQUIRED BY THE DECEMBER 2013 “MET REPRESENTATIVE SELECTION PROCESS FOR SOUTH COUNTY AGENCIES,” AND AUTHORIZE IRWD TO SUBMIT SUPERVISOR BILL CAMPBELL (RET.) AS THE BOARD-APPROVED CANDIDATE TO THE NOMINATION COMMITTEE BEFORE THE JUNE 16, 2014, SUBMITTAL DATE.

LIST OF EXHIBITS:

- Exhibit “A” – South Orange County Agencies’ MET Representative Nomination Process Timeline
- Exhibit “B” – Approved MET Representative Selection Process for South County Agencies
- Exhibit “C” – MWDOC Letter Regarding the Procedures & Requirements for Appointment of the Next MWDOC Director to the MET Board
- Exhibit “D” – Letter of Interest from Mr. Larry McKenney, Moulton Niguel Water District Director
- Exhibit “E” – Letter of Interest from Dr. Betty Olson, Santa Margarita Water District Director
- Exhibit “F” – Letter of Interest from former Supervisor Bill Campbell



## EXHIBIT "A"

### SOUTH ORANGE COUNTY AGENCIES' METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA REPRESENTATIVE NOMINATION PROCESS

#### Timeline

Notice of vacancy and need for a South County nomination is sent by the coordinator.

Per the approved selection process, a nomination committee is formed with one member from each South County Agency governing board/council. South County Agencies must name a representative to the nomination committee within four weeks of the vacancy notification.

Candidates may begin submitting the required letter of interest to the governing bodies of South County Agencies. Candidates must submit a letter of interest to at least one governing board.

May 27, 2014

Representatives named to the nomination committee.

Agency & Nominated Candidates	Nomination Committee Member
City of San Clemente	Bob Baker, Councilmember
City of San Juan Capistrano	Larry Kramer, Mayor Pro Tem
El Toro Water District	Scott Goldman, Vice President
Emerald Bay Service District	
Irvine Ranch Water District	Doug Reinhart, Director
Laguna Beach County Water District	Debby Neev, Vice Chair
Moulton Niguel Water District	Brian Probolsky, Vice President
Santa Margarita Water District	Sandra Jacobs, President
South Coast Water District	Wayne Rayfield, President
Trabuco Canyon Water District	Michael Safranski, President

Around June 9, 2014

The Nomination Committee meets to discuss process issues and timeline for selection of the South County nominee. (2 hours)

June 16, 2014

*Date subject to change  
pending June 9<sup>th</sup> meeting.*

South County Agency boards/councils must have submitted qualified candidate(s) to the Nomination Committee with a brief written statement and/or materials that address the five criteria and how the candidate(s) met the criteria.

South County Agencies are expected to have vetted the candidate(s) they submit and conducted a background check on its candidate(s).

Week of June 16, 2014

*Date subject to change  
pending June 9<sup>th</sup> meeting.*

Nomination Committee holds its second meeting to review the candidates and finalize the process. (3 hours)

Before June 23, 2014

*Date subject to change  
pending June 9<sup>th</sup> meeting.*

The Nomination Committee will interview the candidates and make a recommendation for the nominee. (All day)

*A simple majority vote will determine the nominee, but all members of the Nomination Committee will sign the letter nominating the candidate to MWDOC.*

June 24, 2014

South County Agencies Meeting

Before the end of June

Nomination communicated to MWDOC.

*Date subject to change  
pending June 9<sup>th</sup> meeting.*

July 14, 2014

Filing period for November 2014 General Election opens.

August 8, 2014

Filing period for November 2014 General Election closes.

## EXHIBIT "B"

### **MET Representative Selection Process for South County Agencies Recommendation from the South County Agencies Subgroup**

#### Subgroup members

Paul Cook  
Joyce Crosthwaite  
Laura Freese  
Scott Goldman  
Larry McKenney

#### Facilitation

Joone Lopez

#### Coordination

Kelly Winsor

#### **Background**

In 2010, Municipal Water District of Orange County (MWDOC) and ten of its South County member agencies entered into an agreement to facilitate a continued working relationship and “accommodate interests of all.” Section 7 of the agreement outlines the selection of the next Metropolitan Water District of Southern California (MET) director, who will be nominated by the South County Agencies.

The agreement requires that the nomination process be agreed to by all of the South County agencies. The South County Agencies agreed to form a subgroup to develop a process and make its recommendation to the full membership. The subgroup has met three times since November 2012.

The subgroup reviewed the 2010 agreement, researched other agencies’ processes in selecting their MET directors, and reached out to MWDOC in developing the following recommendations.

#### **Goal**

Develop a clear, comprehensive, collaborative process that is agreed upon by agencies involved in advance of any vacancy of a MET director position.

#### **RECOMMENDATION:**

##### **Overview**

When a nomination is needed, the South County Agencies will form a nomination committee of one member from each agency. Candidates will submit letters of interest to South County Agencies, who will vet their candidates and submit nominees to the nominating committee within four weeks. The agencies and the nominating committee will consider five

criteria as described below. The nominating committee will select the nominee, and each committee member will sign the nominating letter to MWDOC.

### **Process**

- When a South County nomination is needed, the coordinator will send an email to the South County Agencies' city managers and general managers.
- Each of the ten (10) signatory South County Agencies must name a representative to the nomination committee within four (4) weeks of the vacancy notification.
  - Nomination committee representative must be a current member of the agency's governing body.
  - An agency can choose not to participate in the process of reviewing nominees, but its nominating committee representative must sign the letter to MWDOC.
  - Six members of the nomination committee will constitute a quorum.
  - The nomination committee will select its own chair.
  - Voting will be based on a simple majority.
  - The nomination committee will develop a method for any ties.
- South County Agencies will have four (4) weeks to submit qualified candidate(s) to the nomination committee. No limit on number of candidates.
- Candidates must submit a letter of interest to the governing body of at least one of the ten South County Agencies. Each agency will vet its own candidates as determined by its board.
- Each agency will conduct a background check on its candidate(s) – agencies should coordinate their HR departments to perform the checks efficiently and affordably
- Each agency's board will submit its candidate(s) to the nomination committee accompanied by a brief written statement and/or material that addresses the five criteria, and how the candidates meet those criteria.
- Depending on the number of candidates, the nomination committee will interview the candidates or form a subgroup to further narrow the

candidate pool for the interviews. The selection process will be guided by the five criteria described below.

- Simple majority vote to determine the nomination to MWDOC, which will be signed by all members of the nomination committee.

### **Questions for the five criteria**

The questions set forth below are intended to explain the criteria and serve as suggestions for the nominating committee.

#### **1. Ability to effectively represent the interest of MET**

- 1) What do you know about MET and their current major issues? And, what is your understanding of their mission and do you agree with it? Why or why not?
- 2) What do you see as MET's highest priorities now and in the future?
- 3) How have you been involved with MET?
- 4) What is your understanding of current issues facing MET?
- 5) What do you feel is the most important asset that you possess to be able to work with the exceptionally strong and diverse group, which is the composition of the MET Board of Directors at this time?
- 6) Who do you consider to be MET's allies and opponents?

#### **2. Ability to effectively represent MWDOC interest**

- 1) What do you see as MWDOC's unique role at MET, if any?
- 2) How do you see Orange County being more effective at MET?
- 3) Do you see an opportunity to improve MWDOC's way of conducting business by being a MET representative from Orange County? If so, how?
- 4) How would you strike a balance when interests of agencies in Orange County conflict?

#### **3. Ability to effectively represent the interest of South County**

- 1) What skills do you possess which allows you to represent all South County agencies, from the small to the very large?
- 2) What do you see as Orange County's highest priorities at MET, and what key issues do you see emerging in the near future that will significantly impact us?
- 3) How would you keep the South County Agencies informed and involved in what's happening at MET?

- 4) How would you go about fostering partnerships when alignments on issues are necessary among Orange County agencies as well as between Orange County and MET?

**4. Ability to forge relationship and partnerships**

Discussed some measure of ability as:

- Be actively involved
- Understand State/Federal water issues
- Experience and knowledge
- Proven political involvement in MET affairs

- 1) Please give an example of your past history of forming relationships and/or partnerships?
- 2) What relationships do you have now with other MET agencies and directors?
- 3) There are seven representatives from Orange County, how would you try to meet with and involve them?
- 4) What do you see as Los Angeles and San Diego's main goals with MET?

**5. Time commitment**

- 1) What is your understanding of the time commitment to effectively carry out the responsibilities of a MET representative?
- 2) How would you educate yourself to be an effective MET Representative?
- 3) What are your other commitments and priorities?

**PASS/FAIL:** Time commitment

Criminal record (pass/fail for felony)

Conflict of interest (pass/fail)

**Ranking**

100 point weighted system

Criteria #1– 30 points

Criteria #2 – 20 Points

Criteria #3 – 10 Points

Criteria #4 – 40 Points

Criteria #5 – Pass/Fail

Conflict of interest – Pass/Fail

Criminal record (felony conviction) – Pass/Fail

**TOTAL POINTS: 100**

### **Hypothetical timeline**

<b>(60 days)</b>
Email announcement: Day 1
Submit candidates to nomination committee: Day 30
<i>Based on the number of candidates, the nomination committee will determine if a subgroup to narrow the pool is needed</i>
Nomination committee reviews written material for candidates: Day 30-40
Invite candidates to an interview: Day 45- 50
Deliberate and vote on the group's final selection for nomination to MWDOC: Day 50-60
Sign the nomination form to MWDOC and submit to MWDOC: Day 60

EXHIBIT "C"

April 21, 2014

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- Larry D. Dick  
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- Wayne S. Osborne  
Vice President
- Brett R. Barbre  
Director
- Wayne A. Clark  
Director
- Joan C. Finnegan  
Director
- Susan Hinman  
Director
- Jeffery M. Thomas  
Director
- Robert J. Hunter  
General Manager

- City of Brea
- City of Buena Park
- East Orange County Water District
- El Toro Water District
- Emerald Bay Service District
- City of Fountain Valley
- City of Garden Grove
- Golden State Water Co.
- City of Huntington Beach
- Irvine Ranch Water District
- Laguna Beach County Water District
- City of La Habra
- City of La Palma
- Mesa Water District
- Moulton Niguel Water District
- City of Newport Beach
- City of Orange
- Orange County Water District
- City of San Clemente
- City of San Juan Capistrano
- Santa Margarita Water District
- City of Seal Beach
- Serrano Water District
- South Coast Water District
- Trabuco Canyon Water District
- City of Tustin
- City of Westminster
- Yorba Linda Water District

The Honorable Steven LaMar, President  
Irvine Ranch Water District  
P.O. Box 57000  
Irvine, CA 92619-7000

Dear President LaMar:

RE: Procedures & Requirements for Appointment of the Next MWDOC  
Director to the Metropolitan Water District of Southern California  
(MET) Board

On March 21, 2014, we lost Colonel Jack Foley; one of our MET Directors, the MET Chairman, and a remarkable public servant. While no one will replace Jack, it is necessary that we begin the process to appoint a new MET Director.

MWDOC appoints a total of four MET Directors under provisions of the Administrative Code (Section 1500). In addition, this appointment will be conducted under the terms of the 2011 Settlement Agreement between MWDOC and the Member Agency Parties. Specifically, under that agreement, the MWDOC Board of Directors has delegated limited nominating powers for this MET Director vacancy to the ten South County Agency Parties (City of San Clemente, City of San Juan Capistrano, El Toro Water District, Emerald Bay Services District, Irvine Ranch Water District, Laguna Beach County Water District, Moulton Niguel Water District, Santa Margarita Water District, South Coast Water District, and Trabuco Canyon Water District).

The South County Agency Parties have established a process for nominating a candidate or candidates for the MET Director position that is based on the MWDOC candidate qualification requirements of the Administrative Code. MWDOC is confident that the South County Agency Parties will nominate a well-qualified candidate or candidates and the MWDOC Board requests that the written statements, material, evaluations and scoring documentation utilized by the South County nomination committee be forwarded to MWDOC along with the nomination(s).

Section 7.2 of the Settlement Agreement states in part that "the MWDOC Board shall consider each nominated MET Candidate seriously, in good faith and in the spirit of this Agreement and can only reject said MET Candidate for cause." The MWDOC Board of Directors intends to comply with both the letter and spirit of the Settlement Agreement. In that regard, the following amplification of qualification requirements is offered:

The Honorable Steven LaMar, President  
April 21, 2014  
Page 2

1. Area of Representation – MET emphasizes that MET Directors are required to consider problems and issues from the standpoint of their Metropolitan responsibility (i.e., a Southern California regional perspective). In addition, MWDOC requires that the candidate(s) shall represent the interests of the entire MWDOC service area in carrying out the responsibilities of a MET Director. While the candidate(s) will be nominated from a specific geographical area of Orange County, the Director must represent the interest of the entire MWDOC and MET service areas.
2. Meeting Attendance – The Administrative Code cites preparation for and attendance at related meetings and associated activities. MWDOC estimates that this is a minimum time commitment of 60 hours per month. Potential candidates are encouraged to consider how they will modify their schedules to accommodate the necessary time for this critical position.
3. Leadership and Activities – Beyond simple participation, the candidate(s) must have a demonstrated capability to build coalitions and consensus, work cooperatively as part of a delegation, master the diverse technical aspects of regional water management and be an active, credible representative of MWDOC.
4. Residence – The candidate(s) must not only be a resident of Orange County but must reside within the MWDOC service area. It is not necessary but is likely, that for this nomination, the candidate(s) will reside within the service area of one of the South County Agency Parties.
5. Incompatible Offices – It is the position of the MWDOC Board of Directors that the candidate they approve and appoint as the MET Director must correct potential incompatible office conditions prior to assuming the MET Director role. Such conditions would include the public offices of one of the MWDOC Member Agencies of Director, City Council Member, or Mayor. It also appears to the MWDOC Board of Directors that, based on the trend of interpretation of incompatibility office statutes and case law, incompatibility also would apply to City Managers and General Managers as principal executive officers of member agencies. Candidates would not need to resign the incompatible office to be nominated or tentatively selected as a MET Director. However, the candidate would need to resign the incompatible office, as defined by the MWDOC Board, with an effective date prior to being sworn in as a MET Director.

MWDOC looks forward to receiving the nomination(s) from the South County Agency Parties and welcoming the new MET Director. I am available at your convenience for discussion.

Sincerely,

  
Larry D. Dick  
President of the MWDOC Board  
Director, Metropolitan Board

c: Paul Cook, General Manager ✓



## EXHIBIT "D"

**Larry B. McKenney**  
**88 Meridian Dr**  
**Aliso Viejo, CA 92656**

May 15, 2014

Steve LaMar, President  
Irvine Ranch Water District  
P.O. Box 57000  
Irvine, CA 92619-7000

**Re: Application for Nomination, Metropolitan Water District of Southern California Director Position**

Dear President LaMar,

I am writing to express interest in the position of director at the Metropolitan Water District of Southern California, which the South Orange County agencies will nominate for consideration by the Municipal Water District of Orange County. The nomination process that all of the South County agencies previously approved requires interested individuals to submit letters of interest to the governing body of at least one South County water agency. While my work history, education, and water related activities are listed in the attached resume, in this letter I summarize how I satisfy all five of the criteria for selection that are identified in the approved selection process.

To summarize my experience in water, I have worked as a professional in the water resources industry for over twenty years in a variety of roles. I have been a government agency attorney and a water lawyer in private practice. I managed Camp Pendleton's water office and the County's Watershed and Coastal Resources Division (now OC Watersheds). I worked as a consultant with the engineering firm RBF Consulting. I have worked on water issues in five of the six counties in the MWD service area. I have addressed water issues from the perspectives of water rights, supply, water quality, natural resources, flood risk management, watershed protection, and integrated planning. My focus has been on law, sound policy, good governance, and environmental and economic sustainability. Currently I serve as the president of the board of directors of the Moulton Niguel Water District, having been elected to the board twice and chosen by my colleagues to serve as president for the past three and a half years. My regular employment is as executive counsel of the Santa Ana Watershed Project Authority (SAWPA), a joint powers agency comprising five large water districts in the Santa Ana River watershed.

