

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

**April 11, 2016**

**PLEDGE OF ALLEGIANCE**

**CALL TO ORDER**

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

**ROLL CALL**

Directors LaMar, Reinhart, Swan, Withers and President Matheis

**NOTICE**

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

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**COMMUNICATIONS TO THE BOARD**

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1. A. Written:

B. Oral:

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

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

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**WORKSHOPS**

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3. **FISCAL YEAR 2016-17 OPERATING BUDGET AND PROPOSED RATES AND CHARGES**

Recommendation: That the Board review and provide comments on the District's proposed FY 2016-17 Operating Budget and proposed rates and charges.

4. **DRAFT FISCAL YEAR 2016-17 CAPITAL BUDGET**

Staff will provide an overview of the forecasted FY 2016-17 Capital Budget for discussion prior to adoption at the Board Workshop on April 25, 2016.

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**CONSENT CALENDAR**

**Resolution No. 2016-6**

**Items 5-9**

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

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

6. MINUTES OF REGULAR BOARD MEETING

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

7. 2016 LEGISLATIVE UPDATE

Recommendation: That Board adopt a "SUPPORT" position on AB 2488 (Dababneh); an "OPPOSE" position on AB 2583 (Frazier); an "OPPOSE" position on SB 885 (Wolk); a "SEEK AMENDMENTS" position on SB 814 (Hill); a "SUPPORT" position on SB 974; an "OPPOSE UNLESS AMENDED" position on SB 1317 (Wolk); and a "SUPPORT IN CONCEPT" position U.S. Army Corps of Engineers and Bureau of Reclamation Atmospheric River Research and Reservoir Operations Funding.

8. SECOND AMENDED WATER SUPPLY ASSESSMENT FOR SANTIAGO HILLS II AND VERIFICATION FOR TRACTS 16199 AND 17995

Recommendation: That the Board approve the Second Amended Water Supply Assessment for the Santiago Hills II project and the Verification of Sufficient Water Supply for Tracts 16199 and 17995.

9. TRAVEL AUTHORIZATION TO ATTEND CONFERENCE

Recommendation: That the Board authorize Executive Director of Finance Clary to attend the Government Finance Officers Association of the United States and Canada's 110<sup>th</sup> Annual Conference in Toronto, Ontario.

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## **ACTION CALENDAR**

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10. ANNUAL ORACLE SOFTWARE MAINTENANCE AND SUPPORT AGREEMENT RENEWAL

Recommendation: That the Board authorize staff to renew the annual Oracle Software Maintenance and Support Agreements, and additional licenses and support, in the amount of \$919,711 effective on May 30, 2016 (Unlimited License Agreement) and on May 22, 2016 (EBS).

11. DISCOVERY SCIENCE FOUNDATION EDUCATION PROGRAM

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with Discovery Science Foundation in the amount of \$531,555 for the three-year period covering FY 2016-2017, FY 2017-2018 and FY 2018-2019, for the elementary, middle and high school education programs.

12. WATER SUPPLY RELIABILITY STUDY VARIANCE NO. 2

Recommendation: That the Board authorize a budget increase to the FY 2015-16 Capital Budget in the amount of \$95,400 for project 11808 (6013) and approve Variance No. 2 with HDR Engineering, Inc. in the amount of \$171,500.

13. IRWD PARTICIPATION IN SANTA ANA-DELHI CHANNEL DIVERSION PROJECT

Recommendation: That the Board approve the addition of project 11945 (7024) to the FY 2015-16 capital budget in the amount of \$210,000 and authorize the General Manager to execute the Santa Ana-Delhi Channel Diversion Project Agreement committing IRWD to a \$195,000 contribution to the design and construction of the project subject to non-substantive changes.

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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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14. A. General Manager's Report

B. Directors' Comments

- C. CLOSED SESSION: Conference with Real Property Negotiator relative to Government Code Section 54956.8  
Property: OCSA Service Area 7 Sewer Infrastructure  
Agency Negotiator: Paul Cook, General Manager  
Purpose of Negotiations: Proposed Acquisition of Property – Price and Terms

D. Open Session

E. Adjourn

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



April 11, 2016

Prepared by: Christopher Smithson

Submitted by: Cheryl Clary

Approved by: Paul Cook



## BOARD WORKSHOP

### FISCAL YEAR 2016-17 OPERATING BUDGET AND PROPOSED RATES AND CHARGES

#### SUMMARY:

The proposed Fiscal Year (FY) 2016-17 Operating Budget for Irvine Ranch Water District is \$146.9 million, representing an increase of \$6.6 million, or 4.7%, when compared with the Operating Budget for FY 2015-16.

The goal of the District's budgeting process is to appropriately fund the resources required to provide excellent service to its customers as cost-efficiently as possible. Over the past few years, the District has aggressively pursued reductions in expenses to offset uncontrollable expenses such as pass-through rate increases from outside agencies on which the District depends for the purchase of water and the treatment of sewage and biosolids.

With significant additional capital facilities targeted for completion in FY 2016-17, the increases recommended in the operating budget also reflect additional expenses associated with operating or planning for the operation of those facilities. The proposed FY 2016-17 Budget assumes that the IRWD Biosolids project will begin operations in June 2017. The budget also assumes that the Baker Water Treatment Plant will come on line in October 2016. The budget reflects the full cost of operating the plant in the individual line items, with the reimbursement to IRWD for 76% of the operating expenses by the Baker Water Treatment Facility partners shown as a "reimbursement from Baker Partners" below.

The proposed increase over last year's budget is driven primarily by the following:

<u>Primary Drivers</u>	<u>Expenses</u> <u>(millions)</u>
Increase in labor costs associated with new positions to support new or planned operating facilities as well as labor rate increases	\$2.2
Increase in employee benefits associated with labor and rate increases in health insurance and PERS contributions	\$1.7
Increase in the cost of water primarily due to anticipated rate increases from outside agencies	\$1.3
Decrease in electricity due to a pass-through rate reduction and shifts in well production partially offset by operating facilities coming on line (Baker and Biosolids)	\$(1.6)
Higher chemical costs associated with the Baker Water Treatment Plant	\$1.1
Higher permits, licenses and fees associated with the Baker Water Treatment Plant and property taxes for water banking properties	\$0.3
Higher operating and maintenance expenses associated with additional facilities coming on line and increased maintenance associated with aging infrastructure	\$1.1

Increase in data processing costs associated with the Oracle unlimited license agreement	\$0.4
Increase in professional fees and programs primarily associated with conservation programs	\$1.4
Higher conservation rebates associated with higher reimbursable expenditures and tactical measure programs	\$1.3
Expected reimbursement from Baker Partners	\$(3.4)
All others less than \$0.3 million individually	\$0.8
<i>Total proposed budget increases in FY 2016-17:</i>	<i>\$6.6</i>

The District’s rate-setting strategy provides for volume fluctuations in commodity sales without forcing rate increases to make up for the reduced sales. Rate increases are driven by the increases in operational expenses identified above of which over 50% are a direct result of higher pass-through expenses and not as a result of reduced commodity sales.

Rate increases are necessary to fund anticipated shortfalls in the water and sewer / recycled water systems. In the Irvine Ranch rate area, the proposed adjustment to the low volume and base rates are \$0.10 and \$0.03 per hundred cubic feet (ccf), respectively. In the Los Alisos rate area, the proposed adjustment to the low volume and base rates are \$0.16 and \$0.07 per ccf, respectively. For both rate areas, no change is recommended for the fixed water service charge and the proposed increase to the fixed sewer charge is \$1.35 per month for the typical residential customer.

Based on the recommended increases, the Irvine Ranch rate area will experience an increase to the average residential customer of \$2.06 or 4.2%, from \$49.04 to \$51.10, per month, and the Los Alisos rate area will experience an overall rate increase to the average residential customer of \$2.64 or 4.6%, from \$57.08 to \$59.72, per month.

Staff recommends the Board review and provide comments on the initial Operating Budget, and changes to the District’s rates and charges for further review by the full Board at its workshop on April 25, 2016. Staff also intends to present Proposition 218 notices at the April 25, 2016 Board meeting.

**BACKGROUND:**

The initial proposed Operating Budget, attached as Exhibit “A”, has been organized into 10 major functional areas, including separate sections for proposed general plant purchases and labor changes:

- Assumptions;
- Consolidated Operating Budget;
- Revenues and Expenses by System;
- Non-operating Sources and Uses of Funds;
- Current and Proposed Residential Rates;
- Budgeted Revenue Summary by System;
- Budgeted Cost of Water by System;

- Individual tabs with Major Goals, proposed organization chart and expense budget by Department;
- General Plant; and
- Summary of Labor and proposed changes.

Year-over-Year Change in System Operating Results:

Below is a table with a year-over-year comparison identifying the change by system with the rate increases necessary to meet operating demands:

<b>Systems Expenses</b> (in thousands)	<b>Treated</b>	<b>Sewer</b>	<b>Recycled</b>	<b>Conserve/ NTS</b>	<b>Capital &amp; Non-Oper.</b>	<b>Total</b>
FY 2015-16	\$60,934	\$28,642	\$23,699	\$7,046	\$20,328	\$140,649
FY 2016-17	\$67,472	\$32,615	\$20,883	\$11,548	\$18,592	\$151,110
Change from Prior Year	(\$6,538)	(\$3,973)	\$2,816	(\$4,502)	\$1,736	(\$10,461)
General Plant Change	(\$1,482)	(\$393)	(\$1,077)			(\$2,952)
Total Change to offset	(\$8,020)	(\$4,366)	\$1,739	(\$4,502)		(\$15,149)
Revenue Applied:						
Change from Prior Year	\$1,338	\$1,354	(\$186)			\$2,506
Rate Increases	\$5,533	\$2,461	\$591			\$8,585
Over Allocation	\$3,195	\$0	(\$2,444)	\$751		\$1,502
Other sources	(\$2,046)	\$551	\$300	\$3,751		\$2,556
Total Additional Revenue	\$8,020	\$4,366	(\$1,739)	\$4,502		\$15,149
Net	\$0	\$0	\$0	\$0		\$0

Allocation-based Rate Structure Cost Allocation:

In the tables below, staff has provided the detailed methodology for allocating costs to the allocation-based rates consistent with Proposition 218 and Article X requirements.

The District adopted an allocation-based rate structure in 1991 with the intent to incentivize water conservation. This approach immediately resulted in a decrease of water consumption that exceeded 10% and laid the groundwork for the efficient use of water by IRWD’s customers that is firmly established today. The rate structure continues to align excessive use with a marked increase in rates over the base rate to fund costs including recycled water conversions which helps reduce IRWD’s need to purchase expensive imported water, the District’s conservation efforts, and the urban runoff (Natural Treatment System (NTS)) which is a byproduct of wasteful usage.

The allocation-based rate structure is designed to promote conservation and the District’s rate-setting process utilizes approved legislation included in Chapter 3.4 (sections 370-374) of the California Water Code that provides for the ability to add a conservation charge for uses beyond the reasonable use basic allocation. The proposed FY 2016-17 Operating Budget and recommended rate increases follow these guidelines. The District’s rate-setting process provides for the determination of the nexus between the revenue generated from the proposed rates and

the costs driving those rates, and between the rates and the estimated benefit from the additional associated costs. This has been analyzed and was set forth in greater detail in the IRWD Cost of Service Study, completed during the FY 2015-16 rate-setting process. The rate structure is based on the cost of service to provide water to each tier.

Over-allocation revenue can fluctuate significantly from year to year; weather is typically the most unpredictable factor. During wet years, over-allocation revenue is reduced while dry years generate more as consumption increases. Consistent with the District’s practice, as weather and consumption cannot be predicted, this over-allocation fund is to be considered cyclical for use over a three- to five-year time frame. Staff continues to prioritize programs and expenditures that will utilize the fund and provide a benefit to the District.

On an annual basis, over-allocation revenue provides for many programs that preserve the District’s water conservation approach established years ago. Specifically, over-allocation revenue / funds provide for annual expenses that include:

- Conservation programs and incentives that provide a blended benefit to all over-allocation users;
- Outreach from District staff through programs with local schools and through Water Smart;
- Conservation outreach efforts that include identifying and working with Excessive and Wasteful tier users; and
- Operation, maintenance, and management of NTS sites, which are designed to treat the runoff from over-irrigation, with additional sites added annually.

*Irvine Ranch Rate Area:*

The District’s rate-setting methodology utilizes four tiers that include a low-volume tier, a base rate and two over-allocation tiers. The allocation of costs associated with the Irvine Ranch rate area tiers follow:

<b>IRVINE RANCH RATE AREA METHODOLOGY</b>	
<b>Tiers</b>	<b>Proposed</b>
Low Volume (LV)	Lowest cost of source water for the Irvine Ranch Rate Area (\$1.18/ccf) + District-wide conservation and NTS costs (\$0.03/ccf)
Base Rate	All sources melded cost of budgeted water (\$1.62/ccf) + District-wide conservation and NTS costs (\$0.03/ccf)
Inefficient	Loaded cost of imported water (\$3.69/ccf) + District-wide conservation and NTS costs (\$0.03/ccf) + water banking costs (\$0.16/ccf ) + the conservation commitment to this tier (\$0.13/ccf )
Wasteful	Loaded cost of imported water (\$3.69/ccf) + District-wide conservation and NTS costs (\$0.03/ccf) +water banking costs (\$0.16/ccf ) + the conservation commitment to this tier (\$8.13/ccf )

When this approach is applied to the budgeted revenues and expenses within each tier, the resulting proposed rates for the Irvine Ranch rate area for FY 2016-17 follow:

IRVINE RANCH RATE AREA			
Tiers	Current (FY 15-16) (per ccf)	Proposed (FY 16-17) (per ccf)	Difference
Low Volume	\$1.11	\$1.21	\$0.10
Base Rate	\$1.62	\$1.65	\$0.03
Inefficient	\$3.92	\$4.01	\$0.09
Wasteful	\$14.53	\$12.01	(\$2.52)

*Los Alisos Rate Area:*

The methodology used for the Los Alisos rate area is similar to the Irvine Ranch rate area. The methodology continues to utilize four tiers that include a low-volume tier, a base rate and three over-allocation tiers. The allocation of costs associated with the tiers follow:

LOS ALISOS RATE AREA METHODOLOGY	
Tiers	Proposed
Low Volume	Lowest cost of source water for the (\$1.77/ccf) + District-wide conservation and NTS costs (\$0.03/ccf)
Base Rate	All sources melded cost of budgeted water (\$2.43/ccf) + District-wide conservation and NTS costs (\$0.03/ccf)
Inefficient	Loaded cost of imported water (\$3.69/ccf) + District-wide conservation and NTS costs (\$0.03/ccf) + water banking costs (\$0.16/ccf) + the conservation commitment to this tier (\$0.13/ccf)
Wasteful	Loaded cost of imported water (\$3.69/ccf) + District-wide conservation and NTS costs (\$0.03/ccf) + water banking costs (\$0.16/ccf) + the conservation commitment to this tier (\$8.13/ccf)

The proposed rate structure for the Los Alisos rate area follows:

LOS ALISOS RATE AREA			
Tiers	Current (FY 15-16) (per ccf)	Proposed (FY 16-17) (per ccf)	Difference
Low Volume	\$1.64	\$1.80	\$0.16
Base Rate	\$2.39	\$2.46	\$0.07
Inefficient	\$3.60	\$4.01	\$0.41
Wasteful	\$15.20	\$12.01	(\$3.19)

Average usage for typical residential customers in the Irvine Ranch and Los Alisos rate areas is approximately 12 ccf and the three lowest months usage would place them in the 5-10 ccf category for sewage demand. Based on the recommended increases, the Irvine Ranch rate area

will experience an increase to the average residential customer of \$2.06 or 4.2%, from \$49.04 to \$51.10, per month, and the Los Alisos rate area will experience an overall rate increase to the average residential customer of \$2.64 or 4.6%, from \$57.08 to \$59.72, per month.

#### Pumping Surcharges:

The District's pumping surcharges were reviewed in detail through the Embedded Energy Study during the rate-setting process for FY 2015-16. The study provides a nexus between the surcharge and the cost associated with moving the water to higher elevations. It also identifies a necessary increase that would occur over two years with a partial increase applied in FY 2015-16 and the second increase to occur in FY 2016-17. The study recommended several changes that would affect the current zone structure:

- The District had nine potable zones with rates ranging from \$0.16/ccf to \$0.42/ccf prior to the proposed increase that would be phased in over two fiscal years;
- The nine potable zones would be reduced to three zones with rates ranging from \$0.21/ccf to \$0.65/ccf; and
- The community in the canyons in the surcharge zones would be included.

Staff recommends reducing the number of potable pumping zones to three, applying the second of two increases to the applicable zones and establishing a temporary pumping zone for the areas previously not included in zones with 50% of the increase proposed in FY 2016-17. The second increase will occur in FY 2017-18. At that time, the temporary zone would dissolve into the existing three zones.

#### FISCAL IMPACTS:

Planned operating expenses in the FY 2016-17 Proposed Operating Budget reflect an increase of \$6.6 million from the adopted Operating Budget for FY 2015-16. The budget and staff's proposed rate increases were reviewed at Finance and Personnel Committee meetings on March 1, 2016; March 15, 2016; and April 5, 2016. The budget includes \$0.9 million of rate stabilization for the sewer and recycled systems. It is expected that the proposed rate increases will result in a contribution to the enhancement and replacement funds of approximately \$3.8 million and \$24.3 million for water and sewer, respectively.

#### 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 March 1, 2016; March 15, 2016; and April 5, 2016.

RECOMMENDATION:

THAT THE BOARD REVIEW AND PROVIDE COMMENTS ON THE PROPOSED  
FY 2016-17 OPERATING BUDGET AND PROPOSED RATES AND CHARGES.

LIST OF EXHIBITS:

Exhibit "A" – Proposed Operating Budget for Fiscal Year 2016-17





**Exhibit "A"**

**IRVINE RANCH WATER DISTRICT  
OPERATING BUDGET  
FISCAL YEAR 2016-17**



**"PROPOSED"**

**APRIL 11, 2016**



## OPERATING BUDGET

### *Assumptions as of April 11, 2016* *Fiscal Year 2016-17*

The goal of the District's budgeting process remains to fund the resources required to provide services to the District's customers as cost-efficiently as possible. Over the past several years, the District's operating budget has aggressively pursued reductions in expenses to offset uncontrollable expenses such as pass-through rate increases from outside agencies on which the District depends for the purchase of water and the treatment of wastewater and biosolids.

Pass through rate increases account for more than half of the increases in the proposed FY 2016-17 budget. The District's rate setting strategy provides for volume fluctuations in commodity sales without requiring rate increases to make up for the reduced sales. In other words, rate increases are driven by the increases in operational expenses of which over 50% are a direct result of higher pass through expenses and not as a result of reduced commodity sales. With significant additional capital facilities in development in FY 2016-17, the remaining recommended increases in the operating budget reflect additional expenses associated with operating or planning for the operation of those facilities.

This document is a preliminary summary of the major assumptions driving the development of the operating budget for FY 2016-17 for input by Board.

#### **I. REVENUES**

##### *Growth Estimates:*

Residential development growth includes both apartments and single family homes for FY 2016-17. The unit estimate is based on the most current projections received from the major developers throughout the service area. Current estimates identify approximately 3,700 mixed units coming on line in FY 2016-17. As a result, the growth factor for residential development was estimated at 3.0% for FY 2016-17.

The District experienced an increase in commercial volume which is helping to meet a return of the previously lost revenue due to the economy. Current development projections for the commercial/industrial sector identify 98 acres of development occurring in FY 2016-17 as well as 105 acres developing in the current fiscal year. Staff included a 1% growth rate for commercial and industrial development for FY 2016-17. Revenue assumptions used to estimate sewer revenue match the assumptions included for potable water.

##### *Minimizing the Rate Impact:*

The FY 2016-17 budget includes a significant increase in operating expenses and higher pass through costs from outside agencies. As a result, in order to minimize the rate increases, staff has allocated a majority of the projected additional imported water purchases from the over allocation tiers.

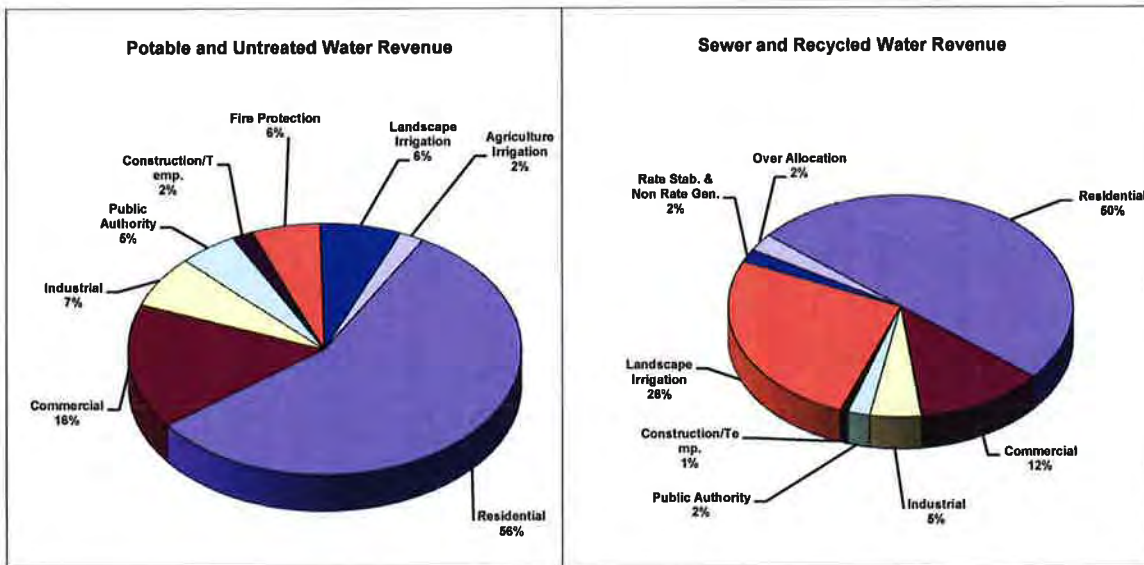


# OPERATING BUDGET

*Assumptions as of April 11, 2016  
Fiscal Year 2016-17*

*FY 2016-17 Estimate for Operating Revenue Sources, by Customer Type (in thousands):*

Customer Type	Potable	Sewer	Recycled	Total
Residential	\$ 42,525	\$ 36,347	\$ 1,134	\$ 80,006
Commercial	12,143	8,670	409	21,222
Industrial	5,011	3,569	40	8,620
Public Authority	3,659	1,577		5,236
Construction/Temp.	1,280		557	1,838
Fire Protection	4,263			4,263
Landscape Irrigation	5,006		19,531	24,538
Agriculture Irrigation	1,519		0	1,519
Rate Stab. & Non Rate Gen.		1,071	300	1,371
Over Allocation	10,092		1,929	12,021
<b>Total</b>	<b>\$ 85,499</b>	<b>\$ 51,234</b>	<b>\$ 23,901</b>	<b>\$ 160,634</b>



The projected revenue sources and their respective percentage of the total are presented in the graph above. Total Residential, Landscape, Commercial, and Industrial revenue constitute over approximately 80% of the total operating revenues for both water and sewer.



# OPERATING BUDGET

## *Assumptions as of April 11, 2016* *Fiscal Year 2016-17*

The "Other" category in the chart above includes revenue from the following sources in the order of total estimated receipts:

- Construction/Temporary accounts
- United States Department of the Navy contribution for the Shallow Ground Water Unit identified as Irvine Desalter Project (IDP) Reimbursements
- Recycled water sales to the Santa Margarita Water District
- Green Acres Project (GAP) recycled water sales
- Recycled Water Conversion Loan payments

### II. OPERATING EXPENSES

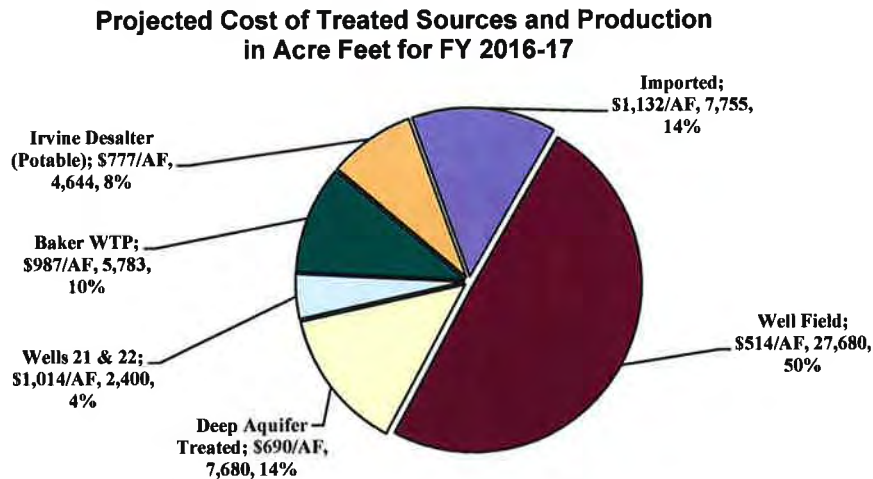
Notable expected changes in operating expenses are addressed below by system and function:

#### A. Treated Water

The State Water Resources Control Board (SWRCB) extended the restrictions to October 2016. California continues to face a significant drought and District customers have been receiving this messaging from a variety of sources. In addition, the District will continue to make efforts to do its part in encouraging its customers to conserve. The District intends to continue encouraging conservation through its rate structure, which provides an incentive for customers to limit water use to their base allocation. Customers have responded well to this messaging and the SWRCB has reduced the required reduction and, as a result, the District plans to increase its customer allocations slightly.

The FY 2016-17 budget anticipates a slight increase from forecasted usage in FY 2015-16. The District is projecting the potable sales for FY 2016-17 to be 52,504 acre feet (AF), an increase of approximately 2,900 over the prior year forecast.

The sources used to meet potable sales, their respective cost per AF, inclusive of labor, electricity, chemicals, etc., and their respective share of the total water purchased are identified in the graph:





## OPERATING BUDGET

### *Assumptions as of April 11, 2016 Fiscal Year 2016-17*

#### **Groundwater Production**

The major assumptions associated with the respective sources of water include the following:

- The Replenishment Assessment (RA) in FY 2015-16 was \$322 per AF and the rate used in FY 2016-17 is \$400 per AF, an increase of 24%. The District's basin production percentage (BPP) is set at a maximum of 70%, per the OCWD / IRWD Annexation Agreement executed in 2013.
- The Dyer Road Well Field (DRWF) pumping costs:
  - Actual energy usage will be factored with a rate decrease of 6%.
  - Chemical expense is relatively flat.

#### **Treated Water – Metropolitan Water District (MWD) and Municipal Water District of Orange County (MWDOC)**

- MWD is expected to increase its potable rates again on January 1, 2017 by 4%.
- The MWDOC meter surcharge will be applied to all imported purchases equally as part of the variable rate.
- Staff assumes no substantial change to the costs associated with the IRWD Reservoir Management Systems.
- The proposed FY 2016-17 budget assumes the Baker Water Treatment Plant will come on line October 2016. The budget reflects the full cost of operating the plant in the individual line items with the reimbursement to IRWD for 76% of the operating expenses by the Baker Water Treatment Facility partners shown as a "reimbursement from Baker Partners" in the Consolidated Operating Budget for all Departments.
- Los Alisos rate area demands are met almost entirely from the Baker Water Treatment Plant, which uses untreated water purchased from Santiago Aqueduct Commission (SAC) who purchases the water from MWDOC. The untreated rate will increase by 12%. The majority of the remaining demand will be met with MWDOC treated imported water.

#### **Untreated Water**

The sources for untreated water for FY 2016-17 will include purchased water.

- MWDOC purchases, Native Water and SAC water is expected to be used to meet all untreated demands.
- Any MWDOC increases discussed above also apply to purchases for the untreated system.

#### **B. Sewer**

The Michelson biosolids treatment facility is expected to go online in June 2017 and the FY 2016-17 operating budget includes one month (June) of operational expense. Current biosolids treatment is performed by the Orange County Sanitation District based upon a lease agreement that expires in December 2016. The District is in the process of negotiating a lease extension.





# OPERATING BUDGET

*Assumptions as of April 11, 2016  
Fiscal Year 2016-17*

C. Recycled Water

Customer demands for the recycled system decreased significantly from the prior year as customers embrace water conservation. Total recycled sales are estimated at 27,004 AF, a decrease of approximately 5,800 AF from the FY 2015-16 budget. Sources are as follows:

- Production and storage generated from operations at the Michelson Water Recycling Plant (MWRP) and Los Alisos Water Recycling Plant (LAWRP) are expected to provide 22,300 AF.
- The Irvine Desalter will provide 3,540 AF net of water lost through treatment.
- SAC water will provide 264 AF of water.
- The recycled water system is expected to purchase 3,402 acre-feet of supplemental water from the untreated system.

D. Salaries and Benefits

- Each year, staff prepares a labor budget based upon the total positions in the organization chart, expected merit and cost of living increases, and promotional allowances.
  - Each salary is identified and included in January and then projected forward adding merit increases that are based on prior review ratings where necessary in order to reach a starting July salary base.
  - New positions and promotions are added and all salaries are projected forward on a month by month basis.
  - In July, a COLA and promotional factor are applied to all salaries - Assumed at 2.0% and 0.9%, respectively.
  - Although staffing is below the current budget, staff anticipates all positions being occupied by FY 2016-17.

<b>Regular Salaries and Wages</b>	
FY 2015-16	\$29,085
Vacancy Factor	112
New positions	773
Promotions	309
COLA	495
Merit/Other	484
FY 2016-17	\$31,258



# OPERATING BUDGET

## *Assumptions as of April 11, 2016 Fiscal Year 2016-17*

The following table identifies the current and proposed contribution of the District toward employee benefits.

<b>Additional Contributions Provided by the District</b>		
	<b>FY 15-16</b>	<b>FY 16-17</b>
PERS Employer Contribution	18.3%	19.3%
PERS in Excess of ARC	<u>6.7%</u>	<u>5.7%</u>
Combined Total	25.0%	25.0%
District Direct 401A Match	0.0%	0.2%
401A Matching Contribution of 3%	2.4%	2.3%

User rates in the FY 2016-17 budget are based on budgeted PERS contributions.

### III. USE OF OTHER FUNDS

#### A. Over Allocation Revenue

Over allocation revenue is used to offset the following expenses:

- o The cost associated with additional imported water purchases;
- o Customers who receive the \$2 low volume capacity rebate on the fixed service charge;
- o Budgeted conservation expenses; and
- o Urban runoff (NTS) and San Joaquin Marsh maintenance expenses.

Total conservation expense is expected to exceed over allocation revenue in FY 2016-17, thereby reducing the conservation fund balance. The conservation fund is projected to be approximately \$10.0 million at the end of FY 2016-17.

#### B. Enhancement Fund User Rate Component

The current enhancement fund contribution for both the water and sewer system for FY 2015-16 was a combined \$1.52 per month (\$0.70 for water and \$0.82 for sewer) for the average residential customer. It is estimated that the fund balance will be approximately \$20.0 million at the end of FY 2016-17.

#### C. Replacement Fund User Rate Component

The current replacement sewer service charge of \$10.11 per month for the average residential customer in FY 2015-16 will increase by \$1.30 to \$11.41 to provide additional funding for the biosolids project. A \$0.65 increase was assumed for the water fixed service charge replacement component. It is estimated that the fund balance will be approximately \$200 million as of the end of FY 2016-17.

### IV. ALLOCATION OF COSTS BETWEEN IRWD AND LOS ALISOS RATE AREAS

- A. Costs that are directly related to providing service or are clearly associated with the Irvine Ranch or Los Alisos rate areas for treated water are allocated to the respective system expenses of that rate area.



## OPERATING BUDGET

*Assumptions as of April 11, 2016*  
*Fiscal Year 2016-17*

- B. Those costs that are attributable to system operations but that are not unique to one rate area are allocated based upon the ratio of the budgeted acre-feet.
- C. All direct labor costs are allocated General & Administrative (G&A) charges based upon the budgeted G&A factor.



**Irvine Ranch Water District**  
**Consolidated Operating Budget for All Departments FY 2016-17**

(in thousands)

Expense Category / Name		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Original Budget	2016-17 Proposed Budget	Incr/(Decr)	%
Salaries & Benefits	Regular Labor	\$26,123	\$13,309	\$29,085	\$31,258	\$2,173	7.5%
	Overtime Labor	1,478	864	1,560	1,758	198	12.7%
	Contract Labor	1,902	1,460	1,483	1,347	(136)	-9.2%
	Employee Benefits	7,267	4,010	15,280	16,938	1,658	10.9%
<b>Salaries &amp; Benefits Total</b>		<b>\$36,770</b>	<b>\$19,644</b>	<b>\$47,407</b>	<b>\$51,300</b>	<b>\$3,893</b>	<b>8.2%</b>
Water & Utilities	Water	32,892	14,492	34,975	36,234	1,259	3.6%
	Electricity	13,601	6,358	16,391	14,829	(1,562)	-9.5%
	Fuel	617	161	702	566	(136)	-19.3%
	Telecommunication	489	227	477	502	25	5.1%
	Other Utilities	155	76	156	178	22	13.8%
<b>Water &amp; Utilities Total</b>		<b>\$47,754</b>	<b>\$21,313</b>	<b>\$52,702</b>	<b>\$52,309</b>	<b>(\$393)</b>	<b>-0.7%</b>
Materials & Supplies	Chemicals	2,284	1,123	2,016	3,133	1,118	55.5%
	Operating Supplies	(443)	524	1,391	1,484	93	6.7%
	Printing	182	64	291	265	(26)	-9.0%
	Postage	496	336	518	579	61	11.9%
	Permits, Licenses and Fees	359	612	888	1,219	331	37.3%
	Office Supplies	59	31	113	128	15	13.6%
	Duplicating Equipment	166	100	200	225	25	12.5%
	Equipment Rental	92	49	131	129	(2)	-1.6%
<b>Materials &amp; Supplies Total</b>		<b>\$3,196</b>	<b>\$2,839</b>	<b>\$5,546</b>	<b>\$7,162</b>	<b>\$1,616</b>	<b>29.1%</b>
Professional Services	Rep & Maint OCSD & Others	21,995	7,821	14,189	14,400	211	1.5%
	Rep & Maint IRWD	6,376	3,447	7,582	8,726	1,144	15.1%
	Insurance	583	444	940	1,004	64	6.8%
	Legal Fees	394	215	480	455	(25)	-5.2%
	Engineering Fees	424	176	669	736	67	10.0%
	Accounting Fees	56	63	75	95	20	26.5%
	Data Processing	2,224	1,612	2,663	3,027	364	13.7%
	Personnel Training	654	312	1,093	1,103	10	1.0%
	Personnel Physicals	19	11	43	51	8	18.6%
	Other Professional Fees	1,594	1,354	3,049	4,401	1,352	44.3%
<b>Professional Services Total</b>		<b>\$34,454</b>	<b>\$15,522</b>	<b>\$30,931</b>	<b>\$34,154</b>	<b>\$3,223</b>	<b>10.4%</b>
Other	Mileage Reimbursement	104	50	132	132	0	0.1%
	Collection Fees	7	9	21	21	0	1.0%
	Election Expense	30	15	30	145	115	383.3%
	Safety	59	41	96	83	(13)	-13.8%
	Alarm and Patrol Services	92	62	130	170	40	30.8%
	Biosolids Disposals	140	55	151	374	223	147.2%
	Commuter Program	126	50	142	156	14	9.9%
	Computer Backup Storage	43	13	23	24	1	4.3%
	Contract Meter Reading	1,289	655	1,350	1,350	0	0.0%
	Other	27	6	22	12	(10)	-44.4%
<b>Other Total</b>		<b>\$3,331</b>	<b>\$1,188</b>	<b>\$3,791</b>	<b>\$5,415</b>	<b>\$1,624</b>	<b>42.8%</b>
<b>TOTAL</b>		<b>\$125,505</b>	<b>\$60,506</b>	<b>\$140,378</b>	<b>\$150,341</b>	<b>\$9,963</b>	<b>7.1%</b>
<b>Less: Reimbursement from Baker Partners</b>					<b>(3,408)</b>	<b>(3,408)</b>	
<b>Grand Total</b>		<b>\$125,505</b>	<b>\$60,506</b>	<b>\$140,378</b>	<b>\$146,933</b>	<b>\$6,555</b>	<b>4.7%</b>



## REVENUES AND EXPENSES BY SYSTEM

(in thousands)

	<u>Water</u>	<u>Sewer</u>	<u>Recycled</u>	<u>Consolidated</u>
<b>Revenue:</b>				
Commodity	\$ 41,832	\$ -	\$ 15,353	\$ 57,185
Service	33,575	50,683	6,319	90,577
Over Allocation	10,092	-	1,929	12,021
Rate Stabilization	-	551	300	851
<b>Total Revenues</b>	<b>\$ 85,499</b>	<b>\$ 51,234</b>	<b>\$ 23,901</b>	<b>\$ 160,634</b>
Contribution to Enhancement and Replacement Funds	(8,308)	(18,619)	(1,089)	(28,016)
<b>Net Revenues</b>	<b>\$ 77,191</b>	<b>\$ 32,615</b>	<b>\$ 22,812</b>	<b>\$ 132,618</b>
<b>Expenses:</b>				
Cost of Water	\$ 42,719	\$ -	\$ 9,222	\$ 51,941
Operations	10,013	9,961	5,904	25,878
Water Banking	373	-	-	373
OCSD - O&M	-	13,125	-	13,125
<i>Total Direct</i>	<u>53,105</u>	<u>23,086</u>	<u>15,126</u>	<u>91,317</u>
Customer Records and Collections	2,516	839	839	4,194
General & Admin Expense	9,740	7,821	3,452	21,013
<i>Total Indirect</i>	<u>12,256</u>	<u>8,660</u>	<u>4,291</u>	<u>25,207</u>
General Plant	2,111	869	1,566	4,546
Marsh/NTS/Conservation	9,719	-	1,829	11,548
<b>Total Expenses</b>	<b>\$ 77,191</b>	<b>\$ 32,615</b>	<b>\$ 22,812</b>	<b>\$ 132,618</b>
<b>Net Operating Position</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>



# NON-OPERATING

## *SUMMARY OF SOURCES AND USES*

(in thousands)

	<u>FY 2015-16</u>	<u>FY 2016-17</u>	<u>Incr/(Decr)</u>
<b>Non-operating Revenue:</b>			
Property Taxes	\$43,466	\$47,689	\$4,223
Investment Income	1,642	2,686	1,044
Connection Fees	22,000	22,000	0
Real Estate Income	12,556	12,954	398
Other Income	5,915	6,500	585
<b>Total Revenue</b>	<u>\$85,579</u>	<u>\$91,829</u>	<u>\$6,250</u>
<b>Non-operating Expenses:</b>			
Interest Expense	\$22,056	\$24,606	\$2,550
Real Estate Expense	6,303	6,834	531
Other Expenses	1,174	1,000	(174)
<b>Total Expense</b>	<u>\$29,533</u>	<u>\$32,440</u>	<u>\$2,907</u>
<b>Net Sources &amp; Uses</b>	<u><u>\$56,046</u></u>	<u><u>\$59,389</u></u>	<u><u>\$3,343</u></u>



# Current and Proposed Residential Rates

Before Rate Adjustment:	Irvine Ranch		Los Alisos	
	Potable	Wastewater	Potable	Wastewater
<b>Current Residential Rates:</b>	Water (1)	Sewer/ Recycled Water (2)	Water (1)	Sewer/ Recycled Water (2)
<b>Low Volume</b>	\$1.11	\$1.08	\$1.64	\$1.08
Commodity Rate	\$1.62	\$1.37	\$2.39	\$1.37
Residential Service	\$10.30	\$21.85	\$10.30	\$21.85
Operations	\$8.15	\$12.37	\$8.15	\$12.37
Replacements	\$1.45	\$8.66	\$1.45	\$8.66
Enhancements	\$0.70	\$0.82	\$0.70	\$0.82
<b>Total Service Charge</b>	<b>\$10.30</b>	<b>\$21.85</b>	<b>\$10.30</b>	<b>\$21.85</b>
<b>Commodity (12 ccf)</b>	<b>\$16.89</b>		<b>\$24.93</b>	
<b>Current Monthly</b>	<b>\$49.04</b>		<b>\$57.08</b>	
<b>Proposed Residential Rate Adjustment:</b>				
<b>Low Volume</b>	\$1.21	\$1.12	\$1.80	\$1.12
<b>Base Commodity Rate</b>	\$1.65	\$1.46	\$2.46	\$1.46
<b>Operations</b>	\$7.50	\$13.07	\$7.50	\$13.07
<b>Replacements</b>	\$2.10	\$9.31	\$2.10	\$9.31
<b>Enhancements</b>	\$0.70	\$0.82	\$0.70	\$0.82
<b>Total Service Charge</b>	<b>\$10.30</b>	<b>\$23.20</b>	<b>\$10.30</b>	<b>\$23.20</b>
<b>Commodity</b>	<b>\$17.60</b>		<b>\$26.22</b>	
<b>Proposed Monthly</b>	<b>\$51.10</b>		<b>\$59.72</b>	
Current Monthly	\$49.04		\$57.08	
Difference	\$2.06		\$2.64	
<b>Change %</b>	<b>4.2%</b>		<b>4.6%</b>	

- (1) Water - District Average usage assumes 12 ccf's per month.
- (2) Sewer - District average usage assumes 6-10 ccf for lowest 3 months.



# REVENUE

## BUDGETED REVENUE SUMMARY BY SYSTEM

(in thousands)

	<u>FY 2015-16</u>	<u>Usage Change</u>	<u>Proposed Rate Inc.</u>	<u>FY 2016-17</u>
<b>Water</b>				
Service	\$ 24,494	\$ (977)	\$ -	\$ 23,517
Enhancement	1,788	289		2,077
Replacement	3,836	2,395		6,231
Pumping Surcharge	800	(75)	50	775
Miscellaneous	600	375		975
Commodity	32,113	4,236	5,483	41,832
Over Allocation Revenue/Fund	6,897	3,195		10,092
Rate Stabilization / Non Rate Generated	2,046	(2,046)		
	<u>\$ 72,574</u>	<u>\$ 7,392</u>	<u>\$ 5,533</u>	<u>\$ 85,499</u>
<b>AF Sales</b>	52,276			54,385
<b>User Type</b>				
Residential	\$ 37,241	\$ 2,340	\$ 2,944	\$ 42,525
Commercial	9,668	1,489	986	12,143
Industrial	3,773	720	518	5,011
Public Authority	2,102	1,152	405	3,659
Construction/Temp.	950	285	45	1,280
Fire Protection	3,807	456	0	4,263
Landscape Irrigation	5,131	(561)	437	5,006
Agriculture Irrigation	959	362	198	1,519
Over Allocation Revenue	6,897	3,195		10,092
Rate Stabilization / Non Rate Generated	2,046	(2,046)		0
	<u>\$ 72,574</u>	<u>\$ 7,392</u>	<u>\$ 5,533</u>	<u>\$ 85,499</u>



# REVENUE

## BUDGETED REVENUE SUMMARY BY SYSTEM

<i>(in thousands)</i>	<u>FY 2015-16</u>	<u>Usage Change</u>	<u>Proposed Rate Inc.</u>	<u>FY 2016-17</u>
<b>Sewer</b>				
Service	\$ 28,245	\$ 1,415	\$ 1,454	\$ 31,114
Enhancement	1,180	59	93	1,332
Replacement	15,592	781	914	17,287
Miscellaneous	611	(181)		430
Reimbursements	520	-		520
Rate Stabilization	-		551	551
	<u>\$ 46,148</u>	<u>\$ 2,074</u>	<u>\$ 3,012</u>	<u>\$ 51,234</u>
<b>User Type</b>				
Residential	\$ 32,747	\$ 1,833	\$ 1,767	\$ 36,347
Commercial	7,977	264	429	8,670
Industrial	3,401	(16)	184	3,569
Public Authority	1,503	(7)	81	1,577
Reimbursements	520	-	-	520
Rate Stabilization			551	551
	<u>\$ 46,148</u>	<u>\$ 2,074</u>	<u>\$ 3,012</u>	<u>\$ 51,234</u>



# REVENUE

## BUDGETED REVENUE SUMMARY BY SYSTEM

<i>(in thousands)</i>	<u>FY 2015-16</u>	<u>Usage Change</u>	<u>Proposed Rate Inc.</u>	<u>FY 2016-17</u>
<b>Recycled</b>				
Service	\$ 4,153	\$ 631	\$ -	\$ 4,784
Enhancement	323	18	-	341
Replacement	693	55	-	748
Pumping Surcharge	265	181	-	446
Commodity	16,406	(1,644)	591	15,353
Over Allocation Revenue	4,373	(2,444)		1,929
Rate Stabilization	486	(186)		300
	<u>\$ 26,699</u>	<u>\$ (3,389)</u>	<u>\$ 591</u>	<u>\$ 23,901</u>
<b>AF</b>	<b>32,810</b>			<b>27,004</b>
<b>User Type</b>				
Residential	\$ 1,151	\$ (48)	\$ 31	\$ 1,134
Commercial	415	(17)	11	409
Industrial	41	(2)	1	40
Public Authority	-	-	-	-
Landscape Irrigation	19,668	(669)	532	19,531
Recycled Loans	-	-	-	-
Agriculture Irrigation	-	-	-	-
Construction/Temp.	565	(23)	15	557
Over Allocation Revenue	4,373	(2,444)	-	1,929
Rate Stabilization	486	(186)	-	300
	<u>\$ 26,699</u>	<u>\$ (3,389)</u>	<u>\$ 591</u>	<u>\$ 23,901</u>





# COST OF WATER

## BUDGETED COST OF WATER

<i>(in thousands)</i>	FY 2015-16			FY 2016-17			Change	
	Acre Feet	Total	Cost / AF	Acre Feet	Total	Cost / AF	Acre Feet	Total
<b>Irvine Ranch Rate Area</b>								
<b><u>TREATED</u></b>								
Purchased from MWDOC	5,988	\$ 7,130	\$1,191	5,955	\$ 6,744	\$1,132	(33)	\$ (386)
Dyer Road Well Field	28,000	13,079	\$467	27,680	14,238	\$514	(320)	1,159
Other Wells	900	366	\$0	650	402	\$618	(250)	36
Deep Aquifer Treatment System	8,000	4,707	\$588	7,680	5,301	\$690	(320)	594
Lost to Production	(160)			(154)			6	
Wells 21 & 22 Desalter	0	520	\$0	2,400	2,432	\$1,014	2,400	1,912
Lost to Production	0			(360)			(360)	
Irvine Desalter Project	2,890	2,150	\$744	4,644	3,611	\$777	1,754	1,461
Lost to Production	(434)			(697)			(263)	
Total Shrinkage	(1,855)			(2,498)			(643)	
<b>Total Irvine Ranch Potable</b>	<b>43,329</b>	<b>\$ 27,952</b>		<b>45,300</b>	<b>\$ 32,728</b>		<b>1,971</b>	<b>\$ 4,776</b>
<b><u>UNTREATED</u></b>								
Purchased from MWDOC	11,637	\$ 7,939	\$682	4,103	\$ 3,183	\$776	(7,534)	\$ (4,756)
Native Water	400	85	\$212	1,000	212	\$212	600	127
Santiago Aqueduct Commission	180	111	\$617	264	212	\$803	84	101
Transfer to RW System	(9,404)	(6,261)	\$666	(3,402)	(2,286)	\$672	6,002	3,975
Total Shrinkage	(128)			(84)			44	
<b>Total Untreated</b>	<b>2,685</b>	<b>\$ 1,874</b>		<b>1,881</b>	<b>\$ 1,321</b>		<b>(804)</b>	<b>\$ (553)</b>
<b>Los Alisos Rate Area</b>								
Purchased from MWDOC	6,141	\$ 6,432	\$1,047	1,800	\$ 2,002	\$1,112	(4,341)	\$ (4,430)
Baker WTP				5,783	\$ 5,710	\$987	5,783	5,710
Well Water	432	32	\$74	432	0	\$0	-	(32)
Total Shrinkage	(312)			(811)			(499)	
<b>Total Los Alisos</b>	<b>6,261</b>	<b>\$ 6,464</b>		<b>7,204</b>	<b>\$ 7,712</b>		<b>943</b>	<b>\$ 1,248</b>
<b>Total Potable and Untreated Water</b>	<b>52,275</b>	<b>\$ 36,290</b>		<b>54,385</b>	<b>\$ 41,761</b>		<b>2,110</b>	<b>\$ 5,471</b>

**Assumptions:**

OCWD - replenishment assessment estimate - \$400/acre foot.

MWDOC - Includes identified increases that will be effective January 1, 2017 from MWD.





# COST OF WATER

## BUDGETED COST OF RECYCLED WATER

<i>(in thousands)</i>	FY 2015-16			FY 2016-17			Change	
	Acre Feet	Total	Cost / AF	Acre Feet	Total	Cost / AF	Acre Feet	Total
Groundwater	0	\$ -	\$ -	-	\$ -	\$ -	-	\$ -
Irvine Desalter Project	2,900	1,836	\$633	4,165	2,724	\$654	1,265	888
Lost to Production	(435)			(625)			(190)	
SAC Water	282	174	\$617	0	0	\$0	(282)	(174)
MWRP / LAW RP Production	22,300	10,480	\$470	22,300	4,983	\$223	-	(5,497)
Transfer from Untreated System	9,404	6,261	\$666	3,402	2,286	\$672	(6,002)	(3,975)
<i>Total Shrinkage</i>	<u>(1,641)</u>			<u>(2,238)</u>			<u>(597)</u>	
<b>Total Recycled</b>	<u>32,810</u>	<u>\$ 18,751</u>		<u>27,004</u>	<u>\$ 9,993</u>		<u>(5,806)</u>	<u>\$ (8,758)</u>
<b>Total Cost of Water for Billed Usage</b>	<u>85,085</u>	<u>\$ 55,041</u>		<u>81,389</u>	<u>\$ 51,754</u>		<u>(3,696)</u>	<u>\$ (3,287)</u>

**Assumptions:**

OCWD - replenishment assessment estimate - \$400/acre foot.

MWDOC - Includes identified increases that will be effective January 1, 2017 from MWD.



# GENERAL MANAGER'S OFFICE

## OPERATING BUDGET SUMMARY

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### Program Description

The General Manager's Office implements the policies established and direction provided by the Board of Directors and, in so doing, provides overall direction to staff to complete that effort. The office also includes Government Relations which develops and advocates for policies at the federal, state and local levels that promote a reliable high quality and cost effective water supply for IRWD customers, and demonstrates the efficient use of resources. The Government Relations staff provides policy leadership and technical expertise to the legislative process, particularly on issues of water recycling, water use efficiency, water supply reliability and governance, among others.

The General Manager's office also:

- Provides direct services to and communications with the Board of Directors;
- Produces and distributes Board, Board Committee and Ad Hoc Committee meeting packets;
- Schedules all Board, Board Committee, Ad Hoc Committee and annual/special independent corporation meetings;
- Produces the minutes of all Board meetings;
- Maintains all Board resolutions;
- Schedules other meetings and functions on behalf of the Board members and makes travel arrangements, as needed;
- Maintains records of all inter-agency agreements, deeds and easements;
- Maintains records for the various independent corporations;
- Maintains necessary inter-governmental relations;
- Responds to, or directs response to, all media inquiries; and,
- Responds to all public information requests.

The General Manager's Office works with the Board of Directors and staff to establish the District's strategic vision for all departments. On November 6, 2015, staff reviewed the 2015 Goals and Target Activities with the Board. The Goals and Target Activities described below reflect the *Strategic Objectives*, as well as the *Mission, Vision and Values* of Irvine Ranch Water District as adopted by the Board. The Goals (numbered) and the Target Activities (lettered) for 2016 are summarized as follows:

### Major Goals

1. Optimize and protect local water supply utilization
  - a. Implement near-term recommendations from 2014 Groundwater Work Plan
  - b. Complete construction and commissioning of Baker Water Treatment Plant
  - c. Complete updated potable water supply reliability study
  - d. Complete Urban Water Management Plan



## GENERAL MANAGER'S OFFICE

### OPERATING BUDGET SUMMARY

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- e. Select preferred alternative and begin feasibility study to replace or repair Irvine Lake Outlet Tower
  - f. Coordinate with OCWD on South Basin Clean-up Project
  - g. Provide advocacy and support for Metropolitan's Carson Regional IPR program
2. Minimize discharge of recyclable water to the ocean
    - a. Complete design and construction of Irvine Lake Pipeline North Conversion
    - b. Convert a minimum of 1,000 AF of potable water use to recycled water
    - c. Include IRWD's recycled water demands in OCWD's total water demand calculations
    - d. Update Sewage Collections System Master Plan
    - e. Update Sewage Treatment Master Plan, including consideration of IBC flows
    - f. Complete the Salt Management Plan – Phase 2
    - g. Perform CEQA, alternatives analysis and preliminary design for the Syphon Reservoir Expansion
    - h. Explore local IPR/aquifer storage opportunities
    - i. Evaluate putting SGU and other brine flows into the recycled water system
    - j. Complete Local Limits Study
3. Bank 90,000 AF of water for IRWD, develop 70 cfs of extraction and additional recharge and storage capacity as needed for IRWD and water banking partners
    - a. Certify EIR for Stockdale Integrated Banking Project
    - b. Execute long-term unbalanced exchange agreements for Stockdale
    - c. Execute long-term exchange agreements to facilitate exports of Kern River water
    - d. Investigate land fallowing and water transfer opportunities
    - e. Construct Stockdale recovery facilities
    - f. Construct Drought Relief Project recovery and conveyance facilities
    - g. Secure additional land for recharge and recovery facilities
4. Maximize resource recovery from fully functional biosolids and resource recovery facility
    - a. Biosolids Facilities operational
    - b. Complete marketing plan for beneficial use(s) of pellets
    - c. Develop partnerships with other agencies to utilize surplus capacity
    - d. Evaluate FOG implementation and incorporate industrial pre-treatment
    - e. Negotiate extension and revision of July 2003 agreement with OCSD
5. Improve electric service reliability, manage demands and control costs
    - a. Develop program to maximize generation of renewable energy through food waste and fats oils and grease
    - b. Implement recommendations from Embedded Energy Program
    - c. Participate in SCE's Direct Access Program
    - d. Pursue cost effective and proven energy storage programs through participation in Self Generation Incentive Program (SGIP)
    - e. Maximize participation in and returns from the Preferred Resource Pilot Program



## GENERAL MANAGER'S OFFICE

### OPERATING BUDGET SUMMARY

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- f. Explore financial models for financing, construction and operation of renewable and storage projects
  - g. Collaborate on the development of micro-grid technologies through a partnership with UCI
6. Maximize urban water treatment and watershed protection
- a. Construct Peters Canyon Channel Water Capture and Reuse Pipeline
  - b. Explore potential conversion of some NTS sites to infiltrate dry weather flows or divert into sewer
  - c. Facilitate discussions with the County of Orange to identify facilities for potential storm water detention / retention to control bank erosion
  - d. Explore diverting MWRP groundwater dewatering flows into MWRP
  - e. Identify alternative sources for Marsh to mitigate for potential loss of flows due to Peters Canyon Channel Water Capture and Reuse Project
7. Develop and implement asset management programs
- a. Complete the Pre-Implementation Phase of the management of the District's operating assets
  - b. Complete the Implementation Phase of the management of the District's operating assets
  - c. Resolve outstanding deed, access and other contractual restrictions related to real property
8. Ensure financial and rate stability
- a. Develop plan to invest revenue generated by the Lake Forest property; establish rate parity for IRWD Lake Forest customers
  - b. Update the Replacement Planning Model
  - c. Complete development and leasing on remaining Sand Canyon campus and other facilities
  - d. Complete financing plan to support the District's major capital projects
  - e. Develop a Cost of Service Study for the IRWD sewer system that includes the Biosolids Project operating
9. Enhance customer satisfaction and communication
- a. Enhance customer satisfaction through an improved customer web access portal
  - b. Develop and implement next phase of customer drought outreach program
  - c. Develop and implement tap water outreach campaign
  - d. Expand the RightScope program for regional use and benefit
  - e. Redesign customer bill to improve customer satisfaction
10. Maximize water use efficiency in the community
- a. Update Water Supply Contingency Plan
  - b. Evaluate water use efficiency programs and Water Use Efficiency Plan
  - c. Develop guide for implementing budget-based rate structures
  - d. Review current approach to water loss management, best practices, and compliance with new regulations





# GENERAL MANAGER'S OFFICE

## OPERATING BUDGET SUMMARY

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11. Recruit, develop and retain a highly skilled and educated work force
  - a. Implement new performance evaluation process
  - b. Develop and implement staff mentoring program
  - c. Develop and implement District Cross Training Program and Job Rotation Program
  - d. Develop a certification and training database and two-year staff training plan based on the needs of the District
  - e. Form and implement a Steering Committee to plan for succession and knowledge transfer
  - f. Evaluate alternatives for standby/first responders
  - g. Evaluate employee space planning alternatives
12. Identify, assess and implement new technologies
  - a. Implement the Operations Database Management System
  - b. Simplify and optimize financial module to incorporate new ID structure and project management
  - c. Conduct IT-related existing/new technology opportunity assessment
  - d. Implement Process Development Steering Committee to identify operational process improvements and explore new technologies
13. Guide and lead local, state and federal policies and legislation
  - a. Provide input to the State Water Resources Control Board in extending State-wide drought regulations
  - b. Participate in the development of Statewide surface and groundwater storage policies associated with Water Bond Funding
  - c. Seek legislative or regulatory changes promoting recycled water storage
  - d. Provide input to the legislature and administration on developing water markets in California
  - e. Promote policies which encourage energy reliability and efficiency in the water industry
  - f. Promote a "fit for purpose" approach to regulation of recycled water
  - g. Promote policies and regulations that will improve air quality and allow efficient operation of District facilities
14. Increase collaboration with other agencies and entities through leadership and innovation
  - a. Develop Orange County Groundwater Basin conjunctive use and exchange policy
  - b. Conduct planning level evaluation of potential IRWD and South County shared reliability projects
  - c. Actively participate in the Orange County Water Supply Reliability Study
  - d. Lead the Groundwater Producers in the evaluation of Ocean Desalination Projects
  - e. Evaluate and promote opportunities for shared services
  - f. Propose to provide sewer services to OCSD's Service Area 7
  - g. Participate as leaders in industry associations
  - h. Advocate for regional IPR and DPR projects
  - i. Evaluate third-party billing opportunity for UCI
15. Evaluate opportunities that enhance safety and emergency preparedness throughout the District
  - a. Implement facility security assessment



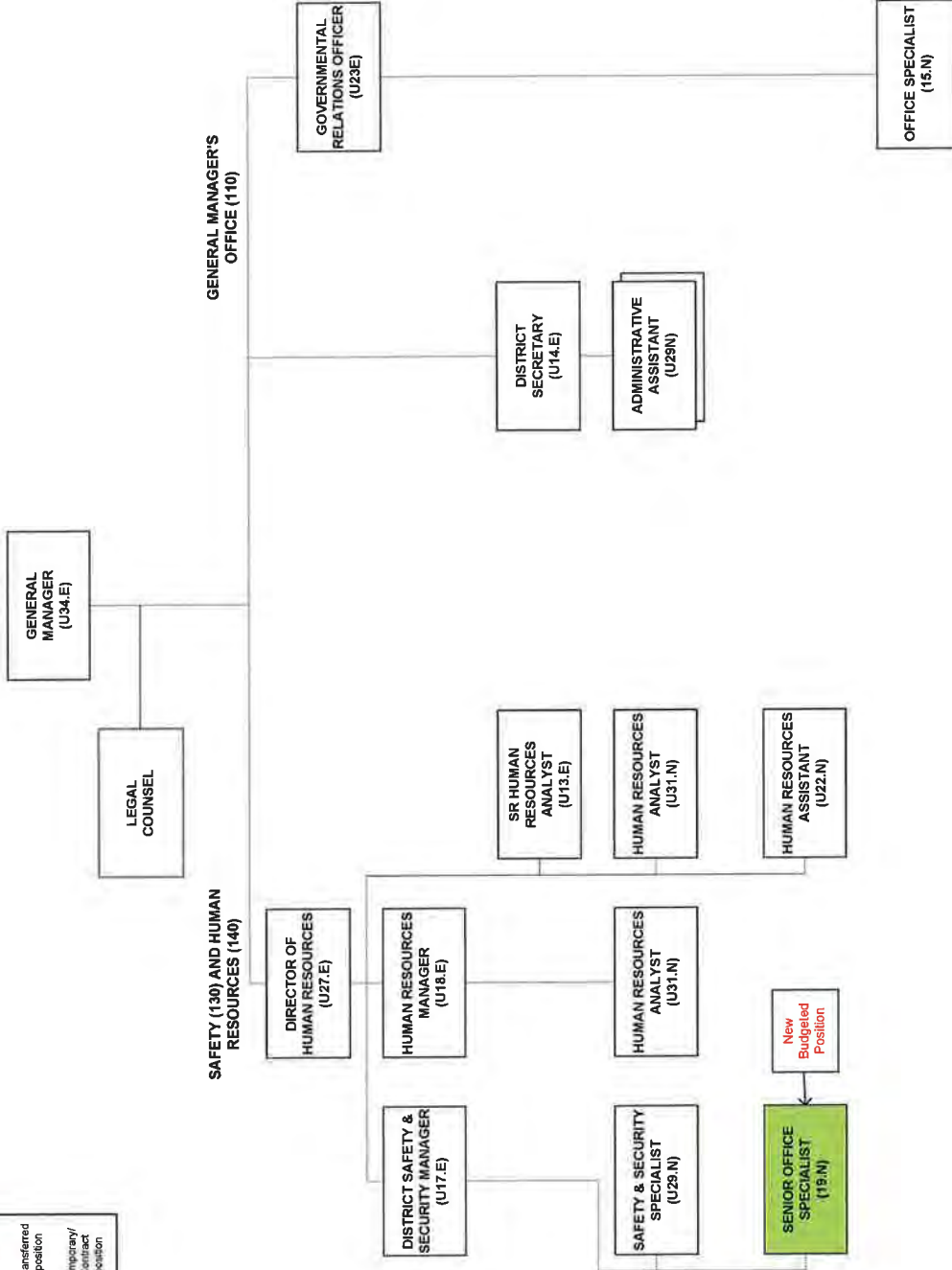
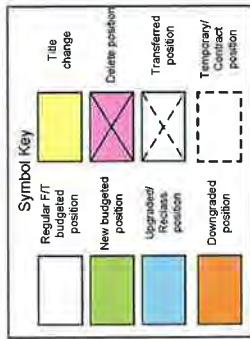
## **GENERAL MANAGER'S OFFICE**

### **OPERATING BUDGET SUMMARY**

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- b. Develop plan and design improvements to eliminate the use of chlorine gas at District facilities
- c. Implement intranet based interactive safety training where appropriate
- d. Develop emergency preparation/readiness program

IRVINE RANCH WATER DISTRICT  
ADMINISTRATION  
PROPOSED FISCAL YEAR 2016-17



**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Administration		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
110	Regular Labor	558,472	346,928	568,100	730,950	162,850
110	Overtime Labor	113	269	1,000	1,000	0
110	Contract Labor	11,556	2,334	0	0	0
110	Operating Supplies	120	22	0	0	0
110	Printing	1,597	2,983	25,000	10,000	(15,000)
110	Postage	30	30	100	100	0
110	Permits, Licenses and Fees	84,261	80,224	89,000	84,500	(4,500)
110	Office Supplies	4,423	1,657	4,000	4,000	0
110	Legal Fees	333,294	159,059	385,000	360,000	(25,000)
110	Personnel Training	245,169	142,697	250,000	257,000	7,000
110	Other Professional Fees	169,810	126,959	225,000	668,050	443,050
110	Directors' Fees	136,523	68,448	148,600	156,000	7,400
110	Election Expense	30,000	15,000	30,000	145,000	115,000
<b>Total General Managers Office</b>		1,575,368	946,610	1,725,800	2,416,600	690,800





## **SAFETY AND SECURITY OPERATING SUMMARY**

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### **Program Description**

The Safety and Security program provides necessary resources to promote a safe work environment for employees through mandated and pro-active training and education and to ensure the security of all District property and facilities.

With a commitment to provide on-going employee training to facilitate safe job performance and effective security programs to ensure property and facility protection, the Safety and Security function continually monitors and stays abreast of current and pending changes and improvements for safe work practices and security measures in the water industry. Appropriate policies are regularly developed or revised to ensure the constant pursuit and maintenance of a safe and secure operational environment, in compliance with all applicable laws and regulations.

Through the use of safety awareness programs, the Safety and Security function works to increase employee involvement at all organizational levels via All Hands Meetings, Tailgate Safety Meetings, classroom and on-site training sessions, workplace evaluations, industrial hygiene evaluations and employee Safety Committee meetings.

The Safety & Security program administers the Commuter Trip Reduction (Ridesharing) program, coordinates emergency preparedness and disaster response operations and oversees the maintenance and administration of the Emergency Operations Center.

### **Major Goals**

- Develop emergency preparedness/readiness program;
- Provide disaster response training for District staff;
- Develop implementation plan for facility security assessment recommendations;
- Implement on-line web-based interactive safety training programs; and
- Conduct Safety Training and Personal Protective Equipment Assessment for all District job classifications.

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Administration		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
130	Regular Labor	151,459	97,519	194,700	244,800	50,100
130	Overtime Labor	1,580	598	0	1,500	1,500
130	Contract Labor	41,547	18,756	48,000	0	(48,000)
130	Operating Supplies	67,667	26,972	88,500	70,500	(18,000)
130	Printing	0	0	8,400	9,300	900
130	Postage	0	0	400	0	(400)
130	Permits, Licenses and Fees	20,985	24,220	40,000	40,000	0
130	Office Supplies	867	1,575	2,200	40,000	37,800
130	Rep & Maint IRWD	0	8,987	5,000	0	(5,000)
130	Insurance	0	700	0	0	0
130	Personnel Training	18,171	35,400	79,900	114,000	34,100
130	Personnel Physicals	7,434	6,008	28,000	36,000	8,000
130	Other Professional Fees	14,131	45	31,000	125,000	94,000
130	Safety	31,392	31,712	50,000	25,000	(25,000)
130	Other	231,654	116,465	281,600	326,000	44,400
<b>Total Safety and Security</b>		586,887	368,957	857,700	1,032,100	174,400



## **HUMAN RESOURCES**

### **OPERATING BUDGET SUMMARY**

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#### **Program Description**

The Human Resources function provides comprehensive organizational development and personnel management services to maximize the potential of the District's human resources and overall employee efficiency, effectiveness and satisfaction. The Human Resources program is responsible for attracting and recruiting a highly qualified work force and working in concert with the organization leadership to develop and sustain a motivated productive workforce.

Human Resources ensures the delivery of a competitive compensation and benefits package; continuous improvement through employee training; fair and consistent employee policies, procedures and guidelines; and an ongoing employee reward and recognition program tied to the achievement of stated goals and objectives. Human Resources is responsible for the employee relations and labor relations processes and facilitates communication and trust with staff through collaboration and the open exchange of ideas.

#### **Major Goals**

- Recruit, develop and retain a highly skilled and educated workforce;
- Implement improvements to the performance evaluation process;
- Collaborate with staff committee to expand succession planning programs such as mentoring, cross training and leadership training;
- Develop a certification and training database management system;
- Evaluate alternatives for standby/first responders; and
- Evaluate employee space planning alternatives.

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Administration		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
140	Regular Labor	557,789	287,278	627,200	649,880	22,680
140	Overtime Labor	1,508	1,697	5,000	5,000	0
140	Employee Benefits	7,266,938	4,009,837	15,279,500	16,937,520	1,658,020
140	Contract Labor	0	0	2,500	2,500	0
140	Operating Supplies	1	0	0	0	0
140	Printing	1,758	2,010	2,500	0	(2,500)
140	Postage	0	29	0	100	100
140	Office Supplies	224	641	2,500	2,500	0
140	Rep & Maint IRWD	0	0	100	1,000	900
140	Legal Fees	60,689	55,775	95,000	95,000	0
140	Personnel Training	234,076	67,893	397,700	370,800	(26,900)
140	Personnel Physicals	11,509	4,611	15,000	15,000	0
140	Other Professional Fees	58,426	30,566	107,500	134,500	27,000
140	Other	1,150	0	0	0	0
<b>Total Human Resources</b>		8,194,068	4,460,337	16,534,500	18,213,800	1,679,300
<b>Total Administration</b>		10,356,323	5,775,904	19,118,000	21,662,500	2,544,500



# **FINANCE, TREASURY AND PROCUREMENT**

## **OPERATING BUDGET SUMMARY**

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### **Program Description**

The Finance Department is responsible for ensuring the financial and rate stability of the District. This includes developing rates and fees that support the long term sustainability of the District. Finance maintains the official accounting records of the Irvine Ranch Water District and provides financial management of the District's income and real estate investments, new and existing debt issues, and deferred compensation programs. The department provides a wide range of accounting and financial services including payroll, accounts payable, accounts receivable, project accounting, financial analysis, financial reporting, coordination of the District's annual operating budget and preparation of the Comprehensive Annual Financial Report (CAFR). The Finance Department also oversees risk management claims and insurance issues.

The mission of the Finance Department is to safeguard assets and provide financial and accounting services in a timely, reliable, and cost-effective manner that meet the requirements of the District's internal and external customers.

### **Major Goals**

#### **ACCOUNTING AND BUDGETING**

- Prepare and submit accurate financial reports and relevant tax returns to federal, state, county and district agencies within established legal deadlines and requirements;
- Prepare and submit accurate and timely financial reports to the Finance and Personnel Committee and the District's Board of Directors;
- Coordinate the District's annual financial statement audit;
- Prepare the annual CAFR;
- Prepare the Operating Budget for Board of Director approval including setting adequate rates to ensure long term financial strength and stability;
- Ensure user rates are proportional with costs and support the current rate structure;
- Lead customer noticing effort for Proposition 218 compliance (operating budget, rates and charges);
- Ensure all payments and payroll checks are accurate and timely;
- Simplify the District-wide Financial System, including incorporating the recent improvement district consolidations and improved project reporting capabilities; and,
- Identify and implement business intelligence capabilities.

#### **LONG-TERM FINANCIAL PLANNING**

- Continue to refine and update the cash flow strategic model to ensure sufficient funding for future capital needs;
- Provide analytical support and analysis to Finance, other departments and outside constituents as requested; and



## **FINANCE, TREASURY AND PROCUREMENT**

### **OPERATING BUDGET SUMMARY**

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- Explore financial models for financing, construction and operation of renewable and storage projects.

#### **INVESTMENTS AND CASH MANAGEMENT**

- Invest District funds in a prudent and professional manner that will provide maximum security of principal, sufficient liquidity to meet working capital requirements and an optimal rate of return;
- Prepare accurate investment reports and the annual investment policy to the Board of Directors and other interested parties within established time frames; and,
- Maintain and enhance short and long-term cash flow models and cash management practices.

#### **REAL ESTATE**

- Monitor and report on the performance of all real estate investment assets;
- Manage leasing and related property management activities for all District commercial and residential real estate investments;
- Complete environmental and final map approval process for property located in Lake Forest;
- Complete development of the Sand Canyon office project in Irvine as market conditions warrant; and
- Resolve outstanding deed, access and other contractual restrictions related to real property.

#### **DEBT ISSUANCE AND ADMINISTRATION**

- Issue long-term debt to fund capital projects as needed, and evaluate and recommend refunding opportunities for current District debt issues when appropriate;
- Prepare and submit required continuing disclosure materials for District debt issues to appropriate parties;
- Monitor variable interest rates set by remarketing agents on District debt and make adjustments as appropriate; and,
- Execute, monitor and report on interest rate swap transactions as appropriate.

#### **INSURANCE**

- Ensure the District has adequate insurance to appropriately safeguard assets; and,
- Manage claims process and coordinate legal matters in a timely manner.

#### **PENSION**

- Maintain and invest Pension Benefits Trust assets and report portfolio performance and recommendations to the Retirement Board;
- Evaluate and monitor Trust Advisor performance; recommend changes in advisory services as appropriate; and,
- Review additional opportunities to optimize Pension Benefits Trust performance.





## ***FINANCE, TREASURY AND PROCUREMENT***

### ***OPERATING BUDGET SUMMARY***

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#### **PROCUREMENT**

- Purchase materials, supplies and services in a timely manner with appropriate consideration given to quality and best pricing;
- Process all material/service requests timely and efficiently;
- Maintain warehouse inventory fill rate at 100% and review/adjust slow moving inventory;
- Streamline business procurement processes and documentation while ensuring appropriate controls;
- Provide ongoing customer support for procurement and inventory systems; and,
- Evaluate and expand participation in cooperative purchasing agreements as appropriate.





**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Finance & Administrative Services		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
<u>Dept No</u>	<u>Expense Name</u>					
210	Regular Labor	2,248,349	988,954	2,184,600	2,237,200	52,600
210	Overtime Labor	7,892	21,732	18,000	18,000	0
210	Contract Labor	23,885	56,650	176,400	165,800	(10,600)
210	Operating Supplies	967	266	500	700	200
210	Printing	68,504	0	60,000	70,000	10,000
210	Postage	8,382	4,165	8,000	8,000	0
210	Permits, Licenses and Fees	0	0	3,000	3,000	0
210	Office Supplies	5,200	3,271	5,000	5,000	0
210	Insurance	583,010	442,900	939,900	1,003,900	64,000
210	Accounting Fees	55,705	63,124	75,100	95,000	19,900
210	Data Processing	73,846	24,930	48,900	51,000	2,100
210	Personnel Training	24,374	10,990	42,000	27,500	(14,500)
210	Other Professional Fees	426,445	119,436	317,200	305,700	(11,500)
210	Mileage Reimbursement	55	68	0	100	100
210	Collection Fees	5,791	7,983	20,000	20,000	0
<b>Total Finance and Treasury</b>		3,532,405	1,744,469	3,898,600	4,010,900	112,300

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Finance & Administrative Services		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
240	Regular Labor	706,747	351,736	685,000	787,600	102,600
240	Overtime Labor	11,012	3,143	4,000	4,000	0
240	Contract Labor	8,505	17,939	53,000	0	(53,000)
240	Operating Supplies	(1,583,260)	(175,206)	146,500	162,000	15,500
240	Printing	11,243	2,157	11,500	11,500	0
240	Postage	3,957	2,301	4,500	4,500	0
240	Office Supplies	18,763	7,387	24,000	24,000	0
240	Duplicating Equipment	166,093	99,666	200,000	225,000	25,000
240	Equipment Rental	20,039	4,783	20,000	20,000	0
240	Rep & Maint IRWD	183	0	0	0	0
240	Personnel Training	5,138	1,006	6,500	6,500	0
240	Other Professional Fees	4,076	230	2,000	2,000	0
<b>Total</b>	<b>Purchasing</b>	<b>(627,504)</b>	<b>315,142</b>	<b>1,157,000</b>	<b>1,247,100</b>	<b>90,100</b>



## **ADMINISTRATIVE SERVICES**

### **OPERATING BUDGET SUMMARY**

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#### **Program Description**

The Administrative Services group provides a wide range of support services that include Customer Service and Information Services.

The mission of the Customer Service Department is to provide the highest level of customer satisfaction by providing reliable, courteous and efficient service. The Customer Service Department provides utility billing, account support and mail distribution services.

The mission of the Information Services Department is to research, develop, integrate and support reliable, cost effective information systems that meet the current and future business requirements of customers and provide a high level of customer satisfaction. The Information Services Department provides implementation, management and support for the District's information systems, voice and data communications systems.

#### **Major Goals**

##### **CUSTOMER SERVICE**

- Deliver exceptional customer service both internally and externally;
- Review and resolve billing inquiries and adjustments in a timely manner including education of customers on allocation;
- Receive and process all orders for new service and discontinuation of service;
- Process new meter applications;
- Process payments for temporary construction meters, fire flow tests, and customer water bills;
- Coordinate and process all meter reads to ensure accurate billing;
- Process variance requests for additional water allocations;
- Respond to field problems (leaks, no water complaints, high/low pressure, water quality, sewer problems, line breaks, etc.) with a sense of urgency;
- Manage delinquent customer accounts and perform shut-offs as required;
- Distribute customer satisfaction surveys and maintain 90% customer satisfaction; and,
- Receive, route and deliver all District mail, and process all outgoing mail.



## **ADMINISTRATIVE SERVICES**

### **OPERATING BUDGET SUMMARY**

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#### **INFORMATION SERVICES**

- Provide helpful, courteous and timely support to all District staff;
- Provide internal and external software training that meets the needs of District staff;
- Provide a reliable network of servers, personal computers, printers and software applications that meet the needs of District staff;
- Provide reliable voice, data and wireless communications services;
- Develop new and improved existing software applications to meet the requirements of District staff;
- Complete scheduled hardware and software upgrades to District servers, personal computers, tablets, printers, network equipment and software applications;
- Complete the Technology Opportunity Assessment
- Begin implementation of projects identified and prioritized from the Technology Opportunity Assessment;
- Complete implementation of the Water Information Management System (WIMS);
- Complete implementation of the Oracle EBS Upgrade, Improvement District Consolidation and Project Management module;
- Complete the implementation of the Water Bill Redesign; and,
- Begin implementation of the Enterprise Asset Management System (EAM).

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2016-17**

Finance & Administrative Services		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
220	Regular Labor	1,532,656	785,408	1,773,700	1,972,880	199,180
220	Overtime Labor	64,986	36,660	60,000	60,000	0
220	Contract Labor	560,656	251,906	290,600	228,820	(61,780)
220	Operating Supplies	3,950	1,402	1,000	1,000	0
220	Printing	71,992	35,107	77,000	77,000	0
220	Postage	477,834	325,769	490,300	555,500	65,200
220	Office Supplies	5,487	2,837	5,500	5,500	0
220	Equipment Rental	41,091	31,085	40,000	42,500	2,500
220	Personnel Training	1,128	727	8,000	8,000	0
220	Other Professional Fees	816	2,668	1,500	2,000	500
220	Collection Fees	927	543	800	1,000	200
220	Other	1,289,432	655,229	1,350,000	1,350,000	0
<b>Total</b>	<b>Customer Service</b>	<b>4,050,955</b>	<b>2,129,341</b>	<b>4,098,400</b>	<b>4,304,200</b>	<b>205,800</b>



**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Finance & Administrative Services		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
250	Regular Labor	1,173,730	510,230	1,358,900	1,442,100	83,200
250	Overtime Labor	29,044	20,315	15,000	30,000	15,000
250	Contract Labor	688,861	456,320	429,000	255,000	(174,000)
250	Telecommunication	423,513	190,091	421,500	433,000	11,500
250	Other Utilities	8,016	7,566	9,500	9,500	0
250	Operating Supplies	2	13	0	0	0
250	Printing	9,337	3,871	12,000	5,000	(7,000)
250	Postage	50	124	500	500	0
250	Office Supplies	0	0	1,000	1,000	0
250	Rep & Maint IRWD	207,264	163,928	273,800	292,500	18,700
250	Data Processing	2,149,784	1,586,978	2,614,000	2,976,200	362,200
250	Personnel Training	9,027	264	35,800	35,800	0
250	Other Professional Fees	5,857	666	60,000	60,000	0
250	Mileage Reimbursement	7	29	0	0	0
250	Other	21,905	13,465	23,000	24,000	1,000
<b>Total</b>	<b>Information Services</b>	<b>4,726,397</b>	<b>2,953,860</b>	<b>5,254,000</b>	<b>5,564,600</b>	<b>310,600</b>
<b>Total</b>	<b>Finance &amp; Administrative Services</b>	<b>11,682,253</b>	<b>7,142,812</b>	<b>14,408,000</b>	<b>15,126,800</b>	<b>718,800</b>





# ENGINEERING

## OPERATING BUDGET SUMMARY

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### Program Description

The Engineering Department provides planning, design and construction coordination to develop the water, sewage and recycled water facilities necessary to provide the highest level of service to the customers of the District. The Engineering Department also provides technical support to other District departments.

Planning: The Planning and Technical Services group of the Department is responsible for all master planning, water, sewage and recycled water demand projections, water supply planning, preliminary facility planning studies for new facilities, and preparation of the District's annual and long-term Capital Programs. The Planning group provides GIS services to other District departments including the development and support of GIS based applications and facility and atlas maps, maintenance of the District's digital record drawings plan system, and GIS based analysis. The Planning group is also responsible for managing the District's real property and rights of way.

Capital Projects: The Capital Projects group designs and manages construction of major water, sewage and recycled water treatment, distribution and transmission facilities necessary to provide the quality and reliability of service to existing and future customers of the District. The Capital Projects group is responsible for the expansion and improvement of water and sewage treatment facilities; the design and construction of wells, pipelines, storage facilities, pump stations, and sewage lift stations; and the design and construction of integration facilities for areas acquired through agency consolidations.

Development Services: The Development Services group facilitates the land development process within the District by designing and bidding the water, sewage and recycled water facilities necessary to support land development. The construction of these facilities is coordinated to ensure that the facilities are available to meet development schedule requirements. Temporary and interim facilities, when necessary, are also coordinated through this group. The Development Services group also reviews developer submittals for quality and conformance with District requirements and assesses and collects appropriate fees.

Inspection Services: The Inspection Services group provides construction inspection services to other groups of the Engineering Department to ensure the highest level of constructed quality. These services include constructability review, pre-construction administration, progress payment processing, field inspection, change order evaluation and processing, and final acceptance coordination. The Inspection Services group is also responsible for coordinating specialized construction support services including surveying and geotechnical testing and inspection.

Operations Support: The Operations Support group is responsible for providing engineering support to other District departments. The Operations Support group generally focuses on the expansion and rehabilitation of existing District facilities. This group also provides design and construction management of small to medium size water, sewage and recycled water facilities.



## **ENGINEERING**

### **OPERATING BUDGET SUMMARY**

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This group also includes the process control team that conducts research, develops projects and provides process control and technical support to enhance the performance of the District's domestic and recycled water supply, treatment, distribution, and storage facilities. The process control team also provides similar support to the District's sewage collection/treatment, recycled water and urban runoff treatment systems and supports District-wide regulatory compliance objectives.

Michelson Water Recycling Plant (MWRP) Construction: The MWRP Construction group is responsible for the construction of the MWRP Biosolids and Energy Recovery Facilities. The group ensures that sewage and biosolids treatment facilities are properly designed and constructed to meet the requirements of the MWRP Operations Department.

### **Major Goals**

#### **Planning**

- Water Resources Master Plan update;
- Sewer Collection System Master Plan update;
- Great Park Sub-Area Master Plan update;
- Provide Inter-agency technical support;
- Develop alternative water supplies;
- Criticality Based Replacement Planning Model; and,
- Potable Reuse Alternatives Study.

#### **Capital Projects**

- MWRP Biosolids and Energy Recovery Facilities construction;
- Baker Water Treatment Plant construction;
- Stockdale West Integrated Water Banking construction;
- Irvine Lake Pipeline North Conversion to Recycled Water design and construction;
- Initial Disinfection Facility Chlorine Gas Removal construction;
- Water Recycling Treatment Plant Master Plan update;
- Multi-Zone Recycled Water Booster Pump Station (BPS) design and construction;
- Santiago Hills II Domestic Water Reservoir, Domestic Water BPS, and Recycled Water BPS design and construction;
- Second Zone 1 Reservoir design and construction; and,
- Syphon Reservoir Expansion preliminary design.

#### **Development Services**

- Heritage Fields Infrastructure design and construction;
- Orchard Hills Infrastructure design and construction;
- Baker Ranch Infrastructure design and construction;



## **ENGINEERING**

### **OPERATING BUDGET SUMMARY**

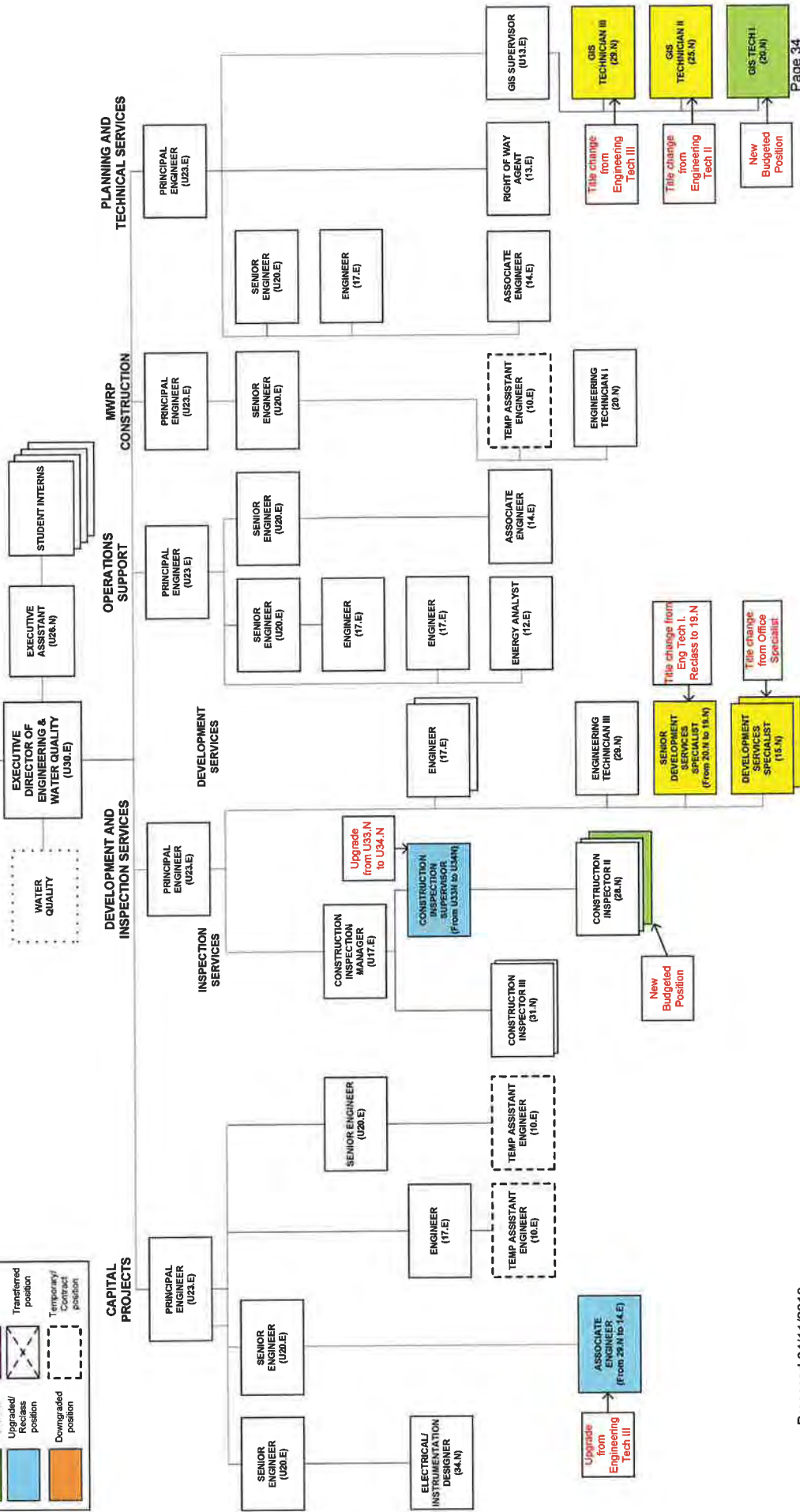
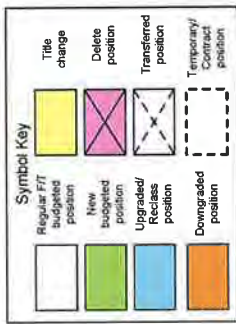
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- Santiago Hills II Infrastructure design and construction;
- Tustin Legacy Infrastructure design and construction; and,
- Technology Drive Recycled Water Pipeline construction;

#### Operations Support

- Foothill Zone 6 and Portola Zone 8 Chloramine Booster Stations construction;
- MWRP Filter Pump Station Discharge Manifold Piping Replacement design;
- Santiago Dam Outlet Tower Retrofit design;
- Well Rehabilitation design and construction;
- Dyer Road Well Field Surge Tank Replacement design and construction;
- Evaluate process control and water quality monitoring data to assess, correct or recommend performance improvement of membrane treatment facilities, including IDP-SGU, IDP-PAP, IDP-PTP, DATS, CATS and the Wells 21/22 Desalter Plant;
- Develop test protocols, standard operating protocols and procedures, operate, perform sample collection and monitoring of bench, pilot and full-scale process facilities, including pilot and demonstration research projects;
- Act as a liaison and administer reporting IRWD groundwater extraction and treatment operations for removal of the TCE plume from the Irvine sub-basin groundwater at the IDP Principal Aquifer wells, IDP-PAP and IDP-SGU to the Department of the Navy (DON), local and state regulatory agencies;
- Train Plant and Systems Operations staff on process control procedures, monitoring and troubleshooting in the various water treatment and monitoring applications; and,
- Assist in the development and coordinate district wide research, pilot and demonstration projects.

IRVINE RANCH WATER DISTRICT  
ENGINEERING  
PROPOSED FISCAL YEAR 2016-17



**Irvine Ranch Water District  
Consolidated Operating Expense Budget for FY 2016-17**

Engineering		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
300	Regular Labor	4,139,304	2,048,180	4,143,200	4,377,500	234,300
300	Overtime Labor	139,766	66,517	142,000	144,000	2,000
300	Contract Labor	202,692	145,897	263,600	221,000	(42,600)
300	Telecommunication	109	0	0	0	0
300	Operating Supplies	19,100	1,783	24,900	9,400	(15,500)
300	Printing	17,645	1,049	28,500	16,000	(12,500)
300	Postage	1,997	1,305	1,600	2,800	1,200
300	Permits, Licenses and Fees	0	1,475	2,000	2,000	0
300	Office Supplies	12,518	5,241	14,000	12,500	(1,500)
300	Rep & Maint IRWD	(129)	0	0	0	0
300	Engineering Fees	0	0	76,000	122,000	46,000
300	Personnel Training	18,933	11,777	28,000	30,000	2,000
300	Other Professional Fees	3,148	1,435	26,600	103,000	76,400
<b>Total</b>	<b>Engineering</b>	<b>4,555,083</b>	<b>2,284,659</b>	<b>4,750,400</b>	<b>5,040,200</b>	<b>289,800</b>
<b>Total</b>	<b>Engineering</b>	<b>4,555,083</b>	<b>2,284,659</b>	<b>4,750,400</b>	<b>5,040,200</b>	<b>289,800</b>





# WATER QUALITY

## OPERATING BUDGET SUMMARY

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### Program Description

The Water Quality Department provides a wide range of support services that include Water Quality Analysis and Water Quality Administration.

Water Quality Administration: The Water Quality Administration group assists all Water Quality and Environmental groups in carrying out their missions; provides Water Quality related support to the operations and maintenance of all water and sewer collections systems; and ensures that all District operations are conducted in a safe, reliable, cost-effective, environmentally sensitive manner to achieve a high level of customer satisfaction.

Water Quality Analysis: The Water Quality Analysis group provides our internal and external customers with high quality data in a professional and timely manner. The Water Quality Analysis group utilizes state-of-the-art, United States Environmental Protection Agency (EPA) and State Water Resources Control Board Division of Drinking Water (DDW) approved analytical methods to provide data for regulatory monitoring and reporting, process control, research projects and capital projects.

### Major Goals

#### Water Quality Administration

- Ensure the District operates in full compliance with all applicable federal, state and local environmental and water quality laws and regulations;
- Monitor the development of potential future regulations that may impact District activities;
- Ensure all compliance monitoring and reporting is completed and submitted by required due dates;
- Review new technologies that may be applicable to operations; and,
- Prepare water quality data for internal and external customers.

#### Water Quality Analysis

- Perform necessary analyses to determine compliance with all applicable federal, state and local environmental and water quality laws and regulations;
- Provide process control data to assist operating groups in meeting their regulatory requirements;
- Complete and submit all regulatory monitoring data by the specified due dates;
- Complete analyses within specified hold times and meet quality control specifications;
- Research and implement new testing methods where justified, specifically methods routinely sent out to contract laboratories and screening methods for system security and general water quality concerns;



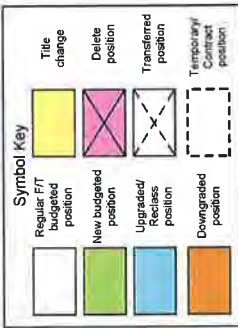
## **WATER QUALITY**

### **OPERATING BUDGET SUMMARY**

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- Maintain the laboratory's Environmental Laboratory Accreditation Program (ELAP) certification by submitting the renewal application by the prescribed due date and successfully completing the site audit and proficiency testing;
- Successfully complete all required water, sewage, hazardous waste and DMR proficiency testing samples and submit the data by the prescribed due date;
- Research and implement, where appropriate, improved means to communicate water quality data to internal and external customers;
- Be environmentally responsible in the selection, procurement and disposal of reagents utilized in the laboratory; and,
- Seek to improve established contacts with regulatory agencies.

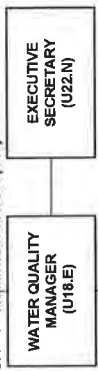




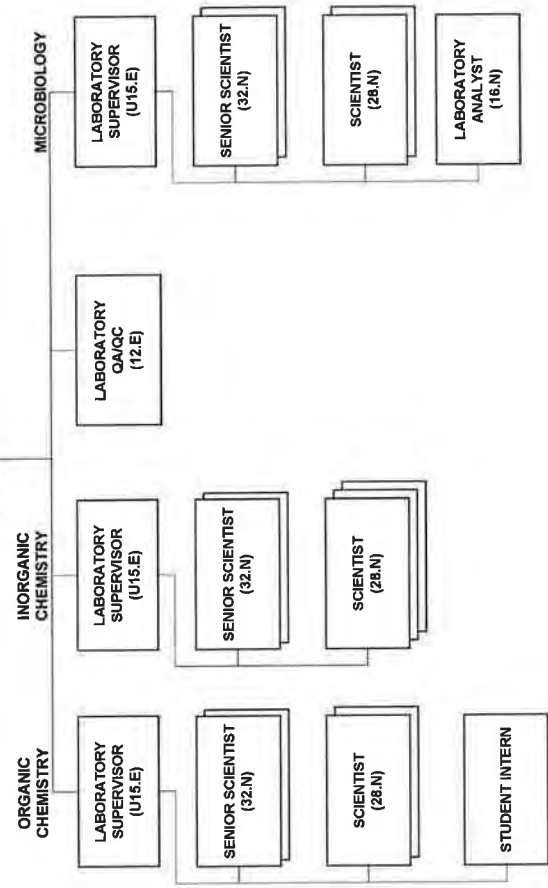
**IRVINE RANCH WATER DISTRICT  
WATER QUALITY  
PROPOSED FISCAL YEAR 2016-17**

Exec Director of  
Engineering & Water  
Quality

**WATER QUALITY ADMINISTRATION (610)**



**WATER QUALITY ANALYSIS (630)**



**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
610	Regular Labor	219,070	110,448	209,500	213,800	4,300
610	Telecommunication	46	0	0	0	0
610	Operating Supplies	4,126	0	0	0	0
610	Postage	757	346	1,400	1,000	(400)
610	Office Supplies	2,735	1,632	3,000	3,000	0
610	Rep & Maint IRWD	13,942	1,190	0	0	0
610	Engineering Fees	31,068	0	0	0	0
610	Personnel Training	19,198	5,810	25,200	23,450	(1,750)
610	Other Professional Fees	88,936	66,032	99,000	98,750	(250)
<b>Total</b>	Water Quality Administration and Projects	379,878	185,458	338,100	340,000	1,900

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
<u>Dept No</u>	<u>Expense Name</u>					
630	Regular Labor	1,299,529	642,347	1,398,700	1,512,430	113,730
630	Overtime Labor	26,997	20,521	21,800	26,200	4,400
630	Contract Labor	69,591	22,113	70,000	15,000	(55,000)
630	Operating Supplies	337,273	283,764	366,100	384,300	18,200
630	Postage	1,683	493	7,000	2,400	(4,600)
630	Permits, Licenses and Fees	5,975	5,975	6,500	9,000	2,500
630	Equipment Rental	6,265	2,880	6,400	6,320	(80)
630	Rep & Maint IRWD	182,267	18,591	215,250	219,550	4,300
630	Engineering Fees	143,520	42,303	164,700	143,300	(21,400)
630	Personnel Training	683	194	2,200	2,200	0
630	Other Professional Fees	12,904	60	1,200	1,200	0
630	Safety	2,685	1,535	5,400	6,400	1,000
<b>Total</b>	<b>Water Quality Analysis</b>	2,089,372	1,040,776	2,265,250	2,328,300	63,050



## **WATER OPERATIONS**

### **OPERATING BUDGET SUMMARY**

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#### **Program Description**

The mission of the Water Operations Department is to operate and maintain the District's potable water, recycled water and untreated water systems in an efficient, cost effective and environmentally safe manner that provides a high level of customer satisfaction.

The Water Operations Department provides operation, maintenance and repair of the District's domestic water, recycled water and untreated water systems. These systems include the Dyer Road Wellfield, Deep Aquifer Treatment System, The Wells 21/22 Treatment Plant, Irvine Desalter Project (Potable Treatment Plant, Principal Aquifer Plant and Shallow Groundwater Unit) and Baker Water Treatment Plant.

#### **Major Goals**

- Maintain 100% compliance with all regulatory permits;
- Meet the Department's adopted Operations and Maintenance budget;
- Startup and Commission of the Baker Water Treatment Plant (BWTP);
- Manage the BWTP to achieve operational and budgetary goals for IRWD and the project Partners;
- Maintain 6 or more Water Operators at the T-5 and D-5 certification level;
- Coordinate with the Finance, Engineering and Planning Departments on water supply and water banking opportunities to optimize cost effective operations;
- Achieve zero lost time accidents;
- Modify as needed and track adopted Operational Key Performance Indicators (KPI) to optimize operational efficiency and cost effectiveness;
- Maintain and develop staff competency through a combination of internal and external training;
- Operate and maintain the system to minimize energy consumption;
- Assist with the completion Supervisory Control and Data Acquisition (SCADA) upgrade implementation;
- Maintain the Dyer Road Well Field and Deep Aquifer Treatment System domestic water flows in accordance with the Ground Water Pumping Plan staying within the Basin Pumping Percentage (BPP) when possible
- Assist the Engineering Department with the design and startup of domestic and recycled water system facilities;
- Operate the Irvine Desalter Project (Potable Treatment Plant, Principal Aquifer Plant and Shallow Groundwater Unit) in accordance with the joint agency agreement and submit required reports;
- Ensure efficient operation of all District pumping and reservoir facilities;
- Ensure safe dam operation through the monitoring and surveillance program;
- Complete all Cross-Connection Control Program annual inspections and back-flow device Maintenance in accordance with the California Administrative Code, Title 17, Public Health Department Requirements;
- Provide construction and repair services to internal and external customers in a prompt, safe,



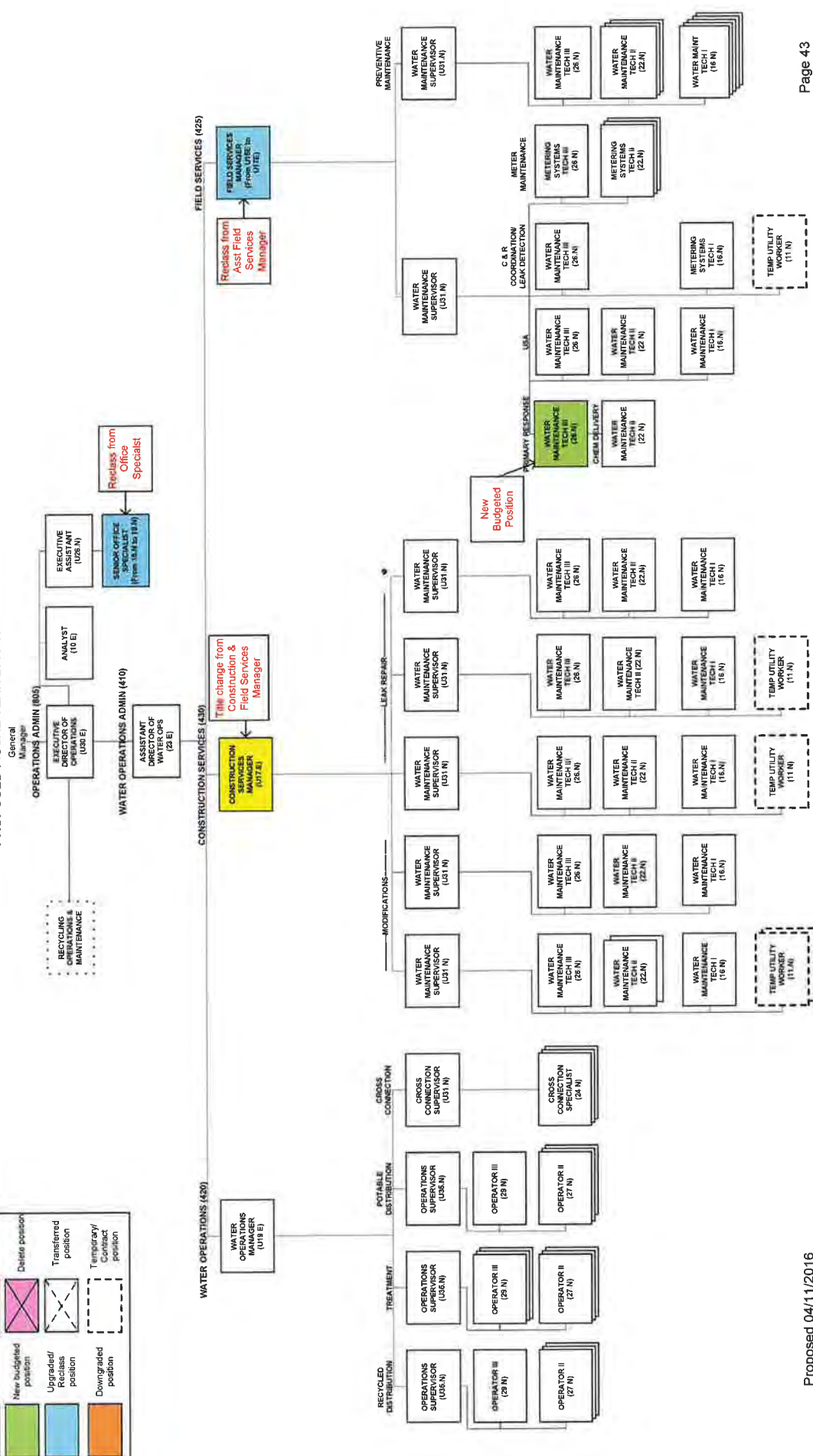
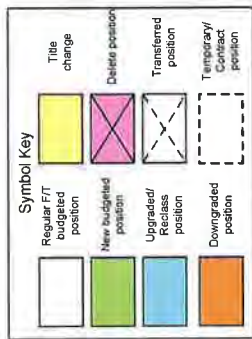
## **WATER OPERATIONS**

### **OPERATING BUDGET SUMMARY**

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- efficient, cost effective and environmentally sensitive manner;
- Maintain a high level of customer satisfaction by responding promptly to and repairing water leaks with minimal impact to customers;
  - Continue the sewer repair project to improve sewer system reliability;
  - Meet all preventive maintenance programs for the distribution system;
  - Replace residential and commercial meters on the recommended cycle;
  - Mark the District's underground facilities in response to Underground Service Alert (USA) tickets to prevent potential damages to the facilities from construction activities;
  - Set and complete annual maintenance goals in accordance with AWWA and industry standards; and,
  - Respond promptly to all customer service requests (CSR).

IRVINE RANCH WATER DISTRICT  
 OPERATIONS ADMINISTRATION & WATER OPERATIONS  
 PROPOSED FISCAL YEAR 2016-17



**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
<u>Dept No</u>	<u>Expense Name</u>					
805	Regular Labor	322,414	144,598	402,600	431,400	28,800
805	Telecommunication	0	121	0	2,000	2,000
805	Operating Supplies	4,556	2,897	10,000	6,000	(4,000)
805	Printing	0	0	2,500	2,500	0
805	Postage	24	0	1,000	1,000	0
805	Office Supplies	4,913	2,704	43,500	20,000	(23,500)
805	Personnel Training	13,388	11,681	159,200	164,000	4,800
805	Other Professional Fees	12,274	10,086	119,500	163,500	44,000
805	Safety	44	0	0	0	0
<b>Total</b>	<b>Operations Administration</b>	357,613	172,087	738,300	790,400	52,100



**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
410	Regular Labor	112,053	54,092	143,800	148,700	4,900
410	Contract Labor	4,074	0	0	0	0
410	Other Utilities	23,189	10,231	21,600	0	(21,600)
410	Operating Supplies	4	0	0	0	0
410	Permits, Licenses and Fees	84,135	9,562	88,600	90,600	2,000
410	Office Supplies	142	0	0	0	0
410	Equipment Rental	9,928	5,038	0	0	0
410	Rep & Maint Other Agencies	2,056,254	755,707	377,600	0	(377,600)
410	Engineering Fees	106,617	43,598	47,000	47,000	0
410	Personnel Training	8,685	0	0	0	0
410	Other Professional Fees	2,558	1,568	0	0	0
<b>Total</b>	<b>Water Operations Administration</b>	<b>2,407,639</b>	<b>879,796</b>	<b>678,600</b>	<b>286,300</b>	<b>(392,300)</b>

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
420	Water Purchases	32,891,508	14,491,500	34,964,250	36,234,030	1,269,780
420	Regular Labor	1,604,014	722,318	1,674,500	1,808,890	134,390
420	Overtime Labor	302,863	152,232	310,300	379,700	69,400
420	Electricity	8,911,471	4,312,385	9,892,000	10,098,850	206,850
420	Fuel	28,126	13,827	24,000	35,600	11,600
420	Telecommunication	45,575	23,323	41,200	48,800	7,600
420	Other Utilities	9,865	0	10,000	33,400	23,400
420	Chemicals	949,078	488,264	862,900	1,589,910	727,010
420	Operating Supplies	59,861	27,983	47,600	47,600	0
420	Postage	30	0	0	0	0
420	Permits, Licenses and Fees	16,415	15,733	13,800	93,400	79,600
420	Office Supplies	865	0	0	0	0
420	Equipment Rental	0	0	9,000	9,000	0
420	Rep & Maint Other Agencies	(41,885)	(427,199)	372,000	873,800	501,800
420	Rep & Maint IRWD	290,862	233,959	293,000	1,179,420	886,420
420	Engineering Fees	0	13,235	61,000	61,000	0
420	Personnel Training	10,262	501	0	0	0
420	Other Professional Fees	3,581	482	50,500	75,500	25,000
420	Safety	0	0	3,000	3,000	0
<b>Total Water Operations</b>		45,082,491	20,068,543	48,629,050	52,571,900	3,942,850

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
<u>Dept No</u>	<u>Expense Name</u>					
425	Regular Labor	1,370,933	690,531	1,365,300	1,550,900	185,600
425	Overtime Labor	156,875	88,281	134,000	150,000	16,000
425	Contract Labor	4,105	38,903	0	62,400	62,400
425	Telecommunication	227	243	0	0	0
425	Chemicals	228	228	500	500	0
425	Operating Supplies	72,371	39,582	73,000	78,000	5,000
425	Permits, Licenses and Fees	10,794	5,840	11,000	13,000	2,000
425	Office Supplies	100	0	0	0	0
425	Equipment Rental	0	0	5,000	2,500	(2,500)
425	Rep & Maint IRWD	250,729	159,736	249,000	250,800	1,800
425	Personnel Training	359	0	0	0	0
425	Other Professional Fees	3,359	169	1,000	1,000	0
<b>Total</b>	<b>Field Services</b>	1,870,080	1,023,513	1,838,800	2,109,100	270,300

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
430	Regular Labor	1,569,998	695,263	1,577,400	1,626,000	48,600
430	Overtime Labor	181,541	104,086	206,000	221,000	15,000
430	Contract Labor	27,278	49,563	0	62,400	62,400
430	Telecommunication	357	86	0	0	0
430	Chemicals	0	0	500	400	(100)
430	Operating Supplies	159,261	68,859	162,800	158,000	(4,800)
430	Permits, Licenses and Fees	30,434	32,287	63,000	67,000	4,000
430	Equipment Rental	1,094	2,418	21,000	14,000	(7,000)
430	Rep & Maint IRWD	331,251	244,319	549,000	487,000	(62,000)
430	Personnel Training	924	0	0	0	0
430	Other Professional Fees	1,478	106	2,000	0	(2,000)
<b>Total</b>	<b>Construction Services</b>	<b>2,303,616</b>	<b>1,196,987</b>	<b>2,581,700</b>	<b>2,635,800</b>	<b>54,100</b>



## **RECYCLING OPERATIONS**

### **OPERATING BUDGET SUMMARY**

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#### **Program Description**

The mission of the Recycling Operations Department is to operate the District's resource recovery systems in a regulatory compliant, efficient, and environmentally safe manner that provides the highest level of customer satisfaction. The Recycling Operations Department provides cost-effective, reliable and compliant operation of the District's Collection Systems, Michelson Water Recycling Plant (MWRP), Los Alisos Water Recycling Plant (LAWRP), and Natural Treatment System (NTS).

#### **Major Goals**

- Meet the Department's adopted Operations budget;
- Achieve zero lost time accidents;
- Maintain 100% compliance with all regulatory requirements;
- Modify and track operational Key Performance Indicators (KPIs) to optimize efficiency and cost effectiveness;
- Maximize recycled water production at both recycling facilities;
- Transition operational responsibilities for the completed portions of the MWRP Biosolids and Energy Recovery Facilities milestones from construction management to Recycling Operations;
- Finalize plan for FOG integration into the Biosolids project;
- Finalize plan for Pellet Marketing and Distribution. Maximize coordination and synergy opportunities with Encina WW Authority and other agencies;
- Maintain six Grade V operators on staff;
- Maintain and develop staff competency through a combination of internal and external training;
- Evaluate and optimize chemical usage for the collection and recycling facilities systems;
- Explore participation with other agencies in MWRP Biosolids facilities on an interim basis (bringing in class B solids);
- Evaluate and implement options for cleaning and inspection of large sewer lines within the IRWD service area;
- Finalize the implementation of the Water Information Management System (WIMS) database management program; and,
- Prepare an Annual Report of NTS Operations including nutrient removal performance at each NTS facility, operational objectives, and recommendations for adaptive changes to the NTS program.





**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
510	Regular Labor	151,185	64,603	234,400	223,250	(11,150)
510	Contract Labor	6,601	16,354	10,000	30,000	20,000
510	Fuel	89	0	0	0	0
510	Telecommunication	1,389	688	1,400	1,800	400
510	Operating Supplies	6	0	500	500	0
510	Postage	50	0	0	0	0
510	Permits, Licenses and Fees	161	0	0	250	250
510	Office Supplies	141	0	0	0	0
510	Rep & Maint Other Agencies	5,810,699	2,377,455	4,720,000	4,850,000	130,000
510	Rep & Maint IRWD	(956)	0	0	0	0
510	Personnel Training	876	49	0	0	0
510	Other Professional Fees	228	12	50,000	75,000	25,000
<b>Total</b>	<b>Recycling Operations Administration</b>	5,970,469	2,459,161	5,016,300	5,180,800	164,500

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
<u>Dept No</u>	<u>Expense Name</u>					
515	Regular Labor	265,130	129,951	323,700	341,600	17,900
515	Overtime Labor	2,843	857	4,000	4,000	0
515	Contract Labor	41,312	40,832	30,000	30,000	0
515	Electricity	198,681	72,951	261,200	261,200	0
515	Telecommunication	2,024	195	0	0	0
515	Operating Supplies	18,872	9,729	19,000	22,000	3,000
515	Printing	299	0	0	0	0
515	Postage	181	0	0	0	0
515	Permits, Licenses and Fees	0	2,633	1,000	1,000	0
515	Equipment Rental	6,224	2,392	7,000	7,000	0
515	Rep & Maint Other Agencies	14,043	15,319	24,000	24,000	0
515	Rep & Maint IRWD	1,010,895	361,247	1,039,400	1,043,300	3,900
515	Engineering Fees	29,564	18,357	57,500	92,500	35,000
515	Personnel Training	(1,965)	1,005	2,800	2,800	0
515	Other Professional Fees	977	577	0	0	0
515	Safety	10,752	506	0	0	0
515	Other	11,723	1,174	12,000	12,000	0
<b>Total</b>	<b>NTS Operations</b>	<b>1,611,555</b>	<b>657,725</b>	<b>1,781,600</b>	<b>1,841,400</b>	<b>59,800</b>

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
550	Regular Labor	1,058,406	555,191	1,368,000	1,474,375	106,375
550	Overtime Labor	96,270	50,497	108,900	108,900	0
550	Electricity	2,648,577	1,220,201	4,280,700	3,025,000	#####
550	Fuel	8,079	4,389	20,000	76,400	56,400
550	Telecommunication	173	20	0	0	0
550	Chemicals	618,387	291,513	452,600	796,225	343,625
550	Operating Supplies	18,460	15,242	18,800	74,400	55,600
550	Equipment Rental	0	0	6,000	12,000	6,000
550	Rep & Maint Other Agencies	13,958,627	4,962,000	8,394,000	8,394,000	0
550	Rep & Maint IRWD	78,718	2,176	30,400	64,000	33,600
550	Personnel Training	6,669	1,372	800	2,000	1,200
550	Other Professional Fees	5,503	7	0	0	0
550	Safety	1,504	0	5,500	12,000	6,500
550	Biosolids Disposals				239,200	239,200
550	Other	92,528	46,215	126,400	110,000	(16,400)
<b>Total MWRP Operations</b>		18,591,901	7,148,823	14,812,100	14,388,500	(423,600)

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
570	Regular Labor	1,088,119	544,200	1,096,200	1,223,900	127,700
570	Overtime Labor	121,026	62,709	116,900	111,500	(5,400)
570	Contract Labor	(2,185)	0	0	0	0
570	Electricity	80,427	51,344	113,000	113,000	0
570	Telecommunication	15,038	11,642	12,600	16,000	3,400
570	Chemicals	456,533	231,839	460,000	552,000	92,000
570	Operating Supplies	64,134	43,711	53,600	64,000	10,400
570	Rep & Maint IRWD	549,506	79,137	390,600	439,800	49,200
570	Personnel Training	1,563	50	0	0	0
570	Other Professional Fees	2,223	325	0	80,000	80,000
570	Safety	340	1,911	4,000	10,000	6,000
<b>Total</b>	<b>Collections Systems</b>	2,376,724	1,026,868	2,246,900	2,610,200	363,300

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
590	Regular Labor	605,780	273,194	589,500	615,050	25,550
590	Overtime Labor	93,858	30,867	61,200	61,100	(100)
590	Electricity	1,007,281	521,760	1,100,000	932,150	(167,850)
590	Fuel	731	295	1,000	1,000	0
590	Telecommunication	89	0	400	0	(400)
590	Chemicals	259,485	111,296	239,200	194,400	(44,800)
590	Operating Supplies	8,608	5,452	6,600	6,600	0
590	Office Supplies	678	121	0	0	0
590	Rep & Maint Other Agencies	196,849	137,472	299,200	256,000	(43,200)
590	Rep & Maint IRWD	79,004	47,359	100,000	104,000	4,000
590	Engineering Fees	0	0	33,000	0	(33,000)
590	Personnel Training	50	0	0	0	0
590	Other Professional Fees	1,790	0	0	1,600	1,600
590	Safety	575	250	1,700	1,700	0
590	Other	67,863	8,582	25,000	25,000	0
<b>Total LAW RP Operations</b>		<b>2,322,641</b>	<b>1,136,648</b>	<b>2,456,800</b>	<b>2,198,600</b>	<b>(258,200)</b>



## **MAINTENANCE**

### **OPERATING BUDGET SUMMARY**

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#### **Program Description**

The mission of Maintenance Department is to manage the District's assets to ensure optimal life expectancy, reliability, efficiency and safety goals while providing the highest level of customer satisfaction. The Maintenance Department coordinates the asset management of the District's electrical, mechanical, instrumentation, automation, supervisory control and data acquisition (SCADA) system, fleet and facility assets to ensure safe, reliable, and cost effective operation.