While I derive a great deal of fulfillment from my role on the board of the Moulton Niguel Water District, where we are responsible directly to individual ratepayers and community residents, I believe my skill set and my stronger interests are more aligned with the mission and role of MWD. MWD's policies and effectiveness have a profound effect on the entire diverse region. My experience will allow me to provide valuable input to the MWD board and valuable guidance to the agency. At the same time, I am very familiar with the interests and needs of Orange County and, in particular, of South Orange County with regard to water. MWD is the place where I can offer the greatest benefit to our community and the region.

Ability to effectively represent MWD. I have routinely educated myself about the issues, challenges, and accomplishments of MWD over the years, including its huge capital program in the 1990s, its pioneering efforts in groundwater storage and agricultural water transfers, its friction with the San Diego County Water Authority (of which my one-time agency, Camp Pendleton, was a member), the disputes over control and rates for wheeling transferred water, and the legislative pressures to reform the MWD board and reduce its size. I learned a lot about the history of MWD while, in the the mid-1990s, my law firm represented a family in litigation with MWD. During that time I met Colonel Foley and was able to attend one of MWD's Colorado River Facilities Inspection Tours. Colonel Foley and I remained close friends from then on. I have since been on the Colorado River trip three times, the Lower Colorado River tour once, and the State Water Project and Delta tour twice. In my law firm days, my clients included a group of Riverside County farmers in a discussion with MWD about mitigating for impacts of the Diamond Valley Reservoir. My MWD counterpart in those negotiations was Jeff Kightlinger, then new to MWD's General Counsel's office, later to become General Counsel and, now, General Manager of the agency. We have been good friends for nearly twenty years.

MWD was created to bring supplemental water into a new region with enormous potential for development and growth. Over the decades, it has evolved into a regional resources management agency, taking on responsibility for overall water supply reliability in an urbanized and heavily populated region. This fundamental change in mission occurred because of decisions made by an unelected board, and while I believe the decisions were sound and have been beneficial, I believe the MWD board must always bear in mind its unique form and must take care not to overreach its proper authority. The MWD board's ability to influence the shaping of the region, our quality of life, and our potential for the future require that MWD directors work cooperatively as a group taking into account all of the interests of the region, and that they reach out to the communities MWD serves to stay in touch with the elected leaders who are accountable to the People.

In achieving its mission, MWD's major current challenges include leading the State to a successful renovation of the State Water Project by fixing the problem of the Delta, resolving the festering dispute with San Diego and ensuring that MWD's rate structure is fair, adequate, and legally sound, ensuring the long term financial security of the agency including its employee costs, and continuing to develop long-term plans for water resources that include the effects of climate change. To borrow an over-used phrase, failure at MWD is not an option for Southern California today, and in particular for South Orange County.

Ability to effectively represent MWDOC. MWDOC has one of the largest contingents on the MWD board and carries almost 17% of the weighted vote of the agency. The MWDOC representatives do a good job of coordinating their efforts, and while I don't think unanimity is always required, thorough coordination is essential in order to act strategically. The success of MWDOC in coordinating with the representatives of the three MWD-member Orange County cities has been uneven, and I believe there are gains to be made there. Across the whole MWD board, the pace of turnover has increased and the average tenure of directors is now much lower than it was ten years ago. I believe this presents a great opportunity for seasoned water industry professionals representing MWDOC to have great influence at MWD, and to provide respected leadership and to form new and strong relationships on the board, in order to fulfill the needs of MWD and Orange County.

Orange County's highest priorities for MWD are supply reliability and fiscal sustainability. MWD's primary mission today is to ensure a reliable supply for Southern California. Our region and lifestyle, and indeed the economy of the state, depend on MWD accomplishing this mission, which touches the

Delta fix, new State Water Project concepts, dealing with the tightening supplies from the Colorado River, managing the MWD infrastructure to support banking and transfers, and deciding how MWD can most appropriately involve itself in supporting local projects and promoting water use efficiency. In parallel to this primary mission, MWD must keep itself viable, which means its rate revenue must suffice and its expenses must be appropriately managed.

Ability to represent the interests of South Orange County. I have lived in South Orange County since 1994. I have been involved in Aliso Creek and San Juan Creek planning issues almost from the date of my arrival, and I am aware of the difficulty of developing meaningful local supplies. While living here, I also worked at Camp Pendleton, where recycling of water is a critical part of the supply scenario, just as it is now in South Orange County. I interacted extensively with the San Diego County Water Authority, where high dependence on imported supplies was the dominant factor in the water industry, just as it is in South Orange County. I played a critical role in the development of the South Orange County IRWMP. I initiated and chair the ad hoc working group of the ten South County water agencies. My experience working for the County, for an Orange County consulting firm, and on the board of Moulton Niguel have made me as familiar as anyone with South Orange County's water supply situation, its limited alternatives, and its relationship with the northern part of the county.

Ability to forge relationships and partnerships. I have a history of creating partnerships, overcoming agency silos, fostering regional collaboration, and forging settlements to resolve disputes. Representing the Marine Corps in the adjudication of the Santa Margarita River, I led the effort to settle the major issues between Camp Pendleton, Fallbrook Public Utilities District, and Rancho California Water District, 51 years after the litigation was initiated. I was also instrumental in forming a multiple-agency partnership to begin watershed planning in that watershed, in partnership with San Diego and Riverside Counties and other agencies, and initiated a regional collaboration for water quality monitoring that is still ongoing. At the County of Orange, I brought cities and water agencies together for the first time to develop a strategic plan for water resources management that led to the current approach being used for Integrated Regional Water Management Planning. My efforts also led to South Orange County writing one of the first IRWMPs and being the first entity in California to execute an IRWMP grant contract with the Department of Water Resources under Proposition 50. While working for RBF Consulting, I facilitated meetings between scrap metal recycling yard operators, Orange County Coastkeeper, the Regional Water Quality Control Board, and other experts and stakeholders to develop a region-wide industry sector stormwater permit that avoided litigation and prompted major investment in water quality improvements. After joining the Santa Ana Watershed Project Authority, I was able to help that agency find a path to settle a long-running dispute with the Orange County Sanitation District and begin a new era of collaboration and cooperation.

Soon after being elected to the Moulton Niguel board, I organized the discussions among elected officials that led to the settlement of the long running disputes between MWDOC and the South County agencies, including agreement on this process for selecting a new MWD director. I initiated the South Orange County Water Agencies working group that continues to meet and coordinate regarding water issues on a regional basis.

At MWD, I have good working relationships with many of the current board members, and count no enemies in that group. In deciding to pursue this position, I conferred with all three current MWDOC MWD representatives, and also sought the advice of Dan Griset, who represents Santa Ana, and Randy Record, who represents Eastern Municipal Water District and who was elected this week to be the next MWD chairman, both of whom are friends. I know Kris Murray (Anaheim) from her days at the Orange

County Business Council, with whom I have worked for many years. I am acquainted with Jennifer Fitzgerald (Fullerton), whose husband I have known for at least ten years. I have strong relationships with the other two Inland Empire members, Tom Evans (Western Municipal) and Michael Camacho (IEUA), as those agencies are also SAWPA members. I work very closely with Rich Atwater (Foothill Municipal) in connection with the Southern California Water Committee. I have a strong relationship with Keith Lewinger (SDCWA) dating to my Camp Pendleton days. Glenn Brown (Burbank) was a groundwater expert with whom my law firm collaborated in the 1990s. I am acquainted with several other directors who I see regularly at water conferences and events.

Time commitment. I am prepared to resign my position on the Moulton Niguel Water District board of directors with a date effective prior to being sworn in to the MWD board, in accordance with MWDOC's letter of April 21, 2014, announcing the MWD vacancy. I currently spend at least 60 hours per month on Moulton Niguel matters. Based on my discussions with the other MWD Directors, I expect the time commitment to serve MWD as being comparable to the position I would be departing. Therefore, I am confident I can provide the time that is required to do the job well at MWD.

In my current regular employment with SAWPA, three of SAWPA's member agencies are MWD members. But SAWPA is not involved in water importation, purchases, or delivery, and so I see no existing, potential, or apparent conflict between representing MWDOC at MWD and my SAWPA employment. I have verified this with the SAWPA General Manager, the SAWPA Commissioners who represent MWD members, and Phil Anthony, who represents the Orange County Water District on the SAWPA Commission and is currently its chair.

I would appreciate you supporting my interest in this MWD role in the nominating committee. I am, of course, available to provide any further information that you think would be helpful in this considering this request.

Sincerely,

  
Larry B. McKenney

## Larry B. McKenney

### Education:

1985-88	Univ. of Texas School of Law	Juris Doctor (honors)
1978-82	U. S. Naval Academy	Bachelor of Science (History)
1988	Admitted to Texas Bar	
1994	Admitted to California Bar	

### Work History:

**Dec 2010 – Present. Executive Counsel, Santa Ana Watershed Project Authority.** In-house general counsel to joint powers authority of five large water agencies for water resources planning and regional infrastructure in the Santa Ana River watershed. Also staff for legislative advocacy, strategic planning, government relations, and certain aspects of Integrated Regional Water Management Planning.

**Dec 2008 – Present. Director, Moulton Niguel Water District.** Board president. Chair, Personnel and Salary Committee. Former chair, Legal and Legislative Committee. Board Chair, San Juan Basin Authority (JPA). Organizer and ad hoc chair, South County Water Agencies working group.

**Sep 2007 – Dec 2010. Vice President, Watershed Management, RBF Consulting, Irvine.** Creating a new business line within an established engineering and planning company to assist clients with watershed planning, watershed management, and Integrated Regional Water Management Plans (IRWMPs). Clients include southern California cities and counties, water and wastewater districts, developers, environmental organizations, and regional transportation agencies. More significantly, assisting the company in changing its culture to integrate the efforts of many different disciplines to produce innovative, sustainable, and valuable plans and projects.

**Feb 2002 – Sep 2007. Director, Watershed & Coastal Resources Division, Resources and Development Management Department, County of Orange.** Managed the development and implementation of new programs to meet regulatory requirements and to protect water quality and coastal resources. Coordinated the efforts of multiple County departments and 34 cities. Led agencies and interest groups to cooperate in solutions, including new management practices, ordinances, and capital projects. Represented the County before State and Federal agencies, and advocated for or against legislation in Sacramento and Washington, DC. Obtained grant funding and created regional collaboration on grants. Represented the County as a board member for the Southern California Coastal Water Research Project Authority, the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, the Los Cerritos Wetlands Authority, and the American Shore and Beach Preservation Association.

**1996 – 2002. Director, Office of Water Resources, Marine Corps Base, Camp Pendleton.** Directed and coordinated all water resources programs at Camp Pendleton, including water rights, water supply, regional and watershed planning, water and wastewater utilities, storm water management, aquatic habitat and endangered species protection, and regulatory compliance under the Clean Water Act, Safe Drinking Water Act, Endangered Species Act, and the National Environmental Policy Act. Negotiated major water rights settlement to resolve long-standing litigation between the United States and Rancho California Water District. Represented the Base to all off-Base entities including State and local governments, other federal agencies, and public interest groups. Chaired San Diego County Project Clean Water Legal and Regulatory Advisory Committee 2000-2002.

**1994 – 1996. Attorney, Law Offices of Susan M. Trager, Irvine, California.** General legal practice specializing in water and environmental matters including water rights, water quality, habitat and species protection, CEQA, eminent domain, and administrative law related to water companies and water districts. Focus of practice was transactional and administrative law, but also worked on litigation involving water rights, CEQA, eminent domain, mutual water companies, and mechanics liens.

**1991 – 1994. Attorney, Western Area Counsel Office, Camp Pendleton.** Represented the U.S. Marine Corps bases in the western United States on matters including water rights, Clean Water Act, Safe Drinking Water Act, Endangered Species Act, land use, environmental planning, environmental litigation, and regional coordination such as watershed management. Drafted and filed administrative protests and petitions to the State Water Resources Control Board and worked closely with Department of Justice on litigation involving CEQA and water rights. Negotiated a long-term lease of groundwater rights with a neighboring water agency and drafted interagency agreements for interconnecting water systems.

**1988 – 1991. Attorney, Office of the Staff Judge Advocate, Camp Lejeune, North Carolina.** First as a Civil Law Officer, handling all civil law matters in the manner of a city attorney, including contracts, employment law, environmental law, constitutional law, etc. Later as the Base's chief trial counsel, prosecuting criminal law cases and managing a team of four prosecuting attorneys and support staff.

**1982 – 1985. Artillery officer, U.S. Marine Corps.** Served in an artillery battalion as a forward observer, safety officer, motor transport officer, and legal administration officer.

#### **Other Board and Committee Experience:**

##### **Current:**

Association of California Water Agencies, Region 10 board member  
Southern California Water Committee, Board of Trustees; Chair of the Legislative Task Force, member of the Delta Issues, Public Education, Stormwater, Urban Water Planning, and Water Quality Task Forces

Urban Water Institute board member  
Southern California Water Dialogue Steering Committee  
California Water Policy Conference Planning Committee  
Orange County Coastkeeper board member  
Orange Coast Watershed and Education Center board member  
University of California, Riverside, Water Science & Policy Center Advisory Committee

Previous:

Rivers and Mountains Conservancy board member  
Los Cerritos Wetlands Authority board member  
Water Advisory Committee of Orange County (WACO) president  
Aliso Viejo Community Association board president  
Flood Plain Management Association board member  
American Shore & Beach Preservation Association board member  
Newport Bay Naturalist and Friends board member (now Newport Bay Conservancy)



BOARD OF DIRECTORS  
 BETTY H. OLSON, PH.D  
 CHARLEY WILSON  
 CHARLES T. GIBSON  
 SAUNDRA F. JACOBS  
 JUSTIN McCUSKER  
 DANIEL R. FERONS  
 GENERAL MANAGER

EXHIBIT "E"



Santa Margarita Water District

May 19, 2014

Mr. Paul Cook  
 General Manager  
 Irvine Ranch Water District  
 P.O. Box 57000  
 Irvine, CA 92619-7000

Dear Mr. Cook, *Paul*

The Santa Margarita Water District (SMWD) takes great pleasure to inform you that we have nominated Dr. Betty H. Olson as a candidate for the Metropolitan Water District of Southern California (MWD) director position representing the Municipal Water District of Orange County (MWDOC) and its member agencies.

Dr. Olson has served as an elected official, a scientist and a professor of water science for nearly three decades. Her distinctive combination of public service, local participation and academic expertise make her a strongly qualified candidate. We have prepared the attached to demonstrate her ability to serve effectively if nominated.

Thank you for your consideration of Dr. Olson as a candidate for the MWD position.

Yours sincerely,

Dan Ferons  
 General Manager



## Certification of Nomination for Dr. Betty H. Olson

Candidate for Metropolitan Water District of Southern California (MWD)  
Representing the Municipal Water District of Orange County (MWDOC)

### **Dr. Olson is uniquely qualified to represent the interests of MWD**

By virtue of her experience in the water industry, as an elected official and as a water scientist, Dr. Betty H. Olson is uniquely qualified to serve as MWD director for the MWDOC. She has a long history of working effectively with people in organizations and across disciplines, both in the public and private sector, to ensure a reliable supply of quality water. She displays a singular focus on water issues and is not constrained with other obligations or considerations.



Dr. Olson's efforts have centered at the national, multi-state, regional and Orange County levels. Prioritizing water reliability needs of Orange County, Southern California and the state is her utmost concern.

In the water industry Dr. Olson has decades of experience working with people and professionals from MWD, MWDOC, Santa Margarita Water District (SMWD) and the Irvine Ranch Water District (IRWD). Due to her nationally recognized research in water quality and contributions to water policies at all levels, she has demonstrated the ability to bring leading-edge knowledge to MWD's policy making. At the same time, she will be an effective advocate of the interests of MWDOC and Orange County, working collaboratively to ensure a reliable supply of water for all of Southern California. Following are some highlights demonstrating her water policy leadership role over the last 35 years:

- **National**—Actively participating with the USEPA Science Advisory Board and various committees on water quality; on-going working experience with USEPA; research, recommendations and peer review on Federal regulations regarding water treatment for Water Quality Disinfection By-Products; appointed to National Research Committees and the National Academy of Science's Water Science and Technology Board;
- **Multi-state**--Western States Water Council--bi-partisan body representing 18 western states; appointed by two Governors (2009-2014, 2014-present); actively participated in protection of states' rights relative to water supply, emerging contaminants, and infrastructure.
- **Regional**—Demonstrated knowledge regarding interplay of imported water, water transfers, groundwater management and conjunctive use; wide range of experience with MWD involving:
  - Water transfer discussions with MWD Directors, including water wheeling; and
  - Water quality discussions and research with MWD technical experts.