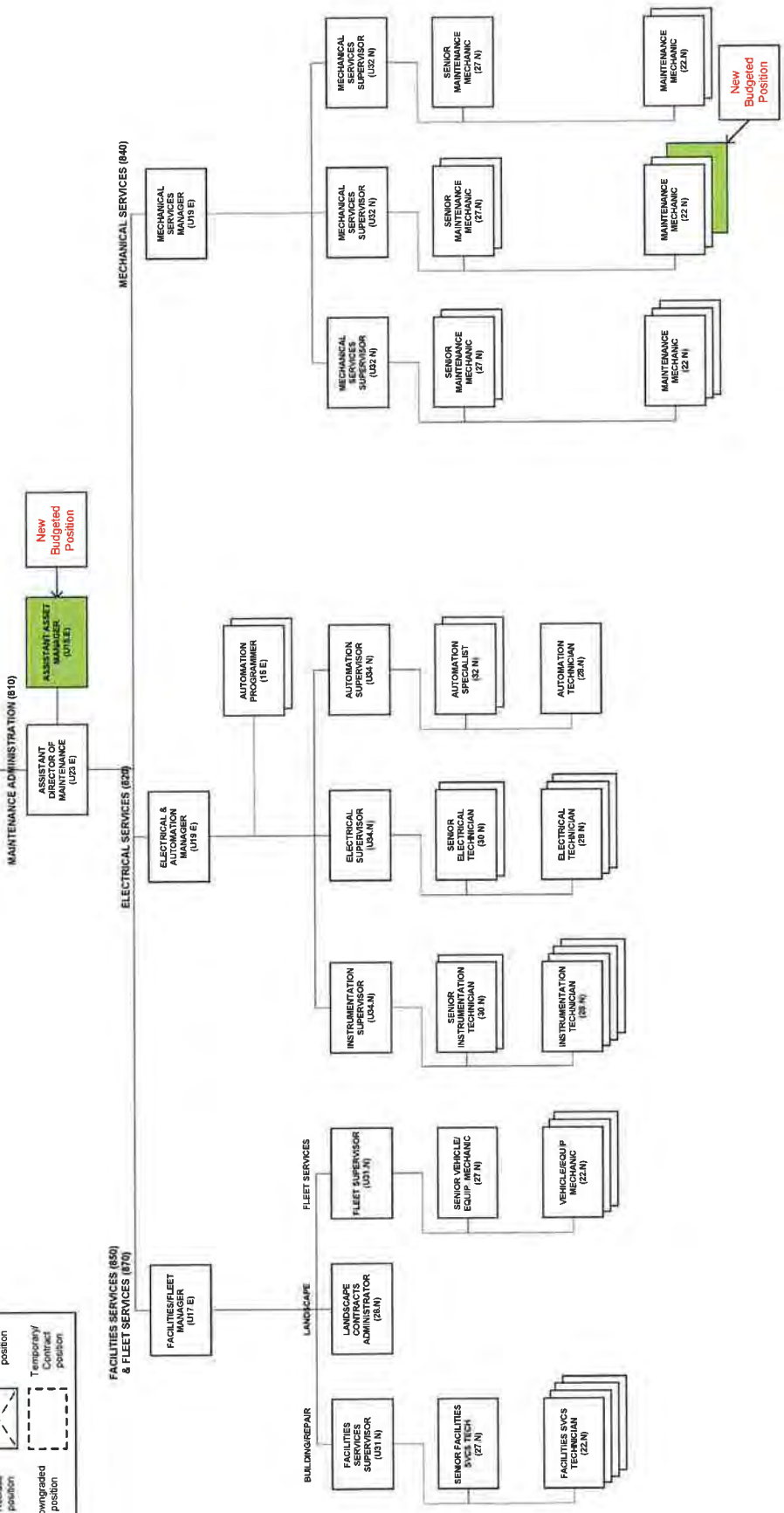
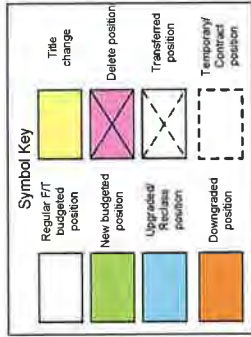
#### **Major Goals**

- Meet the Department's adopted Maintenance and General Plant budgets;
- Achieve zero lost time accidents;
- Maintain 100% compliance with all regulatory requirements;
- Complete the pre-implementation activities for the Enterprise Asset Management (EAM) system including data collection, cataloging of assets, developing business processes, and identifying asset criticality protocols;
- Initiate implementation activities for the EAM system including software selection and the selection of a system integrator;
- Identify and track operational Key Performance Indicators (KPIs) to optimize efficiency and cost effectiveness;
- Implement the training plan for the MWRP Biosolids and Energy Recovery Facilities. Initiate an RFP for the operation and maintenance of the biogas cleaning facilities and microturbines;
- Support the start-up of the Baker Water Treatment Facility and commence the maintenance program;
- Design and construct a combined Water and Recycling Operations Control Room to enhance SCADA monitoring, intra-departmental cooperation and new technology development;
- Maintain and develop staff competency through a combination of internal and external training;
- Investigate and expand the use of new technology to enhance and increase equipment reliability and staff productivity;
- Evaluate the conversion of the District light vehicle fleet to alternative fuel;
- Complete automation improvements such as the conversion Los Alisos Water Reclamation Plant SCADA system to upgraded technology;
- Provide Engineering support for projects including the Biosolids and Energy Recovery Facilities, Baker Water Treatment Facility, Well ET-2;
- Optimize predictive maintenance measures through pump efficiency testing, lube oil analysis, vibration analysis, ultrasound detection, and infrared thermography program;
- Maintain all District buildings and facilities to ensure longevity to include the installation of a new Operations Center roof; and,
- Perform all required maintenance on schedule to ensure safe and dependable cost effective fleet operation.



# IRVINE RANCH WATER DISTRICT MAINTENANCE OPERATIONS PROPOSED FISCAL YEAR 2016-17

Exec Director  
of Operations



Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
810	Regular Labor	152,536	76,313	143,000	149,100	6,100
810	Personnel Training	156	155	0	0	0
810	Other Professional Fees	614	130	0	0	0
<b>Total</b>	<b>Maintenance Administration</b>	153,306	76,598	143,000	149,100	6,100

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
820	Regular Labor	1,346,855	715,443	1,658,100	1,768,350	110,250
820	Overtime Labor	119,252	82,743	134,900	158,700	23,800
820	Telecommunication	97	129	0	0	0
820	Operating Supplies	76,545	24,428	82,950	92,950	10,000
820	Rep & Maint IRWD	604,595	451,078	854,300	909,200	54,900
820	Personnel Training	8,801	145	0	0	0
820	Other Professional Fees	2,990	616	2,800	2,800	0
820	Mileage Reimbursement	50	0	0	0	0
820	Safety	8,550	4,751	16,800	16,800	0
<b>Total</b>	<b>Electrical Services</b>	2,167,735	1,279,333	2,749,850	2,948,800	198,950

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
<u>Dept No</u>	<u>Expense Name</u>					
840	Regular Labor	1,098,907	506,024	1,187,000	1,379,100	192,100
840	Overtime Labor	63,734	35,105	82,900	99,000	16,100
840	Contract Labor	3,476	13,184	0	0	0
840	Telecommunication	197	105	0	0	0
840	Operating Supplies	78,458	42,070	64,600	81,200	16,600
840	Equipment Rental	0	0	4,000	4,000	0
840	Rep & Maint IRWD	591,325	395,158	873,700	1,006,000	132,300
840	Personnel Training	4,659	103	0	0	0
840	Other Professional Fees	2,249	188	200	0	(200)
840	Safety	3,039	818	8,000	6,200	(1,800)
<b>Total Mechanical Services</b>		1,846,044	992,755	2,220,400	2,575,500	355,100
<b>Total Water Operations</b>		94,623,646	43,231,832	97,631,000	104,160,400	6,522,460

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2016-17**

Maintenance		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
850	Regular Labor	329,901	159,939	600,400	621,700	21,300
850	Overtime Labor	10,516	4,466	10,900	10,400	(500)
850	Contract Labor	76,300	53,067	25,000	25,000	0
850	Telecommunication	212	114	0	0	0
850	Other Utilities	29,228	12,501	35,000	35,400	400
850	Operating Supplies	29,337	9,548	21,500	23,500	2,000
850	Rep & Maint IRWD	823,180	477,983	942,100	955,900	13,800
850	Personnel Training	315	1,749	0	0	0
850	Other Professional Fees	307	244	1,000	0	(1,000)
850	Mileage Reimbursement	(5)	0	0	0	0
<b>Total Facilities Services</b>		1,299,291	719,611	1,635,900	1,671,900	36,000

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Maintenance		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
<u>Dept No</u>	<u>Expense Name</u>					
855	Regular Labor	44,727	20,991	0	0	0
855	Overtime Labor	16,069	6,870	6,000	6,000	0
855	Contract Labor	4,532	4,497	0	0	0
855	Electricity	173,139	97,240	190,000	190,000	0
855	Fuel	7,994	2,764	10,000	10,000	0
855	Other Utilities	4,631	1,952	5,000	5,000	0
855	Operating Supplies	17,942	9,961	20,400	20,400	0
855	Rep & Maint IRWD	346,984	111,832	303,100	300,500	(2,600)
<b>Total Headquarters Property Services</b>		616,018	256,107	534,500	531,900	(2,600)



**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Maintenance		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
<u>Dept No</u>	<u>Expense Name</u>					
860	Regular Labor	180,571	75,015	0	0	0
860	Overtime Labor	2,768	4,363	7,000	7,000	0
860	Contract Labor	16,145	6,497	0	0	0
860	Electricity	163,573	64,990	220,000	200,000	(20,000)
860	Fuel	12,405	4,410	20,000	20,000	0
860	Other Utilities	28,382	15,715	20,000	33,000	13,000
860	Operating Supplies	29,309	14,713	40,000	40,000	0
860	Rep & Maint IRWD	331,032	209,834	311,500	318,500	7,000
<b>Total</b>	<b>Operations Center Property Services</b>	764,185	395,537	618,500	618,500	0

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Maintenance		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
870	Regular Labor	374,081	184,590	351,800	375,000	23,200
870	Overtime Labor	6,300	8,111	9,000	10,300	1,300
870	Contract Labor	4,526	0	0	0	0
870	Fuel	559,426	135,197	627,200	423,400	(203,800)
870	Telecommunication	90	0	0	0	0
870	Other Utilities	52,095	27,859	55,200	61,600	6,400
870	Operating Supplies	7,181	2,149	7,800	7,800	0
870	Permits, Licenses and Fees	5,900	2,188	6,300	7,500	1,200
870	Equipment Rental	7,369	0	13,000	12,000	(1,000)
870	Rep & Maint IRWD	487,003	288,936	479,400	499,400	20,000
870	Personnel Training	43	0	0	0	0
870	Mileage Reimbursement	104,012	50,116	132,000	132,000	0
<b>Total</b>	<b>Fleet Services</b>	1,608,026	699,146	1,681,700	1,529,000	(152,700)
<b>Total</b>	<b>Maintenance</b>	4,287,520	2,070,401	4,470,600	4,351,300	(119,300)
<b>GRAND TOTAL . . . . .</b>		125,504,825	60,505,608	140,378,000	150,341,200	9,956,260



# WATER POLICY AND RESOURCES

## OPERATING BUDGET SUMMARY

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### Program Description

The Water Policy and Resources Department is responsible for developing and implementing water resource supply and demand management programs to enhance the reliability of water supplies for District customers. The department is also responsible for managing the District's environmental compliance programs and regulatory requirements.

Water Use Efficiency: Demand management programs directly offset the need for developing additional water supplies and are a critical element in meeting the District's water resources/reliability objectives. IRWD has provided industry leadership through the development of innovative and aggressive demand management programs focusing on water use efficiency and wastewater recycling. An updated Water Use Efficiency Plan was adopted in December 2013. The focus was shifted in fiscal year 2015-16 in response to a state mandated conservation target in response to the statewide drought. Staff anticipates continuing to implement programs to address drought related response, gradually transitioning back to implementing the District's long-term water efficiency programs, based on hydrologic conditions. Conservation programs including the outdoor efficiency RightScape program, new data reporting technologies to engage customers, tactical and participation in innovative pilots and research that maintain IRWD's leadership position are incorporated into the fiscal year 2016-17 budget. IRWD will continue to be engaged in the development and implementation of local, regional, state-wide and national water efficiency and demand management policies.

Recycled Water: IRWD is recognized as a national leader in recycled water based in large part on the many years of experience IRWD has with recycled water, the large number of meters served, and groundbreaking projects IRWD has completed. IRWD currently serves more than 5,300 recycled water meters including more than 65 commercial dual-plumbed buildings where recycled water is used for flushing toilets and urinals and more than 610 single-family lots where recycled water is used for irrigating both the front and back yards. The Recycled Water Group continues to pursue additional customers for recycled water in the service area which includes the conversion of dozens of untreated water customers to recycled water. IRWD is also recognized for its support of recycled water through organizations such as WaterReuse, a national recycled water advocacy group. IRWD, in concert with WaterReuse, is active in state-wide policy, legislation, regulation, and support for other agencies which face challenges as their programs are initiated or are being expanded. IRWD has a lead role in working with other water recycling agencies and the regulatory agencies in Orange County to establish standards for on-going inspection and testing of recycled water use sites. In fiscal year 2016-16, the Recycled Water Group will be conducting studies with key customers to determine the feasibility of using recycled water for industrial applications, expanding the use of recycled water for irrigation by retrofitting potable irrigation areas to recycled water, and using recycled water to irrigate orchards that are more sensitive to some constituents found in recycled water.



# WATER POLICY AND RESOURCES

## OPERATING BUDGET SUMMARY

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### Major Goals

#### WATER USE EFFICIENCY

- Assist IRWD customers in meeting state mandated conservation goals through ongoing implementation of enhanced outreach and cost-effective demand management programs;
- Develop partnerships with private and public entities to leverage the effectiveness and reach of water efficiency programs;
- Research and implement, as appropriate, new technologies and innovative programs to assist customers with improving their water use efficiency with a special emphasis on the RightScape outdoor conservation program;
- Continue to partner with commercial, industrial and institutional customers to implement cost-effective water use efficiency programs;
- Continue to support and expand enhanced customer engagement and reporting as a tool to motivate additional water use efficiency;
- Continue to support and expand educational programs for the professional landscape industry;
- Research and implement, as appropriate, the use of enhanced GIS data to improve customer allocation-setting, outreach and programs targeted toward outdoor water use;
- Actively participate in statewide policy discussions addressing the water-energy nexus;
- Actively engage in statewide policy discussions regarding implementation of SBx7-7 (20 x 2020) and implementation of Demand Management Measures required by the Urban Water Management Planning Act;
- Actively engage in discussions with the State Water Resources Control Board, the Department of Water Resources and other stakeholders to develop a framework for efficient water use that balances local conditions and supplies, recycled water, prior conservation, growth and other equity adjustments;
- Work with the California Urban Water Conservation Council (CUWCC) on statewide conservation issues and refinements to the Best Management Practices (BMP);
- Establish the appropriate metrics and quantify conservation targets;
- Evaluate water use efficiency programs and Water Use Efficiency Plan; and
- Continue to work with partners in Newport Bay Executive Committee to develop and implement the elements of the San Diego Creek Watershed Selenium BMP Strategic Plan.

#### RECYCLED WATER/NON-POTABLE WATER

- Convert a minimum of 1,000 acre-feet of imported water use to recycled water;
- Apply for new *Local Resources Program* funding from MWD which provides a “per-acre foot” financial incentive to increase the use of recycled water. Projects include the North Irvine Lake Pipeline Conversion Project which will conserve approximately 2,500 acre-feet per year and the UCI Central Plant cooling tower project which will conserve approximately 125 acre-feet per year;
- Convert the UCI Central Plant cooling towers to recycled water;
- Assist WaterReuse California with its legislative agenda which includes allowing discharge of



## **WATER POLICY AND RESOURCES**

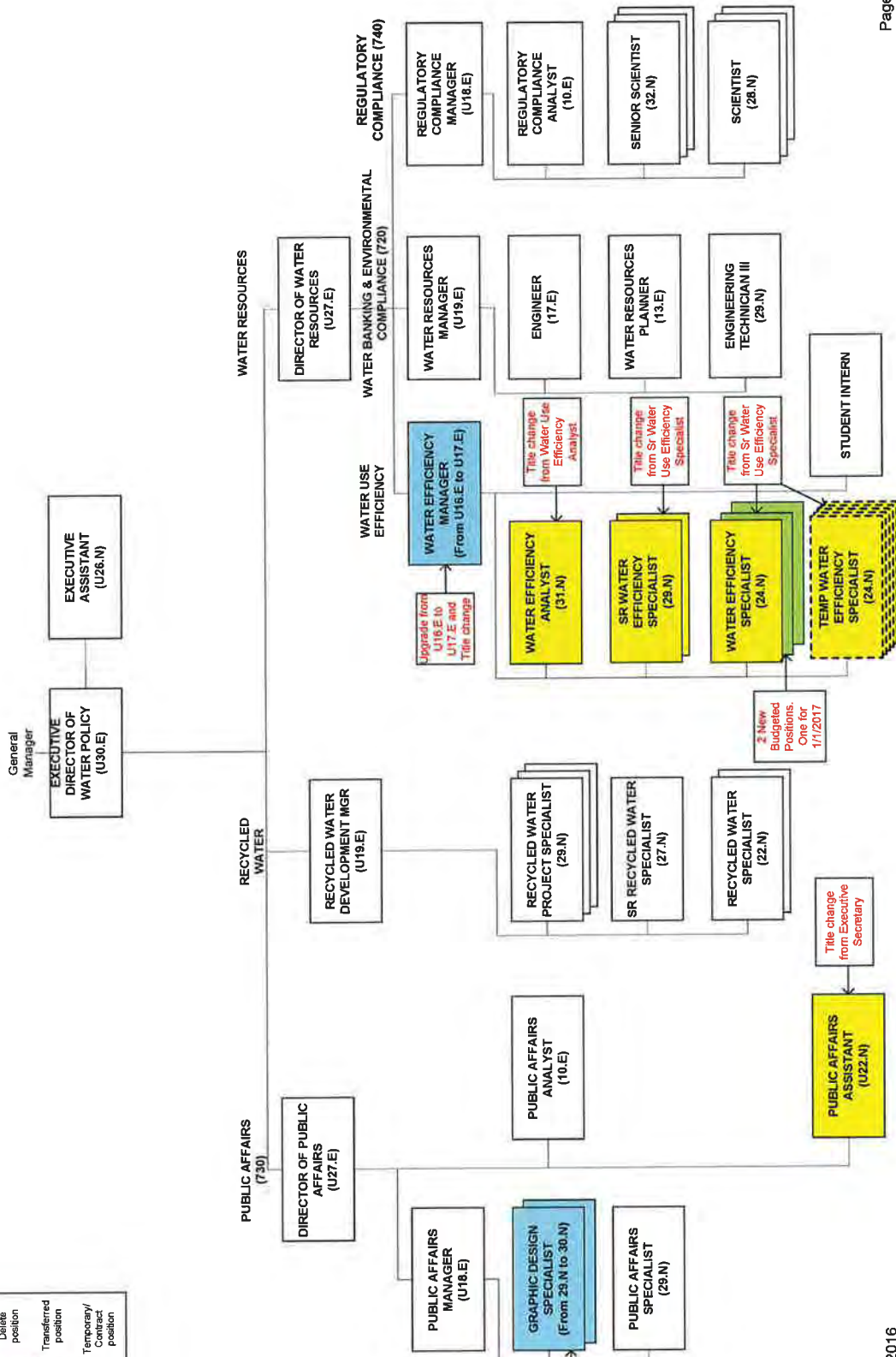
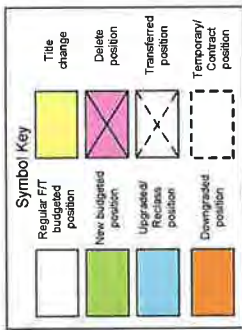
### **OPERATING BUDGET SUMMARY**

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- recycled water from impoundments during storm events;
- Remain active the in Orange County Chapter of WaterReuse California;
- Fully develop the Recycled Water Use Site Inspection and Testing Program including at single-family lots;
- Work with other stakeholders in Orange County to develop standards for the on-going inspection and testing of recycled water use sites which can be a template used by other agencies throughout the state; and
- Seek opportunities to dual-plumb hotels, condominiums, and apartment properties.



IRVINE RANCH WATER DISTRICT  
 WATER RESOURCES AND POLICY  
 PROPOSED FISCAL YEAR 2016-17





**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
710	Regular Labor	1,268,393	625,947	1,341,300	1,372,040	30,740
710	Overtime Labor	20,302	22,853	12,800	36,000	23,200
710	Contract Labor	108,281	199,950	85,100	225,660	140,560
710	Operating Supplies	62,220	38,429	81,150	71,000	(10,150)
710	Printing	0	0	500	500	0
710	Postage	1,138	1,311	2,500	2,000	(500)
710	Permits, Licenses and Fees	27,272	2,015	55,000	40,000	(15,000)
710	Office Supplies	1,521	1,951	1,200	4,000	2,800
710	Rep & Maint IRWD	15,635	7,661	103,700	30,000	(73,700)
710	Engineering Fees	112,950	30,000	60,000	108,000	48,000
710	Personnel Training	19,313	11,736	32,000	34,000	2,000
710	Other Professional Fees	755,588	186,616	1,203,450	873,100	(330,350)
710	Mileage Reimbursement	173	16	0	0	0
710	Conservation	1,415,333	231,501	1,694,000	2,948,000	1,254,000
<b>Total</b>	<b>Water Resources and Policy</b>	3,808,119	1,359,986	4,672,700	5,744,300	1,071,600



# **WATER RESOURCES AND ENVIRONMENTAL COMPLIANCE**

## **OPERATING BUDGET SUMMARY**

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### **Program Description**

The Water Resources and Environmental Compliance Department is responsible for the development of water supply programs and banking projects primarily outside of the local Orange County area. These programs and projects are increasing the diversity and reliability of the District's water supplies by securing water supplies from sources outside of Orange County during wet periods and storing them for future use in groundwater banking projects in Kern County. The Department is also responsible for exploring and developing potential local water supply reliability opportunities. The District's efforts in the development of these programs and projects are needed in response to stressors on water supply reliability such as environmental pressures in the Delta, expanding statewide population, climate change, and expanding regulatory requirements. This department is responsible for the planning and development of the District's water banking programs. In addition, this department is responsible for the negotiation and development of agreements with other agencies and entities throughout the State of California for water transfer and exchanges that facilitate the recharge, storage and recovery of water at the water banking projects. It is also responsible for the negotiation and the development of agreements that facilitate the delivery of water recovered from the water banking projects to IRWD's service area through facilities owned by the California Department of Water Resources, Kern County Water Agency and Metropolitan Water District of Southern California.

Other responsibilities of the Water Resources and Environmental Compliance department include managing the District's environmental and regulatory compliance programs, and overseeing the District's salt management, energy efficiency and renewable energy planning activities. The environmental and regulatory compliance programs focus on fulfilling the District's compliance requirements for the operation of potable water and wastewater systems operations, facility replacements and the construction of new facilities.

### **Major Goals**

#### **WATER RESOURCES:**

- Bank 88,000 AF of water for IRWD, develop 70 cfs of extraction and additional recharge and storage capacity as needed for IRWD and its water banking partners;
- Negotiate a MWD Policy for the delivery of MWD system water to IRWD's Kern County Banking Projects;
- Implement long-term unbalanced exchange agreements with Central Coast Water Authority Carpinteria Valley Water District and/or Antelope Valley-East Kern Water Agency;
- Develop and execute a one-year exchange agreement with Buena Vista Water Storage Agreement for pre-1914 Kern River water to be delivered to the Stockdale Integrated Banking Project;
- Develop a business plan for IRWD's water banking projects and programs;
- Execute long term exchange agreements to facilitate exports of Kern River water to IRWD service area;



# **WATER RESOURCES AND ENVIRONMENTAL COMPLIANCE**

## **OPERATING BUDGET SUMMARY**

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- Investigate land fallowing and water transfer opportunities;
- Investigate opportunities to purchase State Water Project Table A entitlement;
- Construct Drought Relief Project recovery and conveyance facilities;
- Increase IRWD's amount of water stored in Southern California; and,
- Identify, evaluate and secure land for the additional third property under the Stockdale Integrated Banking Project for joint use with Rosedale.

### **ENVIRONMENTAL COMPLIANCE**

- Investigate fully developing the District's rights to the use of San Diego Creek flows; Investigate developing a mitigation credit inventory for the District's San Joaquin Marsh; and
- Fulfill the District's environmental and regulatory compliance requirements for capital projects, replacements and operations including the development and approval of Mitigated Negative Declarations, Environmental Impact Reports and Notices of Exemption.

### **ENERGY AND OTHER PLANNING**

- Prepare and complete the District's 2015 Urban Water Management Plan;
- Implement recommendations from Embedded Energy Plan;
- Evaluate the impact varying water supplies on maintaining the District's salt balance;
- Update Energy Master Plan;
- Seek grant opportunities for District energy projects;
- Participate in SCE's Direct Access Program; and,
- Maximize participation in the Preferred Resources Program.

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
720	Water Purchases	0	0	11,000	0	(11,000)
720	Regular Labor	592,066	292,424	573,700	603,590	29,890
720	Overtime Labor	624	95	800	800	0
720	Contract Labor				23,290	23,290
720	Electricity	417,866	17,154	334,500	8,820	(325,680)
720	Permits, Licenses and Fees	73,165	86,233	120,000	263,500	143,500
720	Office Supplies	461	0	1,000	0	(1,000)
720	Rep & Maint IRWD	182,928	102,750	281,700	368,500	86,800
720	Personnel Training	3,712	780	7,000	3,000	(4,000)
720	Other Professional Fees	13,641	10,681	17,800	26,100	8,300
<b>Total</b>	<b>Water Resources and Environmental Compliance</b>	1,284,463	510,117	1,347,500	1,297,600	(49,900)



## **PUBLIC AFFAIRS**

### **OPERATING BUDGET SUMMARY**

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#### **Program Description**

The Public Affairs Department is responsible for communicating accurate and timely information about Irvine Ranch Water District services, projects, activities and programs. The department uses multiple media platforms, including print, personal contact, education programs, publications, tours, as well as electronic and social media outlets. The IRWD communication program serves the District and our customers by:

- Creating and maintaining credibility and public trust;
- Increasing customer awareness of the services we provide ;
- Promoting the District's value, activities and events of significance;
- Ensuring that accurate and timely information is conveyed to the public regarding incidents; and issues of a controversial and/or sensitive nature; and
- Promoting transparency and easy to access information.

#### **Major Goals**

##### **WATER EFFICIENCY OUTREACH**

- Educate customers on efficient water use practices using multiple outreach platforms including resident tours of IRWD facilities, open houses, print, electronic media, and the internet;
- Educate customers about reducing outdoor water use with the Rightscape program;
- Provide students in the IRWD service area with learning opportunities regarding water supply, water reliability and water use efficiency programs. Promote water education programs to schools in the IRWD service area; and
- Develop and implement next phase of customer drought outreach program.

##### **COMMUNITY OUTREACH AND MEDIA PROGRAMS**

- Refine, update and create effective multi-pronged social media outreach programs aimed at providing extended information channels for IRWD customers, the media, business partners, IRWD employees and other government entities;
- Develop and implement tap water outreach program;
- Enhance communications with customers through a targeted media outreach and public communications program including consistent and timely updates for construction and maintenance projects; and
- Provide enhanced customer outreach initiatives based on customer feedback programs.

##### **BUSINESS OUTREACH PROGRAM**

- Develop strong working relationships with the business community by hosting a series of meetings for area businesses and those who are interested in working with IRWD.

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
<u>Dept No</u>	<u>Expense Name</u>					
730	Regular Labor	0	267,138	664,700	681,500	16,800
730	Overtime Labor	0	13,804	29,500	27,000	(2,500)
730	Contract Labor	0	65,642	0	0	0
730	Operating Supplies	0	1	700	700	0
730	Printing	0	17,043	62,800	62,800	0
730	Postage	0	0	200	200	0
730	Office Supplies	0	2,261	6,000	6,000	0
730	Personnel Training	0	3,732	12,400	12,400	0
730	Other Professional Fees	0	792,948	728,100	1,599,800	871,700
730	Mileage Reimbursement	0	58	0	0	0
<b>Total Public Affairs</b>		0	1,162,627	1,504,400	2,390,400	886,000





## **REGULATORY COMPLIANCE**

### **OPERATING BUDGET SUMMARY**

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#### **Program Description**

The Regulatory Compliance group plans and manages District-wide programs to ensure the District complies with all environmental regulations governing water, sewage and groundwater discharges. This includes the collection of all required samples of water, sewage and recycled water from distribution systems, treatment facilities, storage reservoirs, wetland operations and customer facilities to ensure quality services and products are served to our customers. Regulatory Compliance also responds to customer service issues and concerns regarding water quality.

In addition to water-related programs, Regulatory Compliance staff manages other regulatory compliance programs such as Hazardous Waste, Underground Storage Tanks, Aboveground Petroleum Storage Tanks, Universal Waste, Biosolids Compliance and the Air Quality Program, including MWRP's Title V Permit. The regulatory mandated Fats, Oils and Grease (FOG) Program that requires the District to control FOG from entering its collections system is also managed by Regulatory Compliance staff. The FOG program consists of permitting, plan checks, inspections and enforcement of Food Service Establishments (FSE) in the District's service area. Regulatory Compliance participates with the Orange County Sanitation District and South Orange County Wastewater Authority to co-manage the implementation of the District's Industrial Pretreatment Program. Regulatory Compliance is an active participant in representing the District at the Southern California Alliance of Publicly Owned Treatment Works (SCAP) and the California Association of Sanitation Agencies Regulatory Work Group (CASA RWG) Committee meetings for Air and Water Issues.

#### **Major Goals**

- Ensure the District operates in full compliance with all applicable federal, state and local environmental, water and air quality laws and regulations;
- Respond to Water Quality Customer Contacts and investigate the customer's concern;
- Determine required monitoring programs to address all regulatory requirements for potable, sewage and recycled water;
- Coordinate with other agencies with respect to Industrial Waste Pretreatment Programs and other projects;
- Research and provide recommendations for an IRWD implemented Industrial Waste Pretreatment Program;
- Evaluate requirements and options for long-term operation of the Fats, Oils and Grease (FOG) Program;
- Plan, organize and supervise the work of the Compliance Monitoring Group;



## **REGULATORY COMPLIANCE**

### **OPERATING BUDGET SUMMARY**

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- Collect potable system distribution and storage samples to comply with the Department of Drinking Water (DDW) monitoring plan and to proactively identify any developing quality issues in the system;
- Collect MWRP and LAWRP samples to assure proper operation of the treatment facilities and compliance with each facilities' NPDES permit;
- Assist and provide resources to other departments with environmental, water and air permitting issues;
- Ensure compliance with all non-major and Title V air permit requirements for testing and reporting;
- Participate in industry stakeholder groups for air, water and biosolids regulatory issues;
- Prepare and submit new and renewal permit applications for routine activities, equipment and projects; and
- Assist in the development of environmental quality projects and coordinate research activities.

**Irvine Ranch Water District**  
**Consolidated Operating Expense Budget for FY 2016-17**

Water Operations		2014-15 Actual	2015-16 Actual 12/31/15	2015-16 Orig Budget	2016-17 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
740	Regular Labor	0	342,367	645,900	680,585	27,745
740	Regular Labor	0	0		13,900	13,900
740	Overtime Labor	0	24,936	57,600	76,770	19,170
740	Operating Supplies	0	30,072	52,100	61,100	9,000
740	Postage	0	109	0	800	800
740	Permits, Licenses and Fees	0	343,670	388,450	504,245	115,795
740	Office Supplies	0	97	0	800	800
740	Rep & Maint Other Agencies	0	0	2,000	2,000	0
740	Rep & Maint IRWD	0	81,299	286,500	256,500	(30,000)
740	Engineering Fees	0	28,914	170,000	162,300	(7,700)
740	Personnel Training	0	1,894	3,500	10,000	6,500
740	Other Professional Fees	0	673	1,600	2,400	800
740	Safety	0	0	2,000	2,000	0
<b>Total Regulatory Compliance</b>		0	854,031	1,609,650	1,773,400	156,810



# GENERAL PLANT

## SUMMARY\*

	Fiscal Year 2016-17	Fiscal Year 2015-16	Increase (Decrease)	% Inc/(Dec)
Information Systems	\$ 696,700	\$ 1,141,400	\$ (444,700)	-38.96%
Transportation Equipment	563,000	543,100	19,900	3.66%
Laboratory Equipment	280,000	280,535	(535)	-0.19%
Office Furniture and Equipment	119,500	8,000	111,500	
Equipment	3,847,900	871,700	2,976,200	341.42%
Structures/Improvements- Sand Canyon.MWRP	72,500	50,000	22,500	45.00%
<b>Sub-Total</b>	<b>\$5,579,600</b>	<b>\$2,894,735</b>	<b>\$2,684,865</b>	<b>48.12%</b>
Less: Vehicle Salvage Value	(23,500)	(22,000)	(1,500)	-
<b>Total General Plant</b>	<b>\$ 5,556,100</b>	<b>\$ 2,872,735</b>	<b>\$ 2,683,365</b>	<b>48.30%</b>

### Fiscal Year 2016-17

Funded by User Charges	\$4,466,200	80.38%
Funded by Capital Funds	1,009,900	18.18%
Funded by Overallocation Rev	80,000	1.44%
<b>Total Fiscal Year 2015-16</b>	<b>\$5,556,100</b>	<b>100.00%</b>

### Fiscal Year 2015-16

Funded by User Charges	\$ 1,514,635	52.72%
Funded by Capital Funds	1,061,100	36.94%
Funded by Overallocation Rev	297,000	10.34%
<b>Total Fiscal Year 2015-16</b>	<b>\$2,872,735</b>	<b>100.00%</b>

\* General Plant is being moved to the Capital Budget beginning with FY 2016-17. The asset listing detail is included in the Capital Budget book. Staff will continue to include a summary that identifies the funding source in the Operating Budget.

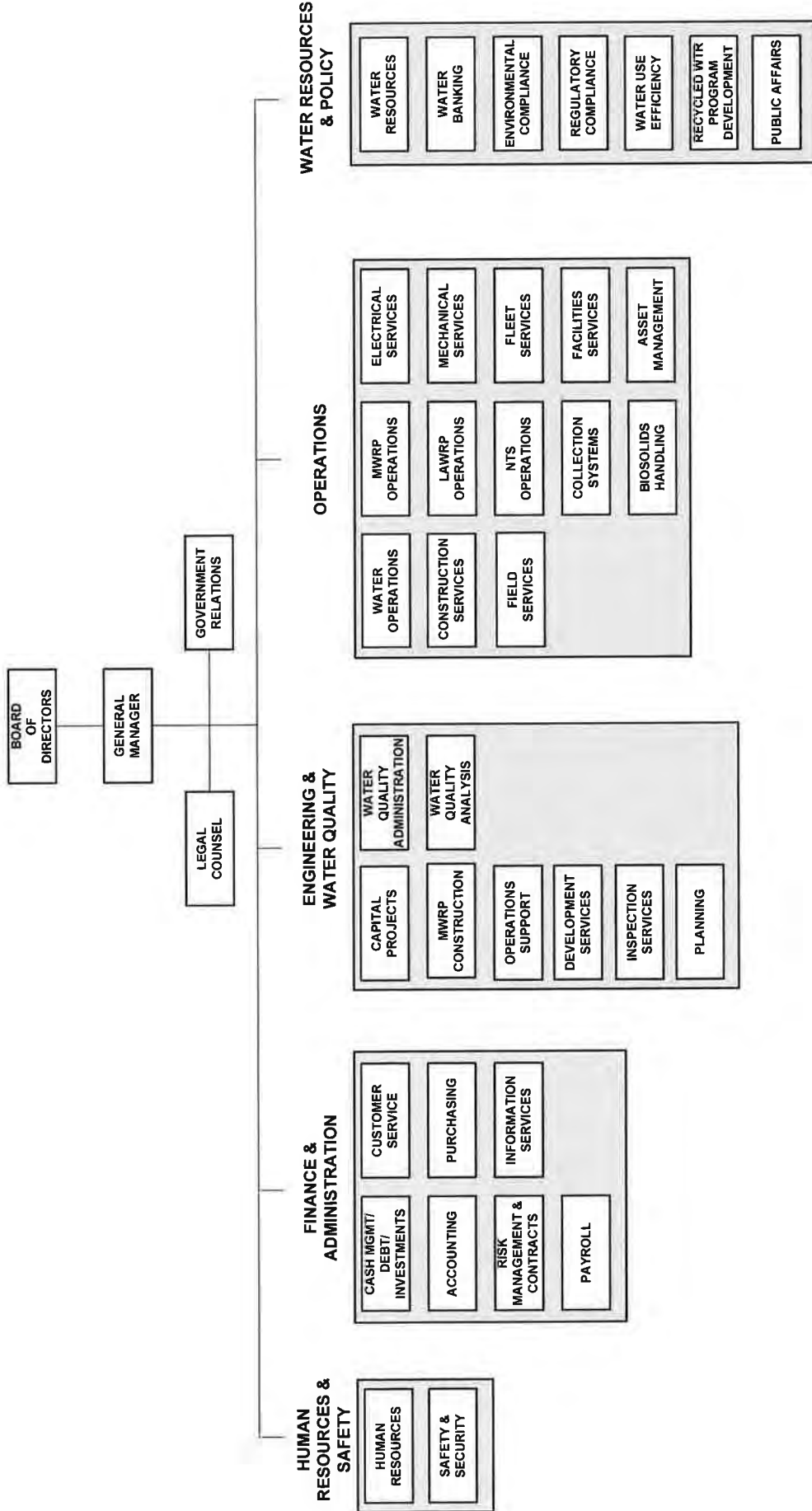


# GENERAL PLANT

## ANALYSIS

Description	Administration	Finance & Administrative Services	Engineering & Planning	Operations	Water Policy	Total
Information Systems and Technology	\$ -	\$ 696,700	\$ -	\$ -	\$ -	\$ 696,700
Laboratory Equipment				56,000	224,000	280,000
Other General Plant						-
Office Furniture				119,500		119,500
Work Class Equipment				3,847,900		3,847,900
Transportation				563,000		563,000
Structures/Improvements - Sand Canyon/MWRP				72,500		72,500
<b>Subtotal</b>	<b>\$ -</b>	<b>\$ 696,700</b>	<b>\$ -</b>	<b>\$ 4,658,900</b>	<b>\$ 224,000</b>	<b>\$ 5,579,600</b>
Less Vehicle Salvage Value	-	-	-	(23,500)	-	(23,500)
<b>Total Fiscal Year 2016-17</b>	<b>\$ -</b>	<b>\$ 696,700</b>	<b>\$ -</b>	<b>\$ 4,635,400</b>	<b>\$ 224,000</b>	<b>\$ 5,556,100</b>
 Total Fiscal Year 2015-16	 68,000	 486,000	 297,835	 690,433	 -	 1,542,268
 Increase/(Decrease)	 \$ (68,000)	 \$ 210,700	 \$ (297,835)	 \$ 3,944,967	 \$ 224,000	 \$ 4,013,832

Irvine Ranch Water District  
 Organizational Chart  
 (By Function)  
 Fiscal Year 2016-17







# LABOR

## THREE YEAR PERSONNEL COMPARISON

Department	Authorized Positions		
	2014-15	2015-16	2016-17
<b>Administration</b>			
Number of Positions	11.0	14.0	15.0
% change from prior year	(8.3) %	27.3 %	7.1 %
<b>Finance and Administrative Services</b>			
Number of Positions	71.0	75.0	80.0
% change from prior year	0.0 %	5.6 %	6.7 %
<b>Engineering</b>			
Number of Positions	38.0	40.0	42.0
% change from prior year	(7.3) %	5.3 %	5.0 %
<b>Water Quality</b>			
Number of Positions	28.0	20.0	20.0
% change from prior year	7.7 %	(28.6) %	0.0 %
<b>Water Policy</b>			
Number of Positions	27.0	34.0	36.0 *
% change from prior year	3.8 %	25.9 %	5.9 %
<b>Water Operations</b>			
Number of Positions	70.0	71.0	72.0 **
% change from prior year	1.4 %	1.4 %	1.4 %
<b>Recycling Operations</b>			
Number of Positions	43.0	48.0	50.0
% change from prior year	7.5 %	11.6 %	4.2 %
<b>Maintenance</b>			
Number of Positions	48.0	50.0	52.0
% change from prior year	26.3 %	4.2 %	4.0 %
<b>Total Number of Positions</b>	<b>336.0</b>	<b>352.0</b>	<b>367.0</b>
<b>Number of Changed Positions</b>	<b>13.0</b>	<b>16.0</b>	<b>15.0</b>
<b>% Change From Prior Year</b>	<b>4.0 %</b>	<b>4.8 %</b>	<b>4.3 %</b>

\*For FY 2016-17, one position is budgeted to start October 1, one position would start December 1 and two positions would start January 2017.

\*\* Operations Administration is part of Water Operations.



# LABOR

## SUMMARY OF SALARIES AND WAGES

(in thousands)

	Total	Administration	Finance & Administrative Services	Engineering	Water Quality	Water Policy	Water Operations	Recycling Operations	Maintenance
Current Authorized:									
Gross Pay	\$28,988	\$1,498	\$5,968	\$4,084	\$1,635	\$3,087	\$5,201	\$3,598	\$3,918
Annual Increase	1,495	76	293	209	91	104	296	193	234
Sub-Total Regular Salaries & Wages	30,484	1,574	6,260	4,293	1,727	3,191	5,497	3,791	4,152
New Positions:									
Gross Pay	774	52	225	83	0	98	69	89	158
Total Regular Salaries & Wages	31,258	1,625	6,486	4,376	1,727	3,289	5,566	3,880	4,310
Insurance and Benefits	7,301	380	1,515	1,022	403	768	1,300	906	1,007
Employment Tax & PERS Contributions	9,094	473	1,887	1,273	502	957	1,619	1,129	1,254
Total Regular Salaries & Wages, health Insurance and employment taxes	\$47,653	\$2,478	\$9,888	\$6,671	\$2,632	\$5,014	\$8,485	\$5,915	\$6,571
Employee Count:	367	15	80	42	20	36	72	50	52

Regular Salaries and Wages	
FY 2015-16 Labor	\$29,085
Adjustment for Vacancies	112
Additions	773
Promotions	309
COLA	495
Merit/Other	484
FY 2016-17 Labor	<u>\$31,258</u>



# BENEFITS AND EMPLOYMENT TAX

## HEALTH INSURANCE AND EMPLOYER CONTRIBUTIONS

(in thousands)	<u>FY 2015-16</u>	<u>FY 2016-17</u>	<u>Change</u>
<b>Insurance and Benefits</b>			
Health Ins Actives	\$4,447	\$5,019	\$572
Dental Premiums	407	419	12
Wrkrs Comp Premiums	645	708	63
Wrkrs Comp Paid Claims	400	650	250
Life Ins Actives	198	185	(13)
LT Disability Premiums	96	104	8
Medical Premiums - Retirees	111	123	12
Vision Benefit Premiums	76	80	4
Life Ins Retirees	12	13	1
	<u>\$6,392</u>	<u>\$7,301</u>	<u>\$909</u>
<b>Employment Tax and PERS</b>			
PERS Employer Portion	\$5,333	\$6,033	\$700
PERS In Excess Of ARC	1,940	1,781	(159)
401A Employer Match Portion	698	733	35
401A Employer Direct Portion	0	60	60
Medicare Tax	407	437	30
St Unemployment Tax	50	50	0
	<u>\$8,428</u>	<u>\$9,094</u>	<u>\$666</u>

**FY 2016/17 Budget  
Summary of Proposed Budgeted Personnel Changes**

Proposed Changes to Existing Budgeted Positions						
Dept	Job Title	Current Sal Grade	Proposed Action	Proposed Job Title	Proposed Sal Grade	Salary Costs
210	Accounting Clerk	16.N	Reclass 1 Position	Accountant	27.N	\$6,360
220	Customer Service Field Tech	16.N	Reclass 1 Position	Sr. Customer Service Field Tech	21.N	\$3,000
250	Applications Analyst	U15.E	Reclass 1 Position	Sr. Applications Analyst	U18.E	\$6,720
300	Engineering Tech III	29.N	Upgrade 1 Position	Associate Engineer	14.E	\$3,600
300	Construction Inspection Supervisor	U33.N	Upgrade 1 Position	Construction Inspection Supervisor	U34.N	\$1,980
300	Engineering Technician I	20.N	Reclass 1 Position, Title Change	Sr Development Services Specialist	19.N	\$0
300	Office Specialist	15.N	Title Change 2 positions	Development Services Specialist	15.N	\$0
300	Engineering Technician II	25.N	Title Change only	GIS Technician II	25.N	\$0
300	Engineering Technician III	29.N	Title Change only	GIS Technician III	29.N	\$0
425	Assistant Field Services Manager	U15.E	Reclass 1 Position	Field Services Manager	U17.E	\$4,500
430	Construction & Field Services Manager	U17.E	Title Change only	Construction Services Manager	U17.E	\$0
515	Natural Resources Manager	U16.E	Upgrade 1 Position	Natural Resources Manager	U17.E	\$2,220
570	Collection Systems Manager	U16.E	Upgrade 1 Position	Collection Systems Manager	U17.E	\$2,220
570	Collection Systems CCTV Tech II	21.N	Title Change only	Collection Systems CCTV Tech	21.N	\$0
710	Water Use Efficiency Manager	U16.E	Upgrade 1 Position, Title Change	Water Efficiency Manager	U17.E	\$2,280
710	Water Use Efficiency Analyst	31.N	Title Change only	Water Efficiency Analyst	31.N	\$0
710	Sr. Water Use Efficiency Specialist	29.N	Title Change only	Sr. Water Efficiency Specialist	29.N	\$0
710	Water Use Efficiency Specialist	24.N	Title Change only	Water Efficiency Specialist	24.N	\$0
730	Public Affairs Specialist	29.N	Reclass 2 Positions	Graphic Design Specialist	30.N	\$2,100
730	Executive Secretary	U22.N	Title Change only	Public Affairs Assistant	22.N	\$0
805	Office Specialist	15.N	Reclass 1 Position	Sr. Office Specialist	19.N	\$2,280
Subtotal						\$37,260

Proposed New Positions			
Dept	Job Title	Sal Grade	Salary Costs
130	Safety Assistant	U19.N	\$51,816
220	Customer Service Specialist I	13.N	\$45,048
220	Customer Service Specialist I	13.N	\$45,048
220	Customer Service Specialist II	17.N	\$49,464
220	Mail Coordinator	6.N	\$38,592
240	Office Specialist	15.N	\$46,128
300	Construction Inspector II	28.N	\$42,791
300	GIS Technician I	20.N	\$39,969
425	Water Maintenance Tech III	26.N	\$69,228
570	Collection Systems CCTV Tech	21.N	\$59,856
570	Collection Systems Tech II	20.N	\$29,070
710	Water Efficiency Specialist	24.N	\$65,316
710	Water Efficiency Specialist	24.N	\$32,658
840	Maintenance Mechanic	22.N	\$61,644
840	Assistant Asset Manager	U15.E	\$96,696
Subtotal			\$773,324

Proposed 04/11/2016

Total

\$810,584

To be filled 12/2016  
To be filled 10/2016

To be filled 1/2017

To be filled 1/2017



# LABOR

## *PROPOSED LABOR CHANGES*

### **Proposed Personnel Budget Changes Reflected in the FY 2016/17 Operating Budget**

#### **Title and Salary Grade Changes for Existing Positions/Job Titles:**

##### ***Finance (210):***

Accounting Clerk (Salary Grade 16.N) ➡ Accountant (Salary Grade 27.N)

This position reclass is being requested to more properly reflect the higher level duties and responsibilities of the position.

##### ***Customer Service (220):***

Customer Service Field Technician (Salary Grade 16.N) ➡ Sr. Customer Service Field Technician (Salary Grade 21.N)

This position reclass is being requested to more properly reflect the higher level duties and responsibilities of the position.

##### ***Information Services (250):***

Applications Analyst (Salary Grade U15.E) ➡ Sr. Applications Analyst (Salary Grade U18.E)

This position reclass is being requested to more properly reflect the duties and responsibilities of the position and meet the business needs of the department.

##### ***Engineering (300):***

Engineering Technician III (Salary Grade 29.N) ➡ Associate Engineer (Salary Grade 14.E)

This position upgrade is being requested to prepare for recruitment at the higher level to meet needs within the department.

Construction Inspection Supervisor (From Salary Grade U33.N to Salary Grade U34.N)

This upgrade is being requested to more properly reflect the increased duties and new responsibilities of this position.

Engineering Technician I (Salary Grade 20.N) ➡ Sr. Development Services Specialist (Salary Grade 19.N)

This position reclass and title change is being requested to more properly reflect the specific duties and responsibilities of the position.



# LABOR

## *PROPOSED LABOR CHANGES*

Office Specialist (Salary Grade 15.N) ➔ Development Services Specialist (Salary Grade 15.N) (2 positions)

This title change is being requested to more properly reflect the specific duties and responsibilities of this position.

Engineering Technician II (Salary Grade 25.N) ➔ GIS Technician II (Salary Grade 25.N)

This title change is being requested to more properly reflect the duties and responsibilities of this position.

Engineering Technician III (Salary Grade 25.N) ➔ GIS Technician III (Salary Grade 25.N)

This title change is being requested to more properly reflect the duties and responsibilities of this position.

### ***Field Services (425):***

Assistant Field Services Manager (Salary Grade U15.E) ➔ Field Services Manager (Salary Grade U17.E)

This position reclass is being requested to more properly reflect the higher level duties and responsibilities of the position.

### ***Construction Services (430):***

Construction & Field Services Manager (Salary Grade U17.E) ➔ Construction Services Manager (Salary Grade U17.E)

This title change is being requested to more properly reflect the duties and responsibilities of this position due to the creation of the Field Services Manager position.

### ***Natural Treatment Systems (515):***

Natural Resources Manager (From Salary Grade U16.E to Salary Grade U17.E)

This upgrade is being requested to more properly reflect the duties and responsibilities of this position and to maintain appropriate internal equity.

### ***Collection Systems (570):***

Collection Systems Manager (From Salary Grade U16.E to Salary Grade U17.E)

This upgrade is being requested to more properly reflect the duties and responsibilities of this position and to maintain appropriate internal equity.





# LABOR

## *PROPOSED LABOR CHANGES*

Collection Systems CCTV Technician II (Salary Grade 21.N) ➔ Collection Systems CCTV Technician (Salary Grade 21.N)

This title change is being requested to better reflect the job series.

### ***Water Resources and Policy (710):***

Water Use Efficiency Manager (Salary Grade U16.E) ➔ Water Efficiency Manager (Salary Grade U17.E)

This position upgrade and title change is being requested to more properly reflect the specific duties and responsibilities of the position and to maintain appropriate internal equity.

Water Use Efficiency Analyst (Salary Grade 31.N) ➔ Water Efficiency Analyst (Salary Grade 31.N)

This title change is being requested to simplify the job title.

Sr. Water Use Efficiency Specialist (Salary Grade 29.N) ➔ Sr. Water Efficiency Specialist (Salary Grade 29.N)

This title change is being requested to simplify the job title.

Water Use Efficiency Specialist (Salary Grade 24.N) ➔ Water Efficiency Specialist (Salary Grade 24.N)

This title change is being requested to simplify the job title.

### ***Public Affairs (730):***

Public Affairs Specialist (Salary Grade 29.N) ➔ Graphic Design Specialist (Salary Grade 30.N) (2 positions)

This position reclass is being requested to more properly reflect the higher level duties and responsibilities of the position.

Executive Secretary (Salary Grade U22.N) ➔ Public Affairs Assistant (Salary Grade 22.N)

This title change is being requested to more properly reflect the duties and responsibilities of this position and to include it in the Public Affairs job series.

### ***Water Operations Administration (805):***

Office Specialist (Salary Grade 15.N) ➔ Sr. Office Specialist (Salary Grade 19.N)

This position reclass is being requested to more properly reflect the higher level duties and responsibilities of the position.



# LABOR

## *PROPOSED LABOR CHANGES*

### **New Positions:**

#### ***Safety & Security (130):***

Safety Assistant (Salary Grade U19.N) – one position

This position is required to manage the increased workload of the Safety department including documenting and recording safety training, maintaining safety logs. This position is currently staffed by temporary labor.

#### ***Customer Service (220):***

Customer Service Specialist II (Salary Grade 17.N) – one position

This position is required to reduce customer wait times and to handle higher level duties including commercial billing calls, field problems and increased customer contact due to growing customer base. This position is currently staffed by temporary labor.

Customer Service Specialist I (Salary Grade 13.N) – two positions

These positions are required to reduce customer wait times due to increased call volume resulting from growing customer base and other causes. These positions are currently staffed by temporary labor.

Mail Coordinator (Salary Grade 6.N) – one position

This position is required to due to increased workload. This position is currently staffed by temporary labor.

#### ***Purchasing (240):***

Office Specialist (Salary Grade 15.N) – one position

This position is required due to an increase in workload involved in supporting a growing number of District staff and departments, implementing and maintaining Oracle EBS, and supporting Purchasing and District programs. This position is currently staffed by temporary labor.

#### ***Engineering (300):***

Construction Inspector II (Salary Grade 28.N) – one position

This position is required due to an increase in workload in the inspection services group resulting from increased development that is forecast to continue for several years. The number of active construction projects managed by the inspection services group has more than doubled in the past two and a half years.



# LABOR

## *PROPOSED LABOR CHANGES*

GIS Technician I (Salary Grade 20.N) – one position

This position is needed due to an increase in workload involved resulting from increased development that is forecast to continue for several years. This position is currently staffed by temporary labor.

### ***Field Services (425):***

Water Maintenance Technician III (Salary Grade 26.N) – one position

This position is required to reestablish the primary responder role which was eliminated in FY14/15 with the creation of an additional Water Maintenance Supervisor filled by the former primary responder. The function is currently distributed among various staff members which is proving to be problematic and inefficient.

### ***Collection Systems (570):***

Collection Systems CCTV Technician (Salary Grade 21.N) – one position

This position is required due to growth of the sewer system and the need to meet the regulatory requirements in the Sewer System Management Plan. A new CCTV vehicle is being purchased and this additional position will be needed to operate the new equipment.

Collection Systems Technician II (Salary Grade 20.N) – one position

This position is required due to growth of the sewer system and the need to meet the regulatory requirements in the Sewer System Management Plan. A new vector truck is being purchased and this additional position will be needed to operate the new equipment. This position should be added effective 1/1/2017 ahead of the delivery of the new vehicle.

### ***Water Resources and Policy (710):***

Water Efficiency Specialist (Salary Grade 27.N) – two positions (one for 1/1/2017)

These positions are required to continue to provide a high level of support and water efficiency assistance to customers. One position would focus primarily on non-residential landscape customers. The number of landscape customers has increased significantly and the District has also brought the development and presentation of landscape workshops in-house. These workshops were formerly outsourced.

### ***Maintenance Administration (810):***

Assistant Asset Manager (Salary Grade U15.E) – one position

This position will be responsible for high level administrative and technical duties related to the effective coordination of the District's Enterprise Asset Management program.




# LABOR

## *PROPOSED LABOR CHANGES*

### ***Mechanical Services (840):***

Maintenance Mechanic (Salary Grade 22.N) – one position

This position was originally reviewed by the E & O Committee as part of the Biosolids and Energy Recovery facilities staffing plan. This position will also be used at the Baker Water Treatment facilities.

April 11, 2016  
 Prepared by: E. Akiyoshi/B. Meserlian  
 Submitted by: K. Burton  
 Approved by: Paul Cook 

**BOARD WORKSHOP**

**DRAFT FISCAL YEAR 2016-17 CAPITAL BUDGET**

**SUMMARY:**

Staff will provide an overview of the forecasted FY 2016-17 Capital Budget for discussion prior to adoption by the Board on April 25, 2016.

**BACKGROUND:**

The forecasted capital expenditures for the upcoming fiscal year are presented annually to the Engineering and Operations Committee and Board for review. Capital expenditures for FY 2016-17, summarized in Exhibit “A”, are estimated at \$159.6 million. Three projects: 1) the MWRP Biosolids & Energy Recovery Facilities; 2) Orange County Sanitation District’s Capital Outlay Revolving Fund, Equity, and Solids Facilities; and 3) the Irvine Lake Pipeline (ILP) North Conversion project will make up approximately 50% of projected expenditures. Staff recommends the Board provide comments on the Draft FY 2016-17 Capital Budget. The final FY 2016-17 Capital Budget will be presented to the Board for adoption on April 25, 2016.

**FISCAL IMPACTS:**

The following table shows the major projects for FY 2016-17. The FY 2016-17 Capital Budget, attached as Exhibit “B”, provides details on all the capital projects anticipated to have expenditures in FY 2016-17.

<b>Project</b>	<b>FY 2016-17 (\$ Million)</b>
MWRP Biosolids and Energy Recovery Facilities	45.6
OCSD / CORF / Solids Facilities	18.2
ILP North Conversion	14.6
Water Banking and Dry-Year Programs	11.5
Baker Water Treatment Plant	10.4
Planning Area 51 (Great Park Neighborhoods)	9.0
General Plant	5.6
Annual Operational System Repair and Rehabilitation	5.0
Business Software	4.8
Asset Optimization	4.6
<b>Subtotal</b>	<b>\$129.2</b>
<b>Total All Projects</b>	<b>\$159.6</b>

**ENVIRONMENTAL COMPLIANCE:**

Not applicable.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee on March 15, 2016. The total FY 2016-17 capital expenditures of \$159.6 million presented is similar to the value presented to the Committee. Minor adjustments have been made to several improvement district splits and two project budgets were increased. The increased budgets are presented below:

- Project 7233 – Baker Solar: Adds \$45,400 of direct costs, and
- Project 6013 – Water Supply and System Reliability: Adds \$1,300 of direct costs

RECOMMENDATION:

That the Board provide comments on the Draft Fiscal Year 2016-17 Capital Budget.

LIST OF EXHIBITS:

Exhibit “A” – Capital Budget Preview Presentation

Exhibit “B” – Draft FY 2016-17 Capital Budget



# Fiscal Year 2016-17 Capital Budget Preview

Board of Directors Meeting  
April 11, 2016



## FY 2016-17 Forecasted Expenditure

- **FY 2016-17 forecasted expenditures = \$159.6 M**
  - Domestic water expenditures = \$51.0 M
  - Sewer/ Recycled water expenditures = \$108.6 M
- **Top 10 Project Groups = \$129.2 M**
- **Other Projects = \$30.4 M**

# FY 2016-17 Top 10 Project Groups

Rank	Description	Est. FY16-17 Exp. (\$ Million)*
1	MWRP Biosolids & Energy Recovery Facilities	45.6
2	OCSD / CORF / Solids Facilities	18.2
3	ILP North Conversion	14.6
4	Water Banking	11.5
5	Baker Water Treatment Plant	10.4
6	Planning Area 51 (Great Park Neighborhoods)	9.0
7	General Plant	5.6
8	Annual Operational System Repair and Rehabilitation	5.0
9	Business Software	4.8
10	Asset Optimization	4.6
<b>Subtotal</b>		<b>\$129.2</b>
<b>Other Projects</b>		<b>\$30.4</b>
<b>Total</b>		<b>\$159.6</b>

\* Capital offsets (grants, reimbursements, and other non-IRWD funding sources) not subtracted.



EXHIBIT "B"

# C A P I T A L B U D G E T

## FISCAL YEAR 2016/17

**DRAFT**  
**APRIL 11, 2016**



IRVINE RANCH WATER DISTRICT  
15600 SAND CANYON AVENUE  
IRVINE, CA 92618

# **CAPITAL BUDGET**

**FISCAL YEAR 2016/17**

**DRAFT**  
**April 11, 2016**



Irvine Ranch Water District  
15600 Sand Canyon Avenue  
Irvine, CA 92618

# **FISCAL YEAR 2016/17 CAPITAL BUDGET**

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**IRVINE RANCH WATER DISTRICT**  
**2016/17 Capital Budget**  
**Project Expenditures by Project Number**

<u>Project 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>
1015	TECHNOLOGY DR AND LAGUNA CANYON RD RW ZONE B	1,404,700	1,487,900	3,223,500	3,556,500	No
1038	TUSTIN LEGACY MASTER DW FACILITIES	159,200	232,300	1,495,200	1,676,500	No
1056	PA39 PHASE 1 RW PIPELINES	200	200	180,400	221,200	No
1062	TUSTIN LEGACY MASTER SEWER FACILITIES	120,000	165,700	1,115,400	1,208,000	No
1100	LAKE FOREST WELL 1 DRILLING	38,700	47,900	1,417,600	1,445,400	Yes
1101	TUSTIN LEGACY MASTER RW FACILITIES	157,000	233,700	1,544,900	1,733,600	No
1117	LAKE FOREST WELL 1 WELLHEAD	31,200	40,400	1,035,100	1,087,000	Yes
1152	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	5,600	5,600	1,078,000	1,198,300	No
1167	GREAT PARK COORDINATION AND SAMP UPDATE	3,500	5,000	132,000	187,500	No
1181	LAKE FOREST DW OFFSITE IMPROVEMENTS	68,700	107,600	424,600	487,600	No
1257	HQ OFFICE IMPROVEMENTS	13,700	18,400	81,400	110,100	No
1264	ASSET OPTIMIZATION - LAKE FOREST DEVELOPMENT	990,500	990,500	6,500,000	6,685,000	No
1308	PA6 RW PIPELINES	486,100	535,600	620,500	697,300	No
1336	HQ OFFICE IMPROVEMENTS	46,500	64,300	277,300	383,800	No
1354	PA1 16" Z5 PIPE, 5-4 PRVS NEIGHBORHOOD 3	11,000	29,400	1,237,500	1,367,100	No
1373	OCWD ANNEXATION FEE 16/17	580,600	580,600	580,600	580,600	No
1398	SANTIAGO HILLS II DW TRANSMISSION SYSTEM	460,100	706,700	10,506,300	11,431,300	No
1402	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	5,300	6,700	133,100	170,100	Yes
1414	SAND CANYON 16" DW PIPELINE ANODE REPLACEMENT	1,600	4,200	243,100	308,000	No
1429	OCSD SOLIDS HANDLING 16/17	1,391,000	1,391,000	1,391,000	1,391,000	No
1459	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	10,700	10,700	1,958,400	2,282,200	No
1516	OCSD EQUITY 15/16	2,293,000	2,293,000	6,854,000	6,854,000	No
1520	GREAT PARK COORDINATION AND SAMP UPDATE	3,500	5,000	132,000	187,500	No
1530	OCSD EQUITY 16/17	7,907,100	7,907,100	11,893,000	11,893,000	No
1549	HQ OFFICE IMPROVEMENTS	41,200	59,000	245,900	352,400	No
1554	OCSD CORF 15/16	1,202,900	1,202,900	5,988,000	5,988,000	No
1561	OCSD CORF 16/17	4,611,700	4,611,700	5,774,000	5,774,000	No
1716	PA1 ORCHARD HILLS NEIGHBORHOOD 3	34,100	52,700	326,700	391,600	No
1722	PA1 ORCHARD HILLS NEIGHBORHOOD 4	74,200	139,000	566,500	640,600	No
1762	PA9B PHASE 5 GATEWAY PARK RW PIPES	7,600	11,400	506,100	620,900	No
1813	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	229,300	266,100	568,700	689,000	No
3566	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	832,900	1,042,200	2,432,100	3,264,700	No
3567	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	832,900	1,042,200	2,432,100	3,264,700	No



**IRVINE RANCH WATER DISTRICT**  
**2016/17 Capital Budget**  
**Project Expenditures by Project Number**

<u>Project 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>
3734	PA40 TRAVELAND RW FACILITIES	4,800	7,600	447,700	521,900	No
3735	PA39 PH2 RW FACILITIES	88,600	107,100	226,600	261,800	No
3750	SOCWA ETM PROTECTION - TRAIL BRIDGE CROSSING	5,500	14,800	951,500	979,300	No
3766	STOCKDALE WEST INTEGRATED WATER BANKING PROJECT	5,424,400	5,516,800	12,340,600	12,867,900	No
3779	SALT MANAGEMENT PLAN DEVELOPMENT	13,500	15,000	472,300	526,000	No
3780	SAN JOAQUIN RESERVOIR LINER REPLACEMENT	8,900	11,400	2,807,900	2,942,200	No
3808	SYPHON RESERVOIR EXPANSION	82,000	117,400	60,169,200	61,020,200	Yes
3977	PA51 TRABUCO RD, SR133 TO LY ST DW	2,300	2,300	156,200	211,800	No
3980	PA51 TRABUCO RD, SR133 TO LY ST SEWER	2,500	2,500	161,700	217,300	No
3983	PA51 TRABUCO RD, SR133 TO LY ST RW	8,500	8,500	480,700	601,000	No
4147	PA51 MARINE WAY RW ZNB	27,600	30,700	541,200	643,100	No
4153	PA51 MARINE WAY DW ZN3	21,500	24,100	420,200	503,600	No
4261	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - DW	17,000	17,000	723,800	890,300	No
4263	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - SS	10,100	10,100	436,700	557,000	No
4264	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - RW	4,300	4,300	194,700	250,300	No
4267	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - SEWER	41,500	41,500	1,493,800	1,706,600	No
4268	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - DW	14,200	14,200	486,200	560,300	No
4278	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - RW	14,600	14,600	464,200	538,300	No
4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	45,574,200	46,780,000	196,465,500	202,200,500	No
4318	PA40 PH3B RW CAPITAL FACILITIES	200	200	165,000	200,200	No
4366	TUSTIN LEGACY TUSTIN RANCH, BARRANCA, ARMSTRONG DW	7,100	7,100	343,200	417,300	No
4368	TUSTIN LEGACY TUSTIN RANCH, BARRANCA, ARMSTRONG RW	15,400	15,400	689,700	800,700	No
4394	EBS UPGRADE ID CONSOL AND PROJECT MGMT IMPLEMENT	1,568,600	2,025,500	2,092,800	2,702,400	No
4395	EBS UPGRADE ID CONSOL AND PROJECT MGMT IMPLEMENT	1,568,600	2,025,500	2,092,800	2,702,400	No
4397	LAWRP SYSTEM UPGRADES	5,800	8,700	1,418,700	1,511,300	No
4400	MULTI-ZONE BPS - ZONE A-C	477,100	629,000	2,795,200	3,091,300	No
4401	DRWF WELL 18 REHAB	768,900	841,100	770,000	844,100	No
4409	CHLORAMINE BOOSTER STATIONS AT 2 DW RESERVOIRS	1,658,400	1,770,600	2,877,400	3,252,800	No
4457	MULTI-ZONE BPS - ZONE A-B	483,200	626,400	3,005,200	3,264,300	No
4467	MWRP REPAIRS: ACT SLUDGE, 2DARY TANKS, RAS/WAS	181,700	263,800	3,181,600	3,412,900	No
4510	TUSTIN LEGACY WARNER - LEGACY TO TUSTIN RANCH DW	4,200	4,200	196,900	252,500	No
4511	TUSTIN LEGACY WARNER - LEGACY TO TUSTIN RANCH RW	4,500	4,500	207,900	263,500	No
4512	PA5B PHASE 1A 12" ZONE 3 DW	4,700	4,700	132,000	174,600	No

**IRVINE RANCH WATER DISTRICT**  
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4513	PA5B PHASE 1A AND 1B 6" & 8" RW	14,300	16,300	298,200	363,100	No
4514	PA5B PHASE 1A AND 1B 36" RW	80,000	80,000	1,769,400	1,936,000	No
4515	PA5B IRVINE BLVD 8" ZONE B RW	5,200	5,200	100,100	131,700	No
4528	PA40 NEIGHBORHOOD 2G BACKBONE RW FACILITIES	200	200	108,900	144,100	No
4557	PA6 PHASE 1 NEIGHBORHOOD 3 ZONE C RW	11,900	11,900	315,700	380,600	No
4614	PA51 REACH A SEWER IMPROVEMENTS	88,400	88,400	3,237,200	3,570,200	No
4620	PA51 LN ST FROM C ST TO LY ST DW	4,100	4,100	172,700	219,100	No
4621	PA51 LN ST FROM C ST TO LY ST RW	2,300	2,300	105,600	140,800	No
4645	PA51 C ST FROM LQ ST TO O ST DW	3,600	3,600	161,700	217,400	No
4646	PA51 C ST FROM LQ ST TO O ST RW	6,800	6,800	266,200	331,100	No
4647	PA51 LY ST FROM TRABUCO RD TO LQ ST RW	5,600	5,600	205,700	289,000	No
4648	PA51 LQ ST FROM O ST TO LY ST SEWER	5,800	5,800	255,200	310,800	No
4649	PA51 LQ ST FROM O ST TO LY ST RW	1,900	1,900	78,100	104,100	No
4650	PA51 LY ST FROM LQ ST TO IRVINE BLVD DW	800	800	51,700	88,900	No
4651	PA51 LY ST FROM LQ ST TO IRVINE BLVD SEWER	55,900	55,900	1,662,200	1,958,200	No
4652	PA51 LY ST FROM LQ ST TO IRVINE BLVD RW	27,800	27,800	938,300	1,252,800	No
4653	PA51 C ST FROM TRABUCO RD TO LQ ST SEWER	9,100	9,100	403,700	524,000	No
4680	PA18S HIDDEN CANYON 12" DW	7,300	7,300	315,700	399,100	No
4681	PA18S HIDDEN CANYON 6" & 8" RW	7,300	7,300	315,700	399,100	No
4717	PA1 ORCHARD HILLS NH 2 - 6" ZNB & 6" ZNC RW	5,600	5,600	238,700	322,000	No
4753	PA5B PHASE 2 6" RW	2,600	2,600	57,200	68,400	No
4824	PA51 LV ST FROM RIDGE VALLEY TO LY ST 18" SEWER	7,700	7,700	310,200	421,200	No
4825	PA51 LV ST FROM RIDGE VALLEY TO LY ST 12" RW	8,100	8,100	321,200	423,000	No
4985	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	424,500	434,400	10,959,800	11,446,400	No
4988	TUSTIN LEGACY WARNER FROM ARMSTRONG TO LEGACY DW	1,600	1,600	60,500	77,300	No
4989	TUSTIN LEGACY WARNER FROM ARMSTRONG TO LEGACY RW	7,700	7,700	282,700	375,300	No
4990	PA1 ORCHARD HILLS NEIGHBORHOOD 2, 6" ZNC RW	2,900	2,900	84,700	95,900	No
5016	PA51 C ST FROM LV ST TO TRABUCO SEWER	9,000	9,000	370,700	491,000	No
5027	BAKER WATER TREATMENT PLANT	10,421,500	10,971,000	96,852,000	99,331,000	No
5154	SJR SEISMIC EVALUATION (DSOD)	700	1,700	150,700	215,500	No
5156	LAGUNA CANYON RD RW PIPELINE CORROSION REPLACE	2,000	4,600	588,500	644,100	No
5168	PA18S HIDDEN CANYON 36" RW PIPELINE	58,700	58,700	2,208,200	2,485,700	No
5174	MAIN ST DIVERSION STRUCTURE GROUND SETTling	95,700	131,000	191,400	241,400	No

**IRVINE RANCH WATER DISTRICT**  
**2016/17 Capital Budget**  
**Project Expenditures by Project Number**

<u>Project 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>
5186	SJM SLS UPGRADE	1,200	3,100	181,000	222,400	No
5243	PA6 NEIGHBORHOOD 4B 6" RW ZONE D	23,100	23,100	526,900	649,100	No
5298	RAISE DW SYSTEM VALVES 16/17 UNDER RA	577,500	623,800	577,500	623,800	No
5302	RAISE MANHOLES TO GRADE 16/17 UNDER RA	346,500	374,300	346,500	374,300	No
5305	RAISE RW SYSTEM VALVES 16/17 UNDER RA	138,600	149,700	138,600	149,700	No
5338	MARSH MITIGATION CREDIT INVENTORY	36,300	45,600	36,300	45,600	No
5404	LAKE FOREST Z2-2RA PRV AT COMMERCENTRE	16,500	17,800	337,700	374,800	No
5406	EL MODENA INLET MODIFICATION	1,000	2,300	156,200	184,100	No
5407	ILP NORTH CONVERSION - RESERVOIR	7,044,100	7,138,100	14,382,500	14,761,800	No
5410	COASTAL ZONE 2 PRV MODIFICATION (DPR16)	1,900	4,600	187,100	228,500	No
5411	COMPRESSED NATURAL GAS MOTOR FUEL	23,000	24,200	68,800	72,500	No
5412	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	129,200	170,600	1,155,000	1,525,000	No
5427	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	613,700	820,100	921,300	1,231,200	No
5428	CAPITAL PLANNING SUPPORT 16/17 DW	242,000	427,000	242,000	427,000	No
5429	CAPITAL PLANNING SUPPORT 16/17 RW	242,000	427,000	242,000	427,000	No
5430	CAPITAL PLANNING SUPPORT 16/17 SEWER	242,000	427,000	242,000	427,000	No
5431	WRMP UPDATE DW	44,000	81,000	132,000	243,000	No
5432	WRMP UPDATE RW	44,000	81,000	132,000	243,000	No
5442	SERVICE LINE, VALVE & MAIN REPLACEMENT-DW 16/17	1,685,000	1,703,500	1,685,000	1,703,500	No
5447	MECH & ELEC SYS REPLACEMENT - DW 16/17	880,000	880,000	880,000	880,000	No
5449	MECH & ELEC SYS REPLACEMENT - SEWER 16/17	550,000	550,000	550,000	550,000	No
5451	MECH & ELEC SYS REPLACEMENT - RW 16/17	660,000	660,000	660,000	660,000	No
5452	SERVICE LINE, VALVE & MAIN REPLACEMENT-RW 16/17	515,800	534,300	515,800	534,300	No
5453	WELLS 12 AND 13 ROOF HATCHES REPLACEMENT	223,900	243,200	357,000	417,200	No
5454	RESIDENTIAL METER REPLACEMENT-DW 16/17	267,300	291,400	267,300	291,400	No
5455	MWRP SYS REPLACEMENTS 16/17	442,200	445,900	442,200	445,900	No
5457	SEWER GEN SYS MODS 16/17	330,000	330,000	330,000	330,000	No
5469	MWRP FPS 2 ROOF REPLACEMENT	343,800	378,500	497,900	571,900	No
5470	NEWPORT COAST SLS AND FM RECOATING (REHAB)	1,033,300	1,104,700	1,432,200	1,571,100	No
5471	SEWER LATERAL & MAIN REPLACEMENT 16/17	218,900	237,400	218,900	237,400	No
5472	CSR METER REPLACEMENT-DW 16/17	213,200	222,500	213,200	222,500	No
5473	WELLS 11 AND 15 SURGE TANK REPLACEMENT	724,400	731,000	1,213,300	1,320,600	No
5475	GEN SYS MODS-DW 16/17	190,300	231,100	190,300	231,100	No

**IRVINE RANCH WATER DISTRICT**  
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<u>Project 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>
5476	RATTLESNAKE ZONE A BPS REBUILD	5,300	14,600	3,937,700	4,002,600	No
5478	LAWRP SYSTEM REPLACEMENTS 16/17	132,000	132,000	132,000	132,000	No
5479	1" TO 2" METER REPLACEMENT-DW 16/17	170,200	195,000	170,200	195,000	No
5480	GEN SYS MODS-RW 16/17	101,800	124,100	101,800	124,100	No
5481	CSR METER REPLACEMENT-RW 16/17	112,200	115,900	112,200	115,900	No
5483	1" TO 2" METER REPLACEMENT-RW 16/17	117,000	130,900	117,000	130,900	No
5499	STOCKDALE STORAGE FOR RECOVERY CAPACITY	1,585,500	1,594,700	1,590,800	1,609,300	No
5504	WELL MAINTENANCE AND REHABILITATION 16/17	220,000	220,000	220,000	220,000	No
5519	EAST IRVINE ZONE 1 TO 3 BPS PIPE/METER	64,900	70,500	600,100	670,400	No
5520	MAINTENANCE ACCESS FOR FOUR SEWER REACHES	1,400	3,300	368,000	409,400	No
5535	PA51 LQ ST FROM BOSQUE TO Z ST 12" SEWER	653,400	746,400	1,510,300	1,880,300	No
5536	PA51 LQ ST FROM BOSQUE TO Z ST 12" RW	117,600	142,400	416,900	518,700	No
5756	PA51 "B" ST FROM SOCIABLE TO IRVINE BLV 12" ZN 4	29,800	36,200	243,100	315,300	No
5757	PA51 "B" ST FROM SOCIABLE TO IRVINE BLV 16" ZN C	29,500	33,500	240,900	296,500	No
5758	PA51 CADENCE - PUSAN TO CHINON 12" & 16"	72,400	81,700	271,700	327,300	No
5763	PA6 NEIGHBORHOOD 5A RW ZONE D	6,600	7,600	132,000	159,800	No
5788	PA51 ALTON PKWY SS RELOCATION 12" AND 18"	222,300	270,600	1,832,300	2,461,300	No
5816	PA51 ALTON, TECHNOLOGY TO MUIRLANDS 12" DW	52,100	60,800	177,100	225,200	No
5817	PA51 ALTON, TECHNOLOGY TO MUIRLANDS SS RELOCATION	412,000	443,000	1,326,300	1,474,300	No
5818	PA51 ALTON, TECHNOLOGY TO MUIRLANDS 16" RW	105,500	120,400	344,300	409,100	No
5823	ILP NORTH CONVERSION - PIPELINES	6,618,000	6,833,300	10,991,100	11,592,500	No
5919	PA1 ORCHARD HILLS, NEIGHBORHOOD 1, 16" ZC 6" ZC+	259,300	327,700	521,400	724,900	No
6010	TUSTIN LEGACY PARK AVE FROM JAMBOREE TO VICTORY SS	18,400	21,500	64,900	83,500	No
6013	WATER SUPPLY AND SYSTEM RELIABILITY MODEL	93,400	107,200	664,800	762,900	No
6016	PA51 IRVINE BLVD, LAMBERT TO Z ST 12" DW	102,400	123,300	156,200	208,100	No
6017	PA51 IRVINE BLVD, LAMBERT TO Z ST 16" SS	74,700	91,400	115,500	158,200	No
6018	PA51 IRVINE BLVD, LAMBERT TO Z ST 20" RW	966,500	1,105,200	1,412,400	1,726,900	No
6023	ROSEDALE DROUGHT RELIEF PROJECT FACILITIES	4,004,100	4,218,000	9,872,500	10,399,800	No
6048	PA51 MARINE WAY, ALTON TO BARRANCA 18" SS	59,200	59,200	1,424,500	1,776,000	No
6056	PA40 8TH ST RIDGE VALLEY TO C ST CAPITAL 6" RW	18,700	22,600	283,800	381,900	No
6086	PA51 MARINE WAY FROM ALTON TO BARRANCA 12" DW ZN 3	11,200	11,200	238,700	301,600	No
6087	PA51 MARINE WAY, ALTON TO BARRANCA 16" RW ZN B	13,400	13,400	281,600	352,100	No
6109	TUSTIN LEGACY PARK AVE & MOFFETT DR 12" DW	232,900	254,800	579,700	681,600	No

**IRVINE RANCH WATER DISTRICT**  
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**Project Expenditures by Project Number**

<u>Project 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>
6110	TUSTIN LEGACY PARK AVE & MOFFETT DR 16" & 15" SS	330,800	367,900	387,200	461,400	No
6111	TUSTIN LEGACY PARK AVE & MOFFETT DR 16" & 6" RW	227,800	249,700	568,700	670,600	No
6121	VAULT LID REPLACEMENT - DW	3,300	8,500	397,700	492,200	No
6122	VAULT LID REPLACEMENT - SEWER	3,300	5,900	96,300	146,300	No
6123	VAULT LID REPLACEMENT - RW	1,600	4,200	195,300	245,300	No
6160	CENTRALIZED CONTROL ROOM AT MWRP	1,800	4,400	170,000	211,600	No
6161	CENTRALIZED CONTROL ROOM AT MWRP	1,800	4,400	170,000	211,600	No
6165	DRWF SURGE TANKS	427,900	451,000	528,600	580,400	No
6167	OPS CENTER PERMANENT GENERATOR	535,000	599,800	618,800	729,900	No
6168	SAN JOAQUIN MARSH IMPROVEMENTS	1,562,300	1,670,100	1,776,700	1,943,300	No
6198	IIC ZONE B BPS UPGRADES	244,800	263,900	734,600	779,000	No
6200	GIS SUPPORT APPLICATIONS 16/17 - DOMESTIC	60,000	94,200	60,000	94,200	No
6203	GIS SUPPORT APPLICATIONS 16/17 - RECYCLED	60,000	94,200	60,000	94,200	No
6204	GIS SUPPORT APPLICATIONS 16/17 - SEWER	60,000	94,200	60,000	94,200	No
6208	PA51 MARINE WAY: SR133 TO RIDGE VALLEY 12" ZONE 3	63,600	77,400	82,500	110,400	No
6209	PA51 MARINE WAY: SR133 TO RIDGE VALLEY 6" ZONE B	40,300	50,500	53,900	74,300	No
6210	ASSET OPTIMIZATION - SAND CANYON PROFESSIONAL CTR	3,572,600	3,602,400	17,624,300	17,670,600	No
6212	NTS INFILTRATION STUDY	32,400	38,800	64,900	77,900	No
6213	IDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	1,596,700	1,698,100	2,913,900	3,145,200	No
6214	PDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	165,300	215,800	2,976,900	3,245,200	No
6215	TUSTIN LEGACY RED HILL WELL ACQUISITION	75,700	75,700	522,500	578,000	No
6216	NORTHWOOD ZONE B BPS DEMOLITION	5,500	14,800	539,000	622,400	No
6243	RW CONVERSION IMPROVEMENTS FOR OFF-SITE 16/17	819,500	1,023,100	819,500	1,023,100	No
6245	WATER BANKING AGREEMENTS 16/18	220,100	312,600	440,000	625,000	No
6247	WATER BANKING PLANNING 16/17	137,500	230,000	137,500	230,000	No
6304	PA51 BENCHMARK, BOSQUE TO 550'E/O BOSQUE 12" Z4R	25,700	31,500	49,500	66,200	No
6306	PA51 BENCHMARK, BOSQUE TO 550'E/O BOSQUE 6" ZC	25,700	31,500	49,500	66,200	No
6331	PA51 GP CULTIVATE (BOSQUE TO 500 E/O BOSQUE) 16"	7,900	7,900	220,000	271,900	No
6400	NEWPORT COAST SLS IMPROVEMENTS	1,523,400	1,610,700	2,059,200	2,216,600	No
6401	ZONE 1 RESERVOIR NO. 2	817,600	995,300	12,626,300	13,033,300	No
6470	RANCHO PARKWAY ZONE C RECYCLED WATER PIPELINE	144,600	157,400	997,800	1,146,000	No
6476	PA51 MARINE WAY. RIDGE VALLEY TO 3000' EAST	181,100	213,700	426,800	547,200	No
6479	400/450 SPECTRUM CENTER DR 36" SS RELOCATION	350,000	393,200	596,200	716,500	No

**IRVINE RANCH WATER DISTRICT**  
**2016/17 Capital Budget**  
**Project Expenditures by Project Number**

<u>Project 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>
6512	PA51 GP-1 ST (MARINE TO GP-2 ST) 12" DW	224,200	265,800	355,300	466,300	No
6513	PA51 GP-1 ST (MARINE TO GP-2 ST) 12" SS	595,300	720,100	938,300	1,252,800	No
6514	PA51 GP GP-1 ST (MARINE TO GP-2 ST) 10" RW	335,500	404,800	536,800	721,800	No
6534	PA51 GP PUSAN (EPISODE TO IRVINE BLVD) 12" DW Z4	22,300	28,100	44,000	60,700	No
6535	PA51 GP PUSAN (EPISODE TO IRVINE BLVD) 12" RW ZC	55,300	66,800	106,700	140,200	No
6536	PA51 GP-2 ST (BOSQUE TO GP1 ST) 12" DW	323,200	392,500	531,300	716,300	No
6537	PA51 GP-2 ST (BOSQUE TO GP1 ST) 12" SS	199,500	241,100	333,300	462,800	No
6538	PA51 GP-2 ST (BOSQUE TO GP1 ST) 10" RW	661,900	786,700	1,049,400	1,363,900	No
6552	PA51 GP BENCHMARK AND PERSPECTIVE 12" DW Z4R	76,500	92,500	147,400	195,700	No
6553	PA51 GP BENCHMARK AND PERSPECTIVE 16" SS	126,700	152,900	244,200	323,800	No
6554	PA51 GP BENCHMARK AND PERSPECTIVE 6" RW ZC	67,500	81,200	129,800	170,500	No
6595	PA51 GP TERRAPIN (TRABUCO TO CADENCE) 6" RW ZB	82,100	99,100	180,400	239,700	No
6683	PA51 GP BENCHMARK AND MODJEKSA (DISTRICT 4) 12" DW	88,800	105,500	150,700	195,200	No
6684	PA51 GP BENCHMARK AND MODJESKA (DISTRICT 4) 10"/6"	565,000	680,200	971,300	1,285,800	No
6732	PA51 GP MAGNET (FROM RIDGE V. TO BOSQUE) 6" RW ZB	95,200	113,200	206,800	269,700	No
6747	PA51 GP IRVINE BLVD (AT MERIT) 6" RW ZC	18,100	23,400	34,100	45,300	No
6765	TUSTIN LEGACY MOFFETT DR (AT PETERS CYN) 12" DW Z1	89,900	108,700	116,600	155,500	No
6766	TUSTIN LEGACY MOFFETT DR (AT PETERS CYN) 16" RW ZA	176,200	212,100	226,600	298,900	No
6823	PA51 GP EPISODE (FROM FRAME TO PUSAN) 16" RW ZC	209,700	252,400	323,400	427,000	No
6849	IBC SIDEWALK IMP & APPURTENANCE RELOCATIONS	284,900	310,100	442,900	501,500	No
6850	IBC SIDEWALK IMP & APPURTENANCE RELOCATIONS	31,500	34,400	49,700	56,500	No
6915	PA 6 NBHD 5A 6" AND 8" RECYCLED WATER MAIN ZONE D	235,100	282,500	402,600	530,300	No
6956	PURCHASE PVID EATON PROPERTY	118,400	118,400	10,240,000	10,240,000	No
7009	FPS2 PIPELINE MANIFOLD REPLACEMENT	166,100	258,600	844,800	1,020,600	No
7012	PA1 NHB3 ORCHARD HILLS 16" DW Z5	100,700	132,600	162,800	214,700	No
7013	PA1 NHB3 ORCHARD HILLS 6"8"10"12" RW ZC	271,900	332,600	367,400	482,200	No
7017	PA1 NHB3 ORCHARD HILLS 6"8" RW ZC+	150,100	185,200	203,500	270,200	No
7022	PA51 GREAT PARK GP-2 (FROM GP-3 TO BOSQUE) 12"RWZC	132,800	164,100	180,400	239,700	No
7024	SANTA ANA DELHI DIVERSION PROJECT	155,200	168,900	210,000	228,500	No
7070	OCSJ SJHPC/ GRS	798,700	798,700	1,000,000	1,000,000	No
7082	POTABLE REUSE ALTERNATIVES ANALYSIS DW	110,000	137,800	110,000	137,800	No
7083	POTABLE REUSE ALTERNATIVES ANALYSIS SEWER	110,000	137,800	110,000	137,800	No
7084	REPLACEMENT PLANNING DW	49,900	133,800	440,000	625,000	No

**IRVINE RANCH WATER DISTRICT**  
**2016/17 Capital Budget**  
**Project Expenditures by Project Number**

<u>Project 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>
7085	REPLACEMENT PLANNING RW	49,900	133,800	440,000	625,000	No
7086	CALIFORNIA AVE RW PIPELINE, ACADEMY TO THEORY	13,000	17,600	732,000	809,800	No
7093	DRWF WELL 7 REHAB	1,100	2,900	770,000	844,100	No
7094	LAKE FOREST ZN A RESERVOIR DEMOLITION	160,600	188,500	160,600	188,500	No
7095	MEMBRANE PLANTS NEW ANTISCALANT PILOT TESTING	24,600	30,800	299,300	308,600	No
7096	METER AND VAULT FOR OSO RESERVOIR	2,500	6,400	375,100	449,300	No
7097	MICHELSON DI SFM RELINING	4,000	10,500	1,367,300	1,506,200	No
7098	REBUILD SMH ON MAIN ST E/O MACARTHUR	500	1,200	178,200	220,700	No
7099	SEA WATCH RW MAIN REPLACEMENT (S/O PACIFIC MIST)	2,100	5,500	720,500	794,700	No
7100	SEWER LINE REPAIRS	500	1,300	156,200	202,600	No
7101	UCI CT RW CONV ACADEMY WAY	951,500	988,600	951,500	988,600	No
7102	UCI CT RW CONV CALIFORNIA, UNIV TO ACADEMY	346,500	383,600	346,500	383,600	No
7103	UCI CT RW CONVERSION ONSITE PIPELINES	79,800	79,800	1,050,000	1,050,000	No
7112	VACTOR ACCESS TO SMH ON SO IRVINE INTERCEPTOR	1,400	3,800	347,600	421,800	No
7117	OPS CENTER ROOF REPLACEMENT	166,000	272,500	166,000	272,500	No
7118	OPS CENTER ROOF REPLACEMENT	166,000	272,500	166,000	272,500	No
7119	OPS CENTER ROOF REPLACEMENT	166,000	194,700	166,000	194,700	No
7133	SERRANO SUMMIT DW IMPROVEMENTS	97,300	174,800	402,600	522,900	No
7134	SERRANO SUMMIT RW IMPROVEMENTS	68,900	137,700	402,600	522,900	No
7135	SERRANO SUMMIT SEWER IMPROVEMENTS	62,600	130,200	325,600	427,500	No
7136	SANTIAGO HILLS II DOMESTIC WATER BPS	275,700	323,400	3,165,900	3,327,900	No
7137	OPA ZONE C+ PIPELINES	933,500	1,007,300	1,550,900	1,735,900	No
7138	SANTIAGO HILLS II DOMESTIC WATER RESERVOIR	746,700	846,400	10,263,800	10,485,800	No
7139	SANTIAGO HILLS II RECYCLED WATER BPS	275,700	323,400	3,165,900	3,327,900	No
7140	TUSTIN LEGACY REDHILL WELL DRILLING AND EQUIPPING	17,200	21,800	4,559,800	4,814,300	Yes
7141	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	302,600	404,900	454,300	607,900	No
7152	WATER AND ENERGY PLANNING STUDIES DW 16/17	126,500	172,800	126,500	172,800	No
7156	NTS INSTRUMENTATION	165,300	220,900	330,000	441,000	No
7158	NON-POTABLE WATER STUDIES 16/17	60,000	78,500	60,000	78,500	No
7170	UNIVERSITY DR WIDENING APPURTENANCE RELOCATION	131,400	155,400	148,000	181,400	No
7171	UNIVERSITY DR WIDENING APPURTENANCE RELOCATION	131,400	155,400	148,000	181,400	No
7172	UNIVERSITY DR WIDENING APPURTENANCE RELOCATION	131,400	155,400	148,000	181,400	No
7174	GENERAL PLANT REGIONAL 16/17 DW	432,500	432,500	432,500	432,500	No



**IRVINE RANCH WATER DISTRICT  
2016/17 Capital Budget  
Project Expenditures by Project Number**

<u>Project 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>
7175	GENERAL PLANT REGIONAL 16/17 SEWER	292,200	292,200	292,200	292,200	No
7176	GENERAL PLANT REGIONAL 16/17 RW	285,300	285,300	285,300	285,300	No
7177	GENERAL PLANT REPLACEMENT 16/17 DW	2,087,600	2,087,600	2,087,600	2,087,600	No
7178	GENERAL PLANT REPLACEMENT 16/17 SEWER	853,900	853,900	853,900	853,900	No
7179	GENERAL PLANT REPLACEMENT 16/17 RW	1,548,200	1,548,200	1,548,200	1,548,200	No
7180	GENERAL PLANT - CONSERVATION	80,000	80,000	80,000	80,000	No
7233	BAKER SOLAR	45,400	54,700	45,400	54,700	No
<b>Grand Total:</b>		<b>\$159,626,800</b>	<b>\$170,618,500</b>	<b>\$675,337,300</b>	<b>\$714,294,600</b>	

**IRVINE RANCH WATER DISTRICT**

**2016/17 Capital Budget**

**Flagged Projects**

<u>Project No.</u>	<u>Project Title</u>
1100	LAKE FOREST WELL 1 DRILLING
1117	LAKE FOREST WELL 1 WELLHEAD
1402	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY
3808	SYPHON RESERVOIR EXPANSION
7140	TUSTIN LEGACY REDHILL WELL DRILLING AND EQUIPPING

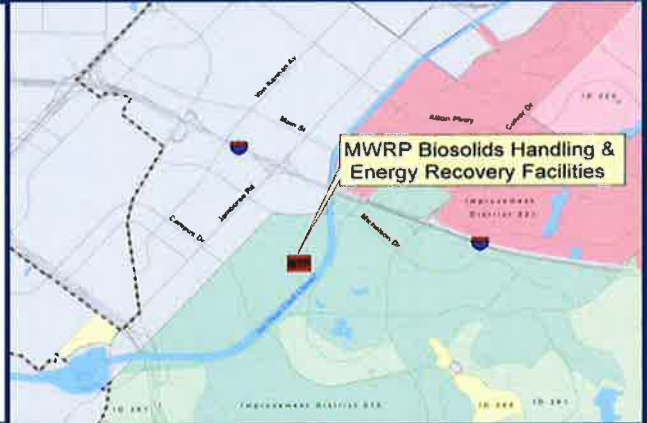
**IRVINE RANCH WATER DISTRICT  
FY 2016/17 Capital Budget  
Top 10 Project Groups**

<b>Rank by FY 16/17 Expenditure</b>	<b>Name of Group</b>	<b>FY16/17 Forecasted Expenditures (\$ Millions)</b>	<b>Expended to Date (\$ Millions)</b>	<b>Forecasted Future Expenditures (\$ Millions)</b>	<b>Project Total (\$ Millions)</b>
1	MWRP Biosolids & Energy Recovery Facilities	\$45.6	126.2	24.7	196.5
2	OCSD / CORF / Solids Facilities	\$18.2	0.6	108.0	126.8
3	ILP North Conversion	\$14.6	1.4	11.0	26.9
4	Water Banking & Dry-Year Programs	\$11.5	3.8	20.0	35.3
5	Baker Water Treatment Plant	\$10.4	76.0	10.5	96.9
6	Planning Area 51 (Great Park Neighborhoods)	\$9.0	8.6	25.5	43.0
7	General Plant	\$5.6	0.0	0.0	5.6
8	Annual Operational System Repair and Rehabilitation	\$5.0	0.0	6.6	11.5
9	Business Software	\$4.8	0.8	3.5	9.0
10	Asset Optimization	\$4.6	5.6	14.0	24.1
	<b>Subtotal for Top 10 Project Groups</b>	<b>\$129.2</b>	<b>\$222.8</b>	<b>\$223.6</b>	<b>\$575.6</b>
	<b>Total All Projects</b>	<b>\$159.6</b>			

**Project Group Name: 1. MWRP Biosolids and Energy Recovery Facilities**

**Project Description**

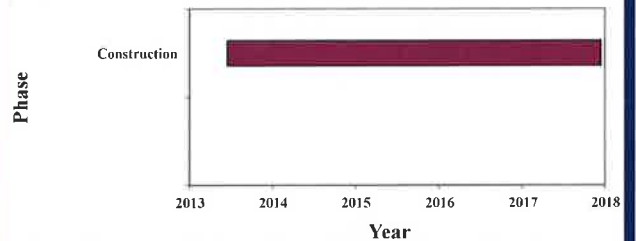
The project includes the construction of facilities for sludge thickening, acid-phase anaerobic digestion, dewatering, drying and pelletization, energy generation using micro-turbines, and use of pellets as a fertilizer or e-fuel. It will also include a solids receiving station to allow processing of 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.



**FY 2016/17 Key Milestones:**

	Date
Continue MWRP Biosolids and Energy Recovery Facilities Construction	December, 2017
Start-up sludge thickening, digestion, and dewatering facilities.	May, 2016

**MWRP Biosolids & Energy Recovery Facilities**



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

	Developing	Replacement	Developed	Total	Comments
<b>Total Budget</b>	\$ 15,127,844	\$ 89,391,803	\$ 91,945,854	\$ 196,465,500	
<b>Existing Offsets</b>	\$ -	\$ -	\$ -	\$ -	
<b>Potential Future Offsets</b>	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 15,127,844	\$ 89,391,803	\$ 91,945,854	\$ 196,465,500	

**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 producing Class B solids (dewatered cake for trucking) in early 2017 and Class A (pellets) in late 2017.

**Project Group**

Project No.	Project	Proj Total Dir	FY16-17 Dir	Forecasted Future Expenditure	Expended to Date	Comments
4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	\$ 196,465,500	\$ 45,574,200	\$ 24,710,314	\$ 126,180,986	
<b>TOTAL</b>		\$ 196,465,500	\$ 45,574,200	\$ 24,710,314	\$ 126,180,986	

**Irvine Ranch Water District  
Capital Improvement Project, Fiscal Year 2016/17**

**Project Group Name: 2. OCSD CORF, Equity, and Solids Facilities**

**Project Description**

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

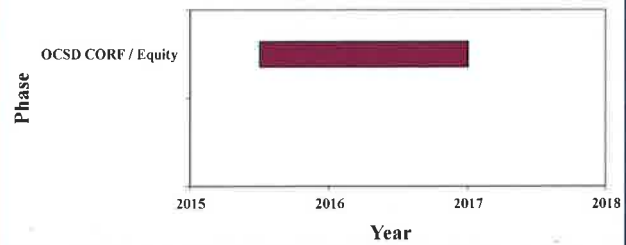


**FY 2016/17 Key Milestones:**

**Date**

FY 2016/17 Key Milestones:	Date

**OCSD CORF, Equity, & Solids Facilities**



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

	Developing	Replacement	Developed	Total	Comments
<b>Total Budget</b>	\$ 4,174,332	\$ 9,186,214	\$ 19,539,454	\$ 32,900,000	
<b>Existing Offsets</b>	\$ -	\$ -	\$ -	\$ -	
<b>Potential Future Offsets</b>	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 4,174,332	\$ 9,186,214	\$ 19,539,454	\$ 32,900,000	

**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 CORF on an annual basis.

For FY 15/16 CORF payments, staff expects to pay its majority in FY15/16, and the remainder in FY 16/17. For FY 16/17 CORF payments, staff expects to pay its majority in FY 16/17 and will carryover the remainder to FY 17/18.

**Project Group**

Project No.	Project	Proj Total Dir	FY16-17 Dir	Forecasted Future Expenditure	Expended to Date	Comments
1429	OCSD SOLIDS HANDLING 16/17	\$ 1,391,000	\$ 1,391,000	\$ -	\$ -	
1516	OCSD EQUITY 15/16	\$ 6,854,000	\$ 2,293,000	\$ 4,561,000	\$ -	
1530	OCSD EQUITY 16/17	\$ 11,893,000	\$ 7,907,100	\$ 3,985,900	\$ -	
1554	OCSD CORF 15/16	\$ 5,988,000	\$ 1,202,900	\$ 4,218,061	\$ 567,039	
1561	OCSD CORF 16/17	\$ 5,774,000	\$ 4,611,700	\$ 1,162,300	\$ -	
7070	OCSD SJHPC/ GRS	\$ 1,000,000	\$ 798,700	\$ 201,300	\$ -	
<b>TOTAL</b>		<b>\$ 32,900,000</b>	<b>\$ 18,204,400</b>	<b>\$ 14,128,561</b>	<b>\$ 567,039</b>	



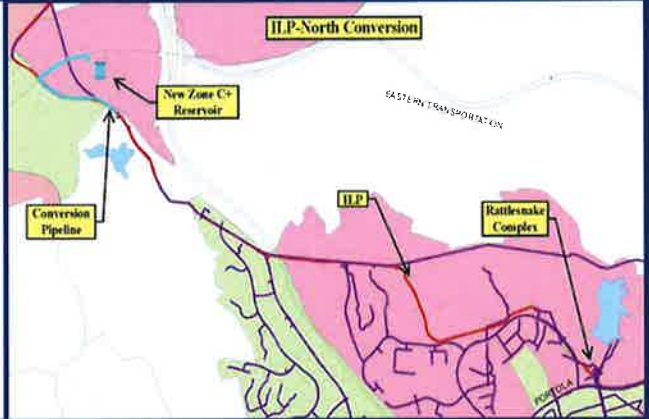
**Irvine Ranch Water District  
Capital Improvement Project, Fiscal Year 2016/17**

**Project Group Name: 3. Irvine Lake Pipeline North Conversion**

**Project Description**

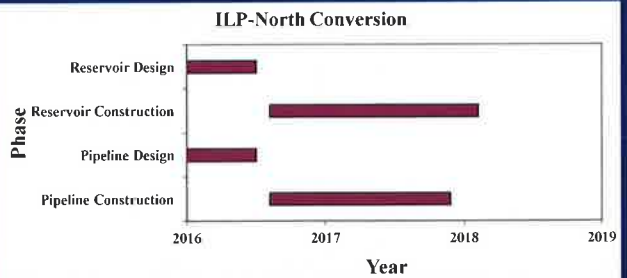
The project includes converting the northern portion of the Irvine Lake Pipeline (ILP) from untreated water to recycled water through the construction of a new Zone C+ Reservoir and associated facilities. The project also includes modifications at the Rattlesnake Complex and Zone A-C booster pump station (BPS).

The project is being designed and constructed under three separate projects. One project will design and construct the proposed Zone C+ reservoir and the modifications at the Rattlesnake Complex and the Zone A-C BPS. A second project will design and construct the offsite reservoir inlet and outlet piping. A third project will design and construct the recycled water distribution pipelines in Jamboree and Santiago Canyon Road. All three projects are being executed in parallel.



**FY 2016/17 Key Milestones:**

	Date
Design complete	June, 2016
Construction award	August, 2016
Construction complete	January, 2018



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

	Developing	Replacement	Developed	Total	Comments
<b>Total Budget</b>	\$ 17,766,465	\$ 273,961	\$ 8,884,074	\$ 26,924,500	
<b>Existing Offsets</b>	\$ (6,417,162)	\$ (98,953)	\$ (3,208,885)	\$ (9,725,000)	
<b>Potential Future Offsets</b>	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 11,349,303	\$ 175,007	\$ 5,675,189	\$ 17,199,500	

**Project Status**

Design completion for the reservoir and offsite pipelines is scheduled for June 2016. The reservoir will be constructed by IRWD, and the offsite pipelines will be constructed by The Irvine Company under a reimbursement agreement. The ILP North Conversion from untreated water to recycled water is anticipated to be complete by January 2018.

**Project Group**

Project No.	Project	Proj Total Dir	FY16-17 Dir	Forecasted Future Expenditure	Expended to Date	Comments
5823	ILP NORTH CONVERSION - PIPELINES	\$ 10,991,100	\$ 6,618,000	\$ 3,937,542	\$ 435,558	
5407	ILP NORTH CONVERSION - RESERVOIR	\$ 14,382,500	\$ 7,044,100	\$ 6,421,286	\$ 917,114	
7137	OPA ZONE C+ PIPELINES	\$ 1,550,900	\$ 933,500	\$ 617,400	\$ -	
<b>TOTAL</b>		<b>\$ 26,924,500</b>	<b>\$ 14,595,600</b>	<b>\$ 10,976,227</b>	<b>\$ 1,352,673</b>	



**Project Group Name: 4. Water Banking and Dry-Year Programs**

**Project Description**

Water Banking and Dry-Year Programs provide IRWD with contingency water storage and supplemental supply to augment IRWD's imported supplies during dry-year periods. This group includes the following projects and features:

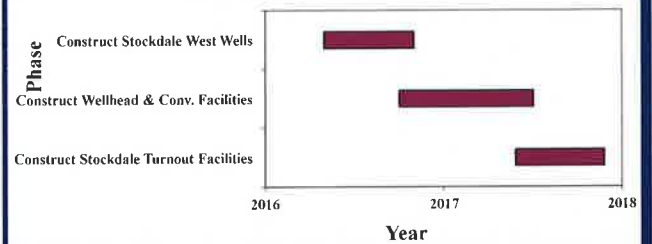
- Stockdale West:** 269 acres of recharge facilities constructed; CEQA, design and construct 3 future recovery wells, pipelines and turn-in facilities.
- Stockdale West Turnout Facilities Project:** Design and construct one future 100 cfs turnout from Cross Valley Canal to Stockdale West and Strand Ranch recharge basins.
- Rosedale Drought Relief Project Design and Well Const:** Cost Share in the design and construction of six joint use wells and conveyance facilities to increase recovery capacity by 15 cfs.
- Stockdale Storage for Recovery Capacity:** Future long term lease of 50,000 AF of storage capacity from Rosedale-Rio Bravo Water Storage District.
- PVID Property:** Purchase of approximately 620 acres in Palo Verde Irrigation District for proposed future water supply reliability benefit - agreements to be developed.



**FY 2016/17 Key Milestones:**

	Date
Stockdale Storage for Recovery Capacity	November, 2016
Rosedale Drought Relief Project Facilities wellhead design and constructio	December, 2016
Construction of three Stockdale West wells	October, 2016
Construction of wellhead equipping and conveyance facilities	June, 2017
Construction Stockdale West Turnout facilities	November, 2017

**Water Banking & Dry-Year Programs**



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

	Developing	Replacement	Developed	Total	Comments
<b>Total Budget</b>	\$ 6,716,552	\$ -	\$ 27,904,848	\$ 34,621,400	
Existing Offsets	\$ -	\$ -	\$ -	\$ -	
Potential Future Offsets	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 6,716,552	\$ -	\$ 27,904,848	\$ 34,621,400	

**Project Status**

Construct and equip three wells, pipelines, CVC turn-in, and CVC turn-out (Stockdale West Integrated Banking Project). Complete lease of 50,000 AF storage from Rosedale-Rio Bravo Water Storage District and fund two Rosedale wells as part of storage lease (Stockdale Storage for Recovery Capacity). Complete design review for equipping six joint use recovery wells, conveyance pipelines and turn-in (Rosedale Drought Relief Project Facilities). Complete long term exchange program agreements with water banking partners (Water Banking Agreements). Investigate potential water supply/exchange opportunities, expand water rights inventory and additional property search (Water Banking Planning). Complete the purchase of 616.19 acres in Palo Verde Irrigation District (Purchase PVID Eaton Property).

**Project Group**

Project No.	Project	Proj Total Dir	FY16-17 Dir	Forecasted Future Expenditure	Expended to Date	Comments
3766	STOCKDALE WEST INTEGRATED WATER BANKING	\$ 12,340,600	\$ 5,424,400	\$ 5,770,144	\$ 1,146,056	
5499	STOCKDALE STORAGE FOR RECOVERY CAPACITY	\$ 1,590,800	\$ 1,585,500	\$ 5,300	\$ -	
6023	ROSEDALE DROUGHT RELIEF PROJECT FACILITIES	\$ 9,872,500	\$ 4,004,100	\$ 3,257,780	\$ 2,610,620	
6245	WATER BANKING AGREEMENTS 16/18	\$ 440,000	\$ 220,100	\$ 219,900	\$ -	
6247	WATER BANKING PLANNING 16/17	\$ 137,500	\$ 137,500	\$ -	\$ -	
6956	PURCHASE PVID EATON PROPERTY	\$ 10,240,000	\$ 118,400	\$ 10,121,600	\$ -	
<b>TOTAL</b>		<b>\$ 34,621,400</b>	<b>\$ 11,490,000</b>	<b>\$ 19,374,723</b>	<b>\$ 3,756,677</b>	

**Irvine Ranch Water District  
Capital Improvement Project, Fiscal Year 2016/17**

**Project Group Name: 5. Baker Water Treatment Plant**

**Project Description**

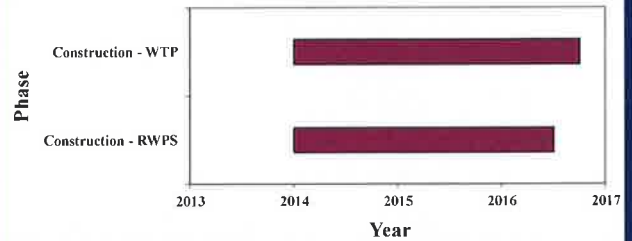
The Baker Water Treatment Plant (Baker WTP) will treat up to 28 mgd of imported untreated water from Metropolitan Water District to drinking water standards to supply potable water to IRWD and other participating water agencies in southern Orange County. Raw water from Irvine Lake can also be supplied 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 receive its share of treated water directly from the 16 MG reservoirs through the existing distribution system. The project is being constructed under two separate contracts - one for the water treatment plant and one for the raw water pump station.



**FY 2016/17 Key Milestones:**

	<b>Date</b>
Construction award - Raw Water Pump Station and WTP	January 6, 2014
Construction complete - RWPS	May 31, 2016
Construction complete - WTP	September 30, 2016

**Baker Water Treatment Plant**



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

	<b>Developing</b>	<b>Replacement</b>	<b>Developed</b>	<b>Total</b>	<b>Comments</b>
<b>Total Budget</b>	\$ 18,789,288	\$ -	\$ 78,062,712	\$ 96,852,000	
<b>Existing Offsets</b>	\$ (14,091,966)	\$ -	\$ (58,547,034)	\$ (72,639,000)	
<b>Potential Future Offsets</b>	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 4,697,322	\$ -	\$ 19,515,678	\$ 24,213,000	

**Project Status**

Construction contracts were awarded for the Baker WTP and the Raw Water Pump Station in January 2014. Completion of the raw water pump station is anticipated in May 2016 and completion of the WTP is anticipated for September 2016.

**Project Group**

<b>Project No.</b>	<b>Project</b>	<b>Proj Total Dir</b>	<b>FY16-17 Dir</b>	<b>Forecasted Future Expenditure</b>	<b>Expended to Date</b>	<b>Comments</b>
5027	BAKER WATER TREATMENT PLANT	\$ 96,852,000	\$ 10,421,500	\$ 10,455,857	\$ 75,974,643	
<b>TOTAL</b>		\$ 96,852,000	\$ 10,421,500	\$ 10,455,857	\$ 75,974,643	



**Irvine Ranch Water District  
Capital Improvement Project, Fiscal Year 2016/17**

**Project Group Name: 6. Planning Area 51 (Great Park Neighborhoods) Development**

**Project Description**

The Fiscal Year 2016/17 development activities for Planning Areas 30 and 51 include the infrastructure required to support the Great Park Neighborhoods "District 4", "District 7" and the Technology Extension Project. The primary capital facilities planned for this year include:

"District 4" Pipelines: 12-inch and 36-inch domestic water pipelines, 12-inch and 16-inch sanitary sewer pipelines and 6-inc, 12-inch and 16-inch recycled water pipelines.

"District 7" Pipelines: 6-inch recycled water pipelines.

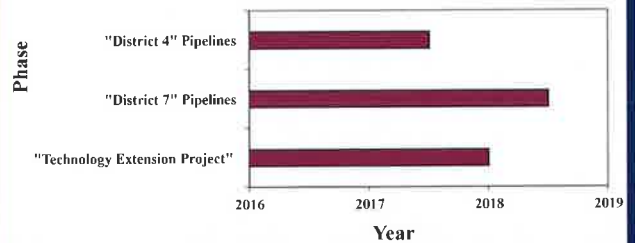
"Technology Extension Project" Pipelines: 24-inch recycled water pipeline.



**FY 2016/17 Key Milestones:**

	Date
"District 4" Pipelines	June, 2017
"District 7" Pipelines	June, 2018
"Technology Extension Project" Pipelines	January, 2018

**PA 51 (Great Park Neighborhoods)**



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

	Developing	Replacement	Developed	Total	Comments
<b>Total Budget</b>	\$ 34,792,900	\$ -	\$ -	\$ 34,792,900	
Existing Offsets	\$ -	\$ -	\$ -	\$ -	
Potential Future Offsets	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 34,792,900	\$ -	\$ -	\$ 34,792,900	

**Project Status**

Construction of "District 4" pipelines in backbone streets is scheduled to be complete in June 2017. Construction of "Technology Extension" and "District 7" pipelines is scheduled to be complete in January and June 2018, respectively.