## **Certification of Nomination for Dr. Betty H. Olson**

**Candidate for Metropolitan Water District of Southern California (MWD)  
Representing the Municipal Water District of Orange County (MWDOC)**

- **Local--Elected Official at SMWD and former Board member of IRWD with demonstrated service and loyalty of 28 combined years:**
  - Proven leader building coalitions for water supply and water quality;
  - Instrumental in policies involving groundwater storage, Chino Basin, San Juan Basin, among others; and
  - Recently, she arranged her professional obligations to enable her to serve if selected as MWDOC's appointed MWD director, including plans to resign from the Board of SMWD if she is appointed.

### **Knowledgeable concerning key issues facing MWD, including but not limited to:**

- Water supply allocation policy;
- MWD imported water rates and conditions;
- MWD's long range financial plan;
- Bay Delta Conservation Plan – economics and related financing; and
- Evaluation of water supply alternatives such as recycling for irrigation, direct and indirect potable reuse (Orange County's Groundwater Replenishment System) and ocean desalination.

Her experience and initiative as a retail water district director will facilitate follow-up on important issues such as shared services/assets and metering of the Allen-McCullough Pipeline (AMP) for continued quality assurance and accuracy.

### **Proven ability to serve from MWDOC perspective**

Dr. Betty H. Olson has a keen understanding of MWDOC's unique responsibility to represent Orange County water interests. She is well aware that MWDOC's top priority is to provide ratepayers and the citizens of Orange County and Southern California added value from the activities of MWD.

Key points regarding her ability to represent MWDOC include her:

- Thorough understanding of MWDOC's mission, goals and objectives, including her close monitoring of key meetings and her focused participation in discussions with representatives of MWDOC;

## **Certification of Nomination for Dr. Betty H. Olson**

### **Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWDOC)**

- Decades of experience reviewing MWDOC budgets, plans and programs and in-depth experience developing budget and financial policies to support water operations both for the water districts and other agencies;
- Knowledge concerning current issues such as:
  - Quantitative Settlement Agreement (QSA) to allocate water among MWD, Coachella Valley Water District, Imperial Irrigation District and San Diego County Water Authority;
  - Conjunctive use and the need to gain approval from MWD for allowing local (non-MWD) water into MWD's treated water system;
  - Water banking to increase water supply reliability;
  - Water allocations and water use efficiency programs under conditions of on-going drought as well as in wet years; and
  - The scope and contribution rate for the MWD Local Resources Program (LRP) for local water agencies to develop resources including groundwater recovery and recycled water.

### **Ability to serve and represent all South County agencies– experience and skills demonstrated by:**

- Insight and direct implementation experience regarding local project development, physical plant and operating agreements, including water treatment, pipelines, pumps, storage, and storm water control and groundwater management, e.g.. Her experience includes:
  - Water Storage—aided SMWD to move from 7 to 30 days of storage through projects such as the El Toro Reservoir, the Upper Chiquita Reservoir, largest domestic water reservoir built in South Orange County in 45 years, and the Upper Oso Reservoir, one of the largest recycled water reservoirs;
  - Groundwater production—Knowledge of Dyer Road well field and of numerous groundwater basins throughout the region;

## **Certification of Nomination for Dr. Betty H. Olson**

Candidate for Metropolitan Water District of Southern California (MWD)  
Representing the Municipal Water District of Orange County (MWDOC)

- Water conservation and recovery for re-use--Dove Canyon Conservation and Water Recovery Project and the public private partnership of the Gobernadora Multipurpose Basin project which together will yield approximately 950 af of water annually; and
  - Water treatment--understanding of the operation of MWD filtration plants as well as the partnership for development and operation of IRWD's Baker Treatment Plant.
- 
- Expertise in utilizing wastewater as a resource and related water quality issues--instrumental in policies concerning planning, building and operation of various treatment plants, pipelines and storage facilities throughout South Orange County;
  - Outreach initiative--plans to meet regularly with South County Agencies to maintain dialogue and obtain feedback on progress toward matters of mutual interest--MWDOC, MWD and South County; and
  - Understanding of the importance to augment local projects to increase water reliability for agencies within MWDOC and the additional flexibility that increased reliability will afford MWD.

### **Dr. Olson has demonstrated ability to forge relationships and partnerships as evidenced in her:**

- Leadership role as a water district director as demonstrated through local and regional projects; and
- Leadership in respected organizations in the water industry and in academia, as illustrated in the following professional highlights.

## Certification of Nomination for Dr. Betty H. Olson

Candidate for Metropolitan Water District of Southern California (MWD)  
Representing the Municipal Water District of Orange County (MWDOC)

### Professional Highlights

- ❖ Professor, Department of Civil and Environmental Engineering, Henry Samueli School of Engineering, University of California, Irvine.
- ❖ Elected Director of two water districts, IRWD (1982-1988) and SMWD (1996-present).
- ❖ Appointed by two California governors to the Western States Water Council, which is the policy arm of the Western States Governors' Association (18 Western states and 3 U.S.-flag islands).
- ❖ Served on USEPA Science Advisory Board, The National Academy of Sciences Water Science and Technology Board as well as numerous USEPA committees dating from 1983.
- ❖ Elected to the American Academy of Microbiology for development and the application of molecular techniques to water quality and treatment processes.
- ❖ Founding Director and currently Associate Director of the Urban Water Research Center (UWRC) at University of California, Irvine (UCI).
- ❖ Serving on the Dean's Executive Committee of the Samueli School of Engineering, a UCI representative to the UC-wide academic senate and Chair of Environmental Science and Policy in the School of Social Ecology.
- ❖ Past consultant to a number of water and wastewater agencies as well as an expert witness in a number of cases involving water quality.
- ❖ Author with more than 200 presentations and publications in different periodicals such as Nature, Environmental Science and Technology, and The New England Journal of Medicine.



- *Elected Official – more than 28 years' experience*
- *Local, regional, Statewide and national perspective on water issues*
- *Balanced approach – fiscally conservative and operationally innovative*
- *Bi-partisan policy maker – appointee of two California Governors*
- *Partnership builder*
- *Expertise – Professor, thought leader, water quality expert, and engineering consultant*
- *Legal issues – experienced in wide variety of legal proceedings, expert witness on water quality, expertise regarding wide range of regulatory issues*

**Certification of Nomination for Dr. Betty H. Olson**

Candidate for Metropolitan Water District of Southern California (MWD)  
Representing the Municipal Water District of Orange County (MWDOC)

**STATEMENT of INTEREST**  
**Dr. Betty H. Olson**

I have a long history of public service and I believe I am a uniquely qualified and strong candidate for the MWD director position for MWDOC.

I have served as an elected official for almost three decades. During that time I have learned how agencies run, how to build financial stability and how to increase water reliability through the development of a regional vision in South Orange County. This success has required SMWD to build coalitions with other agencies. I look at the MWDOC position on the MWD Board as an opportunity to serve all of Orange County in building increased water and system reliability. I believe my background fits well into what is needed as a MWD Director for MWDOC.

We are facing the worst drought since 1977 and this means we need to develop all water resources, especially recycled water which is critical in providing MWD the flexibility to meet its contracted obligations. Resolution of the Bay-Delta Project and of the issues involving endangered species is essential. However, with approximately 225 new species pending for the Endangered Species list, it is clear that development of local projects is of ever increasing importance. I am committed to supporting local projects to reduce the demand on MWD.

With any new position there is an important learning curve. I have completed research with MWD on open reservoirs and on the switch from chlorine to chloramines. My research has given me a working knowledge of the MWD system from the mid 1970's until today. My work on the National Research Council Committees familiarized me with the Colorado River and Glenn Canyon issues and enabled me to examine how environmental stewardship has grown. From these experiences I believe that I will rapidly become a contributing member of the MWD team.

Whether it is a local, regional, state or national issue in water, times have never been more uncertain. The slow economic recovery impacts present and future water demands as well as the environment. Proactive leadership is, therefore, even more important than in the past as is building broad coalitions, finding win-win solutions and fostering innovative opportunities to increase water reliability.

## **Certification of Nomination for Dr. Betty H. Olson**

**Candidate for Metropolitan Water District of Southern California (MWD)  
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Looming ahead is the USEPA's new guidelines on the interrelatedness of all waters of the United States. This reinterpretation of the Clean Water Act of 1972 will impact projects at all levels and could place restraints on the development of indirect and direct potable water projects. MWD will have a major role on this set of rules which will affect all of MWD and MWDOC's member agencies. My background with USEPA would be of help to understand and influence USEPA goals.

Through my role as a professor and educator, I see the knowledge gap growing as the "baby boomers" move into retirement. I think MWD and its member agencies have an important role ensuring that the next generations of Californians who will build our water future are trained. Furthermore, my years as a professor have taught me how to translate highly technical information to the layman. I am proud of this accomplishment and believe it would be useful as an MWD director.

Through my research and my activities as an elected board official, I bring an understanding of conservation, and the application of these methods. As a life-long Californian, raised in Northern California and now living in Southern California, I understand how water is viewed throughout the state. I am proud of the role I have played on the IRWD and SMWD Boards to further recycling and conservation in conjunction with the efforts of MWDOC.

Lastly, my membership on the Western States Water Council has enabled me to interact with our 18 member states and to understand their water issues. I will bring these insights to the MWD position as well as to MWDOC.

I ask the South Orange County nominating committee to consider my unique blend of public service, local participation and academic expertise in their selection of a nominee for the MWD director position.

## **Certification of Nomination for Dr. Betty H. Olson**

**Candidate for Metropolitan Water District of Southern California (MWD)  
Representing the Municipal Water District of Orange County (MWDOC)**

### **Betty H. Olson, Ph.D.**

#### **Education:**

- Ph.D., Environmental Health Science with minors in Ecology and Microbiology, University of California, Berkeley, 1974
- M.S., Environmental Health Science, University of California, Berkeley, 1971
- B.S., Biology with emphasis in Microbiology, University of California, Irvine, 1969

#### **Honors and Awards:**

- Public Health Service Training Grant, 1969-1970.
- Delta Omega, 1970.
- General Research Support Grant, 1970, 1972; University of California School of Public Health.
- Public Health Service Traineeship, 1970-1971.
- National Institute of Health Post Doctoral Individual Research Fellowship Award, 1974-1976 (Declined).
- Who's Who in American Women.
- Who's Who in the West 1996
- Who's Who in America (Swarthmore Edition) 1999-present
- Woman of the Year, Orange and San Bernardino Counties, Women's Business and Professional Association, 1982.
- Water Quality Division, Best Article, 1984, American Water Works Association.
- Fellow of the American Academy of Microbiology, elected 1986.
- Chancellor's Distinguished Lecturer, University of California, Berkeley, 1988.
- Foundation Lecturer, American Society of Microbiology, 1992-1994.
- Fellow of the International Institute of Biotechnology, elected May 1993.
- Sigma Xi, Elected Fellow, 1993.
- Recipient of Anniversary Medal as Keynote Speaker in Environmental Biotechnology for 100<sup>th</sup> Year Commemoration of Royal Society Chemist, Egypt, 1999
- FDA Microbiological Advisor Award, 2004-2008

#### **Research and Professional Experience:**

- Director, Environmental Biotechnology Consortium, 1992-1995.
- Chair, Environmental Analysis and Design, School of Social Ecology, University of California, Irvine, California, 1989-1993.
- Professor, Step VIII, School of Social Ecology, University of California, Irvine, July 1, present.
- Professor, School of Social Ecology, University of California, Irvine, July 1, 1984-2010.
- Professor, (Department of Community and Environmental Medicine), School of Medicine, University of California, Irvine, October 1984-2010.
- Professor, (Department of Biochemical Engineering), School of Engineering, University of California, Irvine, 1990-1996.



## **Certification of Nomination for Dr. Betty H. Olson**

### **Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWDOC)**

- Assistant Vice Chancellor, Plans and Programs, University of California, Irvine, 1982-1984.
- Associate Professor, Program in Social Ecology, University of California, Irvine, 1980-1984.
- Visiting Scientist, Department of Geology, Royal School of Mines, Imperial College, London University, London, England, 1980-1981.
- Assistant Professor, Program in Social Ecology, University of California, Irvine, 1974-1980.
- Visiting Assistant Professor, Department of Microbiology, University of Maryland, College Park, Maryland, 1977.
- Assistant Research Epidemiologist, University of California, Davis, May 1974 to September 1974.
- Extension Instructor, University of California, Davis, spring 1974.
- Associate in Public Health, Division of Environmental Health Science, School of Public Health, University of California, 1971-1973.

#### **Masters and Doctoral Students:**

- Martin Rigby, PhD
- Gail Shimoto, MS
- Edward G. Means III, MS
- Deborah Hill, MS
- Linda S. Troyer, MS
- Susan Tripp, MS
- Roy Wolfe, PhD
- Y Lee, PhD
- Mickey Stewart, PhD
- Robin Oshiro, PhD
- Stephen Lyon, PhD
- Chad Saltikov, PhD
- Leila Khatib, PhD
- Ryan Dwight, PhD
- Joan Shields, PhD
- Eunice Chem, PhD
- Veronica Ardi, PhD
- Hun-Kyun Bae
- Phil Gedalanga (Chair)
- Zachary Scott (Co-chair)
- Pitiporn Asvapathanagul (Chair)
- Cheng-Yao Tsai (Co-Chair)

#### **Post Doctoral Fellows Trained and Visiting Scientists:**

- Harry Ridgway, Ph.D., UCSD
- W. Robert Ward, Ph.D., U.M., Amherst
- Tamar Barkay, Ph.D., U.M., College Park
- William McCoy, Ph.D
- Barham Zamani, Ph.D., Michigan State University
- Simon Ford, Ph.D., Bristol, England

## Certification of Nomination for Dr. Betty H. Olson

### Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWDOC)

- K. Panigrahi, Fulbright Fellow, India
- Yuli Tsai, Ph.D., Ohio State University
- Paul Rochelle, Ph.D., Cardiff
- Oladele A. Ogunseitan, Ph.D., U.T. Knoxville
- Dong Ju Min, Visiting Scientist, Xian Environmental Protection Institute, Xian, China
- Chris Tebbe, Ph.D
- Susan Bradford, Ph.D., U.A., Tucson
- Carol, J. Palmer, Ph.D., U.H., Honolulu
- Maria Teresa Martins, Ph.D., Associate Professor, University of Sao Paulo, Brazil
- Irma Gutierrez Rivera, Visiting Scientist, University of Sao Paulo, Brazil
- Chuzhao Lin, Ph.D., University of Illinois, Urbana, Champaigne
- Peter Noble, Ph.D., University of Saskatchewan, Canada
- Jae Sung Jung, Ph.D., Visiting Scientist, Sunchon National University, Korea
- Huang, Zhonghua, Visiting Scientist Nanjing University of Science and Technology, China
- Deqiang Chen, visiting Scholar, College of Environment, Hohai University, Nanjing 210098, PR China
- Yun Shao, School of Energy and Environment, Southeast University, Nanjing 210096, PR China

#### Grants and Contracts:

##### International

- North Atlantic Treaty Organization: An Evaluation of the Importance of Historical Time and Metal Source on Adaptability and Metal Resistance Patterns in Bacterial Populations from Metal Contaminated Soils
- International Council of Scientific Unions, Council on Biotechnology, Environmental Biotechnology

##### Federal

- National Science Foundation Educational Improvement. Equipment
- Water Resources Center, University of California, Davis: Long Term Effects of Trace Elements from the Reuse of Sewage Effluent on Soil, Vegetation and Animals
- U.S. Environmental Protection Agency. Assessment and Implications of Bacterial Regrowth and Water Distribution Systems.
- Grant #R-805680-01
- Office of Water Resources and Technology. Department of Interior, Water Resources Center, University of California, Davis Matching Grant: Statewide Evaluation of Trace Element Accumulation from Long-Term Land Disposal of Wastewater
- Office of Water Resources and Technology. Department of Interior, subcontract from Orange County Water District: Investigation of Reverse Osmosis Fouling at Water Factory 21
- U.S. Environmental Protection Agency. Evaluation of the Turbidity Standard in Relation to Degradation of Microbial Quality within Distribution Systems. Cooperative Agreement #CR-80009817
- U.S. Department of Energy. Evaluation of Groundwater Microbial Quality. PO9-XR4-A6315-1

## Certification of Nomination for Dr. Betty H. Olson

### Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWD OC)

- Water Environment Research Federation. Identifying Biological Fouling on Diffuser Membranes (D. Russo, PI)
- National Science Foundation. An Assessment of Stressor Induced Gene Occurrence in Soil Bacterial Communities. BSR-8415899
- Water Resources Center, University of California, Davis. Mechanisms of Bacterial Resistance to Disinfectant Agents Used in Water Supplies
- U.S. Environmental Protection Agency. Evaluation of Novel Methods for the Detection of Recombinant DNA in the Soil Environment
- U.S. Environmental Protection Agency. Development of a Rapid Microscopic Method to Determine the Potential for Coliform Regrowth in Water Distribution Systems
- U.S. Environmental Protection Agency. Rapid Molecular Techniques for Distinguishing Human from Animal Escherichia-coli
- U.S. Environmental Protection Agency. Differentiation Among Human, Cow, and Pig Fecal Pollution in Water using PCR on E. coli Toxin Genes
- U.S. Department of Agriculture. Increasing the Sensitivity of Detection to Differentiate Animal & Human Waste in Watersheds

#### California

- California State Water Resources: Water Reuse in South Africa. Contract #B52488
- Toxic Substances Research and Training Program: Gene Amplification and Expression in Bacteria for Increased Biodegradative Genetic Potential
- University of California Systemwide Biotechnology Research and Education Program, Molecular Biology Institute: Amplification and Expression of Environmentally Significant Genetic Operons in Bioreactors and *in situ*
- California State Water Resources Control Board: Evaluation of the ST<sub>H</sub> Toxin Gene in the Detection of Human Waste in Marine Water
- California Department of Water Resources: Geographical & Seasonal Occurrence of Cyclospora Cayetanensis in Southern California Waters
- University of California Water Resources Center
- Simultaneous Detection of Fecal Waste Sources and a Major Pathogen Associated with Waste, *E. coli* O157:H7 in Irrigation and Recreational Waters using a Low Density Microarray
- PIER Determining the Role of *E. coli* (hydrogenase III and IV) in the production of Hydrogen from wastewater sludges in a Two Phase Reactor Design. (Arps, PI and Olson, Co-PI)
- New York EPA: Fecal Source Identification of Cow Waste in Groundwater
- Washington State Public Health Human and Domestic Animal Source Identification
- Feasibility of Producing Biohydrogen at Municipal Wastewater Facilities Using Molecular Studies to Optimize Production via the Anaerobic Digestion Process EISG grant 06-5432A/05-01

#### Local

- Metropolitan Water District of Southern California. Contract: Evaluation of Bacterial Populations in Garvey and Palos Verdes Reservoirs
- Metropolitan Water District of Southern California. Contract: Statistical Evaluation of Water Quality in a Reservoir System
- Los Angeles Water and Power: Contract: Biofilm formation in the Los Angeles Aqueduct

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Candidate for Metropolitan Water District of Southern California (MWD)  
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- Metropolitan Water District of Southern California. Contract: Chloramines as a Disinfectant; Water Quality in San Joaquin Reservoir
- Los Angeles Water and Power: Contract: Biofilm formation in Water Distribution Line
- Metropolitan Water District of Southern California: Evaluation of the Performance Capability of the Auto-analysis Colilert Test
- Orange County Water District: Development of a Rapid Method to Measure Assimilable Organic Carbon
- Metropolitan Water District of Southern California: Developing a Protocol to Test for Stressed *E. coli*
- East Bay Municipal Utility District: Biologically Mediated Copper Corrosion: A Molecular Approach
- Irvine Ranch Water District: Managing Sulfate Taste and Odor Problems through Assimilable Organic Carbon
- City of San Francisco: Determination of Fecal Coliforms in a Drinking Water Reservoir
- County Sanitation Districts of Orange County: Occurrence of Virulence Factors in *E. coli*
- Irvine Ranch Water District: Evaluation of Biological Water Quality
- Orange County Water District: Identification of Microbially Aesthetic and Health Issues Related to SAR Recharge
- Monterey State University, Microbial source tracking in the Watsonville Slough, California
- County of Orange, Orange, California Microbial Source tracking in the Aliso Creek Watershed
- National Fuel Cell Center, UC Irvine Biohydrogen Production in Activated and anaerobic Sludges
- Inland Empire Utility District. Optimizing a manure plug flow anaerobic Digester.
- Santa Margarita Water District. Developing a simple, rapid molecular method to test for ammonia oxidizing bacteria for water & wastewater. Gift: ammonia oxidizers
- El Dorado Water District Microbial Source Tracking and Identification of a Horse Biomarker

## Certification of Nomination for Dr. Betty H. Olson

Candidate for Metropolitan Water District of Southern California (MWD)  
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### Foundations and Gifts

- American Water Works Association Research Foundation: Research Needs in Potable Water Microbiology
- American Water Works Association Research Foundation: Assessing and Controlling Bacterial Regrowth in Distribution Systems
- Electrical Power Research Foundation: Applied Ecology
- Electrical Power Research Foundation: Managing Organic Pollution through Genetic Ecology: Biodegradation of Polyaromatic Hydrocarbons
- National Water Research Institute: Identification of Microbially Aesthetic and Health Issues Related to SAR Recharge
- National Water Research Institute: Potential for Genetic Enhancement of Bacterial Degradative Processes in Wastewater
- National Water Research Institute: Genetic Characterization of Chemically Stressed Microbial Communities
- American Water Works Association Research Foundation: Modeling and Evaluation of the Effects of Residential Water Conservation, Price and Non-Price Programs
- National Water Research Institute: Geographical & Seasonal Occurrence of Cyclospora cayentanensis in Southern California Waters
- National Water Research Institute: Detection of Cyclospora cayetanensis in Southern California Surface Waters
- Molecular approaches to understanding ammonia oxidation in activated sludge (2005) Donor support
- Review of Dewatering Methods gift donation
- National Water Research Institute: Simple Molecular methods to optimize and monitor ammonia oxidation
- Identification of Sludges for Biohydrogen Production

**Total Funding Since 1988 Approximately \$4.2 million**

### University:

- Development of Minority and Women Faculty, 1975, 1976, 1977
- Intercampus Activities Fund, University of California, Irvine, 1982-1984
- University of California. Coastal Environmental Quality Initiative (Graduate Fellowship): Occurrence of *Aeromonas hydrophila* in Southern California's Coastal Waters and Virulence Factors Associated with Infections, 2001-2003. (Veronica Ardi, graduate student/ investigator)
- Pacific Rim Program Grant 04-1299 Feasibility of Producing Biohydrogen at Municipal Wastewater Facilities Using Molecular Studies to Optimize Production via the Anaerobic Digestion

## **Certification of Nomination for Dr. Betty H. Olson**

**Candidate for Metropolitan Water District of Southern California (MWD)  
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### **Professional Organizations:**

- American Society of Microbiology
- American Water Works Association
- International Association on Water Pollution Research
- American Public Health Association
- Society of Industrial Microbiology

### **Professional Activities:**

#### **International**

- International Council of Scientific Unions, Member,
- International Scientific Committee for Biotechnology, 1988 - Present.

#### **National**

##### Standard Methods

- Member, Standard Methods, Joint Task Group on Rapid Detection, 15th Edition (1980).
- Member, Water Pollution Control Federation, Committee on Water Reuse, 1976-1981
- Chair, Standard Methods, Joint Task Group on Fecal Streptococci, 16th Edition.
- Member, Standard Methods, Joint Task Group on Coliform Injury, 16th Edition.
- Member, Standard Methods, Joint Task Group on Rapid Detection, 16th Edition.
- Member, Standard Methods, Joint Task Group on Standard Plate Count, 16th Edition.
- Microbiological Coordinator, American Public Health Association, Joint Editorial Board of Standard Methods, 17th Edition.
- Microbiological Coordinator, American Public Health Association, Joint Editorial Board of Standard Methods, 17th Edition Supplement.

##### EPA Science Advisory Board

- Science Advisory board
- Member, USEPA Subcommittee on Drinking Water
- Member, USEPA Committee on Drinking Water
- Member, USEPA Committee on Ecological Processes and Effects
- Member, USEPA Wetlands Research Program
- Member, USEPA Subcommittee on Ecological Monitoring
- Member, USEPA Bioremediation

##### Board of Directors

- Foundation for Microbiology, New York, N.Y.
- Daleco, Newport Beach, CA
- Neptune Technology, San Clement, California, Advisory Board

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Candidate for Metropolitan Water District of Southern California (MWD)  
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### Professional Societies

- Member, Membership Committee, Society of Industrial Microbiology
- Alternate Delegate, Universities Council on Water Resources
- Delegate, Universities Council on Water Resources
- Chair-Elect, Terrestrial and Aquatic Microbiology, American Society for Microbiology
- Chair, Terrestrial and Aquatic Microbiology American Society for Microbiology
- Councilor, Society of Environmental Geochemistry and Health
- Member, Committee of the Divisional Structure, American Society for Microbiology Review
- Member, Microbiological Problems Committee, American Water Works Association
- Chair, Microbiological Problems Committee, American Water Works Association
- Counselor, Group III, American Society of Microbiology
- Member, Subcommittee on Microbiological Standards, American Water Works Association
- Junior Delegate, American Society for Microbiology to the U.S. National Advisory Committee for the International Association for Water Pollution Research and Control
- Member, Public Relations Committee American Society for Microbiology.
- Member, Membership Committee IAWPRC.
- Member, Public Affairs Committee, American Society for Microbiology
- Member, Organizing Committee on the Conference on Biotechnology, American Society of Microbiology
- Member, Foundation Lectureships, American Society for Microbiology

### Workshops

- Member, EPA Workshop on Evaluation of Coliform Methods
- Member, Workshop on Research Need in Intermedia Transport Processes, National Center for Intermedia Transport Research, UCLA
- Co-chair, Pathogen Section, EPA Workshop, Evaluation of the Interim 1974 Microbiological Drinking Water Standards
- Member, Workshop on Filtration in Relationship to the Promulgation of Drinking Water Standards, U.S. EPA/AWWA, Baltimore, MD
- Speaker, Workshop on Indoor Waterborne Contaminants. U.S. EPA/Microbial, University of Pittsburgh, PA
- Chair, Biological Organisms Homologous, Shackleton Point Workshop on Biological Impact Assessment Prospects for Physical and Biological Contaminants of Genetically Engineered Organisms, Syracuse, NY
- Member, Workshop on Habitat Improvement and Shellfish Sanitation, Western Regional Aquaculture Consortium, Newport, OR
- Speaker, Conference on Microbial Aspects of Surface Water Quality. "New Methods of Biotechnology in Water and Wastewater Microbiology." Water Pollution Control Federation, American Society for Microbiology, American Society of Civil Engineers, and Metropolitan Sanitary District of Greater Chicago, Chicago, Illinois
- Panel: B. Milner, B.H. Olson and P. Rochelle. Conference on Microbial Aspects of Surface Water. "Disinfection Resistance: A Question of Genetic Change or Physiological Adaptation?" Water Pollution Control Federation, Chicago, Illinois
- Member, USEPA Workshop on Protocol Development for New Methods for Indicator Bacteria Detection, Cincinnati, OH
- Member, Environmental Technology Workshop, Puerto Rico

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### Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWDOC)

- Member, NSF Exp. Program for the Stimulation of Comparative Research, Washington, DC
- Member, Organizing Committee, National Water Research Institute, Risk Associated with Exposure to Microbial Pathogens in Drinking Water Seminar, Orange County
- Speaker, American Society of Microbiology Workshop Program, "Use of PCR for Environmental Monitoring
- Chair of subgroup, American Water Works Association Workshop on Occurrence of Pathogens in Water, Park City, Utah
- Member, USEPA Workshop, Disinfectant By-Product Negotiated Rulemaking Technical Workshop, "What Is and Is not Known About Microbial Risks." Wash. D.C.
- Speaker, USEPA Workshop, "Microbes in Drinking Water: A Health Research Strategy, Research Triangle Park, NC
- Speaker, University of Puerto Rico Environmental Biotechnology Workshop, "An Overall View of Environmental Biotechnology," Mayaguera, Puerto Rico
- Member, ORISE Review Panel: Ocean Margins Program/Molecular Methods/Photo Synthesis, Rockville, MD
- Member, USEPA/OPPT Workshop Development of Ecological Tier Testing Schemes for Microbial Biotechnology Applications, Arlington, VA
- Speaker, USEPA/ERG, Workshop on Monitoring and Modeling Water Quality, Haifa, Israel
- Member, NSF/USEPA Merit Review Panel, Regional Hydrologic Vulnerability to Global Climate Change, Arlington
- Speaker, two day seminar *Recent Developments in Water and Wastewater Microbiology*, sponsored by Santa Ana River Basin Section of the California Water Environment Federation. Anaheim, California. February.
- Speaker, two day seminar, USEPA 2002, Source Identification using *E. coli* Toxin Genes for Human, cow, pig and bird waste,

#### Editorial Boards/Journal Review

- Editorial Board, Applied and Environmental Microbiology
- Reviewer, American Water Works Association Journal
- Reviewer, Environmental Technology Letters
- Editorial Board, Environmental Technology Letters
- Associate Editor, Environmental Technology Letters
- Reviewer, Water Research
- Editorial Board, Water Pollution Handbook of Environmental Chemistry; Springer-Verlag
- Reviewer, Applied Microbiology and Biotechnology
- Editorial Board, Applied Microbiology and Biotechnology
- Editorial Board, American Water Works Association
- Reviewer, Journal of Industrial Microbiology
- Reviewer, Molecular Ecology
- Reviewer, Environmental Toxicology
- Reviewer, The Journal of Laboratory Technology for Bio-research Biotechniques
- Reviewer, Canadian Journal Microbiology
- Reviewer, Journal of Mycology
- Reviewer Water Research, International Water Society



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### Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWDOC)

- Reviewer Canadian Journal Microbiology, Canadian Society for Microbiology
- Reviewer Journal *Biotechniques*
- Editorial Board, *Brazilian Ecology Review*, Sociedade de Ecologia do Brasil
- Reviewer *Environmental Science and Technology*, American Chemical Society
- Reviewer *Federation European Microbiology Society* European Microbiology Society
- Reviewer *Journal of Environmental Quality*, Agronomy Society of America
- Reviewer *American Water Works Association*, American Water Works Association
- Member, CDC/Georgia Department of Natural Resources Advisory Panel: Atlanta, GA

#### Funding Agencies

- Reviewer, Water Research Institute, Technion-Israel Institute of Technology, Technion, Haifa, Israel.
- Member, Advisory Panel Meeting, Centers for Disease Control/Georgia Dept. of Natural Resources/Environmental Protection Agency, March 3-4, 1994.
- Member, Engineering Review Panel, Environmental Protection Agency, 1984-1988.
- Member, Environmental Biology Review Panel, Environmental Protection Agency, 1982-84, 1986-1990.
- Reviewer, Bureau of Reclamation, Water Technology, 1983.
- Member, Control Technology Review Panel, Environmental Protection Agency, 1983-1987.
- Reviewer, U.S. Geological Survey, 1986, 1987, 1989, 1990.
- Reviewer, National Science Foundation, Water Resources and Engineering Ecology
- Reviewer, Electrical Power Research Institute. Ecology
- Reviewer, Department of Energy
- Reviewer, USDA
- Reviewer, Sea Grant
- Reviewer, and PAC, American Waterworks Research Foundation
- Member, Panel on Health and Risk, Kentucky Governor's Conference on State Strategies for Sustainable Development, Louisville, KY, May 26, 1993.
- Member, NSF/USEPA Review Panel Watersheds
- Member, USEPA Exploratory Research Panel
- Member, Panels on Drinking Water Risk Assessment Subpanel, Microbiology, George Washington University/USEAP
- Member, NASA Panel Review of Biology Program at Goddard, Houston, Texas
- Reviewer, Maryland Sea Grant College
- Reviewer, Purdue Sea Grant Program
- Reviewer, USDA Cooperative grant Program
- Reviewer, Illinois-Indiana Sea Grant College Program
- Reviewer, Wisconsin Sea Grant College Program
- Reviewer, North Carolina Sea Grant College program

#### NAS/NRC Committees

- Member, Committee on Water Resources, National Resources Council, NAS, 1985-1987.
- Member, Subcommittee on Public Health for Committee on Irrigation-Induced Water Quality Problems. NRC/NAS, 1986-1988.