**Project Group**

Project No.	Project	Proj Total Dir	FY16-17 Dir	Forecasted Future Expenditure	Expended to Date	Comments
1015	TECHNOLOGY DR AND LAGUNA CANYON RD RW ZC	\$ 3,223,500	\$ 1,404,700	\$ 1,771,463	\$ 47,337	
1167	GREAT PARK COORDINATION AND SAMP UPDATE	\$ 132,000	\$ 3,500	\$ 34,105	\$ 94,395	
3977	PA51 TRABUCO RD, SR133 TO LY ST DW	\$ 156,200	\$ 2,300	\$ 32,771	\$ 121,129	
3980	PA51 TRABUCO RD, SR133 TO LY ST SEWER	\$ 161,700	\$ 2,500	\$ 25,199	\$ 134,001	
3983	PA51 TRABUCO RD, SR133 TO LY ST RW	\$ 480,700	\$ 8,500	\$ 144,967	\$ 327,233	
4147	PA51 MARINE WAY RW ZNB	\$ 541,200	\$ 27,600	\$ 510,370	\$ 3,230	
4153	PA51 MARINE WAY DW ZN3	\$ 420,200	\$ 21,500	\$ 395,244	\$ 3,456	
4261	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - D	\$ 723,800	\$ 17,000	\$ 101,360	\$ 605,440	
4263	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - S	\$ 436,700	\$ 10,100	\$ 75,211	\$ 351,389	
4264	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - R	\$ 194,700	\$ 4,300	\$ 120,635	\$ 69,765	
4267	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - S	\$ 1,493,800	\$ 41,500	\$ 689,817	\$ 762,483	
4268	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - I	\$ 486,200	\$ 14,200	\$ 107,668	\$ 364,332	
4278	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - E	\$ 464,200	\$ 14,600	\$ 299,462	\$ 150,138	
4614	PA51 REACH A SEWER IMPROVEMENTS	\$ 3,237,200	\$ 88,400	\$ 1,433,313	\$ 1,715,487	
4620	PA51 LN ST FROM C ST TO LY ST DW	\$ 172,700	\$ 4,100	\$ 33,807	\$ 134,793	
4621	PA51 LN ST FROM C ST TO LY ST RW	\$ 105,600	\$ 2,300	\$ 97,053	\$ 6,247	
4645	PA51 C ST FROM LQ ST TO O ST DW	\$ 161,700	\$ 3,600	\$ 43,956	\$ 114,145	
4646	PA51 C ST FROM LQ ST TO O ST RW	\$ 266,200	\$ 6,800	\$ 148,340	\$ 111,060	
4647	PA51 LY ST FROM TRABUCO RD TO LQ ST RW	\$ 205,700	\$ 5,600	\$ 199,819	\$ 281	
4648	PA51 LQ ST FROM O ST TO LY ST SEWER	\$ 255,200	\$ 5,800	\$ 53,050	\$ 196,350	
4649	PA51 LQ ST FROM O ST TO LY ST RW	\$ 78,100	\$ 1,900	\$ 67,517	\$ 8,683	
4650	PA51 LY ST FROM LQ ST TO IRVINE BLVD DW	\$ 51,700	\$ 800	\$ 22,990	\$ 27,910	

**Irvine Ranch Water District  
Capital Improvement Project, Fiscal Year 2016/17**

**Project Group Name: 6. Planning Area 51 (Great Park Neighborhoods) Development**

**Project Group - Continued**

Project No.	Project	Proj Total Dir	FY16-17 Dir	Forecasted Future Expenditure	Expended to Date	Comments
4651	PA51 LY ST FROM LQ ST TO IRVINE BLVD SEWER	\$ 1,662,200	\$ 55,900	\$ 692,864	\$ 913,436	
4652	PA51 LY ST FROM LQ ST TO IRVINE BLVD RW	\$ 938,300	\$ 27,800	\$ 680,989	\$ 229,511	
4653	PA51 C ST FROM TRABUCO RD TO LQ ST SEWER	\$ 403,700	\$ 9,100	\$ 194,824	\$ 199,776	
4824	PA51 LV ST FROM RIDGE VALLEY TO LY ST 18" SEWER	\$ 310,200	\$ 7,700	\$ 96,038	\$ 206,462	
4825	PA51 LV ST FROM RIDGE VALLEY TO LY ST 12" RW	\$ 321,200	\$ 8,100	\$ 91,095	\$ 222,005	
5016	PA51 C ST FROM LV ST TO TRABUCO SEWER	\$ 370,700	\$ 9,000	\$ 249,799	\$ 111,901	
5535	PA51 LQ ST FROM BOSQUE TO Z ST 12" SEWER	\$ 1,510,300	\$ 653,400	\$ 777,473	\$ 79,427	
5536	PA51 LQ ST FROM BOSQUE TO Z ST 12" RW	\$ 416,900	\$ 117,600	\$ 298,745	\$ 555	
5756	PA51 "B" ST FROM SOCIABLE TO IRVINE BLV 12" ZN	\$ 243,100	\$ 29,800	\$ 213,300	\$ -	
5757	PA51 "B" ST FROM SOCIABLE TO IRVINE BLV 16" ZN	\$ 240,900	\$ 29,500	\$ 211,400	\$ -	
5758	PA51 CADENCE - PUSAN TO CHINON 12" & 16"	\$ 271,700	\$ 72,400	\$ 199,300	\$ -	
5788	PA51 ALTON PKWY SS RELOCATION 12" AND 18"	\$ 1,832,300	\$ 222,300	\$ 836,363	\$ 773,637	
5816	PA51 ALTON, TECHNOLOGY TO MUIRLANDS 12" DW	\$ 177,100	\$ 52,100	\$ 121,821	\$ 3,179	
5817	PA51 ALTON, TECHNOLOGY TO MUIRLANDS SS REL	\$ 1,326,300	\$ 412,000	\$ 895,646	\$ 18,654	
5818	PA51 ALTON, TECHNOLOGY TO MUIRLANDS 16" RW	\$ 344,300	\$ 105,500	\$ 235,267	\$ 3,533	
6016	PA51 IRVINE BLVD, LAMBERT TO Z ST 12" DW	\$ 156,200	\$ 102,400	\$ 53,800	\$ -	
6017	PA51 IRVINE BLVD, LAMBERT TO Z ST 16" SS	\$ 115,500	\$ 74,700	\$ 40,800	\$ -	
6018	PA51 IRVINE BLVD, LAMBERT TO Z ST 20" RW	\$ 1,412,400	\$ 966,500	\$ 445,900	\$ -	
6048	PA51 MARINE WAY, ALTON TO BARRANCA 18" SS	\$ 1,424,500	\$ 59,200	\$ 918,358	\$ 446,942	
6086	PA51 MARINE WAY FROM ALTON TO BARRANCA 12"	\$ 238,700	\$ 11,200	\$ 224,278	\$ 3,222	
6087	PA51 MARINE WAY, ALTON TO BARRANCA 16" RW Z	\$ 281,600	\$ 13,400	\$ 264,942	\$ 3,258	
6208	PA51 MARINE WAY, SR133 TO RIDGE VALLEY 12" Z	\$ 82,500	\$ 63,600	\$ 18,900	\$ -	
6304	PA51 BENCHMARK, BOSQUE TO 550'E/O BOSQUE 12"	\$ 49,500	\$ 25,700	\$ 23,800	\$ -	
6306	PA51 BENCHMARK, BOSQUE TO 550'E/O BOSQUE 6" Z	\$ 49,500	\$ 25,700	\$ 23,800	\$ -	
6331	PA51 GP CULTIVATE (BOSQUE TO 500 E/O BOSQUE) 1	\$ 220,000	\$ 7,900	\$ 212,100	\$ -	
6476	PA51 MARINE WAY, RIDGE VALLEY TO 3000' EAST	\$ 426,800	\$ 181,100	\$ 245,700	\$ -	
6512	PA51 GP-1 ST (MARINE TO GP-2 ST) 12" DW	\$ 355,300	\$ 224,200	\$ 131,100	\$ -	
6513	PA51 GP-1 ST (MARINE TO GP-2 ST) 12" SS	\$ 938,300	\$ 595,300	\$ 343,000	\$ -	
6514	PA51 GP GP-1 ST (MARINE TO GP-2 ST) 10" RW	\$ 536,800	\$ 335,500	\$ 201,300	\$ -	
6534	PA51 GP PUSAN (EPISODE TO IRVINE BLVD) 12" DW 2	\$ 44,000	\$ 22,300	\$ 21,700	\$ -	
6535	PA51 GP PUSAN (EPISODE TO IRVINE BLVD) 12" RW 2	\$ 106,700	\$ 55,300	\$ 51,400	\$ -	
6536	PA51 GP-2 ST (BOSQUE TO GP1 ST) 12" DW	\$ 531,300	\$ 323,200	\$ 208,100	\$ -	
6537	PA51 GP-2 ST (BOSQUE TO GP1 ST) 12" SS	\$ 333,300	\$ 199,500	\$ 133,800	\$ -	
6538	PA51 GP-2 ST (BOSQUE TO GP1 ST) 10" RW	\$ 1,049,400	\$ 661,900	\$ 387,500	\$ -	
6552	PA51 GP BENCHMARK AND PERSPECTIVE 12" DW Z4	\$ 147,400	\$ 76,500	\$ 70,900	\$ -	
6553	PA51 GP BENCHMARK AND PERSPECTIVE 16" SS	\$ 244,200	\$ 126,700	\$ 117,500	\$ -	
6554	PA51 GP BENCHMARK AND PERSPECTIVE 6" RW ZC	\$ 129,800	\$ 67,500	\$ 62,300	\$ -	
6595	PA51 GP TERRAPIN (TRABUCO TO CADENCE) 6" RW	\$ 180,400	\$ 82,100	\$ 98,300	\$ -	
6683	PA51 GP BENCHMARK AND MODJESKA (DISTRICT 4)	\$ 150,700	\$ 88,800	\$ 61,900	\$ -	
6684	PA51 GP BENCHMARK AND MODJESKA (DISTRICT 4)	\$ 971,300	\$ 565,000	\$ 406,300	\$ -	
6732	PA51 GP MAGNET (FROM RIDGE V. TO BOSQUE) 6" R	\$ 206,800	\$ 95,200	\$ 111,600	\$ -	
6747	PA51 GP IRVINE BLVD (AT MERIT) 6" RW ZC	\$ 34,100	\$ 18,100	\$ 16,000	\$ -	
6823	PA51 GP EPISODE (FROM FRAME TO PUSAN) 16" RW	\$ 323,400	\$ 209,700	\$ 113,700	\$ -	
7022	PA51 GREAT PARK GP-2 (FROM GP-3 TO BOSQUE) 12"	\$ 180,400	\$ 132,800	\$ 47,600	\$ -	
6209	PA51 MARINE WAY, SR133 TO RIDGE VALLEY 6" ZON	\$ 53,900	\$ 40,300	\$ 13,600	\$ -	
<b>TOTAL</b>		<b>\$ 34,792,900</b>	<b>\$ 8,955,100</b>	<b>\$ 17,273,017</b>	<b>\$ 8,564,783</b>	

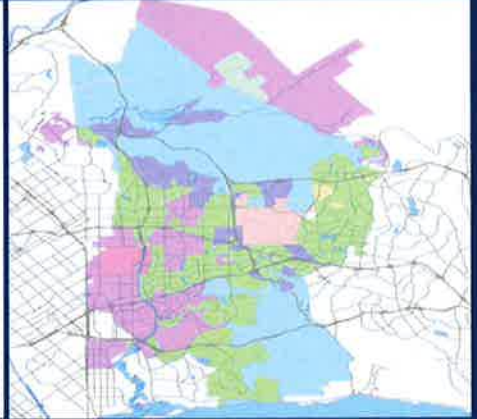




**Project Group Name: 8. Annual Operational System Repair and Rehabilitation**

**Project Description**

This series of projects is used for system repairs and replacements. Examples of these projects include pipeline repairs, distribution system valve replacements, and treatment plant equipment repairs.

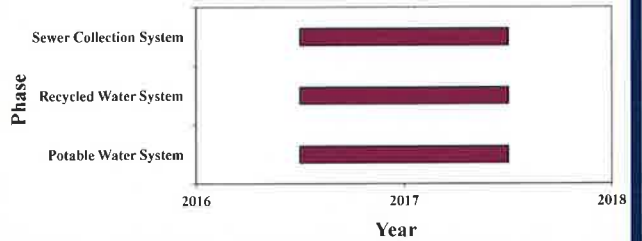


**FY 2016/17 Key Milestones:**

Date

FY 2016/17 Key Milestones:	Date

**Annual Operational System Repair & Rehabilitation**



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

	Developing	Replacement	Developed	Total	Comments
<b>Total Budget</b>	\$ -	\$ 4,971,700	\$ -	\$ 4,971,700	
<b>Existing Offsets</b>	\$ -	\$ -	\$ -	\$ -	
<b>Potential Future Offsets</b>	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ -	\$ 4,971,700	\$ -	\$ 4,971,700	

**Project Status**

This series of projects are ongoing and are budgeted on an annual basis.

**Project Group**

Project No.	Project	Proj Total Dir	FY16-17 Dir	Forecasted Future Expenditure	Expended to Date	Comments
5442	SERVICE LINE, VALVE & MAIN REPLACEMENT-DW	\$ 1,685,000	\$ 1,685,000	\$ -	\$ -	
5447	MECH & ELEC SYS REPLACEMENT - DW 16/17	\$ 880,000	\$ 880,000	\$ -	\$ -	
5449	MECH & ELEC SYS REPLACEMENT - SEWER 16/17	\$ 550,000	\$ 550,000	\$ -	\$ -	
5451	MECH & ELEC SYS REPLACEMENT - RW 16/17	\$ 660,000	\$ 660,000	\$ -	\$ -	
5452	SERVICE LINE, VALVE & MAIN REPLACEMENT-RW	\$ 515,800	\$ 515,800	\$ -	\$ -	
5457	SEWER GEN SYS MODS 16/17	\$ 330,000	\$ 330,000	\$ -	\$ -	
5471	SEWER LATERAL & MAIN REPLACEMENT 16/17	\$ 218,900	\$ 218,900	\$ -	\$ -	
5478	LAWRP SYSTEM REPLACEMENTS 16/17	\$ 132,000	\$ 132,000	\$ -	\$ -	
<b>TOTAL</b>		<b>\$ 4,971,700</b>	<b>\$ 4,971,700</b>	<b>\$ -</b>	<b>\$ -</b>	



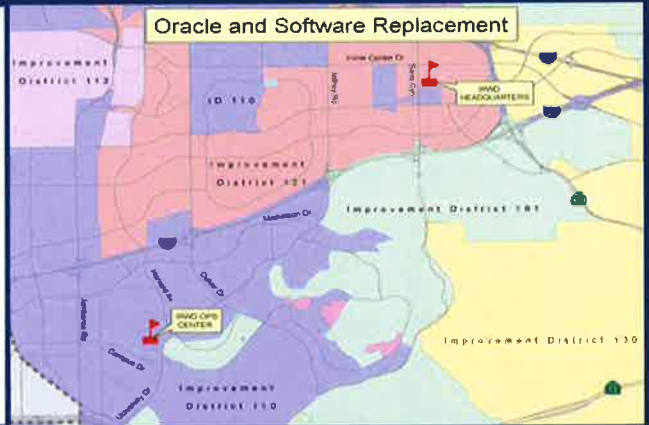
**Irvine Ranch Water District  
Capital Improvement Project, Fiscal Year 2016/17**

**Project Group Name: 9. Business Software**

**Project Description**

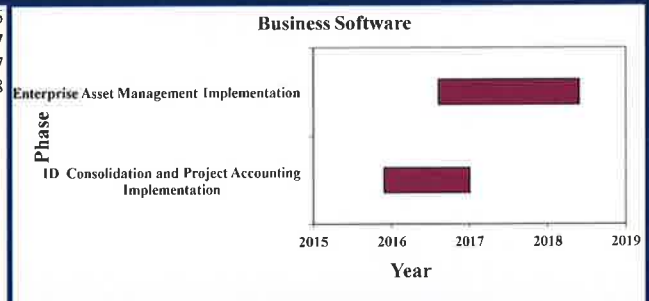
The ID Consolidation Project Accounting implementation will focus on implementing changes to the Oracle Financial system to accommodate the recent consolidation of Improvement Districts (ID's), simplify the project accounting structure, and implement the Project Management software module.

The Enterprise Asset Management software (EAMS) implementation will focus on upgrading the many systems 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. Software selection and implementation services procurement and the start of implementation are also planned activities.



**FY 2016/17 Key Milestones:**

	Date
Begin ID Consolidation & Project Accounting Implementation	March, 2016
ID Consolidation Project Accounting Completion	January, 2017
Begin Enterprise Asset Management Implementation	January, 2017
Enterprise Asset Management Completion	June, 2018



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

	Developing	Replacement	Developed	Total	Comments
<b>Total Budget</b>	\$ 902,740	\$ 4,185,600	\$ 3,961,460	\$ 9,049,800	
Existing Offsets	\$ -	\$ -	\$ -	\$ -	
Potential Future Offsets	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ 902,740	\$ 4,185,600	\$ 3,961,460	\$ 9,049,800	

**Project Status**

The Enterprise Asset Management software implementation is currently in the pre-implementation phase with an anticipated completion by early July 2016. Implementation is scheduled to start in January 2017 with an anticipated completion date of approximately December 2018.

The ID Consolidation and Project Accounting implementation started in March 2016 with an anticipated completion date of approximately January 2017.

**Project Group**

Project No.	Project	Proj Total Dir	FY16-17 Dir	Forecasted Future Expenditure	Expended to Date	Comments
3566	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENT	\$ 2,432,100	\$ 832,900	\$ 1,139,221	\$ 459,979	
3567	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENT	\$ 2,432,100	\$ 832,900	\$ 1,274,593	\$ 324,607	
4394	EBS UPGRADE ID CONSOL AND PROJECT MGMT IMP	\$ 2,092,800	\$ 1,568,600	\$ 524,200	\$ -	
4395	EBS UPGRADE ID CONSOL AND PROJECT MGMT IMP	\$ 2,092,800	\$ 1,568,600	\$ 524,200	\$ -	
<b>TOTAL</b>		<b>\$ 9,049,800</b>	<b>\$ 4,803,000</b>	<b>\$ 3,462,214</b>	<b>\$ 784,586</b>	

**Irvine Ranch Water District  
Capital Improvement Project, Fiscal Year 2016/17**

**Project Group Name: 10. Asset Optimization**

**Project Description**

The District aims to develop the following District-owned properties:

- 1- Sand Canyon Professional Center Phase II, located north of the District's Headquarters on Sand Canyon Avenue.
- 2- Serrano Summit project design, located north of the Baker Water Treatment Plant in Lake Forest.



**FY 2016/17 Key Milestones:**

	Date
Sand Canyon Professional Center Phase II - Design	June, 2017
Sand Canyon Professional Center Phase II - Construction	June, 2018
Serrano Summit - Design	June, 2017



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

	Developing	Replacement	Developed	Total	Comments
<b>Total Budget</b>	\$ -	\$ 24,124,300	\$ -	\$ 24,124,300	
<b>Existing Offsets</b>	\$ -	\$ -	\$ -	\$ -	
<b>Potential Future Offsets</b>	\$ -	\$ -	\$ -	\$ -	
<b>Net Amounts</b>	\$ -	\$ 24,124,300	\$ -	\$ 24,124,300	

**Project Status**

Serrano Summit: Revised tentative tract maps will be submitted to the City of Lake Forest by summer 2016. Final tract maps will be prepared and submitted in FY 16/17.

Sand Canyon Professional Center Phase II: Architectural plans will be submitted to the City in March 2016. Final plans to be completed by fall 2016.

**Project Group**

Project No.	Project	Proj Total Dir	FY16-17 Dir	Forecasted Future Expenditure	Expended to Date	Comments
1264	ASSET OPTIMIZATION - LAKE FOREST DEVELOPMEN	\$ 6,500,000	\$ 990,500	\$ (92,259)	\$ 5,601,759	
6210	ASSET OPTIMIZATION - SAND CANYON PROFESSION	\$ 17,624,300	\$ 3,572,600	\$ 14,044,811	\$ 6,889	
<b>TOTAL</b>		<b>\$ 24,124,300</b>	<b>\$ 4,563,100</b>	<b>\$ 13,952,552</b>	<b>\$ 5,608,648</b>	

**IRVINE RANCH WATER DISTRICT**  
**Fiscal Year 2016/17**  
**Water Improvement District (ID) Allocation**

Improvement District (ID) Allocation - % of Project Budget

Project No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	101	110	112	113	125	153	154	185	188
5410	COASTAL ZONE 2 PRV MODIFICATION (DPR16)	\$1,900	\$187,100	Local					100.0%				
1520	GREAT PARK COORDINATION AND SAMP	\$3,500	\$132,000	Local				100.0%					
1181	LAKE FOREST DW OFFSITE IMPROVEMENTS	\$68,700	\$424,600	Local								100.0%	
5404	LAKE FOREST Z2-2RA PRV AT COMMERCENTRE	\$16,500	\$337,700	Local								100.0%	
1354	PA1 16" Z5 PIPE, 5-4 PRVS NEIGHBORHOOD 3	\$11,000	\$1,237,500	Local						100.0%			
7012	PA1 NHB3 ORCHARD HILLS 16" DW Z5	\$100,700	\$162,800	Local						100.0%			
4680	PA185 HIDDEN CANYON 12" DW	\$7,300	\$315,700	Local						100.0%			
6304	PA51 BENCHMARK, BOSQUE TO 550'E/O	\$25,700	\$49,500	Local			100.0%						
4645	PA51 C ST FROM LQ ST TO O ST DW	\$3,600	\$161,700	Local			100.0%						
4620	PA51 LN ST FROM C ST TO LY ST DW	\$4,100	\$172,700	Local			100.0%						
4650	PA51 LY ST FROM LQ ST TO IRVINE BLVD DW	\$800	\$51,700	Local			100.0%						
6208	PA51 MARINE WAY: SR133 TO RIDGE VALLEY	\$63,600	\$82,500	Local			100.0%						
4268	PA51 RIDGE VALLEY, MARINE WAY TO	\$14,200	\$486,200	Local			100.0%						
4261	PA51 RIDGE VALLEY, TRABUCO TO IRVINE	\$17,000	\$723,800	Local			100.0%						
3977	PA51 TRABUCO RD, SR133 TO LY ST DW	\$2,300	\$156,200	Local			100.0%						
4512	PA5B PHASE 1A 12" ZONE 3 DW	\$4,700	\$132,000	Local						100.0%			
5243	PA6 NEIGHBORHOOD 4B 6" RW ZONE D	\$23,100	\$526,900	Local						100.0%			
7136	SANTIAGO HILLS II DOMESTIC WATER BPS	\$275,700	\$3,165,900	Local						100.0%			
7138	SANTIAGO HILLS II DOMESTIC WATER	\$746,700	\$10,263,800	Local						100.0%			
7133	SERRANO SUMMIT DW IMPROVEMENTS	\$97,300	\$402,600	Local								100.0%	

Project No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	101	110	112	113	125	153	154	185	188
1038	TUSTIN LEGACY MASTER DW FACILITIES	\$159,200	\$1,495,200	Local				100.0%					
6765	TUSTIN LEGACY MOFFETT DR (AT PETERS CYN)	\$89,900	\$116,600	Local				100.0%					
6109	TUSTIN LEGACY PARK AVE & MOFFETT DR 12"	\$232,900	\$579,700	Local				100.0%					
4366	TUSTIN LEGACY TUSTIN RANCH, BARRANCA,	\$7,100	\$343,200	Local				100.0%					
4510	TUSTIN LEGACY WARNER - LEGACY TO TUSTIN	\$4,200	\$196,900	Local				100.0%					
4988	TUSTIN LEGACY WARNER FROM ARMSTRONG	\$1,600	\$60,500	Local				100.0%					
7233	BAKER SOLAR	\$45,400	\$45,400	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5027	BAKER WATER TREATMENT PLANT	\$10,421,500	\$96,852,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5428	CAPITAL PLANNING SUPPORT 16/17 DW	\$242,000	\$242,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6160	CENTRALIZED CONTROL ROOM AT MWRP	\$1,800	\$170,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
4409	CHLORAMINE BOOSTER STATIONS AT 2 DW	\$1,658,400	\$2,877,400	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5411	COMPRESSED NATURAL GAS MOTOR FUEL	\$23,000	\$68,800	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6165	DRWF SURGE TANKS	\$427,900	\$528,600	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5406	EL MODENA INLET MODIFICATION	\$1,000	\$156,200	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
3566	ENTERPRISE ASSET MGMT SOFTWARE	\$832,900	\$2,432,100	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5475	GEN SYS MODS-DW 16/17	\$190,300	\$190,300	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
7174	GENERAL PLANT REGIONAL 16/17 DW	\$432,500	\$432,500	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6200	GIS SUPPORT APPLICATIONS 16/17 - DOMESTIC	\$60,000	\$60,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6213	IDF SODIUM HYPOCHLORITE STORAGE AND	\$1,596,700	\$2,913,900	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1459	IRWD PIPELINES RELOCATION FOR SC GRADE	\$10,700	\$1,958,400	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1100	LAKE FOREST WELL 1 DRILLING	\$38,700	\$1,417,600	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1117	LAKE FOREST WELL 1 WELLHEAD	\$31,200	\$1,035,100	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5338	MARSH MITIGATION CREDIT INVENTORY	\$36,300	\$36,300	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%



Project No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	101	110	112	113	125	153	154	185	188
7095	MEMBRANE PLANTS NEW ANTISCALANT PILOT	\$24,600	\$299,300	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6212	NTS INFILTRATION STUDY	\$32,400	\$64,900	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1373	OCWD ANNEXATION FEE 16/17	\$580,600	\$580,600	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6214	PDF SODIUM HYPOCHLORITE STORAGE AND	\$165,300	\$2,976,900	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
7082	POTABLE REUSE ALTERNATIVES ANALYSIS DW	\$110,000	\$110,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6956	PURCHASE PVID EATON PROPERTY	\$118,400	\$10,240,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6023	ROSEDALE DROUGHT RELIEF PROJECT FACILITIES	\$4,004,100	\$9,872,500	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6168	SAN JOAQUIN MARSH IMPROVEMENTS	\$1,562,300	\$1,776,700	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
7024	SANTA ANA DELHI DIVERSION PROJECT	\$155,200	\$210,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1398	SANTIAGO HILLS II DW TRANSMISSION SYSTEM	\$460,100	\$10,506,300	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5499	STOCKDALE STORAGE FOR RECOVERY CAPACITY	\$1,585,500	\$1,590,800	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
3766	STOCKDALE WEST INTEGRATED WATER	\$5,424,400	\$12,340,600	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6215	TUSTIN LEGACY RED HILL WELL ACQUISITION	\$75,700	\$522,500	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
7140	TUSTIN LEGACY REDHILL WELL DRILLING AND	\$17,200	\$4,559,800	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
7152	WATER AND ENERGY PLANNING STUDIES DW	\$126,500	\$126,500	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6245	WATER BANKING AGREEMENTS 16/18	\$220,100	\$440,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6247	WATER BANKING PLANNING 16/17	\$137,500	\$137,500	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6013	WATER SUPPLY AND SYSTEM RELIABILITY	\$93,400	\$664,800	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
1402	WELLS 51/52/53 TREATMENT ALTERNATIVES	\$5,300	\$133,100	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5431	WRMP UPDATE DW	\$44,000	\$132,000	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
6401	ZONE 1 RESERVOIR NO. 2	\$817,600	\$12,626,300	Regional		32.6%	3.3%	3.0%	47.5%	11.1%	0.4%	1.6%	0.5%
5479	1" TO 2" METER REPLACEMENT-DW 16/17	\$170,200	\$170,200	Replacement	100.0%								
1264	ASSET OPTIMIZATION - LAKE FOREST	\$990,500	\$6,500,000	Replacement	100.0%								

Project No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	101	110	112	113	125	153	154	185	188
6210	ASSET OPTIMIZATION - SAND CANYON	\$3,572,600	\$17,624,300	Replacement	100.0%								
5472	CSR METER REPLACEMENT-DW 16/17	\$213,200	\$213,200	Replacement	100.0%								
4401	DRWF WELL 18 REHAB	\$768,900	\$770,000	Replacement	100.0%								
7093	DRWF WELL 7 REHAB	\$1,100	\$770,000	Replacement	100.0%								
5519	EAST IRVINE ZONE 1 TO 3 BPS PIPE/METER	\$64,900	\$600,100	Replacement	100.0%								
4394	EBS UPGRADE ID CONSOL AND PROJECT MGMT	\$1,568,600	\$2,092,800	Replacement	100.0%								
7177	GENERAL PLANT REPLACEMENT 16/17 DW	\$2,087,600	\$2,087,600	Replacement	100.0%								
7179	GENERAL PLANT REPLACEMENT 16/17 RW	\$1,548,200	\$1,548,200	Replacement	100.0%								
1336	HQ OFFICE IMPROVEMENTS	\$46,500	\$277,300	Replacement	100.0%								
5447	MECH & ELEC SYS REPLACEMENT - DW 16/17	\$880,000	\$880,000	Replacement	100.0%								
7117	OPS CENTER ROOF REPLACEMENT	\$166,000	\$166,000	Replacement	100.0%								
5298	RAISE DW SYSTEM VALVES 16/17 UNDER RA	\$577,500	\$577,500	Replacement	100.0%								
7084	REPLACEMENT PLANNING DW	\$49,900	\$440,000	Replacement	100.0%								
5454	RESIDENTIAL METER REPLACEMENT-DW 16/17	\$267,300	\$267,300	Replacement	100.0%								
1414	SAND CANYON 16" DW PIPELINE ANODE	\$1,600	\$243,100	Replacement	100.0%								
5442	SERVICE LINE, VALVE & MAIN REPLACEMENT-	\$1,685,000	\$1,685,000	Replacement	100.0%								
6121	VAULT LID REPLACEMENT - DW	\$3,300	\$397,700	Replacement	100.0%								
5504	WELL MAINTENANCE AND REHABILITATION	\$220,000	\$220,000	Replacement	100.0%								
5473	WELLS 11 AND 15 SURGE TANK REPLACEMENT	\$724,400	\$1,213,300	Replacement	100.0%								
5453	WELLS 12 AND 13 ROOF HATCHES	\$223,900	\$357,000	Replacement	100.0%								
6849	IBC SIDEWALK IMP & APPURTENANCE	\$284,900	\$442,900	Sub-Regional	60.0%					40.0%			
5756	PA51 "B" ST FROM SOCIABLE TO IRVINE BLV 12"	\$29,800	\$243,100	Sub-Regional			98.2%			1.8%			
5816	PA51 ALTON, TECHNOLOGY TO MUIRLANDS 12"	\$52,100	\$177,100	Sub-Regional			20.9%			79.1%			



Project No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	101	110	112	113	125	153	154	185	188
6683	PA51 GP BENCHMARK AND MODJEKSA	\$88,800	\$150,700	Sub-Regional			98.2%			1.8%			
6552	PA51 GP BENCHMARK AND PERSPECTIVE 12"	\$76,500	\$147,400	Sub-Regional			98.2%			1.8%			
6534	PA51 GP PUSAN (EPISODE TO IRVINE BLVD) 12"	\$22,300	\$44,000	Sub-Regional			98.2%			1.8%			
6512	PA51 GP-1 ST (MARINE TO GP-2 ST) 12" DW	\$224,200	\$355,300	Sub-Regional			20.9%			79.1%			
6536	PA51 GP-2 ST (BOSQUE TO GP1 ST) 12" DW	\$323,200	\$531,300	Sub-Regional			20.9%			79.1%			
6016	PA51 IRVINE BLVD, LAMBERT TO Z ST 12" DW	\$102,400	\$156,200	Sub-Regional			98.2%			1.8%			
4153	PA51 MARINE WAY DW ZN3	\$21,500	\$420,200	Sub-Regional			20.9%			79.1%			
6086	PA51 MARINE WAY FROM ALTON TO	\$11,200	\$238,700	Sub-Regional			20.9%			79.1%			
7170	UNIVERSITY DR WIDENING APPURTENANCE	\$131,400	\$148,000	Sub-Regional	75.0%	25.0%							
	Total	\$50,993,300	\$245,448,200		\$16.1	\$10.4	\$1.6	\$1.5	\$15.1	\$5.3	\$0.1	\$0.7	\$0.2

**IRVINE RANCH WATER DISTRICT**  
**Fiscal Year 2016/17**  
**Sewer Improvement District (ID) Allocation**

Improvement District (ID) Allocation - % of Project Budget

Project 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
1167	GREAT PARK COORDINATION AND SAMP UPDATE	\$3,500	\$132,000	Local			100.0							
7094	LAKE FOREST ZN A RESERVOIR DEMOLITION	\$160,600	\$160,600	Local										100.0
6400	NEWPORT COAST SLS IMPROVEMENTS	\$1,523,400	\$2,059,200	Local						100.0				
6915	PA 6 NBHD 5A 6" AND 8" RECYCLED WATER MAIN	\$235,100	\$402,600	Local										100.0
7017	PA1 NHB3 ORCHARD HILLS 6"8" RW ZC+	\$150,100	\$203,500	Local										100.0
7013	PA1 NHB3 ORCHARD HILLS 6"8"10"12" RW ZC	\$271,900	\$367,400	Local										100.0
4990	PA1 ORCHARD HILLS NEIGHBORHOOD 2, 6" ZNC RW	\$2,900	\$84,700	Local										100.0
1716	PA1 ORCHARD HILLS NEIGHBORHOOD 3	\$34,100	\$326,700	Local										100.0
1722	PA1 ORCHARD HILLS NEIGHBORHOOD 4	\$74,200	\$566,500	Local										100.0
4717	PA1 ORCHARD HILLS NH 2 - 6" ZNB & 6" ZNC RW	\$5,600	\$238,700	Local										100.0
5919	PA1 ORCHARD HILLS, NEIGHBORHOOD 1, 16" ZC 6" ZC+	\$259,300	\$521,400	Local										100.0
4681	PA18S HIDDEN CANYON 6" & 8" RW	\$7,300	\$315,700	Local										100.0
3735	PA39 PH2 RW FACILITIES	\$88,600	\$226,600	Local										100.0
1056	PA39 PHASE 1 RW PIPELINES	\$200	\$180,400	Local										100.0
6056	PA40 8TH ST RIDGE VALLEY TO C ST CAPITAL 6" RW	\$18,700	\$283,800	Local										100.0
4528	PA40 NEIGHBORHOOD 2G BACKBONE RW FACILITIES	\$200	\$108,900	Local										100.0
4318	PA40 PH3B RW CAPITAL FACILITIES	\$200	\$165,000	Local										100.0
5788	PA51 ALTON PKWY SS RELOCATION 12" AND 18"	\$222,300	\$1,832,300	Local										100.0
5817	PA51 ALTON, TECHNOLOGY TO MUIRLANDS SS	\$412,000	\$1,326,300	Local										100.0
6306	PA51 BENCHMARK, BOSQUE TO 550'E/O BOSQUE 6"	\$25,700	\$49,500	Local										100.0
4646	PA51 C ST FROM LQ ST TO O ST RW	\$6,800	\$266,200	Local										100.0
5016	PA51 C ST FROM LV ST TO TRABUCO SEWER	\$9,000	\$370,700	Local										100.0

Project No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	201	210	212	213	225	240	253	256	285	288
4653	PA51 C ST FROM TRABUCO RD TO LQ ST SEWER	\$9,100	\$403,700	Local			100.0							
6553	PA51 GP BENCHMARK AND PERSPECTIVE 16" SS	\$126,700	\$244,200	Local			100.0							
6331	PA51 GP CULTIVATE (BOSQUE TO 500 E/O BOSQUE)	\$7,900	\$220,000	Local			100.0							
6513	PA51 GP-1 ST (MARINE TO GP-2 ST) 12" SS	\$595,300	\$938,300	Local			100.0							
6537	PA51 GP-2 ST (BOSQUE TO GP1 ST) 12" SS	\$199,500	\$333,300	Local			100.0							
4621	PA51 LN ST FROM C ST TO LY ST RW	\$2,300	\$105,600	Local			100.0							
5535	PA51 LQ ST FROM BOSQUE TO Z ST 12" SEWER	\$653,400	\$1,510,300	Local			100.0							
4649	PA51 LQ ST FROM O ST TO LY ST RW	\$1,900	\$78,100	Local			100.0							
4648	PA51 LQ ST FROM O ST TO LY ST SEWER	\$5,800	\$255,200	Local			100.0							
4825	PA51 LV ST FROM RIDGE VALLEY TO LY ST 12" RW	\$8,100	\$321,200	Local			100.0							
4824	PA51 LV ST FROM RIDGE VALLEY TO LY ST 18" SEWER	\$7,700	\$310,200	Local			100.0							
4652	PA51 LY ST FROM LQ ST TO IRVINE BLVD RW	\$27,800	\$938,300	Local			100.0							
4651	PA51 LY ST FROM LQ ST TO IRVINE BLVD SEWER	\$55,900	\$1,662,200	Local			100.0							
4647	PA51 LY ST FROM TRABUCO RD TO LQ ST RW	\$5,600	\$205,700	Local			100.0							
6048	PA51 MARINE WAY, ALTON TO BARRANCA 18" SS	\$59,200	\$1,424,500	Local			100.0							
6476	PA51 MARINE WAY. RIDGE VALLEY TO 3000' EAST	\$181,100	\$426,800	Local							100.0			
6209	PA51 MARINE WAY: SR133 TO RIDGE VALLEY 6" ZONE	\$40,300	\$53,900	Local			100.0							
4278	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - RW	\$14,600	\$464,200	Local			100.0							
4267	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO -	\$41,500	\$1,493,800	Local			100.0							
4264	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - RW	\$4,300	\$194,700	Local			100.0							
4263	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - SS	\$10,100	\$436,700	Local			100.0							
3983	PA51 TRABUCO RD, SR133 TO LY ST RW	\$8,500	\$480,700	Local			100.0							
3980	PA51 TRABUCO RD, SR133 TO LY ST SEWER	\$2,500	\$161,700	Local			100.0							
4515	PA5B IRVINE BLVD 8" ZONE B RW	\$5,200	\$100,100	Local							100.0			
4513	PA5B PHASE 1A AND 1B 6" & 8" RW	\$14,300	\$298,200	Local							100.0			
4753	PA5B PHASE 2 6" RW	\$2,600	\$57,200	Local							100.0			

Project No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	201	210	212	213	225	240	253	256	285	288
5763	PA6 NEIGHBORHOOD 5A RW ZONE D	\$6,600	\$132,000	Local							100.0			
4557	PA6 PHASE 1 NEIGHBORHOOD 3 ZONE C RW	\$11,900	\$315,700	Local							100.0			
1308	PA6 RW PIPELINES	\$486,100	\$620,500	Local							100.0			
1762	PA9B PHASE 5 GATEWAY PARK RW PIPES	\$7,600	\$506,100	Local							100.0			
6470	RANCHO PARKWAY ZONE C RECYCLED WATER PIPELINE	\$144,600	\$997,800	Local									100.0	
7139	SANTIAGO HILLS II RECYCLED WATER BPS	\$275,700	\$3,165,900	Local							100.0			
7134	SERRANO SUMMIT RW IMPROVEMENTS	\$68,900	\$402,600	Local									100.0	
7135	SERRANO SUMMIT SEWER IMPROVEMENTS	\$62,600	\$325,600	Local									100.0	
1101	TUSTIN LEGACY MASTER RW FACILITIES	\$157,000	\$1,544,900	Local				100.0						
1062	TUSTIN LEGACY MASTER SEWER FACILITIES	\$120,000	\$1,115,400	Local				100.0						
6766	TUSTIN LEGACY MOFFETT DR (AT PETERS CYN) 16" RW	\$176,200	\$226,600	Local				100.0						
6110	TUSTIN LEGACY PARK AVE & MOFFETT DR 16" & 15" SS	\$330,800	\$387,200	Local				100.0						
6111	TUSTIN LEGACY PARK AVE & MOFFETT DR 16" & 6" RW	\$227,800	\$568,700	Local				100.0						
6010	TUSTIN LEGACY PARK AVE FROM JAMBOREE TO	\$18,400	\$64,900	Local				100.0						
4368	TUSTIN LEGACY TUSTIN RANCH, BARRANCA,	\$15,400	\$689,700	Local				100.0						
4511	TUSTIN LEGACY WARNER - LEGACY TO TUSTIN RANCH	\$4,500	\$207,900	Local				100.0						
4989	TUSTIN LEGACY WARNER FROM ARMSTRONG TO	\$7,700	\$282,700	Local				100.0						
6479	400/450 SPECTRUM CENTER DR 36" SS RELOCATION	\$350,000	\$596,200	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
5429	CAPITAL PLANNING SUPPORT 16/17 RW	\$242,000	\$242,000	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
5430	CAPITAL PLANNING SUPPORT 16/17 SEWER	\$242,000	\$242,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
6161	CENTRALIZED CONTROL ROOM AT MWRP	\$1,800	\$170,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
3567	ENTERPRISE ASSET MGMT SOFTWARE	\$832,900	\$2,432,100	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
5480	GEN SYS MODS-RW 16/17	\$101,800	\$101,800	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
7176	GENERAL PLANT REGIONAL 16/17 RW	\$285,300	\$285,300	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
7175	GENERAL PLANT REGIONAL 16/17 SEWER	\$292,200	\$292,200	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
6203	GIS SUPPORT APPLICATIONS 16/17 - RECYCLED	\$60,000	\$60,000	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	

Project No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	201	210	212	213	225	240	253	256	285	288
6204	GIS SUPPORT APPLICATIONS 16/17 - SEWER	\$60,000	\$60,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
5407	ILP NORTH CONVERSION - RESERVOIR	\$7,044,100	\$14,382,500	Regional	0.3		40.1	0.1	16.8	0.3	42.3		0.1	
1152	IRWD PIPELINES RELOCATION FOR SC GRADE	\$5,600	\$1,078,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
4397	LAWRP SYSTEM UPGRADES	\$5,800	\$1,418,700	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
7096	METER AND VAULT FOR OSO RESERVOIR	\$2,500	\$375,100	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	\$45,574,200	\$196,465,500	Regional	45.5	18.9	1.5	1.5	27.7		4.1	0.1	0.6	0.1
7158	NON-POTABLE WATER STUDIES 16/17	\$60,000	\$60,000	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
7156	NTS INSTRUMENTATION	\$165,300	\$330,000	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
1516	OCSD EQUITY 15/16	\$2,293,000	\$6,854,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
1530	OCSD EQUITY 16/17	\$7,907,100	\$11,893,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
7070	OCSD SJHPC/ GRS	\$798,700	\$1,000,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
1429	OCSD SOLIDS HANDLING 16/17	\$1,391,000	\$1,391,000	Regional	45.5	18.9	1.5	1.5	27.7		4.1	0.1	0.6	0.1
7137	OPA ZONE C+ PIPELINES	\$933,500	\$1,550,900	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
6167	OPS CENTER PERMANENT GENERATOR	\$535,000	\$618,800	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
5168	PA18S HIDDEN CANYON 36" RW PIPELINE	\$58,700	\$2,208,200	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
4514	PA5B PHASE 1A AND 1B 36" RW	\$80,000	\$1,769,400	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
4985	PETERS CANYON WATER CAPTURE AND REUSE	\$424,500	\$10,959,800	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
7083	POTABLE REUSE ALTERNATIVES ANALYSIS SEWER	\$110,000	\$110,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
6243	RW CONVERSION IMPROVEMENTS FOR OFF-SITE 16/17	\$819,500	\$819,500	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
3779	SALT MANAGEMENT PLAN DEVELOPMENT	\$13,500	\$472,300	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
1813	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	\$229,300	\$568,700	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
5412	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	\$129,200	\$1,155,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
5186	SJM SLS UPGRADE	\$1,200	\$181,000	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
5154	SJR SEISMIC EVALUATION (DSOD)	\$700	\$150,700	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
3808	SYPHON RESERVOIR EXPANSION	\$82,000	\$60,169,200	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
7141	WATER RECYCLING TREATMENT PLANT MASTER PLAN	\$302,600	\$454,300	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	

Project No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	201	210	212	213	225	240	253	256	285	288
5427	WATER RECYCLING TREATMENT PLANT MASTER PLAN	\$613,700	\$921,300	Regional		33.1	3.4	3.4	48.5		9.6	0.3	1.3	0.3
5432	WRMP UPDATE RW	\$44,000	\$132,000	Regional		14.6	10.7	4.1	51.0	7.7	10.3		1.5	
5483	1" TO 2" METER REPLACEMENT-RW 16/17	\$117,000	\$117,000	Replacement	100.0									
7086	CALIFORNIA AVE RW PIPELINE, ACADEMY TO THEORY	\$13,000	\$732,000	Replacement	100.0									
5481	CSR METER REPLACEMENT-RW 16/17	\$112,200	\$112,200	Replacement	100.0									
4395	EBS UPGRADE ID CONSOL AND PROJECT MGMT	\$1,568,600	\$2,092,800	Replacement	100.0									
7009	FPS2 PIPELINE MANIFOLD REPLACEMENT	\$166,100	\$844,800	Replacement	100.0									
7180	GENERAL PLANT - CONSERVATION	\$80,000	\$80,000	Replacement	100.0									
7178	GENERAL PLANT REPLACEMENT 16/17 SEWER	\$853,900	\$853,900	Replacement	100.0									
1549	HQ OFFICE IMPROVEMENTS	\$41,200	\$245,900	Replacement	100.0									
1257	HQ OFFICE IMPROVEMENTS	\$13,700	\$81,400	Replacement	100.0									
5156	LAGUNA CANYON RD RW PIPELINE CORROSION	\$2,000	\$588,500	Replacement	100.0									
5478	LAWRP SYSTEM REPLACEMENTS 16/17	\$132,000	\$132,000	Replacement	100.0									
5174	MAIN ST DIVERSION STRUCTURE GROUND SETTling	\$95,700	\$191,400	Replacement	100.0									
5520	MAINTENANCE ACCESS FOR FOUR SEWER REACHES	\$1,400	\$368,000	Replacement	100.0									
5451	MECH & ELEC SYS REPLACEMENT - RW 16/17	\$660,000	\$660,000	Replacement	100.0									
5449	MECH & ELEC SYS REPLACEMENT - SEWER 16/17	\$550,000	\$550,000	Replacement	100.0									
7097	MICHELSON DI SFM RELINING	\$4,000	\$1,367,300	Replacement	100.0									
5469	MWRP FPS 2 ROOF REPLACEMENT	\$343,800	\$497,900	Replacement	100.0									
4467	MWRP REPAIRS: ACT SLUDGE, 2DARY TANKS, RAS/WAS	\$181,700	\$3,181,600	Replacement	100.0									
5455	MWRP SYS REPLACEMENTS 16/17	\$442,200	\$442,200	Replacement	100.0									
5470	NEWPORT COAST SLS AND FM RECOATING (REHAB)	\$1,033,300	\$1,432,200	Replacement	100.0									
7118	OPS CENTER ROOF REPLACEMENT	\$166,000	\$166,000	Replacement	100.0									
7119	OPS CENTER ROOF REPLACEMENT	\$166,000	\$166,000	Replacement	100.0									
5302	RAISE MANHOLES TO GRADE 16/17 UNDER RA	\$346,500	\$346,500	Replacement	100.0									
5305	RAISE RW SYSTEM VALVES 16/17 UNDER RA	\$138,600	\$138,600	Replacement	100.0									



Project No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	201	210	212	213	225	240	253	256	285	288
5476	RATTLESNAKE ZONE A BPS REBUILD	\$5,300	\$3,937,700	Replacement	100.0									
7098	REBUILD SMH ON MAIN ST E/O MACARTHUR	\$500	\$178,200	Replacement	100.0									
7085	REPLACEMENT PLANNING RW	\$49,900	\$440,000	Replacement	100.0									
3780	SAN JOAQUIN RESERVOIR LINER REPLACEMENT	\$8,900	\$2,807,900	Replacement	100.0									
7099	SEA WATCH RW MAIN REPLACEMENT (S/O PACIFIC	\$2,100	\$720,500	Replacement	100.0									
5452	SERVICE LINE, VALVE & MAIN REPLACEMENT-RW	\$515,800	\$515,800	Replacement	100.0									
5457	SEWER GEN SYS MODS 16/17	\$330,000	\$330,000	Replacement	100.0									
5471	SEWER LATERAL & MAIN REPLACEMENT 16/17	\$218,900	\$218,900	Replacement	100.0									
7100	SEWER LINE REPAIRS	\$500	\$156,200	Replacement	100.0									
3750	SOCWA ETM PROTECTION - TRAIL BRIDGE CROSSING	\$5,500	\$951,500	Replacement	100.0									
7103	UCI CT RW CONVERSION ONSITE PIPELINES	\$79,800	\$1,050,000	Replacement	100.0									
7112	VACTOR ACCESS TO SMH ON SO IRVINE INTERCEPTOR	\$1,400	\$347,600	Replacement	100.0									
6123	VAULT LID REPLACEMENT - RW	\$1,600	\$195,300	Replacement	100.0									
6122	VAULT LID REPLACEMENT - SEWER	\$3,300	\$96,300	Replacement	100.0									
6850	IBC SIDEWALK IMP & APPURTENANCE RELOCATIONS	\$31,500	\$49,700	Sub-Regional	60.0						40.0			
6198	IIC ZONE B BPS UPGRADES	\$244,800	\$734,600	Sub-Regional			54.2		23.1		22.7			
5823	ILP NORTH CONVERSION - PIPELINES	\$6,618,000	\$10,991,100	Sub-Regional	2.1		2.5	1.0	46.3	1.8	46.0		0.3	
4457	MULTI-ZONE BPS - ZONE A-B	\$483,200	\$3,005,200	Sub-Regional	13.7		48.2				38.1			
4400	MULTI-ZONE BPS - ZONE A-C	\$477,100	\$2,795,200	Sub-Regional			56.0				44.0			
6216	NORTHWOOD ZONE B BPS DEMOLITION	\$5,500	\$539,000	Sub-Regional			54.2		23.1		22.7			
1554	OCS D CORF 15/16	\$1,202,900	\$5,988,000	Sub-Regional	72.7	9.0	0.9	0.9	13.2		2.6	0.1	0.4	0.1
1561	OCS D CORF 16/17	\$4,611,700	\$5,774,000	Sub-Regional	72.7	9.0	0.9	0.9	13.2		2.6	0.1	0.4	0.1
3734	PA40 TRAVELAND RW FACILITIES	\$4,800	\$447,700	Sub-Regional			21.0				79.0			
5757	PA51 "B" ST FROM SOCIABLE TO IRVINE BLV 16" ZN C	\$29,500	\$240,900	Sub-Regional			87.4				12.6			
5818	PA51 ALTON, TECHNOLOGY TO MUIRLANDS 16" RW	\$105,500	\$344,300	Sub-Regional			87.4				12.6			
5758	PA51 CADENCE - PUSAN TO CHINON 12" & 16"	\$72,400	\$271,700	Sub-Regional			87.4				12.6			

Project No.	Project Title	Fiscal Year Direct	Total Direct	Split Description	201	210	212	213	225	240	253	256	285	288
6684	PA51 GP BENCHMARK AND MODJESKA (DISTRICT 4)	\$565,000	\$971,300	Sub-Regional			99.6				0.4			
6554	PA51 GP BENCHMARK AND PERSPECTIVE 6" RW ZC	\$67,500	\$129,800	Sub-Regional			99.6				0.4			
6823	PA51 GP EPISODE (FROM FRAME TO PUSAN) 16" RW	\$209,700	\$323,400	Sub-Regional			99.6				0.4			
6514	PA51 GP GP-1 ST (MARINE TO GP-2 ST) 10" RW	\$335,500	\$536,800	Sub-Regional			87.4				12.6			
6747	PA51 GP IRVINE BLVD (AT MERIT) 6" RW ZC	\$18,100	\$34,100	Sub-Regional			99.6				0.4			
6732	PA51 GP MAGNET (FROM RIDGE V. TO BOSQUE) 6"	\$95,200	\$206,800	Sub-Regional			87.4				12.6			
6535	PA51 GP PUSAN (EPISODE TO IRVINE BLVD) 12" RW ZC	\$55,300	\$106,700	Sub-Regional			99.6				0.4			
6595	PA51 GP TERRAPIN (TRABUCO TO CADENCE) 6" RW ZB	\$82,100	\$180,400	Sub-Regional			99.6				0.4			
6538	PA51 GP-2 ST (BOSQUE TO GP1 ST) 10" RW	\$661,900	\$1,049,400	Sub-Regional			87.4				12.6			
7022	PA51 GREAT PARK GP-2 (FROM GP-3 TO BOSQUE)	\$132,800	\$180,400	Sub-Regional			99.6				0.4			
6017	PA51 IRVINE BLVD, LAMBERT TO Z ST 16" SS	\$74,700	\$115,500	Sub-Regional			22.9				77.1			
6018	PA51 IRVINE BLVD, LAMBERT TO Z ST 20" RW	\$966,500	\$1,412,400	Sub-Regional			99.6				0.4			
5536	PA51 LQ ST FROM BOSQUE TO Z ST 12" RW	\$117,600	\$416,900	Sub-Regional			87.4				12.6			
4147	PA51 MARINE WAY RW ZNB	\$27,600	\$541,200	Sub-Regional			87.4				12.6			
6087	PA51 MARINE WAY, ALTON TO BARRANCA 16" RW ZN	\$13,400	\$281,600	Sub-Regional			87.4				12.6			
4614	PA51 REACH A SEWER IMPROVEMENTS	\$88,400	\$3,237,200	Sub-Regional			67.0				33.0			
1015	TECHNOLOGY DR AND LAGUNA CANYON RD RW ZONE	\$1,404,700	\$3,223,500	Sub-Regional			21.0				79.0			
7101	UCI CT RW CONV ACADEMY WAY	\$951,500	\$951,500	Sub-Regional	60.0	40.0								
7102	UCI CT RW CONV CALIFORNIA, UNIV TO ACADEMY	\$346,500	\$346,500	Sub-Regional	60.0	40.0								
7171	UNIVERSITY DR WIDENING APPURTENANCE	\$131,400	\$148,000	Sub-Regional	75.0	25.0								
7172	UNIVERSITY DR WIDENING APPURTENANCE	\$131,400	\$148,000	Sub-Regional	75.0	25.0								
	Total	\$108,633,500	\$429,889,100		\$35.3	\$15.3	\$11.6	\$2.5	\$26.9	\$1.9	\$13.9	\$0.1	\$1.0	\$0.1

**IRVINE RANCH WATER DISTRICT**  
**Fiscal Year 2016/2017**  
**Allocation of FY Project Expenditures by Improvement District**

<b>ID</b>	<b>Project No.</b>	<b>Project Title</b>	<b>Alloc</b>	<b>FY Direct</b>	<b>FY Direct+GA</b>
<b>101 - Rep</b>					
	5479	1" TO 2" METER REPLACEMENT-DW 16/17	100.0%	\$170,200	\$195,000
	1264	ASSET OPTIMIZATION - LAKE FOREST DEVELOPMENT	100.0%	\$990,500	\$990,500
	6210	ASSET OPTIMIZATION - SAND CANYON PROFESSIONAL CTR	100.0%	\$3,572,600	\$3,602,400
	5472	CSR METER REPLACEMENT-DW 16/17	100.0%	\$213,200	\$222,500
	4401	DRWF WELL 18 REHAB	100.0%	\$768,900	\$841,100
	7093	DRWF WELL 7 REHAB	100.0%	\$1,100	\$2,900
	5519	EAST IRVINE ZONE 1 TO 3 BPS PIPE/METER	100.0%	\$64,900	\$70,500
	4394	EBS UPGRADE ID CONSOL AND PROJECT MGMT IMPLEMENT	100.0%	\$1,568,600	\$2,025,500
	7177	GENERAL PLANT REPLACEMENT 16/17 DW	100.0%	\$2,087,600	\$2,087,600
	7179	GENERAL PLANT REPLACEMENT 16/17 RW	100.0%	\$1,548,200	\$1,548,200
	1336	HQ OFFICE IMPROVEMENTS	100.0%	\$46,500	\$64,300
	6849	IBC SIDEWALK IMP & APPURTENANCE RELOCATIONS	60.0%	\$170,940	\$186,060
	5447	MECH & ELEC SYS REPLACEMENT - DW 16/17	100.0%	\$880,000	\$880,000
	7117	OPS CENTER ROOF REPLACEMENT	100.0%	\$166,000	\$272,500
	5298	RAISE DW SYSTEM VALVES 16/17 UNDER RA	100.0%	\$577,500	\$623,800
	7084	REPLACEMENT PLANNING DW	100.0%	\$49,900	\$133,800
	5454	RESIDENTIAL METER REPLACEMENT-DW 16/17	100.0%	\$267,300	\$291,400
	1414	SAND CANYON 16" DW PIPELINE ANODE REPLACEMENT	100.0%	\$1,600	\$4,200
	5442	SERVICE LINE, VALVE & MAIN REPLACEMENT-DW 16/17	100.0%	\$1,685,000	\$1,703,500
	7170	UNIVERSITY DR WIDENING APPURTENANCE RELOCATION	75.0%	\$98,550	\$116,550
	6121	VAULT LID REPLACEMENT - DW	100.0%	\$3,300	\$8,500

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>101 - Rep</b>					
	5504	WELL MAINTENANCE AND REHABILITATION 16/17	100.0%	\$220,000	\$220,000
	5473	WELLS 11 AND 15 SURGE TANK REPLACEMENT	100.0%	\$724,400	\$731,000
	5453	WELLS 12 AND 13 ROOF HATCHES REPLACEMENT	100.0%	\$223,900	\$243,200
				<b>\$16,100,690</b>	<b>\$17,065,010</b>
<b>110</b>					
	7233	BAKER SOLAR	32.6%	\$14,800	\$17,832
	5027	BAKER WATER TREATMENT PLANT	32.6%	\$3,397,409	\$3,576,546
	5428	CAPITAL PLANNING SUPPORT 16/17 DW	32.6%	\$78,892	\$139,202
	6160	CENTRALIZED CONTROL ROOM AT MWRP	32.6%	\$587	\$1,434
	4409	CHLORAMINE BOOSTER STATIONS AT 2 DW RESERVOIRS	32.6%	\$540,638	\$577,216
	5411	COMPRESSED NATURAL GAS MOTOR FUEL	32.6%	\$7,498	\$7,889
	6165	DRWF SURGE TANKS	32.6%	\$139,495	\$147,026
	5406	EL MODENA INLET MODIFICATION	32.6%	\$326	\$750
	3566	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	32.6%	\$271,525	\$339,757
	5475	GEN SYS MODS-DW 16/17	32.6%	\$62,038	\$75,339
	7174	GENERAL PLANT REGIONAL 16/17 DW	32.6%	\$140,995	\$140,995
	6200	GIS SUPPORT APPLICATIONS 16/17 - DOMESTIC	32.6%	\$19,560	\$30,709
	6213	IDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	32.6%	\$520,524	\$553,581
	1459	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	32.6%	\$3,488	\$3,488
	1100	LAKE FOREST WELL 1 DRILLING	32.6%	\$12,616	\$15,615
	1117	LAKE FOREST WELL 1 WELLHEAD	32.6%	\$10,171	\$13,170
	5338	MARSH MITIGATION CREDIT INVENTORY	32.6%	\$11,834	\$14,866
	7095	MEMBRANE PLANTS NEW ANTISCALANT PILOT TESTING	32.6%	\$8,020	\$10,041
	6212	NTS INFILTRATION STUDY	32.6%	\$10,562	\$12,649
	1373	OCWD ANNEXATION FEE 16/17	32.6%	\$189,276	\$189,276

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>110</b>					
	6214	PDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	32.6%	\$53,888	\$70,351
	7082	POTABLE REUSE ALTERNATIVES ANALYSIS DW	32.6%	\$35,860	\$44,923
	6956	PURCHASE PVID EATON PROPERTY	32.6%	\$38,598	\$38,598
	6023	ROSEDALE DROUGHT RELIEF PROJECT FACILITIES	32.6%	\$1,305,337	\$1,375,068
	6168	SAN JOAQUIN MARSH IMPROVEMENTS	32.6%	\$509,310	\$544,453
	7024	SANTA ANA DELHI DIVERSION PROJECT	32.6%	\$50,595	\$55,061
	1398	SANTIAGO HILLS II DW TRANSMISSION SYSTEM	32.6%	\$149,993	\$230,384
	5499	STOCKDALE STORAGE FOR RECOVERY CAPACITY	32.6%	\$516,873	\$519,872
	3766	STOCKDALE WEST INTEGRATED WATER BANKING PROJECT	32.6%	\$1,768,354	\$1,798,477
	6215	TUSTIN LEGACY RED HILL WELL ACQUISITION	32.6%	\$24,678	\$24,678
	7140	TUSTIN LEGACY REDHILL WELL DRILLING AND EQUIPPING	32.6%	\$5,607	\$7,107
	7170	UNIVERSITY DR WIDENING APPURTENANCE RELOCATION	25.0%	\$32,850	\$38,850
	7152	WATER AND ENERGY PLANNING STUDIES DW 16/17	32.6%	\$41,239	\$56,333
	6245	WATER BANKING AGREEMENTS 16/18	32.6%	\$71,753	\$101,908
	6247	WATER BANKING PLANNING 16/17	32.6%	\$44,825	\$74,980
	6013	WATER SUPPLY AND SYSTEM RELIABILITY MODEL	32.6%	\$30,448	\$34,947
	1402	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	32.6%	\$1,728	\$2,184
	5431	WRMP UPDATE DW	32.6%	\$14,344	\$26,406
	6401	ZONE 1 RESERVOIR NO. 2	32.6%	\$266,538	\$324,468
				<b>\$10,403,073</b>	<b>\$11,236,428</b>
<b>112 ET</b>					
	7233	BAKER SOLAR	3.3%	\$1,498	\$1,805
	5027	BAKER WATER TREATMENT PLANT	3.3%	\$343,910	\$362,043
	5428	CAPITAL PLANNING SUPPORT 16/17 DW	3.3%	\$7,986	\$14,091
	6160	CENTRALIZED CONTROL ROOM AT MWRP	3.3%	\$59	\$145

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>112 ET</b>					
	4409	CHLORAMINE BOOSTER STATIONS AT 2 DW RESERVOIRS	3.3%	\$54,727	\$58,430
	5411	COMPRESSED NATURAL GAS MOTOR FUEL	3.3%	\$759	\$799
	6165	DRWF SURGE TANKS	3.3%	\$14,121	\$14,883
	5406	EL MODENA INLET MODIFICATION	3.3%	\$33	\$76
	3566	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	3.3%	\$27,486	\$34,393
	5475	GEN SYS MODS-DW 16/17	3.3%	\$6,280	\$7,626
	7174	GENERAL PLANT REGIONAL 16/17 DW	3.3%	\$14,273	\$14,273
	6200	GIS SUPPORT APPLICATIONS 16/17 - DOMESTIC	3.3%	\$1,980	\$3,109
	6213	IDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	3.3%	\$52,691	\$56,037
	1459	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	3.3%	\$353	\$353
	1100	LAKE FOREST WELL 1 DRILLING	3.3%	\$1,277	\$1,581
	1117	LAKE FOREST WELL 1 WELLHEAD	3.3%	\$1,030	\$1,333
	5338	MARSH MITIGATION CREDIT INVENTORY	3.3%	\$1,198	\$1,505
	7095	MEMBRANE PLANTS NEW ANTISCALANT PILOT TESTING	3.3%	\$812	\$1,016
	6212	NTS INFILTRATION STUDY	3.3%	\$1,069	\$1,280
	1373	OCWD ANNEXATION FEE 16/17	3.3%	\$19,160	\$19,160
	5756	PA51 "B" ST FROM SOCIABLE TO IRVINE BLV 12" ZN 4	98.2%	\$29,264	\$35,548
	5816	PA51 ALTON, TECHNOLOGY TO MUIRLANDS 12" DW	20.9%	\$10,889	\$12,707
	6304	PA51 BENCHMARK, BOSQUE TO 550'E/O BOSQUE 12" Z4R	100.0%	\$25,700	\$31,500
	4645	PA51 C ST FROM LQ ST TO O ST DW	100.0%	\$3,600	\$3,600
	6683	PA51 GP BENCHMARK AND MODJEKSA (DISTRICT 4) 12" DW	98.2%	\$87,202	\$103,601
	6552	PA51 GP BENCHMARK AND PERSPECTIVE 12" DW Z4R	98.2%	\$75,123	\$90,835
	6534	PA51 GP PUSAN (EPISODE TO IRVINE BLVD) 12" DW Z4	98.2%	\$21,899	\$27,594
	6512	PA51 GP-1 ST (MARINE TO GP-2 ST) 12" DW	20.9%	\$46,858	\$55,552
	6536	PA51 GP-2 ST (BOSQUE TO GP1 ST) 12" DW	20.9%	\$67,549	\$82,033



ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>112 ET</b>					
	6016	PA51 IRVINE BLVD, LAMBERT TO Z ST 12" DW	98.2%	\$100,557	\$121,081
	4620	PA51 LN ST FROM C ST TO LY ST DW	100.0%	\$4,100	\$4,100
	4650	PA51 LY ST FROM LQ ST TO IRVINE BLVD DW	100.0%	\$800	\$800
	4153	PA51 MARINE WAY DW ZN3	20.9%	\$4,494	\$5,037
	6086	PA51 MARINE WAY FROM ALTON TO BARRANCA 12" DW ZN 3	20.9%	\$2,341	\$2,341
	6208	PA51 MARINE WAY: SR133 TO RIDGE VALLEY 12" ZONE 3	100.0%	\$63,600	\$77,400
	4268	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - DW	100.0%	\$14,200	\$14,200
	4261	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - DW	100.0%	\$17,000	\$17,000
	3977	PA51 TRABUCO RD, SR133 TO LY ST DW	100.0%	\$2,300	\$2,300
	6214	PDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	3.3%	\$5,455	\$7,121
	7082	POTABLE REUSE ALTERNATIVES ANALYSIS DW	3.3%	\$3,630	\$4,547
	6956	PURCHASE PVID EATON PROPERTY	3.3%	\$3,907	\$3,907
	6023	ROSEDALE DROUGHT RELIEF PROJECT FACILITIES	3.3%	\$132,135	\$139,194
	6168	SAN JOAQUIN MARSH IMPROVEMENTS	3.3%	\$51,556	\$55,113
	7024	SANTA ANA DELHI DIVERSION PROJECT	3.3%	\$5,122	\$5,574
	1398	SANTIAGO HILLS II DW TRANSMISSION SYSTEM	3.3%	\$15,183	\$23,321
	5499	STOCKDALE STORAGE FOR RECOVERY CAPACITY	3.3%	\$52,322	\$52,625
	3766	STOCKDALE WEST INTEGRATED WATER BANKING PROJECT	3.3%	\$179,005	\$182,054
	6215	TUSTIN LEGACY RED HILL WELL ACQUISITION	3.3%	\$2,498	\$2,498
	7140	TUSTIN LEGACY REDHILL WELL DRILLING AND EQUIPPING	3.3%	\$568	\$719
	7152	WATER AND ENERGY PLANNING STUDIES DW 16/17	3.3%	\$4,175	\$5,702
	6245	WATER BANKING AGREEMENTS 16/18	3.3%	\$7,263	\$10,316
	6247	WATER BANKING PLANNING 16/17	3.3%	\$4,538	\$7,590
	6013	WATER SUPPLY AND SYSTEM RELIABILITY MODEL	3.3%	\$3,082	\$3,538
	1402	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	3.3%	\$175	\$221

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>112 ET</b>					
	5431	WRMP UPDATE DW	3.3%	\$1,452	\$2,673
	6401	ZONE 1 RESERVOIR NO. 2	3.3%	\$26,981	\$32,845
				<b>\$1,627,220</b>	<b>\$1,820,726</b>
<b>113 TU</b>					
	7233	BAKER SOLAR	3.0%	\$1,362	\$1,641
	5027	BAKER WATER TREATMENT PLANT	3.0%	\$312,645	\$329,130
	5428	CAPITAL PLANNING SUPPORT 16/17 DW	3.0%	\$7,260	\$12,810
	6160	CENTRALIZED CONTROL ROOM AT MWRP	3.0%	\$54	\$132
	4409	CHLORAMINE BOOSTER STATIONS AT 2 DW RESERVOIRS	3.0%	\$49,752	\$53,118
	5411	COMPRESSED NATURAL GAS MOTOR FUEL	3.0%	\$690	\$726
	6165	DRWF SURGE TANKS	3.0%	\$12,837	\$13,530
	5406	EL MODENA INLET MODIFICATION	3.0%	\$30	\$69
	3566	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	3.0%	\$24,987	\$31,266
	5475	GEN SYS MODS-DW 16/17	3.0%	\$5,709	\$6,933
	7174	GENERAL PLANT REGIONAL 16/17 DW	3.0%	\$12,975	\$12,975
	6200	GIS SUPPORT APPLICATIONS 16/17 - DOMESTIC	3.0%	\$1,800	\$2,826
	1520	GREAT PARK COORDINATION AND SAMP UPDATE	100.0%	\$3,500	\$5,000
	6213	IDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	3.0%	\$47,901	\$50,943
	1459	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	3.0%	\$321	\$321
	1100	LAKE FOREST WELL 1 DRILLING	3.0%	\$1,161	\$1,437
	1117	LAKE FOREST WELL 1 WELLHEAD	3.0%	\$936	\$1,212
	5338	MARSH MITIGATION CREDIT INVENTORY	3.0%	\$1,089	\$1,368
	7095	MEMBRANE PLANTS NEW ANTISCALANT PILOT TESTING	3.0%	\$738	\$924
	6212	NTS INFILTRATION STUDY	3.0%	\$972	\$1,164
	1373	OCWD ANNEXATION FEE 16/17	3.0%	\$17,418	\$17,418

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>113 TU</b>					
	6214	PDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	3.0%	\$4,959	\$6,474
	7082	POTABLE REUSE ALTERNATIVES ANALYSIS DW	3.0%	\$3,300	\$4,134
	6956	PURCHASE PVID EATON PROPERTY	3.0%	\$3,552	\$3,552
	6023	ROSEDALE DROUGHT RELIEF PROJECT FACILITIES	3.0%	\$120,123	\$126,540
	6168	SAN JOAQUIN MARSH IMPROVEMENTS	3.0%	\$46,869	\$50,103
	7024	SANTA ANA DELHI DIVERSION PROJECT	3.0%	\$4,656	\$5,067
	1398	SANTIAGO HILLS II DW TRANSMISSION SYSTEM	3.0%	\$13,803	\$21,201
	5499	STOCKDALE STORAGE FOR RECOVERY CAPACITY	3.0%	\$47,565	\$47,841
	3766	STOCKDALE WEST INTEGRATED WATER BANKING PROJECT	3.0%	\$162,732	\$165,504
	1038	TUSTIN LEGACY MASTER DW FACILITIES	100.0%	\$159,200	\$232,300
	6765	TUSTIN LEGACY MOFFETT DR (AT PETERS CYN) 12" DW Z1	100.0%	\$89,900	\$108,700
	6109	TUSTIN LEGACY PARK AVE & MOFFETT DR 12" DW	100.0%	\$232,900	\$254,800
	6215	TUSTIN LEGACY RED HILL WELL ACQUISITION	3.0%	\$2,271	\$2,271
	7140	TUSTIN LEGACY REDHILL WELL DRILLING AND EQUIPPING	3.0%	\$516	\$654
	4366	TUSTIN LEGACY TUSTIN RANCH, BARRANCA, ARMSTRONG DW	100.0%	\$7,100	\$7,100
	4510	TUSTIN LEGACY WARNER - LEGACY TO TUSTIN RANCH DW	100.0%	\$4,200	\$4,200
	4988	TUSTIN LEGACY WARNER FROM ARMSTRONG TO LEGACY DW	100.0%	\$1,600	\$1,600
	7152	WATER AND ENERGY PLANNING STUDIES DW 16/17	3.0%	\$3,795	\$5,184
	6245	WATER BANKING AGREEMENTS 16/18	3.0%	\$6,603	\$9,378
	6247	WATER BANKING PLANNING 16/17	3.0%	\$4,125	\$6,900
	6013	WATER SUPPLY AND SYSTEM RELIABILITY MODEL	3.0%	\$2,802	\$3,216
	1402	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	3.0%	\$159	\$201
	5431	WRMP UPDATE DW	3.0%	\$1,320	\$2,430
	6401	ZONE 1 RESERVOIR NO. 2	3.0%	\$24,528	\$29,859
				<b>\$1,452,715</b>	<b>\$1,644,152</b>

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>125-DevID_Potable</b>					
	7233	BAKER SOLAR	47.5%	\$21,565	\$25,983
	5027	BAKER WATER TREATMENT PLANT	47.5%	\$4,950,213	\$5,211,225
	5428	CAPITAL PLANNING SUPPORT 16/17 DW	47.5%	\$114,950	\$202,825
	6160	CENTRALIZED CONTROL ROOM AT MWRP	47.5%	\$855	\$2,090
	4409	CHLORAMINE BOOSTER STATIONS AT 2 DW RESERVOIRS	47.5%	\$787,740	\$841,035
	5410	COASTAL ZONE 2 PRV MODIFICATION (DPR16)	100.0%	\$1,900	\$4,600
	5411	COMPRESSED NATURAL GAS MOTOR FUEL	47.5%	\$10,925	\$11,495
	6165	DRWF SURGE TANKS	47.5%	\$203,253	\$214,225
	5406	EL MODENA INLET MODIFICATION	47.5%	\$475	\$1,093
	3566	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	47.5%	\$395,628	\$495,045
	5475	GEN SYS MODS-DW 16/17	47.5%	\$90,393	\$109,773
	7174	GENERAL PLANT REGIONAL 16/17 DW	47.5%	\$205,438	\$205,438
	6200	GIS SUPPORT APPLICATIONS 16/17 - DOMESTIC	47.5%	\$28,500	\$44,745
	6213	IDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	47.5%	\$758,433	\$806,598
	1459	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	47.5%	\$5,083	\$5,083
	1100	LAKE FOREST WELL 1 DRILLING	47.5%	\$18,383	\$22,753
	1117	LAKE FOREST WELL 1 WELLHEAD	47.5%	\$14,820	\$19,190
	5338	MARSH MITIGATION CREDIT INVENTORY	47.5%	\$17,243	\$21,660
	7095	MEMBRANE PLANTS NEW ANTISCALANT PILOT TESTING	47.5%	\$11,685	\$14,630
	6212	NTS INFILTRATION STUDY	47.5%	\$15,390	\$18,430
	1373	OCWD ANNEXATION FEE 16/17	47.5%	\$275,785	\$275,785
	6214	PDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	47.5%	\$78,518	\$102,505
	7082	POTABLE REUSE ALTERNATIVES ANALYSIS DW	47.5%	\$52,250	\$65,455
	6956	PURCHASE PVID EATON PROPERTY	47.5%	\$56,240	\$56,240
	6023	ROSEDALE DROUGHT RELIEF PROJECT FACILITIES	47.5%	\$1,901,948	\$2,003,550

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>125-DevID_Potable</b>					
	6168	SAN JOAQUIN MARSH IMPROVEMENTS	47.5%	\$742,093	\$793,298
	7024	SANTA ANA DELHI DIVERSION PROJECT	47.5%	\$73,720	\$80,228
	1398	SANTIAGO HILLS II DW TRANSMISSION SYSTEM	47.5%	\$218,548	\$335,683
	5499	STOCKDALE STORAGE FOR RECOVERY CAPACITY	47.5%	\$753,113	\$757,483
	3766	STOCKDALE WEST INTEGRATED WATER BANKING PROJECT	47.5%	\$2,576,590	\$2,620,480
	6215	TUSTIN LEGACY RED HILL WELL ACQUISITION	47.5%	\$35,958	\$35,958
	7140	TUSTIN LEGACY REDHILL WELL DRILLING AND EQUIPPING	47.5%	\$8,170	\$10,355
	7152	WATER AND ENERGY PLANNING STUDIES DW 16/17	47.5%	\$60,088	\$82,080
	6245	WATER BANKING AGREEMENTS 16/18	47.5%	\$104,548	\$148,485
	6247	WATER BANKING PLANNING 16/17	47.5%	\$65,313	\$109,250
	6013	WATER SUPPLY AND SYSTEM RELIABILITY MODEL	47.5%	\$44,365	\$50,920
	1402	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	47.5%	\$2,518	\$3,183
	5431	WRMP UPDATE DW	47.5%	\$20,900	\$38,475
	6401	ZONE 1 RESERVOIR NO. 2	47.5%	\$388,360	\$472,768
				<b>\$15,111,888</b>	<b>\$16,320,090</b>
<b>153-FutDevID_Potable</b>					
	7233	BAKER SOLAR	11.1%	\$5,039	\$6,072
	5027	BAKER WATER TREATMENT PLANT	11.1%	\$1,156,787	\$1,217,781
	5428	CAPITAL PLANNING SUPPORT 16/17 DW	11.1%	\$26,862	\$47,397
	6160	CENTRALIZED CONTROL ROOM AT MWRP	11.1%	\$200	\$488
	4409	CHLORAMINE BOOSTER STATIONS AT 2 DW RESERVOIRS	11.1%	\$184,082	\$196,537
	5411	COMPRESSED NATURAL GAS MOTOR FUEL	11.1%	\$2,553	\$2,686
	6165	DRWF SURGE TANKS	11.1%	\$47,497	\$50,061
	5406	EL MODENA INLET MODIFICATION	11.1%	\$111	\$255
	3566	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	11.1%	\$92,452	\$115,684

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>153-FutDevID_Potable</b>					
	5475	GEN SYS MODS-DW 16/17	11.1%	\$21,123	\$25,652
	7174	GENERAL PLANT REGIONAL 16/17 DW	11.1%	\$48,008	\$48,008
	6200	GIS SUPPORT APPLICATIONS 16/17 - DOMESTIC	11.1%	\$6,660	\$10,456
	6849	IBC SIDEWALK IMP & APPURTENANCE RELOCATIONS	40.0%	\$113,960	\$124,040
	6213	IDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	11.1%	\$177,234	\$188,489
	1459	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	11.1%	\$1,188	\$1,188
	1100	LAKE FOREST WELL 1 DRILLING	11.1%	\$4,296	\$5,317
	1117	LAKE FOREST WELL 1 WELLHEAD	11.1%	\$3,463	\$4,484
	5338	MARSH MITIGATION CREDIT INVENTORY	11.1%	\$4,029	\$5,062
	7095	MEMBRANE PLANTS NEW ANTISCALANT PILOT TESTING	11.1%	\$2,731	\$3,419
	6212	NTS INFILTRATION STUDY	11.1%	\$3,596	\$4,307
	1373	OCWD ANNEXATION FEE 16/17	11.1%	\$64,447	\$64,447
	1354	PA1 16" Z5 PIPE, 5-4 PRVS NEIGHBORHOOD 3	100.0%	\$11,000	\$29,400
	7012	PA1 NHB3 ORCHARD HILLS 16" DW Z5	100.0%	\$100,700	\$132,600
	4680	PA18S HIDDEN CANYON 12" DW	100.0%	\$7,300	\$7,300
	5756	PA51 "B" ST FROM SOCIABLE TO IRVINE BLV 12" ZN 4	1.8%	\$536	\$652
	5816	PA51 ALTON, TECHNOLOGY TO MUIRLANDS 12" DW	79.1%	\$41,211	\$48,093
	6683	PA51 GP BENCHMARK AND MODJEKSA (DISTRICT 4) 12" DW	1.8%	\$1,598	\$1,899
	6552	PA51 GP BENCHMARK AND PERSPECTIVE 12" DW Z4R	1.8%	\$1,377	\$1,665
	6534	PA51 GP PUSAN (EPISODE TO IRVINE BLVD) 12" DW Z4	1.8%	\$401	\$506
	6512	PA51 GP-1 ST (MARINE TO GP-2 ST) 12" DW	79.1%	\$177,342	\$210,248
	6536	PA51 GP-2 ST (BOSQUE TO GP1 ST) 12" DW	79.1%	\$255,651	\$310,468
	6016	PA51 IRVINE BLVD, LAMBERT TO Z ST 12" DW	1.8%	\$1,843	\$2,219
	4153	PA51 MARINE WAY DW ZN3	79.1%	\$17,007	\$19,063
	6086	PA51 MARINE WAY FROM ALTON TO BARRANCA 12" DW ZN 3	79.1%	\$8,859	\$8,859



ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>153-FutDevID_Potable</b>					
	4512	PA5B PHASE 1A 12" ZONE 3 DW	100.0%	\$4,700	\$4,700
	5243	PA6 NEIGHBORHOOD 4B 6" RW ZONE D	100.0%	\$23,100	\$23,100
	6214	PDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	11.1%	\$18,348	\$23,954
	7082	POTABLE REUSE ALTERNATIVES ANALYSIS DW	11.1%	\$12,210	\$15,296
	6956	PURCHASE PVID EATON PROPERTY	11.1%	\$13,142	\$13,142
	6023	ROSEDALE DROUGHT RELIEF PROJECT FACILITIES	11.1%	\$444,455	\$468,198
	6168	SAN JOAQUIN MARSH IMPROVEMENTS	11.1%	\$173,415	\$185,381
	7024	SANTA ANA DELHI DIVERSION PROJECT	11.1%	\$17,227	\$18,748
	7136	SANTIAGO HILLS II DOMESTIC WATER BPS	100.0%	\$275,700	\$323,400
	7138	SANTIAGO HILLS II DOMESTIC WATER RESERVOIR	100.0%	\$746,700	\$846,400
	1398	SANTIAGO HILLS II DW TRANSMISSION SYSTEM	11.1%	\$51,071	\$78,444
	5499	STOCKDALE STORAGE FOR RECOVERY CAPACITY	11.1%	\$175,991	\$177,012
	3766	STOCKDALE WEST INTEGRATED WATER BANKING PROJECT	11.1%	\$602,108	\$612,365
	6215	TUSTIN LEGACY RED HILL WELL ACQUISITION	11.1%	\$8,403	\$8,403
	7140	TUSTIN LEGACY REDHILL WELL DRILLING AND EQUIPPING	11.1%	\$1,909	\$2,420
	7152	WATER AND ENERGY PLANNING STUDIES DW 16/17	11.1%	\$14,042	\$19,181
	6245	WATER BANKING AGREEMENTS 16/18	11.1%	\$24,431	\$34,699
	6247	WATER BANKING PLANNING 16/17	11.1%	\$15,263	\$25,530
	6013	WATER SUPPLY AND SYSTEM RELIABILITY MODEL	11.1%	\$10,367	\$11,899
	1402	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	11.1%	\$588	\$744
	5431	WRMP UPDATE DW	11.1%	\$4,884	\$8,991
	6401	ZONE 1 RESERVOIR NO. 2	11.1%	\$90,754	\$110,478
				<b>\$5,319,952</b>	<b>\$5,907,284</b>
<b>154</b>					
	7233	BAKER SOLAR	0.4%	\$182	\$219

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
154					
	5027	BAKER WATER TREATMENT PLANT	0.4%	\$41,686	\$43,884
	5428	CAPITAL PLANNING SUPPORT 16/17 DW	0.4%	\$968	\$1,708
	6160	CENTRALIZED CONTROL ROOM AT MWRP	0.4%	\$7	\$18
	4409	CHLORAMINE BOOSTER STATIONS AT 2 DW RESERVOIRS	0.4%	\$6,634	\$7,082
	5411	COMPRESSED NATURAL GAS MOTOR FUEL	0.4%	\$92	\$97
	6165	DRWF SURGE TANKS	0.4%	\$1,712	\$1,804
	5406	EL MODENA INLET MODIFICATION	0.4%	\$4	\$9
	3566	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	0.4%	\$3,332	\$4,169
	5475	GEN SYS MODS-DW 16/17	0.4%	\$761	\$924
	7174	GENERAL PLANT REGIONAL 16/17 DW	0.4%	\$1,730	\$1,730
	6200	GIS SUPPORT APPLICATIONS 16/17 - DOMESTIC	0.4%	\$240	\$377
	6213	IDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	0.4%	\$6,387	\$6,792
	1459	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	0.4%	\$43	\$43
	1100	LAKE FOREST WELL 1 DRILLING	0.4%	\$155	\$192
	1117	LAKE FOREST WELL 1 WELLHEAD	0.4%	\$125	\$162
	5338	MARSH MITIGATION CREDIT INVENTORY	0.4%	\$145	\$182
	7095	MEMBRANE PLANTS NEW ANTISCALANT PILOT TESTING	0.4%	\$98	\$123
	6212	NTS INFILTRATION STUDY	0.4%	\$130	\$155
	1373	OCWD ANNEXATION FEE 16/17	0.4%	\$2,322	\$2,322
	6214	PDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	0.4%	\$661	\$863
	7082	POTABLE REUSE ALTERNATIVES ANALYSIS DW	0.4%	\$440	\$551
	6956	PURCHASE PVID EATON PROPERTY	0.4%	\$474	\$474
	6023	ROSEDALE DROUGHT RELIEF PROJECT FACILITIES	0.4%	\$16,016	\$16,872
	6168	SAN JOAQUIN MARSH IMPROVEMENTS	0.4%	\$6,249	\$6,680
	7024	SANTA ANA DELHI DIVERSION PROJECT	0.4%	\$621	\$676

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>154</b>					
	1398	SANTIAGO HILLS II DW TRANSMISSION SYSTEM	0.4%	\$1,840	\$2,827
	5499	STOCKDALE STORAGE FOR RECOVERY CAPACITY	0.4%	\$6,342	\$6,379
	3766	STOCKDALE WEST INTEGRATED WATER BANKING PROJECT	0.4%	\$21,698	\$22,067
	6215	TUSTIN LEGACY RED HILL WELL ACQUISITION	0.4%	\$303	\$303
	7140	TUSTIN LEGACY REDHILL WELL DRILLING AND EQUIPPING	0.4%	\$69	\$87
	7152	WATER AND ENERGY PLANNING STUDIES DW 16/17	0.4%	\$506	\$691
	6245	WATER BANKING AGREEMENTS 16/18	0.4%	\$880	\$1,250
	6247	WATER BANKING PLANNING 16/17	0.4%	\$550	\$920
	6013	WATER SUPPLY AND SYSTEM RELIABILITY MODEL	0.4%	\$374	\$429
	1402	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	0.4%	\$21	\$27
	5431	WRMP UPDATE DW	0.4%	\$176	\$324
	6401	ZONE 1 RESERVOIR NO. 2	0.4%	\$3,270	\$3,981
				<b>\$127,242</b>	<b>\$137,394</b>
<b>185-LF_OSA</b>					
	7233	BAKER SOLAR	1.6%	\$726	\$875
	5027	BAKER WATER TREATMENT PLANT	1.6%	\$166,744	\$175,536
	5428	CAPITAL PLANNING SUPPORT 16/17 DW	1.6%	\$3,872	\$6,832
	6160	CENTRALIZED CONTROL ROOM AT MWRP	1.6%	\$29	\$70
	4409	CHLORAMINE BOOSTER STATIONS AT 2 DW RESERVOIRS	1.6%	\$26,534	\$28,330
	5411	COMPRESSED NATURAL GAS MOTOR FUEL	1.6%	\$368	\$387
	6165	DRWF SURGE TANKS	1.6%	\$6,846	\$7,216
	5406	EL MODENA INLET MODIFICATION	1.6%	\$16	\$37
	3566	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	1.6%	\$13,326	\$16,675
	5475	GEN SYS MODS-DW 16/17	1.6%	\$3,045	\$3,698
	7174	GENERAL PLANT REGIONAL 16/17 DW	1.6%	\$6,920	\$6,920

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>185-LF_OSA</b>					
	6200	GIS SUPPORT APPLICATIONS 16/17 - DOMESTIC	1.6%	\$960	\$1,507
	6213	IDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	1.6%	\$25,547	\$27,170
	1459	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	1.6%	\$171	\$171
	1181	LAKE FOREST DW OFFSITE IMPROVEMENTS	100.0%	\$68,700	\$107,600
	1100	LAKE FOREST WELL 1 DRILLING	1.6%	\$619	\$766
	1117	LAKE FOREST WELL 1 WELLHEAD	1.6%	\$499	\$646
	5404	LAKE FOREST Z2-2RA PRV AT COMMERCENTRE	100.0%	\$16,500	\$17,800
	5338	MARSH MITIGATION CREDIT INVENTORY	1.6%	\$581	\$730
	7095	MEMBRANE PLANTS NEW ANTISCALANT PILOT TESTING	1.6%	\$394	\$493
	6212	NTS INFILTRATION STUDY	1.6%	\$518	\$621
	1373	OCWD ANNEXATION FEE 16/17	1.6%	\$9,290	\$9,290
	6214	PDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	1.6%	\$2,645	\$3,453
	7082	POTABLE REUSE ALTERNATIVES ANALYSIS DW	1.6%	\$1,760	\$2,205
	6956	PURCHASE PVID EATON PROPERTY	1.6%	\$1,894	\$1,894
	6023	ROSEDALE DROUGHT RELIEF PROJECT FACILITIES	1.6%	\$64,066	\$67,488
	6168	SAN JOAQUIN MARSH IMPROVEMENTS	1.6%	\$24,997	\$26,722
	7024	SANTA ANA DELHI DIVERSION PROJECT	1.6%	\$2,483	\$2,702
	1398	SANTIAGO HILLS II DW TRANSMISSION SYSTEM	1.6%	\$7,362	\$11,307
	7133	SERRANO SUMMIT DW IMPROVEMENTS	100.0%	\$97,300	\$174,800
	5499	STOCKDALE STORAGE FOR RECOVERY CAPACITY	1.6%	\$25,368	\$25,515
	3766	STOCKDALE WEST INTEGRATED WATER BANKING PROJECT	1.6%	\$86,790	\$88,269
	6215	TUSTIN LEGACY RED HILL WELL ACQUISITION	1.6%	\$1,211	\$1,211
	7140	TUSTIN LEGACY REDHILL WELL DRILLING AND EQUIPPING	1.6%	\$275	\$349
	7152	WATER AND ENERGY PLANNING STUDIES DW 16/17	1.6%	\$2,024	\$2,765
	6245	WATER BANKING AGREEMENTS 16/18	1.6%	\$3,522	\$5,002

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>185-LF_OSA</b>					
	6247	WATER BANKING PLANNING 16/17	1.6%	\$2,200	\$3,680
	6013	WATER SUPPLY AND SYSTEM RELIABILITY MODEL	1.6%	\$1,494	\$1,715
	1402	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	1.6%	\$85	\$107
	5431	WRMP UPDATE DW	1.6%	\$704	\$1,296
	6401	ZONE 1 RESERVOIR NO. 2	1.6%	\$13,082	\$15,925
				<b>\$691,468</b>	<b>\$849,774</b>
<b>188</b>					
	7233	BAKER SOLAR	0.5%	\$227	\$274
	5027	BAKER WATER TREATMENT PLANT	0.5%	\$52,108	\$54,855
	5428	CAPITAL PLANNING SUPPORT 16/17 DW	0.5%	\$1,210	\$2,135
	6160	CENTRALIZED CONTROL ROOM AT MWRP	0.5%	\$9	\$22
	4409	CHLORAMINE BOOSTER STATIONS AT 2 DW RESERVOIRS	0.5%	\$8,292	\$8,853
	5411	COMPRESSED NATURAL GAS MOTOR FUEL	0.5%	\$115	\$121
	6165	DRWF SURGE TANKS	0.5%	\$2,140	\$2,255
	5406	EL MODENA INLET MODIFICATION	0.5%	\$5	\$12
	3566	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	0.5%	\$4,165	\$5,211
	5475	GEN SYS MODS-DW 16/17	0.5%	\$952	\$1,156
	7174	GENERAL PLANT REGIONAL 16/17 DW	0.5%	\$2,163	\$2,163
	6200	GIS SUPPORT APPLICATIONS 16/17 - DOMESTIC	0.5%	\$300	\$471
	6213	IDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	0.5%	\$7,984	\$8,491
	1459	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	0.5%	\$54	\$54
	1100	LAKE FOREST WELL 1 DRILLING	0.5%	\$194	\$240
	1117	LAKE FOREST WELL 1 WELLHEAD	0.5%	\$156	\$202
	5338	MARSH MITIGATION CREDIT INVENTORY	0.5%	\$182	\$228
	7095	MEMBRANE PLANTS NEW ANTISCALANT PILOT TESTING	0.5%	\$123	\$154

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>188</b>					
	6212	NTS INFILTRATION STUDY	0.5%	\$162	\$194
	1373	OCWD ANNEXATION FEE 16/17	0.5%	\$2,903	\$2,903
	6214	PDF SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	0.5%	\$827	\$1,079
	7082	POTABLE REUSE ALTERNATIVES ANALYSIS DW	0.5%	\$550	\$689
	6956	PURCHASE PVID EATON PROPERTY	0.5%	\$592	\$592
	6023	ROSEDALE DROUGHT RELIEF PROJECT FACILITIES	0.5%	\$20,021	\$21,090
	6168	SAN JOAQUIN MARSH IMPROVEMENTS	0.5%	\$7,812	\$8,351
	7024	SANTA ANA DELHI DIVERSION PROJECT	0.5%	\$776	\$845
	1398	SANTIAGO HILLS II DW TRANSMISSION SYSTEM	0.5%	\$2,301	\$3,534
	5499	STOCKDALE STORAGE FOR RECOVERY CAPACITY	0.5%	\$7,928	\$7,974
	3766	STOCKDALE WEST INTEGRATED WATER BANKING PROJECT	0.5%	\$27,122	\$27,584
	6215	TUSTIN LEGACY RED HILL WELL ACQUISITION	0.5%	\$379	\$379
	7140	TUSTIN LEGACY REDHILL WELL DRILLING AND EQUIPPING	0.5%	\$86	\$109
	7152	WATER AND ENERGY PLANNING STUDIES DW 16/17	0.5%	\$633	\$864
	6245	WATER BANKING AGREEMENTS 16/18	0.5%	\$1,101	\$1,563
	6247	WATER BANKING PLANNING 16/17	0.5%	\$688	\$1,150
	6013	WATER SUPPLY AND SYSTEM RELIABILITY MODEL	0.5%	\$467	\$536
	1402	WELLS 51/52/53 TREATMENT ALTERNATIVES STUDY	0.5%	\$27	\$34
	5431	WRMP UPDATE DW	0.5%	\$220	\$405
	6401	ZONE 1 RESERVOIR NO. 2	0.5%	\$4,088	\$4,977
				<b>\$159,053</b>	<b>\$171,742</b>
<b>201-Rep</b>					
	5483	1" TO 2" METER REPLACEMENT-RW 16/17	100.0%	\$117,000	\$130,900
	7086	CALIFORNIA AVE RW PIPELINE, ACADEMY TO THEORY	100.0%	\$13,000	\$17,600
	5481	CSR METER REPLACEMENT-RW 16/17	100.0%	\$112,200	\$115,900



ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>201-Rep</b>					
	4395	EBS UPGRADE ID CONSOL AND PROJECT MGMT IMPLEMENT	100.0%	\$1,568,600	\$2,025,500
	7009	FPS2 PIPELINE MANIFOLD REPLACEMENT	100.0%	\$166,100	\$258,600
	7180	GENERAL PLANT - CONSERVATION	100.0%	\$80,000	\$80,000
	7178	GENERAL PLANT REPLACEMENT 16/17 SEWER	100.0%	\$853,900	\$853,900
	1257	HQ OFFICE IMPROVEMENTS	100.0%	\$13,700	\$18,400
	1549	HQ OFFICE IMPROVEMENTS	100.0%	\$41,200	\$59,000
	6850	IBC SIDEWALK IMP & APPURTENANCE RELOCATIONS	60.0%	\$18,900	\$20,640
	5823	ILP NORTH CONVERSION - PIPELINES	2.1%	\$138,978	\$143,499
	5407	ILP NORTH CONVERSION - RESERVOIR	0.3%	\$21,132	\$21,414
	5156	LAGUNA CANYON RD RW PIPELINE CORROSION REPLACE	100.0%	\$2,000	\$4,600
	5478	LAWRP SYSTEM REPLACEMENTS 16/17	100.0%	\$132,000	\$132,000
	5174	MAIN ST DIVERSION STRUCTURE GROUND SETTLING	100.0%	\$95,700	\$131,000
	5520	MAINTENANCE ACCESS FOR FOUR SEWER REACHES	100.0%	\$1,400	\$3,300
	5451	MECH & ELEC SYS REPLACEMENT - RW 16/17	100.0%	\$660,000	\$660,000
	5449	MECH & ELEC SYS REPLACEMENT - SEWER 16/17	100.0%	\$550,000	\$550,000
	7097	MICHELSON DI SFM RELINING	100.0%	\$4,000	\$10,500
	4457	MULTI-ZONE BPS - ZONE A-B	13.7%	\$66,198	\$85,817
	4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	45.5%	\$20,736,261	\$21,284,900
	5469	MWRP FPS 2 ROOF REPLACEMENT	100.0%	\$343,800	\$378,500
	4467	MWRP REPAIRS: ACT SLUDGE, 2DARY TANKS, RAS/WAS	100.0%	\$181,700	\$263,800
	5455	MWRP SYS REPLACEMENTS 16/17	100.0%	\$442,200	\$445,900
	5470	NEWPORT COAST SLS AND FM RECOATING (REHAB)	100.0%	\$1,033,300	\$1,104,700
	1554	OCS D CORF 15/16	72.7%	\$874,508	\$874,508
	1561	OCS D CORF 16/17	72.7%	\$3,352,706	\$3,352,706
	1429	OCS D SOLIDS HANDLING 16/17	45.5%	\$632,905	\$632,905

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>201-Rep</b>					
	7118	OPS CENTER ROOF REPLACEMENT	100.0%	\$166,000	\$272,500
	7119	OPS CENTER ROOF REPLACEMENT	100.0%	\$166,000	\$194,700
	5302	RAISE MANHOLES TO GRADE 16/17 UNDER RA	100.0%	\$346,500	\$374,300
	5305	RAISE RW SYSTEM VALVES 16/17 UNDER RA	100.0%	\$138,600	\$149,700
	5476	RATTLESNAKE ZONE A BPS REBUILD	100.0%	\$5,300	\$14,600
	7098	REBUILD SMH ON MAIN ST E/O MACARTHUR	100.0%	\$500	\$1,200
	7085	REPLACEMENT PLANNING RW	100.0%	\$49,900	\$133,800
	3780	SAN JOAQUIN RESERVOIR LINER REPLACEMENT	100.0%	\$8,900	\$11,400
	7099	SEA WATCH RW MAIN REPLACEMENT (S/O PACIFIC MIST)	100.0%	\$2,100	\$5,500
	5452	SERVICE LINE, VALVE & MAIN REPLACEMENT-RW 16/17	100.0%	\$515,800	\$534,300
	5457	SEWER GEN SYS MODS 16/17	100.0%	\$330,000	\$330,000
	5471	SEWER LATERAL & MAIN REPLACEMENT 16/17	100.0%	\$218,900	\$237,400
	7100	SEWER LINE REPAIRS	100.0%	\$500	\$1,300
	3750	SOCWA ETM PROTECTION - TRAIL BRIDGE CROSSING	100.0%	\$5,500	\$14,800
	7101	UCI CT RW CONV ACADEMY WAY	60.0%	\$570,900	\$593,160
	7102	UCI CT RW CONV CALIFORNIA, UNIV TO ACADEMY	60.0%	\$207,900	\$230,160
	7103	UCI CT RW CONVERSION ONSITE PIPELINES	100.0%	\$79,800	\$79,800
	7172	UNIVERSITY DR WIDENING APPURTENANCE RELOCATION	75.0%	\$98,550	\$116,550
	7171	UNIVERSITY DR WIDENING APPURTENANCE RELOCATION	75.0%	\$98,550	\$116,550
	7112	VACTOR ACCESS TO SMH ON SO IRVINE INTERCEPTOR	100.0%	\$1,400	\$3,800
	6123	VAULT LID REPLACEMENT - RW	100.0%	\$1,600	\$4,200
	6122	VAULT LID REPLACEMENT - SEWER	100.0%	\$3,300	\$5,900
				<b>\$35,269,889</b>	<b>\$37,086,110</b>
<b>210</b>					
	6479	400/450 SPECTRUM CENTER DR 36" SS RELOCATION	33.1%	\$115,850	\$130,149

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>210</b>					
	5429	CAPITAL PLANNING SUPPORT 16/17 RW	14.6%	\$35,332	\$62,342
	5430	CAPITAL PLANNING SUPPORT 16/17 SEWER	33.1%	\$80,102	\$141,337
	6161	CENTRALIZED CONTROL ROOM AT MWRP	33.1%	\$596	\$1,456
	3567	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	33.1%	\$275,690	\$344,968
	5480	GEN SYS MODS-RW 16/17	14.6%	\$14,863	\$18,119
	7176	GENERAL PLANT REGIONAL 16/17 RW	14.6%	\$41,654	\$41,654
	7175	GENERAL PLANT REGIONAL 16/17 SEWER	33.1%	\$96,718	\$96,718
	6203	GIS SUPPORT APPLICATIONS 16/17 - RECYCLED	14.6%	\$8,760	\$13,753
	6204	GIS SUPPORT APPLICATIONS 16/17 - SEWER	33.1%	\$19,860	\$31,180
	1152	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	33.1%	\$1,854	\$1,854
	4397	LAWRP SYSTEM UPGRADES	33.1%	\$1,920	\$2,880
	7096	METER AND VAULT FOR OSO RESERVOIR	14.6%	\$365	\$934
	4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	18.9%	\$8,613,524	\$8,841,420
	7158	NON-POTABLE WATER STUDIES 16/17	14.6%	\$8,760	\$11,461
	7156	NTS INSTRUMENTATION	14.6%	\$24,134	\$32,251
	1554	OCSO CORF 15/16	9.0%	\$108,698	\$108,698
	1561	OCSO CORF 16/17	9.0%	\$416,727	\$416,727
	1516	OCSO EQUITY 15/16	33.1%	\$758,983	\$758,983
	1530	OCSO EQUITY 16/17	33.1%	\$2,617,250	\$2,617,250
	7070	OCSO SJHPC/ GRS	33.1%	\$264,370	\$264,370
	1429	OCSO SOLIDS HANDLING 16/17	18.9%	\$262,899	\$262,899
	7137	OPA ZONE C+ PIPELINES	14.6%	\$136,291	\$147,066
	6167	OPS CENTER PERMANENT GENERATOR	33.1%	\$177,085	\$198,534
	5168	PA18S HIDDEN CANYON 36" RW PIPELINE	14.6%	\$8,570	\$8,570
	4514	PA5B PHASE 1A AND 1B 36" RW	14.6%	\$11,680	\$11,680

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>210</b>					
	4985	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	33.1%	\$140,510	\$143,786
	7083	POTABLE REUSE ALTERNATIVES ANALYSIS SEWER	33.1%	\$36,410	\$45,612
	6243	RW CONVERSION IMPROVEMENTS FOR OFF-SITE 16/17	14.6%	\$119,647	\$149,373
	3779	SALT MANAGEMENT PLAN DEVELOPMENT	14.6%	\$1,971	\$2,190
	1813	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	14.6%	\$33,478	\$38,851
	5412	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	33.1%	\$42,765	\$56,469
	5186	SJM SLS UPGRADE	33.1%	\$397	\$1,026
	5154	SJR SEISMIC EVALUATION (DSOD)	14.6%	\$102	\$248
	3808	SYPHON RESERVOIR EXPANSION	14.6%	\$11,972	\$17,140
	7101	UCI CT RW CONV ACADEMY WAY	40.0%	\$380,600	\$395,440
	7102	UCI CT RW CONV CALIFORNIA, UNIV TO ACADEMY	40.0%	\$138,600	\$153,440
	7171	UNIVERSITY DR WIDENING APPURTENANCE RELOCATION	25.0%	\$32,850	\$38,850
	7172	UNIVERSITY DR WIDENING APPURTENANCE RELOCATION	25.0%	\$32,850	\$38,850
	5427	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	33.1%	\$203,135	\$271,453
	7141	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	14.6%	\$44,180	\$59,115
	5432	WRMP UPDATE RW	14.6%	\$6,424	\$11,826
				<b>\$15,328,423</b>	<b>\$15,990,922</b>
<b>212 ET</b>					
	6479	400/450 SPECTRUM CENTER DR 36" SS RELOCATION	3.4%	\$11,900	\$13,369
	5429	CAPITAL PLANNING SUPPORT 16/17 RW	10.7%	\$25,894	\$45,689
	5430	CAPITAL PLANNING SUPPORT 16/17 SEWER	3.4%	\$8,228	\$14,518
	6161	CENTRALIZED CONTROL ROOM AT MWRP	3.4%	\$61	\$150
	3567	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	3.4%	\$28,319	\$35,435
	5480	GEN SYS MODS-RW 16/17	10.7%	\$10,893	\$13,279
	7176	GENERAL PLANT REGIONAL 16/17 RW	10.7%	\$30,527	\$30,527

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>212 ET</b>					
	7175	GENERAL PLANT REGIONAL 16/17 SEWER	3.4%	\$9,935	\$9,935
	6203	GIS SUPPORT APPLICATIONS 16/17 - RECYCLED	10.7%	\$6,420	\$10,079
	6204	GIS SUPPORT APPLICATIONS 16/17 - SEWER	3.4%	\$2,040	\$3,203
	1167	GREAT PARK COORDINATION AND SAMP UPDATE	100.0%	\$3,500	\$5,000
	6198	IIC ZONE B BPS UPGRADES	54.2%	\$132,682	\$143,034
	5823	ILP NORTH CONVERSION - PIPELINES	2.5%	\$165,450	\$170,833
	5407	ILP NORTH CONVERSION - RESERVOIR	40.1%	\$2,824,684	\$2,862,378
	1152	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	3.4%	\$190	\$190
	4397	LAWRP SYSTEM UPGRADES	3.4%	\$197	\$296
	7096	METER AND VAULT FOR OSO RESERVOIR	10.7%	\$268	\$685
	4457	MULTI-ZONE BPS - ZONE A-B	48.2%	\$232,902	\$301,925
	4400	MULTI-ZONE BPS - ZONE A-C	56.0%	\$267,176	\$352,240
	4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	1.5%	\$683,613	\$701,700
	7158	NON-POTABLE WATER STUDIES 16/17	10.7%	\$6,420	\$8,400
	6216	NORTHWOOD ZONE B BPS DEMOLITION	54.2%	\$2,981	\$8,022
	7156	NTS INSTRUMENTATION	10.7%	\$17,687	\$23,636
	1554	OCS D CORF 15/16	0.9%	\$11,165	\$11,165
	1561	OCS D CORF 16/17	0.9%	\$42,806	\$42,806
	1516	OCS D EQUITY 15/16	3.4%	\$77,962	\$77,962
	1530	OCS D EQUITY 16/17	3.4%	\$268,841	\$268,841
	7070	OCS D SJHPC/ GRS	3.4%	\$27,156	\$27,156
	1429	OCS D SOLIDS HANDLING 16/17	1.5%	\$20,865	\$20,865
	7137	OPA ZONE C+ PIPELINES	10.7%	\$99,885	\$107,781
	6167	OPS CENTER PERMANENT GENERATOR	3.4%	\$18,190	\$20,393
	5168	PA18S HIDDEN CANYON 36" RW PIPELINE	10.7%	\$6,281	\$6,281

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>212 ET</b>					
	3734	PA40 TRAVELAND RW FACILITIES	21.0%	\$1,008	\$1,596
	5757	PA51 "B" ST FROM SOCIABLE TO IRVINE BLV 16" ZN C	87.4%	\$25,783	\$29,279
	5788	PA51 ALTON PKWY SS RELOCATION 12" AND 18"	100.0%	\$222,300	\$270,600
	5818	PA51 ALTON, TECHNOLOGY TO MUIRLANDS 16" RW	87.4%	\$92,207	\$105,230
	5817	PA51 ALTON, TECHNOLOGY TO MUIRLANDS SS RELOCATION	100.0%	\$412,000	\$443,000
	6306	PA51 BENCHMARK, BOSQUE TO 550'E/O BOSQUE 6" ZC	100.0%	\$25,700	\$31,500
	4646	PA51 C ST FROM LQ ST TO O ST RW	100.0%	\$6,800	\$6,800
	5016	PA51 C ST FROM LV ST TO TRABUCO SEWER	100.0%	\$9,000	\$9,000
	4653	PA51 C ST FROM TRABUCO RD TO LQ ST SEWER	100.0%	\$9,100	\$9,100
	5758	PA51 CADENCE - PUSAN TO CHINON 12" & 16"	87.4%	\$63,278	\$71,406
	6684	PA51 GP BENCHMARK AND MODJESKA (DISTRICT 4) 10"/6"	99.6%	\$562,740	\$677,479
	6553	PA51 GP BENCHMARK AND PERSPECTIVE 16" SS	100.0%	\$126,700	\$152,900
	6554	PA51 GP BENCHMARK AND PERSPECTIVE 6" RW ZC	99.6%	\$67,230	\$80,875
	6331	PA51 GP CULTIVATE (BOSQUE TO 500 E/O BOSQUE) 16"	100.0%	\$7,900	\$7,900
	6823	PA51 GP EPISODE (FROM FRAME TO PUSAN) 16" RW ZC	99.6%	\$208,861	\$251,390
	6514	PA51 GP GP-1 ST (MARINE TO GP-2 ST) 10" RW	87.4%	\$293,227	\$353,795
	6747	PA51 GP IRVINE BLVD (AT MERIT) 6" RW ZC	99.6%	\$18,028	\$23,306
	6732	PA51 GP MAGNET (FROM RIDGE V. TO BOSQUE) 6" RW ZB	87.4%	\$83,205	\$98,937
	6535	PA51 GP PUSAN (EPISODE TO IRVINE BLVD) 12" RW ZC	99.6%	\$55,079	\$66,533
	6595	PA51 GP TERRAPIN (TRABUCO TO CADENCE) 6" RW ZB	99.6%	\$81,772	\$98,704
	6513	PA51 GP-1 ST (MARINE TO GP-2 ST) 12" SS	100.0%	\$595,300	\$720,100
	6538	PA51 GP-2 ST (BOSQUE TO GP1 ST) 10" RW	87.4%	\$578,501	\$687,576
	6537	PA51 GP-2 ST (BOSQUE TO GP1 ST) 12" SS	100.0%	\$199,500	\$241,100
	7022	PA51 GREAT PARK GP-2 (FROM GP-3 TO BOSQUE) 12"RWZC	99.6%	\$132,269	\$163,444
	6017	PA51 IRVINE BLVD, LAMBERT TO Z ST 16" SS	22.9%	\$17,106	\$20,931



ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>212 ET</b>					
	6018	PA51 IRVINE BLVD, LAMBERT TO Z ST 20" RW	99.6%	\$962,634	\$1,100,779
	4621	PA51 LN ST FROM C ST TO LY ST RW	100.0%	\$2,300	\$2,300
	5536	PA51 LQ ST FROM BOSQUE TO Z ST 12" RW	87.4%	\$102,782	\$124,458
	5535	PA51 LQ ST FROM BOSQUE TO Z ST 12" SEWER	100.0%	\$653,400	\$746,400
	4649	PA51 LQ ST FROM O ST TO LY ST RW	100.0%	\$1,900	\$1,900
	4648	PA51 LQ ST FROM O ST TO LY ST SEWER	100.0%	\$5,800	\$5,800
	4825	PA51 LV ST FROM RIDGE VALLEY TO LY ST 12" RW	100.0%	\$8,100	\$8,100
	4824	PA51 LV ST FROM RIDGE VALLEY TO LY ST 18" SEWER	100.0%	\$7,700	\$7,700
	4652	PA51 LY ST FROM LQ ST TO IRVINE BLVD RW	100.0%	\$27,800	\$27,800
	4651	PA51 LY ST FROM LQ ST TO IRVINE BLVD SEWER	100.0%	\$55,900	\$55,900
	4647	PA51 LY ST FROM TRABUCO RD TO LQ ST RW	100.0%	\$5,600	\$5,600
	4147	PA51 MARINE WAY RW ZNB	87.4%	\$24,122	\$26,832
	6087	PA51 MARINE WAY, ALTON TO BARRANCA 16" RW ZN B	87.4%	\$11,712	\$11,712
	6048	PA51 MARINE WAY, ALTON TO BARRANCA 18" SS	100.0%	\$59,200	\$59,200
	6209	PA51 MARINE WAY: SR133 TO RIDGE VALLEY 6" ZONE B	100.0%	\$40,300	\$50,500
	4614	PA51 REACH A SEWER IMPROVEMENTS	67.0%	\$59,228	\$59,228
	4278	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - RW	100.0%	\$14,600	\$14,600
	4267	PA51 RIDGE VALLEY, MARINE WAY TO TRABUCO - SEWER	100.0%	\$41,500	\$41,500
	4264	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - RW	100.0%	\$4,300	\$4,300
	4263	PA51 RIDGE VALLEY, TRABUCO TO IRVINE BLVD - SS	100.0%	\$10,100	\$10,100
	3983	PA51 TRABUCO RD, SR133 TO LY ST RW	100.0%	\$8,500	\$8,500
	3980	PA51 TRABUCO RD, SR133 TO LY ST SEWER	100.0%	\$2,500	\$2,500
	4514	PA5B PHASE 1A AND 1B 36" RW	10.7%	\$8,560	\$8,560
	4985	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	3.4%	\$14,433	\$14,770
	7083	POTABLE REUSE ALTERNATIVES ANALYSIS SEWER	3.4%	\$3,740	\$4,685

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>212 ET</b>					
	6243	RW CONVERSION IMPROVEMENTS FOR OFF-SITE 16/17	10.7%	\$87,687	\$109,472
	3779	SALT MANAGEMENT PLAN DEVELOPMENT	10.7%	\$1,445	\$1,605
	1813	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	10.7%	\$24,535	\$28,473
	5412	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	3.4%	\$4,393	\$5,800
	5186	SJM SLS UPGRADE	3.4%	\$41	\$105
	5154	SJR SEISMIC EVALUATION (DSOD)	10.7%	\$75	\$182
	3808	SYPHON RESERVOIR EXPANSION	10.7%	\$8,774	\$12,562
	1015	TECHNOLOGY DR AND LAGUNA CANYON RD RW ZONE B	21.0%	\$294,987	\$312,459
	7141	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	10.7%	\$32,378	\$43,324
	5427	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	3.4%	\$20,866	\$27,883
	5432	WRMP UPDATE RW	10.7%	\$4,708	\$8,667
				<b>\$11,556,309</b>	<b>\$12,914,507</b>
<b>213 TU</b>					
	6479	400/450 SPECTRUM CENTER DR 36" SS RELOCATION	3.4%	\$11,900	\$13,369
	5429	CAPITAL PLANNING SUPPORT 16/17 RW	4.1%	\$9,922	\$17,507
	5430	CAPITAL PLANNING SUPPORT 16/17 SEWER	3.4%	\$8,228	\$14,518
	6161	CENTRALIZED CONTROL ROOM AT MWRP	3.4%	\$61	\$150
	3567	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	3.4%	\$28,319	\$35,435
	5480	GEN SYS MODS-RW 16/17	4.1%	\$4,174	\$5,088
	7176	GENERAL PLANT REGIONAL 16/17 RW	4.1%	\$11,697	\$11,697
	7175	GENERAL PLANT REGIONAL 16/17 SEWER	3.4%	\$9,935	\$9,935
	6203	GIS SUPPORT APPLICATIONS 16/17 - RECYCLED	4.1%	\$2,460	\$3,862
	6204	GIS SUPPORT APPLICATIONS 16/17 - SEWER	3.4%	\$2,040	\$3,203
	5823	ILP NORTH CONVERSION - PIPELINES	1.0%	\$66,180	\$68,333
	5407	ILP NORTH CONVERSION - RESERVOIR	0.1%	\$7,044	\$7,138

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>213 TU</b>					
	1152	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	3.4%	\$190	\$190
	4397	LAWRP SYSTEM UPGRADES	3.4%	\$197	\$296
	7096	METER AND VAULT FOR OSO RESERVOIR	4.1%	\$103	\$262
	4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	1.5%	\$683,613	\$701,700
	7158	NON-POTABLE WATER STUDIES 16/17	4.1%	\$2,460	\$3,219
	7156	NTS INSTRUMENTATION	4.1%	\$6,777	\$9,057
	1554	OCSO CORF 15/16	0.9%	\$11,165	\$11,165
	1561	OCSO CORF 16/17	0.9%	\$42,806	\$42,806
	1516	OCSO EQUITY 15/16	3.4%	\$77,962	\$77,962
	1530	OCSO EQUITY 16/17	3.4%	\$268,841	\$268,841
	7070	OCSO SJHPC/ GRS	3.4%	\$27,156	\$27,156
	1429	OCSO SOLIDS HANDLING 16/17	1.5%	\$20,865	\$20,865
	7137	OPA ZONE C+ PIPELINES	4.1%	\$38,274	\$41,299
	6167	OPS CENTER PERMANENT GENERATOR	3.4%	\$18,190	\$20,393
	5168	PA18S HIDDEN CANYON 36" RW PIPELINE	4.1%	\$2,407	\$2,407
	4514	PA5B PHASE 1A AND 1B 36" RW	4.1%	\$3,280	\$3,280
	4985	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	3.4%	\$14,433	\$14,770
	7083	POTABLE REUSE ALTERNATIVES ANALYSIS SEWER	3.4%	\$3,740	\$4,685
	6243	RW CONVERSION IMPROVEMENTS FOR OFF-SITE 16/17	4.1%	\$33,600	\$41,947
	3779	SALT MANAGEMENT PLAN DEVELOPMENT	4.1%	\$554	\$615
	1813	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	4.1%	\$9,401	\$10,910
	5412	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	3.4%	\$4,393	\$5,800
	5186	SJM SLS UPGRADE	3.4%	\$41	\$105
	5154	SJR SEISMIC EVALUATION (DSOD)	4.1%	\$29	\$70
	3808	SYPHON RESERVOIR EXPANSION	4.1%	\$3,362	\$4,813

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>213 TU</b>					
	1101	TUSTIN LEGACY MASTER RW FACILITIES	100.0%	\$157,000	\$233,700
	1062	TUSTIN LEGACY MASTER SEWER FACILITIES	100.0%	\$120,000	\$165,700
	6766	TUSTIN LEGACY MOFFETT DR (AT PETERS CYN) 16" RW ZA	100.0%	\$176,200	\$212,100
	6110	TUSTIN LEGACY PARK AVE & MOFFETT DR 16" & 15" SS	100.0%	\$330,800	\$367,900
	6111	TUSTIN LEGACY PARK AVE & MOFFETT DR 16" & 6" RW	100.0%	\$227,800	\$249,700
	6010	TUSTIN LEGACY PARK AVE FROM JAMBOREE TO VICTORY SS	100.0%	\$18,400	\$21,500
	4368	TUSTIN LEGACY TUSTIN RANCH, BARRANCA, ARMSTRONG RW	100.0%	\$15,400	\$15,400
	4511	TUSTIN LEGACY WARNER - LEGACY TO TUSTIN RANCH RW	100.0%	\$4,500	\$4,500
	4989	TUSTIN LEGACY WARNER FROM ARMSTRONG TO LEGACY RW	100.0%	\$7,700	\$7,700
	5427	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	3.4%	\$20,866	\$27,883
	7141	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	4.1%	\$12,407	\$16,601
	5432	WRMP UPDATE RW	4.1%	\$1,804	\$3,321
				<b>\$2,528,674</b>	<b>\$2,830,854</b>
<b>225-DevID_Potable</b>					
	6479	400/450 SPECTRUM CENTER DR 36" SS RELOCATION	48.5%	\$169,750	\$190,702
	5429	CAPITAL PLANNING SUPPORT 16/17 RW	51.0%	\$123,420	\$217,770
	5430	CAPITAL PLANNING SUPPORT 16/17 SEWER	48.5%	\$117,370	\$207,095
	6161	CENTRALIZED CONTROL ROOM AT MWRP	48.5%	\$873	\$2,134
	3567	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	48.5%	\$403,957	\$505,467
	5480	GEN SYS MODS-RW 16/17	51.0%	\$51,918	\$63,291
	7176	GENERAL PLANT REGIONAL 16/17 RW	51.0%	\$145,503	\$145,503
	7175	GENERAL PLANT REGIONAL 16/17 SEWER	48.5%	\$141,717	\$141,717
	6203	GIS SUPPORT APPLICATIONS 16/17 - RECYCLED	51.0%	\$30,600	\$48,042
	6204	GIS SUPPORT APPLICATIONS 16/17 - SEWER	48.5%	\$29,100	\$45,687
	6198	IIC ZONE B BPS UPGRADES	23.1%	\$56,549	\$60,961

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>225-DevID_Potable</b>					
	5823	ILP NORTH CONVERSION - PIPELINES	46.3%	\$3,064,134	\$3,163,818
	5407	ILP NORTH CONVERSION - RESERVOIR	16.8%	\$1,183,409	\$1,199,201
	1152	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	48.5%	\$2,716	\$2,716
	4397	LAWRP SYSTEM UPGRADES	48.5%	\$2,813	\$4,220
	7096	METER AND VAULT FOR OSO RESERVOIR	51.0%	\$1,275	\$3,264
	4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	27.7%	\$12,624,053	\$12,958,060
	7158	NON-POTABLE WATER STUDIES 16/17	51.0%	\$30,600	\$40,035
	6216	NORTHWOOD ZONE B BPS DEMOLITION	23.1%	\$1,271	\$3,419
	7156	NTS INSTRUMENTATION	51.0%	\$84,303	\$112,659
	1554	OCSO CORF 15/16	13.2%	\$159,270	\$159,270
	1561	OCSO CORF 16/17	13.2%	\$610,612	\$610,612
	1516	OCSO EQUITY 15/16	48.5%	\$1,112,105	\$1,112,105
	1530	OCSO EQUITY 16/17	48.5%	\$3,834,944	\$3,834,944
	7070	OCSO SJHPC/ GRS	48.5%	\$387,370	\$387,370
	1429	OCSO SOLIDS HANDLING 16/17	27.7%	\$385,307	\$385,307
	7137	OPA ZONE C+ PIPELINES	51.0%	\$476,085	\$513,723
	6167	OPS CENTER PERMANENT GENERATOR	48.5%	\$259,475	\$290,903
	5168	PA18S HIDDEN CANYON 36" RW PIPELINE	51.0%	\$29,937	\$29,937
	4514	PA5B PHASE 1A AND 1B 36" RW	51.0%	\$40,800	\$40,800
	4985	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	48.5%	\$205,883	\$210,684
	7083	POTABLE REUSE ALTERNATIVES ANALYSIS SEWER	48.5%	\$53,350	\$66,833
	6243	RW CONVERSION IMPROVEMENTS FOR OFF-SITE 16/17	51.0%	\$417,945	\$521,781
	3779	SALT MANAGEMENT PLAN DEVELOPMENT	51.0%	\$6,885	\$7,650
	1813	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	51.0%	\$116,943	\$135,711
	5412	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	48.5%	\$62,662	\$82,741

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>225-DevID_Potable</b>					
	5186	SJM SLS UPGRADE	48.5%	\$582	\$1,504
	5154	SJR SEISMIC EVALUATION (DSOD)	51.0%	\$357	\$867
	3808	SYPHON RESERVOIR EXPANSION	51.0%	\$41,820	\$59,874
	7141	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	51.0%	\$154,326	\$206,499
	5427	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	48.5%	\$297,645	\$397,749
	5432	WRMP UPDATE RW	51.0%	\$22,440	\$41,310
				<b>\$26,942,071</b>	<b>\$28,213,932</b>
<b>240</b>					
	5429	CAPITAL PLANNING SUPPORT 16/17 RW	7.7%	\$18,634	\$32,879
	5480	GEN SYS MODS-RW 16/17	7.7%	\$7,839	\$9,556
	7176	GENERAL PLANT REGIONAL 16/17 RW	7.7%	\$21,968	\$21,968
	6203	GIS SUPPORT APPLICATIONS 16/17 - RECYCLED	7.7%	\$4,620	\$7,253
	5823	ILP NORTH CONVERSION - PIPELINES	1.8%	\$119,124	\$122,999
	5407	ILP NORTH CONVERSION - RESERVOIR	0.3%	\$21,132	\$21,414
	7096	METER AND VAULT FOR OSO RESERVOIR	7.7%	\$193	\$493
	6400	NEWPORT COAST SLS IMPROVEMENTS	100.0%	\$1,523,400	\$1,610,700
	7158	NON-POTABLE WATER STUDIES 16/17	7.7%	\$4,620	\$6,045
	7156	NTS INSTRUMENTATION	7.7%	\$12,728	\$17,009
	7137	OPA ZONE C+ PIPELINES	7.7%	\$71,880	\$77,562
	5168	PA18S HIDDEN CANYON 36" RW PIPELINE	7.7%	\$4,520	\$4,520
	4514	PA5B PHASE 1A AND 1B 36" RW	7.7%	\$6,160	\$6,160
	6243	RW CONVERSION IMPROVEMENTS FOR OFF-SITE 16/17	7.7%	\$63,102	\$78,779
	3779	SALT MANAGEMENT PLAN DEVELOPMENT	7.7%	\$1,040	\$1,155
	1813	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	7.7%	\$17,656	\$20,490
	5154	SJR SEISMIC EVALUATION (DSOD)	7.7%	\$54	\$131



ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>240</b>					
	3808	SYPHON RESERVOIR EXPANSION	7.7%	\$6,314	\$9,040
	7141	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	7.7%	\$23,300	\$31,177
	5432	WRMP UPDATE RW	7.7%	\$3,388	\$6,237
				<b>\$1,931,670</b>	<b>\$2,085,567</b>
<b>253-FutDevID_Sewer</b>					
	6479	400/450 SPECTRUM CENTER DR 36" SS RELOCATION	9.6%	\$33,600	\$37,747
	5429	CAPITAL PLANNING SUPPORT 16/17 RW	10.3%	\$24,926	\$43,981
	5430	CAPITAL PLANNING SUPPORT 16/17 SEWER	9.6%	\$23,232	\$40,992
	6161	CENTRALIZED CONTROL ROOM AT MWRP	9.6%	\$173	\$422
	3567	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	9.6%	\$79,958	\$100,051
	5480	GEN SYS MODS-RW 16/17	10.3%	\$10,485	\$12,782
	7176	GENERAL PLANT REGIONAL 16/17 RW	10.3%	\$29,386	\$29,386
	7175	GENERAL PLANT REGIONAL 16/17 SEWER	9.6%	\$28,051	\$28,051
	6203	GIS SUPPORT APPLICATIONS 16/17 - RECYCLED	10.3%	\$6,180	\$9,703
	6204	GIS SUPPORT APPLICATIONS 16/17 - SEWER	9.6%	\$5,760	\$9,043
	6850	IBC SIDEWALK IMP & APPURTENANCE RELOCATIONS	40.0%	\$12,600	\$13,760
	6198	IIC ZONE B BPS UPGRADES	22.7%	\$55,570	\$59,905
	5823	ILP NORTH CONVERSION - PIPELINES	46.0%	\$3,044,280	\$3,143,318
	5407	ILP NORTH CONVERSION - RESERVOIR	42.3%	\$2,979,654	\$3,019,416
	1152	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	9.6%	\$538	\$538
	4397	LAWRP SYSTEM UPGRADES	9.6%	\$557	\$835
	7096	METER AND VAULT FOR OSO RESERVOIR	10.3%	\$258	\$659
	4457	MULTI-ZONE BPS - ZONE A-B	38.1%	\$184,099	\$238,658
	4400	MULTI-ZONE BPS - ZONE A-C	44.0%	\$209,924	\$276,760
	4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	4.1%	\$1,868,542	\$1,917,980

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>253-FutDevID_Sewer</b>					
	7158	NON-POTABLE WATER STUDIES 16/17	10.3%	\$6,180	\$8,086
	6216	NORTHWOOD ZONE B BPS DEMOLITION	22.7%	\$1,249	\$3,360
	7156	NTS INSTRUMENTATION	10.3%	\$17,026	\$22,753
	1554	OCSO CORF 15/16	2.6%	\$31,526	\$31,526
	1561	OCSO CORF 16/17	2.6%	\$120,863	\$120,863
	1516	OCSO EQUITY 15/16	9.6%	\$220,128	\$220,128
	1530	OCSO EQUITY 16/17	9.6%	\$759,082	\$759,082
	7070	OCSO SJHPC/ GRS	9.6%	\$76,675	\$76,675
	1429	OCSO SOLIDS HANDLING 16/17	4.1%	\$57,031	\$57,031
	7137	OPA ZONE C+ PIPELINES	10.3%	\$96,151	\$103,752
	6167	OPS CENTER PERMANENT GENERATOR	9.6%	\$51,360	\$57,581
	6915	PA 6 NBHD 5A 6" AND 8" RECYCLED WATER MAIN ZONE D	100.0%	\$235,100	\$282,500
	7017	PA1 NHB3 ORCHARD HILLS 6"8" RW ZC+	100.0%	\$150,100	\$185,200
	7013	PA1 NHB3 ORCHARD HILLS 6"8"10"12" RW ZC	100.0%	\$271,900	\$332,600
	4990	PA1 ORCHARD HILLS NEIGHBORHOOD 2, 6" ZNC RW	100.0%	\$2,900	\$2,900
	1716	PA1 ORCHARD HILLS NEIGHBORHOOD 3	100.0%	\$34,100	\$52,700
	1722	PA1 ORCHARD HILLS NEIGHBORHOOD 4	100.0%	\$74,200	\$139,000
	4717	PA1 ORCHARD HILLS NH 2 - 6" ZNB & 6" ZNC RW	100.0%	\$5,600	\$5,600
	5919	PA1 ORCHARD HILLS, NEIGHBORHOOD 1, 16" ZC 6" ZC+	100.0%	\$259,300	\$327,700
	5168	PA18S HIDDEN CANYON 36" RW PIPELINE	10.3%	\$6,046	\$6,046
	4681	PA18S HIDDEN CANYON 6" & 8" RW	100.0%	\$7,300	\$7,300
	3735	PA39 PH2 RW FACILITIES	100.0%	\$88,600	\$107,100
	1056	PA39 PHASE 1 RW PIPELINES	100.0%	\$200	\$200
	6056	PA40 8TH ST RIDGE VALLEY TO C ST CAPITAL 6" RW	100.0%	\$18,700	\$22,600
	4528	PA40 NEIGHBORHOOD 2G BACKBONE RW FACILITIES	100.0%	\$200	\$200

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>253-FutDevID_Sewer</b>					
	4318	PA40 PH3B RW CAPITAL FACILITIES	100.0%	\$200	\$200
	3734	PA40 TRAVELAND RW FACILITIES	79.0%	\$3,792	\$6,004
	5757	PA51 "B" ST FROM SOCIABLE TO IRVINE BLV 16" ZN C	12.6%	\$3,717	\$4,221
	5818	PA51 ALTON, TECHNOLOGY TO MUIRLANDS 16" RW	12.6%	\$13,293	\$15,170
	5758	PA51 CADENCE - PUSAN TO CHINON 12" & 16"	12.6%	\$9,122	\$10,294
	6684	PA51 GP BENCHMARK AND MODJESKA (DISTRICT 4) 10"/6"	0.4%	\$2,260	\$2,721
	6554	PA51 GP BENCHMARK AND PERSPECTIVE 6" RW ZC	0.4%	\$270	\$325
	6823	PA51 GP EPISODE (FROM FRAME TO PUSAN) 16" RW ZC	0.4%	\$839	\$1,010
	6514	PA51 GP GP-1 ST (MARINE TO GP-2 ST) 10" RW	12.6%	\$42,273	\$51,005
	6747	PA51 GP IRVINE BLVD (AT MERIT) 6" RW ZC	0.4%	\$72	\$94
	6732	PA51 GP MAGNET (FROM RIDGE V. TO BOSQUE) 6" RW ZB	12.6%	\$11,995	\$14,263
	6535	PA51 GP PUSAN (EPISODE TO IRVINE BLVD) 12" RW ZC	0.4%	\$221	\$267
	6595	PA51 GP TERRAPIN (TRABUCO TO CADENCE) 6" RW ZB	0.4%	\$328	\$396
	6538	PA51 GP-2 ST (BOSQUE TO GP1 ST) 10" RW	12.6%	\$83,399	\$99,124
	7022	PA51 GREAT PARK GP-2 (FROM GP-3 TO BOSQUE) 12"RWZC	0.4%	\$531	\$656
	6017	PA51 IRVINE BLVD, LAMBERT TO Z ST 16" SS	77.1%	\$57,594	\$70,469
	6018	PA51 IRVINE BLVD, LAMBERT TO Z ST 20" RW	0.4%	\$3,866	\$4,421
	5536	PA51 LQ ST FROM BOSQUE TO Z ST 12" RW	12.6%	\$14,818	\$17,942
	4147	PA51 MARINE WAY RW ZNB	12.6%	\$3,478	\$3,868
	6087	PA51 MARINE WAY, ALTON TO BARRANCA 16" RW ZN B	12.6%	\$1,688	\$1,688
	6476	PA51 MARINE WAY. RIDGE VALLEY TO 3000' EAST	100.0%	\$181,100	\$213,700
	4614	PA51 REACH A SEWER IMPROVEMENTS	33.0%	\$29,172	\$29,172
	4515	PA5B IRVINE BLVD 8" ZONE B RW	100.0%	\$5,200	\$5,200
	4514	PA5B PHASE 1A AND 1B 36" RW	10.3%	\$8,240	\$8,240
	4513	PA5B PHASE 1A AND 1B 6" & 8" RW	100.0%	\$14,300	\$16,300

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>253-FutDevID_Sewer</b>					
	4753	PA5B PHASE 2 6" RW	100.0%	\$2,600	\$2,600
	5763	PA6 NEIGHBORHOOD 5A RW ZONE D	100.0%	\$6,600	\$7,600
	4557	PA6 PHASE 1 NEIGHBORHOOD 3 ZONE C RW	100.0%	\$11,900	\$11,900
	1308	PA6 RW PIPELINES	100.0%	\$486,100	\$535,600
	1762	PA9B PHASE 5 GATEWAY PARK RW PIPES	100.0%	\$7,600	\$11,400
	4985	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	9.6%	\$40,752	\$41,702
	7083	POTABLE REUSE ALTERNATIVES ANALYSIS SEWER	9.6%	\$10,560	\$13,229
	6243	RW CONVERSION IMPROVEMENTS FOR OFF-SITE 16/17	10.3%	\$84,409	\$105,379
	3779	SALT MANAGEMENT PLAN DEVELOPMENT	10.3%	\$1,391	\$1,545
	1813	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	10.3%	\$23,618	\$27,408
	7139	SANTIAGO HILLS II RECYCLED WATER BPS	100.0%	\$275,700	\$323,400
	5412	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	9.6%	\$12,403	\$16,378
	5186	SJM SLS UPGRADE	9.6%	\$115	\$298
	5154	SJR SEISMIC EVALUATION (DSOD)	10.3%	\$72	\$175
	3808	SYPHON RESERVOIR EXPANSION	10.3%	\$8,446	\$12,092
	1015	TECHNOLOGY DR AND LAGUNA CANYON RD RW ZONE B	79.0%	\$1,109,713	\$1,175,441
	5427	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	9.6%	\$58,915	\$78,730
	7141	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	10.3%	\$31,168	\$41,705
	5432	WRMP UPDATE RW	10.3%	\$4,532	\$8,343
				<b>\$13,857,651</b>	<b>\$14,908,147</b>
<b>256</b>					
	6479	400/450 SPECTRUM CENTER DR 36" SS RELOCATION	0.3%	\$1,050	\$1,180
	5430	CAPITAL PLANNING SUPPORT 16/17 SEWER	0.3%	\$726	\$1,281
	6161	CENTRALIZED CONTROL ROOM AT MWRP	0.3%	\$5	\$13
	3567	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	0.3%	\$2,499	\$3,127

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>256</b>					
	7175	GENERAL PLANT REGIONAL 16/17 SEWER	0.3%	\$877	\$877
	6204	GIS SUPPORT APPLICATIONS 16/17 - SEWER	0.3%	\$180	\$283
	1152	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	0.3%	\$17	\$17
	4397	LAWRP SYSTEM UPGRADES	0.3%	\$17	\$26
	4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	0.1%	\$45,574	\$46,780
	1554	OCSO CORF 15/16	0.1%	\$985	\$985
	1561	OCSO CORF 16/17	0.1%	\$3,777	\$3,777
	1516	OCSO EQUITY 15/16	0.3%	\$6,879	\$6,879
	1530	OCSO EQUITY 16/17	0.3%	\$23,721	\$23,721
	7070	OCSO SJHPC/ GRS	0.3%	\$2,396	\$2,396
	1429	OCSO SOLIDS HANDLING 16/17	0.1%	\$1,391	\$1,391
	6167	OPS CENTER PERMANENT GENERATOR	0.3%	\$1,605	\$1,799
	4985	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	0.3%	\$1,274	\$1,303
	7083	POTABLE REUSE ALTERNATIVES ANALYSIS SEWER	0.3%	\$330	\$413
	5412	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	0.3%	\$388	\$512
	5186	SJM SLS UPGRADE	0.3%	\$4	\$9
	5427	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	0.3%	\$1,841	\$2,460
				<b>\$95,535</b>	<b>\$99,229</b>
<b>285-LF_OSA_Ssewer</b>					
	6479	400/450 SPECTRUM CENTER DR 36" SS RELOCATION	1.3%	\$4,550	\$5,112
	5429	CAPITAL PLANNING SUPPORT 16/17 RW	1.5%	\$3,630	\$6,405
	5430	CAPITAL PLANNING SUPPORT 16/17 SEWER	1.3%	\$3,146	\$5,551
	6161	CENTRALIZED CONTROL ROOM AT MWRP	1.3%	\$23	\$57
	3567	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	1.3%	\$10,828	\$13,549
	5480	GEN SYS MODS-RW 16/17	1.5%	\$1,527	\$1,862

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>285-LF_OSA_Sewer</b>					
	7176	GENERAL PLANT REGIONAL 16/17 RW	1.5%	\$4,280	\$4,280
	7175	GENERAL PLANT REGIONAL 16/17 SEWER	1.3%	\$3,799	\$3,799
	6203	GIS SUPPORT APPLICATIONS 16/17 - RECYCLED	1.5%	\$900	\$1,413
	6204	GIS SUPPORT APPLICATIONS 16/17 - SEWER	1.3%	\$780	\$1,225
	5823	ILP NORTH CONVERSION - PIPELINES	0.3%	\$19,854	\$20,500
	5407	ILP NORTH CONVERSION - RESERVOIR	0.1%	\$7,044	\$7,138
	1152	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	1.3%	\$73	\$73
	7094	LAKE FOREST ZN A RESERVOIR DEMOLITION	100.0%	\$160,600	\$188,500
	4397	LAWRP SYSTEM UPGRADES	1.3%	\$75	\$113
	7096	METER AND VAULT FOR OSO RESERVOIR	1.5%	\$38	\$96
	4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	0.6%	\$273,445	\$280,680
	7158	NON-POTABLE WATER STUDIES 16/17	1.5%	\$900	\$1,178
	7156	NTS INSTRUMENTATION	1.5%	\$2,480	\$3,314
	1554	OCSD CORF 15/16	0.4%	\$4,269	\$4,269
	1561	OCSD CORF 16/17	0.4%	\$16,367	\$16,367
	1516	OCSD EQUITY 15/16	1.3%	\$29,809	\$29,809
	1530	OCSD EQUITY 16/17	1.3%	\$102,792	\$102,792
	7070	OCSD SJHPC/ GRS	1.3%	\$10,383	\$10,383
	1429	OCSD SOLIDS HANDLING 16/17	0.6%	\$8,346	\$8,346
	7137	OPA ZONE C+ PIPELINES	1.5%	\$14,003	\$15,110
	6167	OPS CENTER PERMANENT GENERATOR	1.3%	\$6,955	\$7,797
	5168	PA18S HIDDEN CANYON 36" RW PIPELINE	1.5%	\$881	\$881
	4514	PA5B PHASE 1A AND 1B 36" RW	1.5%	\$1,200	\$1,200
	4985	PETERS CANYON WATER CAPTURE AND REUSE PIPELINE	1.3%	\$5,519	\$5,647
	7083	POTABLE REUSE ALTERNATIVES ANALYSIS SEWER	1.3%	\$1,430	\$1,791



ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>285-LF_OSA_Sewer</b>					
	6470	RANCHO PARKWAY ZONE C RECYCLED WATER PIPELINE	100.0%	\$144,600	\$157,400
	6243	RW CONVERSION IMPROVEMENTS FOR OFF-SITE 16/17	1.5%	\$12,293	\$15,347
	3779	SALT MANAGEMENT PLAN DEVELOPMENT	1.5%	\$203	\$225
	1813	SANTIAGO DAM & OUTLET TWR SEISMIC STABILITY	1.5%	\$3,440	\$3,992
	5412	SCSMP UPDATE AND LONG-TERM FLOW MONITORING	1.3%	\$1,680	\$2,218
	7134	SERRANO SUMMIT RW IMPROVEMENTS	100.0%	\$68,900	\$137,700
	7135	SERRANO SUMMIT SEWER IMPROVEMENTS	100.0%	\$62,600	\$130,200
	5186	SJM SLS UPGRADE	1.3%	\$16	\$40
	5154	SJR SEISMIC EVALUATION (DSOD)	1.5%	\$11	\$26
	3808	SYPHON RESERVOIR EXPANSION	1.5%	\$1,230	\$1,761
	7141	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	1.5%	\$4,539	\$6,074
	5427	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	1.3%	\$7,978	\$10,661
	5432	WRMP UPDATE RW	1.5%	\$660	\$1,215
				<b>\$1,008,071</b>	<b>\$1,216,091</b>
<b>288</b>					
	6479	400/450 SPECTRUM CENTER DR 36" SS RELOCATION	0.3%	\$1,050	\$1,180
	5430	CAPITAL PLANNING SUPPORT 16/17 SEWER	0.3%	\$726	\$1,281
	6161	CENTRALIZED CONTROL ROOM AT MWRP	0.3%	\$5	\$13
	3567	ENTERPRISE ASSET MGMT SOFTWARE IMPLEMENTATION	0.3%	\$2,499	\$3,127
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	1152	IRWD PIPELINES RELOCATION FOR SC GRADE SEPARATION	0.3%	\$17	\$17
	4397	LAWRP SYSTEM UPGRADES	0.3%	\$17	\$26
	4286	MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES	0.1%	\$45,574	\$46,780
	1554	OCSO CORF 15/16	0.1%	\$985	\$985

ID	Project No.	Project Title	Alloc	FY Direct	FY Direct+GA
<b>288</b>					
	1561	OCSD CORF 16/17	0.1%	\$3,777	\$3,777
	1516	OCSD EQUITY 15/16	0.3%	\$6,879	\$6,879
	1530	OCSD EQUITY 16/17	0.3%	\$23,721	\$23,721
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	1429	OCSD SOLIDS HANDLING 16/17	0.1%	\$1,391	\$1,391
	6167	OPS CENTER PERMANENT GENERATOR	0.3%	\$1,605	\$1,799
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	5427	WATER RECYCLING TREATMENT PLANT MASTER PLAN UPDATE	0.3%	\$1,841	\$2,460
				<b>\$95,535</b>	<b>\$99,229</b>
				<b>\$159,607,129</b>	<b>\$170,597,189</b>



# CONSOLIDATED

## GENERAL PLANT BUDGET

TASK		Item Description	Quantity	Price	Proposed 2016-17
<b>Department:</b>		<b>INFORMATION SERVICES</b>			
250	8030.250.1	Tablet Device (i.e. iPad, SurfacePro, etc.) With Protective Case	6	\$ 1,000	\$ 6,000
250	8031.250.1	Network Disk Storage Expansion and Replacement	1	30,000	30,000
250	8031.250.10	Audio Visual Equipment Replacement - Sand Canyon Board Room	1	37,500	37,500
250	8031.250.12	Audio Visual Equipment Replacement -Sand Canyon Conference Room B	1	4,800	4,800
250	8031.250.13	Audio Visual Equipment - Sand Canyon Calcutta Conference Room	1	4,800	4,800
250	8031.250.14	Audio Visual Equipment - OPS Center Windmill Conference Room	1	6,400	6,400
250	8031.250.2	Network Equipment Replacement	1	271,500	271,500
250	8031.250.3	Service Desk Software Licenses and Implementation	1	40,000	40,000
250	8031.250.4	Server Application Monitoring Software	1	3,000	3,000
250	8031.250.5	Electrical Analysis Software	1	16,500	16,500
250	8031.250.6	Debt and Investment Management Software	1	65,000	65,000
250	8031.250.7	Invoice Scanning and Capture System Replacement	1	48,000	48,000
250	8031.250.8	Audio Visual Equipment Replacement -Sand Canyon Committee Conference Room	1	6,000	6,000
250	8031.250.9	Audio Visual Equipment Replacement -Duck Club/ Adventure Room/ Discovery Room	1	10,200	10,200
250	8041.250.1	PC Purchases	74	1,284	95,000
250	8041.250.2	Laptop Computer Replacement	11	2,182	24,000
250	8041.250.3	Tablet Computer Replacement	13	2,154	28,000
Sub-Total					\$ 696,700
<b>Department:</b>		<b>NTS OPERATIONS</b>			
515	8036.515.1	Solar Mixer	1	\$ 26,000	\$ 26,000
515	8036.515.2	Composite Water Quality Sampler	1	7,500	7,500
515	8036.515.3	Composite Water Quality Sampler	1	7,500	7,500
515	8036.515.4	Composite Water Quality Sampler	1	7,500	7,500
515	8036.515.5	Composite Water Quality Sampler	1	7,500	7,500
515	8036.870.1	Electric Utility Vehicle	1	24,000	24,000
Sub-Total					\$ 80,000
<b>Department:</b>		<b>COLLECTION SYSTEMS</b>			
570	8036.870.2	6" Solids Handling Pump	1	\$ 33,200	\$ 33,200
570	8036.870.5	4" Solids Handling Pump	1	9,200	9,200
Sub-Total					\$ 42,400
<b>Department:</b>		<b>WATER QUALITY ADMINISTRATION</b>			
610	8031.610.1	Misc. Laboratory Equipment for Unplanned Projects and Regulatory Requirements	1	\$ 44,000	\$ 44,000
Sub-Total					\$ 44,000
<b>Department:</b>		<b>WATER QUALITY ANALYSIS</b>			
630	8031.630.1	Laboratory Equipment for Biosolids and Energy Recovery Project.	1	\$ 25,000	\$ 25,000
630	8036.630.1	Laboratory Instrumentation for Future Biosolids and Energy Recovery Project.	1	25,000	25,000
630	8036.630.2	Existing Laboratory Equipment Replacement	1	130,000	130,000
Sub-Total					\$ 180,000
<b>Department:</b>		<b>ELECTRICAL SERVICES</b>			
820	8033.820.1	Personal portable gas monitoring units	1	\$ 180,000	\$ 180,000
820	8038.870.1	Generators	1	2,600,000	2,600,000
Sub-Total					\$2,780,000



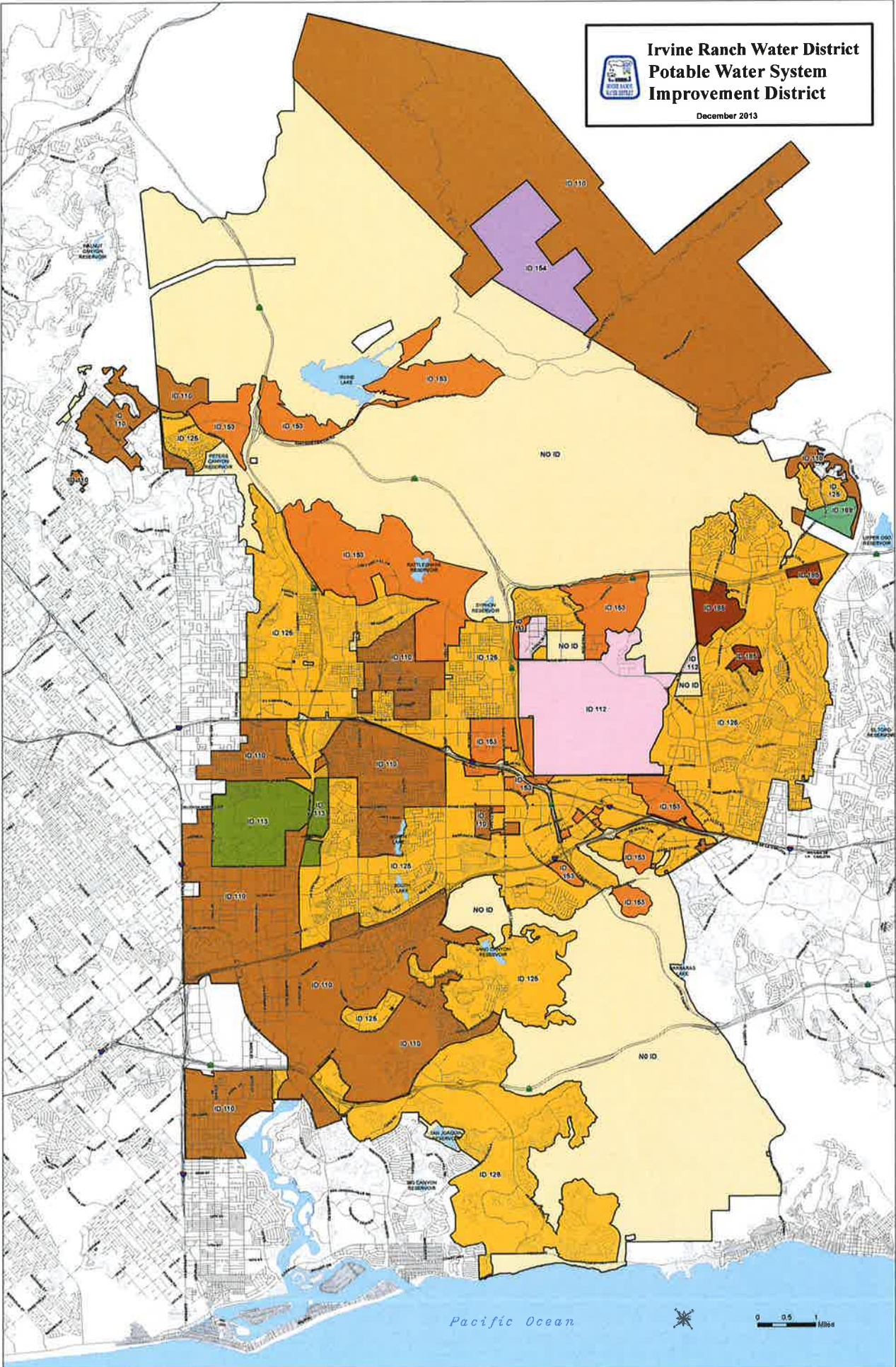
# CONSOLIDATED

## GENERAL PLANT BUDGET

TASK	Item Description	Quantity	Price	Proposed 2016-17
<b>Department:</b> MECHANICAL SERVICES				
840 8031.840.1	Laser alignment tool	1	\$ 30,000	\$ 30,000
840 8036.870.6	Electric Manlift	1	38,500	38,500
Sub-Total				<u>\$ 68,500</u>
<b>Department:</b> FACILITIES SERVICES				
855 8011.855.1	Headquarters Lobby Carpet	1	\$ 72,500	\$ 72,500
855 8011.855.2	Fitness and Strength Training Equipment	1	39,500	39,500
Sub-Total				<u>\$ 112,000</u>
<b>Department:</b> FACILITIES SERVICES				
860 8023.860.1	Office Cubicle Reconfiguration	1	\$ 80,000	\$ 80,000
Sub-Total				<u>\$ 80,000</u>
<b>Department:</b> FLEET SERVICES				
870 8036.870.1	Heavy Duty Semi Tractor	1	\$ 137,500	\$ 137,500
870 8036.870.2	Hydro excavator	1	535,000	535,000
870 8036.870.2	Light Utility Cart (Golf Cart w/utility bed)	1	14,200	14,200
870 8036.870.3	Light Utility Cart (Golf Cart w/utility bed)	1	14,200	14,200
870 8036.870.3	Light Utility Cart (Golf Cart)	1	9,400	9,400
870 8036.870.4	Light Utility Cart (Golf Cart)	1	9,400	9,400
870 8036.870.5	Light Utility Cart (Golf Cart)	1	9,400	9,400
870 8036.870.6	Light Utility Cart (Golf Cart)	1	9,400	9,400
870 8036.870.7	Concrete Saw	1	22,000	22,000
870 8055.870.1	Medium Duty Truck 4WD	1	33,500	33,500
870 8055.870.10	Medium Duty Van	1	27,500	27,500
870 8055.870.11	Medium Duty Truck 2WD	1	28,400	28,400
870 8055.870.12	Medium Duty Truck 4WD	1	29,500	29,500
870 8055.870.13	Medium Duty Truck 2WD	1	28,400	28,400
870 8055.870.14	Light Duty Truck 2WD	1	30,500	30,500
870 8055.870.15	Light Duty Truck 2WD	1	30,500	30,500
870 8055.870.16	Medium Duty Truck 2WD	1	28,400	28,400
870 8055.870.17	Medium Duty Truck 4WD	1	29,500	29,500
870 8055.870.2	Medium Duty Truck 4WD	1	33,500	33,500
870 8055.870.3	Compact Hybrid Sedan	1	28,000	28,000
870 8055.870.5	Medium Duty Truck 4WD	1	29,500	29,500
870 8055.870.6	Medium Duty Truck 4WD	1	29,500	29,500
870 8055.870.7	Medium Duty Truck 4WD	1	28,400	28,400
870 8055.870.8	Medium Duty Truck 4WD	1	29,500	29,500
870 8055.870.9	Medium Duty Truck 2WD	1	28,400	28,400
870 8056.870.1	Vactor	1	262,500	262,500
Sub-Total				<u>\$ 1,496,000</u>
Total General Plant				<u><u>\$ 5,579,600</u></u>



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

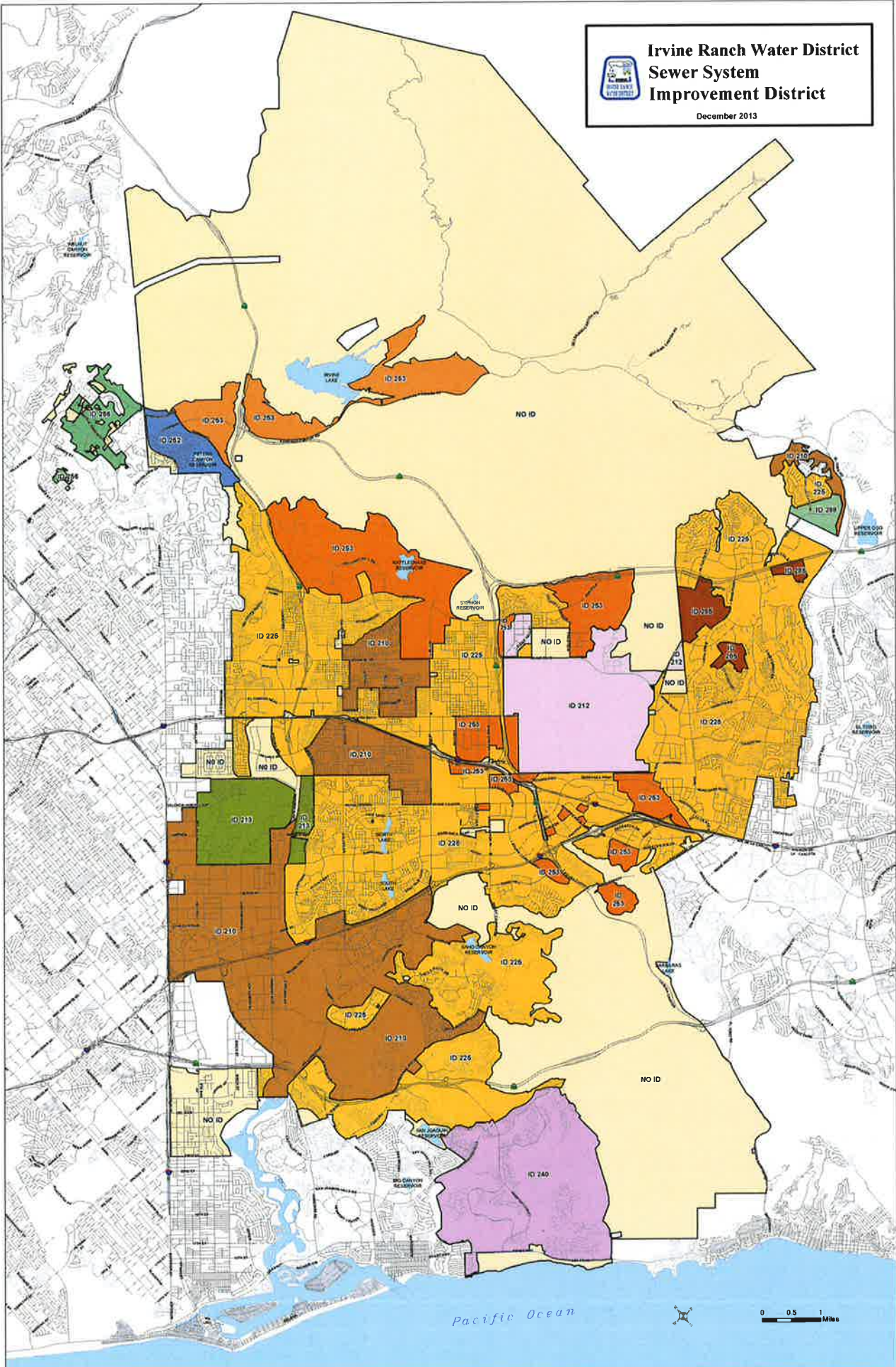






# Irvine Ranch Water District Sewer System Improvement District

December 2013





April 11, 2016  
Prepared and  
Submitted by: N. Savedra  
Approved by: P. Cook

CONSENT CALENDAR

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

SUMMARY:

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

Events/Meetings

Steven LaMar

- 3/10/16 ACC-OC Water Committee Meeting
- 3/21/16 Newport Bay Watershed Projects Meeting

Mary Aileen Matheis

- 4/06/16 OCWD Board Meeting

Douglas Reinhart

- 3/14/16 SMWS/IRWD Joint Facilities Ad Hoc Meeting

John Withers

- 3/10/16 Meeting w/Executive Director Neda Eaton of Irvine Public Schools Foundation
- 3/22/16 Concordia University Public Affairs Advisory Board Meeting
- 4/06/16 OCWD Board Meeting
- 4/07/16 MWDOC Board & Member Agencies Officials' Forum
- 4/08/16 MWD-Community Leaders Briefing on Water Supply Issues

RECOMMENDATION:

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


LIST OF EXHIBITS:

None

April 11, 2016

Prepared and

Submitted by: L. Bonkowski 

Approved by: P. Cook 

CONSENT CALENDAR

MINUTES OF BOARD MEETING

SUMMARY:

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

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

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

LIST OF EXHIBITS:

Exhibit "A" – March 28, 2016 Minutes

## EXHIBIT "A"

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

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President Matheis on March 28, 2016 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Reinhart, LaMar, Matheis and Withers (arrived at 5:25 p.m.)

Directors Absent: Swan.

Also Present: General Manager Cook, Executive Director of Engineering and Water Quality Burton, Executive Director of Finance and Administration Clary, Executive Director of Water Policy Weghorst, Executive Director of Operations Sheilds, Director of Treasury and Risk Management Jacobson, Director of Water Resources Sanchez, Director of Human Resources Roney, Legal Counsel Arneson, Secretary Bonkowski, Government Relations Officer Compton, Mr. Eric Akiyoshi, Mr. Jim Reed, Mr. Bruce Newell, and other members of the public and staff.

WRITTEN AND ORAL COMMUNICATIONS: None.

ITEMS RECEIVED TOO LATE TO BE AGENDIZED: None.

### CONSENT CALENDAR

On MOTION by LaMar, seconded and carried (3-2) (LaMar, Reinhart, Matheis voting aye, and Withers and Swan absent), CONSENT CALENDAR ITEMS 3 – 5 WERE APPROVED AS FOLLOWS:

3. MINUTES OF BOARD MEETING

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

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

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

5. FEBRUARY TREASURY REPORT

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Monthly Interest Rate Swap Summary for February 2016, and Disclosure Report of Reimbursements to Board members and staff; approve the February 2016 summary of payroll ACH payments in the total amount of \$1,560,359 and approve the February 2016 accounts payable disbursement summary of Warrants 364865 through 365607, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$29,907,100.

## ACTION CALENDAR

### PETERS CANYON WASH CHANNEL WATER CAPTURE AND REUSE PIPELINE AGREEMENT FOR DRY WEATHER URBAN RUNOFF DISCHARGE AND CONTRACT CHANGE ORDER

General Manager Cook reported that the Peters Canyon Wash Channel Water Capture and Reuse Pipeline project is under construction and is about 80 percent complete. Mr. Cook said that the project will divert nuisance surface and perched groundwater flows with high concentrations of selenium and nitrates from selected tributaries to Peters Canyon Wash Channel and deliver them in a pressure pipeline to the Main Street sewer that discharges to the Orange County Sanitation District (OCSD) for treatment and reuse. He said that the project will discharge to OCSD under the terms of OCSD's Dry Weather Urban Runoff Discharge Program which requires the execution of an agreement. He further said that the Agreement establishes various provisions including requirements for the cessation of all dry weather urban runoff flows during wet weather events, flow metering, water quality sampling, and reporting.

Executive Director of Engineering and Water Quality Burton reported that portions of the project pipeline (being constructed by the District's contractor, E.J. Meyer Company) are within the OCFCD access road along Peters Canyon Channel. The design included replacement requirements for portions of the access road impacted by the pipeline construction that exceeded the existing design of the access road. He said that staff coordinated with project representatives from the County and with the contractor to modify the structural section of the access road to match the existing conditions resulting in a credit in the amount of <\$87,800>.

Mr. Burton said that a portion of the project is being constructed adjacent to Como Channel and that the only contractor access point to this area of the work is along an adjacent City of Irvine bike trail. He said that staff and City of Irvine staff inspected the bike trail and determined that it is in suitable condition and will not require full replacement as originally anticipated, and that the City of Irvine approved modifications resulting in a credit in the amount of <\$44,258.80>.

Mr. Burton said that in October 2015, the jack and bore subcontractor struck an unidentified Metrolink communication conduit while jacking the proposed 24-inch casing beneath Como Channel which damaged the communication line and deflected the casing off alignment. He said that after substantial coordination, a recovery plan was developed and implemented in December 2015 which included converting the receiving pit to a jacking pit and jacking a larger 36-inch casing the remainder of the distance from the opposite direction until it intercepted and overlapped the previously-installed 24-inch casing. He said that the cost for this work includes delay costs associated with determining a suitable recovery solution, coordination with Metrolink and MCI/Verizon, additional mobilization and demobilization efforts for the jack and bore subcontractor, additional dewatering efforts, procurement and advancement of the larger casing, and the construction of the recovery jacking pit for a cost of \$342,095.31.

Director Reinhart said that this item was reviewed and approved by the Engineering and Operations Committee on March 15, 2016. On MOTION by Reinhart, seconded and carried, (3-2) (LaMar, Reinhart, Matheis voting aye and Withers and Swan absent), THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE THE AGREEMENT FOR DRY WEATHER URBAN RUNOFF DISCHARGE WITH THE ORANGE COUNTY SANITATION DISTRICT SUBJECT TO NON-SUBSTANTIVE CHANGES, AND APPROVED CONTRACT CHANGE ORDER NO. 3 IN THE AMOUNT OF \$210,036.51 WITH E.J. MEYER COMPANY FOR THE PETERS CANYON WASH CHANNEL WATER CAPTURE AND REUSE PIPELINE, PROJECT 4985.

#### REVISED POLICY POSITION PAPER MWDOC RATE STRUCTURE

General Manager Cook reported that the District's policy position papers are reviewed periodically to determine if the positions are still valid, require revisions, or to identify additional papers which may be needed concerning different issues of importance. Mr. Cook said that staff has modified the IRWD policy position paper regarding the Municipal Water District of Orange County (MWDOC) Rate Structure that was last revised and reviewed with the Board in November 2015.

Using a PowerPoint presentation, Executive Director of Water Resources Weghorst reviewed a comparison of the financial impacts of the various options for fixed charges being considered that would be assessed by MWDOC. Director Withers arrived at 5:25 p.m.

Director LaMar said that a related item was reviewed by the Water Resources Policy and Communications Committee on November 5, 2015 and the Board on November 9, 2015. On MOTION by LaMar, seconded and carried, (4-1) (LaMar, Reinhart, Matheis, and Withers voting aye, and Swan absent), THE BOARD APPROVED THE MUNICIPAL WATER DISTRICT OF ORANGE COUNTY RATE STRUCTURE POLICY POSITION PAPER, AS AMENDED.

#### GENERAL MANAGER'S REPORT

General Manager Cook reported that the lot line adjustments for the Eaton property the District is purchasing is now complete.

Mr. Cook said that he received good news from ACWA that the Water Transfer Policy had recently been approved by its Board. He acknowledged both Paul Weghorst and Christine Compton for their efforts with these guidelines.

He said that this Friday he would be traveling to Las Vegas to attend a Water Reuse National meeting.

DIRECTORS' COMMENTS

Director LaMar reported on his attendance at a California Environmental Dialogue meeting with one of the topics being atmospheric rivers which he found very interesting, a meeting with Mr. Michael Wellborn and Ms. Krista Slonslowski relative to storm water capture, and an ACWA Board meeting in Sacramento.

Director Withers reported that last week he attended a Concordia Public Affairs Advisory Committee meeting, City of Irvine's Exchange Club for its annual Irvine Police Department awards banquet, and that he will be attending an ISDOC Quarterly meeting on Thursday and a WACO meeting on Friday. He noted a Newport Beach Public Library event on Thursday relative to the water issue at the City of Los Angeles.

Director Reinhart reported on his attendance at MWDOC Board meetings, a South Orange County agencies meeting where they are moving forward with a Letter of Understanding relative to the Settlement agreement which will be expiring in June of 2016.

Director Matheis said that she attended Shadetree Partnership's monthly nursery event on March 19<sup>th</sup> and said that she is very impressed with the efficiency and professional look of the nursery.

IRWD's consultant Jim Reed reported on recent meetings he attended for the District.

ADJOURNMENT

President Matheis adjourned the meeting at 5:55 p.m.

APPROVED and SIGNED this 11th day of April, 2016.

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President, IRVINE RANCH WATER DISTRICT

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Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

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Legal Counsel - Bowie, Arneson, Wiles & Giannone



April 11, 2016

Prepared and

submitted by C. Compton

Approved by: Paul Cook



## CONSENT CALENDAR

### 2016 LEGISLATIVE UPDATE

#### SUMMARY:

This report provides an update on the 2016 legislative session and IRWD priorities. As legislation develops, staff will provide updates and recommendations to the Water Resources Policy and Communications Committee and the Board, as appropriate.

Staff recommends that the Board consider the following actions/positions:

- *AB 2488 (Dababneh, D-Van Nuys)- Fully Protected Species: Unarmored Threespine Stickleback* — “SUPPORT”;
- *AB 2583 (Frazier, D-Fairfield )- Sacramento-San Joaquin Delta Reform Act of 2009* — “OPPOSE”;
- *SB 885 (Wolk, D-Vacaville)- Construction Contracts: Indemnity* — “OPPOSE”;
- *SB 814 (Hill, D-San Mateo)- Drought: Excessive Water* — “SEEK AMENDMENTS”;
- *SB 974 (Senate Governance and Finance Committee)- Local Government Omnibus Act of 2016* — “SUPPORT”;
- *SB 1317 (Wolk, D-Vacaville)- Conditional Use Permit: Groundwater Extraction Facility* — “OPPOSE UNLESS AMENDED”; and
- *U.S. Army Corps of Engineers and Bureau of Reclamation Atmospheric River Research and Reservoir Operations Funding* — “SUPPORT IN CONCEPT”.

#### BACKGROUND:

The Legislature returned from Spring Recess on March 28, 2016. As expected, many of the spot bills that were introduced this year have been or are in the process of being amended as their authors seek to have the bills referred to and heard in the appropriate policy committee. This year, the last day for policy committees to hear fiscal bills is April 22, while May 6 is the policy committee deadline for non-fiscal bills.

A copy of the 2016 State Legislative Matrix is attached as Exhibit “A”.

State Budget Update:

*February's Revenue Numbers:*

On March 10, 2016, State Controller Betty Yee released her monthly report on the State's finances. She announced that the State took in \$6.85 billion during the month of February. This amount was 6.8 percent higher than budgeted. The discrepancy between the budget and actual amount was due to the fact that both personal income and corporate taxes came in higher than anticipated. Personal income tax revenues were 11.8 percent above budget and corporate taxes were ten times estimates. For the first eight months of Fiscal Year 2015-16, total General Fund revenues are still ahead of budget estimates by \$293.8 million, or 0.4 percent.

Update on Implementation of 2015 Enacted State Legislation:

*SB 272 (2015) — The California Public Records Act: Local Agency Inventories:*

SB 272, authored by Senator Bob Hertzberg (D, Van Nuys) added Section 6270.5 to the Government Code. Section 6270.5 requires that each local agency create a catalog of the enterprise systems that it uses, and requires that the local agency make the catalog publicly available upon request and on the agency's website. The catalog must be posted by July 1, 2016.

Section 6270.5 defines an enterprise system as "a software application or computer system that collects, stores, exchanges, and analyzes information that the agency uses that is both of the following:

- A multidepartmental system or a system that contains information collected about the public; and
- A system that serves as an original source of data within an agency.

The section also provides that certain types of systems were not enterprise systems subject to disclosure. These included:

- Information technology security systems;
- Physical access control systems;
- Employee identification management systems;
- Video monitoring and other physical control systems;
- Infrastructure and mechanical control systems;
- Systems related to the 911 dispatch system;
- An information security record of a public agency, if, on the facts of the particular case, disclosure of that record would reveal vulnerabilities to, or otherwise increase the potential for an attack on, an information technology system of a public agency; and
- The specific records that the information technology system collects, stores, exchanges, or analyzes.

Section 6270.5 provides that the catalog must detail certain information related to each enterprise system used by the agency. This information includes the current system vendor, current system product, a brief statement of the system's purpose, a general description of categories or types of data collected or used by the system, how frequently system data is collected, how frequently system data is updated, and the agency department that serves as the system's primary custodian of the system.

Upon the enactment of SB 272, staff began working to comply with the bill's provisions. Staff briefed the Committee on the efforts that have been undertaken to comply with SB 272. The Committee also heard from Wallace Walrod of the Orange County Business Council on SB 272's requirements.

A copy of SB 272 (2015) is attached as Exhibit "B".

#### 2016 State Legislation:

##### *AB 2304 (Levine, D-Santa Rosa) — State Water Market Exchange:*

As reported to the Board last month, Assembly Water, Parks and Wildlife Chairman Marc Levin (D, Santa Rosa) introduced AB 2304 on behalf of the Environmental Defense Foundation. AB 2304 would establish the California Water Market Exchange in the Natural Resources Agency. The statewide exchange would be responsible for creating a centralized water market platform through which information regarding all transfer and exchanges of water occurring after December 31, 2017, would be recorded, and charged a fee. The bill also expresses legislative intent regarding water transfers and exchanges. It states that it is the Legislature's intent that water transfer and exchanges protect and enhance environmental and community benefits including the following:

- Instream flows and ecosystem water supply;
- Improved water monitoring and data networks;
- Ecosystem restoration projects benefiting aquatic and riparian species;
- Improved drinking water supply and quality projects;
- The development of needed technical, managerial and financial capacity for disadvantaged communities; and
- Acquisition through the market exchange of need water supplies for smaller community water systems.

IRWD has been an active participant on Association of California Water Agencies' Water (ACWA) Transfer Task Force. The District, consistent with Board-adopted policy principles, has advocated for the development of voluntary regional water exchanges to facilitate voluntary water transfer between willing buyers and sellers consistent with existing water rights and priorities. At the end of March, the ACWA Board adopted the task force's recommended policy principles. Staff has also been participating on the ACWA State Legislative Committee's Work Group on Water Transfers, and has met with Chairman Levine's staff on AB 2304. Discussions related to this bill are ongoing. Staff will provide the Committee and the Board with an update as these discussions progress.

*AB 2488 (Dababneh, D-Van Nuys) — Fully Protected Species: Unarmored Threespine Stickleback:*

The California Endangered Species Act (“CESA”) prohibits the taking of an endangered or threatened species unless the California Department of Fish and Wildlife (“DFW”) has authorized the take, the take is minimized and fully mitigated, and the take is incidental to an otherwise lawful activity. While DFW can issue incidental take permits for endangered or threatened species, the fully protected species statutes prohibit all take of fully protected species, with only a few narrow exceptions. Generally, the fully protected species statutes do not permit DFW to issue a permit for the taking of a fully protected species although there are four exceptions that relate to fully protected fish species. Under these exceptions, DFW may authorize the:

- Taking of a fully protected fish species whose conservation and management is provided for in a natural community conservation plan;
- Taking for scientific research, including efforts to recover fully protected, threatened and endangered species;
- Incidental take of the fully protected unarmored threespine stickleback fish resulting from a habitat restoration project on Bouquet Creek; and
- Incidental take of the fully protected limestone salamander attributable to a highway restoration project in Mariposa County.

AB 2488 (Dababneh, D-Van Nuys) would add a fifth exception to the fully protected fish species exceptions.

If enacted, AB 2488 would permit DFW to authorize the take of the unarmored threespine stickleback during periodic dewatering, inspection, maintenance, or repair of the Metropolitan Water District of Southern California’s (“Metropolitan”) Foothill Feeder. Approximately every five years, Metropolitan shuts down and drains the Foothill Feeder to repair any damage and to reinforce the structure. Several of the drainage areas along the pipeline route may contain unarmored threespine stickleback populations. In the past Metropolitan has worked with the resource agencies to mitigate dewatering activities by collecting any unarmored threespine stickleback that float outside the stream channel and returning them to the stream. A recent California Supreme Court decision held that the live relocation of a fully protected species is a “take.” Consequently, live relocation is no longer permitted during routine maintenance of the Foothill Feeder. AB 2488 will allow DFW to permit the carefully managed incidental take of the unarmored threespine stickleback allowing Metropolitan to maintain the Foothill Feeder. Since the Foothill Feeder is a critical distribution facility for ensuring water reliability for Southern California, staff recommends that the Board adopt a “support” position on AB 2488.

AB 2488 is scheduled to be heard in Assembly Water, Parks and Wildlife on April 12, 2016. A copy of AB 2488, as amended March 31, 2016, is attached is Exhibit “C”.

There are also two other protected species bill this year. AB 1845 (Dahle, R-Redding) would permit DFW to authorize a similar take for the rough sculpin attributable to repairing the Spring Creek Bridge in the County of Shasta. AB 2001 (Mathis, R-Visalia) would authorize DFW to permit the taking of a fully protected species for efforts to recover fully protected, threatened, or endangered species.

*AB 2583 (Frazier, D-Fairfield) — Sacramento-San Joaquin Delta Reform Act of 2009:*

The Sacramento-San Joaquin Delta Reform Act of 2009 established the Delta Stewardship Council and required the Council to develop, adopt, and commence implementation of a comprehensive management plan for the Delta, known as the Delta Plan. Under the Delta Reform Act, the Delta Plan is required to further the coequal goals of providing a more reliable water supply and protecting, restoring, and enhancing the Delta ecosystem. The Act dealt with how permitting of a new conveyance facility and the Bay Delta Conservation Plan would proceed.

AB 2583 (Frazier, D-Fairfield), as amended on March 17, 2016, seeks to modify the Delta Reform Act substantially. Several of the bill's more noteworthy provisions are that it would:

- Prohibit the construction of new conveyance facilities until each state and federal water contractor that will receive water supplies from the Delta enters into a legally binding financial agreement to pay for all costs associated with the federal Central Valley Project, the State Water Project, and any new Delta water conveyance facility. These costs include costs related to the environmental review, planning, design, construction, mitigation, operation, and maintenance of these facilities. The required agreement would need to include provisions requiring the contractors to reimburse the State for any General Fund or water bond funding used to date;
- Prohibit any issuance of a certification of consistency for a new Delta water conveyance project, and thereby construction, unless specified requirements are met including that:
  - Each region dependent on imported water from the Delta has demonstrated that it has improved regional self-reliance by 50 percent over average regional water supply levels during the period of 2010 to 2015 due to reduced demand for imported supplies from the Delta.
  - Exports match the surplus water supplies available in the Delta by water year type, Bay-Delta water quality objectives, the coequal goals, and projections in in-Delta demands; and
- Prohibit the State Water Resources Control Board from approving a new point of diversion or a change in the point of diversion of the State Water Project and the federal Central Valley Project from the southern Delta to a certain point on the Sacramento River until it has completed its update of a specified water quality control plan.

Metropolitan has conducted a thorough analysis of the bill, as amended, and its impacts. It has asked Southern California water agencies to join with it in opposing AB 2583. Based on its analysis and staff's reading of the bill, AB 2583 would add substantial, new requirements to the Delta Reform Act for the California WaterFix or any other change in conveyance within the Delta. Furthermore, it would delay the start of construction of any Delta fix for a number of years and add significant new financial and regulatory hurdles that the new facility would need to overcome. Staff recommends that the Board adopt an "oppose" position on AB 2583 (Frazier).

A copy of AB 2583, as amended, is attached as Exhibit "D" and a copy of Metropolitan's analysis is attached as Exhibit "E". AB 2583 is scheduled to be heard in Assembly Water, Parks and Wildlife on April 12, 2016.

*SB 163 (Hertzberg, D-Van Nuys) — Wastewater Treatment: Recycled Water:*

On September 3, 2015, Senator Bob Hertzberg (D, Van Nuys) amended SB 163, which had previously dealt with elections, in order to propose a 100 percent ban on ocean discharge of treated wastewater. Specifically, the bill would declare that the discharge of treated wastewater from ocean outfalls, except in compliance with the bill's provisions, is a waste and unreasonable use of water in light of the cost-effective opportunities to recycle water for further beneficial use. It would require a 50 percent reduction in ocean discharges by January 1, 2026, and a 100 percent reduction by January 1, 2036.

Over the past month, staff has continued to work with the coalition led by the California Association of Sanitation Agencies and WaterReuse California. The coalition submitted a letter detailing the developed alternative to Senator Hertzberg for his consideration. A copy of the letter is attached as Exhibit "F".

*SB 814 (Hill, D- San Mateo) — Drought: Excessive Water Use:*

As reported to the Board last month, SB 814 (Hill, D-San Mateo) would require each urban retail water supplier to establish a local definition of excessive water use, and would prohibit excessive water use as defined by the urban water supplier during a drought. On March 17, 2016, the bill was amended to require each urban retail water supplier to establish methods by which to identify and restrict excessive water use. The bill authorizes two methods by which an urban retail water supplier may restrict excessive water use and comply with the requirement of the bill.

The first method would allow an urban retail water supplier to identify and restrict excessive water use through the establishment of a rate structure that includes block tiers, water budgets, penalties for prohibited uses, or rate surcharges over and above base rates for excessive water used by residential customers. The second method would allow an urban retail water supply to identify and restrict excessive water use through the establishment of an excessive water use ordinance, rule, or tariff condition. The ordinance, rule or tariff condition must include a definition of excessive water use and set the fine for violating the ordinance, rule or tariff punishable at at least \$500 per 100 cubic feet of water or 748 gallons used above the excessive



water use threshold. The bill limits these requirements to periods during which the Governor has issued a proclamation of a state of emergency based on drought conditions.

SB 814 was passed by the Senate Natural Resources and Water Committee on March 29, 2016. In committee, the author removed the provisions that would have required that certain information about residential customers be made available to requestors under the California Public Records Act. The bill is now in Senate Appropriations.

As previously drafted SB 814 would have impacted IRWD's ability to use its allocation-based tiered rate structure to respond to the drought and water supply shortages. As a result the Board adopt an "oppose unless amended" position on SB 814, and authorize staff to work with IRWD's association and industry partners to obtain amendments to the bill recognizing the use allocation-based tiered rate structures as a method for discouraging excessive water use in times of drought.

While the amendments allow IRWD to continue to use its allocation-based tiered rate structure to respond to drought and water supply shortages, several minor amendments to the revised language would improve the clarity of an urban water supplier's ability to use its rate structure to comply with the bill's requirements and would provide greater flexibility to local agencies. Given the recent amendments, staff recommends that the Board revise its position on SB 814 and adopt a "seek amendments" position on the bill. Staff also recommends that the Board authorize the District to seek further clarifying amendments to preserve flexibility for the District in complying with SB 814, if enacted.

A copy of SB 814, as amended, is attached as Exhibit "G".

*SB 885 (Wolk, D-Vacaville) — Construction Contracts: Indemnity:*

In 2010, SB 972 (Wolk, D-Vacaville) was enacted. SB 972 was a compromise between design professionals for public works projects and local governments. It provided that any provision of a contract entered into on or after January 1, 2011, for design services, which required the design professional to indemnify or defend a public agency, were unenforceable. The one exception to this rule was for claims that arise out of or relate to the negligence, recklessness, or willful misconduct of the design professional. As introduced, SB 855 moves beyond the 2010 compromise and proposes to limit local agencies' contracting abilities.

When contracting with a design professional, public agencies often place a clause in the agreement requiring the design professional to legally defend the public agency if a claim or lawsuit directly related to the design work is filed against the agency— this is known as a duty to defend. SB 885 proposes to make such provisions largely unenforceable. Under the bill, a design professional would only have to pay for the reasonable defense costs of the public entity in proportion to his or her degree of fault for a claim arising out of the his or her negligence, recklessness, or willful misconduct.

By limiting the duty to defend in this manner, the bill essentially prohibits a public agency from including a traditional duty to defend in any of contract it enters into with a design professional. In practice, the bill means that a public agency will have to pay for any costs associated with a lawsuit arising from the actions of the design professional and then seek reimbursement for its

defense costs from the design professional. Reimbursement could only be sought after the case has been fully litigated, or an arbitrator has rendered a final design, and the public entity has lost. This is because the bill limits the duty to defend to the extent that the court or arbitrator has found that the design professional was at fault. The bill also limits the reimbursement to the reasonable, not actual, costs of the defense.

This type of process not only requires a public entity to front the costs for a private entity, but it also creates conflict within the public-private partnership, effectually eliminating the incentive to work together towards a settlement, rather than the more costly process of litigation. For these reasons, staff recommends that the Board adopt an “oppose” position on SB 885.

SB 885 has been referred to the Senate Judiciary Committee. A copy of SB 885 is attached as Exhibit “H”.

*SB 974 (Senate Governance and Finance Committee) — Local Government Omnibus Act of 2016:*

Each year, the Senate Governance and Finance Committee authors the Local Government Omnibus Act, which is a bill that proposes minor changes to statutes affecting local agencies’ powers and duties. The bill is a consensus bill meaning that if anyone objects to a change included in the bill, it is removed. This year’s omnibus bill is SB 974. As in the past, the bill proposes relatively minor, noncontroversial changes to the laws affecting local agencies’ powers and duties that do not warrant a separate and expensive bill. This year’s bill includes clarifying, noncontroversial amendments to statutes affecting local agencies’ power and duties related to county recorders, veterans’ records, notaries, general plans, local agency investment requirements, vehicle license fees, Kern County Water Authority, and sewer agency ordinance and resolutions. A copy of the bill, as amended on March 29, 2016, is attached as Exhibit “I”.

Staff submitted the proposed changes related to sewer agency ordinance and resolutions for the committee’s consideration. Under state law today, various provisions of the Health and Safety Code related to sewer agency authorities intermittently refer to “ordinance” and “ordinance or resolution.” The inconsistency may have resulted from prior amendments that did not conform to all references. This results in possible ambiguity as to the form of adoption required. Since both “ordinance” and “ordinance or resolution” are used in these sections, and are internally cross-referenced, it appeared that the intent was to allow the use of ordinances or resolutions. The proposal included in SB 974 seeks to make all references in these sections consistent, referencing ordinance or resolutions, so that there is no confusions as to which is required.

At the request of the Senate Governance and Finance Committee, IRWD wrote a letter in support of SB 974 on March 30, 2016, given the inclusion of IRWD’s sewer agency proposal and the April 6 hearing on the bill. A copy of the letter is attached as Exhibit “J”. Staff recommends that the Board ratify the “support” position communicated in that letter.

*SB 1317 (Wolk, D-Vacaville) — Conditional Use Permit: Groundwater Extraction Facility:*

SB 1317, authored by Senator Lois Wolk, would require a city or county overlying a high or medium priority basin to establish a process for the issuance of conditional use permits for the

development of a groundwater extraction facility. The purpose of the conditional use permit process must be aimed at preventing a new groundwater extraction facility from contributing to or creating an undesirable result, as defined in the Sustainable Groundwater Management Act, within the groundwater basin.

Both the Orange County groundwater basin and the Kern County sub-basin of the San Joaquin Valley Groundwater Basin are classified a high or medium priority basin. If SB 1317 were enacted, the cities and counties in these basins would be required to issue conditional use permits for the development of groundwater extraction facilities. The conditional use permits could impact IRWD's groundwater production and water banking activities. Staff recommends that the Board adopt an "oppose unless amended" position on SB 1317 and authorize the District to seek amendments to protect water banking projects and sustainable groundwater management within Orange County. Staff would coordinate with the Orange County Water Districts on amendments protecting groundwater management in Orange County. A copy of SB 1317 is attached as Exhibit "K".

*The California Water Conservation, Flood Control and Stormwater Management Act of 2016:*

The California League of Cities, the California Association of Counties and the Association of California Water Agencies have decided to no longer pursue a constitutional amendment to address tiered water rate structures, stormwater funding, and voluntary low-income rate subsidization. After receiving the title and summary for "The California Water Conservation, Flood Control and Stormwater Management Act of 2016," also known as the Article X proposal, the coalition polled likely voter to gauge voter response to the proposal. The poll results indicated a negative response to the title and summary. As a result, the coalition decided it would no longer pursue the proposal this year. Staff will provide an oral update on any new developments related to any new or ongoing efforts to address tiered water rates this year.

2016 Federal Legislation:

*U.S. Army Corps of Engineers and Bureau of Reclamation Atmospheric River Research and Reservoir Operations Funding:*

The U.S. Army Corps of Engineers currently uses long-term averages of winter storms and spring runoff to management dams and reservoir levels for flood control. Recent advances have found that up to half of California's total annual precipitation, and almost all of its floods, are caused by atmospheric river rain events. This means that the risk of flooding is dependent upon the atmospheric river storms that flow over California. Atmospheric rivers show promise of being predictable enough several days before landfall to potentially use the predictions in flood control and water management models. With this new information, it is becoming clearer that traditional dam operations to mitigate flood risks, which are based on long-term averages of precipitation, are no longer appropriate. Despite the advancements in atmospheric river forecasting, more research is needed so that atmospheric river forecasts can be tailored for water managers and incorporated into dam management.

An effort is underway to continue funding this research within the federal government. The National Water Research Association and Sonoma County Water Agency have been advocating

for continued funding of the U.S. Army Corps of Engineers' Water Operations Technical Support Program, which has been conducting atmospheric river forecasting research. They have asked Congress and water agencies to support \$5.5 million in funding in the Fiscal Year 2017 budget for the U.S. Army Corps of Engineers' Water Operations Technical Support Program. More information on this request is attached as Exhibit "L".

Staff recommends that the Board adopt a "support in concept" position on federal programs and funding for atmospheric river research aimed at improving the U.S. Army Corps of Engineers's and Bureau of Reclamation's reservoir operations.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on April 6, 2016.

RECOMMENDATION:

THAT BOARD ADOPT A "SUPPORT" POSITION ON AB 2488 (DABABNEH); AN "OPPOSE" POSITION ON AB 2583 (FRAZIER); AN "OPPOSE" POSITION ON SB 885 (WOLK); A "SEEK AMENDMENTS" POSITION ON SB 814 (HILL); A "SUPPORT" POSITION ON SB 974; AN "OPPOSE UNLESS AMENDED" POSITION ON SB 1317 (WOLK); AND A "SUPPORT IN CONCEPT" POSITION U.S. ARMY CORPS OF ENGINEERS AND BUREAU OF RECLAMATION ATMOSPHERIC RIVER RESEARCH AND RESERVOIR OPERATIONS FUNDING.

LIST OF EXHIBITS:

- Exhibit "A" – IRWD Legislative Matrix
- Exhibit "B" – SB 272 (2015), as chaptered
- Exhibit "C" – AB 2488 (Dababneh), as amended
- Exhibit "D" – AB 2583 (Frazier), as amended
- Exhibit "E" – Metropolitan's Analysis of AB 2583 (Frazier)
- Exhibit "F" – SB 163 (Hertzberg) Coalition Letter
- Exhibit "G" – SB 814 (Hill), as amended
- Exhibit "H" – SB 885 (Wolk), as introduced
- Exhibit "I" – SB 974 (Senate Governance and Finance Committee), as amended
- Exhibit "J" – IRWD Letter on SB 974
- Exhibit "K" – SB 1317 (Wolk), as introduced

Exhibit “L” – Information on Sonoma County Water Agency’s Fiscal Year 2017 U.S. Army  
Corps of Engineers’ Water Operations Technical Support Program Funding  
Request

**EXHIBIT “A”**  
**IRWD 2016 LEGISLATIVE MATRIX**  
Updated 04/4/2016

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
<b><u>AB 12</u></b> Cooley (D)	State Government: Administrative Regulations: Review		Requires each state agency after a noticed public hearing, to review the agency's regulations, identify any regulations that are duplicative, overlapping, inconsistent, or out of date, to revise those identified regulations, and report to the Legislature and Governor.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
<b><u>AB 45</u></b> Mullin (D)	Household Hazardous Waste		Requires the Department of Resources Recycling to adopt model ordinance for a comprehensive program for the collection of household hazardous waste. Authorizes a local jurisdiction proposing to enact an ordinance for the collection and diversion of such waste to adopt a Department model. Requires a determination as to whether a nonprofit organization has been created and funded to make grants to local entities for purposes related to the disposal of such waste.	02/04/2016 - To SENATE Committee on ENVIRONMENTAL QUALITY.
<b><u>AB 259</u></b> Dababneh (D)	Personal Information Privacy		Requires an agency, if the agency was the source of the breach and the breach compromised a person's social security number, driver's license number, or California identification card number, to offer to provide the person with identity theft prevention and mitigation services at no cost for not less than 12 months.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
<b><u>AB 291</u></b> Medina (D)	Environmental Quality Act: Local Agencies: Water		Authorizes a local agency, for certain water projects, to file a specified notice with the county clerk of the county in which the local agency's principal office is located, along with any required payment to the Department of Fish and Wildlife, and with the Office of Planning and Research and to transmit a copy of the notice to the county clerk of the counties in which the project is located. Requires the notice and the copies of the notice to be available to for public inspection. Relates to challenges.	06/10/2015 - From SENATE Committee on ENVIRONMENTAL QUALITY with author's amendments.;06/10/2015 - In SENATE. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL QUALITY.
<b><u>AB 453</u></b> Bigelow (R)	Groundwater: Semitropic Water Storage District		Authorizes, until a groundwater sustainability plan is adopted, a local agency that has adopted a groundwater management plan to impose fees on the extraction of groundwater from a groundwater basin to fund costs of groundwater management and to collect groundwater extraction information, as long as a groundwater management plan	03/28/2016 - From SENATE Committee on RULES with author's amendments.;03/28/2016 - In SENATE. Read second time and amended. Re-referred to Committee on RULES.



**IRWD 2016 LEGISLATIVE MATRIX**  
**Updated 04/4/2016**

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
			adopted before a specified date, is in effect. Authorizes the Semitropic Water Storage District to impose fees and collect groundwater extraction information.	
<b><u>AB 501</u></b> Levine (D)	Resources: Delta Research		Relates to the Sacramento-San Joaquin Delta Reform Act of 2009. Requires a person conducting State-funded Delta Research to take specified actions with regard to the sharing of the primary data, metadata, and other supporting materials created or gathered in the course of that research. Relates to ineligibility. Relates to researcher State funding eligibility requirements. Provides conditions for Delta research grants. Relates to the provision of consistent procedural and technical requirements.	02/04/2016 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<b><u>AB 577</u></b> Bonilla (D)	Biomethane: Grant Program		Requires the development and implementation of a grant program to award grants for projects that produce biomethane, that build or develop collection and purification technology or infrastructure, or that upgrade or expand existing biomethane facilities. Authorizes moneys in the Greenhouse Gas Reduction Fund to be used to fund grants awarded under the program.	09/11/2015 - Re-referred to SENATE Committee on RULES.
<b><u>AB 590</u></b> Dahle (R)	Greenhouse Gas Reduction Fund		Provides that moneys in the Greenhouse Gas Reduction Fund account may be made available for expenditure by the State Energy Resources Conservation and Development Commission for maintaining the current level of biomass power generation or geothermal energy generation in the State and revitalizing currently idle facilities in strategically located regions. Establishes requirements for an applicant to receive available funding for a facility's eligible electrical generation.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
<b><u>AB 615</u></b> Rendon (D)	Office of Sustainable Water Solutions: Assistance		Amends existing law that establishes the Office of Sustainable Water Solutions to promote permanent and sustainable drinking water and wastewater treatment solutions to ensure the effective and efficient provision of safe, clean, affordable, and reliable drinking water and wastewater treatment services and authorizes the office to provide	06/18/2015 - To SENATE Committee on ENVIRONMENTAL QUALITY.

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			technical assistance to disadvantaged communities and small drinking water systems and wastewater systems. Specifies the technical assistance that may be provided.	
<b><u>AB 647</u></b> Eggman (D)	Beneficial Use: Storing of Water Underground		Declares that the diversion of water to underground storage constitutes a beneficial use of water if the water so stored is thereafter applied to the beneficial purposes for which the appropriation for storage was made, or if the water is so stored consistent with a sustainable groundwater management plan, statutory authority to conduct groundwater recharge, or a judicial degree and is for specified purposes. Requires applying for a permit or petition for a change. Requires including specified conditions.	06/30/2015 - From SENATE Committee on NATURAL RESOURCES AND WATER with author's amendments.;06/30/2015 - In SENATE. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES AND WATER.
<b><u>AB 723</u></b> Rendon (D)	Rental Property: Plumbing Fixtures: Replacement		Requires the lease or rental agreement of a single-family residential real property or any portion of a multifamily residential real property or commercial real property that is entered into, renewed, or amended, be accompanied by a disclosure stating the property owner's responsibility to replace all noncompliant plumbing fixtures with water-conserving plumbing fixtures.	07/16/2015 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<b><u>AB 935</u></b> Salas (D)	Water Projects		Requires, upon appropriation by the Legislature, the Department of Water Resources to provide funding for certain projects, provided that certain conditions are met.	09/10/2015 - In SENATE. From third reading. To Inactive File.
<b><u>AB 937</u></b> Salas (D)	Groundwater Plan/Assistance: Disadvantaged Communities		Requires the Department of Water Resources to provide technical assistance to disadvantaged communities so that they may participate in groundwater planning, including planning for regional groundwater banking, with any county or other local agency.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
<b><u>AB 938</u></b> Rodriguez (D)	Sustainable Groundwater Management Act: Basins		Amends the Sustainable Groundwater Management Act. Authorizes a watermaster or local agency administering an adjudicated basin to elect that the basin be subject to the provisions of the Act. Authorizes a court with jurisdiction over the basin to issue and order to set a hearing to determine if the basin shall be subject to the Act. Requires	03/09/2016 - From SENATE Committee on NATURAL RESOURCES AND WATER with author's amendments.;03/09/2016 - In SENATE. Read second time and amended. Re-

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			written notice to the Department of Water Resources that the basin is subject to the Act. Requires the notice to be posted on the Department's Web site.	referred to Committee on NATURAL RESOURCES AND WATER.
<b><u>AB 954</u></b> Mathis (R)	Water and Wastewater Loan and Grant Pilot Program		Creates the Water and Wastewater Loan and Grant Program. Require the State Water Resources Control Board to establish a pilot program to provide low-interest loans and grants to local agencies for grants to eligible individual homeowners for purposes relating to drinking water and wastewater treatment. Creates a related fund for use under the program. Transfers a specified amount of funds from the General Fund to the fund.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
<b><u>AB 1030</u></b> Ridley-Thomas S (D)	Global Warming Solutions Act of 2006: Greenhouse Gas		Amends existing law that relates to the Greenhouse Gas Reduction Fund. Requires priority be given to projects involving hiring that support the targeted training and hiring of workers from disadvantaged communities for career-track jobs.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
<b><u>AB 1144</u></b> Rendon (D)	Renewables Portfolio Standard Program: Credits		Provides that renewable energy credits may be used to meet certain portfolio content requirements if the credits are earned by electricity that is generated by an entity that would be excluded from the definition of an electrical corporation by operation of the exclusions for entities employing landfill or digester gas technology that meets certain requirements, including that the electricity is used at a wastewater treatment facility. Prohibits certain marketing claims.	08/17/2015 - From SENATE Committee on APPROPRIATIONS with author's amendments.;08/17/2015 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<b><u>AB 1173</u></b> Williams (D)	Water Equipment: Backflow Prevention Devices Testing		Requires, if a local health officer does not maintain a program for certificate of backflow prevention device testers, the testing and maintenance of such device be performed by a person who has received a California-specific certification for such devices from one of the specified entities or a similar certification provider deemed acceptable by the State Water Resources Control Board.	07/14/2015 - In SENATE Committee on ENVIRONMENTAL QUALITY: Not heard.
<b><u>AB 1201</u></b>	Delta: Predation by	Support	Requires the State Department of Fish and Wildlife to develop a	08/27/2015 - In SENATE Committee on

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Salas (D)	Nonnative Species		science-based plan that addresses predation by nonnative species upon species of fish listed pursuant to the State Endangered Species Act that reside all or a portion of their lives in the Sacramento-San Joaquin Delta and that considers predation reduction for all Chinook salmon and other native species not listed pursuant to the Act. Provides for input from the scientific community, water users and fishing communities.	APPROPRIATIONS: Held in committee.
<u><b>AB 1242</b></u> Gray (D)	Water Quality and Storage		Provides provisions of law requiring a specified increase in statewide water storage capacity, and updating water strategies and implementation plans. Requires the Water Resources Control Board, in formulating policy for water quality control and adopting or approving a water quality control plan for the Sacramento-San Joaquin Delta, to take into consideration any applicable groundwater sustainability plan or alternative and available information on impacts of groundwater use and beneficial uses of water.	09/02/2015 - In SENATE. Read second time. To third reading.;09/02/2015 - Re-referred to SENATE Committee on RULES.
<u><b>AB 1463</b></u> Gatto (D)	Onsite Treated Water		Requires the State Water Resources Control Board, in consultation with the Department of Public Health, the Building Standards Commission, and stakeholders, to establish water quality standards and distribution, monitoring, and reporting requirements for onsite water recycling systems prior to authorizing the use of onsite treated water in internal plumbing of residential and commercial buildings. Requires onsite treated water to be considered the same as recycled water that is produced on site.	09/04/2015 - From SENATE Committee on ENVIRONMENTAL QUALITY with author's amendments.;09/04/2015 - In SENATE. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL QUALITY.
<u><b>AB 1550</b></u> Gomez (D)	Greenhouse Gases: Investment Plan: Communities		Relates to greenhouse gases and investments in communities, Requires the Greenhouse Investment Fund plan to allocate a minimum percentage of the available moneys in the Greenhouse Gas Reduction Fund to projects located within disadvantaged communities and a separate and an additional percentage to projects that benefit low-income households, with a fair share of the moneys targeting households with incomes below a percentage of the federal poverty level.	03/28/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/28/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.

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<b><u>AB 1586</u></b> Mathis (R)	Environmental Quality Act: Temperance Flat Reservoir		Prohibits the court, in an action or proceeding alleging a violation of the California Environmental Quality Act, from staying or enjoining the construction or operation of the Temperance Flat Reservoir unless the court makes certain findings.	03/28/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/28/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<b><u>AB 1587</u></b> Mathis (R)	Groundwater:		Prohibits, during a period for which the Governor has issued a proclamation of a state of emergency based on drought and flood conditions, the State Water Resources Control Board from requiring a permit to recharge groundwater if the water may be diverted and used without injury to a lawful user of water, and the water may be diverted and used without unreasonable effect on other beneficial uses. Prohibits a city or county restricting the otherwise permissible amount of groundwater that may be extracted.	03/15/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/15/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE.
<b><u>AB 1588</u></b> Mathis (R)	Water and Wastewater Loan and Grant Program		Requires the State Water Resources Control Board to establish a program to provide funding to counties to award low-interest loans and grants to eligible applicants for specified purposes relating to drinking water and wastewater treatment. Authorizes a county to apply for such funds. Creates the Water and Wastewater Loan and Grant Fund and provides the moneys in this fund are available to the Board to administer and implement the program. Transfers funds from the General Fund to the loan and grant fund.	03/29/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Do pass to Committee on APPROPRIATIONS.
<b><u>AB 1589</u></b> Mathis (R)	Environmental Quality Act: Exemption:Drought Mitigation		Exempts from the requirements of the California Environmental Quality Act, for the duration of a state of emergency proclaimed by the Governor due to drought conditions, certain projects that are undertaken, carried out, or approved by a public agency to mitigate those drought conditions.	03/14/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/14/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<b><u>AB 1590</u></b>	State Water Resources		Requires that additional members be appointed to the State Water	03/10/2016 - From ASSEMBLY

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Mathis (R)	Control Board: Appointments		Resources Control Board by the Legislature. Requires that vacancies be immediately filled by the appointing power.	Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/10/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE.
<b><u>AB 1647</u></b> Waldron (R)	Environmental Quality: Water Storage Facilities		Exempts from the Environmental Quality Act 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.	02/04/2016 - To ASSEMBLY Committee on NATURAL RESOURCES.
<b><u>AB 1649</u></b> Salas (D)	Water Quality, Supply, and Infrastructure Improvement		Requires the California Water Commission to prioritize the funding of those local joint powers authorities surface storage projects and to move expediently to dispense project funds. Makes findings and declarations of the Legislature, including, but not limited to, that, of the water storage projects available, the Temperance Flat Dam and Sites Reservoir will meet statewide goals and provide those specified public benefits to the greatest extent.	03/17/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.;03/17/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/17/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS
<b><u>AB 1694</u></b> Lackey (R)	Grant Program for School Drinking Water		Requires the State Water Resources Control Board to establish a grant program for grants to public elementary and secondary schools to improve access to, and the quality of drinking water. Specifies various types of projects for which the grants could be awarded. Provides the priority for such grants. Requires the establishment of grant application procedures. Appropriates funds therefor. Provides such funds would supplement not supplant other state funds apportioned to these local agencies.	03/31/2016 - Re-referred to ASSEMBLY Committees on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS and EDUCATION.
<b><u>AB 1704</u></b> Dodd (D)	Water Rights		Requires the registrant to provide a copy of the registrant's registration form to the Department of Fish and Wildlife and agree to general conditions. Requires the State Water Resources Control	03/30/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.



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			Board to consult with the Department of Fish and Wildlife in establishing these general conditions and make compliance with certain Fish and Game Code requirements applicable to the diversion of water one of those conditions. Requires general conditions for small irrigation use. Imposes certain fees.	
<b>AB 1713</b> Eggman (D)	Sacramento-San Joaquin Delta: Peripheral Canal	Oppose	Prohibits the construction of a peripheral canal in the Sacramento-San Joaquin Delta unless expressly authorized by an initiative voted on by the voters of California, and requires the Legislative Analyst's Office to complete a prescribed economic feasibility analysis prior to a vote authorizing the construction of a peripheral canal.	02/18/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<b>AB 1738</b> McCarty (D)	Building Standards: Dark Graywater		Defines dark graywater as a specified wastewater that comes from kitchen sinks and dishwashers. Requires the Department of Housing and Community Development, at the next triennial building standards rulemaking cycle, to develop and submit for approval building standards for the construction, installation, and alteration of dark graywater systems for indoor and outdoor uses.	03/29/2016 - From ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS: Do pass to Committee on APPROPRIATIONS.
<b>AB 1749</b> Mathis (R)	Environmental Quality Act: Exemption: Recycled Water		Amends the California Environmental Quality Act which exempts projects that provide for the expansion of recycled water pipeline and directly related infrastructure within existing rights of way, and directly related groundwater replenishment, if the project does not affect wetlands or sensitive habitat where construction impacts are mitigated and undertaken to mitigate drought conditions for which a state of emergency was proclaimed. Extends the date connected to such exemption.	03/28/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/28/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<b>AB 1755</b> Dodd (D)	Open and Transparent Water Data Act		Enacts the Open and Transparent Water Data Act. Requires the Department of Water Resources to establish a public benefit corporation that would create and manage a statewide water information accounting system to improve the ability of the State to meet the growing demand for water supply reliability and healthy ecosystems that would integrate existing water data information from	03/01/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/01/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on

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			multiple databases and a related clearinghouse. Requires the development of related protocols. Creates a related fund.	WATER, PARKS AND WILDLIFE.
<b><u>AB 1773</u></b> Oberholte (R)	Local Government Renewable Energy Program		Amends existing law that authorizes a local governmental entity to receive a bill credit to a designated benefiting account, for electricity exported to the electrical grid by an eligible renewable generating facility. Includes as a local governmental entity for this purpose a joint powers authority.	03/28/2016 - From ASSEMBLY Committee on UTILITIES AND COMMERCE with author's amendments.;03/28/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on UTILITIES AND COMMERCE.
<b><u>AB 1815</u></b> Alejo (D)	Global Warming Solutions Act of 2006		Requires the Environmental Protection Agency to establish a comprehensive technical assistance program, upon the appropriation of moneys from the Greenhouse Gas Reduction Fund, for eligible applicants assisting eligible communities. Requires the Agency to provide technical assistance to communities based on a specified priority. Requires the Department of Finance to include in a specified investment plan an allocation to the Agency for that technical assistance program.	03/28/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/28/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<b><u>AB 1842</u></b> Levine (D)	Water: Pollution: Fines		Imposes a civil penalty for each gallon or pound of polluting material discharged. Requires that the civil penalty be reduced for every gallon or pound of the illegally discharged material that is recovered and properly disposed of by the responsible party.	03/29/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Do pass to Committee on APPROPRIATIONS.
<b><u>AB 1866</u></b> Wilk (R)	High-Speed Rail Bond Proceeds: Water Projects		Provides that no further bonds shall be sold for high-speed rail purposes pursuant to the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century, except as specifically provided with respect to an existing appropriation for high-speed rail purposes for early improvement projects. Requires redirection of the unspent proceeds received from outstanding bonds issued for other high-speed rail purposes to fund capital expenditures for water projects.	02/25/2016 - To ASSEMBLY Committees on TRANSPORTATION and WATER, PARKS AND WILDLIFE.
<b><u>AB 1871</u></b> Waldron (R)	Coastal Resources: Development: Water Supply Projects		Limits the growth-inducing impacts the Coastal Commission may consider in its review of a coastal development permit for a water supply project.	03/18/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's

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				amendments.;03/18/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<b><u>AB 1882</u></b> Williams (D)	Oil and Gas: Groundwater Monitoring		Requires the Division of Oil, Gas, and Geothermal Resources to provide an opportunity and the information necessary for the State Water Resources Control Board and the appropriate regional water quality control board to review, comment on, and propose additional requirements for Class II underground injection well projects.	02/25/2016 - To ASSEMBLY Committee on NATURAL RESOURCES.
<b><u>AB 1925</u></b> Chang (R)	Desalination Statewide Goal		Establishes goals to desalinate specified totals of acre-feet of drinking water per year by separate future years.	03/29/2016 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Not heard.
<b><u>AB 1928</u></b> Campos (D)	Water Efficiency Landscape Irrigation Equipment		Postpones the date by which the Resources Conservation and Development Commission is to adopt the performance standards and labeling requirements for landscape irrigation equipment prohibit the sale of that equipment unless it meets the performance standards and labeling requirements.	03/29/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Do pass to Committee on APPROPRIATIONS.
<b><u>AB 1986</u></b> Wilk (R)	Water Resources: Permit to Appropriate: Application		Requires if the State Water Resources Control Board has not rendered a final determination on an application for a permit to appropriate water within 20 years from the date the application was filed, to issue another notice of application and mail the notice of application.	02/25/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<b><u>AB 1989</u></b> Jones (R)	Water and Greenhouse Gas Emissions Reduction		Requires the State Water Resources Control Board to develop and implement a grant and low-interest loan program for water projects that result in the net reduction of water-related greenhouse gas emissions.	03/30/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<b><u>AB 2022</u></b> Gordon (D)	Advanced Purified Demonstration Water	Support	Authorizes the operator of an advanced purified demonstration water facility to cause the advanced purified demonstration water to be bottled and distributed as samples for educational purposes and to promote water recycling. Prohibits the advanced purified	03/31/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.

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			demonstration water in each bottle from exceeding a specified amount. Prohibits the water from being distributed unless it meets or is superior to all federal and state drinking water standards. Requires a recycling program for distributed bottles.	
<b><u>AB 2040</u></b> Melendez (R)	Outdoor Water Efficiency Act of 2016: Tax Credits		Allows, under the Personal Income Tax Law, a credit for a percentage of the amount paid or incurred by a qualified taxpayer for water-efficiency improvements on qualified real property in the State. Requires the qualified taxpayer to obtain and retain a certification of such improvements from the appropriate regional or local water agency after completion of the improvements and to provide a copy of this certification to the Franchise Tax Board upon request.	02/29/2016 - To ASSEMBLY Committee on REVENUE AND TAXATION.
<b><u>AB 2076</u></b> Garcia (D)	Water Recycling: Beer and Wine		Requires the State Water Resources Control Board to adopt uniform water recycling criteria for the use of recycled water in the manufacture of beer and wine.	02/29/2016 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<b><u>AB 2099</u></b> Stone (D)	Safe Drinking Water Benefit		Requires the State Department of Social Services to convene a workgroup to develop recommendations for delivering a water benefit to supplement that purchase of drinking water for low-income households with inadequate access to safe drinking water. Requires a plan for identification of eligible households and the delivery of the benefit to those households. Requires the submission of a report with the recommendations to specified entities.	03/31/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<b><u>AB 2139</u></b> Williams (D)	Ocean Protection Council: Ocean Acidification		Requires the Ocean Protection Council to facilitate research and compile data on the causes and effects of ocean acidification and, to adopt recommendations for further legislative and executive actions to address ocean acidification.	03/31/2016 - Withdrawn from ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.;03/31/2016 - Re-referred to ASSEMBLY Committee on RULES.
<b><u>AB 2257</u></b> Maienschein	Local Agency Meeting: Agenda: Online Posting		Amends the Ralph M. Brown Act, which enables the legislative body of a local agency to call both regular and special meetings. Requires	03/03/2016 - To ASSEMBLY Committee on LOCAL

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(R)			an online posting of an agenda by a local agency to have a prominent direct link to the current agenda itself.	GOVERNMENT.
<b><u>AB 2292</u></b> Gordon (D)	Communities Environmental Health Screening		Relates to communities environmental health screening. Requires the Office of Environmental Health Hazard Assessments' next update of the tool to include population density as a population characteristic.	03/03/2016 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<b><u>AB 2304</u></b> Levine (D)	State Water Market Exchange	Seek Amendments	Establishes the State Water Market Exchange which requires the market exchange to create a centralized water market platform on its Internet Web site that provides ready access to information about water available for transfer or exchange. Requires the submission of certain data and information to the market exchange and the payment of an administrative fee to the exchange. Requires the development of specified procedures by the exchange.	03/03/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<b><u>AB 2389</u></b> Ridley-Thomas S (D)	Special Districts: District- Based Elections		Authorizes a governing body of a special district, to require, by resolution, that the election of the members of its governing body be elected using district-based elections without being required to submit the resolution to the voters for approval.	03/30/2016 - From ASSEMBLY Committee on ELECTIONS AND REDISTRICTING: Do pass as amended to Committee on LOCAL GOVERNMENT.
<b><u>AB 2438</u></b> Waldron (R)	Environmental Quality Act		Relates to the Environmental Quality Act (CEQA). Exempts from CEQA 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 for the distribution of recycled water within a public street, highway, or right-of-way. Requires a public hearing.	03/08/2016 - To ASSEMBLY Committee on NATURAL RESOURCES.
<b><u>AB 2444</u></b> Garcia E (D)	Water, Climate, Coastal Protection and Outdoor Access		Enacts the California Water Quality, Coastal Protection, and Outdoor Access Improvement Act of 2016 which would authorize the issuance of bonds in an unspecified amount pursuant to the State General Obligation Bond Law to finance a water, climate, and coastal protection and outdoor access for all program.	03/17/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.;03/17/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/17/2016 - In ASSEMBLY. Read second time and

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				amended. Re-referred to Committee on WATER, PARKS
<b><u>AB 2446</u></b> Gordon (D)	State Water Resources Control Board: Judicial Review		Updates provisions regarding an aggrieved party to petition the superior court for a writ of mandate for review of a decision or order issued by the State Water Resources Control Board. Provides that a decision or order under the Safe Drinking Water Act by the Board is not subject to court review if no aggrieved party petitions for such writ within a specified time period after a service of a copy of the order or decision issued by the Board.	03/28/2016 - Re-referred to ASSEMBLY Committee on JUDICIARY.
<b><u>AB 2456</u></b> Cooley (D)	Public Employee Retirement Benefits: Prefunding		Requires the Board of Administration of the Public Employee's Retirement System to develop, establish, and administer the State Employer's Pension Prefunding Trust Program in order to encourage State and local public employers that provide a defined benefit pension plan to their employees to effectively manage their pension contributions.	03/17/2016 - To ASSEMBLY Committee on PUBLIC EMPLOYEES, RETIREMENT AND SOCIAL SECURITY.;03/17/2016 - From ASSEMBLY Committee on PUBLIC EMPLOYEES, RETIREMENT AND SOCIAL SECURITY with author's amendments.;03/17/2016 - In ASSEMBLY. Read second time and amen
<b><u>AB 2468</u></b> Hadley (R)	Public Employees' Retirement System		Authorizes a public agency that has contracted with the board of administration of PERS to offer an alternative formula from that required by the California Public Employees Pension Reform Act to be applicable to certain miscellaneous, nonsafety employees.	03/08/2016 - To ASSEMBLY Committee on PUBLIC EMPLOYEES, RETIREMENT AND SOCIAL SECURITY.
<b><u>AB 2480</u></b> Bloom (D)	Source Watersheds: Financing		Requires the State Water Resources Control Board to develop investment plans that prioritize actions for restoration and conservation to improve watershed function in the watershed that flow into the Shasta Reservoir and the Oroville Reservoir.	03/17/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.;03/17/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/17/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS



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<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
<b><u>AB 2550</u></b> Patterson (R)	Instream Flow Curtailments and Compensation		Requires the State Water Resources Control Board to financially compensate a person who is unable to divert the full amount of water authorized under his or her permit or license due to a board-issued instream flow curtailment, and a person who is required to file a statement of diversion and use is unable to divert the same amount of water in the succeeding year due to a board-issued instream flow curtailment.	03/08/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<b><u>AB 2551</u></b> Gallagher (R)	Surface Storage and Design Build Contracts		Relates to general obligation bonds to finance a water quality, supply, and infrastructure improvement program. Authorizes surface storage projects that receive Proposition 1 funding to use the design-build method of project delivery.	03/08/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<b><u>AB 2578</u></b> Bigelow (R)	Environmental Quality Act: Exemptions: Water Service		Exempts from the requirements of the California Environmental Quality Act, a project within a public street or highway or other public right-of-way for the maintenance, repair, restoration, reconditioning, relocation, replacement, removal or demolition of an existing water distribution pipeline to address water leakage. Exempts activities undertaken by a local agency in response to a drought to acquire water supplies, extend service, or provide water for drinking and sanitation.	03/18/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/18/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<b><u>AB 2583</u></b> Frazier (D)	Sacramento-San Joaquin Delta Reform Act of 2009		Relates to the Sacramento-San Joaquin Delta Reform Act of 2009, the Delta Stewardship Council, the Delta Plan and the California Water Fix. Provides that the new Delta water conveyance infrastructure is interdependent parts of a system. Amends the point of diversion to a point on the Sacramento River. Prohibits construction of a new Delta conveyance facility until contracts are signed by contractors who will receive the water that commit them to pay costs and to mitigate facility property taxes.	03/17/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/17/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE.
<b><u>AB 2594</u></b> Gordon (D)	Stormwater Resources: Use of Captured Water		Authorizes a public entity that captures stormwater, in accordance with a stormwater resource plan, before the water reaches a natural channel to use the captured stormwater.	03/31/2016 - Re-referred to ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.

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<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
<b><u>AB 2601</u></b> Eggman (D)	Building Standard: Residential Property: Graywater		Requires the Department of Housing and Community Development to adopt and submit to Building Standards Commission for approval amendments to the building standards adopted pursuant to these provisions that require that all new single-family and duplex residential dwelling units include specified components to allow the separate discharge of graywater for direct irrigation.	03/10/2016 - To ASSEMBLY Committee on HOUSING AND COMMUNITY DEVELOPMENT.
<b><u>AB 2617</u></b> Mayes (R)	Water Efficiency Measures		Requires the Energy Commission to develop and solicit comments on a proposed report, in consultation with certain subject matter experts to issue a final report that contains the projected benefits of recommended voluntary water efficiency measures and an analysis of any unintended adverse environmental impacts.	03/29/2016 - Re-referred to ASSEMBLY Committee on NATURAL RESOURCES.
<b><u>AB 2801</u></b> Gallagher (R)	Civil Procedure: Validation Actions		Amends existing law that authorizes a public agency to bring an action in court to determine the validity of certain matters within a specified time period of the existence of the matter. Deletes the prohibition on a contest of any thing or matter under these provisions being made other than within the specified time and manner, except by the public agency or its officer or agent.	03/14/2016 - To ASSEMBLY Committee on JUDICIARY.
<b><u>AB 2890</u></b> Env Safety & Toxic Material Cmt	Drinking Water and Wastewater Operator Certification		Requires the State Water Resources Control Board to appoint an advisory committee to examine and certify people to operate water treatment plants and water distribution systems, and to review all proposed regulations and make recommendations to the Board. Relates to water treatment operator-in-training. Revises procedures for the suspension or revocation of a valid operator license. Authorizes certificate reciprocity. Provides certificate application fraud civil liability.	03/28/2016 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<b><u>AB 2910</u></b> Local Government Cmt	Local Government: Organization: Omnibus Bill		Revises provisions of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 to remove references to a public agency's current service area and instead include references to the public agency's jurisdictional boundaries. Permits the use of electronic mail, if available to the recipient, or hand delivery, if a	03/28/2016 - To ASSEMBLY Committee on LOCAL GOVERNMENT.

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			public notice is required to be mailed. Provides that a purpose of a local agency formation commission is to ensure government services efficiency. Relates to commission membership.	
<b>ACA 8</b> Bloom (D)	Local Government Financing: Water Facilities: Voters		Proposes an amendment to the Constitution to create an exception to a limit for a rate imposed by a city, county, city and county, or special district to service bonded indebtedness incurred to fund the construction, reconstruction, rehabilitation, or replacement of wastewater treatment facilities and related infrastructure, potable water producing facilities and related infrastructure, nonpotable water producing facilities and related infrastructure, and stormwater treatment facilities and infrastructure.	02/18/2016 - INTRODUCED.
<b>SB 7</b> Wolk (D)	Housing: Water Meters: Multi-unit Structures		Requires a landlord to make submeter disclosures to a tenant prior to executing a rental agreement. Relates to tenant billing procedures and requirements. Authorizes building standards that require the installation of water submeters in multiunit residential buildings. Provides structure exemptions. Relates to landlord requirements. Relates to the use of meters or submeters in new mixed-use residential and commercial structures as a condition for service. Requires licensed contractors do the installation.	09/08/2015 - In ASSEMBLY. Read third time. Failed to pass ASSEMBLY.;09/08/2015 - In ASSEMBLY. Motion to reconsider.
<b>SB 20</b> Pavley (D)	State Water Resiliency Investment Act		Creates the State Water Resiliency Investment Fund. Provides that moneys in the Fund are available for the purpose of providing a more dependable water supply in the State. Creates various accounts within the Fund for prescribed purposes.	08/26/2015 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;08/26/2015 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE.
<b>SB 32</b> Pavley (D)	Global Warming Solutions Act of 2006		Requires the State Air Resources Board to approve a specified statewide greenhouse gas emission limits that are the equivalent to a specified percentage below the 1990 level to be achieved by 2030. Revises current provisions of existing law regarding the implementation of the next update of a greenhouse gas scoping plan	09/10/2015 - Re-referred to ASSEMBLY Committee on NATURAL RESOURCES.;09/10/2015 - From ASSEMBLY Committee on NATURAL RESOURCES with author's

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			under existing law. Requires reports regarding reaching these limits.	amendments.;09/10/2015 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES
<b>SB 122</b> Jackson (D)	Environmental Quality Act: Record of Proceedings		Amends the Environmental Quality Act. Relates to a database for the collection, storage, retrieval, and dissemination of environmental documents, notices of exemption, notices of preparation, notices of determination, and notices of completion provided to the office that shall be available online to the public through the internet. Provides for the phase-in of electronic documents. Requires the lead agency to submit to the State Clearinghouse a sufficient number of environmental documents for review.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard.
<b>SB 163</b> Hertzberg (D)	Wastewater Treatment: Recycled Water	Oppose	Declares the discharge of treated wastewater from ocean outfalls is a waste and unreasonable use of water in light of certain conditions. Requires such facility to achieve a specified percentage of reuse of the actual annual flow for beneficial purposes. Prohibits such discharge except as backup discharge. Provides procedures for related exemption requests. Requires a prescribed plan to meet these provisions.	09/08/2015 - Re-referred to ASSEMBLY Committee on RULES.
<b>SB 223</b> Galgiani (D)	Division of Boating and Waterways: Oversight Committee		Requires the Division of Boating and Waterways to establish an advisory and oversight committee to evaluate and monitor the activities of the Division relating to the management and control or eradication of invasive aquatic plants. Provides the expertise of members of the committee. Requires the committee to meet a specified amount of times per year and to communicate any findings or recommendations to the Division.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<b>SB 248</b> Pavley (D)	Oil and Gas		Provides for an inspection program for all activities regulated pursuant to provisions concerning drilling, operation, maintenance, and abandonment of oil and gas wells and certain tanks and facilities. Requires inspections to be reported and posted, and the recording of information in a well history, including fluid injection, chemical composition, and waste disposal injection. Provides for shutdown.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard.

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			Requires updating related regulations. Requires notification and clearance of chemical injection.	
<b><u>SB 286</u></b> Hertzberg (D)	Electricity: Direct Transactions		Requires the Public Utilities Commission to adopt and implement a schedule that implements a specified phase-in period for expanding direct transactions for individual retail nonresidential end-use customers over a maximum time period, raising the allowable limit of kilowatthours that can be supplied by other electrical corporation's distribution service territory to that corporation's share of the gigawatthours. Requires such customers to be responsible for their share of the costs of specified programs.	03/01/2016 - From ASSEMBLY Committee on APPROPRIATIONS with author's amendments.;03/01/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<b><u>SB 471</u></b> Pavley (D)	Water, Energy, Reduction of Greenhouse Gas Emissions		Includes reduction of greenhouse emissions associated with water treatment among the investments that are eligible for funding from the Greenhouse Gas Reduction Fund. Requires the State Water Resources Control Board to establish a grant and loan program for water projects that result in the net reduction of water-related greenhouse gas emissions.	08/27/2015 - In ASSEMBLY. Joint Rule 62(a) suspended.;08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<b><u>SB 551</u></b> Wolk (D)	State Water Policy: Water and Energy Efficiency	Seek Amendments	Declares the policy of the state that water use and water treatment shall operate in a manner that is as energy efficient as in feasible and energy use and generation shall operate in a manner that is as water efficient as is feasible. Requires all relevant state agencies to consider this state policy when revising, or establishing policies, regulations, and grant criteria when pertinent to these uses of water and energy.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<b><u>SB 552</u></b> Wolk (D)	Public Water Systems: Disadvantaged Communities		Requires the State Water Resources Control Board to hold at least one initial public meeting prior to ordering the consolidate or extension of public water system service and to obtain the consent of any domestic well owner. Provides any affected resident and domestic well owner within the service area who does not consent is ineligible for any future water-related grant funding. Requires the Board to compensate certain water systems. Prohibits a charge	07/09/2015 - Re-referred to ASSEMBLY Committee on RULES.

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<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
			increase for certain customers.	
<b>SB 554</b> Wolk (D)	Delta Levee Maintenance		Relates to the maintenance or improvement of project or nonproject levees in the Sacramento-San Joaquin Delta. Declares legislative intent to reimburse up to a certain percent of costs incurred in any year for the maintenance or improvement of levees in excess of a specified sum per mile of levee and authorizes a specified board to advance funds in an amount that does not exceed a certain percent of the estimated state share to an eligible local agency.	01/27/2016 - In SENATE. Read third time. Passed SENATE. *****To ASSEMBLY.
<b>SB 814</b> Hill (D)	Drought: Excessive Water Use: Urban Retail Water Supply	Oppose Unless Amended	Requires each urban retail water supplier to establish a method to identify and restrict excessive water use. Authorizes the establishment of a rate structure that penalizes such excessive water users. Authorizes an excessive water use ordinance, rule, or tariff condition. Makes a violation thereof an infraction with specified monetary penalties.	03/31/2016 - Withdrawn from SENATE Committee on JUDICIARY.;03/31/2016 - Re-referred to SENATE Committee on APPROPRIATIONS.
<b>SB 885</b> Wolk (D)	Construction Contracts: Indemnity		Specifies, for construction contracts, that a design professional only the has the duty to defend claims that arise out of, or pertain or relate to, negligence, recklessness, or willful misconduct of the design professional. Provides that a design professional would not have a duty to defend claims against any other person or entity arising from a construction project, except that person or entity's reasonable defense costs arising out of the design professional's degree of fault.	01/28/2016 - To SENATE Committee on JUDICIARY.
<b>SB 919</b> Hertzberg (D)	Water Supply: Creation or Augmentation of Local Water		Requires the Public Utilities Commission to address the oversupply of renewable energy resources through a tariff or other economic incentive for electricity purchased by customers operating facilities that create or augment local water supplies to reduce the cost of electricity to those facilities.	03/07/2016 - From SENATE Committee on ENERGY, UTILITIES AND COMMUNICATIONS with author's amendments.;03/07/2016 - In SENATE. Read second time and amended. Re-referred to Committee on ENERGY, UTILITIES AND COMMUNICATIONS.

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<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
<b><u>SB 974</u></b> Governance and Finance Cmt	Local Government: Omnibus		Amends existing law regarding local government to include a county recorder storing survey records, fees for copies of military discharges, notary public commissioning, local financial reporting, city financial condition reporting, investment of local sinking fund moneys, public hearings under the Subdivision Map Act, local safety land use elements, the redevelopment and reuse of Fort Ord, sewage services and facilities fees, use of design-build, vehicle license fees, and income tax collection.	03/29/2016 - From SENATE Committee on GOVERNANCE AND FINANCE with author's amendments.;03/29/2016 - In SENATE. Read second time and amended. Re-referred to Committee on GOVERNANCE AND FINANCE.
<b><u>SB 995</u></b> Pavley (D)	Well Standards		Requires the Department of Water Resources to update well standards for certain types of wells based on existing knowledge. Establishes an advisory panel to identify critical gaps in existing knowledge about the best practices for well construction, alteration, maintenance, and destruction for these wells.	03/29/2016 - From SENATE Committee on NATURAL RESOURCES AND WATER: Do pass to Committee on ENVIRONMENTAL QUALITY.
<b><u>SB 1026</u></b> Nielsen (R)	Lake or Streambed Alteration Agreements		Relates to lake or streambed alteration agreement. Limits the diversions and obstructions governed by alteration agreement requirements to the diversions and obstructions that alter the bed, channel, or bank of a river, stream or lake. Exempts routine maintenance and repair of facilities for instream agricultural diversions.	02/25/2016 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<b><u>SB 1043</u></b> Allen (D)	Renewable Gas: Biogas and Biomethane		Requires the State Air Resources Board to consider and adopt policies to significantly increase the sustainable production and use of renewable gas. Requires the Board, to ensure the production and use of renewable gas provides direct environmental benefits and identify barriers to the rapid development and use of renewable gas and potential sources of funding. Revises the definition of biogas and biomethane for pipeline integrity and safety purposes.	03/30/2016 - From SENATE Committee on ENERGY, UTILITIES AND COMMUNICATIONS with author's amendments.;03/30/2016 - In SENATE. Read second time and amended. Re-referred to Committee on ENERGY, UTILITIES AND COMMUNICATIONS.
<b><u>SB 1173</u></b> Hertzberg (D)	Plumbing Fixtures: CalConserve Water Use Efficiency		Requires for commercial property the replacement of any noncompliant fixture or fitting in specified additions, alterations, and improvements to such property and the replacement of any noncompliant plumbing fixture or fitting in all such property in	03/30/2016 - From SENATE Committee on TRANSPORTATION AND HOUSING with author's amendments.;03/30/2016 - In SENATE.



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			accordance with a specified schedule based on floor space. Provides related definitions. Authorizes county offices of education and school district boards to receive moneys from the CalConserve Water Use Efficiency Fund for efficiency projects.	Read second time and amended. Re-referred to Committee on TRANSPORTATION AND HOUSING.
<b><u>SB 1213</u></b> Wieckowski (D)	Renewable Energy: Biosolids: Matching Grants		Requires the Energy Resources Conservation Commission to develop and implement the Biosolids to Clean Energy Grant Program to provide matching funds to local wastewater agencies for biosolids to clean energy capital projects. Appropriates a specified amount of funds annually to the Commission for purposes of the program. Appropriates a specified amount of funds for the design and construction of a regional biosolids to clean energy project located in the San Francisco Bay.	03/29/2016 - From SENATE Committee on ENERGY, UTILITIES & COMMUNICATION: Do pass as amended to Committee on ENVIRONMENTAL QUALITY.
<b><u>SB 1233</u></b> McGuire (D)	Joint Powers Authority: Water Bill Savings Act		Enacts the Water Bill Savings Act. Authorizes a joint powers authority to provide funding for a customer of a local agency or its publicly owned utility to acquire, install, or repair water efficiency improvement on the customer's property served by the local agency or its publicly owned utility. Makes technical changes.	03/28/2016 - From SENATE Committee on GOVERNANCE AND FINANCE with author's amendments.;03/28/2016 - In SENATE. Read second time and amended. Re-referred to Committee on GOVERNANCE AND FINANCE.
<b><u>SB 1260</u></b> Allen (D)	Stormwater Resources Planning: Project Funding		Requires the State Water Resources Control Board to include as part of its guidance for purposes of guidance under the Stormwater Resources Planning Act, a list of potential funding sources available to a public agency to fund projects identified in a public agency's stormwater resources.	03/30/2016 - Withdrawn from SENATE Committee on ENVIRONMENTAL QUALITY.;03/30/2016 - Re-referred to SENATE Committee on RULES.
<b><u>SB 1262</u></b> Pavley (D)	Water Supply Planning		Requires a city or county that determines a project is subject to the California Environmental Quality Act to identify any water system whose service area includes the project site and any water system adjacent to the project site. Provides that hauled water or groundwater from a probationary basin are not sources of water for the purposes of a water supply assessment. Revises the definition of sufficient water supply to include specified factors.	03/29/2016 - From SENATE Committee on NATURAL RESOURCES AND WATER: Do pass to Committee on GOVERNANCE AND FINANCE.

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<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
<b><u>SB 1263</u></b> Wieckowski (D)	Public Water System: Permits		Relates to public water systems permits. Prohibit an application for a permit for a new public water system from being deemed complete unless the applicant has submitted a preliminary technical report to the state board. Allows the state board to impose technical, financial, or managerial requirements on the permit.	03/03/2016 - To SENATE Committee on ENVIRONMENTAL QUALITY.
<b><u>SB 1317</u></b> Wolk (D)	Conditional Use Permit		Requires a city or county overlying a basin designated as a high- or medium- priority basin to establish a process for the issuance of conditional use permits for the development of a groundwater extraction facility in order to prevent a new groundwater extraction facility from contributing to or creating an undesirable result.	03/03/2016 - To SENATE Committees on NATURAL RESOURCES AND WATER and GOVERNANCE AND FINANCE.
<b><u>SB 1318</u></b> Wolk (D)	Local Government: Drinking Water Infrastructure		Prohibits a local agency formation commission from authorizing a city or a district to extend drinking water infrastructure or services or wastewater infrastructure or services until it has entered into an enforceable agreement to extend the same services to all disadvantaged communities within its sphere of influence or adjacent to its jurisdictional boundaries, unless specified conditions are met. Prohibits certain actions in areas that lack safe drinking water or wastewater infrastructure.	03/28/2016 - From SENATE Committee on GOVERNANCE AND FINANCE with author's amendments.;03/28/2016 - In SENATE. Read second time and amended. Re-referred to Committee on GOVERNANCE AND FINANCE.
<b><u>SB 1340</u></b> Wolk (D)	Water Conservation in Landscaping Act		Adds to the model water efficient landscape ordinance a permit requirement for the installation, expansion, or replacement of specified automatic irrigation systems for a landscape project. Allows the governing body of a local agency to adopt an ordinance prescribing fees for filing an application for the permit, subject to the restrictions.	03/03/2016 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<b><u>SB 1383</u></b> Lara (D)	Short-Lived Climate Pollutants		Requires the State Air Resources Board to approve and implement that comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by forty percent, hydro-fluorocarbon gases by forty percent, and anthropogenic black carbon by fifty percent below 2013 levels by 2030.	03/10/2016 - To SENATE Committee on ENVIRONMENTAL QUALITY.