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### Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWDOC)

- Chair, Water Resources Research Committee, 1987-1989.
- Chair, Workgroup Biology Reports to Water Resources Research Committee, 1987.
- Member, Water Science and Technology Board, 1988-1991.
- Member, Board on Environmental Studies and Toxicology, National Research Council, 1989.
- Liaison, Committee on Wetlands Restoration, 1990-1991.
- Speaker at Water Science and Technology Board Meeting Spring 2000, Irvine, California

#### **American Academy of Microbiology:**

- Member, Committee on Reevaluation of Microbial Water Quality: Powerful New Tools for Detection and Risk Assessment, March 2000.

#### **State:**

- Member, Coordinating Board of the Water Resources Center, 1979-1980.
- Treasurer, American Water Resources Association, California Section, 1979-1981.
- Member, Program Committee, American Water Resources Association, California Section, 1981-1982.
- Member, Coordinating Board of the Water Resources Center, 1984-1986.
- Member, Local Implementing Agency Committee, State Water Resources Control Board, 1986-1988.
- Member, Microbial Standards for Recreational Waters, State Water Resources Control Board, 1987-1988.
- Member, Microbial Advisory Committee, State Water Resources Control Board, 1993-1999.

#### **Local**

- Member, Advisory Committee for Ultimate Disposal Site for the Orange County Sanitation District, Orange County, California, 1981.
- Director, Irvine Ranch Water District, Irvine, California, appointed January 1982-June 1982.
- Director, Irvine Ranch Water District, Irvine, California, elected, June 1982-June 1986, 1986-1990.
- Member, Advisory Committee, on Groundwater Recharge from the Santa Ana River, Orange County Water Association, 1991-1993.
- Director, Santa Margarita Water District, Santa Margarita, California, appointed March 1994-Nov, 1995.
- Director, Santa Margarita Water District, Santa Margarita, California, elected, November 1995-1999
- President, Santa Margarita Water District 1995-1996
- Director, Santa Margarita Water District, Santa Margarita, CA 200-2004, elected President, SMWD 2000-2001

#### **University of California:**

##### University of California Systemwide Committees

- Committee on Budget and Planning, 1991-1992

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### Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWD OC)

- Committee on Research, 1989-1992
- Chair, Committee on Research, 1990
- Executive Committee, 1990-1992
- Academic Senate Committee, 1990-1992
- Toxic Substances Executive Committee, 1991-1997

#### University of California, Irvine from 1990

- Speaker, Library Association, "Academic Libraries and the Sciences: Assuring Successful Scholarships," April 18, 1991
- Representative, Statewide Academic Assembly, 1991-1992
- Member, Environmental Revitalization Panel, an Issue of National and Global Security. Jan. 16, 1992
- Speaker, UC Riverside Seminar, "Chain Probes and the Environment," Jan. 13, 1992. (Talks Invited)
- Member, Committee on Research, 1989-1990
- Chair, Committee on Research, 1990-1992
- Search Committee for Warnington Chair, 1992-1994
- UCI Chief Executive Officer Roundtable Retreat (Invited Speaker; "Environmental Biotechnology Research Facility: Molecular Diagnostics and Biofilm Imaging" Carmel, CA, May 20 1995
- Seminar Speaker, Environmental Toxicology spring 2000
- Dean's Executive Committee 2013-2014

#### **Consulting Experience:**

- Engineering Science, Berkeley, California
- J. M. Montgomery Consulting Engineers, Inc., Pasadena, California
- Baxter Travenol, Chicago, Illinois
- Metropolitan Water District of Southern California, Los Angeles, California
- Los Angeles Department of Water and Power, Los Angeles, California
- East Bay Municipal Utility District, Oakland, California
- Chevron, San Francisco, California
- Simco, Inc., New Haven, Connecticut
- J. Alton and Associates, Irvine, California
- First Westinghouse Ventures Corporation, Newport Beach, California
- Webb and Associates, Inc., Riverside, California
- Oberstein, Doniger, & Felter, Attorneys at Law, Los Angeles, California
- EVA Consultants, Inc., Vancouver, Canada
- Ecosoils, San Diego, California
- Daleco, Newport Beach, California
- Millipore Corp., Bedford, Massachusetts
- City of San Francisco, San Francisco, California
- Kenyon and Kenyon, Washington, DC/New York
- Kennedy Jenks Engineering, San Francisco, California
- Lyon Company, Orange County, California
- Ropers, Majeski, San Jose, California
- Nagle, Bustamante & O'Hara, San Jose, California

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### Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWD OC)

- Bowles and Verna, Walnut Creek, California
- Pillsbury, Madison, & Sutro, Los Angeles, California
- Sanwa Bank, Los Angeles, California
- Aquatech Ltd. Australia
- South Bay Utility District, Millbrae, California (student paid)
- City of Palo Alto Wastewater Treatment Facility (student paid)
- El Dorado Water District, El Dorado, California (students paid via RCC Group)
- Trussell Technologies, Pasadena California (Student paid)
- KennedyJenks Consultants (paid)
- USFDA, Microbiology Consultant 2003-2009 (paid)
- Burbank reclamation

#### Publications:

#### Journal Articles

1. Leong, L., B.H. Olson and R.C. Cooper. 1973. *Methylmercury and Environmental Health*. Journal of Environmental Health, 35(5), 436-442.
2. Olson, B.H. and R.C. Cooper. 1974. *In Situ Methylation of Mercury in Estuarine Sediments*. Nature, 252, 682-683.
3. Olson, B.H. and R.C. Cooper. 1975. *Comparison of Aerobic and Anaerobic Methylation of Mercuric Chloride by San Francisco Bay Sediments*. Water Research, 10, 113-116.
4. Olson, B.H. et al. 1976. *What's Happening with the Food Crop Growing and Harvesting Sanitation Program in Orange County, California?* Journal of Environmental Health, 39, 41-43.
5. Olson, B.H. and J. Pratte. 1978. *Public Acceptance of Expanded Uses of Renovated Wastewater*. Progress in Water Technology Journal, 10, (1/2), 319-327.
6. Olson, B.H. 1978. *Enhanced Accuracy of Coliform Testing in Seawater by a Modification of the Most Probable Number Method*. Applied and Environmental Microbiology, 36(3), 438-444.
7. Shimoto, G.T. and B.H. Olson. 1978. *Thermal Pollution - Impact Upon Aquatic Life*. Journal of Environmental Health Science, 41, 132-139.
8. Olson, B.H., T. Barkay and R.R. Colwell. 1979. *Role of Plasmids in Mercury Transformation by Bacteria Isolated from the Aquatic Environment*. Applied and Environmental Microbiology, 38(3), 478-485.
9. Nagy, L.A. and B.H. Olson. 1980. *Mercury in Aquatic Environments - A General Review*. Water, 7(3), 12-15.
10. Ridgway, H.F., E.G. Means and B.H. Olson. 1981. *Iron Bacteria in Drinking Water Distribution Systems: Elemental Analysis of *Gallionella* Stalks Using X-Ray Energy Dispersive Microanalysis*. Applied and Environmental Microbiology, 41(1), 288-297.

## Certification of Nomination for Dr. Betty H. Olson

### Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWD OC)

11. Ridgway, H.F. and B.H. Olson. 1981. *Scanning Electron Microscope Evidence for Bacterial Colonization of a Drinking Water Distribution System*. Applied and Environmental Microbiology, 41(1), 274-287.
12. Bruvold, W., B.H. Olson and M.G. Rigby. 1981. *Public Policy for the Use of Reclaimed Water*. Environmental Management, 5(2), 95-107.
13. Means, E.G. and B.H. Olson. 1981. *Coliform Inhibition by Bacteriocin-like Substances in Drinking Water Distribution Systems*. Applied and Environmental Microbiology, 42(3), 506-512.
14. Means, E.G., L. Hanami, H.F. Ridgway and B.H. Olson. 1981. *Evaluating mediums and Plating Techniques for Enumerating Bacteria in Water Distribution Systems*. American Waterworks Association Journal, 73, 585-590.
15. Olson, B.H. and I. Thornton. 1982. *The Resistance Patterns to Metals of Bacterial Populations in Contaminated Land*. Journal of Soil Science, 33(2), 271-279.
16. Nagy, L.A. and B.H. Olson. 1982. *Aquatic Mercury Pollution Control - A Review Treatment Techniques*. Water, 9, 12-16.
17. Ridgway, H.F. and B.H. Olson. 1982. *Chlorine Resistance Patterns of Bacteria from Two Drinking-Water Distribution Systems*. Applied and Environmental Microbiology, 44, 972-987.
18. Nagy, L.A. and B.H. Olson. 1982. *The Occurrence of Filamentous Fungi in Drinking-Water Distribution Systems*. Canadian Journal of Microbiology, 28, 667-671.
19. Leong, L.Y.C., D. Osaka, H.F. Ridgway and B.H. Olson. 1982. *Chlorine-Resistance of Coliform-Tested Bacteria Isolated from Raw and Treated Sewage Effluent*. Water Science Technology, 14, 127-132.
20. Silverman, G.S., L.A. Nagy and B.H. Olson. 1983. *Variations in Particulate Matter, Algae, and Bacteria in an Uncovered, Finished-Drinking-Water Reservoir*. American Water Works Association Journal, 55, 191-195.
21. Ridgway, H.F., A. Kelley, C. Justice and B.H. Olson. 1983. *Microbial Fouling of Reverse-osmosis Membranes Used in Advanced Wastewater Treatment Technology: Chemical, Bacteriological and Ultrastructure Analyses*. Applied and Environmental Microbiology, 45, 1066-1084.
22. Ward, N.R., R.L. Wolfe and B.H. Olson. 1984. *Effect of pH, Application Technique, and Chlorine to Nitrogen Ratio on Disinfectant Activity of Inorganic Chloramines with Pure Culture Bacteria*. Applied and Environmental Microbiology, 48, 508-514.
23. Ridgway, H.F., C.A. Justice, C. Whittaker, D.G. Argo and B.H. Olson. 1984. *Effects of Chlorination on Microbial Fouling and Performances of Reverse Osmosis Membranes Used in Advanced Waste Water Treatment*. American Water Works Association, 76, 94-102.

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### Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWD OC)

24. Whittaker, C., H.F. Ridgway and B.H. Olson. 1984. *Evaluation of Cleaning Strategies for the Removal of Biofilms from Reverse Osmosis Membranes*. Applied and Environmental Microbiology, 48, 395-403.
25. Wolfe, R.L., N.R. Ward and B.H. Olson. 1984. *Inorganic Chloramines as Drinking Water Disinfectants: A Review*. Jour. American Water Works Association, 76, 74-88.
26. Olson, B.H. and L.A. Nagy. 1984. *Microbiology of Potable Water*. Advances in Applied Microbiology, 30, pp. 73-132.
27. Wolfe, R.L., N.R. Ward and B.H. Olson. 1985. *Inference in the Bactericidal Properties of Inorganic Chloramines by Organic Nitrogen Compounds*. Environmental Science and Technology, 19, 1192-1195.
28. Wolfe, R.L., N.R. Ward and B.H. Olson. 1985. *Inactivation of Heterotrophic Bacterial Populations in Finished Drinking Water by Chlorine and Chloramines*. Water Research, 19, 1393-1403.
29. Barkay, T., S. Tripp and B.H. Olson. 1985. *The Effect of Metal Rich Sewage Sludge Application on the Bacterial Communities of Grasslands*. Applied and Environmental Microbiology, 49(2), 333-337.
30. Barkay, T., D. Fouts and B.H. Olson. 1985. *The Preparation of a DNA Gene Probe for the Detection of Mercury Resistant Genes in Gram-Negative Bacterial Communities*. Applied Environmental Microbiology, 49(3), 686-692.
31. McCoy, W.F. and B.H. Olson. 1985. *Fluorometric Determination of the DNA Concentration in Municipal Drinking Water*. Applied and Environmental Microbiology, 49, pp. 811-817.
32. Wolfe, R.L. and B.H. Olson. 1985. *Inability of Laboratory Models to Accurately Predict Field Performance of Disinfectants*. In R. Jolley (Ed.), Disinfection Conference Handbook, 5, 555-574.
33. McCoy, W.F. and B.H. Olson. 1986. *Relationship among Turbidity, Particle Counts and Bacterial Quality within Distribution Lines*. Water Research, 20, 1023-1029.
34. Barkay, T. and B.H. Olson. 1986. *Phenotypic and Genotypic Adaptation of Aerobic Heterotrophic Sediment Bacterial Communities to Mercury Stress*. Applied and Environmental Microbiology, 52, 403-406.
35. Nagy, L.A. and B.H. Olson. 1986. *A Comparison of Media for Enumeration of Filamentous Fungi from Aqueduct Biofilm*. Zentralblatt Bakteriologie Mikrobiologie und Hygiene, 182, pp. 478-484.
36. Wolfe, R.L. and B.H. Olson. 1986. *Chloramine disinfection: The implications of interference by nitrogenous organic compounds*. Water World News 2(4), 12-15.
37. Olson, B.H., R.L. Wolfe, M.H. Stewart and W.C. McCoy. 1986. *Distribution System Microbiology: Disinfection, Resistance, Disinfection Interference and Sample Variability*. Journal Francais à Hydrologie, 16, 253-268.

## Certification of Nomination for Dr. Betty H. Olson

Candidate for Metropolitan Water District of Southern California (MWD)  
Representing the Municipal Water District of Orange County (MWDOC)

38. Ward, N.R., R.L. Wolfe, C.A. Justice and B.H. Olson. 1986. *The Identification of Gram-negative, Nonfermentative Bacteria from Water: Problems and Alternative Approaches to Identification*. Advances in Applied Microbiology, 31, pp. 293-365.
39. McCoy, W.F. and B.H. Olson. 1987. *Analysis of the Microbiological Particulates in Municipal Drinking-Water by Scanning Electron Microscopy/X-Ray Energy Spectroscopy*. Zbl. Bakt. Hyg.B, 183, 511-529.
40. Olson, B.H. and R.A. Goldstein. 1988. *Applying Genetic Ecology to Environmental Management*. Environ. Sci. Technol., 22, p. 370-372.
41. Goldstein, R.A., B.H. Olson. and D.B. Porcella. 1988. *Conceptual Model of Genetic Regulation of Mercury Biogeochemical Cycling*. Environmental Technology Letters, 9, p.957-964.
42. Olson, B.H., J.N. Lester, S.M. Cayless and S. Ford. 1989. *Distribution of Mercury Resistance Determinants in Bacterial Communities of River Sediments*. Water Research, 23 (10) pp. 1209-1217.
43. Lee, Y.L., L. Thrupp and B.H. Olson. (accepted w/revisions). *Effect of Media and Incubation Conditions on Recovery of Total Heterotrophic Microbial Flora and Opportunistic Pathogens from Municipal and Hospital Water*. Can. J. Micro.
44. Olson, B.H. 1989. *The Safety of Our Drinking Water: Reason for Concern but not Alarm*. New England Journal of Medicine, 320(21) p. 1413-1414.
45. Tsai, Y-L. and B.H. Olson. 1990. *Effects of  $Hg^{2+}$ ,  $CH_3Hg^+$ , and Temperature on the Expression of Mercury Resistance Genes in Environmental Bacteria*. Applied and Environmental Microbiology, 56, No.11, 3266-3272.
46. Lee, Y.L., L. Thrupp, C. Richards, M. Ascher, P. Jemison-Smith, and B.H. Olson. *Water Supply as a Potential Source of Opportunistic Pathogens Causing Nosocomial Infections*. AEM, pp. 837-59.
47. Olson, B.H., S.M. Cayless, S. Ford and J.N. Lester. 1991. *Toxic Element Contamination and the Occurrence of Hg-Resistant Bacteria in Hg-Contaminated Soil, Sediments and Sludges*. Archives of Environmental Contamination and Toxicology, 20(2) pp.226-233.
48. Rochelle, P.A., M.K. Wetherbee and B.H. Olson. 1991. *Distribution of DNA Sequences Encoding Narrow and Broad Spectrum Mercury Resistance*. Applied and Environmental Microbiology, 57: 1581-1589.
49. Clark, D.L., B.B. Milner, M.H. Stewart, R.L. Wolfe and B.H. Olson. 1991. *Comparative Study of Commercial MUG Preparations with the Standard Methods Membrane Filtration Fecal Coliform Test (MFC) for the Detection of Escherichia coli in Water Samples*. Applied and Environmental Microbiology, 57(5) pp. 1528-1534.
50. Tsai, Y-L., M. Park and B.H. Olson. 1991. *Rapid Method for Direct Extraction of mRNA from Seeded Soils*. Applied and Environmental Microbiology, 57(3), pp. 765-768.