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<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
<b><u>SB 1415</u></b> Bates (R)	Environmental Quality Act and Water Projects		Exempts from the requirements of California Environmental Quality Act (CEQA) drought-oriented projects, proposed by one or more public agencies, or a combination of public agencies and private organizations, that have the purpose of mitigating drought conditions for which a state of emergency has been declared by the Governor.	03/10/2016 - To SENATE Committee on ENVIRONMENTAL QUALITY.
<b><u>SB 1425</u></b> Pavley (D)	Water Energy Nexus Registry		Requires the State Air Resources Board to develop a registry of greenhouse gas emission resulting from the water-energy nexus using the best available data including specified actions of a former registry as they relate to the water-energy nexus.	03/31/2016 - Re-referred to SENATE Committee on ENVIRONMENTAL QUALITY.
<b><u>SB 1440</u></b> Cannella (R)	Water Supply and Infrastructure Improvement		Requires a lead agency, in certifying the environmental impact report and in granting approvals for certain water storage projects funded, in whole or in part, by Proposition I, to comply with specified procedures. Authorizes the lead agency to concurrently prepare the record of proceedings for the project. Requires the Judicial Council to adopt a rule of court to establish procedures applicable to actions or proceedings seeking judicial review.	03/10/2016 - To SENATE Committees on ENVIRONMENTAL QUALITY and JUDICIARY.
<b><u>SB 1456</u></b> Galgiani (D)	Safe Drinking Water State Revolving Fund Law		Amends an existing law which establishes the Safe Drinking Water State Revolving Fund. Authorizes certain costs to be funded by loans or other repayable financing, grants, principal forgiveness, or a combination of grants and loans or other financial assistance, regardless of whether a public water system is a community public water system or a not-for-profit noncommunity public water system.	03/10/2016 - To SENATE Committee on ENVIRONMENTAL QUALITY.
<b><u>HR 2689</u></b> Walters (R)	Eligible Water Resources Projects	Support	Clarifies the scope of eligible water resources projects under the Water Resources Development Act of 1986 and the Water Resources Reform and Development Act of 2014.	06/10/2015 - In HOUSE Committee on TRANSPORTATION & INFRASTRUCTURE: Referred to Subcommittee on WATER RESOURCES AND ENVIRONMENT.
<b><u>HR 4615</u></b> Huffman (D)	Water Department Gross Income Exclusion	Support	Amends the Internal Revenue Code of 1986 to exclude from gross income amounts received from a water department for water conservation efficiency measures and water runoff management	02/25/2016 - INTRODUCED.;02/25/2016 - To HOUSE Committee on WAYS AND

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			improvements.	MEANS.
<b>S 2533</b> Feinstein (D)	Water Supplies for California and Drought Resiliency		Provides short-term water supplies to drought-stricken California, provides for long-term investments in drought resiliency throughout the Western United States.	02/10/2016 - INTRODUCED.;02/10/2016 - In SENATE. Read second time.;02/10/2016 - To SENATE Committee on ENERGY AND NATURAL RESOURCES.

# EXHIBIT "B"

## Senate Bill No. 272

### CHAPTER 795

An act to add Section 6270.5 to the Government Code, relating to public records.

[Approved by Governor October 11, 2015. Filed with  
Secretary of State October 11, 2015.]

#### LEGISLATIVE COUNSEL'S DIGEST

SB 272, Hertzberg. The California Public Records Act: local agencies: inventory.

Existing law, the California Public Records Act, requires state and local agencies to make their records available for public inspection, unless an exemption from disclosure applies. The act declares that access to information concerning the conduct of the people's business is a fundamental and necessary right of every person in this state.

This bill would require each local agency, except a local educational agency, in implementing the California Public Records Act, to create a catalog of enterprise systems, as defined, to make the catalog publicly available upon request in the office of the person or officer designated by the agency's legislative body, and to post the catalog on the local agency's Internet Web site. The bill would require the catalog to disclose a list of the enterprise systems utilized by the agency, and, among other things, the current system vendor and product, unless, on the facts of the particular case, the public interest served by not disclosing that information clearly outweighs the public interest served by disclosure, in which case the local agency may instead provide a system name, brief title, or identifier of the system. Because the bill would require local agencies to perform additional duties, it would impose a state-mandated local program.

The California Constitution requires local agencies, for the purpose of ensuring public access to the meetings of public bodies and the writings of public officials and agencies, to comply with a statutory enactment that amends or enacts laws relating to public records or open meetings and contains findings demonstrating that the enactment furthers this purpose.

This bill would make legislative findings to that effect.

Existing constitutional provisions require a statute that limits the right of public access to meetings or writings of public officials to be adopted with findings demonstrating the interest to be protected by that limitation and the need to protect that interest.

This bill would declare that it includes limitations on access, that the interest to be protected is the security of enterprise systems in public agencies, and that the need to protect that interest is that enterprise systems

can contain information that, if released to the public, could result in negative consequences.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

*The people of the State of California do enact as follows:*

SECTION 1. The Legislature finds and declares all of the following:

(a) New information technology has dramatically changed the way people search for and expect to find information in California.

(b) This technology has unlocked great potential for government to better serve the people it represents. A recent study estimated that digitizing government data could generate one trillion dollars in economic value worldwide through cost savings and improved operational performance.

(c) California plays a vitally important role in moving our nation forward in the world of technology. Just as the state's thriving tech industry surges ahead in setting new standards for society, so too must California.

(d) As several nations, states, and cities have begun to embrace policies of online access to public sector data, they have enjoyed the benefits of increased operational efficiency and better collaboration. Here in California, cities across the state are turning internally gathered and maintained data into usable information for the public to access and leverage for the benefit of their communities.

(e) In moving government to a more effective digital future, standards should be adopted to ensure that data collection and publication are standardized, including uniform definitions for machine-readable data. Online portals should also be developed to assist with public access to collected data.

(f) With a public sector committed to success in the digital age, the residents and businesses of California will stand to benefit from the greater collaboration and integration, improved accountability, and increased productivity that will result.

(g) In making California government more accessible to the people of the state, paragraph (7) of subdivision (b) of Section 3 of Article I of the California Constitution requires local governments to comply with the California Public Records Act and with any subsequent statutory enactment amending that act and furthering that purpose.

SEC. 2. Section 6270.5 is added to the Government Code, to read:

6270.5. (a) In implementing this chapter, each local agency, except a local educational agency, shall create a catalog of enterprise systems. The catalog shall be made publicly available upon request in the office of the person or officer designated by the agency's legislative body. The catalog shall be posted in a prominent location on the local agency's Internet Web

site, if the agency has an Internet Web site. The catalog shall disclose a list of the enterprise systems utilized by the agency and, for each system, shall also disclose all of the following:

- (1) Current system vendor.
- (2) Current system product.
- (3) A brief statement of the system's purpose.
- (4) A general description of categories or types of data.
- (5) The department that serves as the system's primary custodian.
- (6) How frequently system data is collected.
- (7) How frequently system data is updated.

(b) This section shall not be interpreted to limit a person's right to inspect public records pursuant to this chapter.

(c) For purposes of this section:

(1) "Enterprise system" means a software application or computer system that collects, stores, exchanges, and analyzes information that the agency uses that is both of the following:

(A) A multidepartmental system or a system that contains information collected about the public.

(B) A system of record.

(2) "System of record" means a system that serves as an original source of data within an agency.

(3) An enterprise system shall not include any of the following:

(A) Information technology security systems, including firewalls and other cybersecurity systems.

(B) Physical access control systems, employee identification management systems, video monitoring, and other physical control systems.

(C) Infrastructure and mechanical control systems, including those that control or manage street lights, electrical, natural gas, or water or sewer functions.

(D) Systems related to 911 dispatch and operation or emergency services.

(E) Systems that would be restricted from disclosure pursuant to Section 6254.19.

(F) The specific records that the information technology system collects, stores, exchanges, or analyzes.

(d) Nothing in this section shall be construed to permit public access to records held by an agency to which access is otherwise restricted by statute or to alter the process for requesting public records, as set forth in this chapter.

(e) If, on the facts of the particular case, the public interest served by not disclosing the information described in paragraph (1) or (2) of subdivision (a) clearly outweighs the public interest served by disclosure of the record, the local agency may instead provide a system name, brief title, or identifier of the system.

(f) The local agency shall complete and post the catalog required by this section by July 1, 2016, and thereafter shall update the catalog annually.

SEC. 3. The Legislature finds and declares that Section 2 of this act, which adds Section 6270.5 to the Government Code, furthers, within the



meaning of paragraph (7) of subdivision (b) of Section 3 of Article I of the California Constitution, the purposes of that constitutional section as it relates to the right of public access to the meetings of local public bodies or the writings of local public officials and local agencies. Pursuant to paragraph (7) of subdivision (b) of Section 3 of Article I of the California Constitution, the Legislature makes the following findings:

Because increased information about what data is collected by local agencies could be leveraged by the public to more efficiently access and better use that information, the act furthers the purpose of Section 3 of Article I of the California Constitution.

SEC. 4. The Legislature finds and declares that Section 2 of this act limits the public’s right of access to public documents within the meaning of paragraph (2) of subdivision (b) of Section 3 of Article I of the California Constitution. Pursuant to that constitutional provision, the Legislature makes the following findings to demonstrate the interest and the need for protecting that interest:

(a) The interest protected by this limitation is the security of enterprise systems in public agencies.

(b) The need for protecting that interest is that enterprise systems can contain information that, if released to the public, could result in negative consequences.

SEC. 5. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district under this act would result from a legislative mandate that is within the scope of paragraph (7) of subdivision (b) of Section 3 of Article I of the California Constitution.

# EXHIBIT "C"

AMENDED IN ASSEMBLY MARCH 31, 2016

AMENDED IN ASSEMBLY MARCH 17, 2016

CALIFORNIA LEGISLATURE—2015–16 REGULAR SESSION

**ASSEMBLY BILL**

**No. 2488**

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**Introduced by Assembly Member Dababneh**

February 19, 2016

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An act to amend Section 5515 of, and to add Section 2081.10 to, the Fish and Game Code, relating to fish.

LEGISLATIVE COUNSEL'S DIGEST

AB 2488, as amended, Dababneh. Protected species: unarmored threespine ~~stickleback~~; *stickleback*: taking or possession.

Existing law prohibits the taking or possession of a fully protected fish, except as provided, and designates the unarmored threespine stickleback as a fully protected fish. The California Endangered Species Act prohibits the taking of an endangered or threatened species, except as specified. The Department of Fish and Wildlife may authorize the take of listed species if the take is incidental to an otherwise lawful activity and the impacts are minimized and fully mitigated.

This bill would permit the department to authorize, under the California Endangered Species Act, the take of the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) attributable to the periodic dewatering, inspection, maintenance, or repair of the Metropolitan Water District of Southern California's Foothill Feeder water supply facility from Castaic Dam to the Joseph Jensen Treatment Plant in the County of Los Angeles, as specified, if certain conditions are satisfied.

Vote: majority. Appropriation: no. Fiscal committee: yes.  
State-mandated local program: no.

*The people of the State of California do enact as follows:*

1 SECTION 1. The Legislature finds and declares all of the  
2 following:

3 (a) The Foothill Feeder below Castaic Dam in the County of  
4 Los Angeles is the primary conduit for water from the State Water  
5 Project for the Southern California region served by the  
6 Metropolitan Water District of Southern California. The  
7 Metropolitan Water District of Southern California is a public  
8 agency comprised of 26 member public agencies – 14 cities, 11  
9 municipal water districts, and one county water authority – and  
10 provides water to more than 19 million people in the Counties of  
11 Los Angeles, Orange, Riverside, San Bernardino, San Diego, and  
12 Ventura.

13 (b) Water supplies from the State Water Project are a critical  
14 part of Southern California’s water supply portfolio, and any  
15 interruption of that supply must be minimized to ensure delivery  
16 of clean and reliable water supplies for municipal and industrial  
17 uses, including health and human safety, and to water agencies  
18 and cities that rely upon water supply deliveries from the  
19 Metropolitan Water District of Southern California.

20 (c) Periodic dewatering, inspection, maintenance, modification,  
21 or repair, including emergency repairs, require that all or a portion  
22 of the Foothill Feeder be dewatered into the Santa Clara River and  
23 certain of its tributaries where unarmored threespine stickleback  
24 (*Gasterosteus aculeatus williamsoni*) may be present during these  
25 activities. Thus, the incidental take of unarmored threespine  
26 stickleback must be permitted for the periodic dewatering,  
27 inspection, maintenance, modification, or repair of the Foothill  
28 Feeder to protect Southern California water supplies.

29 SEC. 2. Section 2081.10 is added to the Fish and Game Code,  
30 to read:

31 2081.10. (a) The department may authorize, under this chapter,  
32 the incidental take of unarmored threespine stickleback  
33 (*Gasterosteus aculeatus williamsoni*) attributable to the periodic  
34 dewatering, inspection, maintenance, modification, or repair of  
35 the Metropolitan Water District of Southern California’s Foothill

1 Feeder water supply facility from Castaic Dam to the Joseph Jensen  
2 Treatment Plant in the County of Los Angeles, contingent upon  
3 the fulfillment of the following conditions:

4 (1) The department has determined that the requirements of  
5 subdivisions (b) and (c) of Section 2081 are satisfied for the take  
6 of the unarmored threespine stickleback.

7 (2) The department ensures that all further measures necessary  
8 to contribute to conservation as defined in subdivision (d) of  
9 Section 2805 are incorporated into the project.

10 (3) The take authorization provides for the development and  
11 implementation, in cooperation with the department, of an adaptive  
12 management process for monitoring the effectiveness of, and  
13 adjusting as necessary, the measures to minimize and fully mitigate  
14 the impacts of the authorized take. The adjusted measures are  
15 subject to Section 2052.1.

16 (b) The take authorization shall cover any incidental take of  
17 unarmored threespine stickleback attributable to the periodic  
18 dewatering, inspection, maintenance, modification, or repair of  
19 the Foothill Feeder that may occur in the following locations:

20 (1) \_\_\_\_\_.

21 (2) \_\_\_\_\_.

22 (1) *Within the Santa Clara River, from the Bouquet Canyon*  
23 *Road Bridge to a point located 4,000 feet downstream of where*  
24 *Commerce Center Drive, as of January 1, 2016, dead ends adjacent*  
25 *to the Santa Clara River.*

26 (2) *From the confluence with the Santa Clara River upstream*  
27 *to the following locations:*

28 (A) *In Charlie Canyon to a point 1,000 feet upstream of the*  
29 *Foothill Feeder facility dewatering structure.*

30 (B) *In San Francisquito Creek to the Copper Hill Drive bridge.*

31 (C) *In Placerita Creek to the Hacienda Lane crossing.*

32 (D) *In Bouquet Creek to the Newhall Ranch Road Bridge.*

33 (c) *The take authorization shall also cover any incidental take*  
34 *of unarmored threespine stickleback that may occur in the course*  
35 *of implementing mitigation or conservation actions required in*  
36 *the permit issued pursuant to subdivision (a) as may be modified*  
37 *through an adaptive management plan adopted pursuant to*  
38 *paragraph (3) of subdivision (a).*

39 (e)

1 (d) This section shall not be construed to exempt from any other  
2 law the periodic dewatering, inspection, maintenance, modification,  
3 or repair of the Foothill Feeder.

4 SEC. 3. Section 5515 of the Fish and Game Code is amended  
5 to read:

6 5515. (a) (1) Except as provided in this section, Section  
7 2081.6, Section 2081.7, Section 2081.10, or Section 2835, a fully  
8 protected fish shall not be taken or possessed at any time. No  
9 provision of this code or any other law shall be construed to  
10 authorize the issuance of a permit or license to take a fully  
11 protected fish, and no permit or license previously issued shall  
12 have force or effect for that purpose. However, the department  
13 may authorize the taking of a fully protected fish for necessary  
14 scientific research, including efforts to recover fully protected,  
15 threatened, or endangered species. Before authorizing the take of  
16 a fully protected fish, the department shall make an effort to notify  
17 all affected and interested parties to solicit information and  
18 comments on the proposed authorization. The notification shall  
19 be published in the California Regulatory Notice Register and be  
20 made available to each person who has notified the department,  
21 in writing, of his or her interest in fully protected species and who  
22 has provided an email address, if available, or postal address to  
23 the department. Affected and interested parties shall have 30 days  
24 after notification is published in the California Regulatory Notice  
25 Register to provide relevant information and comments on the  
26 proposed authorization.

27 (2) As used in this subdivision, “scientific research” does not  
28 include an action taken as part of specified mitigation for a project,  
29 as defined in Section 21065 of the Public Resources Code.

30 (3) A legally imported fully protected fish may be possessed  
31 under a permit issued by the department.

32 (b) The following are fully protected fish:

- 33 (1) Colorado River squawfish (*Ptychocheilus lucius*).
- 34 (2) Thicketail chub (*Gila crassicauda*).
- 35 (3) Mohave chub (*Gila mohavensis*).
- 36 (4) Lost River sucker (*Catostomus luxatus*).
- 37 (5) Modoc sucker (*Catostomus microps*).
- 38 (6) Shortnose sucker (*Chasmistes brevirostris*).
- 39 (7) Humpback sucker (*Xyrauchen texanus*).
- 40 (8) Owens River pupfish (*Cyprinoden radiosus*).

- 1 (9) Unarmored threespine stickleback (*Gasterosteus aculeatus*
- 2 *williamsoni*).
- 3 (10) Rough sculpin (*Cottus asperrimus*).

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# EXHIBIT "D"

AMENDED IN ASSEMBLY MARCH 17, 2016

CALIFORNIA LEGISLATURE—2015–16 REGULAR SESSION

**ASSEMBLY BILL**

**No. 2583**

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**Introduced by Assembly Member Frazier**

February 19, 2016

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An act to amend ~~Section 85057.5 of, Sections 85057.5, 85086, 85088, 85089, 85320, and 85321 of, to amend the heading of Chapter 2 (commencing with Section 85320) of Part 4 of Division 35 of, and to add Section 85053.5 to, and to repeal Section 85085 of, the Water Code, relating to the Sacramento-San Joaquin Delta.~~

LEGISLATIVE COUNSEL'S DIGEST

AB 2583, as amended, Frazier. Sacramento-San Joaquin Delta Reform Act of 2009.

Existing law, the Sacramento-San Joaquin Delta Reform Act of 2009, establishes the Delta Stewardship Council and requires the council to develop, adopt, and commence implementation of a comprehensive management plan for the Delta, known as the Delta Plan. *The Delta Plan is required to further the coequal goals of providing a more reliable water supply and protecting, restoring, and enhancing the Delta ecosystem. The act requires the council to consider the Bay Delta Conservation Plan (BDCP) for inclusion in the Delta Plan and requires the incorporation of the BDCP into the Delta Plan if the BDCP meets certain requirements.*

This bill would add a definition of the California Water Fix to the act. *This bill would eliminate certain provisions applicable to the BDCP and would revise other provisions to instead refer to a new Delta water conveyance project for the purpose of exporting water. This bill would require new Delta water conveyance infrastructure to be considered*



*as interdependent parts of a system and to be operated in a way that maximizes benefits for each of the coequal goals.*

The act requires a state or local public agency that proposes to undertake a covered action that will occur within the boundaries of the Delta or the Suisun Marsh to prepare, and submit to the council, a specified written certification of consistency with the Delta Plan prior to taking those actions. The act defines the term “covered action” to mean a plan, program, or project, as prescribed.

This bill would delete certain exclusions relating to the ~~Bay-Delta Conservation Plan BDCP~~ from the definition of a covered action. *This bill would prohibit any certification of consistency for a new Delta water conveyance project unless specified requirements are met.*

~~The act requires the Department of Water Resources to coordinate with the Department of Fish and Wildlife, the State Water Resources Control Board, the California regional water quality control boards, and the State Lands Commission efforts to cooperate with the United States Bureau of Reclamation to construct and implement the Two-Gates Fish Protection Demonstration Project by December 1, 2010, to evaluate the effectiveness of the Three Mile Slough Barrier project, to expeditiously move ahead with certain near term actions, and to assist in implementing early action ecosystem restoration projects.~~

~~This bill would eliminate these requirements:~~

~~*Under the act, until the State Water Resources Control Board issues an order approving a change in the point of diversion of the State Water Project and the federal Central Valley Project from the southern Delta to a certain point on the Sacramento River the Department of Water Resources is prohibited from commencing construction of any diversion, conveyance, or other facility necessary to divert and convey water pursuant to the change in point of diversion.*~~

~~*This bill would apply the above prohibition to a new point of diversion as well as a change in the point of diversion. This bill would prohibit the board from granting final approval of the requested change in or new point of diversion until the board has completed its update of a specified water quality control plan.*~~

~~*The act prohibits construction of a new Delta conveyance facility from being initiated until the persons or entities that contract to receive water from the State Water Project and the federal Central Valley Project or a joint powers authority representing those entities have made arrangements or entered into contracts to pay for certain costs required for the construction, operation, and maintenance of the facility*~~

*and full mitigation of property tax or assessments levied for land use in the construction, location, mitigation, or operation of the facility.*

*This bill would instead prohibit the construction until legally binding financial agreements or contracts are signed by each of the state and federal water contractors that will receive water supplies that commit them to pay for the costs required for the federal Central Valley Project, State Water Project, and any new Delta water conveyance facility, as specified, and full mitigation of property tax or assessments levied for land use in the construction, location, mitigation, operation, or maintenance of the facility.*

Vote: majority. Appropriation: no. Fiscal committee: yes.  
State-mandated local program: no.

*The people of the State of California do enact as follows:*

1 SECTION 1. Section 85053.5 is added to the Water Code, to  
2 read:

3 85053.5. “California Water Fix” or “Water Fix” means a  
4 project, within the meaning of Section 21065 of the Public  
5 Resources Code and subdivision (a) of Section 85057.5, to  
6 construct new State Water Project conveyance facilities in the  
7 Delta.

8 SEC. 2. Section 85057.5 of the Water Code is amended to read:

9 85057.5. (a) “Covered action” means a plan, program, or  
10 project as defined pursuant to Section 21065 of the Public  
11 Resources Code that meets all of the following conditions:

12 (1) Will occur, in whole or in part, within the boundaries of the  
13 Delta or Suisun Marsh.

14 (2) Will be carried out, approved, or funded by the state or a  
15 local public agency.

16 (3) Is covered by one or more provisions of the Delta Plan.

17 (4) Will have a significant impact on achievement of one or  
18 both of the coequal goals or the implementation of  
19 government-sponsored flood control programs to reduce risks to  
20 people, property, and state interests in the Delta.

21 (b) “Covered action” does not include any of the following:

22 (1) A regulatory action of a state agency.

23 (2) Routine maintenance and operation of the State Water  
24 Project or the federal Central Valley Project.

1 (3) Regional transportation plans prepared pursuant to Section  
2 65080 of the Government Code.

3 (4) A plan, program, project, or activity within the secondary  
4 zone of the Delta that the applicable metropolitan planning  
5 organization pursuant to Section 65080 of the Government Code  
6 has determined is consistent with either a sustainable communities  
7 strategy or an alternative planning strategy that the State Air  
8 Resources Board has determined would, if implemented, achieve  
9 the greenhouse gas emission reduction targets established by that  
10 board pursuant to subparagraph (A) of paragraph (2) of subdivision  
11 (b) of Section 65080 of the Government Code. For purposes of  
12 this paragraph, “consistent with” means consistent with the use  
13 designation, density, building intensity, transportation plan, and  
14 applicable policies specified for the area in the sustainable  
15 communities strategy or the alternative planning strategy, as  
16 applicable, and any infrastructure necessary to support the plan,  
17 program, project, or activity.

18 (5) Routine maintenance and operation of a facility located, in  
19 whole or in part, in the Delta, that is owned or operated by a local  
20 public agency.

21 (6) A plan, program, project, or activity that occurs, in whole  
22 or in part, in the Delta, if both of the following conditions are met:

23 (A) The plan, program, project, or activity is undertaken by a  
24 local public agency that is located, in whole or in part, in the Delta.

25 (B) Either a notice of determination is filed, pursuant to Section  
26 21152 of the Public Resources Code, for the plan, program, project,  
27 or activity by, or the plan, program, project, or activity is fully  
28 permitted by, September 30, 2009.

29 (7) A project within the secondary zone, as defined pursuant to  
30 Section 29731 of the Public Resources Code as of January 1, 2009,  
31 for which a notice of approval or determination pursuant to Section  
32 21152 of the Public Resources Code has been filed before the date  
33 on which the Delta Plan becomes effective.

34 (8) Leases approved by a special district if all of the following  
35 apply:

36 (A) The uses proposed by the lease are authorized by the  
37 applicable general plan and zoning ordinances of the city where  
38 the special district is located.

39 (B) The uses proposed by the lease are approved by the city  
40 where the special district is located and the city complies with

1 Chapter 3 (commencing with Section 85225) of Part 3, if  
2 applicable, prior to approval of the lease by the special district.

3 (C) The special district complies with the California  
4 Environmental Quality Act (Division 13 (commencing with Section  
5 21000) of the Public Resources Code) prior to approving the lease.

6 (9) (A) Routine dredging activities that are necessary for  
7 maintenance of facilities operated by a special district.

8 (B) For purposes of this paragraph, “routine dredging activities”  
9 are limited to the following:

10 (i) Dredging to maintain the Stockton Deep Water Ship Channel  
11 at a depth of 40 feet in the sediment trap at the confluence of the  
12 San Joaquin River, between river mile 39.3 to river mile 40.2, and  
13 to maintain the remaining Stockton Deep Water Ship Channel at  
14 a depth of 35 feet plus two feet of overdredge from river mile 35  
15 to river mile 43.

16 (ii) Dredging designed to maintain the Sacramento Deep Water  
17 Ship Channel at a depth of 30 feet plus two feet of overdredge  
18 from river mile 0.0 to river mile 30, and at a depth of 35 feet from  
19 river mile 35 to river mile 43.

20 (C) Except as provided by this subdivision, it is the intent of  
21 the Legislature that this exemption shall not be interpreted or  
22 treated as changing or modifying current substantive and procedural  
23 regulations applicable to the decision to approve dredging  
24 operations.

25 (c) For purposes of this section, “special district” means the  
26 Port of Stockton or the Port of West Sacramento.

27 (d) This section shall not be interpreted to authorize the  
28 abrogation of a vested right whether created by statute or by  
29 common law.

30 ~~SEC. 3.—Section 85085 of the Water Code is repealed.~~

31 *SEC. 3. Section 85086 of the Water Code is amended to read:*

32 85086. (a) The board shall establish an effective system of  
33 Delta watershed diversion data collection and public reporting by  
34 December 31, 2010.

35 (b) It is the intent of the Legislature to establish an accelerated  
36 process to determine instream flow needs of the Delta for the  
37 purposes of facilitating the planning decisions that are required to  
38 achieve the objectives of the Delta Plan.

39 (c) (1) For the purpose of informing planning decisions for the  
40 Delta Plan and the Bay Delta Conservation Plan, the board shall,

1 pursuant to its public trust obligations, develop new flow criteria  
2 for the Delta ecosystem necessary to protect public trust resources.  
3 In carrying out this section, the board shall review existing water  
4 quality objectives and use the best available scientific information.  
5 The flow criteria for the Delta ecosystem shall include the volume,  
6 quality, and timing of water necessary for the Delta ecosystem  
7 under different conditions. The flow criteria shall be developed in  
8 a public process by the board within nine months of the enactment  
9 of this division. The public process shall be in the form of an  
10 informational proceeding conducted pursuant to Article 3  
11 (commencing with Section 649) of Chapter 1.5 of Division 3 of  
12 Title 23 of the California Code of Regulations, and shall provide  
13 an opportunity for all interested persons to participate. The flow  
14 criteria shall not be considered predecisional with regard to any  
15 subsequent board consideration of a permit, including any permit  
16 in connection with a ~~final BDCP~~ *new Delta water conveyance*  
17 *project for the purpose of exporting water.*

18 (2) Any order approving a change in the point of diversion of  
19 the State Water Project or the federal Central Valley Project from  
20 the southern Delta to a point on the Sacramento River shall include  
21 appropriate Delta flow criteria and shall be informed by the analysis  
22 conducted pursuant to this section. The flow criteria shall be subject  
23 to modification over time based on a science-based adaptive  
24 management program that integrates scientific and monitoring  
25 results, including the contribution of habitat and other conservation  
26 measures, into ongoing Delta water management.

27 (3) Nothing in this section amends or otherwise affects the  
28 application of the board's authority under Part 2 (commencing  
29 with Section 1200) of Division 2 to include terms and conditions  
30 in permits that in its judgment will best develop, conserve, and  
31 utilize in the public interest the water sought to be appropriated.

32 (d) The board shall enter into an agreement with the State Water  
33 Project contractors and the federal Central Valley Project  
34 contractors, who rely on water exported from the Sacramento River  
35 watershed, or a joint powers authority comprised of those  
36 contractors, for reimbursement of the costs of the analysis  
37 conducted pursuant to this section.

38 (e) The board shall submit its flow criteria determinations  
39 pursuant to this section to the council for its information within  
40 30 days of completing the determinations.

1     *SEC. 4. Section 85088 of the Water Code is amended to read:*

2     85088. Until the board issues an order approving a change in  
3 ~~the~~ *or a new* point of diversion of the State Water Project and the  
4 federal Central Valley Project from the southern Delta to a point  
5 on the Sacramento River as specified in subdivision (c) of Section  
6 85086, the department shall not commence construction of any  
7 diversion, conveyance, or other facility necessary to divert and  
8 convey water pursuant to the change in *or new* point of diversion.  
9 *In order to ensure protection of fish and wildlife and in-Delta*  
10 *beneficial uses of the Bay-Delta estuary's waters, final approval*  
11 *by the board of a change or new point of diversion described in*  
12 *this section shall not be granted until the board has completed its*  
13 *update of the 2006 water quality control plan for the Bay-Delta*  
14 *estuary that was initiated with a notice of preparation in 2009.*

15     *SEC. 5. Section 85089 of the Water Code is amended to read:*

16     85089. Construction of a new Delta conveyance facility shall  
17 not be initiated until the persons or entities that contract to receive  
18 water from the State Water Project and the federal Central Valley  
19 Project or a joint powers authority representing those entities have  
20 ~~made arrangements or~~ entered into *legally binding financial*  
21 *agreements or contracts signed by each of the state and federal*  
22 *water contractors that will receive water supplies that commit*  
23 *them to pay for all costs, including reimbursement to the state for*  
24 *any General Fund or water bond funding used to date, that are*  
25 *associated with both of the following:*

26     (a) The costs of the environmental review, planning, design,  
27 construction, and mitigation, including mitigation required pursuant  
28 to Division 13 (commencing with Section ~~21000~~ 21000) of the  
29 Public Resources ~~Code~~, *Code*, required for the construction,  
30 operation, and maintenance of *the federal Central Valley Project,*  
31 *the State Water Project, and any new Delta water conveyance*  
32 *facility.*

33     (b) Full mitigation of property tax or assessments levied by local  
34 governments or special districts for land used in the construction,  
35 location, mitigation, *maintenance,* or operation of *a new Delta*  
36 ~~conveyance facilities.~~ *facility.*

37     *SEC. 6. The heading of Chapter 2 (commencing with Section*  
38 *85320) of Part 4 of Division 35 of the Water Code is amended to*  
39 *read:*

1 CHAPTER 2. ~~BAY DELTA CONSERVATION PLAN~~ DELTA WATER  
2 CONVEYANCE

3  
4 SEC. 7. Section 85320 of the Water Code is amended to read:  
5 85320. ~~(a) The Bay Delta Conservation Plan (BDCP) shall be~~  
6 ~~considered for inclusion in the Delta Plan in accordance with this~~  
7 ~~chapter.~~

8 ~~(b) The BDCP shall not be incorporated into the Delta Plan and~~  
9 ~~the public benefits associated with the BDCP shall not be eligible~~  
10 ~~for state funding, unless the BDCP does all of the following:~~

11 ~~(1) Complies with Chapter 10 (commencing with Section 2800)~~  
12 ~~of Division 3 of the Fish and Game Code.~~

13 85320. (a) *New Delta water conveyance infrastructure shall*  
14 *be considered as interdependent parts of a system and operated*  
15 *in a way that maximizes benefits for each of the coequal goals. A*  
16 *certification of consistency pursuant to Section 85225 shall not*  
17 *be made for a new Delta water conveyance project for the purpose*  
18 *of exporting water unless all of the following requirements are*  
19 *met:*

20 (1) *The costs of the design, construction, and operation of the*  
21 *water conveyance project and the associated mitigation and*  
22 *maintenance costs are not eligible for state funding. This includes*  
23 *implementation of existing habitat restoration requirements of the*  
24 *Department of Fish and Wildlife Longfin Smelt Incidental Take*  
25 *Permit for the State Water Project Delta operations and the United*  
26 *States Fish and Wildlife Service and National Oceanic and*  
27 *Atmospheric Administration National Marine Fisheries Service*  
28 *biological opinion for the current coordinated operations of the*  
29 *State Water Project and federal Central Valley Project. These*  
30 *costs shall be the responsibility of the water agencies that benefit*  
31 *from the conveyance project.*

32 (2) *The restrictions on the use of state bond funding for the*  
33 *acquisition of water pursuant to Section 79709 are met.*

34 (3) *A legally binding finance agreement is signed by all*  
35 *beneficiary state and federal water contractors committing them*  
36 *to pay all water conveyance project construction, mitigation,*  
37 *operation, maintenance, monitoring, and adaptive management*  
38 *costs, including reimbursement of local agency property taxes and*  
39 *assessments pursuant to subdivision (b) of Section 85089.*



1 (4) An enforceable mitigation implementation plan and  
2 monitoring and an enforceable monitoring and adaptive  
3 management plan are completed and contain mechanisms, such  
4 as establishing an endowment fund, to ensure adequate and  
5 ongoing funding necessary to mitigate the impacts to communities  
6 and agricultural production in the project area and to carry out  
7 the plans that are finalized and approved by the Department of  
8 Fish and Wildlife. The Delta Independent Science Board shall  
9 perform oversight regarding implementation of these plans for the  
10 purposes of ensuring that implementation of all mitigation  
11 measures required pursuant to Division 13 (commencing with  
12 Section 21000) of the Public Resources Code is roughly  
13 proportional in time and extent to the impact on all resources  
14 analyzed in the environmental impact report and to assess the  
15 effectiveness and adequacy of mitigation performance, funding,  
16 and habitat protection measures. The Delta Independent Science  
17 Board shall annually submit its findings and recommendations to  
18 the department, the council, and the Department of Fish and  
19 Wildlife.

20 (5) The council determines that the proposed changes in Delta  
21 water conveyance are consistent with Section 85021 because each  
22 region that will import water from the Delta using the new Delta  
23 water conveyance demonstrates that it has improved its regional  
24 self-reliance for water by 50 percent over average regional water  
25 supply levels during the period of 2010 to 2015, inclusive, due to  
26 reduced import demand from the Delta through investment in water  
27 use efficiency, water recycling, advanced water technologies, local  
28 and regional water supply projects, and improved regional  
29 coordination of local and regional water supply efforts to the  
30 maximum extent possible.

31 (6) Water exported from the Delta will match more closely the  
32 surplus water supplies available to be exported based on water  
33 year type, compliance with water quality objectives of the water  
34 quality control plan for the Bay-Delta estuary, the coequal goals,  
35 and the Delta water supply protections of Chapter 1 (commencing  
36 with Section 12220) of Part 4.5 of Division 6.

37 (7) Conveyance infrastructure and operations enhance Delta  
38 inflows and outflows by reducing diversions in dry periods  
39 consistent with the beneficial use needs of the Delta ecosystem

1 *and water users and provide net benefits to the ecosystem beyond*  
 2 *protecting the ecosystem from further degradation.*  
 3 *(8) The water conveyance project complies with real-time*  
 4 *operational requirements in accordance with Section 85321.*  
 5 ~~*(2) Complies with*~~  
 6 *(9) The requirements of Division 13 (commencing with Section*  
 7 *21000) of the Public Resources Code, Code are met, including a*  
 8 *comprehensive review and analysis of all of the following:*  
 9 *(A) A reasonable range of flow criteria, rates of diversion, and*  
 10 ~~*other operational criteria required to satisfy the criteria for approval*~~  
 11 ~~*of a natural community conservation plan as provided in*~~  
 12 ~~*subdivision (a) of Section 2820 of the Fish and Game Code, and*~~  
 13 *other operational requirements and flows necessary for recovering*  
 14 *the Delta ecosystem and restoring fisheries fisheries, in compliance*  
 15 *with all of the following, under a reasonable range of hydrologic*  
 16 *conditions, which will identify the remaining water available for*  
 17 *export and other beneficial uses: uses:*  
 18 *(i) Section 85031.*  
 19 *(ii) The federal Central Valley Project Improvement Act (Public*  
 20 *Law 102-575).*  
 21 *(iii) The federal Water Supply, Reliability, and Environmental*  
 22 *Improvement Act (Public Law 108-361).*  
 23 *(iv) The Department of Fish and Wildlife Longfin Smelt*  
 24 *Incidental Take Permit for State Water Project Delta operations.*  
 25 *(v) The United States Fish and Wildlife Service and National*  
 26 *Oceanic and Atmospheric Administration National Marine*  
 27 *Fisheries Service biological opinion for the current coordinated*  
 28 *operations of the State Water Project and federal Central Valley*  
 29 *Project.*  
 30 *(B) A reasonable range of Delta conveyance alternatives,*  
 31 *including through-Delta, dual conveyance, and isolated conveyance*  
 32 *alternatives and including further capacity and design options of*  
 33 *a lined canal, an unlined canal, and pipelines.*  
 34 *(C) The potential effects of climate change, possible sea level*  
 35 *rise up to 55 inches, and possible changes in total precipitation*  
 36 *and runoff patterns on the conveyance alternatives and habitat*  
 37 *restoration activities considered in the environmental impact report.*  
 38 *(D) The potential effects on migratory fish and aquatic resources.*  
 39 *(E) The potential effects on Sacramento River and San Joaquin*  
 40 *River flood management.*

1 (F) The resilience and recovery of Delta conveyance alternatives  
2 in the event of catastrophic loss caused by earthquake or flood or  
3 other natural disaster.

4 (G) The potential effects of each Delta conveyance alternative  
5 on Delta water quality.

6 (e)

7 (b) The department shall consult with the council and the Delta  
8 Independent Science Board during the development of ~~the BDCP~~.  
9 *projects to construct new Delta water conveyance facilities for the*  
10 *purpose of exporting water.* The council shall be a responsible  
11 agency in the development of the environmental impact report.  
12 The Delta Independent Science Board shall review the draft  
13 environmental impact report and submit its comments to the  
14 ~~council department, the council,~~ and the Department of Fish and  
15 ~~Game.~~ *Wildlife.*

16 (d) ~~If the Department of Fish and Game approves the BDCP as~~  
17 ~~a natural community conservation plan pursuant to Chapter 10~~  
18 ~~(commencing with Section 2800) of Division 3 of the Fish and~~  
19 ~~Game Code, the council shall have at least one public hearing~~  
20 ~~concerning the incorporation of the BDCP into the Delta Plan.~~

21 (e) ~~If the Department of Fish and Game approves the BDCP as~~  
22 ~~a natural community conservation plan pursuant to Chapter 10~~  
23 ~~(commencing with Section 2800) of Division 3 of the Fish and~~  
24 ~~Game Code and determines that the BDCP meets the requirements~~  
25 ~~of this section, and the BDCP has been approved as a habitat~~  
26 ~~conservation plan pursuant to the federal Endangered Species Act~~  
27 ~~(16 U.S.C. Section 1531 et seq.), the council shall incorporate the~~  
28 ~~BDCP into the Delta Plan. The Department of Fish and Game's~~  
29 ~~determination that the BDCP has met the requirements of this~~  
30 ~~section may be appealed to the council.~~

31 (f)

32 (c) The department, in coordination with the Department of Fish  
33 ~~and Game,~~ *Wildlife,* or any successor agencies *or joint powers*  
34 *authority* charged with ~~BDCP implementation, implementation of~~  
35 *a new Delta water conveyance project,* shall report to the council  
36 on the ~~implementation of the BDCP implementation, funding, and~~  
37 *schedule* at least once a year, including the status *and effectiveness*  
38 of *mitigation measures,* monitoring ~~programs programs,~~ and  
39 adaptive management.

40 (g)

1 (d) The council may make recommendations to ~~BDCP~~ for the  
 2 purpose of the Delta Habitat Conservation and Conveyance  
 3 Program and to the department, other Delta water conveyance  
 4 implementing ~~agencies~~ agencies, and joint power authorities  
 5 regarding the implementation of ~~the BDCP~~. ~~BDCP implementing~~  
 6 a new Delta water conveyance project. Implementing agencies  
 7 shall consult with the council on these recommendations. These  
 8 recommendations shall not change the terms and conditions of the  
 9 permits issued by state and federal regulatory agencies.

10 SEC. 8. Section 85321 of the Water Code is amended to read:

11 85321. ~~The BDCP~~A new Delta water conveyance project for  
 12 the purpose of exporting water shall include a transparent, ~~real-time~~  
 13 real-time, annual, and long-term operational decisionmaking  
 14 process in which fishery agencies ensure that applicable biological  
 15 performance measures are achieved in a timely manner with respect  
 16 to water system operations.

O

# EXHIBIT "E"

## Analysis on AB 2583 (Frazier)

As Amended March 17, 2016

General overview: AB 2583 adds requirements to the Delta Reform Act for California WaterFix, a physical solution to advance the coequal goals for the Delta. At a minimum, AB 2583 would delay the start of construction for at least several years and add significant new financial and regulatory burdens to the operations of new Delta conveyance.

A summary of four major new requirements embedded in AB 2583 are outlined below:

1. AB 2583 would give any state or federal water contractor that “will receive water” (presumably from new Delta conveyance) a veto over construction of the California WaterFix by requiring every one of them to enter a legally binding agreement to pay all costs associated with both new conveyance and the existing CVP and SWP facilities, including reimbursing the state for any bonds or General Funds used to date for either project.
2. It would require the SWRCB to complete its update to the Bay-Delta Water Quality Control Plan before it could grant a change in point of diversion permit, which is a prerequisite to beginning construction.
3. It eliminates current requirements for BDCP incorporation into the Delta Plan, which was a prerequisite to receiving state funding for public benefits, and replaces the requirements with onerous new prerequisites that must be met before construction could begin, and which would radically alter permitting and regulation of operations, including:
  - a. New conveyance must operate to maximize both coequal goals.
  - b. New conveyance cannot receive any public funding under any circumstances, even if it ends up including measures that would produce public benefits, e.g., by providing ecosystem benefits beyond those required to mitigate project impacts.
  - c. Acquisition of water must meet Prop. 1 bond funding requirements (i.e., any acquired water must be permanently dedicated to instream beneficial uses, which is an attempt to render it unavailable for rediversion even after it has served its in-stream purpose).
  - d. An MMRP and Adaptive Management Plan are adopted along with financial assurances that both will be implemented.
  - e. The Independent Science Board is given implementation oversight of the MMRP and Adaptive Management Plan to ensure rough proportionality of impacts and mitigation at all times.
  - f. Each region that receives water has improved self-reliance by 50% over supply levels during 2010-2015 due to reduced demand from Delta supplies.
  - g. Exports “match more closely” “surplus water supplies available” by water year type, Bay-Delta water quality objectives, the coequal goals and projections of in-

- Delta demands (i.e., the CVP and SWP may only export whatever water remains after all other ecological and in-Delta diverter needs are met).
- h. Conveyance infrastructure (not just new conveyance) enhance Delta inflows and outflows “consistent with Delta ecosystem needs and needs of Delta water users,” and provide net benefits to the ecosystem, which goes beyond ESA Section 7, CESA 2081, or any other regulatory requirements.
  - i. The EIR is revised to include an analysis of a reasonable range of flow criteria, rates of diversion and other operational requirements needed to recover the Delta ecosystem and restoring fisheries in compliance with area of origin and Delta Protection Act requirements, the CVPIA, PL 108-361 (Water Supply, Reliability, and Environmental Improvement Act), the Longfin Smelt CESA permit, and the current OCAP BiOps.
4. It adds a requirement for the California WaterFix to include a transparent real-time, annual, and long-term operational decision-making process in which fishery agencies ensure that applicable biological performance measures are achieved.

In addition to the above, other major provisions of the bill include:

First, it would amend Water Code Section 85088 to require the SWRCB to complete its update to the 2006 Water Quality Control Plan for the Bay-Delta (commonly referred to as the "Bay-Delta Plan"). That update was initiated in 2009, and Phase 1 isn't even complete for the San Joaquin River. The Delta Reform Act did not require this timing provision. Instead, it requires the SWRCB to adopt flow criteria for any change in point of diversion for new conveyance like the California WaterFix, a process that has already begun, and which will finish years before the SWRCB revises its Bay-Delta Plan.

Second, it would amend Section 85089 to impose more onerous requirements on the water contractors financing the California WaterFix. Currently, Section 85089 prohibits construction of new Delta conveyance until the water contractors "have made arrangements or entered into contracts" to pay for (1) the costs of environmental review, planning, design, construction and mitigation of any new Delta conveyance facility, and (2) full mitigation of property tax or assessments levied by local governments or special districts for land used in the construction, location, mitigation, or operation of new Delta conveyance facilities.

As amended, AB 2583 would require all water contractors "that will receive water supplies" [*presumably from new conveyance facilities, but this is not specified*] to enter “legally binding financial agreements or contracts signed by each of the state and federal water contractors that will receive water supplies that commit them to pay for all costs, including reimbursement to the state for any General Fund or water bond funding used to date, that are associated with”

the costs to plan, study, design, build, and mitigation new conveyance and full mitigation of property taxes and assessments.

Broadening the requirement to all water contractors, not just those prepared to fund California WaterFix, would require unanimous support from **all** state and federal contractors before construction could begin. This would give any holdout water contractor veto authority over the California WaterFix, something never contemplated in the Delta Reform Act, and something that likely would have blocked the DRA from ever being adopted had it been proposed in 2009.

It also restricts the more general language to “make arrangement or enter contracts” to “legally binding financial agreements or contracts,” which would rule out MOUs or other approaches to making arrangements to pay the required costs.

AB 2583 would also amend Section 85089(a) to require the legally binding contracts to obligate all state and federal water contractors not only to pay the costs of new conveyance, it would require all water contractors “that will receive water supplies” to pay all costs, including reimbursing the state for any General Fund or water bond funding used to date “associated with” the construction, operation, and maintenance **of the federal Central Valley Project and the State Water Project.**

This would represent a major shift in the Delta Reform Act. State water contractors already pay all costs “associated with” construction, operation and maintenance of the SWP. But I am not sure whether the CVP contractors are required to pay all costs “associated with” the CVP. This new requirement has nothing to do with new conveyance or furthering the coequal goals.

Third, it guts and amends Section 85320. That section currently applies to the BDCP and sets forth the prerequisites for incorporation into the Delta Plan, which is a prerequisite for public funding of BDCP’s public benefits. The California WaterFix is not an HCP/NCCP, so the Delta Stewardship Council is not required to incorporate it into the Delta Plan, nor is there any specific legal bar to receiving public funding for any public benefits.

The laundry list of additional requirements in the numbered list above speaks for itself. These prerequisites for construction would renege on a host of compromises in the Delta Reform Act and render the project financially infeasible and thwarts achievement of the coequal goals.

Fourth, AB 2583 would add a new requirement to the California WaterFix that mandates a transparent, real-time operational decision-making process that would put the fishery agencies in charge of ensuring timely achievement of “applicable biological performance measures.” This requirement does not make sense outside the context of an HCP/NCCP.



## EXHIBIT "F"

March 14, 2016

*Submitted via Electronic Mail to [Michael.Bedard@sen.ca.gov](mailto:Michael.Bedard@sen.ca.gov)*

The Honorable Bob Hertzberg  
California State Senate  
State Capitol, Room 4038  
Sacramento, CA 95814

**Subject: SB 163 (Hertzberg): CASA Feedback and Alternative Proposal**

Dear Senator Hertzberg:

The California Association of Sanitation Agencies (CASA) appreciates the opportunity to work with you on SB 163 pertaining to recycled water and ocean discharge. Consistent with our previous discussions with you and your staff, CASA has been reaching out to our membership and representatives from the water and wastewater community to solicit feedback and input on potential alternatives to the existing language in the bill.

As noted in our previous comments (attached), CASA and the wastewater community as a whole are highly supportive of developing recycled water projects and increasing recycled water production and use in the future, and we truly appreciate your interest in finding ways to promote this vital renewable resource. Unfortunately, for the reasons set forth in our previous letter, the statewide ocean discharge prohibition currently contemplated by SB 163 is simply not feasible, practical, or cost effective.

As suggested at our last meeting, CASA has been actively working with our fellow associations and others in the recycled water community on possible alternative approaches related to the legislation. Several members of this group have had conversations with you or your staff regarding SB 163, and many have provided written feedback directly to your office. Based on our discussions, and input from several CASA members who would be impacted by the proposed recycled water mandate, we have developed an alternative to the approach currently outlined in the bill.

We feel the approach outlined below will make meaningful strides toward increasing recycled water production and use, including areas where wastewater is currently being discharged to the ocean, identifying barriers to implementation, and creating a roadmap for achieving the types of gains contemplated by SB 163. Importantly, it would accomplish these underlying goals without the monumental financial and logistical burdens that would be placed on water and wastewater agencies as a result of the mandate approach.

The concept is to convene a task force on "Water for the 21<sup>st</sup> Century" that would develop a roadmap for new water. The task force would be statewide in its scope, focusing on both ocean dischargers and inland dischargers, examining both potable and non-potable reuse, and identifying water-recycling issues relevant to inland and coastal areas as well as agricultural and urban interests. The task force would ultimately produce an action plan designed to increase recycled water production in California, meet the statewide water recycling goals and overcome any barriers preventing increases in recycled water production and beneficial use from being realized. This could also include a final task force report to the legislature that contains analysis and recommendations tied to the specific task force charges identified below.

Each of the items identified below is a critical component of developing recycled water supplies in the coming decades:

- 1) Overall ways to improve the feasibility of recycled water production and use, including indirect potable reuse (IPR) and direct potable reuse (DPR). This would include an examination of relevant regulations, programs and issues pertaining to communication and public acceptance. It would also include a look at a variety of end uses and distribution mechanisms, including irrigated agriculture, purple pipes, groundwater injection, and others;
- 2) Specific ways in which to better incorporate IPR and DPR into existing recycled water planning processes, in anticipation of the expansion of IPR in California and the pending DPR expert panel report and potential future regulations authorizing such reuse;
- 3) A look at several issues attendant to recycled water production and use, including environmental restoration opportunities, energy consumption and/or savings opportunities, and recycled water infrastructure's role in larger infrastructure planning approaches;
- 4) An analysis of the proximity of wastewater agencies to specific croplands and the opportunities to increase recycled water use with and without additional treatment for irrigated agriculture;
- 5) Analysis of existing and anticipated recycled water funding needs and opportunities, including an examination of alternative methods of financing recycled water projects, such as incorporating elements of private financing;
- 6) Examination of the estimated total cost to achieve statewide water recycling goals and how those funds will be procured;
- 7) Potential obstacles to increasing recycled water production, including but not limited to (1) the availability and variety of potential markets in various regions, (2) proximity of groundwater basins and reservoirs suitable for replenishment that can be used for indirect potable reuse, (3) authority to purvey recycled water by the wastewater agency, (4) pre-existing levels of treatment at a facility and existing recycled water distribution infrastructure, (5) susceptibility of the local community to development of purple pipes and other distribution infrastructure (e.g. new construction or established communities), (6) the need for continued discharge for brine disposal if advanced treatment is implemented for reuse, and (7) the current and projected future impacts of water conservation on recycled water supplies and ways to address these impacts;
- 8) The impact of water conservation on wastewater (and recycled water) production rates and potential;
- 9) The varying roles and responsibilities of water and wastewater agencies in recycled water production and distribution;
- 10) Potential water rights issues associated with recycled water production, distribution, and related issues, including but not limited to considerations in adjudicated basins and impacts on downstream users due decreased discharges;
- 11) How to integrate existing efforts to identify and promote opportunities for increased recycled water production and use, including but not limited to Urban Water Management Plans and recycled water master plans prepared by local agencies;
- 12) Elements that might be needed in an individual agency analysis of opportunities for expanded recycled water production, distribution and use, including but not limited to an identification of all land acquisition and facilities necessary to provide for treatment, transport, and reuse of treated wastewater, an analysis of the costs associated with those acquisitions and facilities, a financing plan identifying possible methods of funding such actions, a schedule for the completion of those actions, and any other supporting data and other documentation;

- 13) How to account for prior investments in recycled water infrastructure and existing recycled water production capacity's role in achieving goals;
- 14) Any issues identified in the "2002 Recycled Water Task Force" final report but not fully implemented or addressed;
- 15) The need for support for the widespread use of recycled water by the business and agricultural communities, as well as by the public at large (including for paying for the costs of the necessary infrastructure);
- 16) How on-site water treatment systems interact with the production and distribution of recycled water and what role it will play in achieving recycled water goals.

Many of the findings and declarations that would support convening such a task force are already identified in SB 163. These findings shape the role of the task force and the context in which the group would complete its action plan. These include (but are not necessarily limited to) the following statements:

- 1) Continuous severe drought conditions present urgent challenges across the state, including, but not limited to, water shortages in communities and for agricultural production, increased risk of wildfires, degraded habitat for fish and wildlife, and threat of saltwater contamination in large fresh water supplies;
- 2) Water reuse can be one of the most efficient and cost-effective ways to improve the drought resilience of California communities;
- 3) Existing discharge of treated wastewater from ocean outfalls presents significant opportunities to recycle additional water for further beneficial use;
- 4) Increasing the amount of recycled water produced by wastewater facilities with ocean outfalls could dramatically accelerate the adoption of water recycling in the state, and thus increase water supply available for beneficial use;
- 5) Increased water recycling, including at facilities currently utilizing ocean outfalls, can reduce California's dependence on diversions from surface rivers and streams that are subject to variable climate and regulatory conditions, and could potentially provide additional benefits;
- 6) The expansion of groundwater IPR, the establishment of statewide surface water augmentation regulations and the development of statewide regulations for DPR are critical to maximizing recycling and achieving California's goals;
- 7) Current information regarding the actual production and usage of recycled water in the state is insufficient to determine whether we are meeting the goals set forth by the State Water Board;
- 8) There is currently an insufficient understanding of the barriers to increasing recycled water production in the state and the potential for additional reuse in particular watersheds or regions;
- 9) Recent commitments to fund recycled water projects through Proposition 1 and low interest State Revolving Fund (SRF) loans are anticipated to result in 150,000 acre-feet per year of new recycled water supply in the coming years;
- 10) Many local agencies have already made substantial investments in recycled water production and distribution facilities;
- 11) The State Water Resources Control Board has established goals of recycling 1,500,000 acre-feet of wastewater by 2020 and 2,500,000 acre-feet of wastewater by 2030;
- 12) Many regulatory processes related to recycled water, including those that could increase or modify opportunities for a variety of production types and end uses, are currently under development.

Finally, we propose that the task force be jointly chaired by a member of the State Water Resources Control Board and the Director of the Resources Agency to demonstrate the

importance of recommendations that might ultimately be developed. The task force should include a broad cross section of stakeholders such as recycled water producers, recycled water suppliers, end users, nongovernmental organizations, local government, the business community, including developers, and relevant state agencies.

Funds to support the task force and offset any costs associated with assembling the task force and developing a report, action plan, and recommendations could come from Proposition 1 recycled water allocations (Chapter 9), and more specifically the identified portion of those funds that is specifically dedicated to research.

We appreciate your support for increasing recycled water production and use in the coming decades, and would like to work with you to develop this task force proposal into language that alleviates our concerns and results in legislation the water and wastewater community can collectively support. To the extent that any revisions to the bill more closely reflect this task force approach as opposed to the proposed mandate, we could commit to continuing to work with your office on this legislation. We would also appreciate the opportunity to discuss this proposal with you in person over the next few weeks.

Thank you for your consideration of our concerns, and we look forward to working with you.

Sincerely,



California Association of Sanitation Agencies



Irvine Ranch Water District (IRWD)



Association of California Water Agencies (ACWA)



WateReuse California



California Municipal Utilities Association (CMUA)



San Francisco Public Utilities Commission (SFPUC)



Inland Empire Utilities Agency (IEUA)



Las Virgenes-Triunfo Joint Powers Authority



City of San Diego, Public Utilities Department

# EXHIBIT "G"

AMENDED IN SENATE MARCH 30, 2016

AMENDED IN SENATE MARCH 17, 2016

**SENATE BILL**

**No. 814**

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**Introduced by Senator Hill**

January 4, 2016

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An act to amend ~~Section 6254.16 of the Government Code~~, and to add Chapter 3.3 (commencing with Section 365) to Division 1 of the Water Code, relating to water.

LEGISLATIVE COUNSEL'S DIGEST

SB 814, as amended, Hill. Drought: excessive water use: urban retail water suppliers.

The California Constitution declares the policy that the water resources of the state be put to beneficial use to the fullest extent of which they are capable, that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use of the waters in the interest of the people and for the public welfare. Existing law requires the Department of Water Resources and the State Water Resources Control Board to take all appropriate proceedings or actions to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water in this state. Existing law authorizes any public entity, as defined, that supplies water at retail or wholesale for the benefit of persons within the service area or area of jurisdiction of the public entity to, by ordinance or resolution, adopt and enforce a water conservation program to reduce the quantity of water used for the purpose of conserving the water supplies of the public entity. Existing law provides that a violation of a requirement of a water conservation program is a misdemeanor punishable by imprisonment

in a county jail for not more than 30 days, or by a fine not exceeding \$1,000, or both.

This bill would declare that excessive water use during a state of emergency based on drought conditions by a residential customer, as specified, is prohibited. This bill would require each urban retail water supplier to establish a method to identify and restrict excessive water use. This bill would authorize as a method to identify and restrict excessive water use the establishment of a rate structure that includes block tiers, water budgets, penalties for prohibited uses, or rate surcharges over and above base rates for excessive water use by residential customers. This bill would authorize as a method to identify and restrict excessive water use the establishment of an excessive water use ordinance, rule, or tariff condition that includes a definition of excessive water use, as prescribed, and would make a violation of this excessive water use ordinance, rule, or tariff condition an infraction punishable by a fine of at least \$500 per 100 cubic feet of water or per 748 gallons used above the excessive water use threshold established by the urban retail water supplier in a billing cycle. By creating a new infraction, this bill would impose a state-mandated local program.

This bill would provide that these provisions apply only during a period for which the Governor has issued a proclamation of a state of emergency based on drought conditions.

~~The California Public Records Act requires that public records, as defined, be open to inspection at all times during the hours of a state or local agency and that every person has a right to inspect any public record, with specified exceptions. Existing law prohibits the act from being construed to require the disclosure of certain information concerning utility customers of local agencies, except that disclosure of the name, utility usage data, and the home address of the utility customer who is the subject of the request and who the local agency has determined has used utility services in a manner inconsistent with applicable local utility usage policies is required to be made available.~~

~~This bill would revise this exception to require, upon request, the disclosure of the name and utility usage data of a utility customer who a local agency determines has used utility services in a manner inconsistent with applicable local utility usage policies, with the home address of the customer being disclosed only with the customer's consent. By increasing the duties of local officials, the bill would impose a state-mandated local program.~~



~~The California Constitution requires local agencies, for the purpose of ensuring public access to the meetings of public bodies and the writings of public officials and agencies, to comply with a statutory enactment that amends or enacts laws relating to public records or open meetings if that enactment contains findings demonstrating that the enactment furthers the constitutional requirements relating to this purpose.~~

~~This bill would make legislative findings to that effect.~~

~~The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.~~

~~This bill would provide that no reimbursement is required by this act for a specified reason.~~

~~*The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.*~~

~~*This bill would provide that no reimbursement is required by this act for a specified reason.*~~

Vote: majority. Appropriation: no. Fiscal committee: yes.  
State-mandated local program: yes.

*The people of the State of California do enact as follows:*

- 1 SECTION 1. ~~Section 6254.16 of the Government Code is~~
- 2 ~~amended to read:~~
- 3 ~~6254.16. Nothing in this chapter shall be construed to require~~
- 4 ~~the disclosure of the name, credit history, utility usage data, home~~
- 5 ~~address, or telephone number of utility customers of local agencies;~~
- 6 ~~except that disclosure of name, utility usage data, and the home~~
- 7 ~~address of utility customers of local agencies shall be made~~
- 8 ~~available upon request as follows:~~
- 9 ~~(a) To an agent or authorized family member of the person to~~
- 10 ~~whom the information pertains.~~
- 11 ~~(b) To an officer or employee of another governmental agency~~
- 12 ~~when necessary for the performance of its official duties.~~
- 13 ~~(c) Upon court order or the request of a law enforcement agency~~
- 14 ~~relative to an ongoing investigation.~~
- 15 ~~(d) Upon determination by the local agency that a utility~~
- 16 ~~customer has used utility services in a manner inconsistent with~~

1 applicable local utility usage policies, if the home address of the  
2 customer is not disclosed without the customer’s consent.

3 (e) ~~Upon determination by the local agency that the utility  
4 customer who is the subject of the request is an elected or appointed  
5 official with authority to determine the utility usage policies of the  
6 local agency, provided that the home address of an appointed  
7 official shall not be disclosed without his or her consent.~~

8 (f) ~~Upon determination by the local agency that the public  
9 interest in disclosure of the information clearly outweighs the  
10 public interest in nondisclosure.~~

11 SEC. 2.

12 SECTION 1. Chapter 3.3 (commencing with Section 365) is  
13 added to Division 1 of the Water Code, to read:

14 CHAPTER 3.3. EXCESSIVE RESIDENTIAL WATER USE DURING  
15 DROUGHT  
16

17  
18 365. (a) The Legislature finds and declares that this chapter  
19 furthers important state policies of encouraging water conservation  
20 and protecting water resources in the interest of the people and for  
21 the public welfare.

22 (b) For the purposes of this chapter, “urban retail water supplier”  
23 has the same meaning as provided in Section 10608.12.

24 366. (a) Excessive water use during a state of emergency based  
25 on drought conditions by a residential customer in a single-family  
26 residence or by a customer in a multiunit housing complex in which  
27 each unit is individually metered or submetered by the water  
28 supplier is prohibited.

29 (b) Each urban retail water supplier shall establish a method to  
30 identify and restrict excessive water use, through one of the  
31 following options:

32 (1) Establishing a rate structure that includes block tiers, water  
33 budgets, penalties for prohibited uses, or rate surcharges over and  
34 above base rates for excessive water use by a residential water  
35 customer.

36 (2) (A) Establishing an excessive water use ordinance, rule, or  
37 tariff condition, or amending an existing ordinance, rule, or tariff  
38 condition, that includes a definition of excessive water use by  
39 single-family residential customers and customers in multiunit  
40 housing complexes in which each unit is individually metered or

1 submetered and may include a process to issue written warnings  
2 to a customer and perform a site audit of customer water usage  
3 prior to deeming the customer in violation. Excessive water use  
4 shall be measured in terms of either gallons or hundreds of cubic  
5 feet of water used during the urban retail water supplier's regular  
6 billing cycle. In establishing the definition of excessive use, the  
7 water supplier may consider factors that include, but are not limited  
8 to, all of the following:

- 9 (i) Average daily use.
- 10 (ii) Full-time occupancy of households.
- 11 (iii) Amount of landscaped land on a property.
- 12 (iv) Rate of evapotranspiration.
- 13 (v) Seasonal weather changes.

14 (B) A violation of an excessive use ordinance, rule, or tariff  
15 condition established pursuant to subparagraph (A) is an infraction  
16 punishable by a fine of up to five hundred dollars (\$500) per  
17 hundred cubic feet of water, or per 748 gallons, used above the  
18 excessive water use threshold established by the urban retail water  
19 supplier in a billing cycle. Any fine imposed pursuant to this  
20 subparagraph shall be added to the customer's water bill and is  
21 due and payable with that water bill. Each urban retail water  
22 supplier shall have a process for nonpayment of the fine, which  
23 shall be consistent with the water supplier's existing process for  
24 nonpayment of a water bill.

25 (C) A violation of an excessive water use ordinance, rule, or  
26 tariff condition where a demonstrable water leak at the residence  
27 occurred and a repair to eliminate that leak is underway shall be  
28 considered as a basis for granting an appeal and shall be considered  
29 for waiver of the charges consistent with the urban retail water  
30 supplier's excessive water use ordinance and existing policies for  
31 leak adjustments. Other reasonable justifications for excessive  
32 water use shall be considered by the urban retail water supplier  
33 consistent with clause (i) of subparagraph (D).

34 (D) (i) An urban retail water supplier shall establish a process  
35 for the appeal of a fine imposed pursuant to subparagraph (B)  
36 whereby the customer may contest the imposition of the fine for  
37 excessive water use.

38 (ii) As part of the appeal process, the customer shall be provided  
39 with an opportunity to provide evidence of a bona fide reason for  
40 the excessive water use, including evidence of a water leak in

1 accordance with subparagraph (C), a medical reason, or any other  
2 reasonable justification for the water use, as determined by the  
3 urban retail water supplier.

4 367. This chapter applies only during a period for which the  
5 Governor has issued a proclamation of a state of emergency under  
6 the California Emergency Services Act (Chapter 7 (commencing  
7 with Section 8550) of Division 1 of Title 2 of the Government  
8 Code) based on drought conditions.

9 ~~SEC. 3. The Legislature finds and declares that Section 1 of  
10 this act, which amends Section 6254.16 of the Government Code,  
11 furthers, within the meaning of paragraph (7) of subdivision (b)  
12 of Section 3 of Article I of the California Constitution, the purposes  
13 of that constitutional section as it relates to the right of public  
14 access to the meetings of local public bodies or the writings of  
15 local public officials and local agencies. Pursuant to paragraph (7)  
16 of subdivision (b) of Section 3 of Article I of the California  
17 Constitution, the Legislature makes the following findings:~~

18 ~~The Legislature finds that it is in the public’s interest to be made  
19 aware of excessive water use during a drought in order to help  
20 promote water conservation and to protect water resources in the  
21 interest of the people and for the public welfare.~~

22 ~~SEC. 4. No reimbursement is required by this act pursuant to  
23 Section 6 of Article XIII B of the California Constitution because  
24 the costs that may be incurred by a local agency or school district  
25 under this act would result from a legislative mandate that is within  
26 the scope of paragraph (7) of subdivision (b) of Section 3 of Article  
27 I of the California Constitution or because the costs that may be  
28 incurred by a local agency or school district will be incurred  
29 because this act creates a new crime or infraction, eliminates a  
30 crime or infraction, or changes the penalty for a crime or infraction,  
31 within the meaning of Section 17556 of the Government Code, or  
32 changes the definition of a crime within the meaning of Section 6  
33 of Article XIII B of the California Constitution.~~

34 *SEC. 2. No reimbursement is required by this act pursuant to*  
35 *Section 6 of Article XIII B of the California Constitution because*  
36 *the only costs that may be incurred by a local agency or school*  
37 *district will be incurred because this act creates a new crime or*  
38 *infraction, eliminates a crime or infraction, or changes the penalty*  
39 *for a crime or infraction, within the meaning of Section 17556 of*  
40 *the Government Code, or changes the definition of a crime within*

1 *the meaning of Section 6 of Article XIII B of the California*  
2 *Constitution.*

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**Introduced by Senator Wolk**

January 19, 2016

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An act to amend Section 2782 of the Civil Code, relating to contracts.

LEGISLATIVE COUNSEL'S DIGEST

SB 885, as introduced, Wolk. Construction contracts: indemnity.

Existing law makes specified provisions in construction contracts void and unenforceable, including provisions that purport to indemnify the promisee against liability for damages for death or bodily injury to persons, injury to property, or any other loss arising from the sole negligence or willful misconduct of the promisee or the promisee's agents who are directly responsible to the promisee, or for defects in design furnished by those persons.

This bill would specify, for construction contracts entered into on or after January 1, 2017, that a design professional, as defined, only has the duty to defend claims that arise out of, or pertain or relate to, negligence, recklessness, or willful misconduct of the design professional. Under the bill, a design professional would not have a duty to defend claims against any other person or entity arising from a construction project, except that person or entity's reasonable defense costs arising out of the design professional's degree of fault, as specified. The bill would prohibit waiver of these provisions and would provide that any clause in a contract that requires a design professional to defend claims against other persons or entities is void and unenforceable. The bill would provide Legislative findings and declarations in support of these provisions.

Vote: majority. Appropriation: no. Fiscal committee: no.  
State-mandated local program: no.

*The people of the State of California do enact as follows:*

1 SECTION 1. The Legislature finds and declares all of the  
2 following:

3 (a) Errors and omissions insurance for design professionals does  
4 not provide coverage for the defense of claims against other persons  
5 and other entities involved in construction projects.

6 (b) Requiring design professionals to defend claims against  
7 other persons or other entities involved in construction projects  
8 when insurance coverage is not available is unfair and contrary to  
9 sound public policy.

10 (c) It is sound public policy for all persons and entities in  
11 projects to defend themselves against claims of negligence or error.

12 (d) It is the intent of the Legislature in enacting this act to  
13 prohibit indemnity agreements that require design professionals  
14 to defend claims made against other persons or other entities  
15 involved in construction projects.

16 SEC. 2. Section 2782 of the Civil Code is amended to read:

17 2782. (a) Except as provided in Sections 2782.1, 2782.2,  
18 2782.5, and 2782.6, provisions, clauses, covenants, or agreements  
19 contained in, collateral to, or affecting any construction contract  
20 and that purport to indemnify the promisee against liability for  
21 damages for death or bodily injury to persons, injury to property,  
22 or any other loss, damage or expense arising from the sole  
23 negligence or willful misconduct of the promisee or the promisee's  
24 agents, servants, or independent contractors who are directly  
25 responsible to the promisee, or for defects in design furnished by  
26 those persons, are against public policy and are void and  
27 unenforceable; provided, however, that this section shall not affect  
28 the validity of any insurance contract, workers' compensation, or  
29 agreement issued by an admitted insurer as defined by the  
30 Insurance Code.

31 (b) (1) Except as provided in Sections 2782.1, 2782.2, and  
32 2782.5, provisions, clauses, covenants, or agreements contained  
33 in, collateral to, or affecting any construction contract with a public  
34 agency entered into before January 1, 2013, that purport to impose  
35 on the contractor, or relieve the public agency from, liability for  
36 the active negligence of the public agency are void and  
37 unenforceable.



1 (2) Except as provided in Sections 2782.1, 2782.2, and 2782.5,  
2 provisions, clauses, covenants, or agreements contained in,  
3 collateral to, or affecting any construction contract with a public  
4 agency entered into on or after January 1, 2013, that purport to  
5 impose on any contractor, subcontractor, or supplier of goods or  
6 services, or relieve the public agency from, liability for the active  
7 negligence of the public agency are void and unenforceable.

8 (c) (1) Except as provided in subdivision (d) and Sections  
9 2782.1, 2782.2, and 2782.5, provisions, clauses, covenants, or  
10 agreements contained in, collateral to, or affecting any construction  
11 contract entered into on or after January 1, 2013, with the owner  
12 of privately owned real property to be improved and as to which  
13 the owner is not acting as a contractor or supplier of materials or  
14 equipment to the work, that purport to impose on any contractor,  
15 subcontractor, or supplier of goods or services, or relieve the owner  
16 from, liability are unenforceable to the extent of the active  
17 negligence of the owner, including that of its employees.

18 (2) For purposes of this subdivision, an owner of privately  
19 owned real property to be improved includes the owner of any  
20 interest therein, other than a mortgage or other interest that is held  
21 solely as security for performance of an obligation.

22 (3) This subdivision shall not apply to a homeowner performing  
23 a home improvement project on his or her own single family  
24 dwelling.

25 (d) For all construction contracts, and amendments thereto,  
26 entered into after January 1, 2009, for residential construction, as  
27 used in Title 7 (commencing with Section 895) of Part 2 of  
28 Division 2, all provisions, clauses, covenants, and agreements  
29 contained in, collateral to, or affecting any construction contract,  
30 and amendments thereto, that purport to insure or indemnify,  
31 including the cost to defend, the builder, as defined in Section 911,  
32 or the general contractor or contractor not affiliated with the  
33 builder, as described in subdivision (b) of Section 911, by a  
34 subcontractor against liability for claims of construction defects  
35 are unenforceable to the extent the claims arise out of, pertain to,  
36 or relate to the negligence of the builder or contractor or the  
37 builder's or contractor's other agents, other servants, or other  
38 independent contractors who are directly responsible to the builder,  
39 or for defects in design furnished by those persons, or to the extent  
40 the claims do not arise out of, pertain to, or relate to the scope of

1 work in the written agreement between the parties. This section  
 2 shall not be waived or modified by contractual agreement, act, or  
 3 omission of the parties. Contractual provisions, clauses, covenants,  
 4 or agreements not expressly prohibited herein are reserved to the  
 5 agreement of the parties. Nothing in this subdivision shall prevent  
 6 any party from exercising its rights under subdivision (a) of Section  
 7 910. This subdivision shall not affect the obligations of an  
 8 insurance carrier under the holding of *Presley Homes, Inc. v.*  
 9 *American States Insurance Company* (2001) 90 Cal.App.4th 571.  
 10 Nor shall this subdivision affect the obligations of a builder or  
 11 subcontractor pursuant to Title 7 (commencing with Section 895)  
 12 of Part 2 of Division 2.

13 (e) Subdivision (d) does not prohibit a subcontractor and builder  
 14 or general contractor from mutually agreeing to the timing or  
 15 immediacy of the defense and provisions for reimbursement of  
 16 defense fees and costs, so long as that agreement does not waive  
 17 or modify the provisions of subdivision (d) subject, however, to  
 18 paragraphs (1) and (2). A subcontractor shall owe no defense or  
 19 indemnity obligation to a builder or general contractor for a  
 20 construction defect claim unless and until the builder or general  
 21 contractor provides a written tender of the claim, or portion thereof,  
 22 to the subcontractor which includes all of the information provided  
 23 to the builder or general contractor by the claimant or claimants,  
 24 including, but not limited to, information provided pursuant to  
 25 subdivision (a) of Section 910, relating to claims caused by that  
 26 subcontractor’s scope of work. This written tender shall have the  
 27 same force and effect as a notice of commencement of a legal  
 28 proceeding. If a builder or general contractor tenders a claim for  
 29 construction defects, or a portion thereof, to a subcontractor in the  
 30 manner specified by this provision, the subcontractor shall elect  
 31 to perform either of the following, the performance of which shall  
 32 be deemed to satisfy the subcontractor’s defense obligation to the  
 33 builder or general contractor:

34 (1) Defend the claim with counsel of its choice, and the  
 35 subcontractor shall maintain control of the defense for any claim  
 36 or portion of claim to which the defense obligation applies. If a  
 37 subcontractor elects to defend under this paragraph, the  
 38 subcontractor shall provide written notice of the election to the  
 39 builder or general contractor within a reasonable time period  
 40 following receipt of the written tender, and in no event later than

1 90 days following that receipt. Consistent with subdivision (d),  
2 the defense by the subcontractor shall be a complete defense of  
3 the builder or general contractor of all claims or portions thereof  
4 to the extent alleged to be caused by the subcontractor, including  
5 any vicarious liability claims against the builder or general  
6 contractor resulting from the subcontractor's scope of work, but  
7 not including claims resulting from the scope of work, actions, or  
8 omissions of the builder, general contractor, or any other party.  
9 Any vicarious liability imposed upon a builder or general contractor  
10 for claims caused by the subcontractor electing to defend under  
11 this paragraph shall be directly enforceable against the  
12 subcontractor by the builder, general contractor, or claimant.

13 (2) Pay, within 30 days of receipt of an invoice from the builder  
14 or general contractor, no more than a reasonable allocated share  
15 of the builder's or general contractor's defense fees and costs, on  
16 an ongoing basis during the pendency of the claim, subject to  
17 reallocation consistent with subdivision (d), and including any  
18 amounts reallocated upon final resolution of the claim, either by  
19 settlement or judgment. The builder or general contractor shall  
20 allocate a share to itself to the extent a claim or claims are alleged  
21 to be caused by its work, actions, or omissions, and a share to each  
22 subcontractor to the extent a claim or claims are alleged to be  
23 caused by the subcontractor's work, actions, or omissions,  
24 regardless of whether the builder or general contractor actually  
25 tenders the claim to any particular subcontractor, and regardless  
26 of whether that subcontractor is participating in the defense. Any  
27 amounts not collected from any particular subcontractor may not  
28 be collected from any other subcontractor.

29 (f) Notwithstanding any other provision of law, if a  
30 subcontractor fails to timely and adequately perform its obligations  
31 under paragraph (1) of subdivision (e), the builder or general  
32 contractor shall have the right to pursue a claim against the  
33 subcontractor for any resulting compensatory damages,  
34 consequential damages, and reasonable attorney's fees. If a  
35 subcontractor fails to timely perform its obligations under  
36 paragraph (2) of subdivision (e), the builder or general contractor  
37 shall have the right to pursue a claim against the subcontractor for  
38 any resulting compensatory and consequential damages, as well  
39 as for interest on defense and indemnity costs, from the date  
40 incurred, at the rate set forth in subdivision (g) of Section 3260,

1 and for the builder's or general contractor's reasonable attorney's  
2 fees incurred to recover these amounts. The builder or general  
3 contractor shall bear the burden of proof to establish both the  
4 subcontractor's failure to perform under either paragraph (1) or  
5 (2) of subdivision (e) and any resulting damages. If, upon request  
6 by a subcontractor, a builder or general contractor does not  
7 reallocate defense fees to subcontractors within 30 days following  
8 final resolution of the claim as described above, the subcontractor  
9 shall have the right to pursue a claim against the builder or general  
10 contractor for any resulting compensatory and consequential  
11 damages, as well as for interest on the fees, from the date of final  
12 resolution of the claim, at the rate set forth in subdivision (g) of  
13 Section 3260, and the subcontractor's reasonable attorney's fees  
14 incurred in connection therewith. The subcontractor shall bear the  
15 burden of proof to establish both the failure to reallocate the fees  
16 and any resulting damages. Nothing in this section shall prohibit  
17 the parties from mutually agreeing to reasonable contractual  
18 provisions for damages if any party fails to elect for or perform  
19 its obligations as stated in this section.

20 (g) A builder, general contractor, or subcontractor shall have  
21 the right to seek equitable indemnity for any claim governed by  
22 this section.

23 (h) Nothing in this section limits, restricts, or prohibits the right  
24 of a builder, general contractor, or subcontractor to seek equitable  
25 indemnity against any supplier, design professional, or product  
26 manufacturer.

27 (i) As used in this section, "construction defect" means a  
28 violation of the standards set forth in Sections 896 and 897.

29 (j) (1) *Commencing with contracts entered into on or after*  
30 *January 1, 2017, a design professional, as defined in paragraph*  
31 *(2) of subdivision (c) of Section 2782.8, shall only have the duty*  
32 *to defend claims that arise out of, pertain to, or relate to, the*  
33 *negligence, recklessness, or willful misconduct of the design*  
34 *professional. A design professional shall have no duty to defend*  
35 *claims against other persons or entities. A design professional*  
36 *shall be obligated to reimburse reasonable defense costs incurred*  
37 *by other persons or entities, limited to the design professional's*  
38 *degree of fault, as determined by a court or arbitration.*

39 (2) *The provisions of this subdivision shall not be waived or*  
40 *modified by contract. Contract provisions in violation of this*

- 1 *subdivision are void and unenforceable. The duty of a design*
- 2 *professional to defend is limited as provided in this subdivision.*

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# EXHIBIT "I"

AMENDED IN SENATE MARCH 29, 2016

**SENATE BILL**

**No. 974**

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**Introduced by Committee on Governance and Finance (Senators Hertzberg (Chair), Beall, Hernandez, Lara, Moorlach, Nguyen, and Pavley)**

February 8, 2016

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An act to amend Section ~~65302~~ 8770 of the *Business and Professions Code*, to amend Sections 6107, 8205, 8206, 8213, 8213.5, 8311, 40805, 53601, 65091, 65302, and 67661 of the *Government Code*, to amend ~~Section~~ Sections 5471, 5473, 5474, 5474.8, and 13822 of the *Health and Safety Code*, to amend Section 22161 of the *Public Contract Code*, to amend ~~Section 11005.3~~ Sections 11005, 11005.3, 19201, and 19202 of the *Revenue and Taxation Code*, and to amend Section 2105 of the *Streets and Highways Code*, and to amend Section 7.6 of, and to repeal Sections 7.3 and 8 of, the *Kern County Water Agency Act (Chapter 1003 of the Statutes of 1961)*, relating to local government.

#### LEGISLATIVE COUNSEL'S DIGEST

SB 974, as amended, Committee on Governance and Finance. Local government: omnibus.

*(1) The Professional Land Surveyors' Act, among other things, requires a county recorder to store and index records of survey, and to maintain both original maps and a printed set for public reference. That act specifically requires the county recorder to securely fasten a filed record of survey into a suitable book.*

*This bill would also authorize a county recorder to store records of survey in any other manner that will assure the maps are kept together.*

*(2) Existing law prohibits a public entity from demanding a fee or compensation for, among other things, a certified copy of specified*

*military records, and of public records to be used in a claim related to veterans' benefits, as specified. Existing law provides that a certified copy of these records may be made available only to the person who is the subject of the record, a family member or legal representative of that person, a county office that provides veterans' benefits services, or a federal official upon written request.*

*This bill would provide that a certified copy of these records may also be made available to a state or city office that provides veterans' benefits services upon written request of that office.*

*By expending the duty of local officials to provide copies of military records, this bill would impose a state-mandated local program.*

*(3) Existing law authorizes the Secretary of State to appoint and commission notaries public, as provided. Existing law requires every person appointed a notary public, no later than 30 days after the beginning of the term prescribed in the commission, to file an official bond and an oath of office in the office of the county clerk of the county within which the person maintains a principal place of business.*

*This bill would require a person taking the oath of office before the county clerk to serve as a notary public to present identification documents meeting certain requirements specified in statute as satisfactory evidence of identity.*

*Existing law requires specified communications between the Secretary of State and notaries public to be made by certified mail. Existing law also specifies that, wherever any notice or communication required by laws to be mailed by registered mail to or by the state, the mailing of the notice by certified mail is deemed a sufficient compliance with that requirement.*

*This bill would authorize the use of any other means of physical delivery that provides a receipt for these communications.*

*(4) Existing law requires the officer of a local agency who has charge of financial records to furnish the Controller with a report of all the financial transactions of the local agency during the preceding fiscal year, as provided. Existing law requires the report to be furnished within 7 months after the close of each fiscal year.*

*Existing law designates the city clerk as the accounting officer of the city and requires him or her to maintain records reflecting the financial condition of the city. Existing law requires the city clerk to publish the report to the Controller once in a newspaper of general circulation, or cause copies of the statement to be posted in 3 public places designated by city ordinance if there is no newspaper of general circulation, within*



120 days after the close of the fiscal year for which the report is compiled.

*This bill would instead require the city clerk to publish or post the report consistent with the timelines established in statute for furnishing the report to the Controller.*

*(5) Existing law authorizes the legislative body of a local agency having money in a sinking fund or money in its treasury not required for immediate needs to invest any portion of the money that it deems wise or expedient in specified securities and financial instruments. Existing law requires that certain of these instruments be rated at least “A” or “AA,” as applicable, by a nationally recognized statistical rating organization (NRSRO).*

*This bill would specify that these instruments must be in a ratings category of at least “A” or “AA,” as applicable, or its equivalent.*

(1)

*(6) The Planning and Zoning Law ~~requires~~ and the Subdivision Map Act require local governments to hold public hearings regarding various land use actions contemplated by those governments. If public notice of the hearing is required, existing law requires that the notice be given in specified ways, including mailing at least 10 days before the hearing to each local agency expected to provide water, sewage, streets, roads, schools, or other essential facilities or services to the project, whose ability to provide those facilities and services may be significantly affected, and to all owners of real property within 300 feet of the real property that is the subject of the hearing, as provided. Existing law requires that notice mailed to affected local agencies also be published in at least one newspaper of general circulation and posted in at least 3 public places, as provided.*

*This bill would instead require publication and posting of the notice that is required to be sent to the owners of real property within 300 feet of the real property that is the subject of the hearing.*

*By revising the duties of local government officials with respect to the mailing of specified notices of hearings on land use actions, this bill would impose a state-mandated local program.*

*The Planning and Zoning Law also requires the legislative body of a city or county to adopt a comprehensive, long-term general plan that includes various elements, including, among others, a safety element for the protection of the community from unreasonable risks associated with the effects of various geologic hazards, flooding, wildland and urban fires, and climate adaptation and resilience strategies. That law*

requires that the safety element be reviewed and updated, in the case of flooding and fire hazards, upon the next revision of the housing element after specified dates or, in the case of climate adaptation and resilience strategies, upon either the next revision of a local hazard mitigation plan after a specified date or on or before January 1, 2022, as applicable. That law also requires, after the initial revision of the safety element to address flooding, fires, and climate adaptation and resilience strategies, that for each subsequent revision the planning agency review and, if necessary, revise the safety element to identify new information that was not available during the previous revision of the safety element.

This bill would instead require a planning agency to review and revise the safety element to identify new information, as described above, only after to address flooding and fires.

*(7) The Fort Ord Reuse Authority Act establishes the Fort Ord Reuse Authority to prepare, adopt, finance, and implement a plan for the use and development of the territory previously occupied by the Fort Ord military base in Monterey County. The act requires the authority to be governed by a 13-member board, as specified, and authorizes a representative designated by the Member of Congress from the 17th Congressional District, a representative designated by the Senator from the 15th Senate District, and a representative designated by the Assembly Member from the 27th Assembly District to serve as ex officio nonvoting members of the board.*

*This bill would instead authorize a representative designated by each of the Member of Congress, the Senator, and the Assembly Member that has the majority portion of Fort Ord in his or her district to serve as ex officio nonvoting members of the board.*

*(8) Existing law authorizes specified local entities, including cities, counties, special districts, and other authorized public corporations, to collect fees, tolls, rates, rentals, or other charges for water, sanitation, storm drainage, or sewerage system services and facilities and to fix fees or charges for the privilege of connecting to its sanitation or sewerage facilities and improvements constructed by the entity, as provided. Under existing law, a local entity may collect these charges on the property tax roll at the same time and in the same manner as its general property taxes. Under existing law, an entity may undertake these actions by enactment of an ordinance approved by a  $\frac{2}{3}$  vote of the members of the legislative body of the entity.*

*This bill would instead specify that the entity may undertake these actions by ordinance or resolution.*

(2)

(9) The Fire Protection District Law of 1987 establishes a procedure for the formation of fire protection districts, as specified. That law provides that a district may be formed by adoption of a resolution of application by the legislative body of any county or city which contains territory proposed to be included in the district.

This bill would make a technical change to these provisions.

(3)

(10) Existing law, until January 1, 2025, authorizes 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. Existing law defines “best value” design-build procurement by local-agencies purposes to mean a value determined by evaluation of objective criteria that may include, but are not limited to, price, features, functions, life-cycle costs, experience, and past performance.

This bill would modify that definition to have the objective criteria evaluation, instead relate to those specific criteria

(4)

(11) The Vehicle License Fee Law establishes, in lieu of any ad valorem property tax upon vehicles, an annual license fee for any vehicle subject to registration in this state. Under existing law, the Controller was, ~~until July~~ *until July* 1, 2011, required to allocate vehicle license fee revenues in the Motor Vehicle License Fee Account in a specified order to, among others, each city that was incorporated before August 5, 2004. Existing law required the Controller to allocate these revenues in accordance with a specified formula based on, among other factors, the actual population, as defined, of the city. In the case of a city that incorporated on or after January 1, 1987, and before August 5, 2004, existing law also requires the Controller to determine the population of the city as provided based on, among other factors, the actual population, as defined, of the city.

This bill would make technical changes to these provisions.

(12) *Under existing law, if an amount due under the Personal Income Tax Law or the Corporation Tax Law, or any amount that the Franchise Tax Board may collect as though it were a tax, is not paid, the board may file in the Office of the County Clerk of Sacramento County, or any other county, a certificate containing specified information about*

*the amount owed and the taxpayer. Existing law requires the county clerk to immediately enter a judgment against the taxpayer in the amount set forth in the certificate.*

*This bill would instead require the Clerk of the Court to receive the certificate and enter the judgment.*

(5)

(13) Existing law appropriates moneys in the Highway Users Tax Account for specified transportation purposes and provides for apportionment by the Controller of certain moneys, including revenues derived from taxes imposed by the Use Fuel Tax Law on the use of fuel, to cities and counties.

This bill would additionally specify that apportionment according to the above-described formula includes revenues derived from taxes imposed on the use of liquefied petroleum and natural gas pursuant to the Use Fuel Tax Law.

(14) *The Kern County Water Agency Act creates the Kern County Water Agency, consisting of all the territory lying within the exterior boundaries of the County of Kern, and specifies its powers. The act authorizes the board of directors of the agency to employ the county counsel as the attorney for the agency and the county surveyor to supervise the engineering work of the agency, as prescribed. The act requires all other officers of the county to perform the same duties for the agency as performed for the county.*

*This bill would repeal these provisions relating to county employees.*

*The act prohibits, unless previously approved by the county board of supervisors, the levying of a tax or assessment, or the creation of a zone of benefit. The act also prohibits, unless previously approved in the form of a budget by the county board of supervisors, an expenditure of funds.*

*This bill would repeal these provisions requiring county board of supervisor approval.*

(15) *The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.*

*This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to these statutory provisions.*

Vote: majority. Appropriation: no. Fiscal committee: ~~no~~-yes.  
State-mandated local program: ~~no~~-yes.

*The people of the State of California do enact as follows:*

1 SECTION 1. (a) This act shall be known, and may be cited,  
2 as the Local Government Omnibus Act of 2016.

3 (b) The Legislature finds and declares that Californians want  
4 their governments to be run efficiently and economically and that  
5 public officials should avoid waste and duplication whenever  
6 possible. The Legislature further finds and declares that it desires  
7 to control its own costs by reducing the number of separate bills.  
8 Therefore, it is the intent of the Legislature in enacting this act to  
9 combine several minor, noncontroversial statutory changes relating  
10 to the common theme, purpose, and subject of local government  
11 into a single measure.

12 *SEC. 2. Section 8770 of the Business and Professions Code is*  
13 *amended to read:*

14 8770. The record of survey filed with the county recorder of  
15 any county shall be securely fastened by ~~him~~ the county recorder  
16 into a suitable book provided for that ~~purpose~~. *purpose, or stored*  
17 *in any other manner that will assure that the maps will be kept*  
18 *together.*

19 ~~He~~

20 *The county recorder* shall keep proper indexes of such record  
21 of survey by the name of grant, tract, subdivision or United States  
22 subdivision.

23 The original map shall be stored for safekeeping in a reproducible  
24 condition. It shall be proper procedure for the recorder to maintain  
25 for public reference a set of counter maps that are prints of the  
26 original maps, and the original maps to be produced for comparison  
27 upon demand.

28 *SEC. 3. Section 6107 of the Government Code is amended to*  
29 *read:*

30 6107. (a) A public entity, including the state, a county, city,  
31 or other political subdivision, or any officer or employee thereof,  
32 including notaries public, shall not demand or receive any fee or  
33 compensation for doing any of the following:

34 (1) Recording, indexing, or issuing certified copies of any  
35 discharge, certificate of service, certificate of satisfactory service,

1 notice of separation, or report of separation of any member of the  
2 Armed Forces of the United States.

3 (2) Furnishing a certified copy of, or searching for, any public  
4 record that is to be used in an application or claim for a pension,  
5 allotment, allowance, compensation, insurance (including automatic  
6 insurance), or any other benefits under any act of Congress for  
7 service in the Armed Forces of the United States or under any law  
8 of this state relating to veterans' benefits.

9 (3) Furnishing a certified copy of, or searching for, any public  
10 record that is required by the Veterans Administration to be used  
11 in determining the eligibility of any person to participate in benefits  
12 made available by the Veterans Administration.

13 (4) Rendering any other service in connection with an  
14 application or claim referred to in paragraph (2) or (3).

15 (b) A certified copy of any record referred to in subdivision (a)  
16 may be made available only to one of the following:

17 (1) The person who is the subject of the record upon presentation  
18 of proper photo identification.

19 (2) A family member or legal representative of the person who  
20 is the subject of the record upon presentation of proper photo  
21 identification and certification of their relationship to the subject  
22 of the record.

23 (3) A ~~county~~ *state, county, or city* office that provides veterans'  
24 benefits services upon written request of that office.

25 (4) A United States official upon written request of that official.  
26 A public officer or employee is liable on his or her official bond  
27 for failure or refusal to render the services.

28 (c) (1) If the county recorder receives a written, faxed, or  
29 digitized image of a request for a certified copy of any discharge,  
30 certificate of service, certificate of satisfactory service, notice of  
31 separation, or report of separation of any member of the Armed  
32 Forces of the United States referred to in paragraph (1) of  
33 subdivision (a) that is accompanied by a notarized statement sworn  
34 under penalty of perjury, or a faxed copy or digitized image of a  
35 notarized statement sworn under penalty of perjury, that the  
36 requester meets one of the descriptions in subdivision (b), the  
37 county recorder may furnish a certified copy to the requester  
38 pursuant to this section.

39 (2) A faxed or digitized image of the notarized statement  
40 accompanying a faxed or digitized image of a request received

1 pursuant to this subdivision for a certified copy of any discharge,  
2 certificate of service, certificate of satisfactory service, notice of  
3 separation, or report of separation of any member of the Armed  
4 Forces of the United States shall be legible. If the notary's seal is  
5 not photographically reproducible, or does not show the name of  
6 the notary, the county of the notary's principal place of business,  
7 the notary's telephone number, the notary's registration number,  
8 and the notary's commission expiration date typed or printed in a  
9 manner that is photographically reproducible below, or immediately  
10 adjacent to, the notary's signature in the acknowledgment, the  
11 county recorder shall not provide the certified copy. If a request  
12 for a certified copy of any discharge, certificate of service,  
13 certificate of satisfactory service, notice of separation, or report  
14 of separation of any member of the Armed Forces of the United  
15 States is made in person, the official shall take a statement sworn  
16 under penalty of perjury that the requester is signing his or her  
17 own legal name and is an authorized person pursuant to subdivision  
18 (b), and that official may then furnish a certified copy to the  
19 applicant.

20 (3) For purposes of this subdivision, "digitized image" of a  
21 request means an image of an original paper request for a certified  
22 copy of any discharge, certificate of service, certificate of  
23 satisfactory service, notice of separation, or report of separation  
24 of any member of the Armed Forces of the United States.

25 *SEC. 4. Section 8205 of the Government Code is amended to*  
26 *read:*

27 8205. (a) It is the duty of a notary public, when requested:

28 (1) To demand acceptance and payment of foreign and inland  
29 bills of exchange, or promissory notes, to protest them for  
30 nonacceptance and nonpayment, and, with regard only to the  
31 nonacceptance or nonpayment of bills and notes, to exercise any  
32 other powers and duties that by the law of nations and according  
33 to commercial usages, or by the laws of any other state,  
34 government, or country, may be performed by a notary. This  
35 paragraph applies only to a notary public employed by a financial  
36 institution, during the course and scope of the notary's employment  
37 with the financial institution.

38 (2) To take the acknowledgment or proof of advance health care  
39 directives, powers of attorney, mortgages, deeds, grants, transfers,  
40 and other instruments of writing executed by any person, and to



1 give a certificate of that proof or acknowledgment, endorsed on  
2 or attached to the instrument. The certificate shall be signed by  
3 the notary public in the notary public’s own handwriting. A notary  
4 public may not accept any acknowledgment or proof of any  
5 instrument that is incomplete.

6 (3) To take depositions and affidavits, and administer oaths and  
7 affirmations, in all matters incident to the duties of the office, or  
8 to be used before any court, judge, officer, or board. Any  
9 deposition, affidavit, oath, or affirmation shall be signed by the  
10 notary public in the notary public’s own handwriting.

11 (4) To certify copies of powers of attorney under Section 4307  
12 of the Probate Code. The certification shall be signed by the notary  
13 public in the notary public’s own handwriting.

14 (b) It shall further be the duty of a notary public, upon written  
15 request:

16 (1) To furnish to the Secretary of State certified copies of the  
17 notary’s journal.

18 (2) To respond within 30 days of receiving written requests sent  
19 by certified mail *or any other means of physical delivery that*  
20 *provides a receipt* from the Secretary of State’s office for  
21 information relating to official acts performed by the notary.

22 *SEC. 5. Section 8206 of the Government Code is amended to*  
23 *read:*

24 8206. (a) (1) A notary public shall keep one active sequential  
25 journal at a time, of all official acts performed as a notary public.  
26 The journal shall be kept in a locked and secured area, under the  
27 direct and exclusive control of the notary. Failure to secure the  
28 journal shall be cause for the Secretary of State to take  
29 administrative action against the commission held by the notary  
30 public pursuant to Section 8214.1.

31 (2) The journal shall be in addition to, and apart from, any copies  
32 of notarized documents that may be in the possession of the notary  
33 public and shall include all of the following:

- 34 (A) Date, time, and type of each official act.
- 35 (B) Character of every instrument sworn to, affirmed,  
36 acknowledged, or proved before the notary.
- 37 (C) The signature of each person whose signature is being  
38 notarized.

39 (D) A statement as to whether the identity of a person making  
40 an acknowledgment or taking an oath or affirmation was based on

1 satisfactory evidence. If identity was established by satisfactory  
2 evidence pursuant to Section 1185 of the Civil Code, the journal  
3 shall contain the signature of the credible witness swearing or  
4 affirming to the identity of the individual or the type of identifying  
5 document, the governmental agency issuing the document, the  
6 serial or identifying number of the document, and the date of issue  
7 or expiration of the document.

8 (E) If the identity of the person making the acknowledgment or  
9 taking the oath or affirmation was established by the oaths or  
10 affirmations of two credible witnesses whose identities are proven  
11 to the notary public by presentation of any document satisfying  
12 the requirements of paragraph (3) or (4) of subdivision (b) of  
13 Section 1185 of the Civil Code, the notary public shall record in  
14 the journal the type of documents identifying the witnesses, the  
15 identifying numbers on the documents identifying the witnesses,  
16 and the dates of issuance or expiration of the documents identifying  
17 the witnesses.

18 (F) The fee charged for the notarial service.

19 (G) If the document to be notarized is a deed, quitclaim deed,  
20 deed of trust, or other document affecting real property, or a power  
21 of attorney document, the notary public shall require the party  
22 signing the document to place his or her right thumbprint in the  
23 journal. If the right thumbprint is not available, then the notary  
24 shall have the party use his or her left thumb, or any available  
25 finger and shall so indicate in the journal. If the party signing the  
26 document is physically unable to provide a thumbprint or  
27 fingerprint, the notary shall so indicate in the journal and shall also  
28 provide an explanation of that physical condition. This paragraph  
29 shall not apply to a trustee's deed resulting from a decree of  
30 foreclosure or a nonjudicial foreclosure pursuant to Section 2924  
31 of the Civil Code, nor to a deed of reconveyance.

32 (b) If a sequential journal of official acts performed by a notary  
33 public is stolen, lost, misplaced, destroyed, damaged, or otherwise  
34 rendered unusable as a record of notarial acts and information, the  
35 notary public shall immediately notify the Secretary of State by  
36 certified or registered ~~mail~~ *mail or any other means of physical*  
37 *delivery that provides a receipt*. The notification shall include the  
38 period of the journal entries, the notary public commission number,  
39 and the expiration date of the commission, and when applicable,

1 a photocopy of any police report that specifies the theft of the  
2 sequential journal of official acts.

3 (c) Upon written request of any member of the public, which  
4 request shall include the name of the parties, the type of document,  
5 and the month and year in which notarized, the notary shall supply  
6 a photostatic copy of the line item representing the requested  
7 transaction at a cost of not more than thirty cents (\$0.30) per page.

8 (d) The journal of notarial acts of a notary public is the exclusive  
9 property of that notary public, and shall not be surrendered to an  
10 employer upon termination of employment, whether or not the  
11 employer paid for the journal, or at any other time. The notary  
12 public shall not surrender the journal to any other person, except  
13 the county clerk, pursuant to Section 8209, or immediately, or if  
14 the journal is not present then as soon as possible, upon request to  
15 a peace officer investigating a criminal offense who has reasonable  
16 suspicion to believe the journal contains evidence of a criminal  
17 offense, as defined in Sections 830.1, 830.2, and 830.3 of the Penal  
18 Code, acting in his or her official capacity and within his or her  
19 authority. If the peace officer seizes the notary journal, he or she  
20 must have probable cause as required by the laws of this state and  
21 the United States. A peace officer or law enforcement agency that  
22 seizes a notary journal shall notify the Secretary of State by  
23 facsimile within 24 hours, or as soon as possible thereafter, of the  
24 name of the notary public whose journal has been seized. The  
25 notary public shall obtain a receipt for the journal, and shall notify  
26 the Secretary of State by certified mail *any other means of physical*  
27 *delivery that provides a receipt* within 10 days that the journal was  
28 relinquished to a peace officer. The notification shall include the  
29 period of the journal entries, the commission number of the notary  
30 public, the expiration date of the commission, and a photocopy of  
31 the receipt. The notary public shall obtain a new sequential journal.  
32 If the journal relinquished to a peace officer is returned to the  
33 notary public and a new journal has been obtained, the notary  
34 public shall make no new entries in the returned journal. A notary  
35 public who is an employee shall permit inspection and copying of  
36 journal transactions by a duly designated auditor or agent of the  
37 notary public's employer, provided that the inspection and copying  
38 is done in the presence of the notary public and the transactions  
39 are directly associated with the business purposes of the employer.  
40 The notary public, upon the request of the employer, shall regularly

1 provide copies of all transactions that are directly associated with  
2 the business purposes of the employer, but shall not be required  
3 to provide copies of any transaction that is unrelated to the  
4 employer’s business. Confidentiality and safekeeping of any copies  
5 of the journal provided to the employer shall be the responsibility  
6 of that employer.

7 (e) The notary public shall provide the journal for examination  
8 and copying in the presence of the notary public upon receipt of  
9 a subpoena duces tecum or a court order, and shall certify those  
10 copies if requested.

11 (f) Any applicable requirements of, or exceptions to, state and  
12 federal law shall apply to a peace officer engaged in the search or  
13 seizure of a sequential journal.

14 *SEC. 6. Section 8213 of the Government Code is amended to*  
15 *read:*

16 8213. (a) No later than 30 days after the beginning of the term  
17 prescribed in the commission, every person appointed a notary  
18 public shall file an official bond and an oath of office in the office  
19 of the county clerk of the county within which the person maintains  
20 a principal place of business as shown in the application submitted  
21 to the Secretary of State, and the commission shall not take effect  
22 unless this is done within the 30-day period. A person appointed  
23 to be a notary public shall take and subscribe the oath of office  
24 either in the office of that county clerk or before another notary  
25 public in that county. *If the oath of office is taken and subscribed*  
26 *before the county clerk, the person appointed to be a notary public*  
27 *shall present an identification document meeting the requirements*  
28 *of subparagraph (A) or (B) of paragraph (3), or of subparagraph*  
29 *(A) or (E) or paragraph (4), of subdivision (b) of Section 1185 of*  
30 *the Civil Code to the county clerk as satisfactory evidence of*  
31 *identity. If the oath of office is taken and subscribed before a notary*  
32 *public, the oath and bond may be filed with the county clerk by*  
33 *certified-mail: mail or any other means of physical delivery that*  
34 *provides a receipt. Upon the filing of the oath and bond, the county*  
35 *clerk shall immediately transmit to the Secretary of State a*  
36 *certificate setting forth the fact of the filing and containing a copy*  
37 *of the official oath, personally signed by the notary public in the*  
38 *form set forth in the commission and shall immediately deliver*  
39 *the bond to the county recorder for recording. The county clerk*  
40 *shall retain the oath of office for one year following the expiration*

1 of the term of the commission for which the oath was taken, after  
 2 which the oath may be destroyed or otherwise disposed of. The  
 3 copy of the oath, personally signed by the notary public, on file  
 4 with the Secretary of State may at any time be read in evidence  
 5 with like effect as the original oath, without further proof.

6 (b) If a notary public transfers the principal place of business  
 7 from one county to another, the notary public may file a new oath  
 8 of office and bond, or a duplicate of the original bond with the  
 9 county clerk to which the principal place of business was  
 10 transferred. If the notary public elects to make a new filing, the  
 11 notary public shall, within 30 days of the filing, obtain an official  
 12 seal which shall include the name of the county to which the notary  
 13 public has transferred. In a case where the notary public elects to  
 14 make a new filing, the same filing and recording fees are applicable  
 15 as in the case of the original filing and recording of the bond.

16 (c) If a notary public submits an application for a name change  
 17 to the Secretary of State, the notary public shall, within 30 days  
 18 from the date an amended commission is issued, file a new oath  
 19 of office and an amendment to the bond with the county clerk in  
 20 which the principal place of business is located. The amended  
 21 commission with the name change shall not take effect unless the  
 22 filing is completed within the 30-day period. The amended  
 23 commission with the name change takes effect the date the oath  
 24 and amendment to the bond is filed with the county clerk. If the  
 25 principal place of business address was changed in the application  
 26 for name change, either a new or duplicate of the original bond  
 27 shall be filed with the county clerk with the amendment to the  
 28 bond. The notary public shall, within 30 days of the filing, obtain  
 29 an official seal that includes the name of the notary public and the  
 30 name of the county to which the notary public has transferred, if  
 31 applicable.

32 (d) The recording fee specified in Section 27361 of the  
 33 Government Code shall be paid by the person appointed a notary  
 34 public. The fee may be paid to the county clerk who shall transmit  
 35 it to the county recorder.

36 (e) The county recorder shall record the bond and shall thereafter  
 37 mail, unless specified to the contrary, it to the person named in the  
 38 instrument and, if no person is named, to the party leaving it for  
 39 recording.

1     *SEC. 7. Section 8213.5 of the Government Code is amended*  
2 *to read:*

3     8213.5. A notary public shall notify the Secretary of State by  
4 certified mail *or any other means of physical delivery that provides*  
5 *a receipt* within 30 days as to any change in the location or address  
6 of the principal place of business or residence. A notary public  
7 shall not use a commercial mail receiving agency or post office  
8 box as his or her principal place of business or residence, unless  
9 the notary public also provides the Secretary of State with a  
10 physical street address as the principal place of residence. Willful  
11 failure to notify the Secretary of State of a change of address shall  
12 be punishable as an infraction by a fine of not more than five  
13 hundred dollars (\$500).

14     *SEC. 8. Section 8311 of the Government Code is amended to*  
15 *read:*

16     8311. Wherever any notice or other communication is required  
17 by any law to be mailed by registered mail to or by the state, or  
18 any officer or agency thereof, the mailing of such notice or other  
19 communication by certified mail *or any other means of physical*  
20 *delivery that provides a receipt* shall be deemed to be a sufficient  
21 compliance with the requirements of such law.

22     *SEC. 9. Section 40805 of the Government Code is amended to*  
23 *read:*

24     40805. The report shall be published or posted ~~not later than~~  
25 ~~120 days~~ *consistent with the timelines established in Section 53891*  
26 after the close of the fiscal year for which the report is compiled.

27     *SEC. 10. Section 53601 of the Government Code is amended*  
28 *to read:*

29     53601. This section shall apply to a local agency that is a city,  
30 a district, or other local agency that does not pool money in  
31 deposits or investments with other local agencies, other than local  
32 agencies that have the same governing body. However, Section  
33 53635 shall apply to all local agencies that pool money in deposits  
34 or investments with other local agencies that have separate  
35 governing bodies. The legislative body of a local agency having  
36 moneys in a sinking fund or moneys in its treasury not required  
37 for the immediate needs of the local agency may invest any portion  
38 of the moneys that it deems wise or expedient in those investments  
39 set forth below. A local agency purchasing or obtaining any  
40 securities prescribed in this section, in a negotiable, bearer,

1 registered, or nonregistered format, shall require delivery of the  
2 securities to the local agency, including those purchased for the  
3 agency by financial advisers, consultants, or managers using the  
4 agency's funds, by book entry, physical delivery, or by third-party  
5 custodial agreement. The transfer of securities to the counterparty  
6 bank's customer book entry account may be used for book entry  
7 delivery.

8 For purposes of this section, "counterparty" means the other  
9 party to the transaction. A counterparty bank's trust department  
10 or separate safekeeping department may be used for the physical  
11 delivery of the security if the security is held in the name of the  
12 local agency. Where this section specifies a percentage limitation  
13 for a particular category of investment, that percentage is applicable  
14 only at the date of purchase. Where this section does not specify  
15 a limitation on the term or remaining maturity at the time of the  
16 investment, no investment shall be made in any security, other  
17 than a security underlying a repurchase or reverse repurchase  
18 agreement or securities lending agreement authorized by this  
19 section, that at the time of the investment has a term remaining to  
20 maturity in excess of five years, unless the legislative body has  
21 granted express authority to make that investment either  
22 specifically or as a part of an investment program approved by the  
23 legislative body no less than three months prior to the investment:

24 (a) Bonds issued by the local agency, including bonds payable  
25 solely out of the revenues from a revenue-producing property  
26 owned, controlled, or operated by the local agency or by a  
27 department, board, agency, or authority of the local agency.

28 (b) United States Treasury notes, bonds, bills, or certificates of  
29 indebtedness, or those for which the faith and credit of the United  
30 States are pledged for the payment of principal and interest.

31 (c) Registered state warrants or treasury notes or bonds of this  
32 state, including bonds payable solely out of the revenues from a  
33 revenue-producing property owned, controlled, or operated by the  
34 state or by a department, board, agency, or authority of the state.

35 (d) Registered treasury notes or bonds of any of the other 49  
36 states in addition to California, including bonds payable solely out  
37 of the revenues from a revenue-producing property owned,  
38 controlled, or operated by a state or by a department, board, agency,  
39 or authority of any of the other 49 states, in addition to California.



1 (e) Bonds, notes, warrants, or other evidences of indebtedness  
2 of a local agency within this state, including bonds payable solely  
3 out of the revenues from a revenue-producing property owned,  
4 controlled, or operated by the local agency, or by a department,  
5 board, agency, or authority of the local agency.

6 (f) Federal agency or United States government-sponsored  
7 enterprise obligations, participations, or other instruments,  
8 including those issued by or fully guaranteed as to principal and  
9 interest by federal agencies or United States government-sponsored  
10 enterprises.

11 (g) Bankers' acceptances otherwise known as bills of exchange  
12 or time drafts that are drawn on and accepted by a commercial  
13 bank. Purchases of bankers' acceptances shall not exceed 180  
14 days' maturity or 40 percent of the agency's moneys that may be  
15 invested pursuant to this section. However, no more than 30 percent  
16 of the agency's moneys may be invested in the bankers'  
17 acceptances of any one commercial bank pursuant to this section.

18 This subdivision does not preclude a municipal utility district  
19 from investing moneys in its treasury in a manner authorized by  
20 the Municipal Utility District Act (Division 6 (commencing with  
21 Section 11501) of the Public Utilities Code).

22 (h) Commercial paper of "prime" quality of the highest ranking  
23 or of the highest letter and number rating as provided for by a  
24 nationally recognized statistical rating organization (NRSRO).  
25 The entity that issues the commercial paper shall meet all of the  
26 following conditions in either paragraph (1) or (2):

27 (1) The entity meets the following criteria:

28 (A) Is organized and operating in the United States as a general  
29 corporation.

30 (B) Has total assets in excess of five hundred million dollars  
31 (\$500,000,000).

32 (C) Has debt other than commercial paper, if any, that is rated  
33 *in a rating category of "A" or its equivalent* or higher by an  
34 NRSRO.

35 (2) The entity meets the following criteria:

36 (A) Is organized within the United States as a special purpose  
37 corporation, trust, or limited liability company.

38 (B) Has programwide credit enhancements including, but not  
39 limited to, overcollateralization, letters of credit, or a surety bond.

1 (C) Has commercial paper that is rated “A-1” or higher, or the  
2 equivalent, by an NRSRO.  
3 Eligible commercial paper shall have a maximum maturity of  
4 270 days or less. Local agencies, other than counties or a city and  
5 county, may invest no more than 25 percent of their moneys in  
6 eligible commercial paper. Local agencies, other than counties or  
7 a city and county, may purchase no more than 10 percent of the  
8 outstanding commercial paper of any single issuer. Counties or a  
9 city and county may invest in commercial paper pursuant to the  
10 concentration limits in subdivision (a) of Section 53635.  
11 (i) Negotiable certificates of deposit issued by a nationally or  
12 state-chartered bank, a savings association or a federal association  
13 (as defined by Section 5102 of the Financial Code), a state or  
14 federal credit union, or by a federally licensed or state-licensed  
15 branch of a foreign bank. Purchases of negotiable certificates of  
16 deposit shall not exceed 30 percent of the agency’s moneys that  
17 may be invested pursuant to this section. For purposes of this  
18 section, negotiable certificates of deposit do not come within  
19 Article 2 (commencing with Section 53630), except that the amount  
20 so invested shall be subject to the limitations of Section 53638.  
21 The legislative body of a local agency and the treasurer or other  
22 official of the local agency having legal custody of the moneys  
23 are prohibited from investing local agency funds, or funds in the  
24 custody of the local agency, in negotiable certificates of deposit  
25 issued by a state or federal credit union if a member of the  
26 legislative body of the local agency, or a person with investment  
27 decisionmaking authority in the administrative office manager’s  
28 office, budget office, auditor-controller’s office, or treasurer’s  
29 office of the local agency also serves on the board of directors, or  
30 any committee appointed by the board of directors, or the credit  
31 committee or the supervisory committee of the state or federal  
32 credit union issuing the negotiable certificates of deposit.  
33 (j) (1) Investments in repurchase agreements or reverse  
34 repurchase agreements or securities lending agreements of  
35 securities authorized by this section, as long as the agreements are  
36 subject to this subdivision, including the delivery requirements  
37 specified in this section.  
38 (2) Investments in repurchase agreements may be made, on an  
39 investment authorized in this section, when the term of the  
40 agreement does not exceed one year. The market value of securities

1 that underlie a repurchase agreement shall be valued at 102 percent  
2 or greater of the funds borrowed against those securities and the  
3 value shall be adjusted no less than quarterly. Since the market  
4 value of the underlying securities is subject to daily market  
5 fluctuations, the investments in repurchase agreements shall be in  
6 compliance if the value of the underlying securities is brought back  
7 up to 102 percent no later than the next business day.

8 (3) Reverse repurchase agreements or securities lending  
9 agreements may be utilized only when all of the following  
10 conditions are met:

11 (A) The security to be sold using a reverse repurchase agreement  
12 or securities lending agreement has been owned and fully paid for  
13 by the local agency for a minimum of 30 days prior to sale.

14 (B) The total of all reverse repurchase agreements and securities  
15 lending agreements on investments owned by the local agency  
16 does not exceed 20 percent of the base value of the portfolio.

17 (C) The agreement does not exceed a term of 92 days, unless  
18 the agreement includes a written codicil guaranteeing a minimum  
19 earning or spread for the entire period between the sale of a security  
20 using a reverse repurchase agreement or securities lending  
21 agreement and the final maturity date of the same security.

22 (D) Funds obtained or funds within the pool of an equivalent  
23 amount to that obtained from selling a security to a counterparty  
24 using a reverse repurchase agreement or securities lending  
25 agreement shall not be used to purchase another security with a  
26 maturity longer than 92 days from the initial settlement date of the  
27 reverse repurchase agreement or securities lending agreement,  
28 unless the reverse repurchase agreement or securities lending  
29 agreement includes a written codicil guaranteeing a minimum  
30 earning or spread for the entire period between the sale of a security  
31 using a reverse repurchase agreement or securities lending  
32 agreement and the final maturity date of the same security.