## Certification of Nomination for Dr. Betty H. Olson

Candidate for Metropolitan Water District of Southern California (MWD)  
Representing the Municipal Water District of Orange County (MWD OC)

51. Tsai, Y-L. and B.H. Olson. 1991. *Rapid Method for Direct Extraction of DNA from Soil and Sediments*. Applied and Environmental Microbiology. 57(4), pp.1070-1074.
52. Ogunseitan, O.A., I.L. Delgado, Y.L. Tsai and B.H. Olson. 1991. *Effect of 2-Hydroxybenzoate on the Maintenance of Naphthalene Degrading Pseudomonads in Seeded and Unseeded Soil*. Applied and Environmental Microbiology. 57, pp. 2873-2879.
53. Rochelle, P.A. and B.H. Olson. 1991. *A Simple Technique for the Electroelution of DNA from Environmental Samples Without The Use of Phenol*. Biotechniques. 11(6), pp. 724-728.
54. Olson, B.H., D.L. Clark, B.B. Milner, M.H. Stewart and R.L. Wolfe. 1991. *Total Coliform Detection in Drinking Water: A Comparison of Membrane Filtration between Colilert and Coliquik*. Applied and Environmental Microbiology. 57(5), pp.1535-1539.
55. Olson, B.H. 1991. *Tracking and Using Genes in the Environment*. Environmental Science & Technology. 25, No. 4, P. 604-611.
56. Stewart, M.H. and B.H. Olson. 1991. *Impact of Growth Conditions on the Resistance of Klebsiella Pneumoniae to Chloramines*. Applied and Environmental Microbiology. 58(8), pp. 2649-2653.
57. Stewart, M.H. and B.H. Olson. 1992. *Physiological Studies of Chloramine Resistance Developed by Klebsiella Pneumoniae Under Low Nutrient Growth Conditions*. Applied and Environmental Microbiology. 58(9), pp. 2918-2927.
58. Olson, B.H. 1991. *Olson Defends Colilert Study*. Journal of American Water Works Association. 83(3), p. 10.
59. Tebbe, C.C., O.A. Ogunseitan, P.A. Rochelle, Y.L. Tsai and B.H. Olson. 1992. *Varied Responses in Gene Expression of Culturable Heterotrophic Bacteria Isolated from the Environment*. Appl. Microb. & Biotechnol. 37, pp. 818-824.
60. Tsai, Y-L. and B.H. Olson. 1992. *Detection of Low Number of Bacterial Cells in Soils and Sediments by Polymerase Chain Reaction*. Applied and Environmental Microbiology, 58(2), pp. 754-757.
61. Tsai, Y-L. and B.H. Olson. 1992. *Rapid Method for Separation of Bacterial DNA from Humic Substances in Sediments for Polymerase Chain Reaction*. Applied and Environmental Microbiology, 58(7), pp. 2292-2295.
62. Martins, M.T., I.G. Rivera, D.L. Clark and B.H. Olson. 1992. *Detection of Virulence Factors in culturable Escherichia coli Isolates from Water Samples by DNA Probes and Recovery of Toxin-bearing Strains in MMO-MUG Media*. Applied and Environmental Microbiology, 58(9), pp. 3095-3100.



## Certification of Nomination for Dr. Betty H. Olson

### Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWD OC)

63. Martins, M.T., I.G. Rivera, D.L. Clark, M.H. Stewart, R.L. Wolfe and B.H. Olson. 1993. *Distribution of uidA Gene Sequences in Escherichia coli Isolates in Water Sources and Comparison with the expression of beta-glucuronidase activity in 4-methylumbelliferyl-beta-D-glucuronide media.* Applied and Environmental Microbiology, 59(7) pp. 2271-2276.
64. Ogunseitan, O.A. and B.H. Olson. 1993. *Effect of 2-Hydroxybenzoate on the Rate of Naphthalene Mineralization in Soil.* Applied Microbiology and Biotechnology. 38, pp. 799-807.
65. Chang, Jo-Shu, Juan Hong, O.A Ogunseitan and B.H. Olson. 1993. *Interaction of Mercuric Ions with the Bacterial Growth Medium and Its Effects on Enzymatic Reduction of Mercury.* Biotechnology Progress. 9, pp. 526-532.
66. Bradford, S.M., C. Palmer and B.H. Olson. 1994. *Assimilable Organic Carbon Concentrations in Southern California Surface and Groundwater.* Water Research. 28(2), pp. 427-435.
67. Oshiro, R.K., T. Picone and B.H. Olson. 1994. *Modification of Reagents in the Enviroamp (TM) Kit to Increase Recovery of Modification of Legionella Organisms in Water.* Canadian Journal of Microbiology, 40(6), pp. 495-499.
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53. Bae, H, B. H. Olson, K. Hsu, and S. Sorooshian. 2009 Two Different Modeling approaches to Predict the biological Contamination of Aliso Creek, California. WEFTEC. Pg. 5048- 5055.
54. Asvapathanagul, P., H. Bang, H. Lee and B.H. Olson. 2010. Concurrent Rapid Identification of Bulking and Foaming Bacteria. WEFTEC. Pg. 587-600.
55. Huang, Z., P.B. Gedalanga and B.H. Olson. 2010. Distribution of Nitrobacter and Nitrospira Communities in an Aerobic Activated Sludge Bioreactor and their Contributions to Nitrite Oxidation. WEFTEC. Pg. .
56. Huang, Z., P.B. Gedalanga, P. Asvapathanagul and B.H. Olson. 2010. Influence of Physicochemical and Operational Parameters on Nitrobacter and Nitrospira Communities in an Aerobic Activated Sludge Bioreactor. Water Research 44(15): 4351-4358.

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57. Asvapathanagul, P., Huang, Z., Gedalanga, P.B., B. H. Olson. 2012. Cause of *Gordonia amarae*-like Foaming in an Incompletely Nitrifying Plant: 3.5 year study. Water Environment Federation Technology Exhibition and Conference Proceedings. WEFTEC: 4323-4331.
58. Asvapathanagul, P., Gedalanga, P.B., Tsai, C.Y., Wang, T., Wallace, T., Hayden, D., Rosso, D., Olson, B. H. 2012. Dynamics and Control of Activated Sludge Processes Using Molecular Tools. Water Environment Federation Technology Conference Proceedings. WEFTEC: 6910-6920.
59. Tsai, C-Y., Wang, T., Asvapathanagul, P., Gedalanga, P.B., Hayden, D., La, J., B. H. Olson. 2012. *Thauera*, Another Prominent Denitrifying Bacteria in Methanol Fed Activated Sludge Water Environment Federation Technology Exhibition and Conference Proceedings. WEFTEC: 3718-3728.

#### Published Reports

1. Olson, B.H. 1978. *The Occurrence of False-Negatives in Coliform Testing in Marine and in Hot Springs and Warm Water Streams*. Presented at the Aquatic Microbiology, Lancaster, England.
2. Bruvold, W.H., B.H. Olson and M. Rigby. 1980. *Public policy for the use of Reclaimed Water*. U. California. Technical Completion Report
3. Olson, B. H. 1982. *Assessment and Implications of Bacterial Regrowth in Water Distribution Systems*, Cincinnati, OH, US-EPA, Research and Development, Municipal Environmental Research Laboratory: CERL (distributor)-600/52-82-072, pp.10.
4. Olson, Betty H., D.C. Hill and M.G. Rigby. 1983. *Statewide evaluation of trace element accumulation from long-term disposal of wastewater*. Office of the Director, California Water Resources Center, University of California. Technical Completion Report.
5. Olson, B.H. 1987. *Research Needs in Potable Water Microbiology*. American Water Works Research Foundation.
6. Olson, B.H. and J.M. Shields. 1999. *Geographical and seasonal occurrence of Cyclospora cayentanensis in Southern California waters*. University of California Water Resources Center. Technical completion report.

#### Technical Reports

1. Olson, B.H., L.A. Nagy and A.J. Kelly. 1982. *Biofilm Formation in the Los Angeles Aqueduct System and the Effect of Chlorination on Biofilm Formation*. Department of Water & Power, City of Los Angeles. School of Social Ecology, University of California, Irvine.
2. Olson, B.H. and J.A. Mudd. 1994. *Final Microbiology Report, Priest Reservoir*. Kennedy/Jenks Consultants, San Francisco Water Dept. School of Social Ecology, University of California, Irvine.

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### Abstracts/Presentations

1. Olson, B.H. and R.C. Cooper. 1973. *Methylation of Mercury by Estuarine Sediments*. Proceedings of the American Microbiology Society, May.
2. Olson, B.H. and R.C. Cooper. 1974. *Methylation of Mercury by Anaerobic Estuarine Sediments*. Proceedings of the American Microbiology Society, May.
3. Olson, B.H. and R.C. Cooper. 1974. *Aerobic and Anaerobic Methylation of Mercury by San Francisco Bay Sediments*. 55th Annual Pacific Coast Division of American Advancement in Science, June.
4. Olson, B.H., et al. 1976. *The Occurrence of False-negatives in Coliform Testing of Ocean Beaches*. California and Nevada Water Pollution Control Association's Annual Conference, April.
5. Olson, B.H. 1976. *In Situ Methylation of Mercury by Estuarine Sediments*. Annual Meeting of the American Society for Microbiology.
6. Pratte, J. and B.H. Olson. 1976. *False-negatives in Coliform Testing of Marine Water Samples*. Annual meeting of the American Society for Microbiology.
7. Olson, B.H., et al. 1976. *The Detection of False-negatives in Coliform Testing of Marine and Elevated Temperature Water Samples*. Aquatic Microbiology Conference sponsored by the Society for Applied Bacteriology, England. (Invited.)
8. Reich, K. and B.H. Olson. 1977. *Mercury Methylation by Bacteria Isolated from Estuarine Sediments*. Annual Meeting of the American Microbiological Society, May.
9. Olson, B. H. 1977. *In Situ Methylation of Mercury by Estuarine Sediments*. International Symposium of Microbial Ecology, Dunedin, New Zealand, August.
10. Barkay, T., B.H. Olson and R.R. Colwell. 1978. *Plasmid Mediation of Mercury Transformations by Estuarine and Marine Bacteria*. Annual Meeting of the American Microbiological Society, May.
11. Means, E.G. and B.H. Olson. 1978. *Bacterial Density Effects on Coliform Testing in Sea Water*. Annual Meeting of the American Microbiological Society, May.
12. Olson, B.H., V.P. Guinn, D.C. Hill and M. Nassari. 1978. *Effect of Land Disposal of Secondary Effluent on the Accumulation of Trace Elements in Terrestrial Ecosystems*. 12th Annual Conference on Trace Substances in Environmental Health, Columbia, Missouri, June.
13. Olson, B.H., T. Barkay, J.P. Neis, M. Bellama and R.R. Colwell. 1978. *Plasmid Mediation of Mercury Volatilization and Methylation by Estuarine Bacteria*. Annual Meeting of the Society for Industrial Microbiology, Houston, Texas, August. (Invited.)

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14. Olson, B.H., B.P. Guinn, D.C. Hill and M. Nassari. 1978. *Effects of Land Disposal of Secondary Effluent on the Accumulation of Trace Elements in Soil and Vegetation*. Annual Meeting of the Water Pollution Control Federation Meeting, Anaheim, California, October.
15. Ridgway, H. and B.H. Olson. 1978. *Mechanisms of Chlorine Resistant in Bacteria from Water Distribution Systems*. Annual Meeting of the American Microbiological Society, May.
16. Olson, B.H. 1979. *Water Microbiology: Current Problems and Advances*. Southern California Society of Public Health Microbiologists, Palm Springs, California, May. (Invited.)
17. Hill, D.C. and B.H. Olson. 1979. *Effect of Elevated Cadmium Concentrations in Soil on Plant Concentration of Cadmium*. 13th Annual Conference on Trace Substances in Environmental Health, Columbus, Missouri, June.
18. Hill, D.C., M. Rigby, V.P. Guinn, M. Nassari and B.H. Olson. 1979. *Ecosystem Dynamics of Trace Element Accumulation from Land Application of Waste Water*. International Conference of Management and Control of Heavy Metals in the Environment, London, England, September.
19. Barkay, T., B.H. Olson and R.R. Colwell. 1979. *Heavy Metal Transformation Mediated by Estuarine Bacteria*. International Conference of Heavy Metal in the Environment, London, England, September.
20. Olson, B.H. 1979. *Bacteriological Occurrence in Water Distribution Systems-- Scanning Electron Microscope Studies*. Department of Engineering, Syracuse University, December. (Invited.)
21. Olson, B.H. 1980. *Seasonal Variation in Bacterial Populations in Chlorinated and Unchlorinated Water Distribution Systems*. Symposium, American Society for Microbiology, Miami, Florida, May. (Invited.)
22. Ridgway, H. and B.H. Olson. 1980. *Identification of Chlorine-resistant Bacteria in Municipal Drinking Water Distribution Systems*. Annual Meeting of the American Society for Microbiology, Miami, Florida, May.
23. Nagy, L.A., K. Reich and B.H. Olson. 1980. *Microbial and Physical Interactions in Two Reservoirs*. Annual Meeting of the American Society for Microbiology, Miami, Florida, May.
24. Nagy, L.A. and B.H. Olson. 1980. *The Occurrence of Filamentous Fungi in Drinking Water Distribution Systems*. Annual Meeting of the American Society for Microbiology, Miami, Florida, May.
25. Olson, B.H., L.S. Troyer, D.C. Hill, L. Thornton, and H. Matthews. 1980. *Assessment of Metal Availability through the Evaluation of Bacterial Metal Resistance*. 14th Trace Substances in Environmental Health Conference, Columbia, Missouri, June.
26. Olson, B.H. 1980. *Microbial Colonization of a Raw Water Pipe*. Metropolitan Water District of Southern California, La Verne, California, June. (Invited.)

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27. Troyer, L.S. and B.H. Olson. 1980. *Detection of Cadmium Pollution in British Soils by Natural Bacterial Populations*, Annual Meeting of the Society for Industrial Microbiology, Flagstaff, Arizona, August.
28. Olson, B.H. 1980. Round Table, *Significance of Indicator and Nonindicator Organisms in Potable Water Systems*. Second International Microbial Ecology Conference, Warwick, England, September.
29. Nagy, L. and B.H. Olson. 1980. *Enumeration and Identification of Filamentous Fungi in Potable Water Systems*. Second International Microbial Ecology Conference, Warwick, England, September.
30. Olson, B.H., L. Troyer, L. Thornton and H. Matthews. 1980. *Metal Resistance Patterns of Bacterial Populations in Soils from Two British Mining Areas*, Second International Microbial Ecology Conference, Warwick, England, September.
31. Olson, B.H. 1980. *Bacterial Sampling in Treated Water Reservoirs and Distribution Systems*. American Water Works Association, California-Nevada Section, Monterey, California, October. (Invited.)
32. Olson, B.H. 1980. *Seasonal Variation in Bacterial Populations in Water Distribution Systems*. American Water Works Association Technical Conference, Miami, Florida, December. (Invited.)
33. Olson, B.H. 1981. *Bacterial Colonization in Water Distribution Pipes*. Annual Meeting of the American Society for Microbiology, Dallas, Texas, March. (Invited.)
34. Means, E.G. and B.H. Olson. 1981. *Coliform Inhibition by Bacteriocin-like Substances in Drinking Water Distribution Systems*. Annual Meeting of the American Society for Microbiology, Dallas, Texas, March.
35. Nagy, L.A., G. Silverman and B.H. Olson. 1981. *Variations in Bacterial and Algae Populations in a Drinking Water Reservoir*. Annual Meeting of the American Society for Microbiology, Dallas, Texas, March.
36. Troyer, L.S. and B.H. Olson. 1981. *Bacterial Adaptation to Metaliferous Soils*. Annual Meeting of the American Society for Microbiology, Dallas, Texas, March.
37. Olson, B.H. 1981. *Bacterial Colonization of Water Distribution Systems*. American Water Works Association, St. Louis, Missouri, June.
38. Olson, B.H. 1981. *Bacterial Colonization and Regrowth in Water Distribution Systems*. Institut für Wasser, Boden und Luft Hygiene, Berlin, Germany, September 21. (Invited.)
39. Olson, B.H. and I. Thornton. 1981. *The Development of a Bacterial Indicator System to Assess Bioavailability of Metals in Contaminated Land*. International Heavy Metals Conference, Amsterdam, Holland, September.