33 (4) (A) Investments in reverse repurchase agreements, securities  
34 lending agreements, or similar investments in which the local  
35 agency sells securities prior to purchase with a simultaneous  
36 agreement to repurchase the security may be made only upon prior  
37 approval of the governing body of the local agency and shall be  
38 made only with primary dealers of the Federal Reserve Bank of  
39 New York or with a nationally or state-chartered bank that has or  
40 has had a significant banking relationship with a local agency.

1 (B) For purposes of this chapter, “significant banking  
2 relationship” means any of the following activities of a bank:

3 (i) Involvement in the creation, sale, purchase, or retirement of  
4 a local agency’s bonds, warrants, notes, or other evidence of  
5 indebtedness.

6 (ii) Financing of a local agency’s activities.

7 (iii) Acceptance of a local agency’s securities or funds as  
8 deposits.

9 (5) (A) “Repurchase agreement” means a purchase of securities  
10 by the local agency pursuant to an agreement by which the  
11 counterparty seller will repurchase the securities on or before a  
12 specified date and for a specified amount and the counterparty will  
13 deliver the underlying securities to the local agency by book entry,  
14 physical delivery, or by third-party custodial agreement. The  
15 transfer of underlying securities to the counterparty bank’s  
16 customer book-entry account may be used for book-entry delivery.

17 (B) “Securities,” for purposes of repurchase under this  
18 subdivision, means securities of the same issuer, description, issue  
19 date, and maturity.

20 (C) “Reverse repurchase agreement” means a sale of securities  
21 by the local agency pursuant to an agreement by which the local  
22 agency will repurchase the securities on or before a specified date  
23 and includes other comparable agreements.

24 (D) “Securities lending agreement” means an agreement under  
25 which a local agency agrees to transfer securities to a borrower  
26 who, in turn, agrees to provide collateral to the local agency.  
27 During the term of the agreement, both the securities and the  
28 collateral are held by a third party. At the conclusion of the  
29 agreement, the securities are transferred back to the local agency  
30 in return for the collateral.

31 (E) For purposes of this section, the base value of the local  
32 agency’s pool portfolio shall be that dollar amount obtained by  
33 totaling all cash balances placed in the pool by all pool participants,  
34 excluding any amounts obtained through selling securities by way  
35 of reverse repurchase agreements, securities lending agreements,  
36 or other similar borrowing methods.

37 (F) For purposes of this section, the spread is the difference  
38 between the cost of funds obtained using the reverse repurchase  
39 agreement and the earnings obtained on the reinvestment of the  
40 funds.

1 (k) Medium-term notes, defined as all corporate and depository  
2 institution debt securities with a maximum remaining maturity of  
3 five years or less, issued by corporations organized and operating  
4 within the United States or by depository institutions licensed by  
5 the United States or any state and operating within the United  
6 States. Notes eligible for investment under this subdivision shall  
7 be rated *in a rating category of “A” or its equivalent* or better by  
8 an NRSRO. Purchases of medium-term notes shall not include  
9 other instruments authorized by this section and shall not exceed  
10 30 percent of the agency’s moneys that may be invested pursuant  
11 to this section.

12 (l) (1) Shares of beneficial interest issued by diversified  
13 management companies that invest in the securities and obligations  
14 as authorized by subdivisions (a) to (k), inclusive, and subdivisions  
15 (m) to (q), inclusive, and that comply with the investment  
16 restrictions of this article and Article 2 (commencing with Section  
17 53630). However, notwithstanding these restrictions, a counterparty  
18 to a reverse repurchase agreement or securities lending agreement  
19 is not required to be a primary dealer of the Federal Reserve Bank  
20 of New York if the company’s board of directors finds that the  
21 counterparty presents a minimal risk of default, and the value of  
22 the securities underlying a repurchase agreement or securities  
23 lending agreement may be 100 percent of the sales price if the  
24 securities are marked to market daily.

25 (2) Shares of beneficial interest issued by diversified  
26 management companies that are money market funds registered  
27 with the Securities and Exchange Commission under the  
28 Investment Company Act of 1940 (15 U.S.C. Sec. 80a-1 et seq.).

29 (3) If investment is in shares issued pursuant to paragraph (1),  
30 the company shall have met either of the following criteria:

31 (A) Attained the highest ranking or the highest letter and  
32 numerical rating provided by not less than two NRSROs.

33 (B) Retained an investment adviser registered or exempt from  
34 registration with the Securities and Exchange Commission with  
35 not less than five years’ experience investing in the securities and  
36 obligations authorized by subdivisions (a) to (k), inclusive, and  
37 subdivisions (m) to (q), inclusive, and with assets under  
38 management in excess of five hundred million dollars  
39 (\$500,000,000).

1 (4) If investment is in shares issued pursuant to paragraph (2),  
2 the company shall have met either of the following criteria:  
3 (A) Attained the highest ranking or the highest letter and  
4 numerical rating provided by not less than two NRSROs.  
5 (B) Retained an investment adviser registered or exempt from  
6 registration with the Securities and Exchange Commission with  
7 not less than five years' experience managing money market  
8 mutual funds with assets under management in excess of five  
9 hundred million dollars (\$500,000,000).

10 (5) The purchase price of shares of beneficial interest purchased  
11 pursuant to this subdivision shall not include commission that the  
12 companies may charge and shall not exceed 20 percent of the  
13 agency's moneys that may be invested pursuant to this section.  
14 However, no more than 10 percent of the agency's funds may be  
15 invested in shares of beneficial interest of any one mutual fund  
16 pursuant to paragraph (1).

17 (m) Moneys held by a trustee or fiscal agent and pledged to the  
18 payment or security of bonds or other indebtedness, or obligations  
19 under a lease, installment sale, or other agreement of a local  
20 agency, or certificates of participation in those bonds, indebtedness,  
21 or lease installment sale, or other agreements, may be invested in  
22 accordance with the statutory provisions governing the issuance  
23 of those bonds, indebtedness, or lease installment sale, or other  
24 agreement, or to the extent not inconsistent therewith or if there  
25 are no specific statutory provisions, in accordance with the  
26 ordinance, resolution, indenture, or agreement of the local agency  
27 providing for the issuance.

28 (n) Notes, bonds, or other obligations that are at all times secured  
29 by a valid first priority security interest in securities of the types  
30 listed by Section 53651 as eligible securities for the purpose of  
31 securing local agency deposits having a market value at least equal  
32 to that required by Section 53652 for the purpose of securing local  
33 agency deposits. The securities serving as collateral shall be placed  
34 by delivery or book entry into the custody of a trust company or  
35 the trust department of a bank that is not affiliated with the issuer  
36 of the secured obligation, and the security interest shall be perfected  
37 in accordance with the requirements of the Uniform Commercial  
38 Code or federal regulations applicable to the types of securities in  
39 which the security interest is granted.

1 (o) A mortgage passthrough security, collateralized mortgage  
2 obligation, mortgage-backed or other pay-through bond, equipment  
3 lease-backed certificate, consumer receivable passthrough  
4 certificate, or consumer receivable-backed bond of a maximum of  
5 five years' maturity. Securities eligible for investment under this  
6 subdivision shall be issued by an issuer ~~having an~~ *rated in a rating*  
7 *category of "A" or higher rating its equivalent or better* for the  
8 issuer's debt as provided by an NRSRO and rated in a rating  
9 category of "AA" or its equivalent or better by an NRSRO.  
10 Purchase of securities authorized by this subdivision shall not  
11 exceed 20 percent of the agency's surplus moneys that may be  
12 invested pursuant to this section.

13 (p) Shares of beneficial interest issued by a joint powers  
14 authority organized pursuant to Section 6509.7 that invests in the  
15 securities and obligations authorized in subdivisions (a) to (q),  
16 inclusive. Each share shall represent an equal proportional interest  
17 in the underlying pool of securities owned by the joint powers  
18 authority. To be eligible under this section, the joint powers  
19 authority issuing the shares shall have retained an investment  
20 adviser that meets all of the following criteria:

21 (1) The adviser is registered or exempt from registration with  
22 the Securities and Exchange Commission.

23 (2) The adviser has not less than five years of experience  
24 investing in the securities and obligations authorized in  
25 subdivisions (a) to (q), inclusive.

26 (3) The adviser has assets under management in excess of five  
27 hundred million dollars (\$500,000,000).

28 (q) United States dollar denominated senior unsecured  
29 unsubordinated obligations issued or unconditionally guaranteed  
30 by the International Bank for Reconstruction and Development,  
31 International Finance Corporation, or Inter-American Development  
32 Bank, with a maximum remaining maturity of five years or less,  
33 and eligible for purchase and sale within the United States.  
34 Investments under this subdivision shall be rated *in a rating*  
35 *category of "AA" or its equivalent* or better by an NRSRO and  
36 shall not exceed 30 percent of the agency's moneys that may be  
37 invested pursuant to this section.

38 *SEC. 11. Section 65091 of the Government Code is amended*  
39 *to read:*

1 65091. (a) When a provision of this title requires notice of a  
2 public hearing to be given pursuant to this section, notice shall be  
3 given in all of the following ways:

4 (1) Notice of the hearing shall be mailed or delivered at least  
5 10 days prior to the hearing to the owner of the subject real  
6 property as shown on the latest equalized assessment roll. Instead  
7 of using the assessment roll, the local agency may use records of  
8 the county assessor or tax collector if those records contain more  
9 recent information than the information contained on the  
10 assessment roll. Notice shall also be mailed to the owner's duly  
11 authorized agent, if any, and to the project applicant.

12 (2) When the Subdivision Map Act (Div. 2 (commencing with  
13 Section 66410)) requires notice of a public hearing to be given  
14 pursuant to this section, notice shall also be given to any owner of  
15 a mineral right pertaining to the subject real property who has  
16 recorded a notice of intent to preserve the mineral right pursuant  
17 to Section 883.230 of the Civil Code.

18 (3) Notice of the hearing shall be mailed or delivered at least  
19 10 days prior to the hearing to each local agency expected to  
20 provide water, sewage, streets, roads, schools, or other essential  
21 facilities or services to the project, whose ability to provide those  
22 facilities and services may be significantly affected.

23 (4) Notice of the hearing shall be mailed or delivered at least  
24 10 days prior to the hearing to all owners of real property as shown  
25 on the latest equalized assessment roll within 300 feet of the real  
26 property that is the subject of the hearing. In lieu of using the  
27 assessment roll, the local agency may use records of the county  
28 assessor or tax collector which contain more recent information  
29 than the assessment roll. If the number of owners to whom notice  
30 would be mailed or delivered pursuant to this paragraph or  
31 paragraph (1) is greater than 1,000, a local agency, in lieu of mailed  
32 or delivered notice, may provide notice by placing a display  
33 advertisement of at least one-eighth page in at least one newspaper  
34 of general circulation within the local agency in which the  
35 proceeding is conducted at least 10 days prior to the hearing.

36 (5) If the notice is mailed or delivered pursuant to paragraph  
37 ~~(3)~~, (4), the notice shall also either be:

38 (A) Published pursuant to Section 6061 in at least one newspaper  
39 of general circulation within the local agency which is conducting  
40 the proceeding at least 10 days prior to the hearing.



1 (B) Posted at least 10 days prior to the hearing in at least three  
2 public places within the boundaries of the local agency, including  
3 one public place in the area directly affected by the proceeding.

4 (b) The notice shall include the information specified in Section  
5 65094.

6 (c) In addition to the notice required by this section, a local  
7 agency may give notice of the hearing in any other manner it deems  
8 necessary or desirable.

9 (d) Whenever a hearing is held regarding a permit for a  
10 drive-through facility, or modification of an existing drive-through  
11 facility permit, the local agency shall incorporate, where necessary,  
12 notice procedures to the blind, aged, and disabled communities in  
13 order to facilitate their participation in any hearing on, or appeal  
14 of the denial of, a drive-through facility permit. The Legislature  
15 finds that access restrictions to commercial establishments affecting  
16 the blind, aged, or disabled, is a critical statewide problem;  
17 therefore, this subdivision shall be applicable to charter cities.

18 ~~SEC. 2.~~

19 *SEC. 12.* Section 65302 of the Government Code, as amended  
20 by Section 1 of Chapter 608 of the Statutes of 2015, is amended  
21 to read:

22 65302. The general plan shall consist of a statement of  
23 development policies and shall include a diagram or diagrams and  
24 text setting forth objectives, principles, standards, and plan  
25 proposals. The plan shall include the following elements:

26 (a) A land use element that designates the proposed general  
27 distribution and general location and extent of the uses of the land  
28 for housing, business, industry, open space, including agriculture,  
29 natural resources, recreation, and enjoyment of scenic beauty,  
30 education, public buildings and grounds, solid and liquid waste  
31 disposal facilities, and other categories of public and private uses  
32 of land. The location and designation of the extent of the uses of  
33 the land for public and private uses shall consider the identification  
34 of land and natural resources pursuant to paragraph (3) of  
35 subdivision (d). The land use element shall include a statement of  
36 the standards of population density and building intensity  
37 recommended for the various districts and other territory covered  
38 by the plan. The land use element shall identify and annually  
39 review those areas covered by the plan that are subject to flooding  
40 identified by flood plain mapping prepared by the Federal

1 Emergency Management Agency (FEMA) or the Department of  
2 Water Resources. The land use element shall also do both of the  
3 following:

4 (1) Designate in a land use category that provides for timber  
5 production those parcels of real property zoned for timberland  
6 production pursuant to the California Timberland Productivity Act  
7 of 1982 (Chapter 6.7 (commencing with Section 51100) of Part 1  
8 of Division 1 of Title 5).

9 (2) Consider the impact of new growth on military readiness  
10 activities carried out on military bases, installations, and operating  
11 and training areas, when proposing zoning ordinances or  
12 designating land uses covered by the general plan for land, or other  
13 territory adjacent to military facilities, or underlying designated  
14 military aviation routes and airspace.

15 (A) In determining the impact of new growth on military  
16 readiness activities, information provided by military facilities  
17 shall be considered. Cities and counties shall address military  
18 impacts based on information from the military and other sources.

19 (B) The following definitions govern this paragraph:

20 (i) “Military readiness activities” mean all of the following:

21 (I) Training, support, and operations that prepare the men and  
22 women of the military for combat.

23 (II) Operation, maintenance, and security of any military  
24 installation.

25 (III) Testing of military equipment, vehicles, weapons, and  
26 sensors for proper operation or suitability for combat use.

27 (ii) “Military installation” means a base, camp, post, station,  
28 yard, center, homeport facility for any ship, or other activity under  
29 the jurisdiction of the United States Department of Defense as  
30 defined in paragraph (1) of subsection (g) of Section 2687 of Title  
31 10 of the United States Code.

32 (b) (1) A circulation element consisting of the general location  
33 and extent of existing and proposed major thoroughfares,  
34 transportation routes, terminals, any military airports and ports,  
35 and other local public utilities and facilities, all correlated with the  
36 land use element of the plan.

37 (2) (A) Commencing January 1, 2011, upon any substantive  
38 revision of the circulation element, the legislative body shall  
39 modify the circulation element to plan for a balanced, multimodal  
40 transportation network that meets the needs of all users of streets,

1 roads, and highways for safe and convenient travel in a manner  
2 that is suitable to the rural, suburban, or urban context of the  
3 general plan.

4 (B) For purposes of this paragraph, “users of streets, roads, and  
5 highways” mean bicyclists, children, persons with disabilities,  
6 motorists, movers of commercial goods, pedestrians, users of public  
7 transportation, and seniors.

8 (c) A housing element as provided in Article 10.6 (commencing  
9 with Section 65580).

10 (d) (1) A conservation element for the conservation,  
11 development, and utilization of natural resources including water  
12 and its hydraulic force, forests, soils, rivers and other waters,  
13 harbors, fisheries, wildlife, minerals, and other natural resources.  
14 The conservation element shall consider the effect of development  
15 within the jurisdiction, as described in the land use element, on  
16 natural resources located on public lands, including military  
17 installations. That portion of the conservation element including  
18 waters shall be developed in coordination with any countywide  
19 water agency and with all district and city agencies, including  
20 flood management, water conservation, or groundwater agencies  
21 that have developed, served, controlled, managed, or conserved  
22 water of any type for any purpose in the county or city for which  
23 the plan is prepared. Coordination shall include the discussion and  
24 evaluation of any water supply and demand information described  
25 in Section 65352.5, if that information has been submitted by the  
26 water agency to the city or county.

27 (2) The conservation element may also cover all of the  
28 following:

29 (A) The reclamation of land and waters.

30 (B) Prevention and control of the pollution of streams and other  
31 waters.

32 (C) Regulation of the use of land in stream channels and other  
33 areas required for the accomplishment of the conservation plan.

34 (D) Prevention, control, and correction of the erosion of soils,  
35 beaches, and shores.

36 (E) Protection of watersheds.

37 (F) The location, quantity and quality of the rock, sand, and  
38 gravel resources.

39 (3) Upon the next revision of the housing element on or after  
40 January 1, 2009, the conservation element shall identify rivers,

1 creeks, streams, flood corridors, riparian habitats, and land that  
2 may accommodate floodwater for purposes of groundwater  
3 recharge and stormwater management.

4 (e) An open-space element as provided in Article 10.5  
5 (commencing with Section 65560).

6 (f) (1) A noise element that shall identify and appraise noise  
7 problems in the community. The noise element shall analyze and  
8 quantify, to the extent practicable, as determined by the legislative  
9 body, current and projected noise levels for all of the following  
10 sources:

11 (A) Highways and freeways.

12 (B) Primary arterials and major local streets.

13 (C) Passenger and freight online railroad operations and ground  
14 rapid transit systems.

15 (D) Commercial, general aviation, heliport, helistop, and military  
16 airport operations, aircraft overflights, jet engine test stands, and  
17 all other ground facilities and maintenance functions related to  
18 airport operation.

19 (E) Local industrial plants, including, but not limited to, railroad  
20 classification yards.

21 (F) Other ground stationary noise sources, including, but not  
22 limited to, military installations, identified by local agencies as  
23 contributing to the community noise environment.

24 (2) Noise contours shall be shown for all of these sources and  
25 stated in terms of community noise equivalent level (CNEL) or  
26 day-night average sound level ( $L_{dn}$ ). The noise contours shall be  
27 prepared on the basis of noise monitoring or following generally  
28 accepted noise modeling techniques for the various sources  
29 identified in paragraphs (1) to (6), inclusive.

30 (3) The noise contours shall be used as a guide for establishing  
31 a pattern of land uses in the land use element that minimizes the  
32 exposure of community residents to excessive noise.

33 (4) The noise element shall include implementation measures  
34 and possible solutions that address existing and foreseeable noise  
35 problems, if any. The adopted noise element shall serve as a  
36 guideline for compliance with the state's noise insulation standards.

37 (g) (1) A safety element for the protection of the community  
38 from any unreasonable risks associated with the effects of  
39 seismically induced surface rupture, ground shaking, ground  
40 failure, tsunami, seiche, and dam failure; slope instability leading

1 to mudslides and landslides; subsidence; liquefaction; and other  
2 seismic hazards identified pursuant to Chapter 7.8 (commencing  
3 with Section 2690) of Division 2 of the Public Resources Code,  
4 and other geologic hazards known to the legislative body; flooding;  
5 and wildland and urban fires. The safety element shall include  
6 mapping of known seismic and other geologic hazards. It shall  
7 also address evacuation routes, military installations, peakload  
8 water supply requirements, and minimum road widths and  
9 clearances around structures, as those items relate to identified fire  
10 and geologic hazards.

11 (2) The safety element, upon the next revision of the housing  
12 element on or after January 1, 2009, shall also do the following:

13 (A) Identify information regarding flood hazards, including,  
14 but not limited to, the following:

15 (i) Flood hazard zones. As used in this subdivision, “flood  
16 hazard zone” means an area subject to flooding that is delineated  
17 as either a special hazard area or an area of moderate or minimal  
18 hazard on an official flood insurance rate map issued by the Federal  
19 Emergency Management Agency (FEMA). The identification of  
20 a flood hazard zone does not imply that areas outside the flood  
21 hazard zones or uses permitted within flood hazard zones will be  
22 free from flooding or flood damage.

23 (ii) National Flood Insurance Program maps published by  
24 FEMA.

25 (iii) Information about flood hazards that is available from the  
26 United States Army Corps of Engineers.

27 (iv) Designated floodway maps that are available from the  
28 Central Valley Flood Protection Board.

29 (v) Dam failure inundation maps prepared pursuant to Section  
30 8589.5 that are available from the Office of Emergency Services.

31 (vi) Awareness Floodplain Mapping Program maps and 200-year  
32 flood plain maps that are or may be available from, or accepted  
33 by, the Department of Water Resources.

34 (vii) Maps of levee protection zones.

35 (viii) Areas subject to inundation in the event of the failure of  
36 project or nonproject levees or floodwalls.

37 (ix) Historical data on flooding, including locally prepared maps  
38 of areas that are subject to flooding, areas that are vulnerable to  
39 flooding after wildfires, and sites that have been repeatedly  
40 damaged by flooding.

- 1 (x) Existing and planned development in flood hazard zones,
- 2 including structures, roads, utilities, and essential public facilities.
- 3 (xi) Local, state, and federal agencies with responsibility for
- 4 flood protection, including special districts and local offices of
- 5 emergency services.
- 6 (B) Establish a set of comprehensive goals, policies, and
- 7 objectives based on the information identified pursuant to
- 8 subparagraph (A), for the protection of the community from the
- 9 unreasonable risks of flooding, including, but not limited to:
- 10 (i) Avoiding or minimizing the risks of flooding to new
- 11 development.
- 12 (ii) Evaluating whether new development should be located in
- 13 flood hazard zones, and identifying construction methods or other
- 14 methods to minimize damage if new development is located in
- 15 flood hazard zones.
- 16 (iii) Maintaining the structural and operational integrity of
- 17 essential public facilities during flooding.
- 18 (iv) Locating, when feasible, new essential public facilities
- 19 outside of flood hazard zones, including hospitals and health care
- 20 facilities, emergency shelters, fire stations, emergency command
- 21 centers, and emergency communications facilities or identifying
- 22 construction methods or other methods to minimize damage if
- 23 these facilities are located in flood hazard zones.
- 24 (v) Establishing cooperative working relationships among public
- 25 agencies with responsibility for flood protection.
- 26 (C) Establish a set of feasible implementation measures designed
- 27 to carry out the goals, policies, and objectives established pursuant
- 28 to subparagraph (B).
- 29 (3) Upon the next revision of the housing element on or after
- 30 January 1, 2014, the safety element shall be reviewed and updated
- 31 as necessary to address the risk of fire for land classified as state
- 32 responsibility areas, as defined in Section 4102 of the Public
- 33 Resources Code, and land classified as very high fire hazard
- 34 severity zones, as defined in Section 51177. This review shall
- 35 consider the advice included in the Office of Planning and
- 36 Research’s most recent publication of “Fire Hazard Planning,
- 37 General Plan Technical Advice Series” and shall also include all
- 38 of the following:
- 39 (A) Information regarding fire hazards, including, but not limited
- 40 to, all of the following:

- 1 (i) Fire hazard severity zone maps available from the Department  
2 of Forestry and Fire Protection.
- 3 (ii) Any historical data on wildfires available from local  
4 agencies or a reference to where the data can be found.
- 5 (iii) Information about wildfire hazard areas that may be  
6 available from the United States Geological Survey.
- 7 (iv) General location and distribution of existing and planned  
8 uses of land in very high fire hazard severity zones and in state  
9 responsibility areas, including structures, roads, utilities, and  
10 essential public facilities. The location and distribution of planned  
11 uses of land shall not require defensible space compliance measures  
12 required by state law or local ordinance to occur on publicly owned  
13 lands or open space designations of homeowner associations.
- 14 (v) Local, state, and federal agencies with responsibility for fire  
15 protection, including special districts and local offices of  
16 emergency services.
- 17 (B) A set of goals, policies, and objectives based on the  
18 information identified pursuant to subparagraph (A) for the  
19 protection of the community from the unreasonable risk of wildfire.
- 20 (C) A set of feasible implementation measures designed to carry  
21 out the goals, policies, and objectives based on the information  
22 identified pursuant to subparagraph (B) including, but not limited  
23 to, all of the following:
  - 24 (i) Avoiding or minimizing the wildfire hazards associated with  
25 new uses of land.
  - 26 (ii) Locating, when feasible, new essential public facilities  
27 outside of high fire risk areas, including, but not limited to,  
28 hospitals and health care facilities, emergency shelters, emergency  
29 command centers, and emergency communications facilities, or  
30 identifying construction methods or other methods to minimize  
31 damage if these facilities are located in a state responsibility area  
32 or very high fire hazard severity zone.
  - 33 (iii) Designing adequate infrastructure if a new development is  
34 located in a state responsibility area or in a very high fire hazard  
35 severity zone, including safe access for emergency response  
36 vehicles, visible street signs, and water supplies for structural fire  
37 suppression.
  - 38 (iv) Working cooperatively with public agencies with  
39 responsibility for fire protection.

1 (D) If a city or county has adopted a fire safety plan or document  
2 separate from the general plan, an attachment of, or reference to,  
3 a city or county’s adopted fire safety plan or document that fulfills  
4 commensurate goals and objectives and contains information  
5 required pursuant to this paragraph.

6 (4) Upon the next revision of a local hazard mitigation plan,  
7 adopted in accordance with the federal Disaster Mitigation Act of  
8 2000 (Public Law 106-390), on or after January 1, 2017, or, if a  
9 local jurisdiction has not adopted a local hazard mitigation plan,  
10 beginning on or before January 1, 2022, the safety element shall  
11 be reviewed and updated as necessary to address climate adaptation  
12 and resiliency strategies applicable to the city or county. This  
13 review shall consider advice provided in the Office of Planning  
14 and Research’s General Plan Guidelines and shall include all of  
15 the following:

16 (A) (i) A vulnerability assessment that identifies the risks that  
17 climate change poses to the local jurisdiction and the geographic  
18 areas at risk from climate change impacts, including, but not limited  
19 to, an assessment of how climate change may affect the risks  
20 addressed pursuant to paragraphs (2) and (3).

21 (ii) Information that may be available from federal, state,  
22 regional, and local agencies that will assist in developing the  
23 vulnerability assessment and the adaptation policies and strategies  
24 required pursuant to subparagraph (B), including, but not limited  
25 to, all of the following:

26 (I) Information from the Internet-based Cal-Adapt tool.

27 (II) Information from the most recent version of the California  
28 Adaptation Planning Guide.

29 (III) Information from local agencies on the types of assets,  
30 resources, and populations that will be sensitive to various climate  
31 change exposures.

32 (IV) Information from local agencies on their current ability to  
33 deal with the impacts of climate change.

34 (V) Historical data on natural events and hazards, including  
35 locally prepared maps of areas subject to previous risk, areas that  
36 are vulnerable, and sites that have been repeatedly damaged.

37 (VI) Existing and planned development in identified at-risk  
38 areas, including structures, roads, utilities, and essential public  
39 facilities.



1 (VII) Federal, state, regional, and local agencies with  
2 responsibility for the protection of public health and safety and  
3 the environment, including special districts and local offices of  
4 emergency services.

5 (B) A set of adaptation and resilience goals, policies, and  
6 objectives based on the information specified in subparagraph (A)  
7 for the protection of the community.

8 (C) A set of feasible implementation measures designed to carry  
9 out the goals, policies, and objectives identified pursuant to  
10 subparagraph (B) including, but not limited to, all of the following:

11 (i) Feasible methods to avoid or minimize climate change  
12 impacts associated with new uses of land.

13 (ii) The location, when feasible, of new essential public facilities  
14 outside of at-risk areas, including, but not limited to, hospitals and  
15 health care facilities, emergency shelters, emergency command  
16 centers, and emergency communications facilities, or identifying  
17 construction methods or other methods to minimize damage if  
18 these facilities are located in at-risk areas.

19 (iii) The designation of adequate and feasible infrastructure  
20 located in an at-risk area.

21 (iv) Guidelines for working cooperatively with relevant local,  
22 regional, state, and federal agencies.

23 (v) The identification of natural infrastructure that may be used  
24 in adaptation projects, where feasible. Where feasible, the plan  
25 shall use existing natural features and ecosystem processes, or the  
26 restoration of natural features and ecosystem processes, when  
27 developing alternatives for consideration. For the purposes of this  
28 clause, “natural infrastructure” means the preservation or  
29 restoration of ecological systems, or utilization of engineered  
30 systems that use ecological processes, to increase resiliency to  
31 climate change, manage other environmental hazards, or both.  
32 This may include, but is not limited to, floodplain and wetlands  
33 restoration or preservation, combining levees with restored natural  
34 systems to reduce flood risk, and urban tree planting to mitigate  
35 high heat days.

36 (D) (i) If a city or county has adopted the local hazard  
37 mitigation plan, or other climate adaptation plan or document that  
38 fulfills commensurate goals and objectives and contains the  
39 information required pursuant to this paragraph, separate from the

1 general plan, an attachment of, or reference to, the local hazard  
 2 mitigation plan or other climate adaptation plan or document.

3 (ii) Cities or counties that have an adopted hazard mitigation  
 4 plan, or other climate adaptation plan or document that substantially  
 5 complies with this section, or have substantially equivalent  
 6 provisions to this subdivision in their general plans, may use that  
 7 information in the safety element to comply with this subdivision,  
 8 and shall summarize and incorporate by reference into the safety  
 9 element the other general plan provisions, climate adaptation plan  
 10 or document, specifically showing how each requirement of this  
 11 subdivision has been met.

12 (5) After the initial revision of the safety element pursuant to  
 13 paragraphs (2) and (3), upon each revision of the housing element,  
 14 the planning agency shall review and, if necessary, revise the safety  
 15 element to identify new information that was not available during  
 16 the previous revision of the safety element.

17 (6) Cities and counties that have flood plain management  
 18 ordinances that have been approved by FEMA that substantially  
 19 comply with this section, or have substantially equivalent  
 20 provisions to this subdivision in their general plans, may use that  
 21 information in the safety element to comply with this subdivision,  
 22 and shall summarize and incorporate by reference into the safety  
 23 element the other general plan provisions or the flood plain  
 24 ordinance, specifically showing how each requirement of this  
 25 subdivision has been met.

26 (7) Prior to the periodic review of its general plan and prior to  
 27 preparing or revising its safety element, each city and county shall  
 28 consult the California Geological Survey of the Department of  
 29 Conservation, the Central Valley Flood Protection Board, if the  
 30 city or county is located within the boundaries of the Sacramento  
 31 and San Joaquin Drainage District, as set forth in Section 8501 of  
 32 the Water Code, and the Office of Emergency Services for the  
 33 purpose of including information known by and available to the  
 34 department, the agency, and the board required by this subdivision.

35 (8) To the extent that a county’s safety element is sufficiently  
 36 detailed and contains appropriate policies and programs for  
 37 adoption by a city, a city may adopt that portion of the county’s  
 38 safety element that pertains to the city’s planning area in  
 39 satisfaction of the requirement imposed by this subdivision.

1     *SEC. 13. Section 67661 of the Government Code is amended*  
2 *to read:*

3     67661. The following may serve as ex officio nonvoting  
4 members of the board:

5     (a) A representative appointed by the Monterey Peninsula  
6 Community College District.

7     (b) A representative appointed by the Monterey Peninsula  
8 Unified School District.

9     (c) A representative designated by the Member of Congress  
10 ~~from the 17th~~ *that has the majority portion of Ford Ord in his or*  
11 *her Congressional District.*

12     (d) A representative designated by the Senator ~~from the 15th~~  
13 *that has the majority portion of Ford Ord in his or her Senate*  
14 *District.*

15     (e) A representative designated by the Assembly Member ~~from~~  
16 ~~the 27th~~ *that has the majority portion of Ford Ord in his or her*  
17 *Assembly District.*

18     (f) A representative designated by the United States Army.

19     (g) A representative designated by the Chancellor of the  
20 California State University.

21     (h) A representative designated by the President of the  
22 University of California.

23     (i) A representative designated by the Monterey County Water  
24 Resources Agency.

25     (j) A representative designated by the Transportation Agency  
26 of Monterey County.

27     *SEC. 14. Section 5471 of the Health and Safety Code is*  
28 *amended to read:*

29     5471. (a) In addition to the powers granted in the principal  
30 act, any entity shall have power, by an ordinance *or resolution*  
31 approved by a two-thirds vote of the members of the legislative  
32 body thereof, to prescribe, revise and collect, fees, tolls, rates,  
33 rentals, or other charges for services and facilities furnished by it,  
34 either within or without its territorial limits, in connection with its  
35 water, sanitation, storm drainage, or sewerage system.

36     (b) In addition to the powers granted in the principal act, any  
37 entity shall have power, pursuant to the notice, protest, and hearing  
38 procedures in Section 53753 of the Government Code, to prescribe,  
39 revise, and collect water, sewer, or water and sewer standby or  
40 immediate availability charges for services and facilities furnished

1 by it, either within or without its territorial limits, in connection  
2 with its water, sanitation, storm drainage, or sewerage system.

3 (c) The entity may provide that the charge for the service shall  
4 be collected with the rates, tolls, and charges for any other utility,  
5 and that any or all of these charges may be billed upon the same  
6 bill. Where the charge is to be collected with the charges for any  
7 other utility service furnished by a department or agency of the  
8 entity and over which its legislative body does not exercise control,  
9 the consent of the department or agency shall be obtained prior to  
10 collecting water, sanitation, storm drainage, or sewerage charges  
11 with the charges for any other utility. Revenues derived under the  
12 provisions in this section, shall be used only for the acquisition,  
13 construction, reconstruction, maintenance, and operation of water  
14 systems and sanitation, storm drainage, or sewerage facilities, to  
15 repay principal and interest on bonds issued for the construction  
16 or reconstruction of these water systems and sanitary, storm  
17 drainage, or sewerage facilities and to repay federal or state loans  
18 or advances made to the entity for the construction or  
19 reconstruction of water systems and sanitary, storm drainage, or  
20 sewerage facilities. However, the revenue shall not be used for the  
21 acquisition or construction of new local street sewers or laterals  
22 as distinguished from main trunk, interceptor and outfall sewers.

23 (d) If the procedures set forth in this section as it read at the  
24 time a standby charge was established were followed, the entity  
25 may, by ordinance *or resolution* adopted by a two-thirds vote of  
26 the members of the legislative body thereof, continue the charge  
27 pursuant to this section in successive years at the same rate. If new,  
28 increased, or extended assessments are proposed, the entity shall  
29 comply with the notice, protest, and hearing procedures in Section  
30 53753 of the Government Code.

31 *SEC. 15. Section 5473 of the Health and Safety Code is*  
32 *amended to read:*

33 5473. Any entity which has adopted an ordinance *or resolution*  
34 pursuant to this article or an order pursuant to Section 6520.5 may,  
35 by such ordinance *or resolution* or by separate ordinances or  
36 resolutions approved by a two-thirds vote of the members of the  
37 legislative body thereof, elect to have such charges collected on  
38 the tax roll in the same manner, by the same persons, and at the  
39 same time as, together with and not separately from, its general  
40 taxes. In such event, it shall cause a written report to be prepared

1 each year and filed with the clerk, which shall contain a description  
2 of each parcel of real property receiving such services and facilities  
3 and the amount of the charge for each parcel for the year, computed  
4 in conformity with the charges prescribed by the ordinance or  
5 resolution.

6 Any ordinance or resolution adopted pursuant to this section  
7 authorizing the collection of charges on the tax roll shall remain  
8 in effect for the time specified in the ordinance or resolution or, if  
9 no time is specified in the ordinance or resolution, until repealed  
10 or until a change is made in the rates charged by the entity.

11 The powers authorized by this section shall be alternative to all  
12 other powers of any entity, and alternative to other procedures  
13 adopted by the legislative body thereof for the collection of such  
14 charges.

15 The real property may be described by reference to maps  
16 prepared in accordance with Section 327, Revenue and Taxation  
17 Code, and on file in the office of the county assessor or by  
18 reference to plats or maps on file in the office of the clerk.

19 *SEC. 16. Section 5474 of the Health and Safety Code is*  
20 *amended to read:*

21 5474. An entity shall have the power by ordinance *or resolution*  
22 approved by two-thirds vote of the members of the legislative body  
23 thereof to fix fees or charges for the privilege of connecting to its  
24 sanitation or sewerage facilities and improvements constructed by  
25 the entity pursuant to Sections 5463 and 5464, to fix the time or  
26 times at which the fees or charges shall become due, to provide  
27 for the payment of the fees or charges prior to connection or in  
28 installments over a period of not to exceed 30 years, to provide  
29 the rate of interest, not to exceed 12 percent per annum, to be  
30 charged on the unpaid balance of the fees or charges, and to provide  
31 that the amount of the fees or charges and the interest thereon shall  
32 constitute a lien against the respective lots or parcels of land to  
33 which the facilities are connected at the time and in the manner  
34 specified in Sections 5473.5 and 5473.8. Prior to making the fees  
35 or charges a lien against the land, the legislative body shall give  
36 notice to the owners of the lots or parcels of land affected, and the  
37 notice shall set forth all of the following:

38 (a) The schedule of fees or charges to be imposed by the entity.

39 (b) A description of the property subject to the fees or charges,  
40 which description may be by reference to a plat or diagram on file

1 in the office of the clerk of the legislative body, or to maps prepared  
2 in accordance with Section 327 of the Revenue and Taxation Code,  
3 and on file in the office of the county assessor.

4 (c) The time or times at which the fees or charges shall become  
5 due.

6 (d) The number of installments in which the fees or charges  
7 shall be payable.

8 (e) The rate of interest, not to exceed 12 percent per annum, to  
9 be charged on the unpaid balance of the fees or charges.

10 (f) That it is proposed that the fees or charges and interest  
11 thereon shall constitute a lien against the lots or parcels of land to  
12 which the facilities are furnished.

13 (g) The time and place at which the legislative body will hold  
14 a hearing at which persons may appear and present any and all  
15 objections they may have to the imposition of the fees or charges  
16 as a lien against the land.

17 *SEC. 17. Section 5474.8 of the Health and Safety Code is*  
18 *amended to read:*

19 5474.8. Fees or charges imposed by an entity by ordinance *or*  
20 *resolution* adopted pursuant to Section 5474 may differ in amount  
21 or method of computation from fees or charges imposed by any  
22 other ordinance *or resolution* of such entity adopted pursuant to  
23 said Section 5474.

24 ~~SEC. 3.~~

25 *SEC. 18. Section 13822 of the Health and Safety Code is*  
26 *amended to read:*

27 13822. Once the chief petitioners have filed a sufficient petition  
28 or a legislative body has filed a resolution of application, the local  
29 agency formation commission shall proceed pursuant to Chapter  
30 5 (commencing with Section 56825) of Part 3 of Division 3 of  
31 Title 5 of the Government Code.

32 ~~SEC. 4.~~

33 *SEC. 19. Section 22161 of the Public Contract Code, as*  
34 *amended by Section 2 of Chapter 715 of the Statutes of 2015, is*  
35 *amended to read:*

36 22161. For purposes of this chapter, the following definitions  
37 apply:

38 (a) “Best value” means a value determined by evaluation of  
39 objective criteria that relate to price, features, functions, life-cycle  
40 costs, experience, and past performance. A best value determination

1 may involve the selection of the lowest cost proposal meeting the  
2 interests of the local agency and meeting the objectives of the  
3 project, selection of the best proposal for a stipulated sum  
4 established by the procuring agency, or a tradeoff between price  
5 and other specified factors.

6 (b) “Construction subcontract” means each subcontract awarded  
7 by the design-build entity to a subcontractor that will perform work  
8 or labor or render service to the design-build entity in or about the  
9 construction of the work or improvement, or a subcontractor  
10 licensed by the State of California that, under subcontract to the  
11 design-build entity, specially fabricates and installs a portion of  
12 the work or improvement according to detailed drawings contained  
13 in the plans and specifications produced by the design-build team.

14 (c) “Design-build” means a project delivery process in which  
15 both the design and construction of a project are procured from a  
16 single entity.

17 (d) “Design-build entity” means a corporation, limited liability  
18 company, partnership, joint venture, or other legal entity that is  
19 able to provide appropriately licensed contracting, architectural,  
20 and engineering services as needed pursuant to a design-build  
21 contract.

22 (e) “Design-build team” means the design-build entity itself  
23 and the individuals and other entities identified by the design-build  
24 entity as members of its team. Members shall include the general  
25 contractor and, if utilized in the design of the project, all electrical,  
26 mechanical, and plumbing contractors.

27 (f) “Local agency” means the following:

28 (1) A city, county, or city and county.

29 (2) A special district that operates wastewater facilities, solid  
30 waste management facilities, water recycling facilities, or fire  
31 protection facilities.

32 (3) Any transit district, included transit district, municipal  
33 operator, included municipal operator, any consolidated agency,  
34 as described in Section 132353.1 of the Public Utilities Code, any  
35 joint powers authority formed to provide transit service, any county  
36 transportation commission created pursuant to Section 130050 of  
37 the Public Utilities Code, or any other local or regional agency,  
38 responsible for the construction of transit projects.

39 (4) The San Diego Association of Governments, as referenced  
40 in the San Diego Regional Transportation Consolidation Act

1 (Chapter 3 (commencing with Section 132350) of Division 12.7  
2 of the Public Utilities Code).

3 (g) (1) For a local agency defined in paragraph (1) of  
4 subdivision (f), “project” means the construction of a building or  
5 buildings and improvements directly related to the construction  
6 of a building or buildings, county sanitation wastewater treatment  
7 facilities, and park and recreational facilities, but does not include  
8 the construction of other infrastructure, including, but not limited  
9 to, streets and highways, public rail transit, or water resources  
10 facilities and infrastructure. For a local agency defined in paragraph  
11 (1) of subdivision (f) that operates wastewater facilities, solid waste  
12 management facilities, or water recycling facilities, “project” also  
13 means the construction of regional and local wastewater treatment  
14 facilities, regional and local solid waste facilities, or regional and  
15 local water recycling facilities.

16 (2) For a local agency defined in paragraph (2) of subdivision  
17 (f), “project” means the construction of regional and local  
18 wastewater treatment facilities, regional and local solid waste  
19 facilities, regional and local water recycling facilities, or fire  
20 protection facilities.

21 (3) For a local agency defined in paragraph (3) of subdivision  
22 (f), “project” means a transit capital project that begins a project  
23 solicitation on or after January 1, 2015. A “project,” as defined by  
24 this paragraph, that begins the solicitation process before January  
25 1, 2015, is subject to Article 6.8 (commencing with Section  
26 20209.5) of Chapter 1. “Project,” as defined by this paragraph,  
27 does not include state highway construction or local street and  
28 road projects.

29 (4) For a local agency defined in paragraph (4) of subdivision  
30 (f), “project” has the same meaning as in paragraph (3), and in  
31 addition shall include development projects adjacent, or physically  
32 or functionally related, to transit facilities developed or jointly  
33 developed by the local agency.

34 *SEC. 20. Section 11005 of the Revenue and Taxation Code is*  
35 *amended to read:*

36 11005. After payment of refunds therefrom and after making  
37 the deductions authorized by Section 11003 and reserving the  
38 amount determined necessary by the Pooled Money Investment  
39 Board to meet the transfers ordered or proposed to be ordered  
40 pursuant to Section 16310 of the Government Code, the balance



1 of all motor vehicle license fees and any other money appropriated  
2 by law for expenditure pursuant to this section, deposited to the  
3 credit of the Motor Vehicle License Fee Account in the  
4 Transportation Tax Fund, and remaining unexpended in that  
5 account at the close of business on the last day of the calendar  
6 month, shall be allocated by the Controller by the 10th day of the  
7 following month in accordance with the following:

8 (a) On and after July 1, 2011, to the Local Law Enforcement  
9 Services Account in the Local Revenue Fund 2011, as established  
10 by Section 30025 of the Government Code, for allocation to cities,  
11 counties, and cities and counties.

12 (b) On or after July 1, 2004, but before July 1, 2011:

13 (1) First, to the County of Orange. For the 2004–05 fiscal year,  
14 that county shall be allocated fifty-four million dollars  
15 (\$54,000,000) in monthly installments. For the 2005–06 fiscal year  
16 and each fiscal year thereafter, that county shall receive, in monthly  
17 installments, an amount equal to the amount allocated under this  
18 section for the prior fiscal year, adjusted for the percentage change  
19 in the amount of revenues credited to the Motor Vehicle License  
20 Fee Account in the Transportation Tax Fund from the revenues  
21 credited to that account in the prior fiscal year. Moneys allocated  
22 to the County of Orange under this subdivision shall be used first  
23 for the service of indebtedness as provided in paragraph (1) of  
24 subdivision (a) of Section 11001.5. Any amounts in excess of the  
25 amount required for this service of indebtedness may be used by  
26 that county for any lawful purpose.

27 (2) Second, to each city, the population of which is determined  
28 under Section 11005.3 on August 5, 2004, in an amount equal to  
29 the additional amount of vehicle license fee revenue, including  
30 offset transfers, that would be allocated to that city under Sections  
31 11000 and 11005, as those sections read on January 1, 2004, as a  
32 result of that city’s population being determined under subdivision  
33 (a) or (b) of Section 11005.3.

34 (3) Third, to each city that was incorporated from an  
35 unincorporated territory after August 5, 2004, in an amount equal  
36 to the product of the following two amounts:

37 (A) The quotient derived from the following fraction:

38 (i) The numerator is the product of the following two amounts:

39 (I) Fifty dollars (\$50) per year.

1 (II) The fraction determined as the total amount of vehicle  
2 license fee revenue collected during the most recent fiscal year  
3 divided by the total amount of vehicle license fee revenue collected  
4 during the 2004–05 fiscal year.

5 (ii) The denominator is the fraction determined as the actual  
6 population, as defined in subdivision-(e) (d) of Section 11005.3,  
7 of all cities during the most recent fiscal year, divided by the actual  
8 population, as defined in subdivision-(e) (d) of Section 11005.3,  
9 of all cities in the 2004–05 fiscal year.

10 (B) The city’s population determined in accordance with Section  
11 11005.3.

12 (4) Fourth, to each city that was incorporated before August 5,  
13 2004, in an amount equal to the product of the following two  
14 amounts:

15 (A) The quotient derived from the following fraction:

16 (i) The numerator is the product of the following two amounts:

17 (I) Fifty dollars (\$50) per year.

18 (II) The fraction determined as the total amount of vehicle  
19 license fee revenue collected during the most recent fiscal year  
20 divided by the total amount of vehicle license fee revenue collected  
21 during the 2004–05 fiscal year.

22 (ii) The denominator is the fraction determined as the actual  
23 population, as defined in subdivision-(e) (d) of Section 11005.3,  
24 of all cities during the most recent fiscal year, divided by the actual  
25 population, as defined in subdivision-(e) (d) of Section 11005.3,  
26 of all cities in the 2004–05 fiscal year.

27 (B) The actual population, as defined in subdivision-(e) (d) of  
28 Section 11005.3, residing in areas annexed after August 5, 2004,  
29 as of the date of annexation.

30 (5) Fifth, to the cities and cities and counties of this state in the  
31 proportion that the population of each city or city and county bears  
32 to the total population of all cities and cities and counties in this  
33 state, as determined by the Demographic Research Unit of the  
34 Department of Finance. For the purpose of this subdivision, the  
35 population of each city or city and county shall be determined in  
36 accordance with Section 11005.3.

37 ~~SEC. 5.~~

38 *SEC. 21.* Section 11005.3 of the Revenue and Taxation Code  
39 is amended to read:

1 11005.3. (a) In the case of a city that incorporated on or after  
2 January 1, 1987, and before August 5, 2004, the Controller shall  
3 determine that the population of the city for its first 10 full fiscal  
4 years, and any portion of the first year in which the incorporation  
5 is effective if less than a full fiscal year, is the greater of either:

6 (1) The number of registered voters in the city multiplied by  
7 three. The number of registered voters shall be calculated as of the  
8 effective date of the incorporation of the city.

9 (2) The actual population, as defined in subdivision (d).

10 (b) In the case of a city that incorporated on or after January 1,  
11 1987, and before August 5, 2004, and for which the application  
12 for incorporation was filed with the executive officer of the local  
13 agency formation commission pursuant to subdivision (a) of  
14 Section 56828 of the Government Code on or after January 1,  
15 1991, the Controller shall determine that the population of the city  
16 for its first seven full fiscal years, and any portion of the first year  
17 in which the incorporation is effective if less than a full fiscal year,  
18 is the greater of either:

19 (1) The number of registered voters in the city multiplied by  
20 three. The number of registered voters shall be calculated as of the  
21 effective date of the incorporation of the city.

22 (2) The actual population, as defined in subdivision (d).

23 (c) In the case of a city that was incorporated from  
24 unincorporated territory after August 5, 2004, the Controller shall  
25 determine the population of the city as follows:

26 (1) For its first 12 months, 150 percent of the city's actual  
27 population.

28 (2) For its 13th through 24th months, 140 percent of the city's  
29 actual population.

30 (3) For its 25th through 36th months, 130 percent of the city's  
31 actual population.

32 (4) For its 37th through 48th months, 120 percent of the city's  
33 actual population.

34 (5) For its 49th through 60th months, 110 percent of the city's  
35 actual population.

36 (6) After its 60th month, the city's actual population.

37 (d) For purposes of this section, "actual population" means the  
38 population determined by the last federal decennial or special  
39 census, or a subsequent census validated by the Demographic  
40 Research Unit of the Department of Finance or subsequent estimate

1 prepared pursuant to Section 2107.2 of the Streets and Highways  
2 Code.

3 (e) In the case of unincorporated territory being annexed to a  
4 city, during the 10-year, seven-year, or five-year period following  
5 incorporation, as the case may be, subsequent to the last federal  
6 census, or a subsequent census validated by the Demographic  
7 Research Unit of the Department of Finance, the unit shall  
8 determine the population of the annexed territory by the use of  
9 any federal decennial or special census or any estimate prepared  
10 pursuant to Section 2107.2 of the Streets and Highways Code. The  
11 population of the annexed territory as determined by the  
12 Demographic Research Unit shall be added to the city's population  
13 as previously determined by the Controller pursuant to paragraph  
14 (1) or (2) of subdivision (a), paragraph (1) or (2) of subdivision  
15 (b), or subdivision (c), as applicable.

16 (f) After the 10-year, seven-year, or five-year period following  
17 incorporation, as the case may be, the Controller shall determine  
18 the population of the city as the city's actual population, as defined  
19 in subdivision (d).

20 (g) The amendments made to this section by the act adding this  
21 subdivision shall not apply with respect to either of the following:

22 (1) Any city that has adopted an ordinance or resolution,  
23 approved a ballot measure, or is subject to a consent decree or  
24 court order, that annually limits the number of housing units that  
25 may be constructed within the city.

26 (2) Any city that has not prepared and adopted a housing element  
27 in compliance with Section 65585 of the Government Code.

28 (h) This section shall become operative July 1, 1991.

29 *SEC. 22. Section 19201 of the Revenue and Taxation Code is*  
30 *amended to read:*

31 19201. If any amount due under Part 10 (commencing with  
32 Section 17001), Part 11 (commencing with Section 23001), or any  
33 amount that may be collected by the Franchise Tax Board as though  
34 it were a tax, is not paid, the Franchise Tax Board may file in the  
35 Office of the ~~County~~ Clerk of the Court of Sacramento County,  
36 or any other county, a certificate specifying the amount due, the  
37 name and last known address of the taxpayer liable for the amount  
38 due, and the fact that the Franchise Tax Board has complied with  
39 all provisions of the law in the computation and levy of the amount

1 due, and a request that judgment be entered against the taxpayer  
2 in the amount set forth in the certificate.

3 *SEC. 23. Section 19202 of the Revenue and Taxation Code is*  
4 *amended to read:*

5 19202. The ~~county clerk~~ *Clerk of the Court* immediately upon  
6 the filing of the certificate shall enter a judgment for the people  
7 of the State of California against the taxpayer in the amount set  
8 forth in the certificate. The ~~county clerk~~ *Clerk of the Court* may  
9 file the judgment in a loose-leaf book entitled “Personal Income  
10 Tax Judgments” or “Bank and Corporation Tax Judgments,” as  
11 appropriate.

12 ~~SEC. 6.~~

13 *SEC. 24. Section 2105 of the Streets and Highways Code is*  
14 *amended to read:*

15 2105. Notwithstanding Section 13340 of the Government Code,  
16 in addition to the apportionments prescribed by Sections 2104,  
17 2106, and 2107, from the revenues derived from a per gallon tax  
18 imposed pursuant to Section 7360 of the Revenue and Taxation  
19 Code, and a per gallon tax imposed pursuant to Sections 8651,  
20 8651.5, and 8651.6 of the Revenue and Taxation Code, and a per  
21 gallon tax imposed pursuant to Sections 60050 and 60115 of the  
22 Revenue and Taxation Code, the following apportionments shall  
23 be made:

24 (a) A sum equal to 1.035 cents (\$0.01035) per gallon from the  
25 tax under Section 7360 of the Revenue and Taxation Code, 11.5  
26 percent of any per gallon tax in excess of nine cents (\$0.09) per  
27 gallon under Sections 8651, 8651.5, and 8651.6 of the Revenue  
28 and Taxation Code, and 1.035 cents (\$0.01035) per gallon from  
29 the tax under Sections 60050 and 60115 of the Revenue and  
30 Taxation Code, shall be apportioned among the counties, including  
31 a city and county.

32 The amount of apportionment to each county, including a city  
33 and county, during a fiscal year shall be calculated as follows:

34 (1) One million dollars (\$1,000,000) for apportionment to all  
35 counties, including a city and county, in proportion to each county’s  
36 receipts during the prior fiscal year under Sections 2104 and 2106.

37 (2) One million dollars (\$1,000,000) for apportionment to all  
38 counties, including a city and county, as follows:

39 (A) Seventy-five percent in the proportion that the number of  
40 fee-paid and exempt vehicles which are registered in the county

1 bears to the number of fee-paid and exempt vehicles registered in  
2 the state.

3 (B) Twenty-five percent in the proportion that the number of  
4 miles of maintained county roads in the county bears to the miles  
5 of maintained county roads in the state.

6 (3) For each county, determine its factor which is the higher  
7 amount calculated pursuant to paragraph (1) or (2) divided by the  
8 sum of the higher amounts for all of the counties.

9 (4) The amount to be apportioned to each county is equal to its  
10 factor multiplied by the amount available for apportionment.

11 (b) A sum equal to 1.035 cents (\$0.01035) per gallon from the  
12 tax under Section 7360 of the Revenue and Taxation Code, 11.5  
13 percent of any per gallon tax in excess of nine cents (\$0.09) per  
14 gallon under ~~Section 8651~~ Sections 8651, 8651.5, and 8651.6 of  
15 the Revenue and Taxation Code, and 1.035 cents (\$0.01035) per  
16 gallon from the tax under Sections 60050 and 60115 of the  
17 Revenue and Taxation Code, shall be apportioned to cities,  
18 including a city and county, in the proportion that the total  
19 population of the city bears to the total population of all the cities  
20 in the state.

21 (c) (1) Transfers of revenues from the Highway Users Tax  
22 Account to counties or cities pursuant to this section collected  
23 during the months of March, April, May, June, and July of 2008,  
24 shall be made with the transfer of August 2008 revenues in  
25 September of 2008. This suspension shall not apply to a county  
26 with a population of less than 40,000.

27 (2) For the purpose of meeting the cash obligations associated  
28 with ongoing budgeted costs, a city or county may make use of  
29 any cash balance in the city account that is designated for the  
30 receipt of state funds allocated for local streets and roads or the  
31 county road fund, including that resulting from the receipt of funds  
32 pursuant to the Highway Safety, Traffic Reduction, Air Quality,  
33 and Port Security Bond Act of 2006 (Chapter 12.49 (commencing  
34 with Section 8879.20) of Division 1 of Title 2 of the Government  
35 Code (hereafter bond act)) for local streets and roads maintenance,  
36 during the period of this suspension, without the use of this cash  
37 being reflected as an expenditure of bond act funds, provided the  
38 cash is replaced once this suspension is repaid in September of  
39 2008. Counties and cities may accrue the revenue received in  
40 September 2008 as repayment of these suspensions for the months

1 of April, May, and June of 2008 back to the 2007–08 fiscal year.  
2 Nothing in this paragraph shall change the fact that expenditures  
3 must be accrued and reflected from the appropriate funding sources  
4 for which the moneys were received and meet all the requirements  
5 of those funding sources.

6 (d) (1) The transfer of revenues from the Highway Users Tax  
7 Account to counties or cities pursuant to this section collected  
8 during the months of January, February, and March 2009 shall be  
9 made with the transfer of April 2009 revenues in May 2009.

10 (2) For the purpose of meeting the cash obligations associated  
11 with ongoing budgeted costs, a city or county may make use of  
12 any cash balance in the city account that is designated for the  
13 receipt of state funds allocated for local streets and roads or the  
14 county road fund, including that resulting from the receipt of funds  
15 pursuant to the Highway Safety, Traffic Reduction, Air Quality,  
16 and Port Security Bond Act of 2006 (Chapter 12.49 (commencing  
17 with Section 8879.20) of Division 1 of Title 2 of the Government  
18 Code (bond act)) for local streets and roads maintenance, during  
19 the period of this suspension, and the use of this cash shall not be  
20 considered as an expenditure of bond act funds, if the cash is  
21 replaced when the payments that are suspended pursuant to this  
22 subdivision are repaid in May 2009.

23 (3) This subdivision shall not affect any requirement that an  
24 expenditure is required to be accrued and reflected from the  
25 appropriate funding source for which the money was received and  
26 to meet all the requirements of its funding source.

27 *SEC. 25. Section 7.3 of the Kern County Water Agency Act*  
28 *(Chapter 1003 of the Statutes of 1961), as amended by Section 2*  
29 *of Chapter 832 of the Statutes of 1972, is repealed.*

30 ~~Sec. 7.3. Unless previously approved by the board of~~  
31 ~~supervisors, no tax or assessment shall be levied hereunder, no~~  
32 ~~zone of benefit shall be created pursuant to Section 14.2 hereof,~~  
33 ~~and no expenditure of funds unless previously approved in the~~  
34 ~~form of a budget by the board of supervisors shall be made. The~~  
35 ~~board of supervisors may, in connection with any of the foregoing,~~  
36 ~~conduct public hearings. Such hearings shall be declared by a~~  
37 ~~resolution specifying the purpose and the day, hour, and place~~  
38 ~~where all interested persons may appear and be heard. This~~  
39 ~~resolution shall be published in the agency pursuant to Section~~  
40 ~~6063 of the Government Code in a newspaper of general circulation~~

1 in the agency. The hearing may be adjourned from time to time at  
2 the discretion of the board of supervisors and at its conclusion the  
3 board of supervisors shall declare its decision.

4 *SEC. 26. Section 7.6 of the Kern County Water Agency Act*  
5 *(Chapter 1003 of the Statutes of 1961), as added by Section 2 of*  
6 *Chapter 49 of the Statutes of 1982, is amended to read:*

7 *Sec. 7.6. (a) The board of directors shall not approve an*  
8 *agency budget or submit it to the board of supervisors for approval*  
9 *unless the board has first conducted a public hearing.*

10 ~~The~~

11 *(b) The board shall publish a notice of the hearing pursuant to*  
12 *Section 6066 of the Government Code.*

13 *SEC. 27. Section 8 of the Kern County Water Agency Act*  
14 *(Chapter 1003 of the Statutes of 1961) is repealed.*

15 ~~*Sec. 8. If the county surveyor is a registered civil engineer and*~~  
16 ~~*is employed to supervise the engineering work of the agency, the*~~  
17 ~~*board may provide compensation for his services in addition to*~~  
18 ~~*his salary as county surveyor which shall be payable from the*~~  
19 ~~*funds of the agency. The board may employ the county counsel*~~  
20 ~~*as the attorney for the agency and may provide compensation for*~~  
21 ~~*his services in addition to his salary as county counsel which shall*~~  
22 ~~*be payable from the funds of the agency. All other officers of the*~~  
23 ~~*county, and their assistants, deputies, clerks, and employees, shall*~~  
24 ~~*be ex officio officers, assistants, deputies, clerks and employees*~~  
25 ~~*respectively of the agency, and shall perform, unless otherwise*~~  
26 ~~*provided by the board, the same duties for the agency as performed*~~  
27 ~~*for the county.*~~

28 *SEC. 28. If the Commission on State Mandates determines that*  
29 *this act contains costs mandated by the state, reimbursement to*  
30 *local agencies and school districts for those costs shall be made*  
31 *pursuant to Part 7 (commencing with Section 17500) of Division*  
32 *4 of Title 2 of the Government Code.*

O



## EXHIBIT "J"



**IRVINE RANCH WATER DISTRICT**

15600 Sand Canyon Avenue • P.O. Box 57000 • Irvine, California 92619-7000 • (949) 453-5300 • [www.irwd.com](http://www.irwd.com)

March 30, 2016

The Honorable Robert Hertzberg  
Senate Governance & Finance Committee  
State Capitol, Room 408  
Sacramento, California 95814

**RE: SB 974 (COMMITTEE): SUPPORT**

Dear Chairman Hertzberg:

On behalf of the Irvine Ranch Water District, I write in support of SB 974 (Committee), the annual Senate Local Government Omnibus Bill. This measure proposes relatively minor, noncontroversial changes to the laws affecting local agencies' powers and duties that do not warrant separate and expensive bills.

The Irvine Ranch Water District is a local agency that delivers water and sewer services to more than 380,000 customers. As a local government agency, we must comply with the many statutes affecting both water agencies and local agencies. We appreciate the convenience of cleaning up errors or omissions in the statutes through the annual omnibus bill.

The "Local Government Omnibus Act of 2016" proposes changes to statutes affecting local agencies' powers and duties, including general plan elements, county recorders, veterans' records, financial transaction reports and consistency across existing statutes authorizing local agencies to adopt either an ordinance or a resolution, among others.

For these reasons, we strongly urge an "AYE" vote on SB 974. Please do not hesitate to contact me at (949) 453-5590 or our Sacramento Advocate, Maureen O'Haren, at (916) 498-1900 if you have questions regarding our position on this measure.

Sincerely,

A handwritten signature in blue ink, appearing to read "Paul A. Cook".

Paul A. Cook  
General Manager

cc: The Honorable Members, Senate Governance & Finance Committee  
Brian Weinberger, Chief Consultant, Senate Governance & Finance Committee  
Ryan Eisberg, Senate Republican Policy Consultants  
Camille Wagner, Office of the Governor

**Introduced by Senator Wolk**

February 19, 2016

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An act to add Article 2.10 (commencing with Section 65891) to Chapter 4 of Division 1 of Title 7 of the Government Code, relating to land use.

LEGISLATIVE COUNSEL'S DIGEST

SB 1317, as introduced, Wolk. Conditional use permit: groundwater extraction facility.

The California Constitution requires the reasonable and beneficial use of water and that the conservation of the water resources of the state is to be exercised with a view to the reasonable and beneficial use of the water in the interest of the people and for the public welfare. Existing law, the Sustainable Groundwater Management Act, requires all groundwater basins designated as high- or medium-priority basins by the Department of Water Resources that are designated as basins subject to critical conditions of overdraft to be managed under a groundwater sustainability plan or coordinated groundwater sustainability plans by January 31, 2020, and requires all other groundwater basins designated as high- or medium-priority basins to be managed under a groundwater sustainability plan or coordinated groundwater sustainability plans by January 31, 2022, except as specified.

This bill, by July 1, 2017, would require a city or county overlying a basin designated as a high- or medium-priority basin to establish a process for the issuance of conditional use permits for the development of a groundwater extraction facility in order to prevent a new groundwater extraction facility from contributing to or creating an undesirable result, as prescribed. By increasing the duties of cities and counties, this bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: yes.

*The people of the State of California do enact as follows:*

1 SECTION 1. Article 2.10 (commencing with Section 65891)  
2 is added to Chapter 4 of Division 1 of Title 7 of the Government  
3 Code, to read:

4  
5 Article 2.10. Aquifer Protection

6  
7 65891. The Legislature finds and declares as follows:

8 (a) Groundwater provides substantial water supplies for many  
9 farms and communities across the state, particularly in drier years.  
10 While in some parts of the state groundwater is very well managed,  
11 in other parts there has been substantial groundwater overdraft.

12 (b) During California’s record drought, there has been a  
13 substantial increase in the extraction of groundwater resulting in  
14 impacts to aquifers.

15 (c) In 2014, California adopted landmark legislation, the  
16 Sustainable Groundwater Management Act (Part 2.74 (commencing  
17 with Section 10720) of Division 6 of the Water Code), to  
18 sustainably manage groundwater resources. The act will not be  
19 fully implemented for many years, allowing groundwater overdraft  
20 to continue in some regions.

21 (d) Despite the drought, there has been a substantial and  
22 dramatic increase in conversion of existing pastureland and  
23 nonirrigated lands to new permanent crops irrigated by new deep  
24 groundwater wells. In many parts of the central valley, these new  
25 orchards and groundwater wells have caused or contributed to  
26 existing groundwater wells drying up. These new groundwater  
27 wells exacerbate overdraft in some regions of the state and have  
28 harmed and will continue to harm groundwater supplies for existing  
29 farms and rural communities and the long-term viability of aquifers.

1 (e) A number of new developments also rely on individual new  
2 wells, further stressing overdrafted groundwater basins.

3 (f) The number of new wells supplying significant new demands  
4 for groundwater has resulted in alarming subsidence in many areas  
5 of California. Subsidence threatens statewide resources and  
6 infrastructure such as roads, highways, and aqueducts. Importantly,  
7 subsidence may also cause permanent damage to aquifers,  
8 threatening groundwater resources for future generations.

9 (g) The lack of protection for aquifers, existing groundwater  
10 users, and important infrastructure from the explosive increase in  
11 new wells is an issue of statewide importance and requires  
12 statewide regulation to avoid undesirable results to groundwater  
13 and statewide resources while local communities are working to  
14 comply with the provisions of the Sustainable Groundwater  
15 Management Act. Preventing undesirable results in a high- or  
16 medium-priority basin pursuant to this article and in furtherance  
17 of Section 113 of the Water Code is a matter of statewide concern  
18 and not a municipal affair, as that term is used in Section 5 of  
19 Article XI of the California Constitution. Therefore, this act applies  
20 to charter cities.

21 (h) This act is in furtherance of the policy contained in Section  
22 2 of Article X of the California Constitution.

23 65891.1. As used in this article:

24 (a) “Basin” has the meaning provided in Section 10721 of the  
25 Water Code.

26 (b) “Bulletin 118” has the meaning provided in Section 10721  
27 of the Water Code.

28 (c) “De minimis extractor” has the meaning provided in Section  
29 10721 of the Water Code.

30 (d) “Department” means the Department of Water Resources.

31 (e) “Groundwater” has the meaning provided in Section 10721  
32 of the Water Code.

33 (f) “Groundwater extraction facility” has the meaning provided  
34 in Section 10721 of the Water Code.

35 (g) “High-priority basin,” “medium-priority basin,” “low-priority  
36 basin,” and “very low priority basin” have the same meaning as  
37 the categorization of a basin by the department pursuant to Section  
38 10722.4 of the Water Code.

39 (h) “Probationary basin” has the meaning provided in Section  
40 10735 of the Water Code.

1 (i) “Undesirable result” has the meaning provided in Section  
2 10721 of the Water Code.

3 65891.2. (a) A city or county overlying a basin designated as  
4 a high- or medium-priority basin shall do both of the following:

5 (1) By July 1, 2017, establish a process for the issuance of a  
6 conditional use permit for the development of a groundwater  
7 extraction facility that imposes conditions on the development of  
8 a new groundwater extraction facility in order to prevent the new  
9 groundwater extraction facility from contributing to or creating  
10 an undesirable result.

11 (2) Prohibit the issuance of a conditional use permit for a new  
12 groundwater extraction facility in either of the following:

13 (A) A probationary basin.

14 (B) A basin designated in Bulletin 118 as a basin subject to  
15 critical conditions of overdraft.

16 (b) A conditional use permit for the development of a  
17 groundwater extraction facility shall not be required for either of  
18 the following:

19 (1) A de minimis extractor.

20 (2) The replacement of an existing groundwater extraction  
21 facility with a new groundwater extraction facility with the same  
22 or a lesser extraction capacity. For the purposes of this article,  
23 replacement includes the deepening of a groundwater extraction  
24 facility.

25 (c) A city or county overlying a basin designated as a low- or  
26 very low priority basin may adopt an ordinance establishing a  
27 process for the issuance of conditional use permits for the  
28 development of a groundwater extraction facility in accordance  
29 with this section.

30 65891.3. (a) A city or county shall review an application for  
31 a groundwater extraction facility pursuant to the timelines  
32 established in the Permit Streamlining Act (Chapter 4.5  
33 (commencing with Section 65920)).

34 (b) A fee charged by a city or county to review an application  
35 for a groundwater extraction facility shall be determined in  
36 accordance with Sections 66014 and 66016.

37 65891.4. This article does not require a city or county to  
38 establish a new process for the issuance of a conditional use permit  
39 for the development of a groundwater extraction facility if the city  
40 or county has in effect an ordinance adopted before January 1,

1 2017, that imposes conditions on the development of a new  
2 groundwater extraction facility in order to prevent the new  
3 groundwater extraction facility from contributing to or creating  
4 an undesirable result.

5 SEC. 2. No reimbursement is required by this act pursuant to  
6 Section 6 of Article XIII B of the California Constitution because  
7 a local agency or school district has the authority to levy service  
8 charges, fees, or assessments sufficient to pay for the program or  
9 level of service mandated by this act, within the meaning of Section  
10 17556 of the Government Code.

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**IMPROVING RELIABILITY AND SAFETY FOR DROUGHTS AND FLOODS**

PREPARED BY SONOMA COUNTY WATER AGENCY

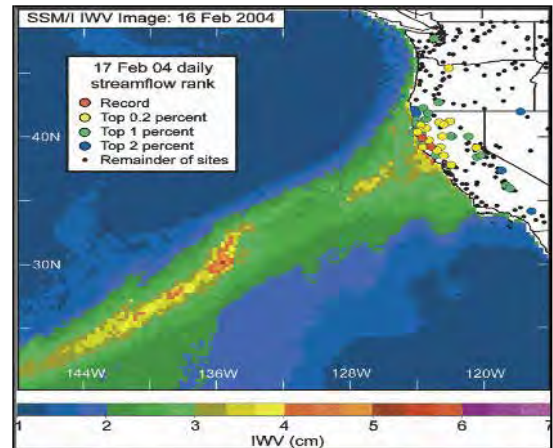
**SONOMA COUNTY WATER AGENCY REQUEST**

1. Include in FY17 Corps budget +\$5.5M within the Water Operations Technical Support (WOTS) program within Operations and Maintenance, Flood Risk Management. (The FY16 omnibus appropriations included \$5.5M).
2. Include in the FY17 NOAA budget +\$5.0M within Physical Sciences Division of Office of Atmospheric Research, specifically for atmospheric rivers work on the west coast.

Recent droughts highlight the need for access to the latest weather and seasonal forecasting and environmental data, which offer the opportunity for (a) improved operations to increase water supply while maintaining critical flood control and (b) enhanced public safety for extreme precipitation events.

**THE PROBLEM**

**Water Operations:** U.S. Army Corps of Engineers (Corps) reservoirs are managed through Water Control Plans and Reservoir Regulation Schedules, many of which were developed over a half century ago and have not been updated in decades. The Corps can periodically review and update these according to evolving conditions. The Manual utilizes gross estimates of flood potential to establish reservoir storage and release requirements. It does not account for changing conditions in the watershed—for example, increased variation in dry and wet weather patterns and reductions to imported flows. Given the ongoing drought, some adjustments to the current reservoir operating procedures may be possible by incorporating modern observation and prediction technology. Such improvements would reduce flood risk during extreme weather events by supporting decisions of greater reservoir level drawdown in advance of storms.



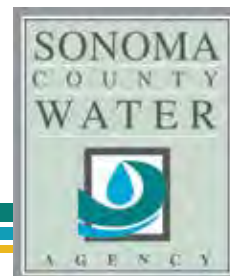
Atmospheric river hitting the U.S. West Coast: from Ralph et al. 2006

**Public Safety:** NOAA and California are working to improve ocean buoy and radar systems and technical modeling to provide better lead-time and prediction precision to estimate amounts and locations of extreme weather events. The results will benefit road, rail, air and sea transportation; reservoir, drinking water, sewer and wastewater management; and wetlands, irrigation and general watershed management.

**THE SOLUTION**

**Forecast-Informed Reservoir Operations (FIRO)**

An interagency Steering Committee was formed to explore methods to better balance flood control and water supply needs. The Committee, consisting of state and federal agencies,



and Sonoma County Water Agency are working together on a viability study to determine if Forecast-Informed Reservoir Operations (FIRO) at Lake Mendocino in Sonoma County can improve water supply, maintain flood risk reduction, and achieve additional ecosystem benefits. Recent studies show the potential for improved predictability of atmospheric rivers, narrow bands of enhanced water vapor which provide approximately half of the region's precipitation and cause most of the Russian River's floods.

FIRO is a management strategy that uses data from watershed monitoring and modern weather and water forecasting to help water managers selectively retain or release water from reservoirs in a manner that reflects current and forecasted conditions. FIRO's utilization of modern technology can help to:

*Improve Supply Reliability for Downstream Uses* – When storms cause moderate-to-high reservoir levels, normal operation is to release water to re-establish flood control space. Some of that water could be retained for future supply as long as no major precipitation is predicted for several days and it can be demonstrated that the retained water can be released past downstream flood prone areas before the arrival of the next storm. This strategy will permit earlier supply capture in some years, improving summer season supply reliability for downstream water users and improving the timing and volume of releases to protect water quality and provide flows needed for recovery of fisheries.

For example, following an atmospheric river event that delivered a significant amount of rain in December 2012, water was released to create flood space according to the Manual, dropping reservoir levels by more than 35%. 2013 was the driest year on record, resulting in little inflow to refill the reservoir. By December 2013, lake levels were extremely low and remained low through 2014. Ideally, water from the December 2012 event could have been retained based on longer-term precipitation forecasts, lessening the impact of drought.

#### **Advanced Quantitative Precipitation Information (AQPI)**

The partners are working to fill in the hardware gaps through buoys and radar upgrades. Combined with enhanced modeling and data research, the infrastructure upgrades will allow for more accurate predictive capabilities on the west coast for extreme precipitation events. The economic benefits study shows substantial return for the investment.

#### **THE REQUEST**

The strategy is three-fold. First, funding is required to assess how new research and observations could improve reservoir operations, which would create opportunities to bridge gaps between historically rigid operations manuals and newfound predictability of atmospheric rivers. The goal is to develop necessary data for the Corps to safely update standard flood control guidelines to improve water supply and environmental outcomes without diminishing flood risk reduction or dam safety. Second, as more is understood about regions and specific watersheds, funding would be focused on improvements that can have the greatest potential of optimizing water storage, flood control, and water management. Third, when advances are made, support for a vibrant federal program could ensure updates to reservoir operations and other community water management activities.

For more information, please contact Brad Sherwood with SCWA at (707) 547-1927.





## FACT SHEET: LAKE MENDOCINO FORECAST INFORMED RESERVOIR OPERATIONS PRELIMINARY VIABILITY ASSESSMENT WORK PLAN

**PURPOSE:** The Lake Mendocino Forecast Informed Reservoir Operations (FIRO) Preliminary Viability Assessment Work Plan (Work Plan) describes an approach for using modeling, forecasting tools and improved information to determine whether the Lake Mendocino Water Control Manual can be adjusted to improve flood-control and water supply operations. This proof-of-concept FIRO viability assessment uses Lake Mendocino as a model that could be applied to other reservoirs.

**BACKGROUND:** The 1959 Lake Mendocino Water Control Manual (with minor updates in 1986), specifies reservoir elevations to control flooding and establishes the volume of storage that may be used for water supply. The Manual was developed using the best information available at the time, but it has not been adjusted to reflect changing climate conditions and reduced inflows over the past 30 years.

**FIRO WORK PLAN:** The FIRO Steering Committee\* has developed a work plan for assessing the viability of FIRO to take advantage of current science and technology. FIRO employs modern observation and prediction technology to enable water managers more lead time to selectively retain or release water from reservoirs based on longer-term forecasts. Optimizing reservoir operations benefits water supply and environmental flows without diminishing flood control or dam safety.

This Work Plan presents an approach for conducting a proof-of-concept FIRO viability assessment using Lake Mendocino as a model. Specifically, it outlines a process for evaluating whether FIRO can support adjustments to the Manual. The work plan describes current technical and scientific capabilities, and outlines technical/scientific analyses and future programs to demonstrate the potential of FIRO to improve reservoir management.

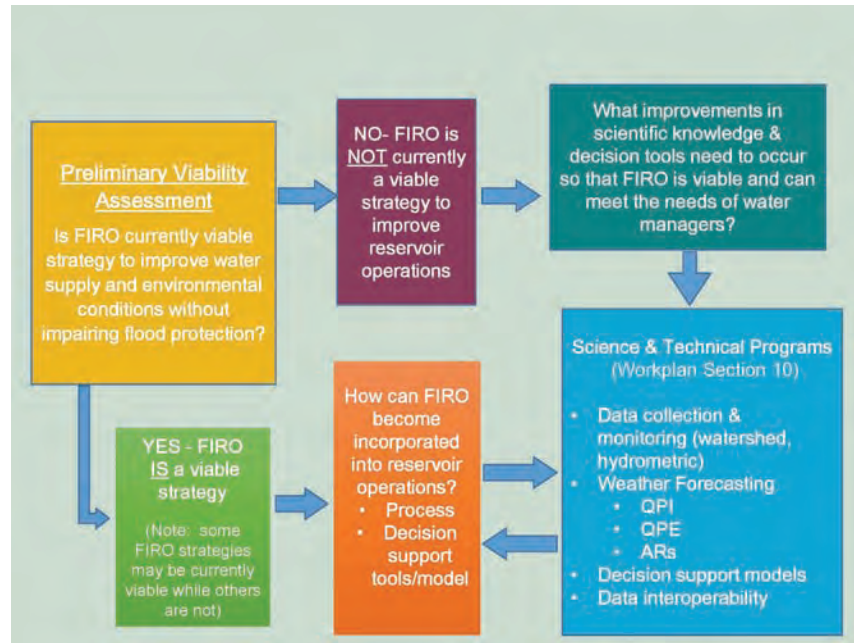
The assessment will present a suite of actions ranging from practical, short-term steps to longer-term research needs. If deemed viable, FIRO will be likely be implemented incrementally, as science evolves and implementation criteria are met. FIRO follows adaptive management principles for continual improvement of reservoir operations. In the case of Lake Mendocino, and much of the West Coast, this hinges on opportunistically applying advances in monitoring and predicting atmospheric rivers, their associated precipitation and runoff.

While aimed at benefitting Lake Mendocino, the project has transferability potential, thus the work plan will document a process that can be replicated in other watersheds. It consists of the following steps:

- Develop evaluation criteria and methodology
- Develop evaluation scenarios
- Identify science needs and carry out necessary research projects.
- Evaluate model results
- Evaluate FIRO viability (preliminary) and assess benefits
- Develop implementation strategies

(over) →

The flow chart below shows how the assessment decisions will be made:



The general timeframe for conducting the preliminary viability assessment is illustrated below:

July-September 2015	October-December 2015	January - March 2016	April - June 2016	July - September 2016	October - December 2016
<ul style="list-style-type: none"> <li>• Complete work plan</li> <li>• Form task groups</li> <li>• Assess information</li> <li>• Identify monitoring sites</li> <li>• Develop evaluation criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Develop study strategy</li> <li>• Agree on scenarios, inputs</li> <li>• Convene modeling discussion</li> <li>• Develop evaluation scenarios</li> <li>• Evaluate past forecast performance</li> </ul>	<ul style="list-style-type: none"> <li>• Assemble models</li> <li>• Develop policy scenarios</li> <li>• Install monitoring stations</li> <li>• Evaluate past reservoir operations</li> </ul>	<ul style="list-style-type: none"> <li>• Preliminary model results available</li> <li>• Begin economic benefits analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Finalize modeling results</li> <li>• Conduct stress test</li> <li>• Continue economic benefits assessment</li> <li>• Synthesize atmospheric river advances</li> </ul>	<ul style="list-style-type: none"> <li>• Complete Preliminary FIRO viability assessment</li> <li>• Refine scenario testing for years 2 &amp; 3</li> <li>• Identify priority research activities</li> </ul>

**STEERING COMMITTEE CO-CHAIRS**

**Jay Jasperse**  
Sonoma County Water Agency

**F. Martin Ralph**  
Center for western Weather and Water Extreme

**STEERING COMMITTEE MEMBERS**

**Michael Anderson**  
California State Climate Office,  
Department of Water Resources

**Michael Dettinger**  
United States Geological Survey

**Patrick Rutten**  
NOAA Restoration Center

**Levi Brekke**  
Bureau of Reclamation

**Rob Hartman**  
NOAA's National Weather Service

**Cary Talbot**  
US Army Corps of Engineers

**Mike Dillabough**  
US Army Corps of Engineers

**Christy Jones**  
US Army Corps of Engineers

**Robert Webb**  
NOAA's Earth System  
Research Laboratory

**SUPPORT STAFF**

**David Ford**  
David Ford Consulting Engineers

**Arleen O'Donnell**  
Eastern Resarch Group

**Ann DuBay**  
Sonoma County Water Agency

April 11, 2016

Prepared by: K. Welch *KW*

Submitted by: F. Sanchez/P. Weghorst *FW*

Approved by: Paul Cook *PC*

## CONSENT CALENDAR

### SECOND AMENDED WATER SUPPLY ASSESSMENT FOR SANTIAGO HILLS II AND VERIFICATION FOR TRACTS 16199 AND 17995

#### SUMMARY:

In March 2016, staff received a request from the City of Orange to complete an amended Water Supply Assessment (WSA) as required under SB 610 for the Santiago Hills II project and a Verification of Sufficient Supply (WSV) for the Santiago Hills II Tracts 16199 and 17995. Staff has completed a Second Amended WSA for the project and the WSV for the tracts and recommends Board approval of the documents.

#### BACKGROUND:

The City of Orange's proposed Santiago Hills II project is located near the corner of Chapman Avenue and Jamboree Road in the City of Orange. In March 2016, staff received a request from the City to prepare an amended WSA for the project and a WSV for associated tracts. A location map of the project is attached as Exhibit "A".

#### Water Supply Assessment:

On January 26, 2004, the Board approved a WSA for the Santiago Hills Phase II and East Orange Planning Areas 1, 2 and 3. Subsequently, in March 2004, the Board approved an Amended WSA at the City's request to reflect revisions in the development phasing. The demands for the Santiago Hills Phase II and East Orange Planning Areas 1, 2 and 3 were incorporated into the District's demand forecasting and were included in IRWD's 2010 Urban Water Management Plan. The overall project included 4,096 dwelling units, a hotel, a golf course and an elementary school. At the time of the WSA and WSV, IRWD did not plan to serve recycled water to this area.

#### *Reduced Project:*

Since 2004, the planned development has been reduced and the City of Orange has requested a revised and updated WSA and WSV. The revised project will be limited to development within Santiago Hills Phase II, and the number of dwelling units has been reduced by 2,916 to 1,180. A WSA has been completed in response to the City's request for the revised project and is provided as Exhibit "B". It is based on information from IRWD's Water Resources Master Plan. Estimates show a net decrease of 2,841 acre-feet per year (AFY) in potable water demands for the project and an increase of 358 AFY of non-potable demand. There are now projected non-potable demands for this project due to the expected expansion of IRWD's recycled water system in the area.

The WSA concludes that 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.

Verification of Sufficient Water Supply:

On January 14, 2004, the Board approved a WSV for Tracts 16199 and 16201 in Santiago Hills II and Tract 16514 in East Orange. As a result of the reduced proposed development, the City of Orange revised the tract map for Tract 16199 and created a new tract map for Tract 17995. As required under SB 221, staff has prepared a WSV for Tracts 16199 and 17995 as provided in Exhibit "C". This new WSV now supersedes the previous WSV.

The WSV for the requested tract maps is based on the WSA containing IRWD's determination that a sufficient water supply is available. The information in the WSV, together with the Second Amended WSA completed by IRWD in March 2016, reflects the District's confirmation that the project water demands, together with demands from 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.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

These studies are 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 April 6, 2016.

RECOMMENDATION:

THAT THE BOARD APPROVE THE SECOND AMENDED WATER SUPPLY ASSESSMENT FOR THE SANTIAGO HILLS II PROJECT AND THE VERIFICATION OF SUFFICIENT WATER SUPPLY FOR TRACTS 16199 AND 17995.

Consent Calendar: Second Amended Water Supply Assessment for Santiago Hills II and  
Verification for Tracts 16199 and 17995  
April 11, 2016  
Page 3

**LIST OF EXHIBITS:**

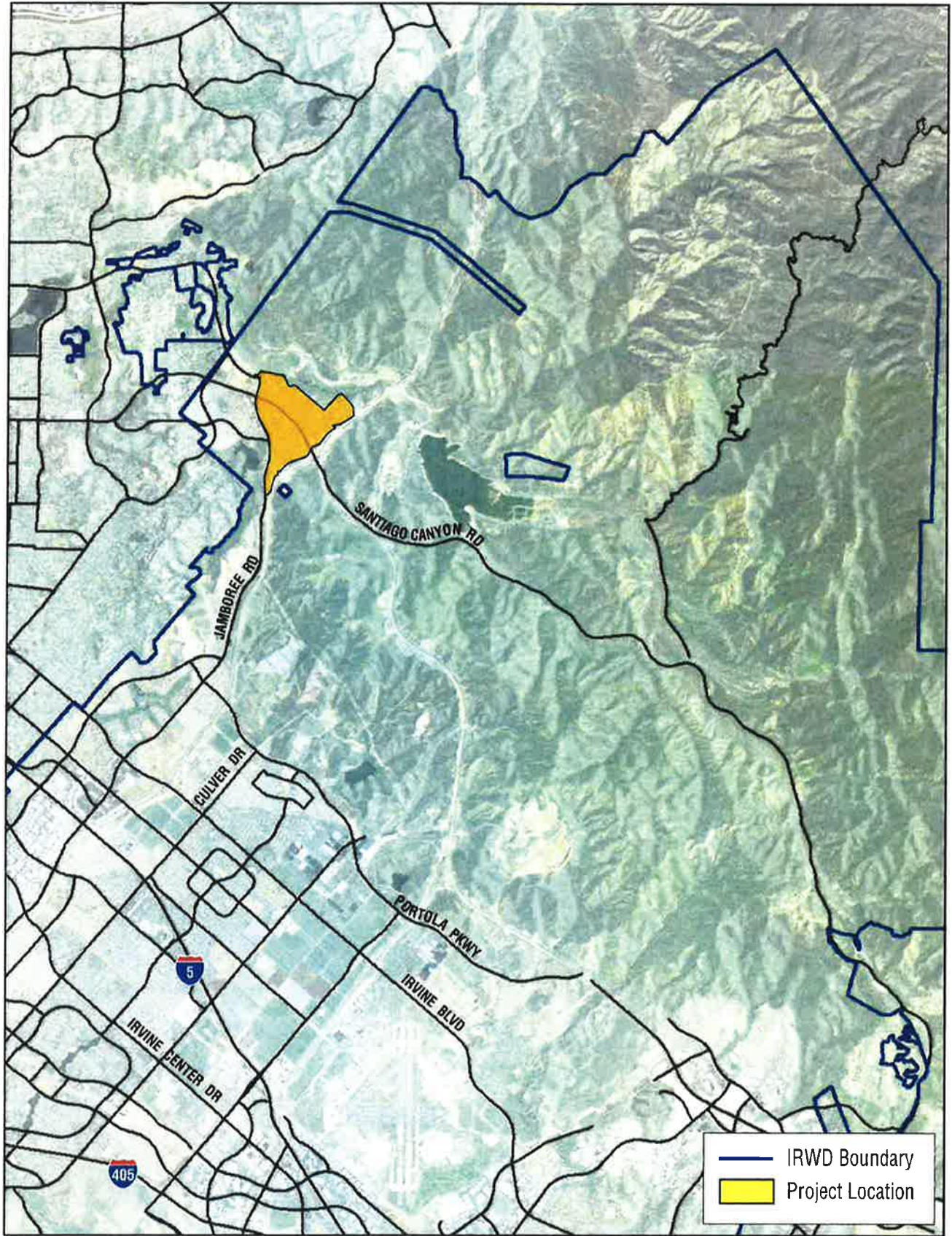
Exhibit "A" – Location Map

Exhibit "B" – Second Amended Water Supply Assessment for Santiago Hills II project

Exhibit "C" – Verification of Sufficient Water Supply for Tracts 16199 and 17995



EXHIBIT "A"



**Michael Baker**  
INTERNATIONAL



0 4,000 8,000  
Feet

2/15/16 JN 147817-21302 MAS

SANTIAGO HILLS II SAMP UPDATE  
**Site Vicinity Map**

EXHIBIT "B"

SECOND AMENDED  
IRVINE RANCH WATER DISTRICT  
ASSESSMENT OF WATER SUPPLY  
Water Code §10910 et seq.

To: (Lead Agency)

City of Orange  
300 E. Chapman Avenue  
Orange, CA 92866-1591

(Applicant)  
The Irvine Company  
550 Newport Center Drive  
Newport Beach, CA 92658-6370

Project Information

Project Title: Santiago Hills II (Exhibit A)

- Residential: No. of dwelling units: 1,180
- Shopping center or business: No. of employees \_\_\_\_\_ Sq. ft. of floor space \_\_\_\_\_
- Commercial office: No. of employees \_\_\_\_\_ Sq. ft. of floor space \_\_\_\_\_
- Hotel or motel: No. of rooms \_\_\_\_\_
- Industrial, manufacturing or processing: No. of employees \_\_\_\_\_ No. of acres \_\_\_\_\_  
Sq. ft. of floor space \_\_\_\_\_
- Mixed use (check and complete all above that apply) (see Exhibit B)
- Other: \_\_\_\_\_

Assessment of Availability of Water Supply

On \_\_\_\_\_, the Board of Directors of the Irvine Ranch Water District (IRWD) approved the within assessment and made the following determination regarding the above-described Project:

- The projected water demand for the Project  was  was not included in IRWD's most recently adopted urban water management plan.
- 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. [Plan for acquiring and developing sufficient supply attached. Water Code § 10911(a)]

The foregoing determination is based on the following Water Supply Assessment Information and supporting information in the records of IRWD.

Signature	Date	Title
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## 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. 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. This Second Amended Assessment supersedes the Amended Assessment dated March 8, 2004, to adjust water demand figures as shown in Figures 1 through 8 based on reduced land use densities of the proposed Project development as requested by letter of the City of Orange dated April 1, 2016.

### 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 most recent update of that document was adopted June 13, 2011. IRWD’s next update of that document is anticipated in June 2016.



In addition to the WRMP and the 2010 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. System losses at a rate of approximately 5% are built into the water use factors. 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 2010 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).

**Planning horizon.** For consistency with IRWD's WRMP, the assessment reviews demands and supplies through the year 2036, 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 2036):

- 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; recycled 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 majority of all of IRWD's potable supply, and recycled water, groundwater and imported water comprise all 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 Draft 2015 Urban Water Management Plan<sup>1</sup> (MWD UWMP) shows that MWD has sufficient supply capabilities to meet expected demands from 2020 through 2040 under 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.) Recycled 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 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 year conditions through the year 2036. (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 2036. (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 2036. (Figures 5, 6, 7 and 8). IRWD has proceeded with the implementation of future 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.
- 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

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<sup>1</sup> MWD expects to adopt its Draft 2015 UWMP in April, 2016.

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 have an effect on State Water Project (SWP) operations and supplies. On June 4, 2009, a federal biological opinion imposed rules that 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 (BDCP) process are defining long-term solutions for the Delta. In addition, State and federal agencies and water user entities are currently engaged in the development of the BDCP/California WaterFix, which is aimed at making physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, south of Delta SWP water supplies and water quality (MWD UWMP). 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 address uncertainties in expected SWP supplies, in October 2007, MWD prepared 2007 IRP Implementation Report, in which MWD estimated that it could see as much as up to a 22% reduction on average of its SWP supplies based on the court order. To comprehensively address the impacts of the SWP cut back on MWD's water supply development targets, in December 2007, MWD brought to its Board a strategy and work plan to update the long-term Integrated Resources Plan (IRP). As part of its ongoing long term planning, in its 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 2010 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. MWD's reliability goal that full-service demands at the retail level will be satisfied for all foreseeable hydrologic conditions remained unchanged in the 2010 IRP Update. 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.

In January 2016, MWD adopted its 2015 IRP Update. In the 2015 IRP Update, MWD continued its adaptive management strategy and integrated future supply actions to improve the viability of potential contingency resources as needed, and to position the region to effectively implement these resources in a timely manner. The 2015 IRP finds additional action is needed in investments in conservation, local supplies, the California WaterFix, and stabilizing Colorado River supplies. Among the supply actions, MWD will continue to work collaboratively with state and federal agencies on the WaterFix, maximize its storage and transfer approach, and continue to develop and protect local supplies and conservation.

***IRWD's Evaluation of Effect of Reduced MWD Supplies to IRWD:*** In the MWD UWMP, MWD states it has supply capability that would be sufficient to meet expected demands from 2020 to 2040 under single dry year and multiple dry year conditions.<sup>2</sup>

Based on the prior MWD 2007 IRP Implementation Report, as a result of the 2007 federal court order, MWD estimated that it could receive reduction of SWP supplies of up to 22% on average until a long term solution was implemented. For purposes of ensuring a conservative analysis, IRWD made an evaluation of the effect of the 22% estimated reduction of MWD's SWP supplies on its overall imported supplies. IRWD estimates that 22% reduction of SWP supplies conservatively translates to approximately 16% reduction in all of MWD's imported supplies over the years 2015 through 2035. For this purpose it is assumed that MWD's total supplies consist only of imported SWP and Colorado deliveries. Based on this estimate, this assessment uses a 16% reduction in MWD supplies available to IRWD for the years 2015 through 2036, 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.

Per the MWD UWMP, MWD performs water shortage planning in its Water Surplus and Drought Management (WSDM) Plan (1988) which guides MWD's planning and operations during both shortage and surplus conditions. Furthermore, MWD developed the Water Supply Allocation Plan (WSAP) (February 2009, updated December 2014) which provides standardized methodology for allocation of MWD's supplies during times of shortage. The WSDM Plan distinguishes between shortages, severe shortages and extreme shortages. These terms have specific meanings relating to MWD's ability to deliver water and the actions it takes. In June 2008, MWD's Board adopted a Water Supply Condition Framework to communicate the urgency of the region's water supply situation and the need for further water conservation to reduce regional demands, MWD uses the WSDM Plan and Framework to determine if a WSAP is recommended.

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<sup>2</sup> MWD's UWMP utilized DWR's 2015 SWP Delivery Capability Report to estimate its SWP supplies for 2015 through 2040. These estimates incorporate the effect of regulatory requirements in accordance with biological opinions and also reflect potential impacts of climate change on SWP operations. Tables A.3-7 (MWD's UWMP) reflect a reduction of approximately 12% in MWD's expected average year SWP entitlement supplies. This amount is a smaller percentage reduction than MWD's 2007 estimate of 22% that was used by IRWD for purposes of this analysis. For purposes of a conservative analysis, IRWD uses the 22% reduction cited by MWD in its October 2007 IRP Implementation Report as the basis of IRWD's analysis.

As an alternative means of analyzing the effect of reduced MWD supplies on IRWD, Figures 1a, 2a, and 3a show IRWD's 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 a shortage stage under its WSAP, and a cutback is applied to IRWD's actual usage rather than its connected capacity. IRWD's evaluation of reduced MWD supplies to IRWD as shown in Figures 1a, 2a and 3a conservatively analyzes the effect of up to a MWD level 5 Regional Shortage Level. 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. On April 14, 2015, MWD approved the implementation of its WSAP at a level 3 Regional Shortage Level and an effective 15% reduction in regional deliveries effective July 1, 2015, through June 30, 2016. As a result of IRWD's diversified water supplies, IRWD is reliant on MWD for only 20% of its total supplies. IRWD's evaluation of reduced MWD supplies to IRWD as shown in Figures 1a, 2a and 3a for a MWD level 5 Regional Shortage Level would include MWD's 2015 actions to implement a level 3 Regional Shortage Level and 15% reduction.

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>3</sup> In addition, IRWD has developed water banking projects in Kern County, California which may be called upon for delivery of supplemental banked water to IRWD under a short-term MWD allocation.<sup>4</sup> IRWD may also convert non-potable water uses to recycled water as a way to conserve potable water. 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

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<sup>3</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 "2014-2015 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 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>4</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.

It can be noted that IRWD's above approach is conservative, in that IRWD evaluates the effect of the 16% reduction through 2036 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 2015 IRP Update, MWD recognizes there is a significant uncertainty in the negative impact of climate change on water supply reliability. MWD plans to hedge against supply and environmental uncertainties by implementing a long term plan that provides resource development to offset the risk. Some risks and uncertainty will be addressed by following the findings of MWD's 2015 IRP Update. For longer term risks, MWD established a Robust Decision Making (RDM) approach that can show how vulnerable the region's reliability is to the longer-term risks.

Per MWD's UWMP, MWD continues to incorporate current climate change science into its planning efforts. MWD's 2015 IRP Update incorporates evaluating a wider range of water management strategies and seeking robust and adaptive action plans that respond to uncertain conditions as they evolve over time, and that ultimately will perform adequately under a wide range of future conditions. MWD's 2015 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, 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 (MWD UWMP) to safeguard the region from catastrophic loss of water supply. MWD has made substantial investments in emergency storage and 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 DWR's investments in improvements on the SWP and the long term Delta plan in its UWMP (pages 3-19 to 3-22). IRWD has also addressed supply interruption planning in its WRMP and 2010 UWMP.

**Recent Actions Related to Drought Conditions.** In response to the historically dry conditions throughout the state of California, on April 1, 2015, Governor Brown issued an Executive Order directing the State Water Resources Control Board (SWRCB) to impose restrictions to achieve an aggregate statewide 25 percent reduction in potable water use through February 2016. The Governor's Order also includes mandatory actions aimed at reducing water demands, with a particular focus on outdoor water use. On May 5, 2015, the SWRCB adopted regulations which required that IRWD achieve a 16% reduction in potable water use from the 2013 levels. On November 13, 2015, Governor Brown issued an Executive Order directing the SWRCB to extend the 2015 Emergency Regulation through October 31, 2016 if drought conditions continued. On February 2, 2016, the SWRCB adopted an extended and modified Emergency Regulation. As a result of the modification, IRWD's mandated reduction was changed from 16% to 9% effective March 1, 2016. On April 14, 2015, MWD approved actions to implement the Water Supply Allocation Plan at a level 3 Regional Shortage Level and a 15% reduction in regional deliveries effective July 1, 2015, through June 30, 2016. IRWD has and will continue to implement actions to reduce potable water demands during the drought; however, this does not affect IRWD's long-term supply capability to meet the demands. As discussed under "IRWD's Evaluation of Effect of Reduced MWD Supplies to IRWD" (see above), IRWD has effectively analyzed an imported water supply reduction up to a level 5 Regional Shortage Stage in Figures 1a, 2a, 3a. These Figures do not reflect a reduction in demands thus representing a more conservative view of IRWD's supply capability. In particular, the reduction in demand mandated by Senate Bill 7 in 2010, requiring urban retail water suppliers to establish water use targets to achieve a 20% reduction in daily per capita water use by 2020, has not been factored into the demands in this analysis. Similarly, notwithstanding the Governor's order, IRWD's conservative supply-sufficiency analysis in Figures 1a, 2a and 3a does not include the ordered reduction in potable demands.

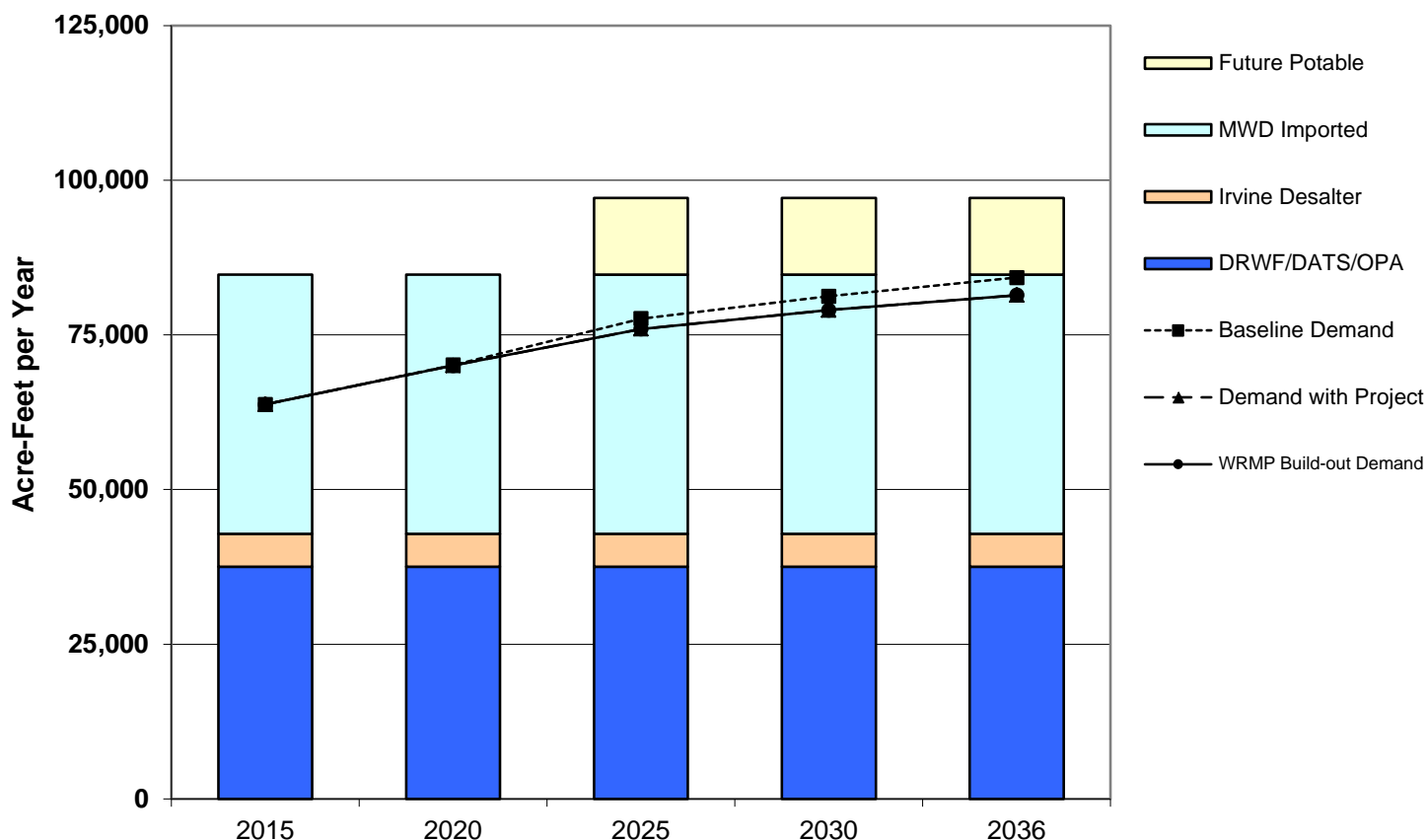


## Detailed Assessment

### 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 "Recent Actions on Delta Pumping" above.

**Figure 1  
IRWD Normal-Year Supply & Demand - Potable Water**



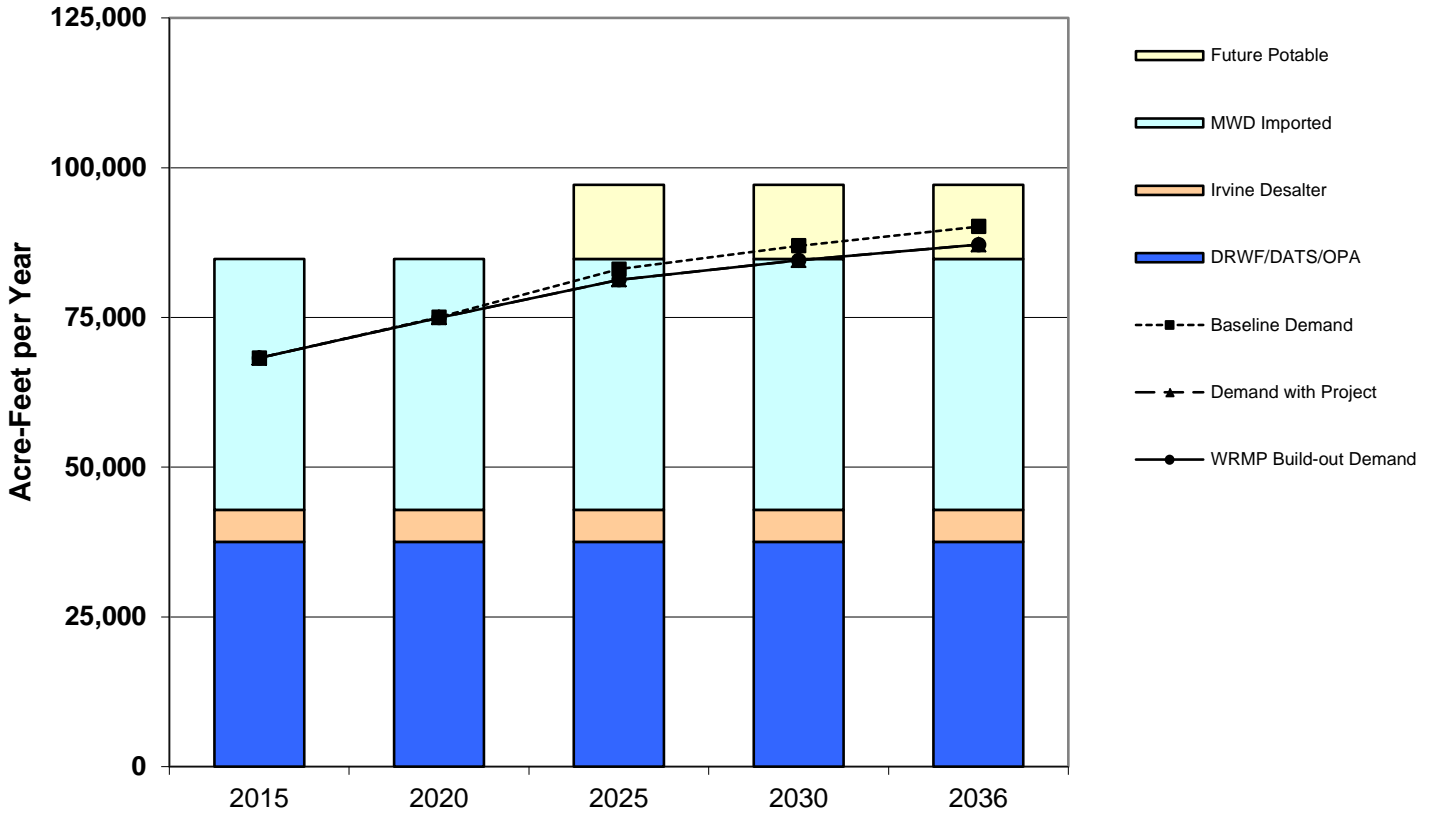
(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, Baker)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Baker Water Treatment Plant (native portion)	-	4,000	4,000	4,000	4,000
<b>Supplies Under Development</b>					
Future Potable	-	-	12,352	12,352	12,352
<b>Maximum Supply Capability</b>	<b>91,100</b>	<b>95,100</b>	<b>107,452</b>	<b>107,452</b>	<b>107,452</b>
<b>Baseline Demand</b>	<b>63,753</b>	<b>70,137</b>	<b>77,635</b>	<b>81,261</b>	<b>84,276</b>
<b>Demand with Project</b>	<b>63,753</b>	<b>70,057</b>	<b>75,968</b>	<b>79,007</b>	<b>81,435</b>
<b>WRMP Build-out Demand</b>	<b>63,753</b>	<b>70,057</b>	<b>75,968</b>	<b>79,007</b>	<b>81,434</b>
<b>Reserve Supply with Project</b>	<b>27,347</b>	<b>25,043</b>	<b>31,484</b>	<b>28,445</b>	<b>26,017</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.

Baker Water Treatment Plant will be supplied untreated imported water and native water from Irvine Lake.

**Figure 2  
IRWD Single Dry-Year Supply & Demand - Potable Water**



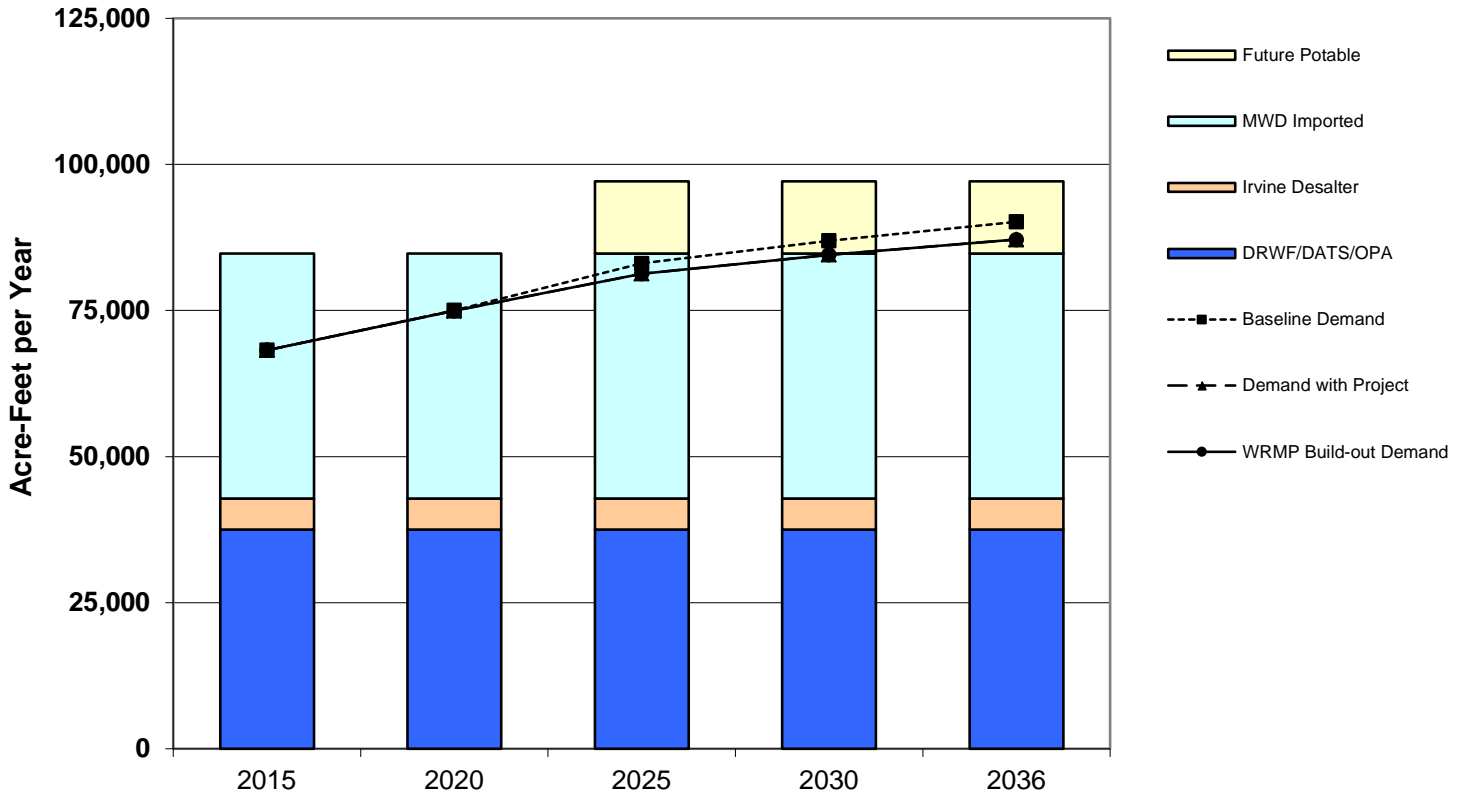
(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, Baker)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
<b>Supplies Under Development</b>					
Future Potable	-	-	12,352	12,352	12,352
<b>Maximum Supply Capability</b>	<b>91,100</b>	<b>92,100</b>	<b>104,452</b>	<b>104,452</b>	<b>104,452</b>
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,135
<b>Reserve Supply with Project</b>	<b>22,884</b>	<b>17,139</b>	<b>23,167</b>	<b>19,914</b>	<b>17,317</b>

Notes: Supplies identical to Normal-Year based on Metropolitan's 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).

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

Baker Water Treatment Plant will be supplied untreated imported water and native water from Irvine Lake.

**Figure 3  
IRWD Multiple Dry-Year Supply & Demand - Potable Water**



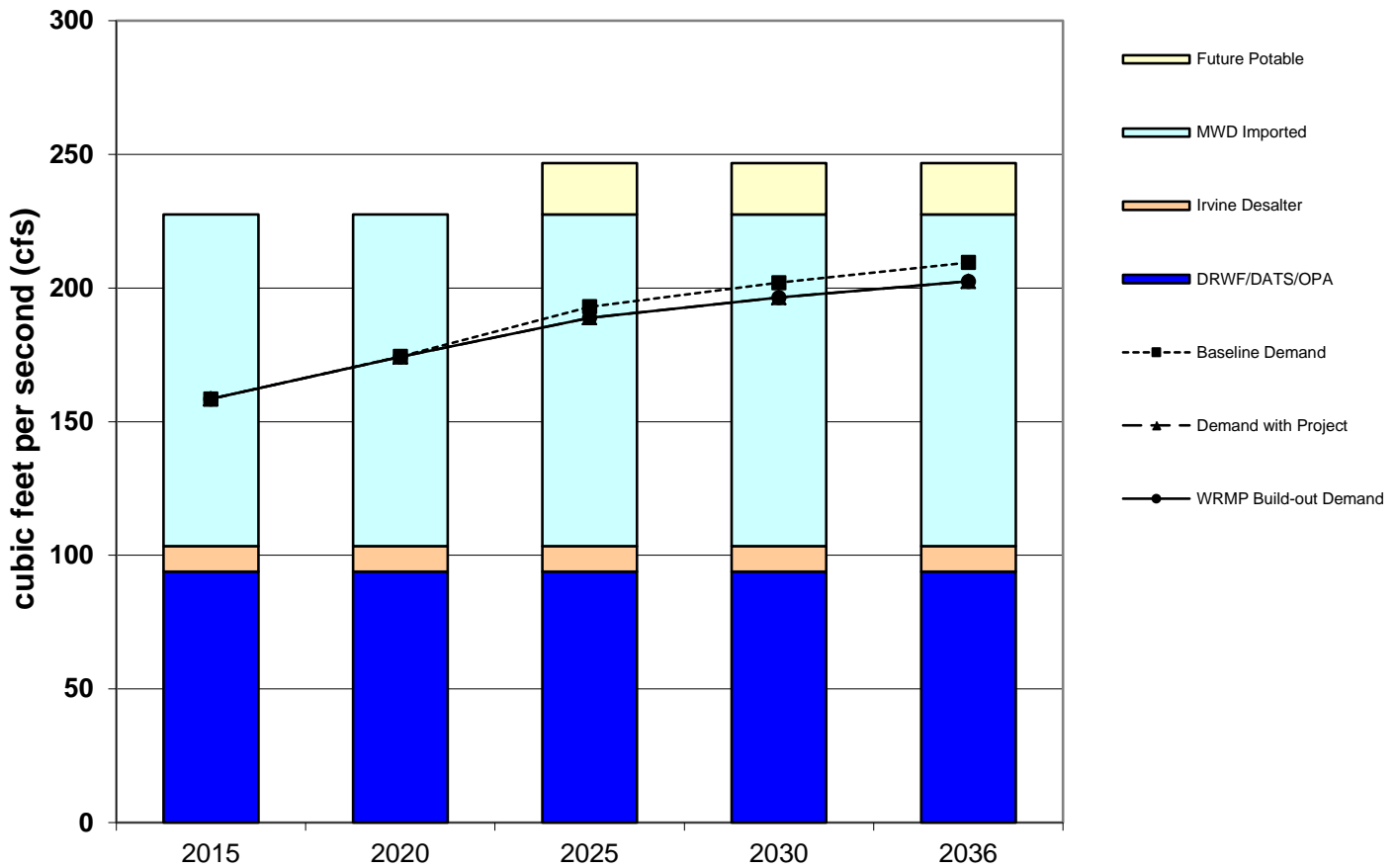
(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, B&C)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Baker Water Treatment Plant (native portic)	-	1,000	1,000	1,000	1,000
<b>Supplies Under Development</b>					
Future Potable	-	-	12,352	12,352	12,352
<b>Maximum Supply Capability</b>	<b>91,100</b>	<b>92,100</b>	<b>104,452</b>	<b>104,452</b>	<b>104,452</b>
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,135
<b>Reserve Supply with Project</b>	<b>22,884</b>	<b>17,139</b>	<b>23,167</b>	<b>19,914</b>	<b>17,317</b>

Notes: Supplies identical to Normal-Year based on Metropolitan's 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).

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

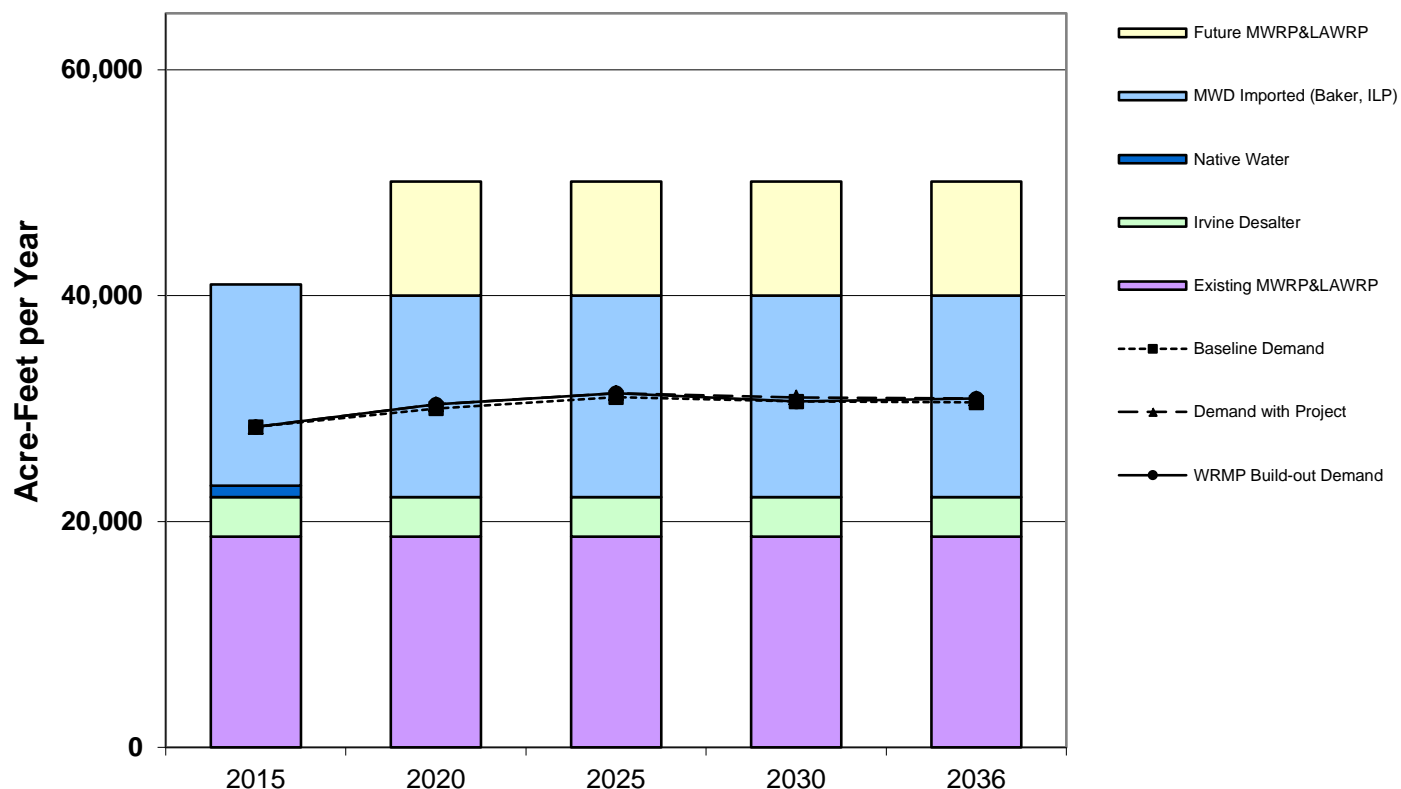
Baker Water Treatment Plant will be supplied untreated imported water and native water from Irvine Lake.

**Figure 4  
IRWD Maximum-Day Supply & Demand - Potable Water**



(in cfs)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, Baker)	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
Baker Water Treatment Plant	-	10.5	10.5	10.5	10.5
<b>Supplies Under Development</b>					
Future Potable	-	-	19.2	19.2	19.2
Maximum Supply Capability	238.4	248.9	268.1	268.1	268.1
Baseline Demand	158.5	174.4	193.0	202.0	209.5
Demand with Project	158.5	174.2	188.9	196.4	202.5
WRMP Build-out Demand	158.5	174.2	188.9	196.4	202.5
Reserve Supply with Project	79.9	74.7	79.2	71.7	65.6

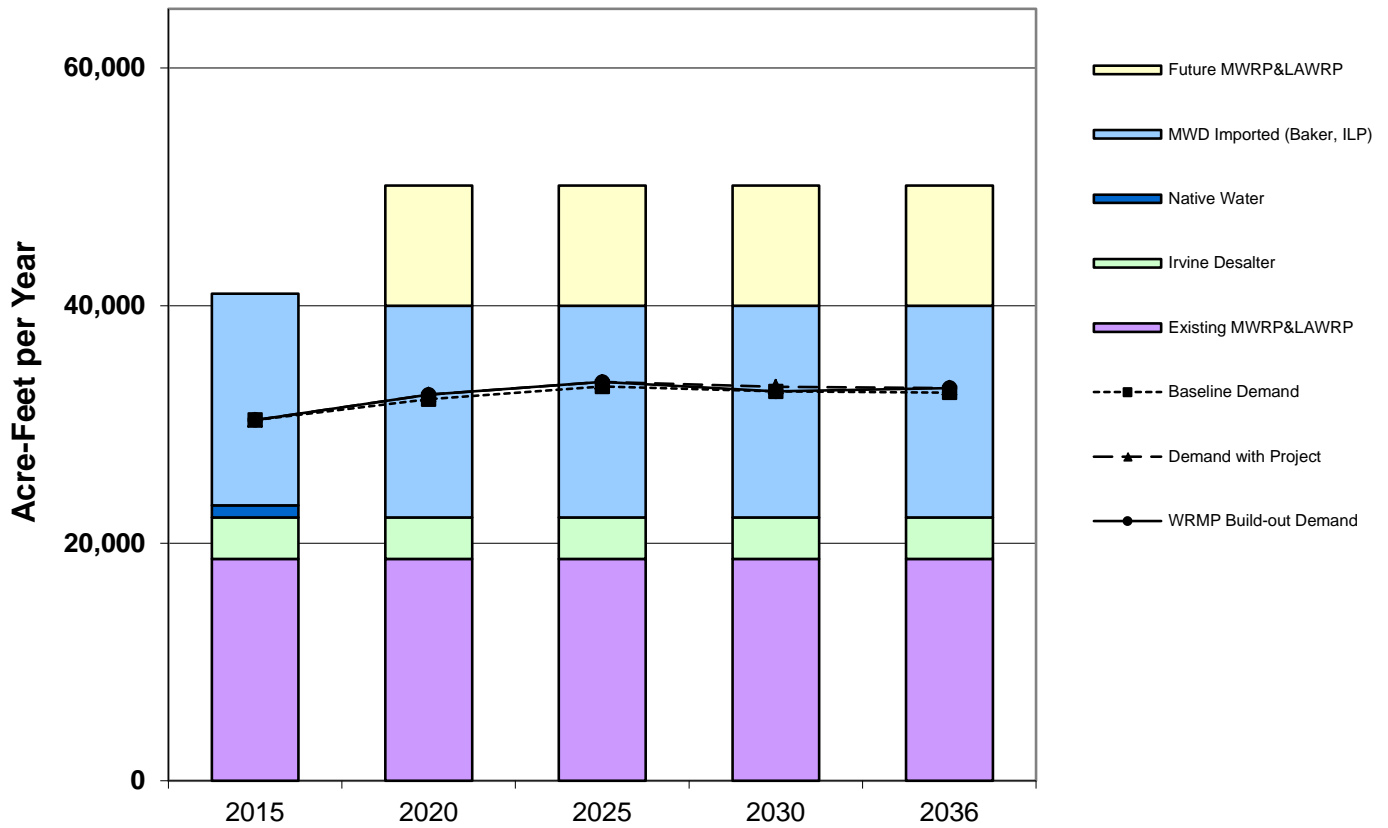
**Figure 5  
IRWD Normal-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
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	-	-	-	-
<b>Maximum Supply Capability</b>	<b>40,997</b>	<b>50,097</b>	<b>50,097</b>	<b>50,097</b>	<b>50,097</b>
Baseline Demand	28,381	30,013	31,010	30,625	30,540
Demand with Project	28,381	30,371	31,368	30,983	30,898
WRMP Build-out Demand	28,381	30,371	31,368	30,625	30,898
<b>Reserve Supply with Project</b>	<b>12,616</b>	<b>19,726</b>	<b>18,728</b>	<b>19,472</b>	<b>19,199</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.

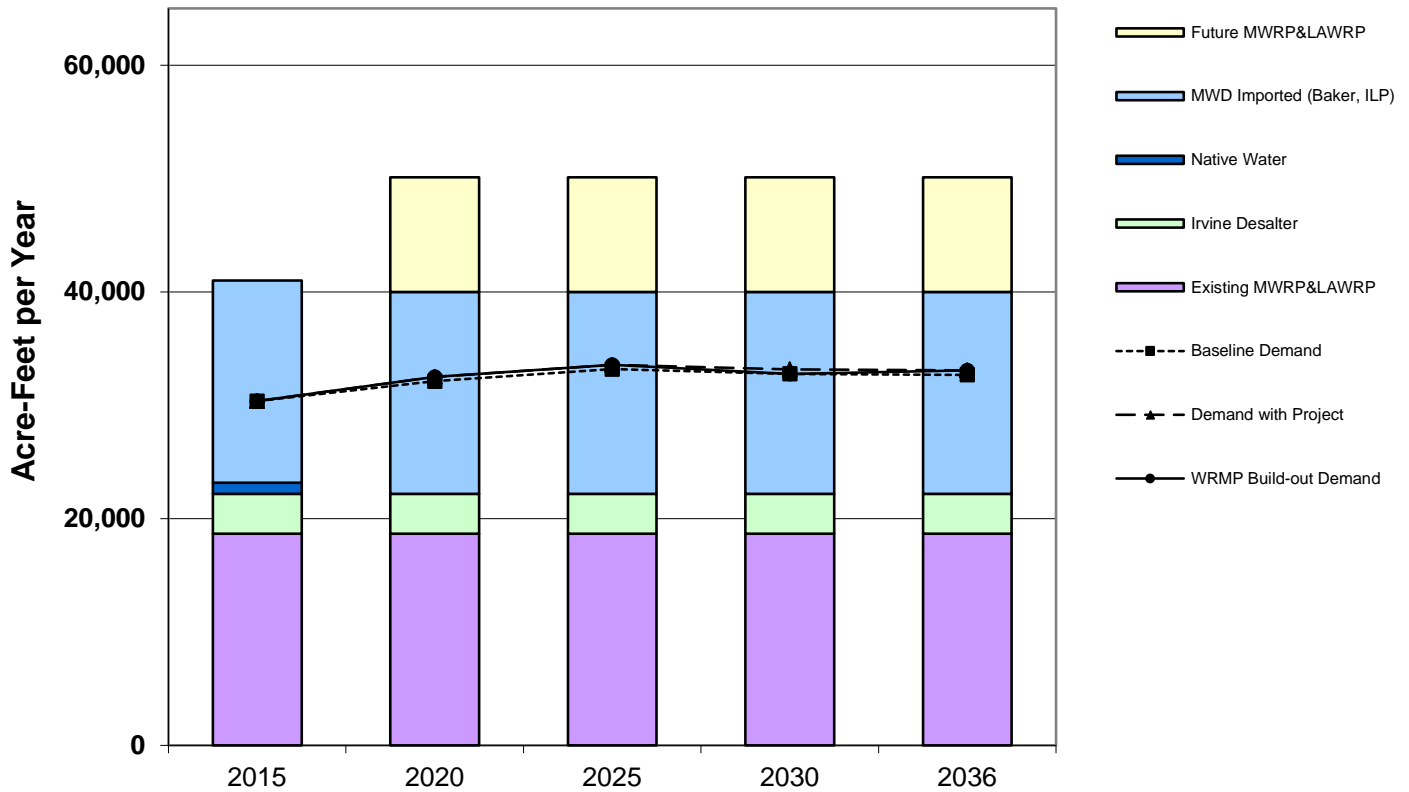
**Figure 6  
IRWD Single Dry-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
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	-	-	-	-
Maximum Supply Capability	40,997	50,097	50,097	50,097	50,097
Baseline Demand	30,368	32,114	33,181	32,769	32,677
Demand with Project	30,368	32,497	33,564	33,152	33,061
WRMP Build-out Demand	30,368	32,497	33,564	32,769	33,061
Reserve Supply with Project	10,629	17,600	16,533	16,945	17,036

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**

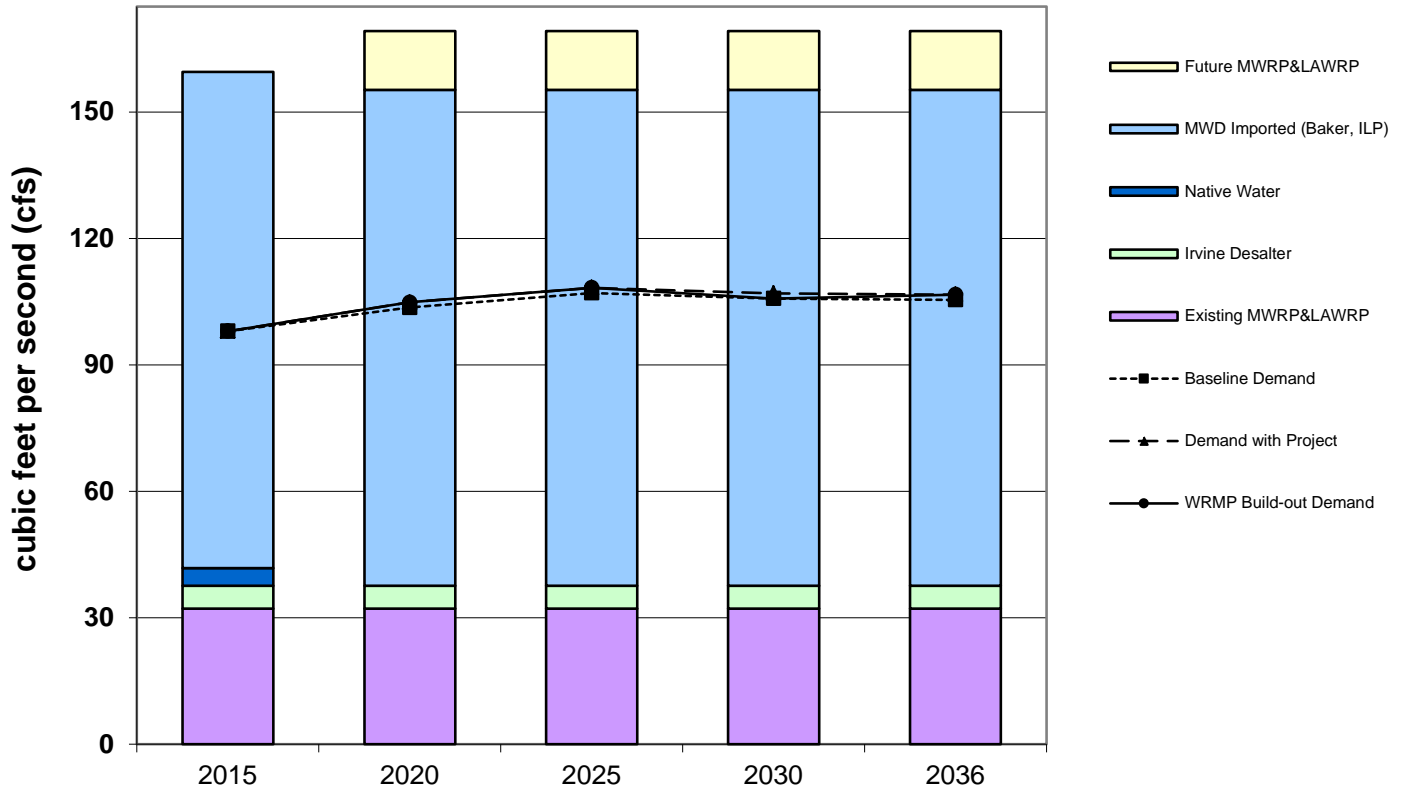


(in acre-feet per year)	2015	2020	2025	2030	2036
<u>Current Nonpotable Supplies</u>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
MWD Imported (Baker, ILP)	17,826	17,826	17,826	17,826	17,826
Irvine Desalter	3,514	3,514	3,514	3,514	3,514
Native Water	1,000	-	-	-	-
Maximum Supply Capability	40,997	51,097	50,097	50,097	50,097
Baseline Demand	30,215	31,870	32,838	32,415	31,988
Demand with Project	30,215	31,997	33,014	32,602	32,187
WRMP Build-out Demand	30,215	31,997	33,014	32,415	32,187
Reserve Supply with Project	10,781	19,100	17,083	17,495	17,910

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.



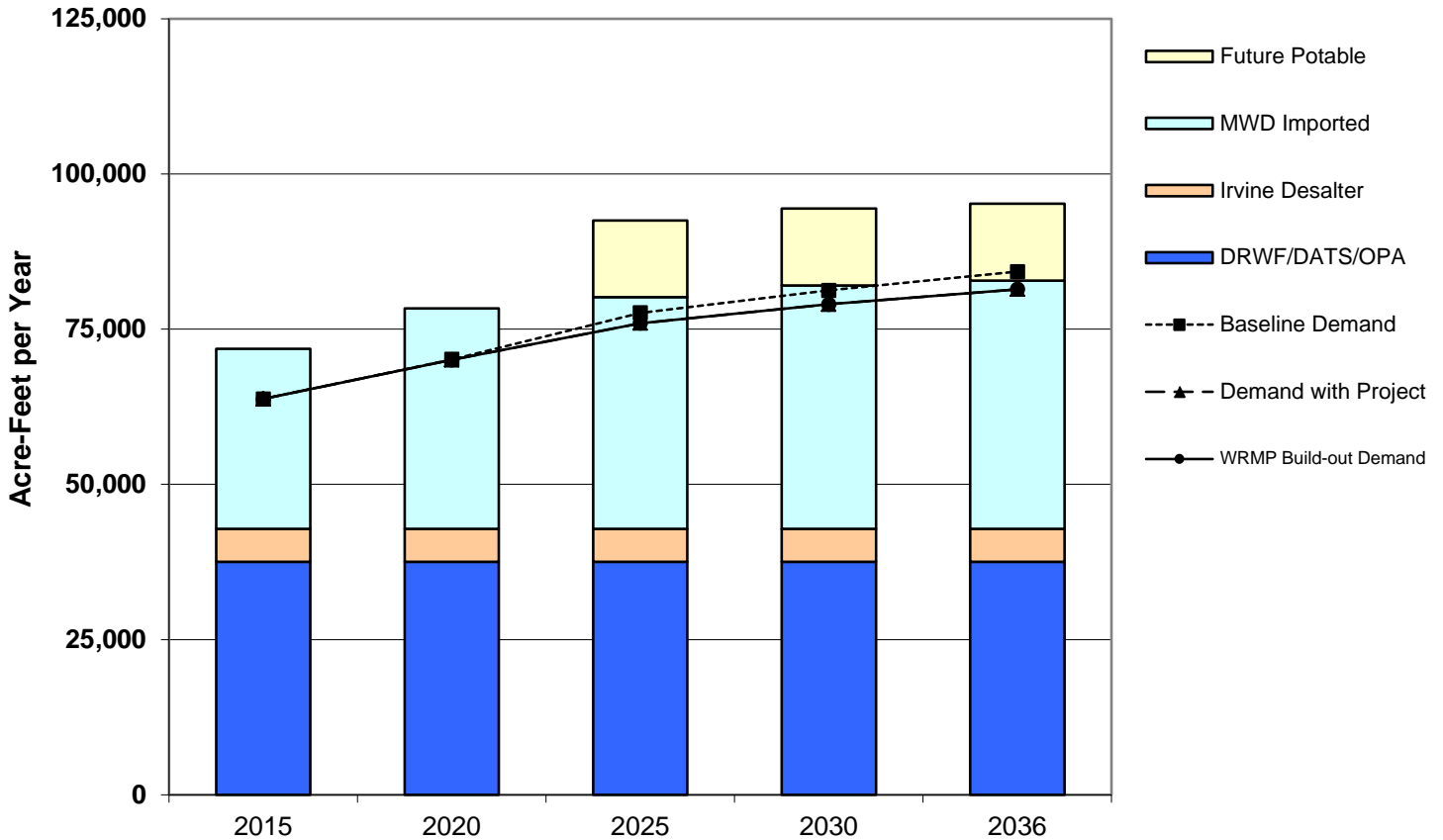
**Figure 8**  
**IRWD Maximum-Dry Supply & Demand - Nonpotable Water**



(in cfs)	2015	2020	2025	2030	2036
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	32.2	32.2	32.2	32.2	32.2
Future MWRP&LAWRP	-	14.0	14.0	14.0	14.0
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	-	-	-	-
<b>Maximum Supply Capability</b>	<b>159.5</b>	<b>169.2</b>	<b>169.2</b>	<b>169.2</b>	<b>169.2</b>
Baseline Demand	98.0	103.6	107.1	105.8	105.5
Demand with Project	98.0	104.9	108.3	107.0	106.7
WRMP Build-out Demand	98.0	104.9	108.3	105.8	106.7
<b>Reserve Supply with Project</b>	<b>61.5</b>	<b>64.4</b>	<b>60.9</b>	<b>63.5</b>	<b>62.5</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.

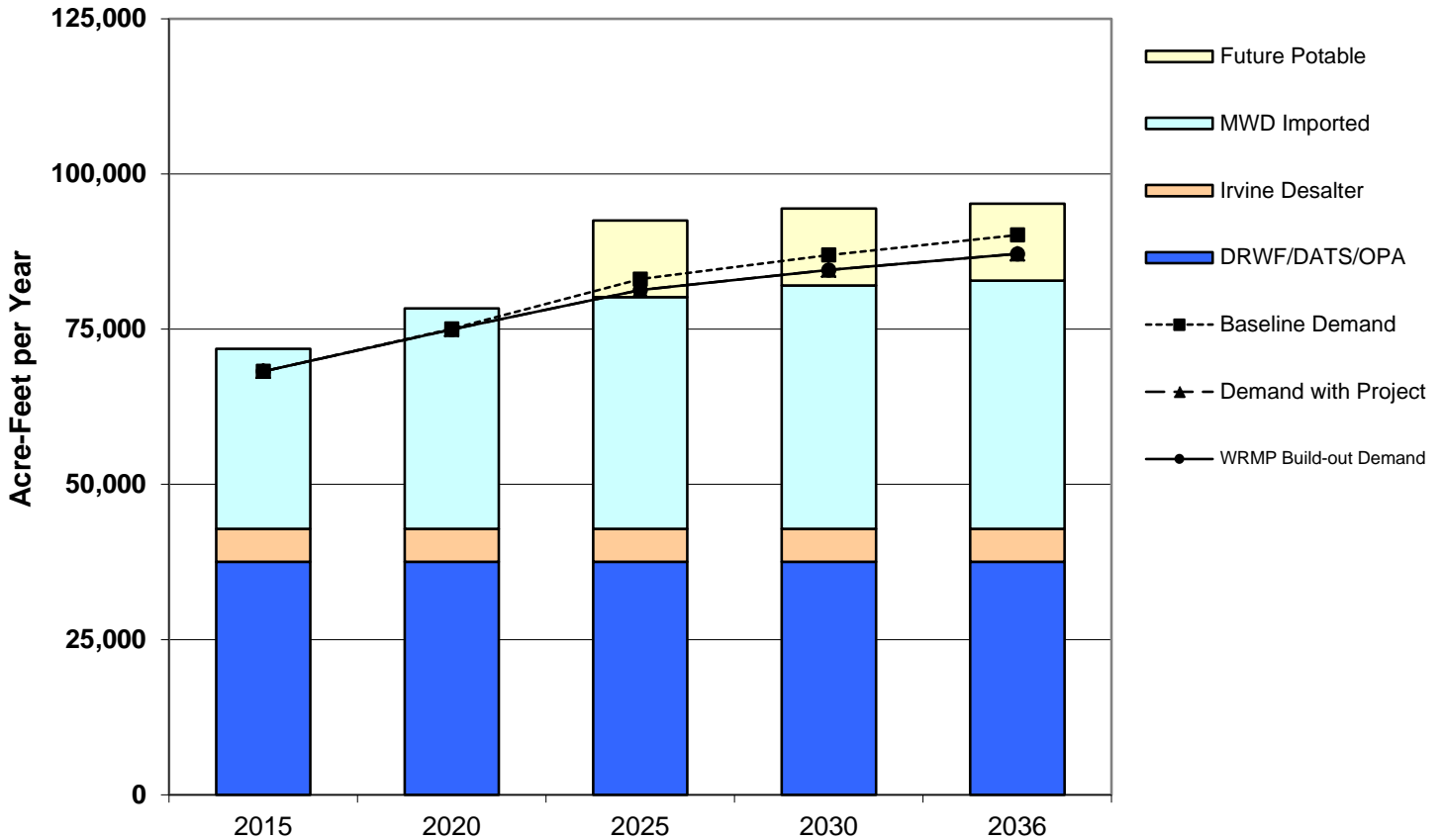
**Figure 1a  
IRWD Normal-Year Supply & Demand - Potable Water  
Under Temporary MWD Allocation\***



(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, Baker)	29,000	35,500	37,311	39,214	40,002
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
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
<b>Supplies Under Development</b>					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	78,170	85,670	99,834	101,737	102,525
Baseline Demand	63,753	70,137	77,635	81,261	84,276
Demand with Project	63,753	70,057	75,968	79,007	81,435
WRMP Build-out Demand	63,753	70,057	75,968	79,007	81,435
Reserve Supply with Project	14,417	15,614	23,866	22,730	21,090

\*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term allocation, Shortage Stage 3 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 would be limited to available MWD and native water only.

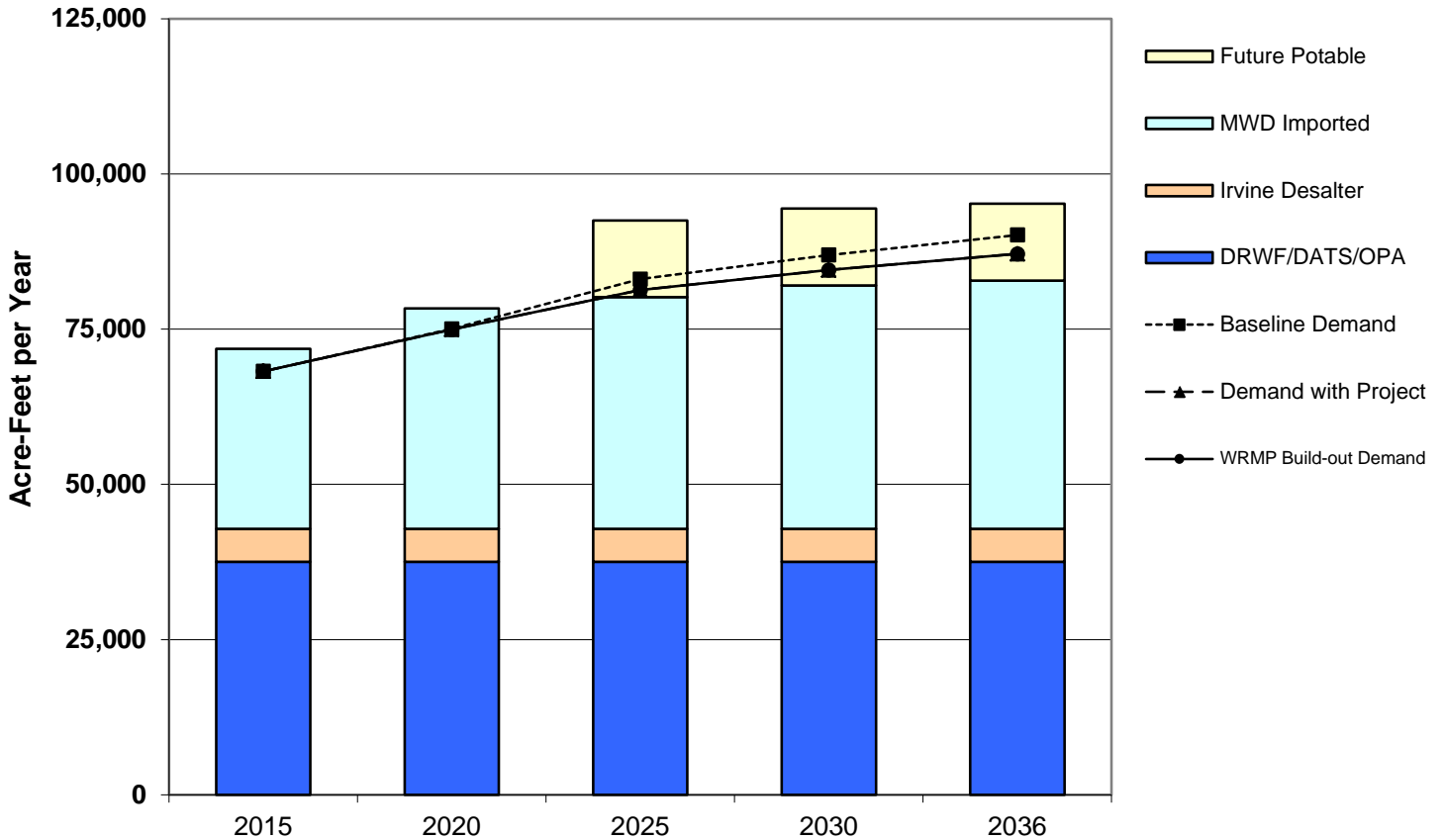
**Figure 2a**  
**IRWD Single Dry-Year Supply & Demand - Potable Water**  
**Under Temporary MWD Allocation\***



(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, Baker)	29,000	35,500	37,311	39,214	40,002
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
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
<b>Supplies Under Development</b>					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	78,170	85,670	99,834	101,737	102,525
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,136
Reserve Supply with Project	9,955	10,710	18,548	17,199	15,389

\*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term allocation, Shortage Stage 3 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 would be limited to available MWD and native water only.

**Figure 3a  
IRWD Single Dry-Year Supply & Demand - Potable Water  
Under Temporary MWD Allocation\***



(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, Baker)	29,000	35,500	37,311	39,214	40,002
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
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
<b>Supplies Under Development</b>					
Future Potable	-	-	12,352	12,352	12,352
<b>Maximum Supply Capability</b>	<b>78,170</b>	<b>85,670</b>	<b>99,834</b>	<b>101,737</b>	<b>102,525</b>
<b>Baseline Demand</b>	<b>68,216</b>	<b>75,047</b>	<b>83,069</b>	<b>86,950</b>	<b>90,175</b>
<b>Demand with Project</b>	<b>68,216</b>	<b>74,960</b>	<b>81,285</b>	<b>84,538</b>	<b>87,136</b>
<b>WRMP Build-out Demand</b>	<b>68,216</b>	<b>74,960</b>	<b>81,285</b>	<b>84,538</b>	<b>87,135</b>
<b>Reserve Supply with Project</b>	<b>9,955</b>	<b>10,710</b>	<b>18,548</b>	<b>17,199</b>	<b>15,389</b>

\*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term allocation, Shortage Stage 3 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 would be limited to available MWD and native water only.

## 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 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	<sup>1</sup>
Allen-McColloch Pipeline*	64.7	26,024	<sup>1</sup>
Orange County Feeder	18.0	7,240	<sup>1</sup>
	124.1	49,916	49,916
<b>Potable - Treated Surface</b>			
Baker Treatment Plant (includes imported and native)	10.5	6,858	<sup>6</sup> 6,858
<b>Potable - Groundwater</b>			
Dyer Road Wellfield	80.0	28,000	<sup>2</sup>
OPA Well	1.4	914	
Deep Aquifer Treatment System-DATS	12.5	8,618	<sup>2</sup>
Wells 21 & 22	10.9	6,329	<sup>2</sup>
Irvine Desalter	9.5	5,309	<sup>3</sup>
Total Potable Current Supplies	248.9		105,944
<b>Nonpotable - Recycled Water</b>			
MWRP (28 mgd)	37.3	26,970	<sup>4</sup>
LAWRP (5.5 mgd)	8.3	5,975	<sup>4</sup>
Future MWRP & LAWRP	6.7	4,820	<sup>5</sup> 37,765
<b>Nonpotable - Imported</b>			
Baker Aqueduct	52.7	12,221	<sup>6</sup>
Irvine Lake Pipeline	65.0	9,000	<sup>7</sup>
	117.7	21,221	21,221
<b>Nonpotable - Groundwater</b>			
Irvine Desalter-Nonpotable	5.4	3,514	<sup>8</sup> 3,514
<b>Nonpotable Native</b>			
Irvine Lake (see Baker Treatment Plant above)	4.2	3,048	<sup>6,9</sup> 3,048
Total Nonpotable Current Supplies	179.4		65,548
Total Combined Current Supplies	428.3		171,493
<b>Supplies Under Development</b>			
<b>Potable Supplies</b>			
Future Groundwater Production Facilities	19.2	12,352	12,352
Total Under Development	19.2	12,352	12,352
Total Supplies			
Potable Supplies	268.1		118,297
Nonpotable Supplies	179.4		65,548
Total Supplies (Current and Under Development)	447.5		183,845

1 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 1.8 (see Footnote 5, page 24).

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 28.0 mgd treatment capacity (26,970 AFY RW production) and LAWRP 5.5 mgd tertiary treatment capacity (5,975 AFY)

5 Future estimated MWRP & LAWRP recycled water production.

6 After 2016, Baker Water Treatment Plant (WTP) will treat imported and native water. Baker Aqueduct capacity has been allocated to Baker WTP participants and IRWD will own 46.50 cfs in Baker Aqueduct after completion of 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 9, page 27).

7 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.

8 Contract amount - See Nonpotable Supply-Groundwater (i) and (ii). Maximum day well capacity (cfs) is compatible with contract amount.

9 Based on 70+ years historical average of Santiago Creek Inflow into Irvine Lake. By 2020, native water will be treated through Baker WTP..

\*64.7 cfs is current assigned capacity; based on increased peak flow, IRWD can purchase 10 cfs more (see page 24 (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>5 6</sup>

• POTABLE SUPPLY - IMPORTED<sup>7</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>8</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 agrees to operate the AMP as any other MWD pipeline. MWD has the right to

<sup>5</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>6</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, except where otherwise noted, IRWD has no current plans to do so.

<sup>7</sup> See Imported Supply - Additional Information, below, for information concerning the availability of the MWD supply.

<sup>8</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.

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).



***Baker Water Treatment Plant (currently available)***

IRWD is currently constructing the Baker Water Treatment Plant (Baker WTP) in partnership with El Toro Water District, Moulton-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>9</sup>

**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 through 2035 in its Final Draft Long-Term Facilities Plan (January, 2006), last updated November 19, 2014. The Long-Term Facilities Plan is updated approximately every five years.

(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 (DWRF) / 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

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<sup>9</sup> The Baker WTP shall be supplied nonpotable imported water through the existing Baker Pipeline. IRWD’s existing Baker Pipeline capacity (see 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.

(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.

***Wells 21 and 22 (currently available)***

IRWD completed construction of treatment facilities, pipelines and wellhead facilities for Wells 21 and 22. Water supplied through this project became available in 2013. The wells are operated within the Orange County Groundwater Basin.

***Irvine Wells (under development)***

(vi) IRWD is pursuing the installation of production facilities in the west Irvine, 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. Appropriate environmental review would be conducted for each facility. See discussion of the Act under Potable Supply - Groundwater, paragraph (i), above.

**•NONPOTABLE SUPPLY - RECYCLED**

***Water Recycling Plants (currently available)***

Water Code Section 1210. IRWD supplies its own recycled water from wastewater collected by IRWD and delivered to IRWD's Michelson Water Recycling Plant (MWRP) and Los Alisos Water Recycling Plant (LAWRP). MWRP currently has a permitted tertiary capacity of 18 million gallons per day (MGD) and LAWRP currently has a permitted tertiary 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 recycled water, and do not permit stream discharge of recycled 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 (currently available)***

IRWD completed construction of the Michelson Water Reclamation Plant Phase 2 Capacity Expansion Project to tertiary capacity of 28 MGD. With this expansion, IRWD increased its tertiary treatment capacity on the existing MWRP site to produce sufficient recycled water to meet the projected demand in the year 2036. Additional reclamation capacity will augment local nonpotable supplies and improve reliability.

### **•NONPOTABLE SUPPLY - IMPORTED<sup>10</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 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's original capacities in the Baker Pipeline include 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. These existing Baker Pipeline capacities have been apportioned to the Baker WTP participants based on Baker WTP capacity ownership. IRWD retains 10.5 cfs of the pipeline capacity for potable supply through the Baker WTP and retains 36 cfs in Reach 1U of the Baker Pipeline capacity for nonpotable supply (See also footnote 10, page 27). 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

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<sup>10</sup> See Imported Supply - Additional Information, below, for information concerning the availability of the MWD supply.

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>11</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

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<sup>11</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.

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 MWD's UWMP, MWD has extended its planning timeframe out through 2040 to ensure that MWD's UWMP may be used as a source document for meeting requirements for sufficient supplies. In addition, the MWD UWMP 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 MWD UWMP summarizes MWD's planning initiatives over the past 15 years, which includes the Integrated Resources Plan (IRP), the IRP 2015 Update, the WSDM Plan, Strategic Plan and Rate Structure. The reliability analysis in MWD's 2015 IRP Update showed that MWD can maintain reliable supplies under the conditions that have existed in past dry periods throughout the period through 2040. The MWD UWMP includes tables that show the region can provide reliable supplies under both the single driest year (1977) and multiple dry years (1990-92) through 2040. MWD has also identified buffer supplies, including additional State Water Project groundwater storage and transfers that could serve to supply the additional water needed.

It is anticipated that MWD will revise its regional supply availability analysis periodically, if needed, to supplement the MWD UWMP in years when the MWD UWMP 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 UWMP. 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, 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 No. 11881) and Baker WTP (PR No. 11747), IRWD adopted its fiscal year 2015-16 capital budget on June 8, 2015 (Resolution No. 2015-13), 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 \$615.2 million (water) and \$784.8 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 UWMP, 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 UWMP, 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).

See also MWD's UWMP, 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 2010 UWMP, sections 4-D through 4-J.

(b) Description of the groundwater basin(s) from which the Project will be supplied:

The Orange County Groundwater Basin ("Basin") is described in the Groundwater Management Plan ("GMP") 2015 Update Final Draft, dated June 17, 2015<sup>12</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 331,000 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 was received by the OCWD Board in July 2009, and was last updated in November 2014. 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

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<sup>12</sup> OCWD has also prepared a Long-Term Facilities Plan which was received and filed by its Board in July 2009, and last updated in November 2014.



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 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. (OCWD MPR and LTFP)

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/21-22	Irvine Subbasin (IRWD)	Irvine Subbasin (TIC)	LAWD <sup>13</sup>
2015	40,656	9,840	0	336
2014	42,424	10,995	0	376
2013	38,617	8,629	0	282
2012	37,059	7,059	0	0
2011	34,275	7,055	0	0
2010	37,151	8,695	0	3
2009	38,140	7,614	0	0

<sup>13</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.

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 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>14</sup>	Future GW <sup>15</sup>	IDP (Potable)	IDP (Nonpotable)
2020	43,300	0	5,640	3,898
2025	43,300	12,352	5,640	3,898
2035	43,300	12,352	5,640	3,898
2040	43,300	12,352	5,640	3,898

(e) If not included in the 2010 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:

<sup>14</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 and 6,300 for Wells 21&22.

<sup>15</sup> Under development.

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 Production Percentage ("BPP") that OCWD sets based on these factors.<sup>16</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 has completed its replenishment supply project, 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.

***Sustainable Groundwater Management Act.*** Pursuant to the Sustainable Groundwater Management Act (SGMA), the DWR has designated the Orange County groundwater basin as a medium priority basin for purposes of groundwater management. By January 31, 2017, local groundwater producers must establish or designate an entity (referred to as a groundwater sustainability agency, or "GSA"), subject to DWR's approval, to manage each high and medium priority groundwater basin. The SGMA specifically calls for OCWD, which regulates the Orange County groundwater basin, to serve as the GSA for such basin.

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<sup>16</sup> OCWD has adopted a basin production percentage of 70% for 2015-16. 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.

**5.  This Water Supply Assessment is being completed for a project included in a prior water supply 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, Updated 2007

*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 Urban Water Management Plan*, Irvine Ranch Water District, June, 2011

*Southern California's Integrated Water Resources Plan*, Metropolitan Water District of Southern California, March 1996

*Proposed Framework for Metropolitan Water District's Delta Action Plan*, Metropolitan Water District of Southern California, May 8, 2007

*2007 IRP Implementation Report*, Metropolitan Water District of Southern California, October 7, 2007

*Board Letter, Action plan for updating the Integrated Resources Plan*, Metropolitan Water District of Southern California, December 11, 2007

*2010 Integrated Resources Plan Update*, Metropolitan Water District of Southern California, October 2010

*2015 Integrated Resources Plan Update*, Metropolitan Water District of Southern California, January 2016

*Draft 2015 Urban Water Management Plan*, Metropolitan Water District of Southern California, March 2016

*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

*Long-Term Facilities Plan 2014 Update*, Orange County Water District, November 2014

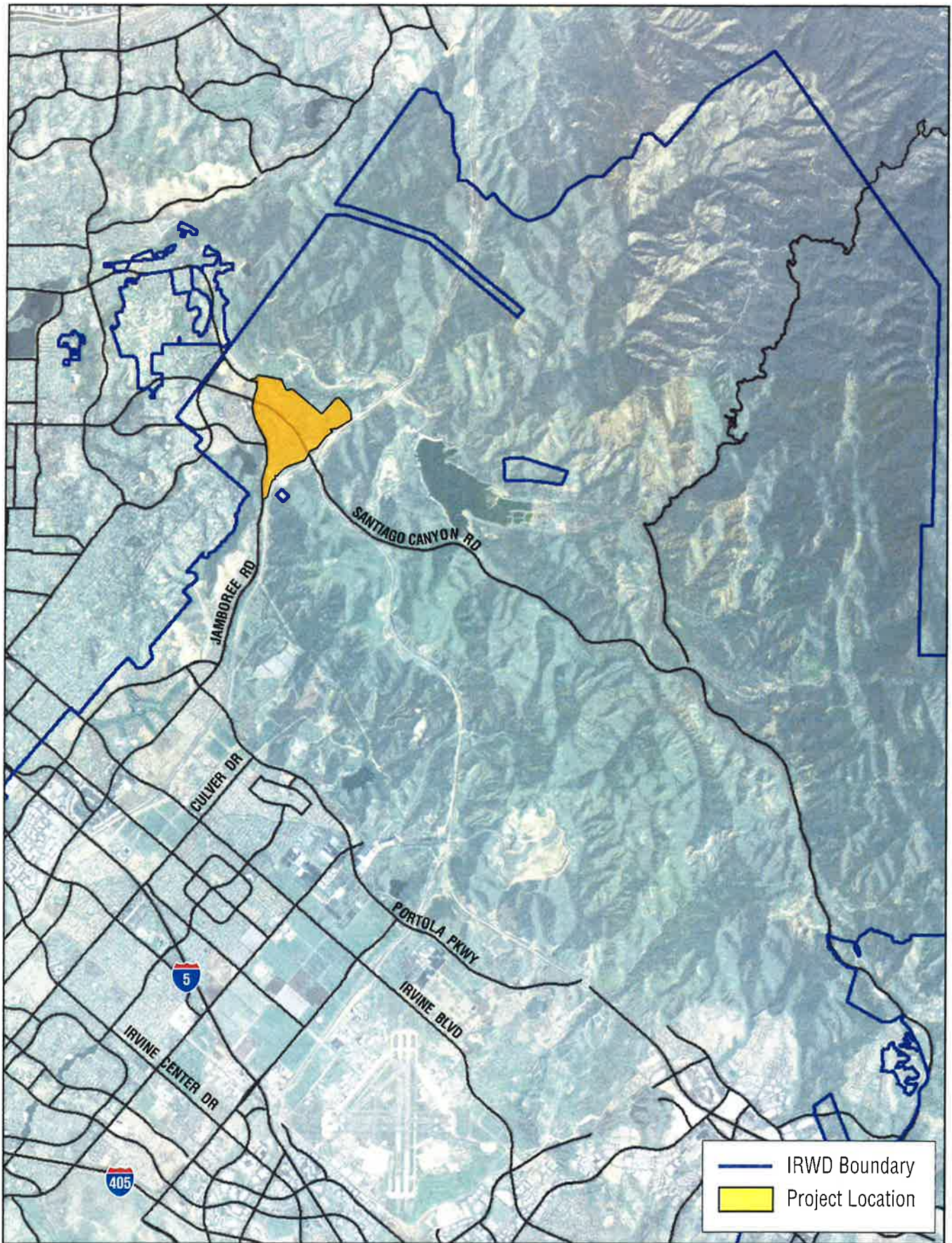
*2014-2015 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District, Orange County Water District, February 2016*

*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





**Exhibit B**

Uses Included in Project





# CITY OF ORANGE

DEPARTMENT OF COMMUNITY DEVELOPMENT

www.cityoforange.org

ADMINISTRATION  
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CODE ENFORCEMENT DIVISION  
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April 1, 2016

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

Re: Request for Water Supply Availability Assessment or Supplemental Water Supply Availability Assessment (Water Code §10910 *et seq.*)

The City of Orange hereby requests a supplemental assessment of water supply availability for the below-described project. The City has determined that the project is a "project" as defined in Water Code §10912, and has determined that an addendum to a previously-certified Environmental Impact Report (EIR) is required for the project.

### Proposed Project Information

Project Title: Santiago Hills II Planned Community

Location of project: The project site is located east of Jamboree Road, west of the SR 241/261 toll road, south of Irvine Regional Park and north of the Orange City limit. Refer to Exhibit.

For projects requiring a supplemental assessment under Water Code §10910 (h):

- Previous Water Supply Assessment including this project was approved March 8, 2004. This application requests a supplemental Water Supply Assessment, due to the following (check all that apply):
  - Changes in the project that have substantially increased water demand
  - Changes in circumstances or conditions that may have affected IRWD's ability to provide a sufficient water supply for the project
  - New information that has become available which was not known and could not have been known at the date of the prior Water Supply Assessment

(If a supplemental assessment is requested, IRWD may prepare an amended WSA or a supplemental WSA to be used together with the previous WSA, as determined by IRWD.)

Type of Development:

- Residential: No. of dwelling units: 1,180 units
- Shopping center or business: No. of employees \_\_\_\_\_ 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: 9.4 acres, Parks

Total acreage of project: 412 acres

Acreage devoted to landscape:

Greenbelt N/A golf course N/A parks 9.4 acres  
Agriculture N/A other landscaped areas 170 acres

Number of schools N/A Number of public facilities N/A

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:

Fire service will be provided by the Orange Fire Department and subject to their peak flow requirements. Reclaimed water is proposed for common area landscape irrigation.

What is the current land use of the area subject to a land use change under the project?

The project site is currently undeveloped and contains natural vegetation.

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 supplemental 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 ORANGE

By:   
Jennifer Le, Principal Planner

REQUEST RECEIVED:

Date: 4-1-16

By:   
Irvine Ranch Water District

REQUEST COMPLETE:

Date: 4-1-16

By:   
Irvine Ranch Water District

EXHIBIT "C"

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

To: (Lead Agency)  
City of Orange  
300 E. Chapman Avenue  
Orange, CA 92866-1591

(Applicant)  
The Irvine Company  
550 Newport Center Drive  
P.O. Box 6370  
Newport Beach, CA 92658-6370

Project Information

Project Title: Santiago Hills II Tract Maps 16199 and 17995 (see Exhibit A)  
 Tentative Map Application No. \_\_\_\_\_  Verification requested prior to tentative map application

Number of residential units in Project: 1,180  
Non-residential uses in Project (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 \_\_\_\_\_. A copy is attached hereto and incorporated herein by this reference (see Exhibit C).

Verification of Availability of Sufficient Water Supply

On \_\_\_\_\_, 2016 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 requirements 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 2036. 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 and the next update of that document is anticipated in July 2016.)

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 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. (MWD Draft 2015 UWMP<sup>1</sup> dated March 2016 (MWD UWMP)).

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. Copies of the summarized items 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."

---

<sup>1</sup> MWD expects to adopt is Draft 2015 UWMP in April, 2016

## Detailed Verification

### 1. Determination of sufficiency of water supply

#### (a) Supply and demand comparison

See the Assessment, Section 1, incorporated herein by reference.

#### (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.

Quantities received in prior years from existing sources identified in (a)(1):

Source	1985	1990	1995	2000	2005	2010	2015
Potable - imported	43,320	44,401	28,397	36,777	19,306	15,227	12,790
Potable - groundwater	38	10,215	20,020	20,919	37,160	42,089	46,770
Nonpotable - recycled	12,399	11,589	10,518	14,630	15,296	20,847	22,866
Nonpotable - groundwater	36	816	1,834	2,890	2,285	3,761	4,063
Nonpotable - native	3,587	2,778	5,980	4,949	7,251	814	2,826
Total	71,639	94,699	69,082	96,508	86,602	82,738	89,315

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. The Water Shortage Contingency Plan was further revised on October 13, 2014. 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* (MWD UWMP, pages 2-18 through 2-20). 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 and updated in 2014. 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”, as referenced in *2014-2015 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 recycled 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 Recycling Plant Phase 2 Capacity Expansion Project by the end of 2015. With this expansion, IRWD increased its capacity to 28 million gallons per day (MDG) to produce sufficient recycled water to meet the projected demand in the year 2036. Additional recycling 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. (MWD UWMP, pages 2-14 through 2-16).

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. (MWD UWMP, Sections 3.1, 3.2, and 3.3) See also MWD UWMP, 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**

### **(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 UWMP, 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 No. 11881) and Baker Water Treatment Plant (PR No. 11747), IRWD adopted its fiscal year 2015-16 capital budget on June 8, 2015 (Resolution No. 2015-13), budgeting portions of the funds for such projects. (A copy is available from IRWD on request.) IRWD has approximately \$615.2 million (water) and \$784.8 million (wastewater) of unissued, voter-approved bond authorization. See also MWD UWMP, 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 UWMP, 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. 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 UWMP, 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, Updated 2007

*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 Urban Water Management Plan*, Irvine Ranch Water District, June, 2011

*Southern California's Integrated Water Resources Plan*, Metropolitan Water District of Southern California, March 1996

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*Master Plan Report, Orange County Water District, April, 1999*

*Groundwater Management Plan, Orange County Water District, March, 2004*

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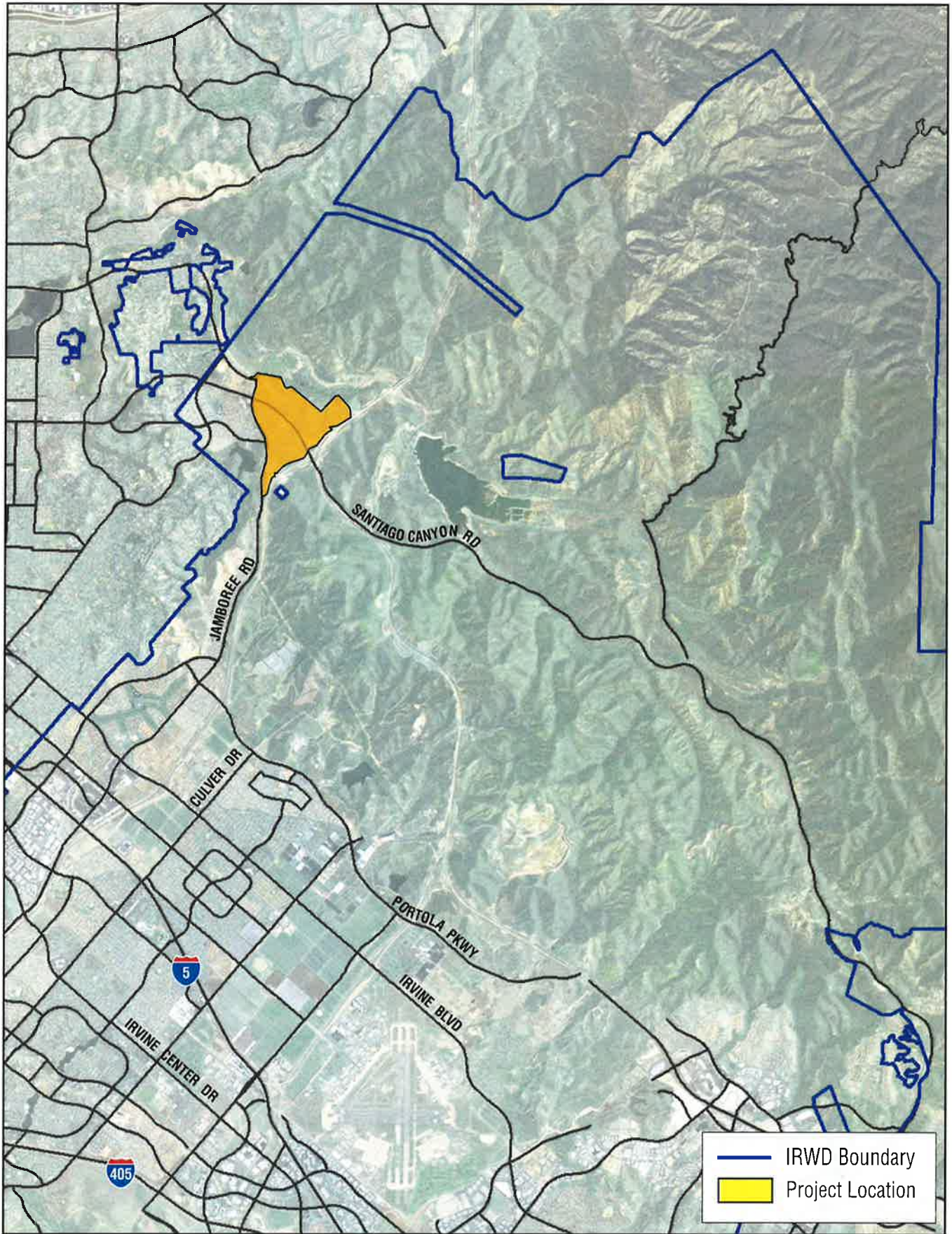
*Long-Term Facilities Plan 2014 Update, Orange County Water District, November 2014*

*2014-2015 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District, Orange County Water District, February 2016*

*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









**SANTIAGO HILL II - NORTH 17995**

	PRODUCT	UNITS	ACRES	DENSITY	
	G-1	60x90	104	23.9	4.2
	G-2	50x90	129	24.2	5.3
	H-1	48x75	122	18.1	6.7
	I-1	SIX COURT	149	17.7	8.4
	I-2	FOUR COURT	110	14.6	7.5
	I-3	38x82	103	15.2	6.8
	<b>NORTH TOTAL</b>	<b>717</b>	<b>113.7</b>		

**SANTIAGO HILL II - SOUTH 16199**

	PRODUCT	UNITS	ACRES	DENSITY	
	J-1	50x90	94	23.1	4.1
	J-2	65x60	18	3.5	5.1
	J-3	65x60	42	7.8	5.4
	J-4	65x60	48	9.9	4.8
	J-5	45x75	95	14.5	6.6
	J-6	48x75	52	7.6	6.8
	K	EASTWOOD TOWNS	114	11.4	10.0
	<b>SOUTH TOTAL</b>	<b>463</b>	<b>77.8</b>		

**GRAND TOTAL                    1180           191.5**

 PARK-NORTH 4.7 ACRES  
 PARK-SOUTH 4.7 ACRES



**Michael Baker**  
INTERNATIONAL

002476-JN143481.MXD

C-11

**Exhibit B**

**Non-residential Uses Included in Project**



# CITY OF ORANGE

DEPARTMENT OF COMMUNITY DEVELOPMENT

[www.cityoforange.org](http://www.cityoforange.org)

ADMINISTRATION  
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fax: (714) 744-7245

April 1, 2016

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 Orange 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: Santiago Hills II Planned Community

Location of project: The project site is located east of Jamboree Road, west of the SR 241/261 toll road, south of Irvine Regional Park and north of the Orange City limit. Refer to Exhibit.

Planning Area(s): Santiago Hills II Planned Community, refer to Exhibit.

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: Amended WSA approved on March 8, 2004.

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 reverification:  tract map expiration  new Water Supply Assessment required due to project revisions, changed circumstances or new information

- Tentative Map Application No.\* \_\_\_\_\_  Tentative Tract Map Nos. 17995, 17987, 17988, 17989, 17990.
- 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: April 1, 2016, (Government Code §66455.3))

Type of development included in the project:

- Residential: No. of dwelling units: 1,180 units
- Shopping center or business: No. of employees \_\_\_\_\_ 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: 9.4 acres, Parks

Total acreage of project: 412

Acreage devoted to landscape:

Greenbelt \_\_\_\_\_ golf course N/A parks 9.4 acres  
Agriculture N/A other landscaped areas 170 acres

Other factors or uses that would affect the quantity of water needed, such as peak flow requirements:

Fire Service would be provided by the Orange Fire Department and subject to its peak flow requirements. Reclaimed water is proposed for common area landscape irrigation.

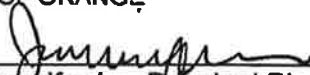
Is the project included in the existing General Plan? Yes If no, describe the existing General Plan Designation \_\_\_\_\_

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 ORANGE

By:   
Jennifer Le, Principal Planner

REQUEST RECEIVED:

Date: 4-1-16  
By:   
Irvine Ranch Water District

REQUEST COMPLETE:

Date: 4-1-16  
By:   
Irvine Ranch Water District

**Exhibit C**  
**Water Supply Assessment**

**SECOND AMENDED  
IRVINE RANCH WATER DISTRICT  
ASSESSMENT OF WATER SUPPLY  
Water Code §10910 et seq.**

To: (Lead Agency)

City of Orange  
 300 E. Chapman Avenue  
 Orange, CA 92866-1591

(Applicant)  
 The Irvine Company  
 550 Newport Center Drive  
 Newport Beach, CA 92658-6370

**Project Information**

Project Title: Santiago Hills II (Exhibit A)

- Residential: No. of dwelling units: 1,180
- Shopping center or business: No. of employees \_\_\_\_\_ Sq. ft. of floor space \_\_\_\_\_
- Commercial office: No. of employees \_\_\_\_\_ Sq. ft. of floor space \_\_\_\_\_
- Hotel or motel: No. of rooms \_\_\_\_\_
- Industrial, manufacturing or processing: No. of employees \_\_\_\_\_ No. of acres \_\_\_\_\_  
 Sq. ft. of floor space \_\_\_\_\_
- Mixed use (check and complete all above that apply) (see Exhibit B)
- Other: \_\_\_\_\_

**Assessment of Availability of Water Supply**

On \_\_\_\_\_, the Board of Directors of the Irvine Ranch Water District (IRWD) approved the within assessment and made the following determination regarding the above-described Project:

- The projected water demand for the Project  was  was not included in IRWD's most recently adopted urban water management plan.
- 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. [Plan for acquiring and developing sufficient supply attached. Water Code § 10911(a)]

The foregoing determination is based on the following Water Supply Assessment Information and supporting information in the records of IRWD.

\_\_\_\_\_  
 Signature Date Title

## 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. 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. This Second Amended Assessment supersedes the Amended Assessment dated March 8, 2004, to adjust water demand figures as shown in Figures 1 through 8 based on reduced land use densities of the proposed Project development as requested by letter of the City of Orange dated April 1, 2016.

### 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 most recent update of that document was adopted June 13, 2011. IRWD’s next update of that document is anticipated in June 2016.

In addition to the WRMP and the 2010 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. System losses at a rate of approximately 5% are built into the water use factors. 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 2010 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).

**Planning horizon.** For consistency with IRWD's WRMP, the assessment reviews demands and supplies through the year 2036, 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 2036):

- 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; recycled wastewater, and supplemental imported water supplied by MWD through the Municipal Water District of Orange County (“MWD OC”). 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 majority of all of IRWD's potable supply, and recycled water, groundwater and imported water comprise all 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 Draft 2015 Urban Water Management Plan<sup>1</sup> (MWD UWMP) shows that MWD has sufficient supply capabilities to meet expected demands from 2020 through 2040 under 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.) Recycled 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 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 year conditions through the year 2036. (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 2036. (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 2036. (Figures 5, 6, 7 and 8). IRWD has proceeded with the implementation of future 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.
- 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

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<sup>1</sup> MWD expects to adopt its Draft 2015 UWMP in April, 2016.



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 have an effect on State Water Project (SWP) operations and supplies. On June 4, 2009, a federal biological opinion imposed rules that 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 (BDCP) process are defining long-term solutions for the Delta. In addition, State and federal agencies and water user entities are currently engaged in the development of the BDCP/California WaterFix, which is aimed at making physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, south of Delta SWP water supplies and water quality (MWD UWMP). 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 address uncertainties in expected SWP supplies, in October 2007, MWD prepared 2007 IRP Implementation Report, in which MWD estimated that it could see as much as up to a 22% reduction on average of its SWP supplies based on the court order. To comprehensively address the impacts of the SWP cut back on MWD's water supply development targets, in December 2007, MWD brought to its Board a strategy and work plan to update the long-term Integrated Resources Plan (IRP). As part of its ongoing long term planning, in its 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 2010 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. MWD's reliability goal that full-service demands at the retail level will be satisfied for all foreseeable hydrologic conditions remained unchanged in the 2010 IRP Update. 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.

In January 2016, MWD adopted its 2015 IRP Update. In the 2015 IRP Update, MWD continued its adaptive management strategy and integrated future supply actions to improve the viability of potential contingency resources as needed, and to position the region to effectively implement these resources in a timely manner. The 2015 IRP finds additional action is needed in investments in conservation, local supplies, the California WaterFix, and stabilizing Colorado River supplies. Among the supply actions, MWD will continue to work collaboratively with state and federal agencies on the WaterFix, maximize its storage and transfer approach, and continue to develop and protect local supplies and conservation.

***IRWD's Evaluation of Effect of Reduced MWD Supplies to IRWD:*** In the MWD UWMP, MWD states it has supply capability that would be sufficient to meet expected demands from 2020 to 2040 under single dry year and multiple dry year conditions.<sup>2</sup>

Based on the prior MWD 2007 IRP Implementation Report, as a result of the 2007 federal court order, MWD estimated that it could receive reduction of SWP supplies of up to 22% on average until a long term solution was implemented. For purposes of ensuring a conservative analysis, IRWD made an evaluation of the effect of the 22% estimated reduction of MWD's SWP supplies on its overall imported supplies. IRWD estimates that 22% reduction of SWP supplies conservatively translates to approximately 16% reduction in all of MWD's imported supplies over the years 2015 through 2035. For this purpose it is assumed that MWD's total supplies consist only of imported SWP and Colorado deliveries. Based on this estimate, this assessment uses a 16% reduction in MWD supplies available to IRWD for the years 2015 through 2036, 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.

Per the MWD UWMP, MWD performs water shortage planning in its Water Surplus and Drought Management (WSDM) Plan (1988) which guides MWD's planning and operations during both shortage and surplus conditions. Furthermore, MWD developed the Water Supply Allocation Plan (WSAP) (February 2009, updated December 2014) which provides standardized methodology for allocation of MWD's supplies during times of shortage. The WSDM Plan distinguishes between shortages, severe shortages and extreme shortages. These terms have specific meanings relating to MWD's ability to deliver water and the actions it takes. In June 2008, MWD's Board adopted a Water Supply Condition Framework to communicate the urgency of the region's water supply situation and the need for further water conservation to reduce regional demands, MWD uses the WSDM Plan and Framework to determine if a WSAP is recommended.

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<sup>2</sup> MWD's UWMP utilized DWR's 2015 SWP Delivery Capability Report to estimate its SWP supplies for 2015 through 2040. These estimates incorporate the effect of regulatory requirements in accordance with biological opinions and also reflect potential impacts of climate change on SWP operations. Tables A.3-7 (MWD's UWMP) reflect a reduction of approximately 12% in MWD's expected average year SWP entitlement supplies. This amount is a smaller percentage reduction than MWD's 2007 estimate of 22% that was used by IRWD for purposes of this analysis. For purposes of a conservative analysis, IRWD uses the 22% reduction cited by MWD in its October 2007 IRP Implementation Report as the basis of IRWD's analysis.

As an alternative means of analyzing the effect of reduced MWD supplies on IRWD, Figures 1a, 2a, and 3a show IRWD's 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 a shortage stage under its WSAP, and a cutback is applied to IRWD's actual usage rather than its connected capacity. IRWD's evaluation of reduced MWD supplies to IRWD as shown in Figures 1a, 2a and 3a conservatively analyzes the effect of up to a MWD level 5 Regional Shortage Level. 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. On April 14, 2015, MWD approved the implementation of its WSAP at a level 3 Regional Shortage Level and an effective 15% reduction in regional deliveries effective July 1, 2015, through June 30, 2016. As a result of IRWD's diversified water supplies, IRWD is reliant on MWD for only 20% of its total supplies. IRWD's evaluation of reduced MWD supplies to IRWD as shown in Figures 1a, 2a and 3a for a MWD level 5 Regional Shortage Level would include MWD's 2015 actions to implement a level 3 Regional Shortage Level and 15% reduction.

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>3</sup> In addition, IRWD has developed water banking projects in Kern County, California which may be called upon for delivery of supplemental banked water to IRWD under a short-term MWD allocation.<sup>4</sup> IRWD may also convert non-potable water uses to recycled water as a way to conserve potable water. 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

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<sup>3</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 "2014-2015 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 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>4</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.

It can be noted that IRWD's above approach is conservative, in that IRWD evaluates the effect of the 16% reduction through 2036 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 2015 IRP Update, MWD recognizes there is a significant uncertainty in the negative impact of climate change on water supply reliability. MWD plans to hedge against supply and environmental uncertainties by implementing a long term plan that provides resource development to offset the risk. Some risks and uncertainty will be addressed by following the findings of MWD's 2015 IRP Update. For longer term risks, MWD established a Robust Decision Making (RDM) approach that can show how vulnerable the region's reliability is to the longer-term risks.

Per MWD's UWMP, MWD continues to incorporate current climate change science into its planning efforts. MWD's 2015 IRP Update incorporates evaluating a wider range of water management strategies and seeking robust and adaptive action plans that respond to uncertain conditions as they evolve over time, and that ultimately will perform adequately under a wide range of future conditions. MWD's 2015 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, 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 (MWD UWMP) to safeguard the region from catastrophic loss of water supply. MWD has made substantial investments in emergency storage and 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 DWR's investments in improvements on the SWP and the long term Delta plan in its UWMP (pages 3-19 to 3-22). IRWD has also addressed supply interruption planning in its WRMP and 2010 UWMP.

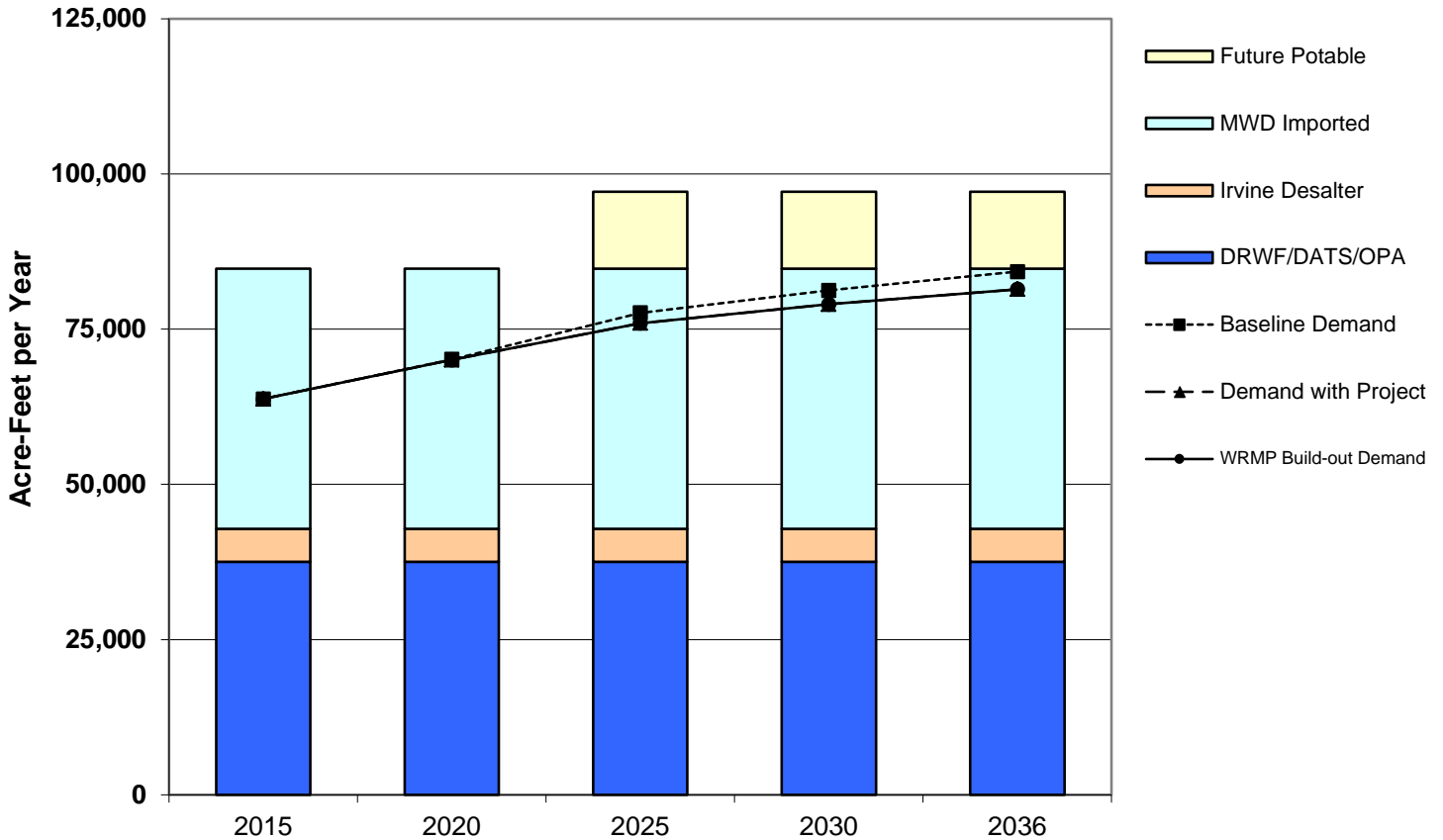
**Recent Actions Related to Drought Conditions.** In response to the historically dry conditions throughout the state of California, on April 1, 2015, Governor Brown issued an Executive Order directing the State Water Resources Control Board (SWRCB) to impose restrictions to achieve an aggregate statewide 25 percent reduction in potable water use through February 2016. The Governor's Order also includes mandatory actions aimed at reducing water demands, with a particular focus on outdoor water use. On May 5, 2015, the SWRCB adopted regulations which required that IRWD achieve a 16% reduction in potable water use from the 2013 levels. On November 13, 2015, Governor Brown issued an Executive Order directing the SWRCB to extend the 2015 Emergency Regulation through October 31, 2016 if drought conditions continued. On February 2, 2016, the SWRCB adopted an extended and modified Emergency Regulation. As a result of the modification, IRWD's mandated reduction was changed from 16% to 9% effective March 1, 2016. On April 14, 2015, MWD approved actions to implement the Water Supply Allocation Plan at a level 3 Regional Shortage Level and a 15% reduction in regional deliveries effective July 1, 2015, through June 30, 2016. IRWD has and will continue to implement actions to reduce potable water demands during the drought; however, this does not affect IRWD's long-term supply capability to meet the demands. As discussed under "IRWD's Evaluation of Effect of Reduced MWD Supplies to IRWD" (see above), IRWD has effectively analyzed an imported water supply reduction up to a level 5 Regional Shortage Stage in Figures 1a, 2a, 3a. These Figures do not reflect a reduction in demands thus representing a more conservative view of IRWD's supply capability. In particular, the reduction in demand mandated by Senate Bill 7 in 2010, requiring urban retail water suppliers to establish water use targets to achieve a 20% reduction in daily per capita water use by 2020, has not been factored into the demands in this analysis. Similarly, notwithstanding the Governor's order, IRWD's conservative supply-sufficiency analysis in Figures 1a, 2a and 3a does not include the ordered reduction in potable demands.

## 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 "Recent Actions on Delta Pumping" above.

**Figure 1  
IRWD Normal-Year Supply & Demand - Potable Water**



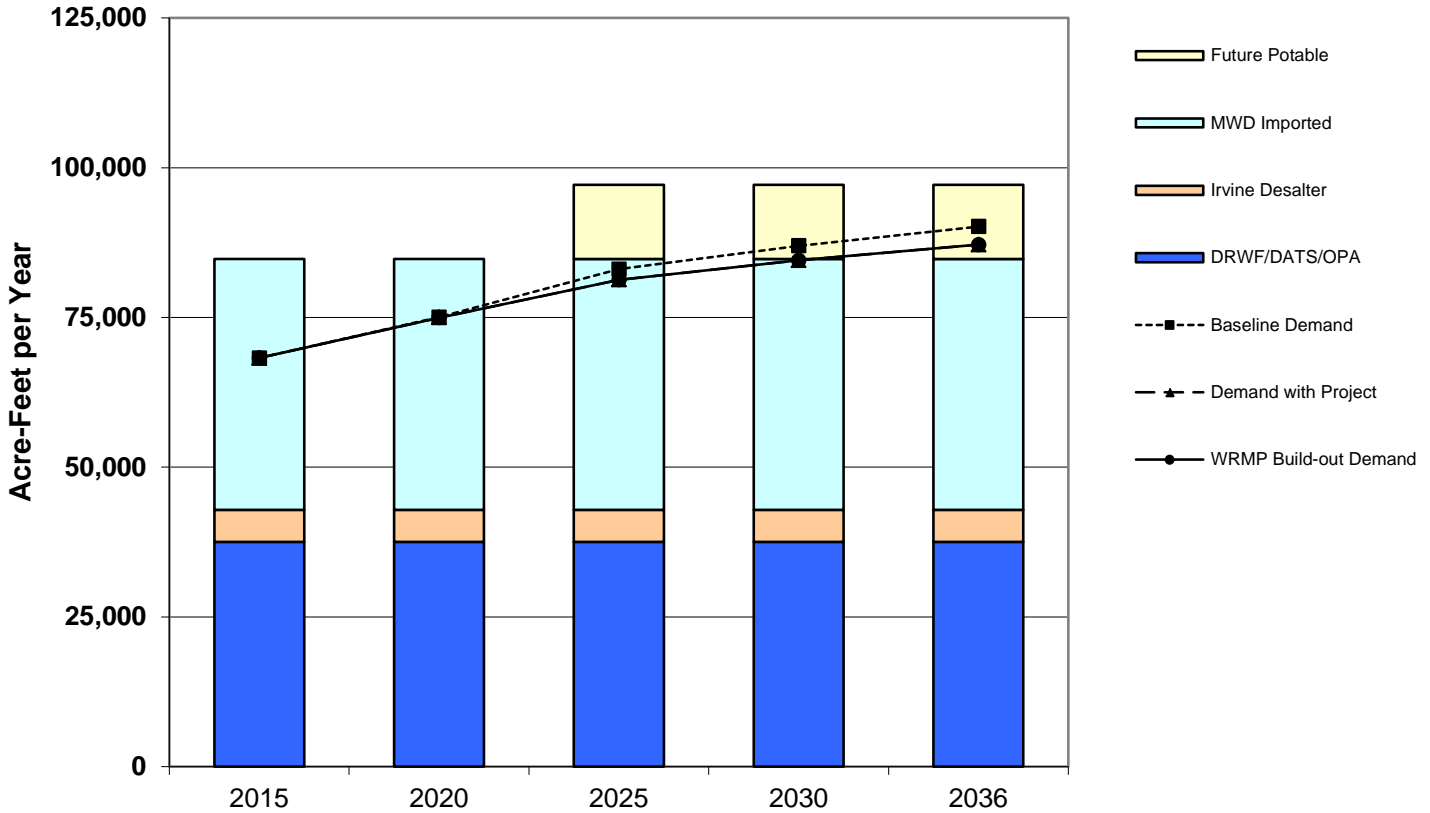
(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, Baker)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Baker Water Treatment Plant (native portion)	-	4,000	4,000	4,000	4,000
<b>Supplies Under Development</b>					
Future Potable	-	-	12,352	12,352	12,352
<b>Maximum Supply Capability</b>	<b>91,100</b>	<b>95,100</b>	<b>107,452</b>	<b>107,452</b>	<b>107,452</b>
<b>Baseline Demand</b>	<b>63,753</b>	<b>70,137</b>	<b>77,635</b>	<b>81,261</b>	<b>84,276</b>
<b>Demand with Project</b>	<b>63,753</b>	<b>70,057</b>	<b>75,968</b>	<b>79,007</b>	<b>81,435</b>
<b>WRMP Build-out Demand</b>	<b>63,753</b>	<b>70,057</b>	<b>75,968</b>	<b>79,007</b>	<b>81,434</b>
<b>Reserve Supply with Project</b>	<b>27,347</b>	<b>25,043</b>	<b>31,484</b>	<b>28,445</b>	<b>26,017</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.

Baker Water Treatment Plant will be supplied untreated imported water and native water from Irvine Lake.

**Figure 2  
IRWD Single Dry-Year Supply & Demand - Potable Water**



(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, Baker)	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
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
<b>Supplies Under Development</b>					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	91,100	92,100	104,452	104,452	104,452
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,135
Reserve Supply with Project	22,884	17,139	23,167	19,914	17,317

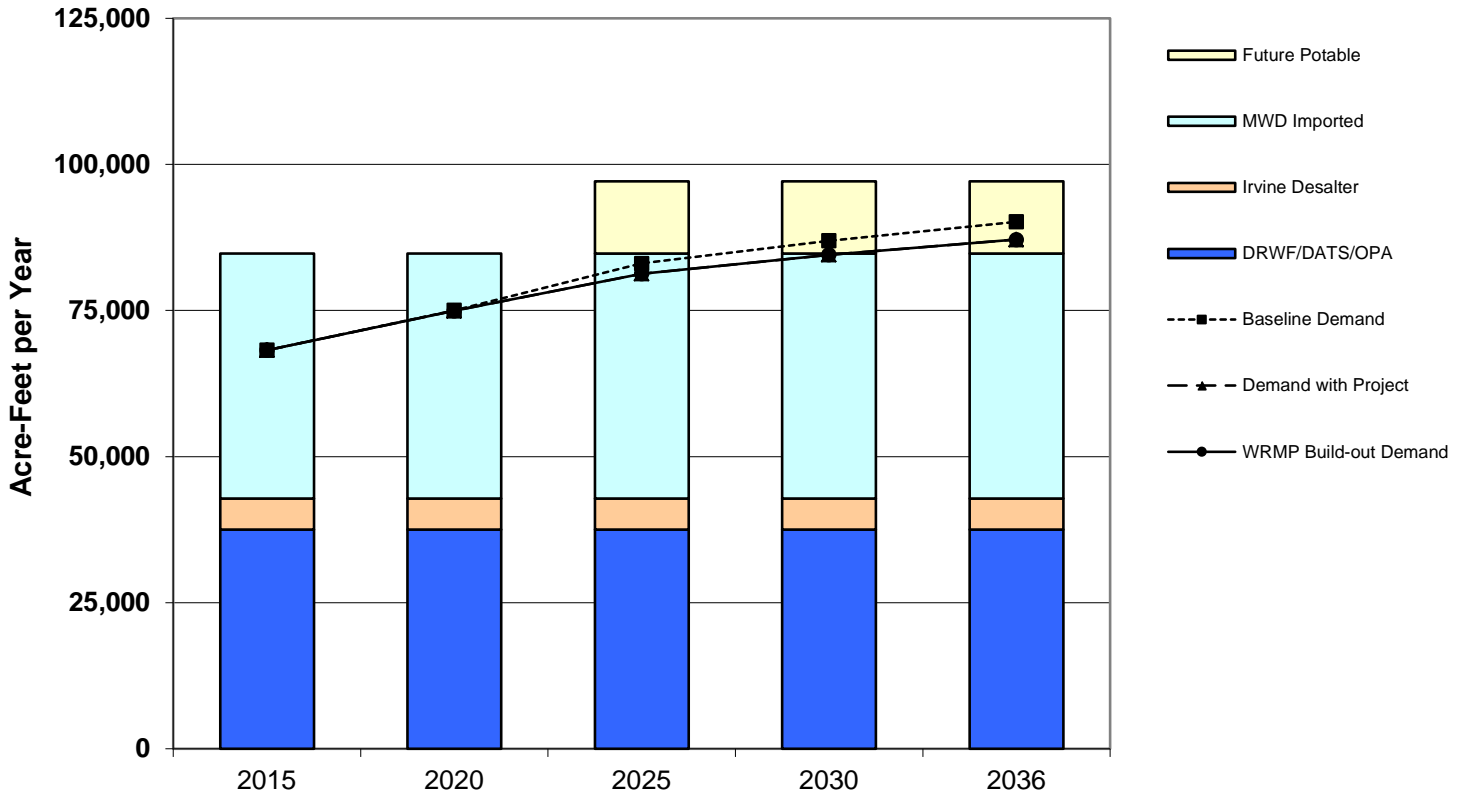
Notes: Supplies identical to Normal-Year based on Metropolitan's Urban Water Management Plan and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

Baker Water Treatment Plant will be supplied untreated imported water and native water from Irvine Lake.



**Figure 3  
IRWD Multiple Dry-Year Supply & Demand - Potable Water**



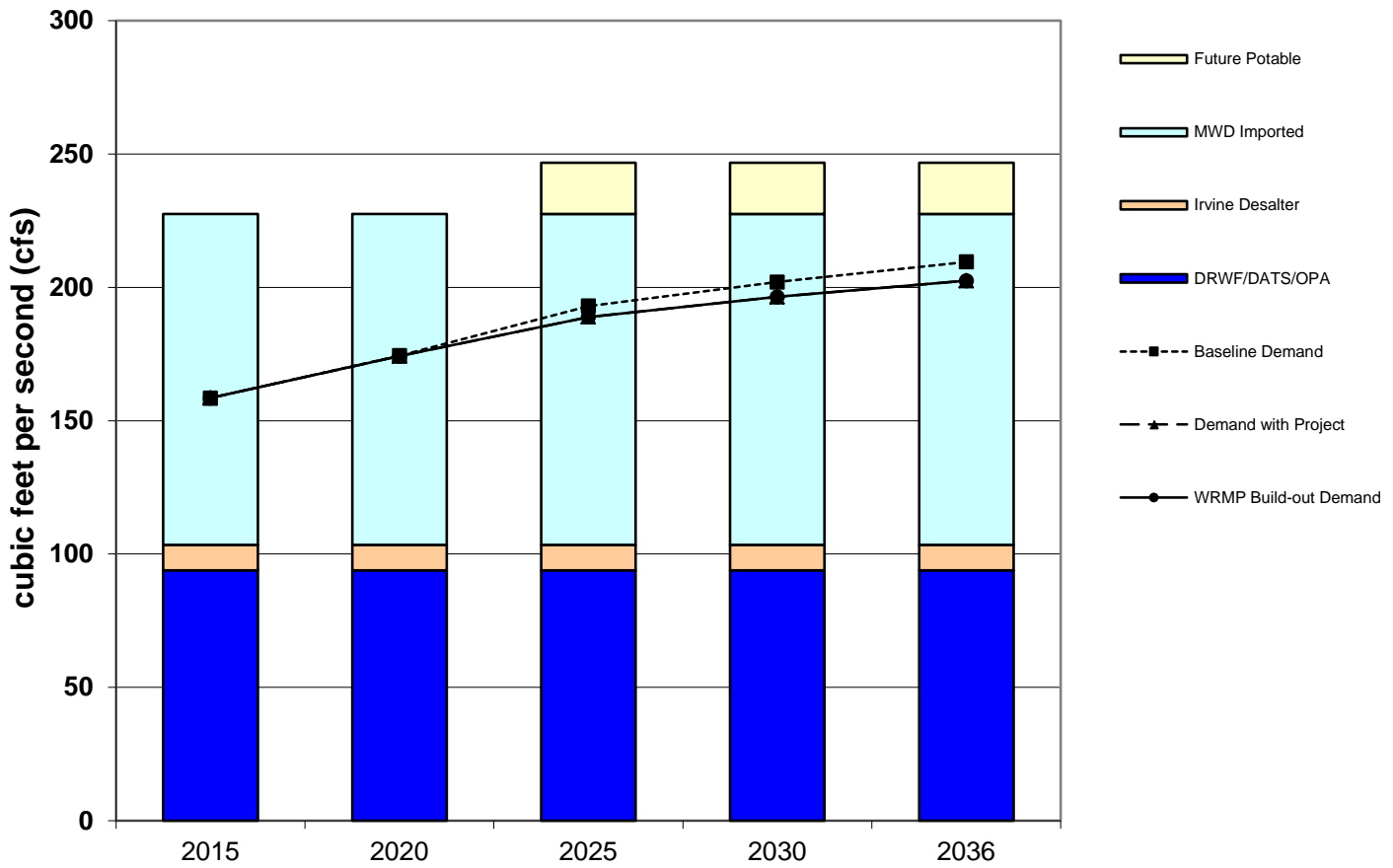
(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, B&C)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Baker Water Treatment Plant (native portic)	-	1,000	1,000	1,000	1,000
<b>Supplies Under Development</b>					
Future Potable	-	-	12,352	12,352	12,352
<b>Maximum Supply Capability</b>	<b>91,100</b>	<b>92,100</b>	<b>104,452</b>	<b>104,452</b>	<b>104,452</b>
<b>Baseline Demand</b>	<b>68,216</b>	<b>75,047</b>	<b>83,069</b>	<b>86,950</b>	<b>90,175</b>
<b>Demand with Project</b>	<b>68,216</b>	<b>74,960</b>	<b>81,285</b>	<b>84,538</b>	<b>87,136</b>
<b>WRMP Build-out Demand</b>	<b>68,216</b>	<b>74,960</b>	<b>81,285</b>	<b>84,538</b>	<b>87,135</b>
<b>Reserve Supply with Project</b>	<b>22,884</b>	<b>17,139</b>	<b>23,167</b>	<b>19,914</b>	<b>17,317</b>

Notes: Supplies identical to Normal-Year based on Metropolitan's 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).

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

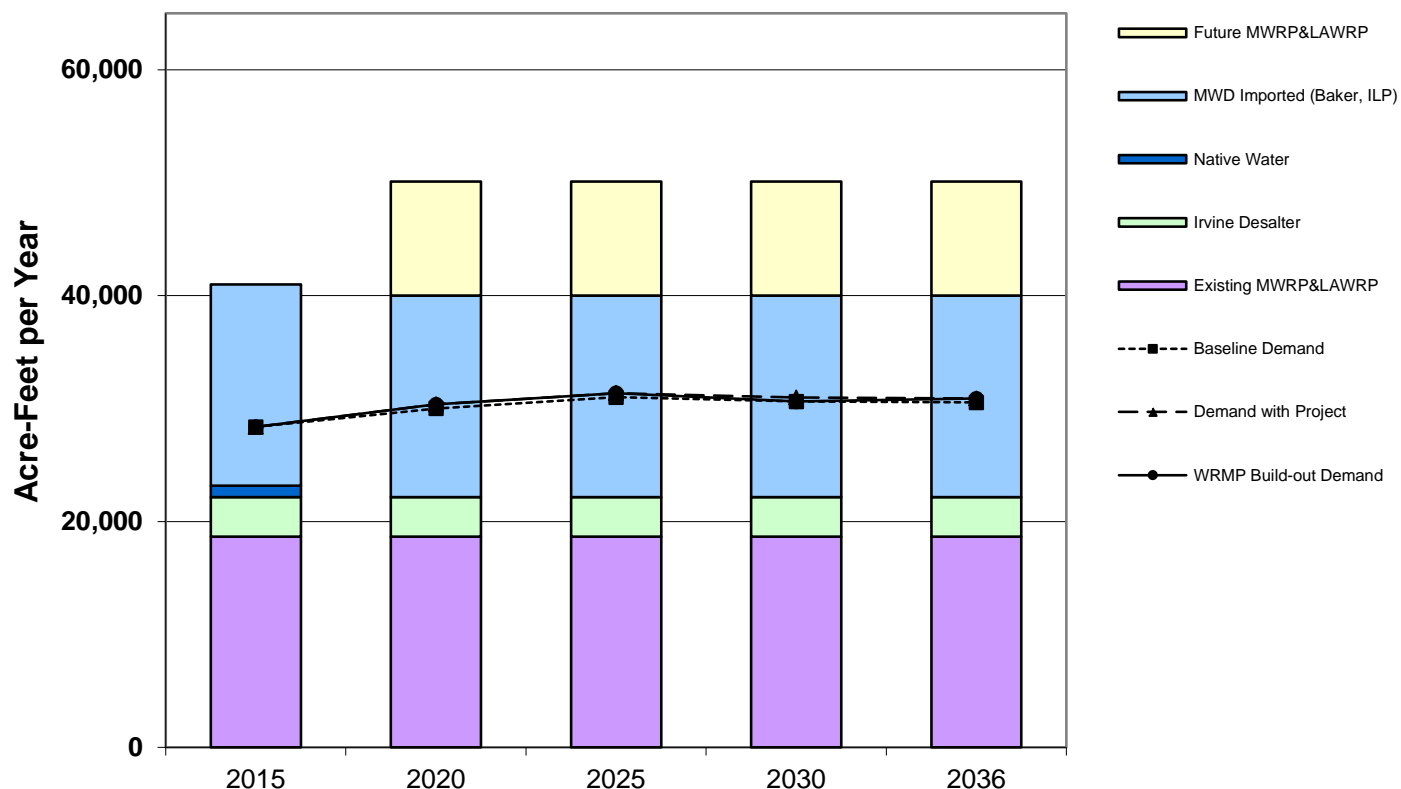
Baker Water Treatment Plant will be supplied untreated imported water and native water from Irvine Lake.

**Figure 4  
IRWD Maximum-Day Supply & Demand - Potable Water**



(in cfs)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, Baker)	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
Baker Water Treatment Plant	-	10.5	10.5	10.5	10.5
<b>Supplies Under Development</b>					
Future Potable	-	-	19.2	19.2	19.2
Maximum Supply Capability	238.4	248.9	268.1	268.1	268.1
Baseline Demand	158.5	174.4	193.0	202.0	209.5
Demand with Project	158.5	174.2	188.9	196.4	202.5
WRMP Build-out Demand	158.5	174.2	188.9	196.4	202.5
Reserve Supply with Project	79.9	74.7	79.2	71.7	65.6

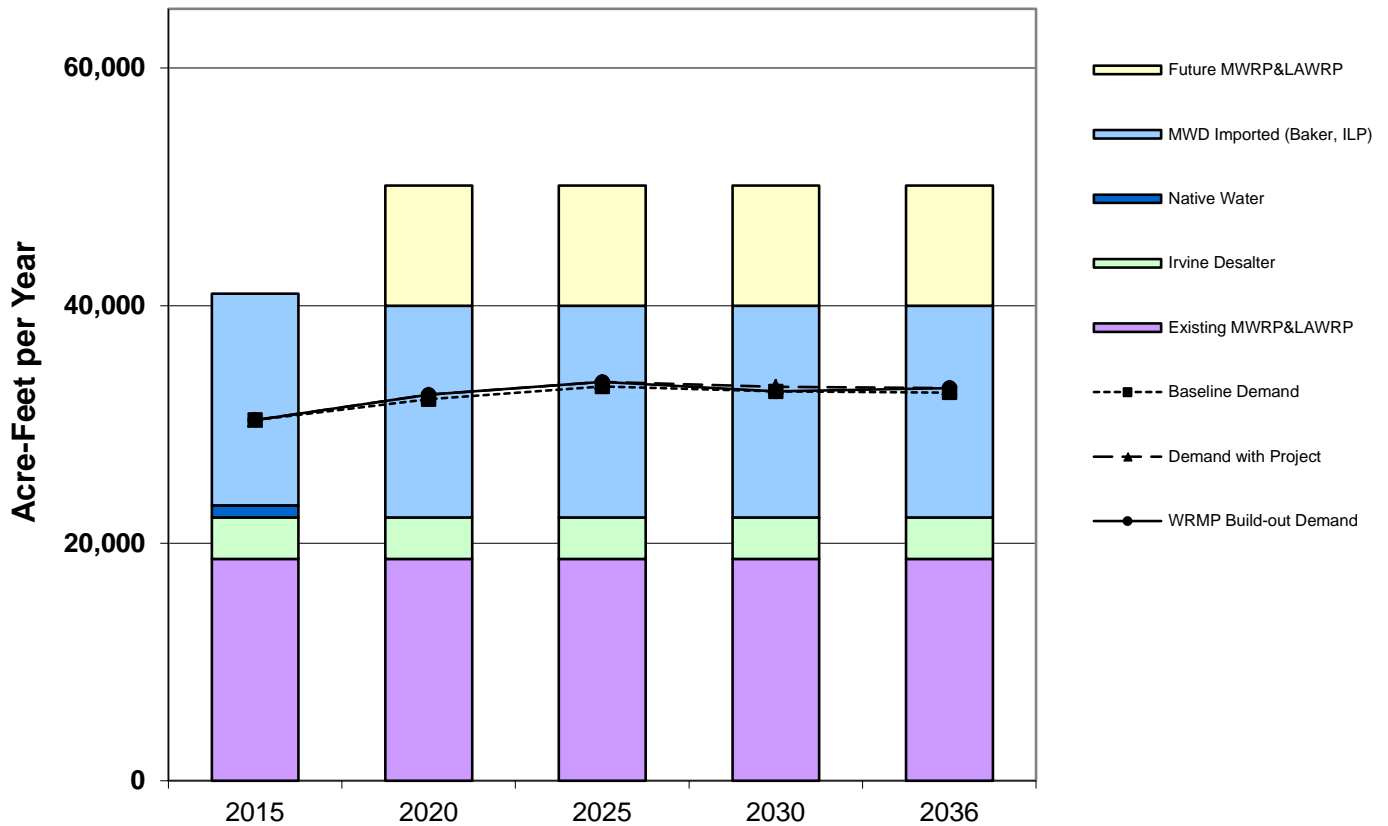
**Figure 5  
IRWD Normal-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
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	-	-	-	-
<b>Maximum Supply Capability</b>	<b>40,997</b>	<b>50,097</b>	<b>50,097</b>	<b>50,097</b>	<b>50,097</b>
Baseline Demand	28,381	30,013	31,010	30,625	30,540
Demand with Project	28,381	30,371	31,368	30,983	30,898
WRMP Build-out Demand	28,381	30,371	31,368	30,625	30,898
<b>Reserve Supply with Project</b>	<b>12,616</b>	<b>19,726</b>	<b>18,728</b>	<b>19,472</b>	<b>19,199</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.

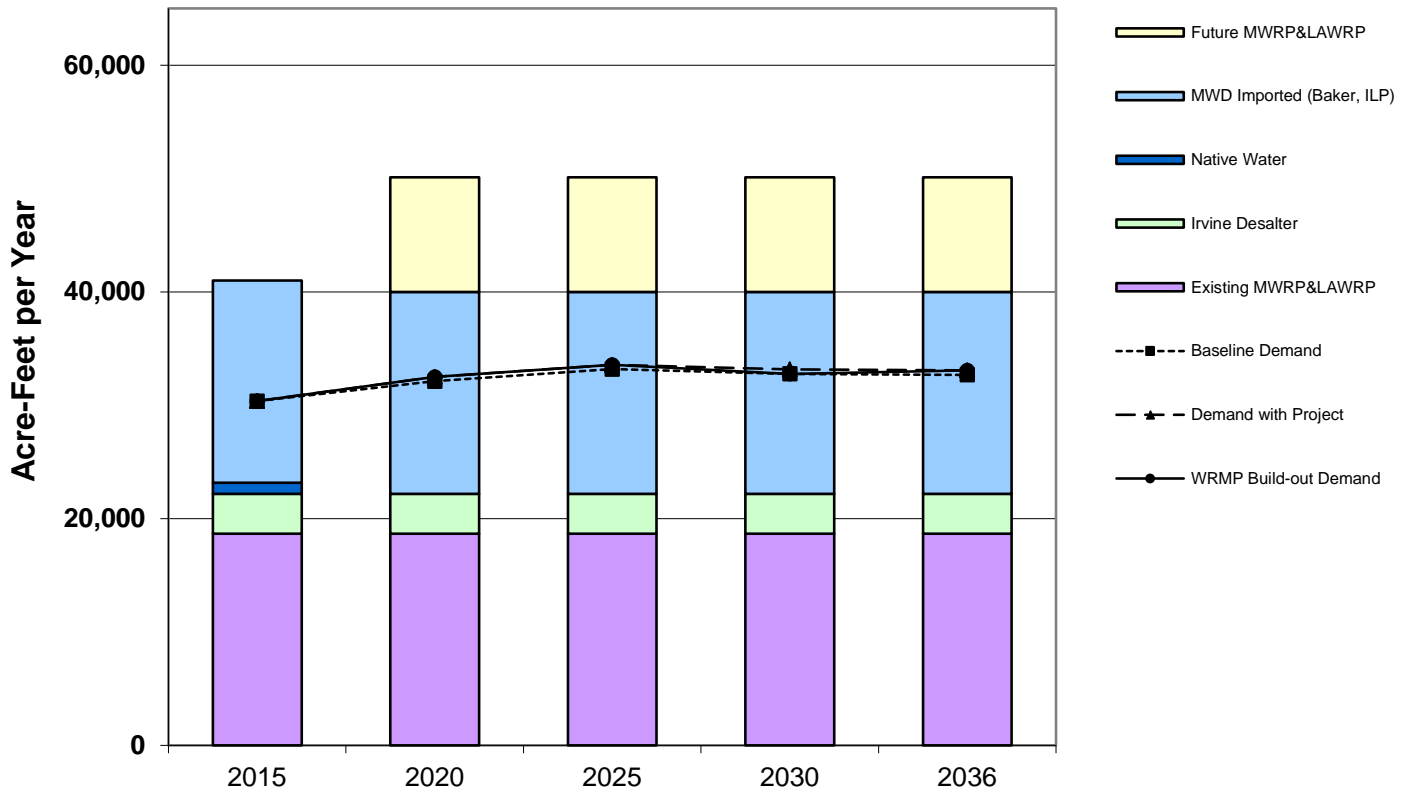
**Figure 6**  
**IRWD Single Dry-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
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	-	-	-	-
Maximum Supply Capability	40,997	50,097	50,097	50,097	50,097
Baseline Demand	30,368	32,114	33,181	32,769	32,677
Demand with Project	30,368	32,497	33,564	33,152	33,061
WRMP Build-out Demand	30,368	32,497	33,564	32,769	33,061
Reserve Supply with Project	10,629	17,600	16,533	16,945	17,036

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.

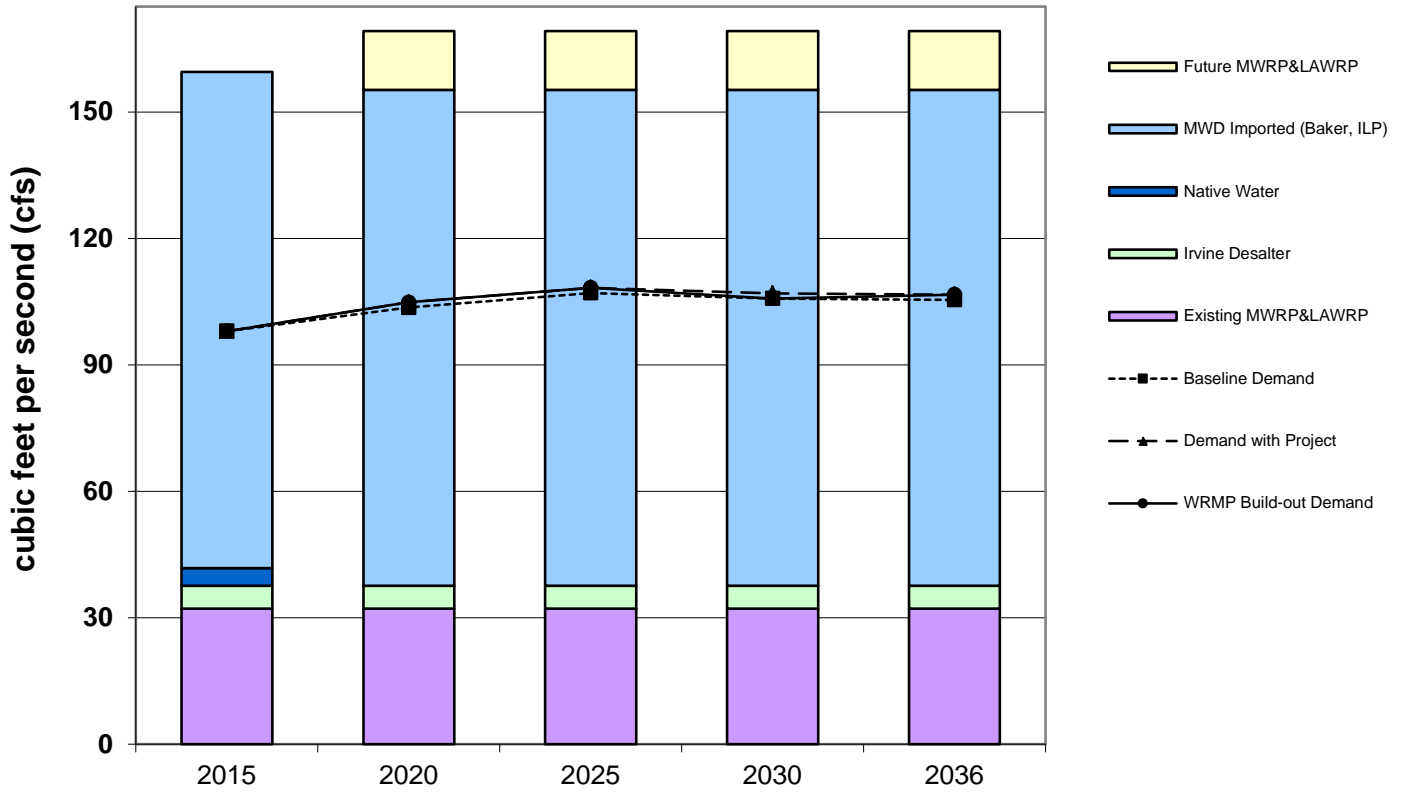
**Figure 7**  
**IRWD Multiple Dry-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
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	-	-	-	-
<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	30,215	31,870	32,838	32,415	31,988
Demand with Project	30,215	31,997	33,014	32,602	32,187
WRMP Build-out Demand	30,215	31,997	33,014	32,415	32,187
<b>Reserve Supply with Project</b>	<b>10,781</b>	<b>19,100</b>	<b>17,083</b>	<b>17,495</b>	<b>17,910</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.

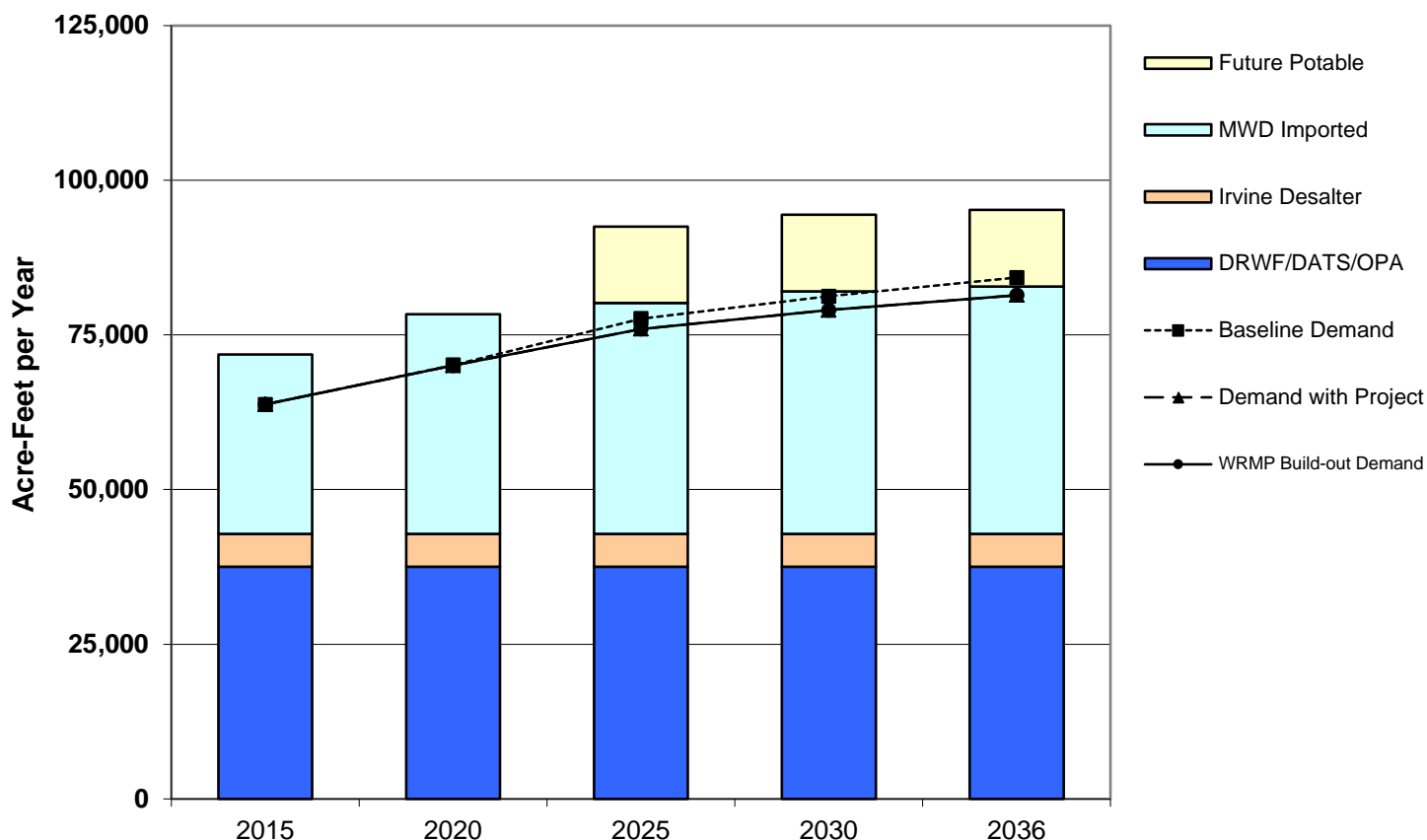
**Figure 8**  
**IRWD Maximum-Dry Supply & Demand - Nonpotable Water**



(in cfs)	2015	2020	2025	2030	2036
<b>Current Nonpotable Supplies</b>					
Existing MWRP&LAWRP	32.2	32.2	32.2	32.2	32.2
Future MWRP&LAWRP	-	14.0	14.0	14.0	14.0
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	-	-	-	-
<b>Maximum Supply Capability</b>	<b>159.5</b>	<b>169.2</b>	<b>169.2</b>	<b>169.2</b>	<b>169.2</b>
Baseline Demand	98.0	103.6	107.1	105.8	105.5
Demand with Project	98.0	104.9	108.3	107.0	106.7
WRMP Build-out Demand	98.0	104.9	108.3	105.8	106.7
<b>Reserve Supply with Project</b>	<b>61.5</b>	<b>64.4</b>	<b>60.9</b>	<b>63.5</b>	<b>62.5</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.

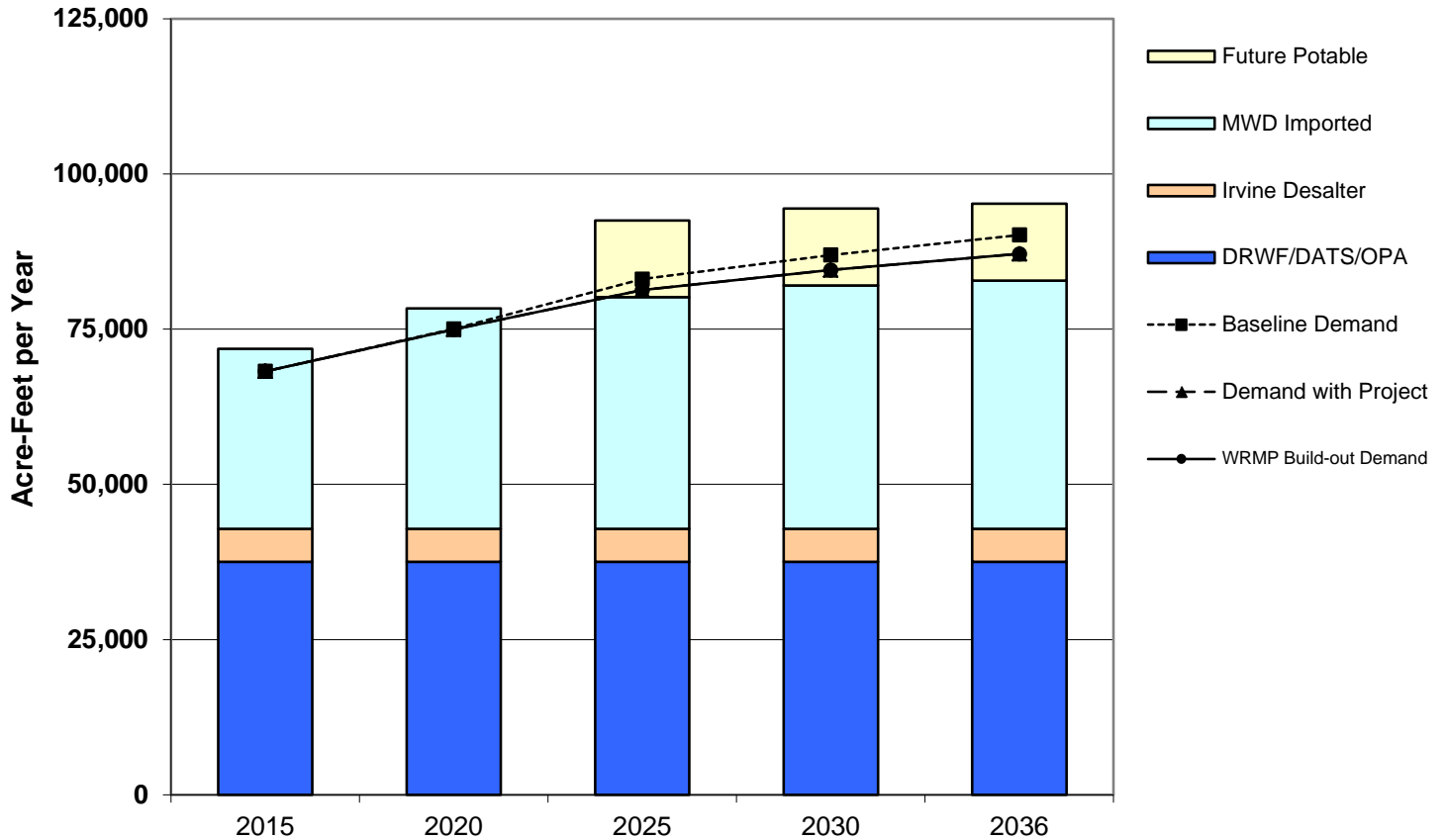
**Figure 1a  
IRWD Normal-Year Supply & Demand - Potable Water  
Under Temporary MWD Allocation\***



(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, Baker)	29,000	35,500	37,311	39,214	40,002
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
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
<b>Supplies Under Development</b>					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	78,170	85,670	99,834	101,737	102,525
Baseline Demand	63,753	70,137	77,635	81,261	84,276
Demand with Project	63,753	70,057	75,968	79,007	81,435
WRMP Build-out Demand	63,753	70,057	75,968	79,007	81,435
Reserve Supply with Project	14,417	15,614	23,866	22,730	21,090

\*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term allocation, Shortage Stage 3 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 would be limited to available MWD and native water only.