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40. Rigby, M., D.C. Hill and B.H. Olson. 1981. *Evaluation of Long-Term Irrigation with Wastewater on the Heavy Metal Content of Soils in California, U.S.A.* International Heavy Metals Conference, Amsterdam, Holland, September.
41. Olson, B.H. and I. Thornton. 1981. *The Feasibility of Using Bacterial Resistance to Metals to Estimate their Bioavailability in Soils.* Biological Availability of Trace Metals, 21st Hanford Life Sciences Symposium, Richland, Washington, October.
42. Olson, B.H. 1982. *Turbidity Versus Particulates: Measurement Concepts.* Annual Meeting of the American Society for Microbiology, Atlanta, Georgia. (Invited.)
43. Whitaker, C., H.F. Ridgway, C.A. Justice and B.H. Olson. 1982. *Chemical and Enzymatic Removal of Biofilm from Reverse Osmosis Membranes.* Annual Meeting of the American Society for Microbiology, Atlanta, Georgia.
44. Kelley, A.J., L.A. Nagy, I.V. Gonzalez and B.H. Olson. 1982. *Biofilm Development on Aqueduct Surfaces.* Annual Meeting of the American Society for Microbiology, Atlanta, Georgia.
45. Wolfe, R.L., N.R. Ward and B.H. Olson. 1982. *Evaluation of the Bacterial Efficiency of Mono- and Dichloramines.* Annual Meeting of the American Society for Microbiology, Atlanta, Georgia.
46. Olson, B.H. 1982. *Discussant of the Effects of Submarine Wastewater Discharge on Bacterial Quality of Surf Water.* International Association of Water Pollution Research, Capetown, South Africa, April. (Invited.)
47. Ward, N.R., R.L. Wolfe, E.G. Means and B.H. Olson. 1982. *The Inactivation of Total Count and Selected Gram-Negative Bacteria by Inorganic Monochloramines and Dichloramines.* Water Quality Conference of the American Water Works Association, Nashville, TN.
48. Leong, L., D. Osaka, H. Ridgway and B.H. Olson. 1982. *Chlorine-Resistance of Coliform Tested Bacteria Isolated from Raw and Treated Sewage Effluents.* International Association of Water Pollution Research, Capetown, South Africa, April.
49. Olson, B.H. 1982. *The Relationship between Turbidity and Microbial Quality of Water Distribution Systems.* United States Environmental Protection Agency, Washington, D.C. Seminar.
50. Olson, B.H., L.A. Nagy and A.J. Kelley. 1982. *Biofilm Control in the Los Angeles Aqueduct.* Water Quality Conference of the American Water Works Association, Nashville, TN.
51. Olson, B.H. 1983. *Can We be Protected from Environmental Hazards.* Town and Gown, University of California, Irvine. (Invited.)
52. Shearer, D.F. and B.H. Olson. 1983. *Role of Chemical Speciation on Bacterial Resistance to Cadmium.* Annual Meeting of the American Society of Microbiology, New Orleans, Louisiana, March.



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53. Tripp, S., T. Barkay and B.H. Olson. 1983. *Effect of Cadmium on the Community Structure of Soil Bacteria*. Annual Meeting of the American Society of Microbiology, New Orleans, Louisiana, March.
54. Whittaker, C., A. Kelley, W. McCoy and B.H. Olson. 1983. *Relationship of Suspended Particles to Bacteriological Quality in the Los Angeles Drinking Water Distribution System*. Annual Meeting of the American Society of Microbiology, New Orleans, Louisiana, March.
55. Rigby, M.G., W.L. Berry and B.H. Olson. 1983. *Mobility of Cadmium in a Soil-Plant-Insect Food Chain as Influenced by Native and Amended Soil Cadmium Levels*. International Heavy Metals Conference, Heidelberg, Germany, Sept.
56. Olson, B.H., S.C. Tripp and I. Thornton. 1983. *The Value of Metal Extractants and Total Metal Concentrations in Predicting Bacterial Resistance in Smelter Contaminated Soils*. International Heavy Metals Conference, Heidelberg, Germany, Sept.
57. Wolfe, R.L. and B.H. Olson. 1984. *Inability of Laboratory Models to Accurately Field Performance of Disinfectants*. Jolly Conference, Norfolk, VA.
58. Tripp, S.C., T. Barkay and B.H. Olson. 1984. *Co-selection of Heavy Metal and Heavy Metal Resistance in Soil Bacterial Communities*. Annual Meeting of the American Society for Microbiology, St. Louis, MO.
59. McCoy, W.F. and B.H. Olson. 1984. *Fluorimetric Determination of the DNA Concentration in Municipal Drinking Water*. Annual Meeting of the American Society for Microbiology, St. Louis, MO.
60. Olson, B.H. and McCoy, W.F. 1984. *Analysis of the Biological Particulate Material in Municipal Drinking Water Samples*. Annual Meeting of the American Society for Microbiology, St. Louis, MO.
61. Moderator, Panel Discussion. 1985. *Marine Water Quality and Effects on Wildlife*. Cetus, March.
62. Olson, B.H. 1984. *Design and Analysis of Opinion Surveys and Implementation of Survey Findings*. Association of California Water Agencies, Monterey, CA, Fall. (Invited.)
63. Barkay, T. and B.H. Olson. 1985. *Genetic Probes for Tracking Specific Genes within Microbial Communities of Natural Ecosystems*. Annual Meeting of the American Society for Microbiology, Las Vegas, Nevada.
64. Yee, Y. L., L. Thrupp, P. Jemison-Smith, C. Richards, M. Ascher and B.H. Olson. 1985. *Microbiologic and Physicochemical Quality of Hospital Water and the Role of Gram-negative Water Associated Bacteria in Nosocomial Infections*. Annual Meeting of the American Society for Microbiology, Las Vegas, Nevada.

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65. Wolfe R.L. and B.H. Olson. 1985. *Disinfectant Activity of Inorganic Chloramines in the Presence of Nitrogenous Organic Compounds*. Annual Meeting of the American Society for Microbiology, Las Vegas, Nevada.
66. Olson, B.H., R.L. Wolfe, L.A. Nagy, M. Stewart and N.R. Ward. 1985. *A Discussion of Distribution System Microbiology in the Western United States*. Metz, France. (Invited.)
67. Wolfe, R.L. and B.H. Olson. 1985. *Disinfectant Activity of Inorganic Chloramines in the Presence of Nitrogenous Organic Compounds*. American Water Works Association Technology Conference, Houston, TX, December.
68. Thornton, L., B.H. Olson, and J. Rother. 1985. *Metal Resistance in Bacteria and Implications to Agriculture. Symposium on Trace Elements in Soils, Plants and Animals*, Society of Chemical Industry. England, Jan. (Invited.)
69. Olson, B.H. 1985. Panel Discussion. *Cross Disciplinary Symposium Engineered Organisms in the Environment: Scientific Issues*. Philadelphia, PA, June. (Invited.)
70. Stewart, M. and B.H. Olson. 1986. *Disinfectant Resistance as Conferred by Bacterial Aggregation*. Annual Meeting of the American Society for Microbiology, Washington, D. C., March.
71. Deitz, A., S. Ford and B.H. Olson. 1986. *Phenotypic and Genotypic Responses of Natural Soil Bacterial Populations to Mercury Contamination*. Annual Meeting of the American Society for Microbiology, Washington, D.C., March.
72. Olson, B.H. and Ford, S. 1986. *Chemicals in the Environment*. Lisbon, Portugal, 1986. (Invited.)
73. Olson, B.H. 1986. *Water Distribution System Microbiology*. Northern California American Society for Microbiology, American Public Health Association Annual Meeting, Sacramento, CA. (Invited.)
74. Olson, B.H. and S. Ford. 1986. Symposium. *Microbial Ecology toward Molecular Approaches*. American Society for Microbiology Annual Meeting, March. (Invited.)
75. Olson, B.H. and S. Ford. 1986. *The Use of DNA Probes to Study Transposition Ecology*. Society for Environmental Toxicology and Chemistry, Alexandria, Virginia, November. (Invited.)
76. Olson, B.H. and S. Ford. 1987. *The Use of DNA Probes in the Study of Gram-Negative Soil Bacterial Communities to a Pollutant*. ASM Annual Meeting, March. (Invited.)
77. Olson, B.H. and M. Stewart. 1987. *Microbiology of Water Distribution Systems*. Annual Meeting ACS, Environmental Division, New Orleans, Louisiana, September. (Invited.)

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78. Olson, B.H. 1987. *Evaluation of the Distribution of Transposons Tn501 and Tn21 in Gram-Negative Bacteria Isolated from Mercury Contaminated Sediments*. Heavy Metals in the Environment, New Orleans, Louisiana, September.
79. Olson, B.H., S. Ford, S. Simpson, D. Condliffe and J. Lester. 1987. *Distribution of Transposons, Tn21 and Tn501, Associated with Mercury Resistance in River Sediments*. Oceans, Halifax, Canada, September. (Invited.)
80. Olson, B.H., S. Ford and S. Simpson. 1988. *DNA Probes in Geochemistry*. Society of Mining Engineers, Inc., Mining and Exploration Division, Annual Meeting, Phoenix, Arizona, January. (Invited.)
81. Ford, S. and B.H. Olson. 1988. *Use of Genetic Adaptation to Address Environmental Pollutants in situ*. ASM Annual Meeting, May. (Invited.)
82. Olson, B.H. and S. Ford. 1988. *Directing Nature's Genetic Engineering to Clean up the Environment*. ASM Annual Meeting, May. (Invited.)
83. Olson, B.H., S.C. Simpson and S. Ford. 1988. *Electroelution of DNA from Environmental Samples*. ASM Annual Meeting, May.
84. Ford, S., S. Simpson and B.H. Olson. 1988. *Mercury Resistance Genes in Natural Bacterial Populations: Comparisons of Methods of Detection*. ASM Annual Meeting, May.
85. Olson, B.H. 1988. Discussant, IAWPRC, Brighton, England, July. (Invited.)
86. Wetherbee, M.K., P.A. Rochelle, O.A. Ogunseitan and B.H. Olson. 1989. *Distribution of Mercury Resistance Phenotypes and Genes in Bacteria Recovered from Polluted Environments*. Annual Meeting of the American Society for Microbiology, New Orleans, LA, May.
87. Tsai, Y.L., O.A. Ogunseitan and B.H. Olson. 1989. *Subcloning of merA and merB Genes and Their Use in Transcription Assays*. Annual Meeting of the American Society for Microbiology, New Orleans, LA, May.
88. Ogunseitan, O.A., I. Delgado, Y.L. Tsai and B.H. Olson. 1990. *Monitoring Biodegradative Gene Expression In Situ: Direct Detection of nahAB Transcripts in Soil*. Annual Meeting of the American Society for Microbiology, Anaheim, CA. May.
89. Tsai, Y.L., P.A. Rochelle and B.H. Olson. 1990. *Direct Extraction of mRNA From Soil For Quantifying In Situ Gene Expression (In Bacterial Communities)*. Annual Meeting of the American Society for Microbiology, Anaheim, CA. May. (Invited.)
90. Clark, D.L., B.B. Milner, M.H. Stewart, R.L. Wolfe and B.H. Olson. 1990. *A Comparative Study Between Colilert, Coliquik, and Membrane Filtration Fecal Coliform (MFC) For the Detection of Escherichia Coli*. Annual Meeting of the American Society for Microbiology, Anaheim, CA. May.

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91. Bradford, S.M., P.A. Hacker, B.H. Olson, L. Tan and M. Rigby. 1990. *Evaluation of AOC in Surface and Groundwaters Using Two Bioassay Methods*. Water Quality Technology Conference, San Diego, CA, November.
92. Olson, B.H., B.B. Milner, D.L. Clark, M.H. Stewart and R.L. Wolfe. 1990. *Evaluation of Commercial ONPG and MUG Preparations for the Detection of Total Coliforms and Escherichia Coli*. Water Quality Technology Conference, San Diego, CA, November.
93. Tebbe, C.C., P.A. Rochelle and B.H. Olson. 1991. *Genetic Alterations Leading To Increased Mercury Resistance of P. Aeruginosa PU21 Harboring the Multi-Resistance Plasmid RIP64*. Pseudomonas Annual Meeting, Trieste, Italy, June.
94. Tebbe, C.C., O.A. Ogunseitan, P.A. Rochelle and B.H. Olson. 1991. *Comparative Assessment of Gene Occurrence and Gene Expression in Bacteria Isolated From Contaminated Environments*. American Society of Microbiology, Biotechnology, New York, June. (Invited.)
95. Rochelle, P.A. and B.H. Olson. 1991. *Evaluation of Molecular Techniques to Identify and Enhance in situ Bioremediation*. St. Louis, MO. June.
96. Tsai, Yu-Li and B.H. Olson. 1991. *Detecting Low Copy Number DNA Sequences by PCR in Soils and Sediments*. American Society of Microbiology Conference on Biotechnology, June 27-30. New York, NY. (Invited.)
97. Martins, M.T., B.H. Olson and I.G. Rivera. 1991. *Application of DNA Probes in the Study of Virulence Factors of E. coli Isolated from Water Samples*. Water Quality Technology Conference, AWWA, Nov. 10-14. Florida.
98. Olson, B.H. 1991. *Testing and Standardization of New Methods*. Water Quality Technology Conference, AWWA, Nov. 10-14, Florida. (Invited.)
99. Karlin, R., F. Marrocco, B.H. Olson, P. Berger., R. Wolfe and C. Blanck. 1991. *How Do We Implement New Methods? Who Should Do It, and Who Should Pay for It?* Water Quality Technology Conference, AWWA Nov. 10-14, Florida.
100. Olson, B.H. 1992. *Tracking and Using Genes in the Environment*. UC Riverside, Jan. 13. (Invited.)
101. Rochelle, P.A. and B.H. Olson. 1992. *Bacterial Detoxification of Mercury in Sediment Microcosms*. Biosafety Results of Field Tests of Genetically Modified Plants and Microorganisms Symposium, Germany. May 11-14. (Invited.)
102. Olson, B.H., O.A. Ogunseitan, J-S. Chang, J. Hong and H.C. Lim. 1992. *Using Molecular Techniques to Increase Mercury Removal from Soil and Water Sediment Systems*. Microbial Catalysts in Metal Biogeochemistry, San Francisco, April 6. (Invited.)
103. Olson, B.H. 1992. *Source Water Contamination*. Chlorine Institute, June 16-17, Wash. D.C. (Invited.)

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104. Olson, B.H. 1992. *Bacteria Prevalence of Disease, Levels and Sources*. First International Conference on Safety of Water Disinfection: Balancing Chemical and Microbial Risks, International Life Sciences Institute, Aug. 31 - Sept. 3, Wash. D.C. (Invited.)
105. Olson, B.H. 1992. *Microbial Aftergrowth in Distribution Systems*. Research Committee Seminar, Microbial Quality in Distribution Systems, AWWA, Sept. 4, Virginia. (Invited.)
106. Foundation Lecturer. 1992. *Bioremediation and Microbial Ecology: Correcting Past Mistakes*. American Society of Microbiology Meeting, Oct. 23-24, El Paso, TX. (Invited.)
107. Olson, B.H. 1992. *Utility of mRNA Analysis in Microbial Ecology*. Symposium of Molecular Approaches to Soil Microbiology, Soil Science Society of America Meeting, Nov. 5. Minneapolis, MN. (Invited.)
108. Clark, D.L. and B.H. Olson. 1992. *Assessment of the Coliform Growth Response Assay and Van der Kooj AOC Assay as Predictors for Coliform Regrowth in Drinking Water*. Water Quality Technology Conference, AWWA, Nov. 15-19, Toronto, Canada.
109. Oshiro, R.K., Y-L. Tsai., J.M. Dong and B.H. Olson. 1992. *Probes to Differentiate Human and Animal Escherichia coli*. Water Quality Technology Conference, AWWA, Nov. 15-19, Toronto, Canada.
110. Olson, B.H. 1993. *Assimilable Organic Carbon and Its Impact on the Regrowth of Saprophytic and Pathogenic Microorganisms*. American Society of Microbiology Conference on Water Quality in the Western Hemisphere. April 17-20, Puerto Rico. (Invited.)
111. Olson, B.H. 1993. *Enhancing Bioremediation through mRNA Transcripts*. ASM Southern California branch, San Diego, CA., November. (Invited.)
112. Olson, B.H. 1993-94. *Cleaning up with Biotechnology*. ASM Foundation Lecturer. Pennsylvania branch, Pennsylvania State University, University Station, Pennsylvania.
113. Olson, B.H. 1993-94. *Correct Past Mistakes using Molecular Microbial Ecology*. ASM Foundation Lecturer, ASM Colorado branch, University of Colorado, Boulder, Colorado. ASM Alaska branch, University of Alaska, Fairbanks, Alaska. ASM Idaho, Wyoming, and Utah branch, Idaho Springs, Idaho.
114. Olson, B.H. 1994. *Occurrence of Copper Resistance Genes in Bacteria that Mediate CU Corrosion*. Toronto, Canada. (Invited.)
115. Speer, S. A. and B.H. Olson. 1994. *Comparison of the Proportion of Metabolically Active Aquatic Bacteria by the Lomefloxacin and CTC-formazan Methods*. 94th General Meeting of the American Society for Microbiology, Las Vegas, NV.
116. Lyon, S. R. and B.H. Olson. 1994. *Cluster Analysis of Black Plug Layer Microbial Communities*. 94th General Meeting of the American Society for Microbiology, Las Vegas, NV.

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117. Lin, C., J. Mudd and B.H. Olson. 1994. *The Study of Microbial Community Structures of Surface- and Ground-Waters Using rRNA Targeted Oligonucleotide Probes*. 94th General Meeting of the American Society for Microbiology, Las Vegas, NV.
118. McSorley, C.A., C. Lin and B.H. Olson. 1994. *Initial Attachment of a Gram Negative Aerobic Copper Corroder to the Inner Surfaces of Different Types of Copper Tubing*. 94th General Meeting of the American Society for Microbiology, Las Vegas, NV.
119. Oshiro, R.K. and B.H. Olson. 1994. *Examination of Escherichia coli Strains Isolated from Various Animals, Humans and Water Sources for Virulence Factors by PCR Amplification and Hybridization with DNA Probes*. 94th General Meeting of the American Society for Microbiology, Las Vegas, NV.
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### Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWDOC)

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### Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWDOC)

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152. Chern E C [a]; Olson B H. [a]. Determining Commonality of Virulence Genes associated with Extraintestinal *Escherichia coli* isolated from Dog and Bird Waste. *Abstracts of the General Meeting of the American Society for Microbiology. [cd-rom] 106. 2004. I-081.*
153. Molecular Technique Detecting *Nocardia* spp.-Filamentous Organism Predominate in Bulking Activated Sludge CWEA 2009
154. Development of a Quantitative PCR Method to Differentiate Between Viable and Non-Viable Bacteria in Environmental Water Samples CWEA 2009
155. Using Molecular Technique to Understand and Improve Biological Treatment Process Control CWEA 2009
156. Potential for Biohydrogen Production at South Bayside System Authority CWEA 2009
157. Identification & Application of Physical and Chemical Parameters to Predict Indicator Bacterial Concentration in a Small California Creek. CWEA 2009
158. Quantitation of Methanogens, Archaea, *Clostridium* spp. and Total Bacteria in Wastewater Treatment Plant Solids. ASM 2009
159. Difficulties in Using qPCR to Detect *Nocardia* spp., a Filamentous Organism Predominate in Bulking Activated Sludge. ASM 2009
160. Molecular Analysis of Ammonia-oxidizing Bacteria as an Indicator of Treatment Processes at a Municipal Wastewater Treatment Plant. ASM 2009
161. Monitoring and Modeling the Anaerobic Digestion of Manure with qPCR in a Mesophilic Anaerobic Digester. WEFTEC 2008.
162. Comparison of *Escherichia coli* Populations in a Lake Reservoir Enumerated using EMA-qPCR with direct DNA Analysis for Viable but Non-Culturable Bacteria and Membrane Filtration on mTEC Media. ASM 2008
163. Optimizing Ethidium Monoazide Bromide Treatment and qPCR to Determine Viable *Escherichia coli* in Wastewater Effluents. ASM 2007
164. Effect of a Methane Inhibitor on Hydrogen Production In a Mixture of Primary and Secondary Sludges. American Society of Microbiology, May 2007.
165. New hydrogenase (*hydA*) sequence identify from *Clostridium butyricum* CGS5 isolated from the sludge American Society of Microbiology 2007

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### Candidate for Metropolitan Water District of Southern California (MWD) Representing the Municipal Water District of Orange County (MWD OC)

166. Use of Ranking and Categorizing Analyses to Examine the Correlations between Operating and Biological Parameters during the Nitrification Process at a Wastewater Treatment Plant ASM 2008
167. Assessing Biohydrogen Production Capabilities in Secondary Clarifier and Anaerobic Digester Sludges Using Molecular Techniques WEFTEC October 2007
168. Development of a Quantitative PCR Method to Differentiate Between Viable and Non-viable Bacteria in Environmental Water Samples. WEFTEC, October 2007
169. Evaluation of the molecular indicators of ammonia oxidation as the potential tools to monitor and troubleshoot nitrification process at a full-scale wastewater treatment plant WEFTEC October 2007
170. Identification of *Escherichia coli* O157:H7 Specific Genes *fliC* and *stx1* in Environmental Matrices using Quantitative PCR Coupled with Magnetic Capture Hybridization. American Society of Microbiology 2006
171. Effect of BSA on PCR Amplification and Quantification of Hydrogenase Gene from Hydrogen-producing *Clostridium butyricum* Strains. 11th Conference on Biochemical Engineering, Hsinchu, Taiwan, R.O.C. 2006
172. Need to reevaluate DNA extraction for membrane biofilms (Poster Presentation). March 2014 American Society for Engineering Education Zone IV Conference Long Beach, CA.
173. Cause of *Gordonia amarae*-like Foaming in an Incompletely Nitrifying Plant: 3.5 Year Study (Poster Presentation). March 2014 American Society for Engineering Education Zone IV Conference Long Beach, CA.
174. 454 sequencing of biofilms from three types of diffuser membranes (Poster Presentation). March 2014 American Society for Engineering Education Zone IV Conference, Long Beach, CA.
175. Concurrent Rapid Identification of Filamentous Bacteria Using Reverse Line Blot Hybridization (Poster Presentation). 2014 CSU Biotechnology Symposium, Santa Clara, CA.
176. Identification and quantification of *Thiothrix* spp. using qPCR for early detection of bulking incidents in a full-scale water reclamation plant (Poster Presentation). 2014 CSU Biotechnology Symposium, Santa Clara, CA.
177. Cause of *Gordonia amarae*-like Foaming in an Incompletely Nitrifying Plant: 3.5 Year Study (Poster Presentation). 2014 CSU Biotechnology Symposium, Santa Clara, CA.
178. Dynamics and Control of Activated Sludge Process Using Molecular Tools (Poster Presentation). 2014 CSU Biotechnology Symposium, Santa Clara, CA.
179. Cause of *Gordonia amarae*-like foaming in an Incompletely Nitrifying Plant: 3.5 Year Study (Poster Presentation). 2013 American Society for Microbiology Conference, Denver, CO.

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Representing the Municipal Water District of Orange County (MWDOC)**

180. Investigation of *Thiothrix eikelboomii* Associated with Bulking Incidents in a Completely Nitrifying Water (Podium Presentation). 2013 California Water Environment Association Conference, Palm Springs, CA.
181. Cause of *Gordonia amarae*-like Foaming in an Incompletely Nitrifying Plant: 3.5 Year Study (Alternate). 2013 California Water Environment Association Conference, Palm Springs, CA.
182. Dynamics and Control of Activated Sludge Process Using Molecular Tools (Poster Presentation). 2012 WEFTEC Conference, New Orleans, LA.
183. Bacterial Competition Leading to Foaming Occurrence and Foam Control in a Partial Nitrifying Plant (Poster Presentation). 2012 WEFTEC Conference, New Orleans, LA.
184. *Thauera*, Another Prominent Denitrifying Bacteria in Methanol Fed Activated Sludge (Poster Presentation). 2012 WEFTEC Conference, New Orleans, LA.

## EXHIBIT "F"

Bill Campbell  
9501 Henderson Way  
Villa Park, CA 92861

June 4, 2014

The Honorable Steven E. LaMar  
Irvine Ranch Water District  
15600 Sand Canyon Avenue  
Irvine, California 92619

Dear President LaMar:

I am writing to express my interest in the Municipal Water District of Orange County (MWDOC) Metropolitan Water District of Southern California (MET) Representative seat currently being selected by the South County Agencies, and to ask that the Irvine Ranch Water District consider submitting my name to the nomination committee.

For almost 16 years, I had the honor of representing the South Orange County community as a member of the California State Assembly and as a member of the Orange County Board of Supervisors. During that time, I worked to enhance the quality of life for the residents of the county through the preservation and development of recreational, ecological, cultural, educational and historical assets that will be beneficial to future generations. A large part of that effort was spent working to enhance and strengthen Orange County's infrastructure because it is the foundation of Orange County's strong quality of life. A critical part of the county's infrastructure is a secure and reliable water supply.

Because of the vacancy resulting from the unfortunate passing of Colonel Jack Foley, the South Orange County Agencies now have the opportunity to ensure that they are represented on the MET Board of Directors and within MWDOC's four MET Representatives. During my prior years of public service, I proved that I can listen to the concerns of South Orange County, work hard to understand each community's unique point of view, and fight to address the region's needs. If nominated, I will represent South County's perspective on the MET Board of Directors and at MWDOC, just as I did in the Assembly and at the Board of Supervisors, communicating frequently and working in partnership with the South Orange County community.

I will also be able to effectively represent the entire MWDOC service area while representing South Orange County's perspective. The Orange County Board of Supervisors is an elected governmental body with the responsibility for representing the entire county. Because of my ten years of service on the Board, I believe that I would bring a unique, regional perspective to the MET Board of Directors and MWDOC MET contingent. This experience has allowed me to

understand the larger Orange County community and would allow me to effectively represent MWDOC's interest at MET.

My roles as Assembly Minority Leader, Chairman of both the Board of Supervisors and the OCTA Board of Directors, a member of the One Water, One Watershed Steering Committee, and my role on numerous federal, state and regional boards and committees have given me a skill set that I believe will be a benefit to the Metropolitan Water District, MWDOC, and the South County Agencies. These experiences have allowed me to evaluate major projects, negotiate large debt financing to make needed public infrastructure improvements, improve the fiscal stability of government agencies with billion dollar budgets, and allocate investments so that they best benefit our community. Obtaining success in these areas has required bringing diverse and often opposed groups together to identify solutions beneficial to all parties. It has required building coalitions, engaging elected officials, and working collaboratively with my colleagues to bring about the necessary reforms. Over the years, I have worked closely with a number of the MET, MWDOC and South County Agency board members on issues facing those agencies.

While in public office, I also had the opportunity to learn about California. I became familiar with the Metropolitan Water District of Southern California, California's water supply challenges, and the actions we need to take to ensure water supply reliability for Southern California and Orange County. I have toured the State Water Project, the Colorado River system, and several local Orange County water facilities, and seen first hand the challenges faced in our water supply. I have taken these experiences and turned them into action. For example, I advocated for the bipartisan passage of the 2009 water package and urged placement of a water bond before the voters. I have supported identifying a solution in the Bay Delta which enhances Southern California's water supply reliability.

In its mission to provide Southern California with an adequate and reliable supply of high quality water to meet current and future needs, MET must address and implement solutions to a number of challenges. It must obtain implementation of ecosystem and conveyance improvements in the Bay Delta, resolve the legal disputes between the San Diego County Water Authority and MET, rebuild relationships with its member agencies and their retailers, control costs and employee benefit expenses, control rate increases, and continue to obtain greater water reliability through the long term planning and development of new water resources. Achieving solutions to these challenges will require creativity, hard work and collaboration with stakeholders-- all of which I can bring to MET as the South County MET Representative.

Furthermore, I can arrange my schedule to prepare for and attend MET, MWDOC, and South Orange County Agency meetings. I understand the substantial time commitment required as a MWDOC MET Representative and am prepared to invest the time necessary to represent the South County Agencies well. Additionally, I do not foresee any conflicts of interest prohibiting me from participating in these discussions or preventing me from engaging with water agency, environmental and community stakeholders on our water supply challenges.

For your reference I have attached a copy of my biography. I assure you I am prepared to dedicate my time and energy to working with the South County Agencies, MWDOC and the

board members of the Metropolitan Water District to enhance Orange County's and Southern California's water infrastructure and supply reliability. Thank you for your consideration. Please do not hesitate to contact me if you or one of your other board members requires any additional information.

Sincerely,

  
BILL CAMPBELL

Attachment

## **Bill Campbell**

Bill Campbell retired from public office in January 2013. Since that time he has been actively working with his son, Brian to start an internet based business for natural pain relief. Bill currently serves on the Orange County Parks Foundation Board, the St. Joseph's Hospital Board of Trustees, The Irvine Ranch Conservancy Board, and the Concordia University Public Policy Institute Advisory Board.

Bill Campbell was first elected to the Orange County Board of Supervisors, Third District, in January 2003 with an overwhelming margin of victory, nearly 75 percent of the vote. After serving the remainder of a vacated term, he was elected to his first full term in March 2004 and a second term in June 2008. The Third District includes the cities of Anaheim, Irvine, Orange, Tustin, Villa Park, and Yorba Linda, as well as the unincorporated areas of North Tustin, Orange Park Acres and Orange County's canyon communities.

Born in Los Angeles and raised in nearby Pico Rivera, Supervisor Campbell is a proud Southern Californian. He earned a Bachelor of Science degree in electrical engineering from Loyola Marymount University, and he holds a Master of Business Administration degree from the Harvard Business School.

Supervisor Campbell is a member of the Orange County Chapter of Legatus, a Catholic organization for business professionals. He is a former member of the Young Presidents' Organization, where he served on the International Board of Directors. He is also a member of the alumni associations of both of his alma maters and has served on the Board of Directors of the Loyola Alumni Association.

Supervisor Campbell served in the California Legislature as an Assembly Member from 1996 to 2002. He served as Assembly Minority Leader, Vice Chairman of the prestigious Committee on Appropriations and was a member of the Banking and Finance Committee, the Education Committee, and the Utilities and Commerce Committee.

While in the California State Assembly and as a member of the Orange County Board of Supervisors, Supervisor Campbell worked to enhance the quality of life for the residents of Orange County through the preservation and development of recreational, cultural, educational and historical assets that will be a legacy left to future generations. He has sought to protect Orange County's natural resources through proposals such as Assembly Bill 1969 which protected Orange County's coastal resources by requiring an increased standard of treatment for wastewater.

Supervisor Campbell was first elected Chairman of the Board of Supervisors by his colleagues in January 2005 and for a second term as Chairman of the Board in January 2006. He was most recently elected and served as Chairman of the Board of Supervisors in 2011.

Supervisor Campbell and his wife, Mary, reside in Villa Park, where they have lived for over 35 years. They have three grown sons, Patrick, Chris and Brian, and four grandchildren. Prior to his service in elected office, he was a successful businessman most recently in the fast food business and earlier in his career in the aerospace industry.