**Figure 2a**  
**IRWD Single Dry-Year Supply & Demand - Potable Water**  
**Under Temporary MWD Allocation\***

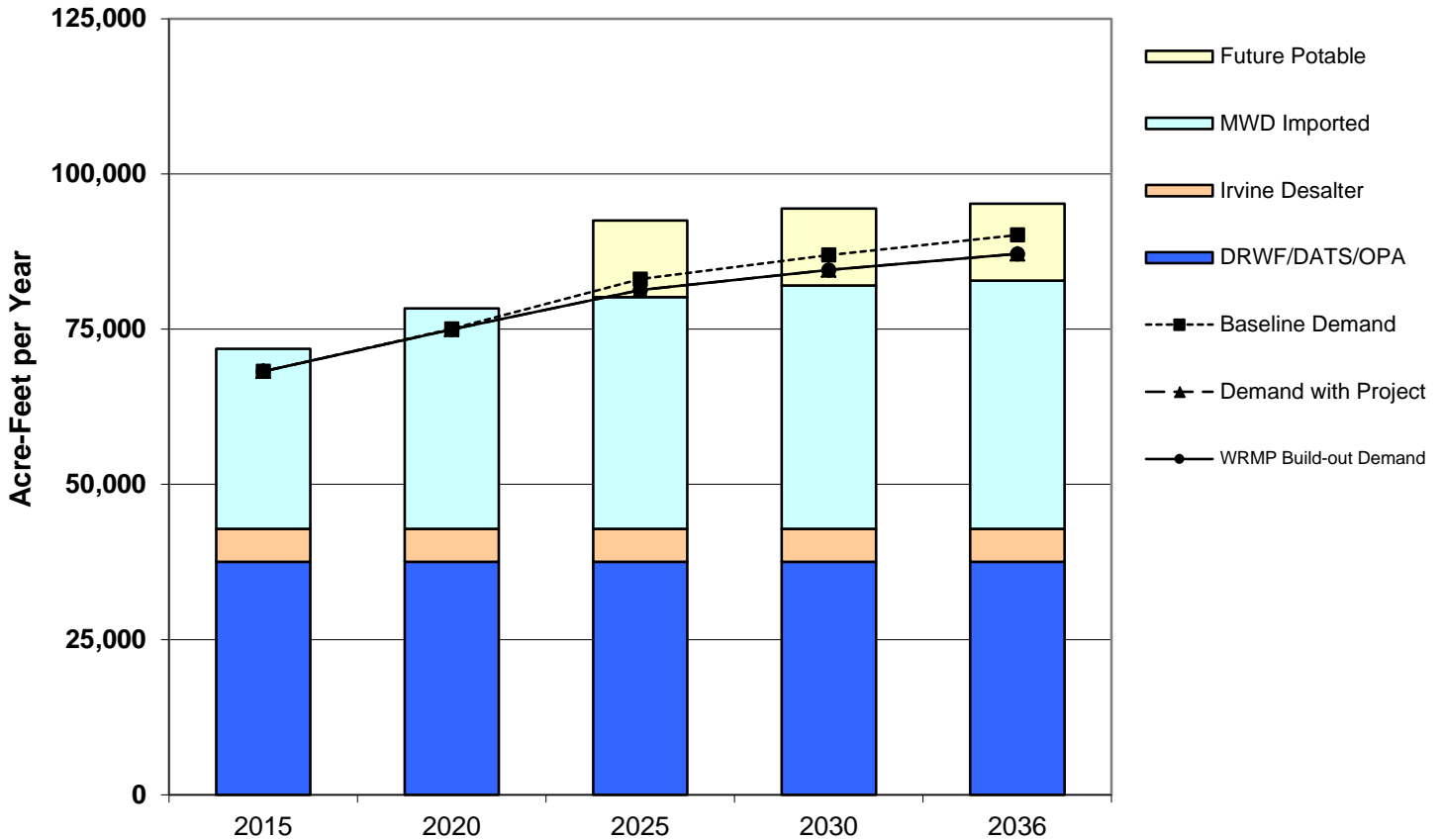


(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, Baker)	29,000	35,500	37,311	39,214	40,002
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
<b>Supplies Under Development</b>					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	78,170	85,670	99,834	101,737	102,525
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,136
Reserve Supply with Project	9,955	10,710	18,548	17,199	15,389

\*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term allocation, Shortage Stage 3 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 would be limited to available MWD and native water only.



**Figure 3a  
IRWD Single Dry-Year Supply & Demand - Potable Water  
Under Temporary MWD Allocation\***



(in acre-feet per year)	2015	2020	2025	2030	2036
<b>Current Potable Supplies</b>					
MWD Imported (EOCF#2, AMP, OCF, Baker)	29,000	35,500	37,311	39,214	40,002
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
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
<b>Supplies Under Development</b>					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	78,170	85,670	99,834	101,737	102,525
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,135
Reserve Supply with Project	9,955	10,710	18,548	17,199	15,389

\*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term allocation, Shortage Stage 3 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 would be limited to available MWD and native water only.

## 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 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
	124.1	49,916	49,916
<b>Potable - Treated Surface</b>			
Baker Treatment Plant (includes imported and native)	10.5	6,858	6
<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
Total Potable Current Supplies	248.9		105,944
<b>Nonpotable - Recycled Water</b>			
MWRP (28 mgd)	37.3	26,970	4
LAWRP (5.5 mgd)	8.3	5,975	4
Future MWRP & LAWRP	6.7	4,820	5
			37,765
<b>Nonpotable - Imported</b>			
Baker Aqueduct	52.7	12,221	6
Irvine Lake Pipeline	65.0	9,000	7
	117.7	21,221	21,221
<b>Nonpotable - Groundwater</b>			
Irvine Desalter-Nonpotable	5.4	3,514	8
<b>Nonpotable Native</b>			
Irvine Lake (see Baker Treatment Plant above)	4.2	3,048	6,9
Total Nonpotable Current Supplies	179.4		65,548
Total Combined Current Supplies	428.3		171,493
<b>Supplies Under Development</b>			
<b>Potable Supplies</b>			
Future Groundwater Production Facilities	19.2	12,352	12,352
Total Under Development	19.2	12,352	12,352
Total Supplies			
Potable Supplies	268.1		118,297
Nonpotable Supplies	179.4		65,548
Total Supplies (Current and Under Development)	447.5		183,845

1 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 1.8 (see Footnote 5, page 24).

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 28.0 mgd treatment capacity (26,970 AFY RW production) and LAWRP 5.5 mgd tertiary treatment capacity (5,975 AFY)

5 Future estimated MWRP & LAWRP recycled water production.

6 After 2016, Baker Water Treatment Plant (WTP) will treat imported and native water. Baker Aqueduct capacity has been allocated to Baker WTP participants and IRWD will own 46.50 cfs in Baker Aqueduct after completion of 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 9, page 27).

7 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.

8 Contract amount - See Nonpotable Supply-Groundwater (i) and (ii). Maximum day well capacity (cfs) is compatible with contract amount.

9 Based on 70+ years historical average of Santiago Creek Inflow into Irvine Lake. By 2020, native water will be treated through Baker WTP..

\*64.7 cfs is current assigned capacity; based on increased peak flow, IRWD can purchase 10 cfs more (see page 24 (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>5 6</sup>

• POTABLE SUPPLY - IMPORTED<sup>7</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>8</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 agrees to operate the AMP as any other MWD pipeline. MWD has the right to

<sup>5</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>6</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, except where otherwise noted, IRWD has no current plans to do so.

<sup>7</sup> See Imported Supply - Additional Information, below, for information concerning the availability of the MWD supply.

<sup>8</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.

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).

***Baker Water Treatment Plant (currently available)***

IRWD is currently constructing the Baker Water Treatment Plant (Baker WTP) in partnership with El Toro Water District, Moulton-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>9</sup>

**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 through 2035 in its Final Draft Long-Term Facilities Plan (January, 2006), last updated November 19, 2014. The Long-Term Facilities Plan is updated approximately every five years.

(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 (DWRF) / 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

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<sup>9</sup> The Baker WTP shall be supplied nonpotable imported water through the existing Baker Pipeline. IRWD’s existing Baker Pipeline capacity (see 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.

(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.

***Wells 21 and 22 (currently available)***

IRWD completed construction of treatment facilities, pipelines and wellhead facilities for Wells 21 and 22. Water supplied through this project became available in 2013. The wells are operated within the Orange County Groundwater Basin.

***Irvine Wells (under development)***

(vi) IRWD is pursuing the installation of production facilities in the west Irvine, 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. Appropriate environmental review would be conducted for each facility. See discussion of the Act under Potable Supply - Groundwater, paragraph (i), above.

• **NONPOTABLE SUPPLY - RECYCLED**

***Water Recycling Plants (currently available)***

Water Code Section 1210. IRWD supplies its own recycled water from wastewater collected by IRWD and delivered to IRWD's Michelson Water Recycling Plant (MWRP) and Los Alisos Water Recycling Plant (LAWRP). MWRP currently has a permitted tertiary capacity of 18 million gallons per day (MGD) and LAWRP currently has a permitted tertiary 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 recycled water, and do not permit stream discharge of recycled 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 (currently available)***

IRWD completed construction of the Michelson Water Reclamation Plant Phase 2 Capacity Expansion Project to tertiary capacity of 28 MGD. With this expansion, IRWD increased its tertiary treatment capacity on the existing MWRP site to produce sufficient recycled water to meet the projected demand in the year 2036. Additional reclamation capacity will augment local nonpotable supplies and improve reliability.

•**NONPOTABLE SUPPLY - IMPORTED**<sup>10</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 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's original capacities in the Baker Pipeline include 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. These existing Baker Pipeline capacities have been apportioned to the Baker WTP participants based on Baker WTP capacity ownership. IRWD retains 10.5 cfs of the pipeline capacity for potable supply through the Baker WTP and retains 36 cfs in Reach 1U of the Baker Pipeline capacity for nonpotable supply (See also footnote 10, page 27). 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

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<sup>10</sup> See Imported Supply - Additional Information, below, for information concerning the availability of the MWD supply.

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 appropriate 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>11</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

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<sup>11</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.

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 MWD's UWMP, MWD has extended its planning timeframe out through 2040 to ensure that MWD's UWMP may be used as a source document for meeting requirements for sufficient supplies. In addition, the MWD UWMP 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 MWD UWMP summarizes MWD's planning initiatives over the past 15 years, which includes the Integrated Resources Plan (IRP), the IRP 2015 Update, the WSDM Plan, Strategic Plan and Rate Structure. The reliability analysis in MWD's 2015 IRP Update showed that MWD can maintain reliable supplies under the conditions that have existed in past dry periods throughout the period through 2040. The MWD UWMP includes tables that show the region can provide reliable supplies under both the single driest year (1977) and multiple dry years (1990-92) through 2040. MWD has also identified buffer supplies, including additional State Water Project groundwater storage and transfers that could serve to supply the additional water needed.

It is anticipated that MWD will revise its regional supply availability analysis periodically, if needed, to supplement the MWD UWMP in years when the MWD UWMP 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 UWMP. 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, 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 No. 11881) and Baker WTP (PR No. 11747), IRWD adopted its fiscal year 2015-16 capital budget on June 8, 2015 (Resolution No. 2015-13), 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 \$615.2 million (water) and \$784.8 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 UWMP, 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 UWMP, 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).

See also MWD's UWMP, 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 2010 UWMP, sections 4-D through 4-J.

(b) Description of the groundwater basin(s) from which the Project will be supplied:

The Orange County Groundwater Basin ("Basin") is described in the Groundwater Management Plan ("GMP") 2015 Update Final Draft, dated June 17, 2015<sup>12</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 331,000 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 was received by the OCWD Board in July 2009, and was last updated in November 2014. 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

<sup>12</sup> OCWD has also prepared a Long-Term Facilities Plan which was received and filed by its Board in July 2009, and last updated in November 2014.

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 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. (OCWD MPR and LTFP)

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/21-22	Irvine Subbasin (IRWD)	Irvine Subbasin (TIC)	LAWD <sup>13</sup>
2015	40,656	9,840	0	336
2014	42,424	10,995	0	376
2013	38,617	8,629	0	282
2012	37,059	7,059	0	0
2011	34,275	7,055	0	0
2010	37,151	8,695	0	3
2009	38,140	7,614	0	0

<sup>13</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.

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 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>14</sup>	Future GW <sup>15</sup>	IDP (Potable)	IDP (Nonpotable)
2020	43,300	0	5,640	3,898
2025	43,300	12,352	5,640	3,898
2035	43,300	12,352	5,640	3,898
2040	43,300	12,352	5,640	3,898

(e) If not included in the 2010 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:

<sup>14</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 and 6,300 for Wells 21&22.

<sup>15</sup> Under development.

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 Production Percentage ("BPP") that OCWD sets based on these factors.<sup>16</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 has completed its replenishment supply project, 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.

**Sustainable Groundwater Management Act.** Pursuant to the Sustainable Groundwater Management Act (SGMA), the DWR has designated the Orange County groundwater basin as a medium priority basin for purposes of groundwater management. By January 31, 2017, local groundwater producers must establish or designate an entity (referred to as a groundwater sustainability agency, or "GSA"), subject to DWR's approval, to manage each high and medium priority groundwater basin. The SGMA specifically calls for OCWD, which regulates the Orange County groundwater basin, to serve as the GSA for such basin.

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<sup>16</sup> OCWD has adopted a basin production percentage of 70% for 2015-16. 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.



**5.  This Water Supply Assessment is being completed for a project included in a prior water supply 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, Updated 2007

*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 Urban Water Management Plan*, Irvine Ranch Water District, June, 2011

*Southern California's Integrated Water Resources Plan*, Metropolitan Water District of Southern California, March 1996

*Proposed Framework for Metropolitan Water District's Delta Action Plan*, Metropolitan Water District of Southern California, May 8, 2007

*2007 IRP Implementation Report*, Metropolitan Water District of Southern California, October 7, 2007

*Board Letter, Action plan for updating the Integrated Resources Plan*, Metropolitan Water District of Southern California, December 11, 2007

*2010 Integrated Resources Plan Update*, Metropolitan Water District of Southern California, October 2010

*2015 Integrated Resources Plan Update*, Metropolitan Water District of Southern California, January 2016

*Draft 2015 Urban Water Management Plan*, Metropolitan Water District of Southern California, March 2016

*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

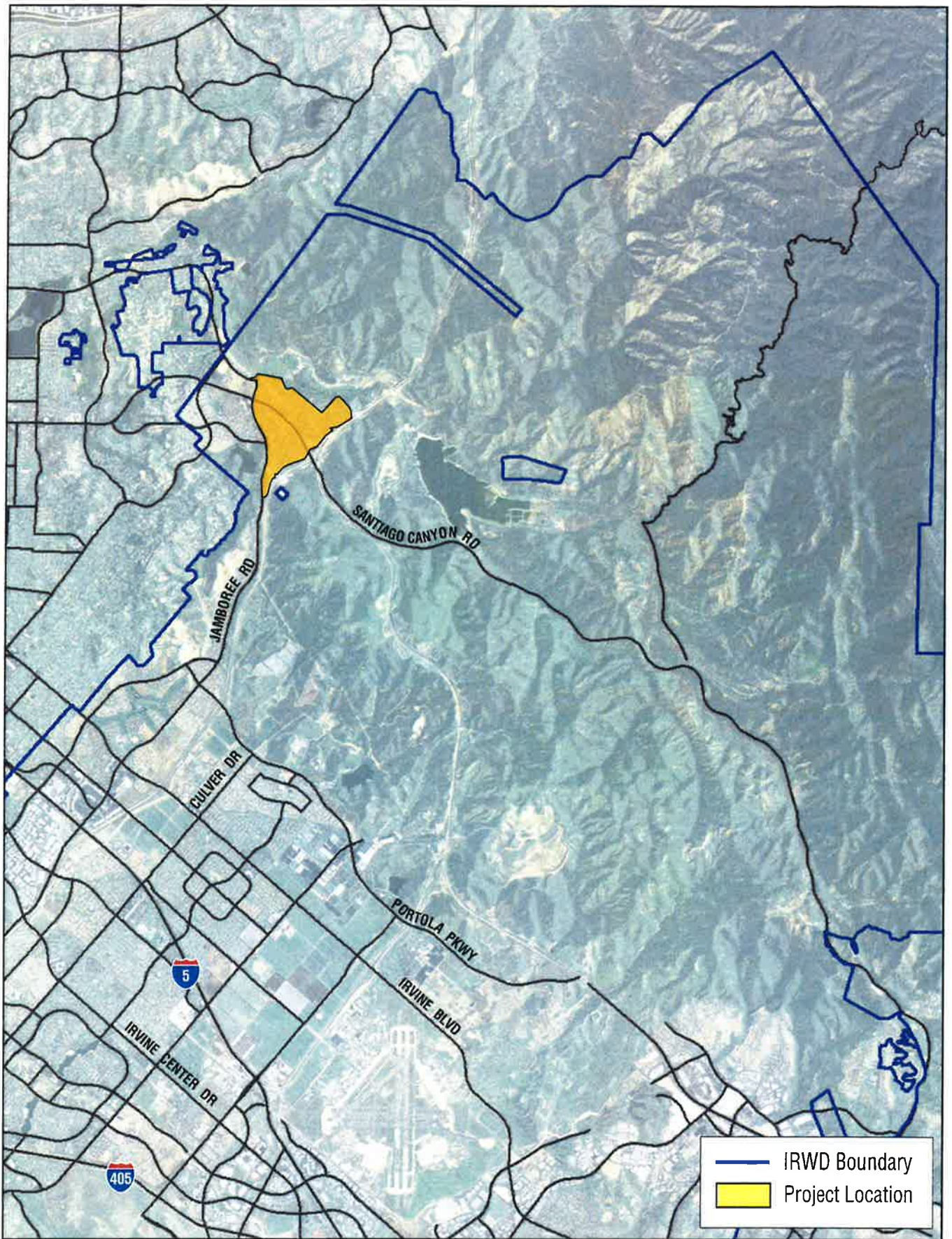
*Long-Term Facilities Plan 2014 Update*, Orange County Water District, November 2014

*2014-2015 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District, Orange County Water District, February 2016*

*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



**Exhibit B**

Uses Included in Project





# CITY OF ORANGE

DEPARTMENT OF COMMUNITY DEVELOPMENT

www.cityoforange.org

ADMINISTRATION  
(714) 744-7240  
fax: (714) 744-7222

PLANNING DIVISION  
(714) 744-7220  
fax: (714) 744-7222

BUILDING DIVISION  
(714) 744-7200  
fax: (714) 744-7245

CODE ENFORCEMENT DIVISION  
(714) 744-7244  
fax: (714) 744-7245

April 1, 2016

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

Re: Request for Water Supply Availability Assessment or Supplemental Water  
Supply Availability Assessment (Water Code §10910 *et seq.*)

The City of Orange hereby requests a supplemental assessment of water supply availability for the below-described project. The City has determined that the project is a "project" as defined in Water Code §10912, and has determined that an addendum to a previously-certified Environmental Impact Report (EIR) is required for the project.

### Proposed Project Information

Project Title: Santiago Hills II Planned Community

Location of project: The project site is located east of Jamboree Road, west of the SR 241/261 toll road, south of Irvine Regional Park and north of the Orange City limit. Refer to Exhibit.

For projects requiring a supplemental assessment under Water Code §10910 (h):

- Previous Water Supply Assessment including this project was approved March 8, 2004. This application requests a supplemental Water Supply Assessment, due to the following (check all that apply):
  - Changes in the project that have substantially increased water demand
  - Changes in circumstances or conditions that may have affected IRWD's ability to provide a sufficient water supply for the project
  - New information that has become available which was not known and could not have been known at the date of the prior Water Supply Assessment

(If a supplemental assessment is requested, IRWD may prepare an amended WSA or a supplemental WSA to be used together with the previous WSA, as determined by IRWD.)

Type of Development:

- Residential: No. of dwelling units: 1,180 units
- Shopping center or business: No. of employees \_\_\_\_\_ 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: 9.4 acres, Parks

Total acreage of project: 412 acres

Acreage devoted to landscape:

Greenbelt N/A golf course N/A parks 9.4 acres

Agriculture N/A other landscaped areas 170 acres

Number of schools N/A Number of public facilities N/A

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:

Fire service will be provided by the Orange Fire Department and subject to their peak flow requirements. Reclaimed water is proposed for common area landscape irrigation.

What is the current land use of the area subject to a land use change under the project?

The project site is currently undeveloped and contains natural vegetation.

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 supplemental Water Supply Assessment if it determines that one is required.

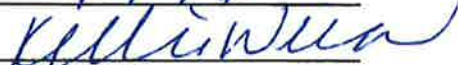
The City acknowledges that the Water Supply Assessment shall not constitute a "will-serve" or in any way entitle the project applicant to service or to any right, priority or allocation in any supply, capacity or facility, and that the issuance of the Water Supply Assessment shall not affect IRWD's obligation 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 ORANGE

By:  \_\_\_\_\_  
Jennifer Le, Principal Planner

REQUEST RECEIVED:

Date: 4-1-16

By:   
Irvine Ranch Water District

REQUEST COMPLETE:

Date: 4-1-16

By:   
Irvine Ranch Water District



April 11, 2016

Prepared by: Leslie Bonkowski

Submitted by: Cheryl Clary

Approved by: Paul Cook



## CONSENT CALENDAR

### TRAVEL AUTHORIZATION TO ATTEND CONFERENCE

#### SUMMARY:

Under the District's current travel policy, prior Board authorization is required for a staff member to receive reimbursement for travel on District business outside the United States. Staff recommends the Board authorize Executive Director of Finance Clary to attend a three-day conference of the Government Finance Officers Association of the United States and Canada (GFOA) scheduled for May 2016 in Toronto, Ontario, Canada where she has been invited to provide a presentation.

#### BACKGROUND:

On August 25, 2014, the Board adopted Resolution No. 2014-38 which provides policies for business expense reimbursement, travel, meeting compensation and representation. Under Section 6 of the policy, no travel for District staff is permitted outside the United States without prior Board authorization.

The GFOA's 110<sup>th</sup> annual conference will be held in Toronto, Ontario, Canada in May 2016. IRWD's Executive Director of Finance and Administration, Cheryl Clary, has been invited to present at the three-day conference and will attend sessions on Financial Leadership, Internal Control and Technology, the Cost of Government, Best Practices in Payroll, and Managing under a Microscope, as provided in Exhibit "A". If Ms. Clary attends the conference, she will receive Continuing Professional Education credits to maintain her CPA license.

#### FISCAL IMPACTS:

Total projected expenses are \$2,404 which includes airfare, lodging, meals, and ground transportation.

#### COMMITTEE STATUS:

This item was not reviewed by a Committee.

#### RECOMMENDATION:

THAT THE BOARD AUTHORIZE EXECUTIVE DIRECTOR OF FINANCE CLARY TO ATTEND THE GOVERNMENT FINANCE OFFICERS ASSOCIATION OF THE UNITED STATES AND CANADA'S 110<sup>TH</sup> ANNUAL CONFERENCE IN TORONTO, ONTARIO.

#### LIST OF EXHIBITS:

Exhibit "A" – Conference Brochure Excerpts

EXHIBIT "A "



Government Finance Officers Association  
of the United States and Canada

# 110<sup>th</sup> ANNUAL CONFERENCE

May 22-25, 2016  
TORONTO, ONTARIO, CANADA



Sharing Solutions & Strategies



EARN MORE THAN 20 CPE CREDITS

Go to [www.gfoa.org](http://www.gfoa.org) to register today!

# Must-Attend Event

## Sharing Solutions and Strategies

Drawing on more than a century of experience, public finance professionals have widely come to view the GFOA Annual Conference as the one truly “must-attend” professional development event of the year. As in the past, the 110th GFOA Annual Conference in Toronto, Ontario, Canada, will feature unparalleled opportunities for sharing ideas, sharpening skills, discovering new tools and technologies, and networking with peers from across North America and around the world.



### Why Attend?

- A rich array of **concurrent sessions** covering a broad range of topics allows participants to tailor their conference experience to their own needs and circumstances;
- Special **preconference sessions** provide an opportunity to explore selected topics of special interest in even greater depth;
- **General sessions** bring participants into direct contact with nationally recognized speakers of special interest to public finance professionals;
- **Discussion groups, networking sessions, and social events** create countless opportunities for connecting, building new relationships with peers, and cementing existing relationships;
- Participants can earn **over 20 continuing professional education (CPE) credits** during the GFOA Annual Conference, with even more credits available for those who elect to participate in preconference sessions.

The **GFOA exhibit hall** will put participants in contact with vendors that offer practical tools and solutions for a broad range of professional challenges.

Select from **preconference seminars, concurrent sessions, and discussion groups** to customize your own educational curriculum.

Participate in half-day **preconference seminars** beginning the afternoon of Friday, May 20, 2016, through Saturday, May 21, 2016. **Concurrent sessions** will begin at 1:30 p.m. on Sunday, May 22, 2016, and conclude at 12:10 p.m. on Wednesday, May 25, 2016. The sessions will be held at the Metro Toronto Convention Centre, 222 Bremner Boulevard, Toronto, Ontario M5V 3L9, Canada.

## PROGRAM

The annual conference presents general sessions on Monday and Tuesday mornings that feature recognized leaders in the government finance profession and offers concurrent sessions that address topical issues in government finance.

## CONCURRENT SESSIONS

Create your own curriculum from among concurrent sessions over three days. Sessions will cover the following fields of study:

- accounting, auditing, and financial reporting
- budgeting
- capital planning and economic development
- debt management
- financial management
- pension and benefit administration
- treasury and investment management

Take advantage of the following unparalleled opportunities at the GFOA annual conference:

- **preconference seminars** offered on Friday and Saturday
- **concurrent sessions** from Sunday through Wednesday
- **general sessions** on Monday and Tuesday mornings
- **discussion groups** held throughout the conference
- **welcome reception** on Sunday night
- **closing event** on Tuesday night



# Program



## TECHNICAL SESSIONS

Finance officers are called upon to be technical experts, strategic thinkers, resource managers, project leaders, and catalysts for change and improvement. Being effective in so many complex but crucial roles requires skills and experience, as well as training that is not easily accessible. These sessions will assist finance officers in improving their skill set and learning new techniques in accounting, auditing, and financial reporting (IT-related internal control, improved internal auditing, fraud detection techniques); budgeting and forecasting (grants management, program budgeting); capital financing (asset management, debt administration); treasury investment management (investment policies, revenue collections); and pension administration.

## LEADERSHIP DEVELOPMENT

Finance officers are increasingly regarded as organizational leaders. GFOA's conference is a place to develop your existing leadership skills and make yourself more valuable to your organization. Sessions are designed for both experienced leaders and those looking to advance in their career (conflict management, team leadership, improved communication skills).

## NETWORKING

GFOA's conference also offers multiple opportunities to connect and network with peers from your own area as well as from across the United States and Canada. Those opportunities will include focused networking sessions on specific topics and the unique challenges faced by school districts, utility agencies, and GFOA members in both very small jurisdictions and large urban governments.

Watch [www.gfoa.org](http://www.gfoa.org) for detailed session information available in 2016.

# Preconference Seminars

The GFOA's preconference seminars provide an opportunity for attendees to get in-depth training on topics vitally important to finance officers. Come to Toronto a day or two early and multiply the benefits you'll get by signing up for these added training offerings. Preconference sessions will be held at the Metro Toronto Convention Centre.



**Taking an afternoon session on Friday or Saturday?**

An afternoon snack will be available in your session room.

**Taking a morning session on Saturday?**

A continental breakfast will be available in your session room.

**Taking both a morning and afternoon session on Saturday?**

Enjoy a continental breakfast and afternoon snack in your session room, as well as a grab-and-go lunch.

## Friday May 20, 2016

### Financial Leadership

1:00 – 5:00 p.m. | 4 CPE Credits

Finding solutions for many of the financial challenges facing local governments requires not only technical financial skills, but also competency in financial leadership. This session will be focused on identifying characteristics of financial leaders and helping to develop and refine necessary skills at all levels of the organization (not only the CFO). Speakers will present case study examples and leading practices on how to identify and develop leadership skills in your organization and prepare the next generation of leaders to emerge with the tools, skills, and experience necessary to drive financial leadership. This session will also highlight work from GFOA's task force on financial resiliency and identify specific ways that finance can be a driver for a more financially resilient government. Specific recommendations from the task force related to finance and strategic planning, budgeting, economic development, capital planning, and overall risk management will be discussed.

### Internal Control and Technology

1:00 – 5:00 p.m. | 4 CPE Credits

In recent years, governments have dramatically increased the automation and integration of their business processes and application controls as a result of the widespread move to modern enterprise resource planning (ERP) systems, including the use of many hosted or "cloud" applications. These developments have created significant internal control challenges that the authoritative standard-setting body for internal control, the Committee of Sponsoring Organizations (COSO), sought to address in its recently revised and expanded guidelines. The revised COSO guidelines place special emphasis on the need for organizations to update their framework of internal control (policies, procedures, business processes, etc.) in order to manage the risks created by new ways in which organizations are using their information technology applications. This session will examine the most significant risks associated with the latest applications of information technology and provide participants practical guidance on how to avoid or mitigate those risks.



# Preconference Seminars

## Saturday May 21, 2016

### The Cost of Government

**8:30 a.m. – 12:30 p.m. | 4 CPE Credits**

GFOA has a best practice on measuring the cost of government services. However, many organizations suffer from lack of accurate cost information and struggle implementing processes that track the cost of government services, specifically for programs and services. This makes it difficult for decision makers to make informed decisions and for the organization to communicate this information with the public. This session will discuss what program/activity costing is, its pros and cons, its uses for the organization, and tips for implementation. The focus of the seminar will be on program costing and the chart of accounts, budgeting, charges and fees, performance management, and financial systems.

### Best Practices in Managing Payroll

**1:00 – 5:00 p.m. | 4 CPE Credits**

Many finance officers have responsibility for payroll. With that comes responsibility to manage a process that accounts for approximately 85% of an organization's operating budget, maintain compliance with an ever changing set of state and federal legislative and regulatory requirements, navigate business rules further complicated by unique collective bargaining requirements, and perform with zero margin for error. And while just about every organization is able to manage these tasks routinely, there are often opportunities for significant improvements. This session will explore best practices in managing payroll, including the role of HR and finance, how to incorporate internal controls, use of technology, third-party service providers, recommendations on dealing with an ever changing set of compliance requirements, and case study examples from local governments that have successfully improved their payroll processes and overall payroll functions.

### Finance Under a Microscope

**1:00 – 5:00 p.m. | 4 CPE Credits**

Finance officers must understand and master highly technical and complex aspects of accounting, budgeting, revenue forecasts, capital finance, investing, risk management, pensions, tax policies, and other public finance topics while also being able to effectively communicate the critical elements to a much less finance-savvy audience. Adding to that challenge, finance officers are relied on to deliver information under heightened levels of scrutiny and pressure from elected officials, the public, interest groups, and the media. The finance officer must be an effective communicator, deliver a consistent message to various stakeholders, and still get across key points so that the audience can understand the issues and, most importantly, their impact. In this session, finance officers will have the opportunity to refine their communication skills, both written and spoken, in a workshop setting and learn effective techniques for communicating technical information, as well as how to deal with difficult situations and environments and how to be viewed as a credible and reliable source of information.

April 11, 2016

Prepared by: Tony Mossbarger

Submitted by: Cheryl Clary

Approved by: Paul Cook 

## ACTION CALENDAR

### ANNUAL ORACLE SOFTWARE MAINTENANCE AND SUPPORT AGREEMENT RENEWAL

#### SUMMARY:

The Oracle Software Maintenance and Support Agreements, which expire in May 2016, provide for upgrades and maintenance of the District's Oracle Customer Care and Billing (CC&B) software, Oracle eBusiness Suite (EBS) Financial software, and Oracle Technology software. These agreements provide pricing for software maintenance and licenses contained in the Unlimited License Agreement (ULA) executed with Oracle in May 2014 as well as the EBS Financial Software Agreement executed with Oracle in May 2010. Staff recommends the Board authorize renewal of the annual Oracle Software Maintenance and Support Agreements, and additional licenses and support, in the amount of \$919,711 effective on May 30, 2016 (ULA) and on May 22, 2016 (EBS).

#### BACKGROUND:

The Board approved a ULA software agreement, with a term of 42 months, with Oracle in May 2014 through November 2017, for Technology software and additional CC&B software licenses. Included in the agreement was a zero percent increase in software and support maintenance for renewals commencing in 2015 and 2016. The renewal amount remains unchanged from 2015.

The Board approved a software agreement with Oracle in May, 2010 for EBS Financial software licenses. The agreement includes an annual increase in software and support maintenance for renewals commencing in 2011. The renewal amount increased 3.1% from 2015.

Several of the EBS software programs are licensed by enterprise-based on operating revenue. For the District, this value is the audited operating revenue before adjustments for expenses and taxes generated during a fiscal year. The agreement provides that if the operating revenues increase, the District is required to order additional licenses and technical support for such licenses. The formula generates an increase of \$34,707 for additional licenses and support, as required by the agreement.

The District uses Oracle Technology software to run the servers and databases that support the Oracle EBS Financial applications, Oracle CC&B applications, and Oracle Business Intelligence applications software. The agreements cover all versions of Oracle Technology software products, CC&B software products, and EBS Financial products purchased by the District, and allows for upgrades to new versions as they become available.

The following table provides a summary of costs for the Oracle software maintenance and support agreements and additional licenses and support:



Description	Cost
Oracle Technology (ULA) Software and Support Maintenance	\$ 639,282
Oracle CC&B Software and Support Maintenance	\$ 132,273
Oracle EBS Financial Software and Support Maintenance	\$ 113,449
Oracle EBS Financial Software Additional Licenses and Support Based on \$M Revenue (28.4K license, 6.3K support)	\$ 34,707
Total Oracle Software Maintenance and Support Agreements, and Additional Licenses and Support	\$ 919,711

Staff recommends renewal of the annual Oracle Software Maintenance and Support Agreements and additional licenses and support in the amount of \$919,711.

FISCAL IMPACTS:

Oracle Software Maintenance and Support Agreements are included in the FY 2016-17 operating budget.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on April 5, 2016.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE STAFF TO RENEW THE ANNUAL ORACLE SOFTWARE MAINTENANCE AND SUPPORT AGREEMENTS, AND ADDITIONAL LICENSES AND SUPPORT, IN THE AMOUNT OF \$919,711 EFFECTIVE ON MAY 30, 2016 (ULA) AND ON MAY 22, 2016 (EBS).

LIST OF EXHIBITS:

None.

April 11, 2016

Prepared by: M. Veeh

Submitted by: B. Beeman/P. Weghorst *PW*

Approved by: Paul Cook *P. Cook*

## ACTION CALENDAR

### DISCOVERY SCIENCE FOUNDATION EDUCATION PROGRAM

#### SUMMARY:

IRWD has successfully partnered with Discovery Science Foundation (DSF) to create and implement water education outreach programs for schools throughout IRWD's service area. Over the course of the nine-year partnership, the elementary school assembly program, the middle school water quality and field trip program and additional education outreach efforts have instructed approximately 81,740 students on the importance of water to Southern California, conservation and the environment. Beginning in Fall 2016, a pilot professional development program for high school teachers will be implemented in addition to the elementary and middle school programs. The pilot program will be evaluated and may be extended for an additional two years at the discretion of IRWD. The total proposed three-year budget for all DSF education programs is \$531,555. Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement with DSF in the amount of \$531,555 for the three-year period covering FY 2016-2017, FY 2017-2018 and FY 2018-2019, for the elementary, middle and high school education programs.

#### BACKGROUND:

The goals of the DSF water education programs are to build awareness among IRWD service area students and residents of the District's programs, to instill a firm understanding of the natural scarcity of water in the region and to encourage and empower students and residents to help conserve, protect and preserve water. The water education program also provides a key Best Management Practice under the Memorandum of Understanding with the California Urban Water Conservation Council.

#### School Programs:

IRWD and DSF first formed a partnership for water education programs in 2007 to instruct elementary school students in IRWD's service area. The agreement was renewed in 2010 for another three-year term and again in 2013 for a three-year term that provided for both elementary and middle school programs. Staff has included funding for a continuation of these programs as well as a high school pilot program in next year's budget. A new three-year agreement with DSF is recommended for the three educational components of the partnership as described below:

1. *Elementary School:* Students in kindergarten through fifth grade will participate in grade-specific assemblies that focus on water science and conservation. Using individual student response keypad technology, teachers engage and encourage student participation during presentations. All assemblies, regardless of grade level, stress the importance of conserving limited resources and preventing water pollution. Topics will include the

forms of water, water as a resource, ecosystems, the water cycle, sources of water, water recycling, energy and resources and California's water.

The assembly program continues to be very successful and exceeds student participant goals each year. The educational program is on track to exceed student participation goals in FY 2015-2016. By the end of June, more than 10,000 students will have completed the Assembly Program. So far, 1,421 students have completed or are scheduled to complete the Field Trip Program, with more scheduling efforts underway.

2. *Middle School:* Sixth, seventh and eighth grade students will participate in a two-part in-class series of hands-on water chemistry and environmental resources lessons concluding with a trip to IRWD's San Joaquin Marsh. With an eye toward future careers, students will use chemical test kits to determine aspects of water quality, conduct simulated biological surveys related to water quality issues; deepen their understanding of water as a basic element and an essential resource, and explore current technologies such as water recycling.
3. *High School Pilot Program:* Beginning in FY 2016-2017, staff proposes that DSF administer a new high school pilot water education program that is specifically designed for IRWD service area high schools. The pilot program for high school teachers was developed after extensive discussions with local teachers. It will focus on natural scarcity, sources and usage of water in Orange County and will include interactive lessons associated with water use efficiency, groundwater, recycled water, urban runoff and droughts.

Fifteen high school teachers will participate in the first year of the program. Each teacher will receive instruction in a one-day workshop to be held in Fall 2016. Staff expects that teachers participating in the program will each enroll approximately 100 of their students for a total potential reach of about 1,500 students per year. Based on a thorough evaluation of the pilot program that will occur at the end of the first fiscal year, IRWD will determine whether to extend the program for the following two fiscal years. Exhibit "A" includes a more thorough description of the proposed high school program.

#### Scope of Work:

For the next three fiscal years, DSF will deliver a suite of water education programs for IRWD as described in the scope of work provided as Exhibit "B". The programs will include:

- Assembly-style programs that will focus on elementary school students;
- A two-part workshop-style program for middle school students to include a field trip program at the San Joaquin Marsh; and
- A pilot professional development program for high school teachers.

DSF will deliver all aspects of the education programs, including:

- Managing the creation, production, procurement, and storage of take-home grade-specific booklets, workshop supplies, student kits and other materials required for program delivery;
- Promoting the water education programs to the schools within IRWD’s service area, including booking program times and scheduling of instructors;
- Compiling and reporting results from each of the programs, including survey responses, kit distribution and other program outcomes; and
- Purchasing and bundling the supplies for the pilot professional development program for high school teachers, ready for implementation in Fall 2016.

**FISCAL IMPACTS:**

The cost of the elementary, middle and high school programs will be \$531,555 over a three-year period. Funds to cover one-third of these costs are included in the proposed FY 2016-2017 operating budget. All DSF education programs will be funded from over allocation funding.

**ENVIRONMENTAL COMPLIANCE:**

Not applicable.

**COMMITTEE STATUS:**

This item was reviewed by the Water Resources Policy and Communications Committee on April 6, 2016.

**RECOMMENDATION:**

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH DISCOVERY SCIENCE FOUNDATION IN THE AMOUNT OF \$531,555 FOR THE THREE-YEAR PERIOD COVERING FY 2016-2017, FY 2017-2018 AND FY 2018-2019, FOR THE ELEMENTARY, MIDDLE AND HIGH SCHOOL EDUCATION PROGRAMS.

**LIST OF EXHIBITS:**

- Exhibit “A” – Discovery Science Foundation Proposal for Pilot Professional Development Program for High School Teachers
- Exhibit “B” – Discovery Science Foundation of Orange County Irvine Ranch Water District Three-year Educational Outreach Scope of Work (FY 2016-19)

## EXHIBIT "A"

### **Discovery Science Foundation** Pilot Professional Development (PD) Program for High School Teachers

#### **Summary**

Discovery Science Foundation (DSF) is a leading provider of supplemental science education in Southern California, with a particular emphasis on partnering with public agencies to provide in-class water education programming. Our expert team has been designing and implementing grade-specific content for over two decades. Each of our programs is aligned with the Next Generation Science Standards, which have been adopted and are awaiting implementation in California schools.

DSF has been teaching science to students and families for nearly 25 years and has formed partnerships with several other water agencies and with over 30 partners across Southern California. Nearly all of these partnerships rely heavily on in-class education programs that weave together grade-specific science content with agency-specific messages that seek to educate the public. In total, DSF provides science programming to approximately 300,000 students in offsite, outreach programs each year, of which about 140,000 of these students are taught in water education programs.

#### **Program Format**

DSF is proposing a pilot professional development (PD) program for high school teachers in the Irvine Ranch Water District (IRWD). The educational focus will be specifically on the natural scarcity, sources, and usage of water in Orange County and will include interactive lessons associated with water use efficiency, groundwater, recycled water, and droughts. In addition, DSF will build an educational platform that will consist of water quality testing, water conveyance, and water treatment, along with human impact on our water, including distinguishing between one's positive and negative impacts, such as picking up pet waste and avoiding overwatering (positive impacts) and over-fertilization in the garden and facilitating urban runoff (negative impacts).

Some examples of the water quality tests that the teachers may receive are for nitrates, phosphates, dissolved oxygen, temperature, turbidity, biochemical oxygen demand, and coliform bacteria, in order to test "control" water samples and artificially "tainted" water samples, as well as other water source samples. Teachers will be trained on these and associated concepts during the PD classes and receive instructional materials and supplies to immediately use with their students. Each teacher will receive sets of the chemical test kits, along with materials to teach about macroinvertebrates and how to perform a Pollution Tolerance Index. In addition, teachers will learn and present interactive lessons on the processes of filtration in order to best understand (a) groundwater and percolation, (b) water treatment and reclamation processes, (c) recycled water uses, (d) etc.

Following the professional development sessions, high school teachers will conduct the hands-on water education program with their students using the kit of supplies provided through this program. To augment the in-class content provided, each student of a participating teacher will visit the IRWD San Joaquin Marsh & Wildlife Sanctuary in order to continue the water education program and deepen their understanding of the above-mentioned concepts. Professional development programming will also take place at the Marsh within the "Discovery Room."

Students will arrive as individuals or as a group, and not as a formal field trip unit. As part of the in-class unit, students will receive a series of activities that they will need to complete while at the Marsh. A series of dates and times will be provided for the students to attend, during which times the Marsh will be staffed in order to facilitate further learning. Through coordination between DSF and Cheryl Kelly at IRWD, this proposal anticipates that the Marsh will be staffed by IRWD representatives. DSF will also request support from Cheryl and her team for storage of DSF water test kits and to pull influent and effluent water samples for upcoming visitations.

Follow-up surveys will be conducted by the classroom teachers, facilitated by DSF in order to assess the effectiveness of the entire program. In addition, participating teachers will complete evaluation forms concerning the PD and in-class, kit-based program.

Firstly, we know that when a high school teacher takes his/her students out of the classroom, this affects and disrupts other high school teachers' schedule; in other words, the students will potentially be absent from their English class, math class, Social Sciences class, and so forth. Secondly, most high school teachers teach between 180 to 230 student per day and sometimes teach multiple subjects (for example three periods of Biology, two periods of Health, and one period of PE). In this scenario, the students who would be involved in this program would only be the 100 or so students in the three periods of Biology, so the teacher would need to arrange for a substitute (again another cost to the school or program funder). Finally, high school students can enjoy the Marsh at their own pace without the presence of governing adults. So, we believe that for this age group, this intentional format (rather than a group field trip format) will be more accommodating to the high school student and result in increased learning opportunities.

Further, students visiting will be tracked and their assignments are supplemental. We would design a program component that would allow the classroom teacher to know specifically which students attended the Marsh in order for those students to receive credit for their attendance. This system of credits would be agreed upon and co-designed by the participating teachers.

### **Key Concepts**

High school students are extremely peer-driven, one more reason why we have a strategy for non-field trip visits. Our goal through this program is for participating students to understand the negative and positive impacts that they have on their water resources by having them contemplate not only Southern California's natural scarcity of water, but the dramatic trend we are experiencing with the current drought. Through hands-on learning experiences, as well as introductions to natural resources that may provide real scientific data students can become intellectually and emotionally connected to the subject matter. Also, research shows that girls in particular have an affinity to the environmental sciences: this natural, nurturing component of caring for others, extends to family, friends, pets (animals), and the environment. While we know that young children become the teachers of the parents, this does not always happen with high school students. But high school students are making their own decisions of what they want to become as they "grow up," which includes what behaviors they intend to pursue. Therefore, we believe that providing the students with scientific data in a hands-on manner can be effective in helping them determine to incorporate water-saving and water-efficiency behaviors, such as less water usage outside of the home (i.e., overwatering of plants, loss of water by sprinkler systems, and deletion of high school carwashes as fundraisers).

## **Materials**

Hands-on materials that will be used by the teachers during the professional development classes and the kit materials that will be given to the teachers to use in their classroom will be primarily chemistry-based water quality test kits, along with gloves and safety goggles. In addition, other hands-on materials will include interactives that help teach about how to conduct a Pollution Tolerance Index. Maps and other images will be incorporated into the program. References will be made during the presentations to the teachers regarding IRWD, so the teachers understand where funding originated and the agencies' role in providing safe, clean water for household and community use. The maintenance of the materials will be the responsibility of the teachers.

## **Branding**

IRWD will be recognized as the sponsoring providers of the professional development workshops, both verbally and in all print and electronic materials associated with the professional development workshops. Student materials will also prominently feature IRWD as the sponsor of the program. In addition, IRWD branding at the San Joaquin Marsh will promote the sponsorship of the education program as a whole to all visitors, further emphasizing the contribution towards education.

## **Evaluation**

Follow-up evaluations will be conducted by DSF and facilitated by the classroom teachers in order to assess the effectiveness of the entire program. Evaluations will target student knowledge gain, attendance and participation in the various components of the program, and behavioral decisions made by the students. In addition, we will ascertain if they have shared the information that they have learned with others including their family members and friends. Collective information gathered by the students will help to develop new curriculum.

In addition, participating teachers will complete survey forms concerning the PD and in-class, kit-based program. Surveys will help fine-tune the program and program delivery processes and procedures. The results of these evaluations and surveys will be delivered to IRWD staff following the completion of each school year. These results will be compiled into a succinct report expressing the effectiveness of the program.

## **Readiness to Proceed**

The professional development workshop would be designed specifically for IRWD and work toward booking the programs would commence immediately following the execution of the contract. This timeline would ensure that the programs, including the purchase and bundling of teacher supplies, would be ready for implementation in the fall/winter of 2016.

## **Pricing Table**

All costs listed in the following table are estimated annual costs based on the projected participation levels set forth in the proposal, specifically: 15 teachers participating in a total of one initial professional development workshop, representing approximately 100 students each for a total of 1,500 students impacted by the program within the first year.

Professional Development Instruction	\$2,500
Water Quality Kits/Supplies (15 @ \$1,000.00 ea.)	\$15,000
Curriculum Development (pilot program)	\$5,000
Evaluation	\$5,000
<b>Total</b>	<b>\$27,500</b>

## **Educational Standards:**

DSF's pilot professional development (PD) program for high school teachers will focus on water use efficiency, groundwater, recycled water, and droughts. In order to lay a foundation of information for the students and teachers to best understand these concepts, the program will include hands-on lessons and models that include an introduction of Southern California's natural scarcity of water, along with water quality testing that will segue into how waste water is recycled for immediate use when irrigating parks and freeways and flushing toilets, or pumped into the ground for future use, subsequent to percolation, pumping, and treatment. By aligning the programs closely with the State's Science Standards (as listed below), DSF is able to provide educational curriculum that is highly sought by schools and school districts.

All of the high school science standards are written and mandated by the State of California, such that each high school standard is acceptable to be taught at any or all high school grade levels (9th – 12th grades), in order to accommodate the course pathways as established per school district. Therefore, the teachers and students that we will seek as participants in this multilayered program will be involved in these science courses: Biology, Earth Sciences, Integrated Sciences, Chemistry, and on rare occasion Environmental Sciences/Society and the Environment.



## EXHIBIT "B"

### **Discovery Science Foundation of Orange County Irvine Ranch Water District 3-year Educational Outreach Scope of Work (FY 2016 – 2019)**

#### **1. Parties:**

**Discovery Science Foundation of Orange County**, 2500 North Main Street, Santa Ana, CA 92705  
Contact: Sean Fitzgerald, Vice President, Sales and Strategic Development [sfitzgerald@discoverycube.org](mailto:sfitzgerald@discoverycube.org) and Janet Yamaguchi, Vice President, Education [jyamaguchi@discoverycube.org](mailto:jyamaguchi@discoverycube.org)

**Irvine Ranch Water District**, 15600 Sand Canyon Avenue, Irvine, CA 92618  
Contact: Beth Beeman, Director of Public Affairs, [beeman@irwd.com](mailto:beeman@irwd.com) and Matthew Veeh, Public Affairs Manager, [veeh@irwd.com](mailto:veeh@irwd.com).

#### **2. Obligations of the parties:**

##### Scope of work

DSF will continue to deliver water education programs for IRWD. It is proposed that during the next three fiscal years (2016 – 2019), DSF will deliver assembly-style programs to K-5<sup>th</sup> grade students within the IRWD service area. DSF will also deliver a two-part workshop-style program to middle school students within the IRWD-service area, which includes a field trip program to the San Joaquin Marsh. These Marsh-focused water education programs will be delivered by DSF staff. The goals of all of the water education programs are to ensure that IRWD service area students are aware of the work performed by IRWD and that they have a firm understanding of the natural scarcity of water in their region, and to encourage and empower these students to help conserve, protect, and preserve our most precious resource, water.

Beginning in Fiscal Year 2016-2017, DSF will also offer a new one-year pilot program focusing on professional development for high school educators within the IRWD service area. The pilot program will also include a component where high school students visit the San Joaquin Marsh in order to take water quality samples as part of their coursework. This pilot program may be extended for an additional two fiscal years, at the discretion of IRWD.

During the span of this contract, DSF staff will continue to work closely and meet frequently with IRWD staff in order to effectively administer the IRWD/DSF educational programs.

##### Deliverables

Each fiscal year, DSF will:

- Teach 10,000 K-5<sup>th</sup> grade students in assembly-style programs at a rate of \$3.65 per student

- Teach 1,800 middle school students in a workshop-style programs at a rate of \$9.30 per student
- Teach 1,800 middle school students in a field trip to San Joaquin Marsh and/or the Michelson Water Recycling facility at a rate of \$12.00 per student. This rate also pays for the buses to transport the students. These 1,800 students are the same students involved in the 2-part workshop-style programs.
- Provide 1,800 conservation kits, which were added to the middle school program at a rate of \$14.70 per kit. The water conservation kits enable the students to immediately put into place the water conservation concepts that they learn during the program. The kits will also encourage multi-generational education as the students become the instructors at home for their family. Each take-home kit would include a 1.5 gallon per minute (gpm) showerhead, 1.5 gpm swivel spray kitchen aerator, two 1.0 gpm bathroom aerators, toilet water saver fill cycle diverter, two toilet leak detection tablets, flow meter bag, water conservation wheel, and accompanying home survey. DSF will order and distribute the kits, along with directions for how to use the kits and for the completion/assessment of the home survey.
- Print and provide take-home, grade-specific booklets to the 10,000 K-5<sup>th</sup> grade students engaged in the assembly-style programs at a rate of \$2.25 per booklet.
- Promote the water education programs to the schools within the IRWD service area.
- Provide instruction to 15 high school teachers participating in one 2-hour pilot professional development workshop in FY 2016-17; with each teacher representing approximately 100 high-school students (who will visit the San Joaquin Marsh) for a total potential reach of 1,500 students impacted by the program within the first year.
- Develop high-school level educational platform consisting of water quality testing, water conveyance, water treatment, human impacts on water and other issues as needed.
- Facilitate teacher feedback in order to determine program effectiveness. Feedback will help IRWD staff determine whether or not the program should continue beyond its pilot phase.

### **3. Payment Terms:**

Similar to previous years, DSF will invoice IRWD at the end of each month by providing a series of reports detailing the numbers and grade levels of students, names of schools, dates of participation, etc, associated with the deliverables. Monthly, DSF will report on programs provided during the previous month, as well as a yearly update of students and schools that have reserved the program. DSF will also provide monthly updates on the high school pilot program, including any relevant metrics sought by IRWD staff. Once received, IRWD will pay invoices within a 30-day period. In addition, DSF will provide IRWD with an annual report on the home survey results captured through the use and dissemination of the water conservation kits to assess impact made within the household.

**4. 2016-2019 Annual DSF Education Program Budget:**

<b>Component</b>	<b>Rate</b>	<b>Quantity</b>	<b>Total</b>	<b>20%* Admin</b>	<b>Total</b>
<b>Elem./Middle School Programs</b>					
Assembly Programs	\$3.65/student	10,000	\$36,500	\$7,300	\$43,800
Water Quality Classes	\$9.30/student	1,800	\$16,740	\$3,348	\$20,088
Field Trip (Buses)	\$12.00/student	1,800	\$21,600	\$4,320	\$25,920
Conservation Kits	\$14.70/student	1,800	\$26,460	\$5,292	\$31,752
Assembly Materials	\$2.25/student	10,000	\$22,500	-	\$22,500
Brochures/Expenses	-	-	\$5,625	-	\$5,625
<b>Elem./Middle School Subtotal</b>					<b>\$149,685</b>
<b>High School Program</b>					
Professional Dev. Instruction	\$2,500	-	\$2,500	-	\$2,500
Water Quality Kits	\$1,000/kit	15	\$15,000	-	\$15,000
Curriculum Development	\$5,000	-	\$5,000	-	\$5,000
Evaluation	\$5,000	-	\$5,000	-	\$5,000
<b>High School Subtotal**</b>					<b>\$27,500</b>
<b>Total Annual Budget</b>					<b>\$177,185</b>
<b>Total Three-Year (2016-2019) Budget</b>					<b>\$531,555</b>

\*A 20 percent administration fee will be added to the student classes and kits (see budget) as per previous years' contracts. This administration fee covers DSF's supporting staff, such as bookings, marketing and supervisorial.

\*\*Budgeting for 2017-2018 and 2018-2019 fiscal years is optional and at the discretion of IRWD

April 11, 2016

Prepared by: F. Sanchez

Submitted by: P. Weghorst *PW*

Approved by: Paul Cook *Paul Cook*

## ACTION CALENDAR

### WATER SUPPLY RELIABILITY STUDY VARIANCE NO. 2

#### SUMMARY:

HDR Engineering, Inc. was retained by IRWD to update the District's 2008 Water Supply Reliability Study. The update will include an evaluation of impacts from various supply and system interruption scenarios as well as development of enhanced modeling tools. Variance No. 1 to the Agreement was approved in October 2015 to align the study with the ongoing Orange County Reliability Study being conducted by the Municipal Water District of Orange County to present additional workshops and for enhanced involvement of technical experts. Additional work is required to incorporate new information available from the California Department of Water Resources (DWR) and to consider additional future water supply projects that may be implemented by Metropolitan Water District of Southern California. A budget increase is needed to facilitate the additional work. Staff recommends that the Board authorize a budget increase to the FY 2015-16 Capital Budget in the amount of \$95,400 for project 11808 (6013) and approve Variance No. 2 with HDR in the amount of \$171,500.

#### BACKGROUND:

CDM prepared a Water Supply Reliability Study for IRWD in 2008 to assist with defining potable water supply and system reliability under different scenarios. The study included analysis of how import supply shortages, climate change, facility outages and earthquake-related emergencies could affect demands, supplies and major conveyance facilities in IRWD.

Since 2008, IRWD has implemented new projects that affect the need for the development of additional supplies that were identified in the 2008 study. There have also been significant changes in the potential reliability of supplies from both the State Water Project and the Colorado River. To facilitate the preparation of an update to the Water Supply Reliability Study, the Board approved a Professional Services Agreement with HDR on December 15, 2014. HDR's scope of work includes the following:

- Evaluation of the impacts of various water supply and system interruption scenarios;
- Development of enhanced software tools to assist with demand predictions and scenario evaluations;
- Evaluation of uncertainties and benefits associated with the proposed California Water Fix;
- Identification of impacts associated with potential Sacramento-San Joaquin River Delta levee failures;
- Consideration of the potential for long-term drought on the Colorado River and associated impacts;
- Assessment of the impacts of potential failure of the Edmonston Pumping Plant;
- Analysis of potential reductions in flows available for recharge in the Orange County Groundwater Basin; and

- Development of a Reliability Study Model that will predict scenario impacts within IRWD's potable water system.

Variance No. 1:

In October 2015 the Board approved an increase in the Capital Budget in the amount of \$72,000 for Variance No.1 to the District's agreement with HDR. This variance provided for additional work that was not included in HDR's original scope of work and included the following tasks:

- Additional project management to align IRWD's Water Reliability Study with information from the Orange County Reliability Study;
- A workshop to discuss IRWD's demand forecast adjustment tool developed by HDR;
- A workshop to conceptualize how the Orange County Groundwater Basin will be simulated in IRWD's reliability study model;
- Enhanced involvement of HDR's technical experts on regional water supply issues; and
- Inclusion of one additional scenario (a total of 11 scenarios) to be evaluated in the study.

Variance No. 2:

Since October 2015, new information has become available from DWR related to the State Water Project as well as from Metropolitan associated with its 2015 Integrated Resource Plan update. In particular, Metropolitan has identified additional future water supply projects that may be implemented by Metropolitan and its member agencies, which are grouped based upon the stage of development and likelihood of implementation. Additional work is necessary by HDR to complete the Water Supply Reliability Study taking into consideration the new information and potential projects. To facilitate this additional work, HDR has prepared Variance No. 2 and an associated scope of work that is attached as Exhibit "A". The scope of work and related costs were negotiated by staff and are considered fair and reasonable. The revised scope of work and variance extend the project schedule by five months to June 2016. The additional work to be performed by HDR is summarized as follows:

*Additional Project Management:*

Variance No. 2 provides for additional project management associated with modifications to IRWD's Reliability Study Model and study report necessitated by new information from DWR and Metropolitan's proposed projects. It accommodates weekly conference calls requested by staff and coordination through the completion of the project.

*Characterizing Supply Sources:*

At staff's request, HDR will conduct several iterations of IRWD's Reliability Study Model in response to multiple revisions that have occurred to results from the Orange County Reliability Study. Each revision requires significant time to obtain and reformat data to align with the baseline scenario in IRWD's Reliability Study Model. The revisions are based on updates to information available from the preparation of Metropolitan's Integrated Resources Plan.

*Scenario Planning and Response Strategies:*

Based on input from the Board, a workshop was held to prioritize and select the scenarios for modeling based upon the highest probability of occurrence. Staff requested that HDR incorporate IRWD's water banking project into the Reliability Study Model as a supply source, rather than as a response strategy, and to incorporate the Delta Fix into a secondary baseline using Metropolitan's assumptions for regulatory relief prior to the completion of the Delta Fix. Incorporation of Metropolitan future potential water supply projects into IRWD's Reliability Study Model will be included as part of this task, as will identification and evaluation of regional and local response strategies.

*Analysis and Modeling:*

At staff's request, HDR is including additional supply and demand nodes to the model which increases its complexity. These changes require additional quality control, meetings with staff and revisions to the baseline model runs. This task also includes the addition of one scenario, for a total of 12, to be modeled and evaluated in the study.

*Recommendations and Report:*

Two additional Board workshops are included to present the refined scenarios and the study findings. HDR will also update the draft report to reflect new information, refined scenarios, consideration of Metropolitan's projects, and findings based upon the expanded scope.

To facilitate the work, an increase in the FY 2015-16 Capital Budget for the study is needed. Staff recommends that the Board authorize a budget increase for the study in the amount of \$95,400 and approve Variance No. 2 to the Agreement with HDR.

FISCAL IMPACTS:

Project 11808 (6013) is included in the FY 2015-16 Capital Budget. A budget increase for the study in the amount of \$95,400 is needed as presented below. Contingency funds in the amount of \$74,400 are available to address a portion of the cost of the additional work. Variance No. 2 with HDR in the amount of \$171,500 to complete the update to the Water Reliability Study requires Board approval.

Project No.	Current Budget	Addition	Total Budget
11808 (6013)	\$569,400	\$95,400	\$664,800

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.

Action Calendar: Water Supply Reliability Study Variance No. 2

April 11, 2016

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**COMMITTEE STATUS:**

This item was reviewed by the Water Resources Policy and Communications Committee on April 6, 2016.

**RECOMMENDATION:**

THAT THE BOARD AUTHORIZE A BUDGET INCREASE TO THE FY 2015-16 CAPITAL BUDGET IN THE AMOUNT OF \$95,400 FOR PROJECT 11808 (6013) AND APPROVE VARIANCE NO. 2 WITH HDR ENGINEERING, INC. IN THE AMOUNT OF \$171,500.

**LIST OF EXHIBITS:**

Exhibit "A" – IRWD Professional Services Variance No. 2 with Scope of Work for HDR Water Reliability Study

**EXHIBIT "A"**  
**IRVINE RANCH WATER DISTRICT**  
**PROFESSIONAL SERVICES VARIANCE**

Project Title: Water Reliability Study

Project No.: 11808 (6013) Date: March 29, 2016  
 Purchase Order No.: 5222695 Variance No.: 2

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

Description of Variance (*attach any back-up material*):  
 Schedule and Cost Variance to extend final report deadline to June 2016 and modify scope to include revised baseline and model scenarios, additional workshops, meetings and coordination with IRWD staff and local agencies. See Attachment.

**Engineering & Management Cost Impact:**

Classification	Man hours	Billing Rate	Labor	Direct Costs	Sub-consultant	Total
See attached Scope of Work and Fee Estimate			\$132,510	\$3,220	\$35,700	\$171,500
<b>Total</b>						<b>\$171,500</b>

**Schedule Impact:**

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
6	Preliminary Recommendations (Board Workshops)	August 2015	4 months - Variance No. 1 +7 months - Variance No. 2	Complete by June 2016
8	Final Report Deliverables	August 2015	5 months - Variance No. 1 +7 months - Variance No. 2	Complete by July 2016

**Required Approval Determination:**

Total Original Contract	\$ <u>376,800</u>	<input type="checkbox"/> Director: Cumulative total of Variances less than or equal to \$50,000. <input type="checkbox"/> Executive Director: Cumulative total of Variances less than or equal to \$75,000. <input type="checkbox"/> General Manager: Cumulative total of Variances less than or equal to \$100,000. <input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$100,000.
Previous Variances \$	<u>59,993</u>	
This Variance	\$ <u>171,500</u>	
Total Sum of Variances	\$ <u>231,493</u>	
New Contract Amount	\$ <u>608,293</u>	
Percentage of Total Variances to Original Contract	<u>61</u> %	

ENGINEER/CONSULTANT: HDR Engineering, Inc. IRVINE RANCH WATER DISTRICT

Jennifer Duffy, PE  
 Project Engineer/Manager Date \_\_\_\_\_

Paul Skager, PE *Paul Skager*  
 Engineer's/Consultant's Management Date 3/29/2016

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

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



**IRVINE RANCH WATER DISTRICT  
PROFESSIONAL SERVICES VARIANCE REGISTER**

Project Title: Water Reliability Study

Project No.: 11808 (6013) Project Manager: Fiona Sanchez

Variance No.	Description	Dates		Variance Amount
		Initiated	Approved	
1	Modification of Schedule and Scope of work to include additional workshops and meetings with IRWD staff and local agencies.	09/23/15	10/28/15	\$59,993
2	Modification of Schedule and Scope of work to include regional agency coordination, revised baseline and scenarios, additional Board Workshops and meetings with IRWD staff and local agencies.	3/29/16		\$171,500

Variance No. 2 includes tasks that were or will be undertaken at the request of IRWD staff to enhance the content of the Water Reliability Study and model. The proposed schedule extension allows for further coordination and incorporation of regional information from MWDOC and MWD, and weekly project coordination meetings. The revised schedule includes a final draft Report submittal in June 2016, and two additional presentations to the Board one in May and one in June 2016. The scope of work for tasks associated with Variance No. 2 is included below:

#### **Task 1 Project Management**

The project management task will be extended through July 2016 (approximately 24 weeks), accommodating weekly PM conference calls and staff coordination through the completion of the project.

#### **Task 3 Characterize Supply Sources**

Subtask 3.3 required coordination with Regional Agencies to ascertain supply data. As the baseline model was developed as part of Task 5, the decision was made to align the model with the Orange County Reliability Study assumptions and incorporate new information regarding MWD's 2015 Integrated Resource Plan (IRP). This required a significant additional level of effort associated with Regional Agency coordination to obtain and reformat the data required to define the trace information for imported water and the Orange County Groundwater Basin. This effort was expended in the December 2015 – January 2016 time frame to develop a preliminary baseline model.

#### **Task 4 Scenario Planning and Water Shortage Response Strategies**

Subtask 4.3 called for the development of supply and system disruption scenarios based on the findings of the Scenario Planning Workshop in Task 1. This effort was completed in the fall of 2015. Based on Board input, the team is focusing on the scenarios with the highest probability, and refining those for modeling. Therefore, adjustments to the baseline and scenarios are warranted, as described in the new subtasks listed below.

4.4 Meeting with IRWD and HDR/DCSE team to modify baseline and scenarios based on discovery from initial baseline runs, and to incorporate actions from Metropolitan. (This meeting occurred on 3/23/16.)

#### 4.5 Refine the Baseline Model

- a. HDR will work with IRWD staff to develop rules for modeling use of IRWD's GW bank when water shortages occur.
- b. HDR will incorporate the proposed CA Delta Fix as a secondary baseline, using MWD's assumption of regulatory relief in 2020 and full relief by 2035. This differs from the Orange County Reliability Study approach; therefore HDR will investigate if MWD trace data is available for this scenario and how it might be incorporated into the model, or if an average must be used for all 93 trials. If available, HDR will derive and format the data for modeling this baseline in Task 5.

4.6 Based on new information from Orange County Reliability Study and MWD's IRP regarding MWD Tier 1 and Tier 2 actions, revise and reprioritize model scenarios and develop data needed for model input.

- a. Identify modeling parameters associated with each baseline and revised scenarios for incorporation in Task 5 modeling runs.
- b. Assess relative likelihood of occurrences of scenarios based on expert presentations at August 2015 Scenario Workshop.
- c. Identify gaps and evaluate additional mitigation strategies, regional (other than MWD) and local and prioritize.

#### **Task 5 System Analysis (Modeling)**

During the development of the model, IRWD staff requested that additional supply and demand nodes be added to the model making the model more detailed and complex. IRWD staff provided much of the data required for these additional nodes; however additional quality control was required to diagnose anomalies evident in baseline test run results. Variance No. 1 allowed for one additional scenario to be run – for a total of 11. Based on revised scenarios, another additional scenario is envisioned, for a total of 12. Adjustments to the level of effort for the following tasks is required:

5.1 Conduct quality review and revise schematic data entry for test runs of model. (Completed in December 2015)

5.4 Refine Baseline Model and add additional Scenario for a total of 12 Scenarios to be run.

- a. Revise Baseline Model Runs to adjust for new information from Orange County Reliability Study and IRWD/ (December and January 2016)
- b. Attend Meetings with IRWD Staff to discuss Baseline results (1/27/16) and Scenario Revisions (3/23/16).
- c. Revise and run Baseline Model based on adjustments developed in Task 4.6.
  - Revise IDP well to be non-exempt from the BPP, to reflect current agreement with OCWD.
  - Include IRWD's banking program as a 5th tier in supply sources instead of mitigation strategy.
- d. Run one additional scenario, for a total of 12 scenarios (including baselines).

**Task 6 Preliminary Recommendations**

Assist IRWD staff in preparing for and presenting at two additional Board workshops.

**Task 8 Deliverables**

Revise 90% report and findings developed to date to incorporate scenario revisions and findings.

HDR Engineering													
IRWD Water Reliability Study - Variance No. 2													
Estimated Level of Effort and Fee													
TASK NO.	DESCRIPTION	LEVEL OF EFFORT, HOURS					TOTAL LABOR	FEE, DOLLARS					
		PM Jennifer D	EXPERT Bob J	EXPERT Blaine D	PE Amy O	ADMIN Marlys		LABOR	DIRECT COSTS	SUBS (DCSE)	TOTAL	CLIENT TOTAL	
	Client Billing Rates	\$264	\$294	\$293	\$152	\$100	\$188						
<b>1</b>	<b>Project Management and Meetings</b>												
1.1	Project Workplan and Coordination	24				24	48	8,736	178	3,960	12,874		
1.2	Data Request and Review						0	0	0	0	0		
1.3	Project Meetings	24			8		32	7,552	500		8,052		
1.4	Project Workshops (2 - 4 hr)						0	0	0	0	0		
1.5	Project Schedule	2					2	528	7		535		
1.6	QA/QC						0	0	0	0	0		
	<b>Subtotal 1</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>24</b>	<b>82</b>	<b>16,816</b>	<b>686</b>	<b>3,960</b>	<b>21,461</b>	<b>21,600</b>	
<b>2</b>	<b>Develop Model to Adjust Demand Projections</b>												
2.1	Develop Add on Tool for Demand Projections						0	0	0	0	0		
	<b>Subtotal 2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>3</b>	<b>Characterize Supply Sources</b>												
3.1	Characterize Existing Supply Sources						0	0	0	0	0		
3.2	Characterize Future Supply Sources						0	0	0	0	0		
3.3	Coordinate with Regional Agencies	40			140		180	31,840	666		32,506		
3.4	Prepare TM						0	0	0	0	0		
	<b>Subtotal 3</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>140</b>	<b>0</b>	<b>180</b>	<b>31,840</b>	<b>666</b>	<b>0</b>	<b>32,506</b>	<b>32,500</b>	
<b>4</b>	<b>Supply and Sys Constraint Scenarios and Mitigation Strategies</b>												
4.1	Review past reliability assessments and risk factors						0	0	0	0	0		
4.2	Update Risk Factors based on Expertise						0	0	0	0	0		
4.3	Develop Scenarios and Prepare TM						0	0	0	0	0		
4.4	Scenario Planning Meeting - 3/23/16	4			6		10	1,968	37		2,005		
4.5	Refine Baseline Model	24			40		64	12,418	237		12,653		
4.6	Prioritize Scenarios for Modeling and Develop Model	40	4	4	100		148	28,107	548		28,655		
	<b>Subtotal 4</b>	<b>68</b>	<b>4</b>	<b>4</b>	<b>146</b>	<b>0</b>	<b>222</b>	<b>42,491</b>	<b>821</b>	<b>0</b>	<b>43,313</b>	<b>43,300</b>	
<b>5</b>	<b>Water Supply and System Req Analysis</b>												
5.1	Create Schematic						0	0	0	6,600	6,600		
5.2	Develop Demand Factors for input to Task 2						0	0	0	0	0		
5.3	Formulate Disruption Scenarios						0	0	0	0	0		
5.4	Conduct Scenario Runs						0	0	0	0	0		
	Revise Baseline Runs (3)	4			16		20	3,488	74	14,400	17,962		
	Meetings to discuss Baseline and Scenarios (1/27/16 and 3/23/16)						0	0	0	4,620	4,620		
	Additional Scenario Run for total of 12	4			8		12	2,272	44	4,800	7,116		
5.5	Evaluate Results						0	0	0	0	0		
5.6	Summarize Findings						0	0	0	0	0		
	<b>Subtotal 5</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>32</b>	<b>5,760</b>	<b>118</b>	<b>30,420</b>	<b>36,298</b>	<b>36,300</b>	
<b>6</b>	<b>Preliminary Recommendations</b>												
6.1	Additional Presentations to Board	40			16		56	12,992	500	1,320	14,812		
	<b>Subtotal 6</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>56</b>	<b>12,992</b>	<b>500</b>	<b>1,320</b>	<b>14,812</b>	<b>14,800</b>	
<b>7</b>	<b>Final Recommendations</b>												
7.1	Finalize Report						0	0	0	0	0		
7.2	Prepare Ex Summary						0	0	0	0	0		
	<b>Subtotal 7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>8</b>	<b>Deliverables</b>												
8.1	Prepare 75% Draft Report						0	0	0	0	0		
8.2	Prepare 90% Draft Report	32			80	20	132	22,608	488		23,096		
8.3	Prepare Final Draft Report						0	0	0	0	0		
	<b>Subtotal 8</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>80</b>	<b>20</b>	<b>132</b>	<b>22,608</b>	<b>488</b>	<b>0</b>	<b>23,096</b>	<b>23,100</b>	
<b>TOTAL, hours</b>		<b>238</b>	<b>4</b>	<b>4</b>	<b>414</b>	<b>44</b>	<b>704</b>						
<b>TOTAL, dollars</b>								<b>132,507</b>	<b>3,279</b>	<b>36,700</b>	<b>171,486</b>	<b>171,500</b>	

April 11, 2016

Prepared by: D. Johnson

Submitted by: F. Sanchez / P. Weghorst

Approved by: Paul Cook



## ACTION CALENDAR

### IRWD PARTICIPATION IN THE SANTA ANA-DELHI CHANNEL DIVERSION PROJECT

#### SUMMARY:

The proposed Santa Ana-Delhi Channel Diversion Project will capture and divert low-flow urban runoff into the local sewer system to address surface water quality issues. Flows will be diverted to the Orange County Sanitation District (OCSD) sewer collection system for treatment at Plant 1 in Fountain Valley prior to use as a source of water for the Groundwater Replenishment System (GWRS). IRWD discharges short-term well startup flows into the Santa Ana-Delhi Channel. The IRWD discharges are free of pollutants but can assist in the mobilization of pollutants and trash discharged into the storm water channel from other sources. Staff has conducted an analysis of the affect that IRWD's well discharges have on the design and operation of the proposed project. The results of the analysis indicate that IRWD's well startup flows make up 4.3% of the design capacity of the diversion project. Based on this analysis, staff recommends the District make a \$195,000 contribution to the design and construction of the project. Staff recommends that the Board:

- Approve the addition of project 11945(7024) to the FY 2015-16 Capital Budget in the amount of \$210,000, and
- Authorize the General Manager to execute the Santa Ana-Delhi Channel Diversion Project Agreement subject to non-substantive changes.

#### BACKGROUND:

The Cities of Santa Ana, Newport Beach and Costa Mesa with the participation of the Orange County Public Works (OCPW) are proposing a low-flow diversion project in the Santa Ana-Delhi Channel that will capture and divert low-flow urban discharges into the sanitary sewer system. The project will reduce pollutant loads to the Upper Newport Bay. By diverting the flows, the cities will be able to address surface water quality issues in accordance with the Orange County Municipal Separate Storm Sewer System (MS4) permit (Order No. R8-2009-0030 as amended by Order No. R8-2010-0062) as well as the Total Maximum Daily Load (TMDL) for selenium discharges to the Upper Newport Bay. The project will also address TMDLs for bacteria, trash, toxics, metals, and nutrients, and the trash amendment to the existing MS4 permit.

The proposed Santa Ana-Delhi Diversion Project will remove dry weather flows and low flows during the wet season from the Santa Ana-Delhi Channel and divert the flows to the OCSD sewer collection system for treatment prior to use as a source of water for the GWRS. A location map of the project is provided as Exhibit "A".

IRWD Well Discharges:

IRWD discharges short-term well startup flows from Wells 1, 11, C-8, and C-9 as well as from the Deep Aquifer Treatment System (DATS) into Santa Ana Gardens Channel which is tributary to the Santa Ana-Delhi Channel. IRWD also discharges short-term startup flows into the Santa Ana-Delhi Channel from Wells 2, 4, 5, and 6. Attached is Exhibit "B" which depicts the location of IRWD's wells in relationship to drainage areas of the channels.

IRWD's short-term well start-up flows have an effect on the design of the proposed diversion project. The project has been designed to divert 87% of the flows in the channel, which corresponds to a total capacity of 3 cfs. A flow duration curve for the Santa Ana-Delhi Channel is provided as Exhibit "C". Also provided in Exhibit "C" is a flow duration curve for IRWD's well discharges which shows that 87% of the time IRWD's flows are 0.13 cfs or less. This 0.13 cfs makes up 4.3% of the 3 cfs design flow for the diversion project. Though there are no pollutants associated with IRWD well discharges, the flows contributed by IRWD to the channel assist with the mobilization of pollutants and trash contributed from other sources.

Project Benefits to IRWD:

IRWD's financial participation in the project will avoid potential future restrictions or fees being imposed by Orange County Public Works (OCPW) on flow rates and velocities associated with IRWD well discharges into the Santa Ana-Delhi Channel. Such restrictions or fees could be imposed to mitigate the mobilization of pollutants and trash in the channel or to pay for the proposed diversion project. IRWD's participation will ensure the ability to continue discharges without such restrictions and fees. IRWD will also receive pollutant offset credits for its participation in the project for the first 20 years of the project's operation. Any credits received would be valuable in developing trade arrangements.

IRWD Financial Participation:

IRWD's short-term well startup flows do not contain pollutants. Therefore, it is not reasonable for IRWD to be a major financial contributor of capital to the project or to pay for the operations and maintenance of the project. Based on the flow duration analysis described above, staff recommends the District make a capital contribution equal to 4.3% of the estimated \$4.53 million cost for the design and construction of the project that was available when IRWD's potential participation in the project was reviewed with the Engineering and Operations Committee in February 2016. IRWD's 4.3% contribution would be \$195,000.

Diversion Project Agreement:

IRWD's legal counsel and staff prepared proposed revisions to the Santa Ana-Delhi Channel Diversion Project Agreement that has been drafted by the cities and OCPW. Exhibit "D" is a revised version of the agreement that:

- Recognizes the affect that IRWD discharges have on the design of the project;

- Makes IRWD’s financial contribution to the design and construction of the project subject to successful expiration of the challenge period related to environmental documentation adopted for the project;
- Establishes IRWD’s right to continue well discharges into the channel under the same terms and conditions of existing permits; and
- Specifies that IRWD will not contribute to the operations and maintenance of the project.

FISCAL IMPACTS:

IRWD’s total one-time capital contribution to the Santa Ana-Delhi Channel Diversion Project will be capped at \$195,000. Staff requests the addition of Project 11945(7024) to the FY 2015-16 Capital Budget in the amount of \$210,000 as shown below to provide for IRWD’s one-time capital contribution to the project and for staff and legal time to finalize the Project Agreement and to coordinate IRWD’s participation in the project.

Project No.	Current Budget	Addition <Reduction>	Total Budget
11945(7024)	\$-0-	\$210,000	\$210,000

ENVIRONMENTAL COMPLIANCE:

The Santa Ana-Delhi Channel Diversion Project is subject to CEQA and in conformance with California Code of Regulations Title 14, Chapter 3, Article 6, a Notice of Intent to adopt an Initial Study/Mitigated Negative Declaration (IS/MND) was filed by the City of Santa Ana Public Works with the County of Orange. Pursuant to State Guideline § 15073, the IS/MND for the Project was made available for public review for a period of 30 days.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on February 16, 2016.

RECOMMENDATION:

THAT THE BOARD APPROVE THE ADDITION OF PROJECT 11945 (7024) TO THE FY 2015-16 CAPITAL BUDGET IN THE AMOUNT OF \$210,000 AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE SANTA ANA-DELHI CHANNEL DIVERSION PROJECT AGREEMENT COMMITTING IRWD TO A \$195,000 CONTRIBUTION TO THE DESIGN AND CONSTRUCTION OF THE PROJECT SUBJECT TO NON-SUBSTANTIVE CHANGES.

LIST OF EXHIBITS:

- Exhibit “A” – Location Map of Santa Ana-Delhi Diversion Project
- Exhibit “B” – Channel Drainage Areas and Locations of IRWD Wells
- Exhibit “C” – IRWD and Project Design Flow Duration Analyses
- Exhibit “D” – Revised Santa Ana-Delhi Channel Diversion Project Agreement



# EXHIBIT "A"

Santa Ana Delhi Channel Diversion Project  
Initial Study/Mitigated Negative Declaration





# EXHIBIT "B"

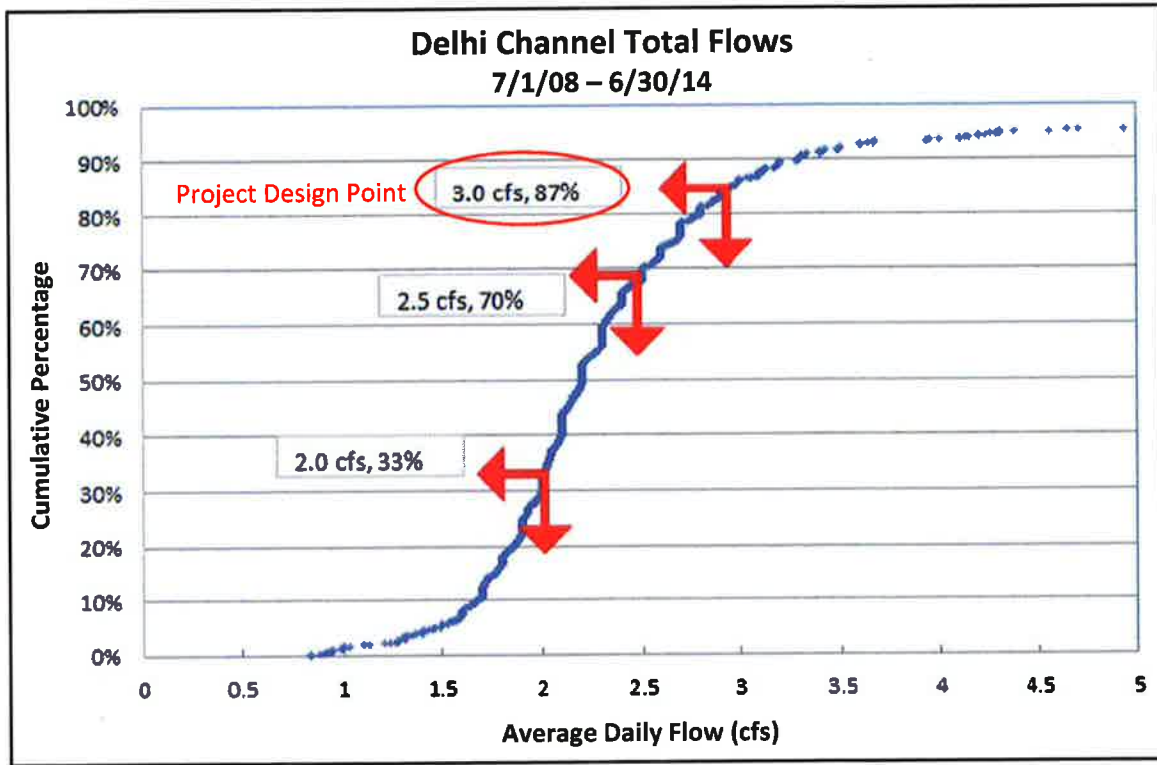
Santa Ana Delhi Channel Diversion Project  
Initial Study/Mitigated Negative Declaration



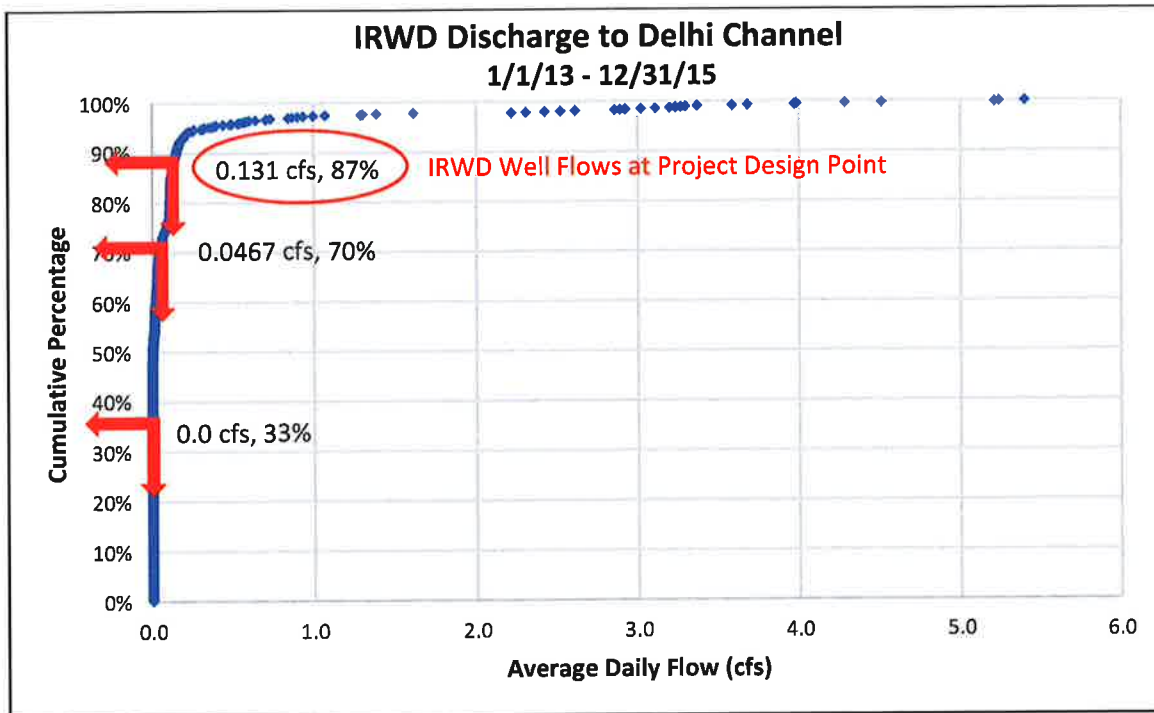
FIGURE 1



# EXHIBIT "C



Source: Santa Ana Delhi Channel Diversion Project PDR



Source: IRWD Wells Flow Data

EXHIBIT "D"

**Santa Ana-Delhi Channel Diversion  
Project Agreement**

**D15-013**

**Incorporating IRWD Edits**

Final Draft (03022016)

City of Santa Ana  
Orange County Flood Control District  
County of Orange  
City of Newport Beach  
City of Costa Mesa  
Orange County Water District  
Irvine Ranch Water District

## AGREEMENT

This Santa Ana-Delhi Channel Diversion Project Agreement (“**Agreement**”) is made as of this \_\_\_\_ day of \_\_\_\_\_, 201\_, (“**Effective Date**”) by and among

The City of Santa Ana, a California charter city (“**SANTA ANA**”),

The Orange County Flood Control District, a body corporate and politic (“**OCFCD**”),

The County of Orange, a political subdivision of the State of California (“**COUNTY**”),

The City of Newport Beach, a California charter city (“**NEWPORT BEACH**”),

The City of Costa Mesa, a California municipal corporation (“**COSTA MESA**”),

The Orange County Water District, a subdivision of the State of California organized under Chapter 924 of the Statutes of 1933, as amended (“**OCWD**”), and

The Irvine Ranch Water District, a California water district organized under Section 34000 *et seq.* of the California Water Code (“**IRWD**”);

which are sometimes individually referred to as “**Party**,” or collectively referred to as “**Parties**.”

## DEFINITIONS

The following definitions shall hereinafter apply:

**Additional Annual O&M Cost** - a Funding Party’s proportionate share as specified in Exhibit C2 to cover annual O&M expenses upon exhaustion of funds in the O&M Account shown in Exhibit C4.

**Additional Participants** - a third party point source discharger in the Watershed Area or other Project beneficiary that has entered into an agreement signed by all Parties committing its contribution toward the O&M costs in order to receive regulatory compliance, offsets or credits offered by the Project.

**Airport Director** – the Director of John Wayne Airport

**Approved Plans** - those Project plans, specifications, and engineering estimates (“PS&E” see definition below) which have been approved through the County Property Permit process. Approved Plans shall also include those PS&E revisions and/or contract change orders approved in writing by the Project Representatives (as defined in Section 1).

**Bond** - the faithful performance bond, payment bond, or warranty bond required to be provided by the Contractor pursuant to this Agreement. (collectively “**Bonds**”)

**CPP** - the process to obtain a County Property Permit from the County of Orange.

**CEQA** – the California Environmental Quality Act (California Public Resources Code § 21000 et seq.).

**Channel** - the Santa Ana-Delhi Diversion Channel designated OCFCD Facility No. F01.

**Cities** - refers to SANTA ANA, NEWPORT BEACH, and COSTA MESA collectively

**Claims** - liabilities, actions, suits, claims, demands, losses, costs, tortious, contractual, condemnation, inverse condemnation, judgments, arbitration awards, settlements, damages, demands, orders, penalties, and expenses including legal costs and attorney fees; including those arising from injuries to or death of persons, for damage to property, or liability of any kind or nature.

**Conceptual Report** – that Diversion Structure Water Capture and Reuse Structure Concept Feasibility Study dated July 8, 2013 which reviewed the technical and economic feasibility of reducing pollutants inflows and trash to the Channel.

**Contractor** - that contractor and its subcontractors that has entered into a construction contract with SANTA ANA for the Project.

**Days** – unless otherwise specified to the contrary, “days” in this Agreement shall mean business days as defined by the City of Santa Ana.

**Director** – the Director of OC Public Works or designee.

**Diversion Structure** – an urban discharge diversion system as may be constructed near the intersection of Mesa Drive and Irvine Avenue as shown on the attached Exhibit B (hereinafter referred to as the “**Preliminary Plans**”), which shall include features that

extend across a segment of Channel designed to divert trash and debris into a containment area, while conveying low-flows where pollutants will be captured, and further discharged into an Orange County Sanitation District trunk line for conveyance to its sanitary sewer treatment plant and thereafter to the OCWD Groundwater Replenishment System. The Diversion Structure will modify the existing Channel with a concrete weir crossing the channel bottom and alter approximately 100 feet of the Channel's north wall to accommodate fixture of a debris boom, inlet and bypass outlet structures.

**Estimated Cost** - the itemized estimate of Project Capital Costs and O&M expenses listed on Exhibit C3 from an Opinion of Probable Construction Cost referenced as "Engineer's Estimate 15-058" by AECOM dated July 24, 2015 based upon 60% Design Plans.

**Facility** (sometimes also referred to as the "Facilities" or "Project Facilities") – final Project (as defined below) improvements constructed in accordance with the Approved Plans, which shall include the Diversion Structure, related pumps, pipelines and features necessary for operations.

**Flood Control Act** - Orange County Flood Control Act set forth in California uncodified Water Code, Act 5682, section 2, also referred to as Water Code App. Sections 36-1 et seq, also referred to as Chapter 723 of the State of California Statutes of 1927, as amended.

**Force Majeure Event** - those events specified in Section 2.5.4 that materially and adversely interfere with or increase the costs of performing SANTA ANA's obligations hereunder, provided that such event (or the effects of such event) could not have been avoided by SANTA ANA's use of reasonable effort.

**Funding Partner** – SANTA ANA, NEWPORT BEACH, COSTA MESA, OCFCD, COUNTY or IRWD as shown on Exhibit C2 (collectively the "Funding Partners").

**Golf Lessee** – Public golf course operator, dba Newport Golf Course, which leases a portion of County land, under the purview of John Wayne Airport that may be impacted by the Project.

**Grant** - that Measure M2 Environmental Cleanup Program Grant from the Orange County Transportation Authority awarded to SANTA ANA in the amount of TWO MILLION, FIVE-HUNDRED SEVENTY-TWO THOUSAND, EIGHT HUNDRED, and SEVENTY-FIVE DOLLARS (\$2,572,875) for Project Capital Costs.



**HM-1** - hazardous material (including, but not limited to, hazardous waste) that may require removal and disposal pursuant to federal or state law existing prior to the Project and not disturbed by the Project.

**HM-2** - hazardous material (including, but not limited to, hazardous waste) that may require removal and disposal pursuant to federal or state law only if disturbed by the Project or as a result of the Project.

**HM Management Activities** - management activities related to either HM-1 or HM-2 including, without limitation, any necessary manifest requirements, clean-up and disposal facility designations.

**John Wayne Airport (“JWA” or “Airport”)** – an airport established by ordinance of the County of Orange Board of Supervisors pursuant to the laws of the State of California and the federal government, which is operated on an enterprise basis at no cost to the taxpayer. Although JWA is a department of the County of Orange, the Parties agree JWA is not a Funding Party to this Agreement, and as such is not required to financially contribute to the Project, associated O&M or Reserve Fund, but retains rights under this Agreement as a Project Representative and as otherwise provided herein.

**NPDES** – National Pollutant Discharge Elimination System stormwater permit program authorized by Section 402 of the Clean Water Act, 33 U.S.C. §1251 *et seq.* of 1972, as amended, also referred to as a Municipal Separate Storm Sewer System (“MS4”) Permit.

**OCSD** - the Orange County Sanitation District.

**OCWD Project Contribution** - a one-time, lump-sum payment from Orange County Water District (OCWD) of ONE MILLION DOLLARS and 11/100 (\$1,000,000.00) toward the Project construction costs.

**O&M** – operation and maintenance.

**O&M Contractor** – a contractor under contract with OCFCD or COSTA MESA to perform operation and maintenance on the Facility or portion thereof.

**O&M Fund** - a separate account established by OCFCD and maintained consistent with all applicable OCFCD/COUNTY or other governmental laws, rules and regulations pertaining thereto, wherein OCFCD shall deposit amounts paid by the

SANTA ANA as shown in Exhibit C4 to be used to designated for the Facility operation and maintenance.

**O&M Account** - a separate account established by SANTA ANA to accept a transfer of \$1,000,000 from the Project Fund to support annual disbursement to the O&M Fund maintained by OCFCD.

**O&M Manual** - the Operation and Maintenance Manual for the Facility and components thereof.

**Oversight Inspector** - a qualified OC Public Works inspector or representative assigned through the CPP process by OCFCD/County to verify that construction of the Diversion Structure and other Facilities on OCFCD and COUNTY right-of-way are accomplished in a good, workman-like manner and in accordance with the Approved Plans per OCFCD and COUNTY standard.

**NEPA** - National Environmental Policy Act, 42 U.S.C § 4231 et seq.

**Project** – the Santa Ana-Delhi Channel Diversion Project is a regional water quality project intended to protect Upper Newport Bay from pollutant loadings generated by discharge flows, debris, and trash from the Channel and its watershed, and includes all right-of-way necessary for its implementation. The Project will remove dry-weather channel flows from the Channel watershed with the Diversion Structure, as further defined in Recital B. The Project shall include work performed concerning design, construction, and O&M of the Project and Facilities.

**Project Capital Costs** – those Project costs referenced in Exhibit C3 including, but not limited to, design engineering, permits, right-of-way, easements, project administration, consultant costs, environmental reports, costs associated with CEQA, NEPA, Resource Agency or Regulatory compliance, surveying, investigation, testing, monitoring, construction, equipment, materials, contracts, warranties, attorney fees, Newport Golf Course lost revenue, costs for defense of CEQA/NEPA lawsuit and costs for hazardous material management activities related to HM-2 as defined in Section 8 (Hazardous Material). O&M costs are not a part of the Project Capital Costs.

**Project Costs** – those costs referenced in Exhibit C3.

**Project Fund** - a separate account established by SANTA ANA and maintained consistent with all applicable SANTA ANA or other governmental laws, rules and regulations pertaining thereto, wherein SANTA ANA shall deposit amounts paid by the Parties for Project Costs.

**Project Schedule** – that schedule set forth in Exhibit F.

**PS&E** - Project plans, specifications, and engineering estimates agreeable to the Project Representatives (as defined in Section 1) which have been approved through the County Property Permit process.

**Regional Board** – the Santa Ana Regional Water Quality Control Board.

**Regulations** – those federal and state regulations or requirements applicable to point source discharges, as more particularly described in Recital A, which are prescribed by the Santa Ana Regional Water Quality Control Board, California State Water Resources Control Board, and/or United States Environmental Protection Agency that have jurisdiction within the Santa Ana-Delhi drainage system depicted on Exhibit A.

**Reserve Fund** - a separate account established by OCFCD and maintained consistent with all applicable OCFCD/COUNTY or other governmental laws, rules and regulations pertaining thereto, wherein OCFCD shall deposit annual amounts of funds not expended from the O&M Fund. The Reserve Fund is to be used by OCFCD and/or COSTA MESA to repair or replace the Facilities, Project-related Channel improvements and/or appurtenances, or portions thereof as specified in Section 3.7.9.

**Resource Agency(ies)** – each one of the following entities or collectively, all of them: U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Federal Emergency Management Agency, California Department of Fish and Wildlife, Santa Ana Regional Water Quality Control Board, and Coastal Commission.

**Sponsor** - OCFCD, the COUNTY, COSTA MESA, NEWPORT BEACH, IRWD, or SANTA ANA (collectively the “Sponsors”).

**Sponsorship Share** - a Sponsor’s share of participation in costs or participation in credits and offsets pursuant to this Agreement and/or the Project, based upon the percentages denoted in the respective columns on Exhibit C2.

**State Board** – the California State Water Resources Control Board.

**TCE** - temporary construction easement.

**Term** - unless otherwise terminated or extended, this Agreement shall be effective for an initial term of twenty-five years commencing on the Effective Date, and shall automatically renew for ten year terms thereafter.



**TMDL** - Total Maximum Daily Loads.

**Watershed Drainage Area** - the impacted watershed area within Project limits shown on Exhibit A.

### RECITALS

A. The Parties are subject to regulations or requirements applicable to point source discharges for bacteria, metals, nutrients, trash, selenium and other constituents; including but not limited to, TMDL, applicable provisions of dewatering permits and time schedule orders the Municipal Separate Storm Sewer System ("MS4 Permit, and/or other discharge permits, waste discharge requirements, or discharge-related orders. In a collaborative effort SANTA ANA, NEWPORT BEACH, and COSTA MESA (collectively, "Cities") pursued satisfying current and future NPDES requirements and proposed trash amendment to MS4 Permit requirements (see Recital Q) through the development of a watershed regional diversion project. The Project requires OCFCD and COUNTY cooperation in order for the Diversion Structure component to be constructed, operated and maintained in and about the Channel; a portion of the land is under the purview of JWA.

B. The Parties, other than OCWD and IRWD, caused the Diversion Structure Water Capture and Reuse Structure Concept Feasibility Study dated July 8, 2013 to be conducted in order to review the technical and economic feasibility of reducing pollutants inflows and trash to the Channel ("**Conceptual Report**"). Based upon the Conceptual Report findings, possible locations for the Diversion Structure system and the Project limits within the impacted watershed area (i.e., the Watershed Drainage Area) were proposed and alternative Facility components were discussed.

C. The proposed Project is to be designed for the benefit of the Parties, who occupy or operate within a region of approximately 11,120 acres, by diverting dry-weather flows and trash from the Santa Ana-Delhi drainage system shown in Exhibit A.

D. It is contemplated that the Diversion Structure will be constructed upon land owned by COUNTY (with a portion of the land under the purview of JWA) that is, in turn, leased to the "**Golf Lessee**"; and in part upon land utilized by OCFCD for flood control purposes in accordance with the Flood Control Act.

E. OCFCD, COUNTY and JWA are amenable to accommodating the Diversion Structure and appurtenant components upon their right-of-way in accordance with the terms herein, provided that the Project: (1) will not violate the COUNTY's vesting deed restrictions or create a nuisance, (2) will not interfere with flood control or Airport operations or operational requirements, (3) endeavors to minimize its effect on Golf Lessee, and (4) mitigates and compensates Golf Lessee for any negative impact due to the Project.

F. The Project's proposed plan as shown on Exhibit B (Preliminary Plan) is to install, operate, and maintain pipelines within public street right-of-way. The Cities are amenable to accommodating pipelines and other necessary Project Facilities within their respective public street right-of-way in furtherance of the Project.

G. SANTA ANA will be the lead agency for the Project under CEQA, and if applicable NEPA, as well as being responsible for the PS&E, acquisition of property rights, relocations, necessary permits and easements, and construction administration necessary for the Project.

H. The Parties anticipate the Project costs to be about \$9,173,000 (“**Estimated Cost**”) based upon the itemized estimated expenses listed on Exhibit C3.

I. The Estimated Cost amount includes an estimate of long-term O&M expenses projected over twenty years in the amount of ONE MILLION DOLLARS (\$1,000,000).

J. SANTA ANA has been awarded a Measure M2 Environmental Cleanup Program Grant from the Orange County Transportation Authority in the amount of TWO MILLION, FIVE-HUNDRED SEVENTY-TWO THOUSAND, EIGHT HUNDRED, and SEVENTY-FIVE DOLLARS (\$2,572,875) (“Grant”), which shall be used for the capital construction costs associated with the Project.

K. The Project proposes to divert trash and debris into a containment area while conveying dry-weather flows into an Orange County Sanitation District trunk main which serves an OCSD sanitary sewer treatment plant and thereafter to the OCWD Groundwater Replenishment System. In furtherance of the Project, OCWD has offered to pay a one-time sum of ONE MILLION DOLLARS (\$1,000,000) toward the construction costs pursuant to the terms and conditions provided herein. SANTA ANA will accept and expend said funds from OCWD for the construction of the PROJECT.

L. SANTA ANA is committing its resources and is agreeable to contribute toward the Project design, construction, and O&M. SANTA ANA agrees to make one lump sum payment for their proportionate share in the costs for the design, construction long-term O&M costs in an aggregate amount not to exceed of ONE MILLION, NINE-HUNDRED THOUSAND DOLLARS (\$1,900,000), as denoted in Exhibit C1.

M. OCFCD and COUNTY are agreeable to contribute toward Project design, construction, and O&M. Per the terms of this Agreement, OCFCD and COUNTY agrees to make one lump sum payment of their joint proportionate share in the costs for the design and construction, and long-term O&M in an aggregate amount not to exceed ONE MILLION, SIX-HUNDRED, THOUSAND DOLLARS (\$1,600,000), as denoted in Exhibit C1. OCFCD is agreeable to accept certain ownership, O&M responsibilities, in accordance with the terms herein, for the portion of the Facilities located upon OCFCD, COUNTY and/or JWA right-of-way.

N. NEWPORT BEACH is agreeable to contribute toward the Project and make a lump sum payment in the amount of ONE MILLION, FIVE-HUNDRED THOUSAND DOLLARS (\$1,500,000), as denoted in Exhibit C1.

O. COSTA MESA is agreeable to contribute toward Project design, construction, and O&M. COSTA MESA agrees to make one lump sum payment for its proportionate share in the costs for the design, construction, and long-term O&M costs in an aggregate amount not to exceed SIX-HUNDRED THOUSAND DOLLARS (\$600,000), as denoted in Exhibit C1.

COSTA MESA agrees to accept certain ownership, O&M responsibilities, in accordance with the terms herein, for the Facility pipelines located outside of OCFCD, COUNTY and/or JWA right-of-way.

P. IRWD discharges pumped groundwater to the Channel from wells pursuant to certain permits issued by COUNTY. In consideration of the effect of the quantity of such discharges upon the design and capacity of the Project, IRWD is willing to contribute one lump sum payment in the amount of ONE HUNDRED AND NINETY-FIVE THOUSAND DOLLARS (\$195,000), as denoted in Exhibit C1 as its share of Project design and construction. IRWD shall not contribute to O&M costs.

Q. The Parties contemplated statewide trash amendments by the State Board currently approved "Amendment to the Water Quality Control Plan for the Ocean Waters of California to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California," which in the future would be reflected in stormwater MS4 Permits. It is intent of the Parties to collaborate efforts in order for the Project to qualify as an implementation plan, or portion thereof, under such requirements.

R. After the Diversion Structure and the Facilities become operational and at any point establish an additional regulatory benefit or credit which may be allocated among the Parties, and/or traded or sold to an outside third party at market-based rates, the Parties desire to clarify herein how a Party might receive its fair share of the economic value generated and realized.

S. The Parties further desire that the Agreement address how the Parties may amend their respective financial commitments as specified in Exhibit C2 by revising the percentages representing their proportionate share to include requiring the contribution from future, additional point source dischargers who benefit from the Project Facilities.

T. Therefore, the Parties mutually desire to enter into this Agreement to set forth their respective rights and obligations with respect to the Project development, and the possible construction, and long-term O&M of the Facilities.

## AGREEMENT

NOW, THEREFORE, in consideration of the foregoing Definitions and Recitals, which are incorporated herein by reference, and the mutual covenants and promises among the Parties hereinafter set forth, the Parties agree as follows:

### SECTION 1 PROJECT REPRESENTATIVES

1.1 SANTA ANA Project Representative. The City Manager of the City of Santa Ana or his designee shall be authorized to perform all actions required to implement this Agreement on behalf of SANTA ANA and serve as the Project Representative for SANTA ANA for all purposes related to this Agreement.



1.2 COUNTY and OCFCD Project Representative. The Director shall be authorized to perform all actions required to implement this Agreement and to serve as the Project Representative, jointly and individually, for OCFCD and the COUNTY as Parties and property right owners; as well as, for the COUNTY as to unincorporated areas of the watershed within its jurisdiction that are not part of JWA operations.

1.3 John Wayne Airport Project Representative. The Airport Director or designee shall be authorized to perform all actions required to implement this Agreement and to serve as the Project Representative on behalf of JWA for all purposes related to this Agreement.

1.4 NEWPORT BEACH Project Representative. The City Manager of the City of Newport Beach or designee shall be authorized to perform all actions required to implement this Agreement on behalf of NEWPORT BEACH and serve as the NEWPORT BEACH's Project Representative for NEWPORT BEACH for all purposes related to this Agreement.

1.5 COSTA MESA Project Representative. The City Manager of the City of Costa Mesa or designee shall be authorized to perform all actions required to implement this Agreement on behalf of COSTA MESA and serve as COSTA MESA's Project Representative for all purposes related to this Agreement.

1.6 IRWD Project Representative. The General Manager of the Irvine Ranch Water District or designee shall be authorized to perform all actions required to implement this Agreement on behalf of IRWD and serve as IRWD's Project Representative for all purposes related to this Agreement.

1.7 Whenever reference is made herein to an action or approval to be undertaken by a Party, the Project Representative shall be authorized to act on behalf of its respective Party unless specifically provided otherwise or the context requires otherwise. Any determination of change which if implemented may materially alter the terms and financial obligations of the Parties shall require an amendment of this Agreement approved in writing by each Party's board, council, or governing body.

1.8 The Project Representatives shall have authority to send invoices, make and receive payments, and perform all other activities required to satisfy the financial responsibilities of their respective Party in accordance with the terms herein.

1.9 Each Party and their respective Project Representative acknowledge that the Project is made possible by virtue of certain Grants and agrees to make every effort to assist and cooperate with SANTA ANA, the Grant Administrator, for the Project to remain in full compliance with the terms of the Grant.

## **SECTION 2 RESPONSIBILITIES OF SANTA ANA**

### **2.1 General Responsibilities**

SANTA ANA shall be responsible for the design, environmental review,

obtaining all required Resource Agency approvals, CPP, permits and easements, and construction of the Facilities developed for the PROJECT under the terms of this Agreement. SANTA ANA shall deposit amounts paid by the Parties for Project design and/or construction into a separate account designated for such funds (the "Project Fund"), established and maintained consistent with all applicable SANTA ANA or other governmental laws, rules and regulations pertaining thereto. Within forty (40) days of the execution of this Agreement, SANTA ANA shall deposit a lump sum amount for design, construction, and the annual O&M costs as established per Exhibit C3, into the Project Fund Account. The Grant funds shall be paid to the Project Fund on a reimbursement basis pursuant the terms and conditions of said grant.

## 2.2 Environmental Review / Permitting

2.2.1 SANTA ANA shall be the lead agency for purposes of CEQA, prepare the necessary environmental documents and secure all necessary resource agency permits for the Project. SANTA ANA shall secure the rights-of-way for the Project, including any needed for the O&M of the Diversion Structure and all Facilities.

2.2.2 SANTA ANA shall obtain the prior written approval from the Project Representative(s) of any Party with jurisdiction and/or property rights to any permit concerning said property which potentially includes post-construction agreements, obligations or conditions (e.g., mitigation requirements) imposed by any governmental or regulatory agency.

2.2.3 SANTA ANA shall apply for permits and maintain Project compliance with all permits, regulations and laws. As referenced in Recital P, the development of the Project contemplated statewide trash amendments by the State of California Water Control Board currently approved "Amendment to the Water Quality Control Plan for the Ocean Waters of California to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California." SANTA ANA shall, if the Project Representatives mutually determine it is necessary, change the Project procedures as to its implementation, monitoring, and reporting to assist with a Party's respective stormwater discharge permit compliance.

## 2.3 Design

2.3.1 The Parties acknowledge SANTA ANA had the "Santa Ana-Delhi Channel Diversion Project Technical Memorandum 1", dated July 2015 and revised in October 2015, prepared which provides a description of the Project operations and land requirements for alternate design plans. Among the alternatives presented in that memorandum, the Parties wish to implement Scenario 1 where the Facilities will have direct discharge to the Orange County Sanitation District Regional Sewer System as depicted in the "Preliminary Plan" shown on Exhibit B, attached. The Facilities are to be constructed in accordance with Approved Plans that specify its components which may include, among other things and in addition to the modifications to the existing channel section, diversion structure, submersible pumps, floating boom, weirs, screening bars, and debris containment area.

2.3.2 SANTA ANA shall require and ensure that all consultants, engineers and mitigation agents working on the Project environmental, design and construction abide by the insurance and

bond requirements as specified in Exhibit G (Insurance, Bonds and Warranties). SANTA ANA agrees to be responsible for the preparation of the PS&E, which shall be consistent with the standards of SANTA ANA and the Party or Parties with jurisdiction or ownership of the right-of-way where construction is to be performed. In case of conflict between such standards, the most stringent standard shall prevail. With regard to the Diversion Structure and any other Facilities appurtenant, in, on or about the Channel or right-of-way held by OCFCD or COUNTY, the PS&E shall be consistent with OCFCD standards, criteria, customs and practices and receive Director's and JWA's approval prior to commencement of construction through OCFCD's CPP process.

2.3.3 SANTA ANA shall provide the Project Representatives opportunities to review the PS&E at the 60% and 90% submittal levels and to provide timely comments prior to submittal of the PS&E to the relevant resource agencies that must issue permits for construction of the Project or O&M of the Facilities. The Project Representatives shall review the revised PS&E in a timely manner and indicate their approval or disapproval of the same to SANTA ANA. SANTA ANA shall address the comments in the drafts. SANTA ANA shall promptly provide each Project Representative with a reproducible copy of the PS&E as well as a copy of all Project-related documents. SANTA ANA shall be responsible for retaining all consultants necessary to prepare the PS&E and Approved Plans in accordance with applicable law.

## 2.4 Right-of-Way

2.4.1 Prior to commencing construction, SANTA ANA shall obtain all necessary permits, easements, and any right of way necessary from landowners in order to use their respective properties for the construction and O&M of the Facilities. The terms and conditions of the permits shall be consistent with this Agreement, and in the case of a conflict, the terms and conditions of this Agreement shall control. SANTA ANA shall be responsible for providing the legal descriptions required for right-of-way transactions needed for the Project, subject to the review and approval of the Parties which are to participate in the proposed right-of-way and/or interest transaction.

2.4.2 Prior to commencing Project construction, SANTA ANA shall work with OCFCD and JWA to obtain from the Golf Lessee and the Irvine Company written concurrence that the proposed Project will not unreasonably interfere with their respective business, rights or interest in the subject property..

2.4.3 The Parties acknowledge the primary purpose of the OCFCD/COUNTY right-of-way for the proposed Diversion Structure is for flood control purposes and operation of the Channel. If future circumstances necessitate relocation of the Diversion Structure, or if design requires additional right-of-way for the Project beyond that anticipated to be provided, the Parties shall meet and confer in good faith to identify a preferred location or other alternatives which would not impede flood control operations. Costs of relocation shall be the responsibility of the Parties and shall be allocated among the Parties, other than OCWD and IRWD, based on Funding Partner Commitment shares as specified in Exhibit C2 attached herein.



## 2.5 Construction

2.5.1 SANTA ANA shall be responsible for bidding, awarding, and administering the construction contract(s) of the Project in accordance with the terms of this Agreement.

2.5.2 Upon compliance with CEQA, (and NEPA if applicable), certification and approval of all necessary environmental documents, approval by all of the Project Representatives of associated mitigation requirements, receipt of all regulatory agency approvals, final approval of the PS&E and Approved Plans, and acquisition of right-of-way necessary for all work necessary for the Project, then SANTA ANA shall advertise a contract for construction of the Project for formal bids per applicable sections of the California Public Contract Code. The Project Representatives shall have the opportunity to review all bids. If the lowest responsive and responsible bid would cause the Estimated Cost shown in Exhibit C3 (which includes the 20% contingency amount) to be exceeded, then the Project Representatives shall meet and confer and mutually agree by unanimous vote whether (i) SANTA ANA should award a contract for construction of the Project to the lowest responsive and responsible bidder, (ii) SANTA ANA should reject all bids and re-bid the Project, or (iii) the Parties shall terminate or amend this Agreement. If all conditions precedent to construction of the Project set forth in this Agreement have been satisfied, SANTA ANA shall award a construction contract to the lowest responsive, responsible bidder ("**Contractor**"). SANTA ANA shall obtain advance written approval from Parties Representatives for any construction contract change orders and the implementation thereof.

2.5.3 The Parties agree to cooperate in good faith and exercise best efforts in order to meet grant(s) requirements, to the best of their knowledge, and to assist the Project in complying with the "**Project Schedule**" set forth in Exhibit F, as the same may be amended and revised to meet the requirements of Project permits and approvals. In that regard, the Parties acknowledge the Project Schedule is based on a conceptual design, and thus may require modification. In addition, certain activities necessary to complete the Project may result in delays, such as securing environmental certifications/approvals, permitting, securing rights-of-way, Force Majeure Events, and/or obtaining necessary approvals of the Parties relative to design and construction of the Project.

2.5.4 For purposes of this Section, a "**Force Majeure Event**" shall mean any of the following events that materially and adversely interferes with or increases the costs of performing SANTA ANA's obligations hereunder, provided that such event (or the effects of such event) could not have been avoided by SANTA ANA's use of reasonable efforts: naturally occurring events (such as landslides, underground movement, earthquakes, fires, tornadoes, hurricanes, floods, lightning, epidemics and other acts of God), Hazardous Material Management Activities (see Section 6), explosion, sabotage or other act of war or public enemy.

2.5.5 SANTA ANA shall require and ensure that the Contractor selected pursuant to this Section and each of the Contractor's subcontractors abide by the insurance requirements as specified in Exhibit G (Insurance, Bonds and Warranties), and name each Party and JWA as an additional insured, and that such Contractor's and subcontractors' indemnity, defense, hold harmless, and insurance obligations under SANTA ANA's agreement with the Contractor expressly benefit each other Party and JWA in the same manner and to the same extent as SANTA ANA.

2.5.6 SANTA ANA shall require and ensure that the Contractor, prior to commencement of construction, furnish a faithful performance bond, payment bond, and warranty bond in an amount equal to the estimated construction cost of the Facilities (including labor and materials) and to perform contract obligations. These bonds shall, at a minimum, comply with the requirements specified in Exhibit G. Each bond shall name the Parties and JWA as beneficiaries and grants each Project Representative the right to enforce the bond to complete the Facilities in compliance with all construction obligations including but not limited to those for warranties. SANTA ANA and the Project Representatives agree to not release the Contractor from its bond(s) without the first obtaining mutual written approval by the Project Representatives.

2.5.7 During construction, SANTA ANA shall provide access for purposes of inspection by any Project Representative to ensure that the Project work is being performed in accordance with the Approved Plans. Any Party's entry during construction upon COUNTY land shall require prior notice to JWA.

2.5.8 After construction, SANTA ANA shall submit to OCFCD Director for written approval a Notice of Completion of the Diversion Structure and any other Facilities on OCFCD and/or COUNTY right-of-way, which approval shall not be unreasonably delayed, and only after receiving approval, file/record the approved Notice of Completion and furnish OCFCD two copies of the Notice of Completion and one (1) set of Mylar (reversed fixed – line photo Mylar) copies and electronic files in a format acceptable to OCFCD of the approved "Record Drawings" for the Facilities within OCFCD and/or COUNTY right-of-way. Approval shall be withheld only for work not completed per the Approved Plans.

2.5.9 SANTA ANA agrees to not release the Contractor from its performance bond or irrevocable letter of credit obligations prior to receipt of written approval from JWA and the Director to the Notice of Completion.

2.5.10 SANTA ANA shall be responsible to maintain the Channel and all OCFCD and COUNTY improvements impacted by the Project and/or within Project construction areas, according to OCFCD/COUNTY and JWA standards and criteria, until OCFCD/COUNTY acceptance of the portion of the Facility within OCFCD, COUNTY, and/or JWA right-of-way in accordance with the terms herein.

## 2.6 Project Fund and Grant Administration

2.6.1 Within forty days of the Effective Date, SANTA ANA shall have established the Project Fund account in accordance with the terms herein and deposited into it any Grant funds and amounts paid by the Parties for Project in its possession. SANTA ANA shall be the Grant administrator and hold Grant funds and amounts paid by the Parties for Project Capital Costs in this separate Project Fund. SANTA ANA shall implement disbursements from the Project Fund to pay such Project costs as they become due and in accordance with the terms of the Grant and this Agreement.

2.6.2 SANTA ANA shall accept and use the OCWD's contribution of ONE MILLION DOLLARS and 00/100 (\$1,000,000.00), made pursuant to Paragraph 2.6.4 below, for the Project construction cost. The funds shall be made available through an escrow account and paid when construction is completed.



2.6.3 SANTA ANA shall keep appropriate records and accounts of all costs. Said records and accounts shall be subject to reasonable inspection by Project Representatives at their expense and by any Grant funding authorities. Said accounts and records may be audited annually by an independent certified public accounting firm appointed by SANTA ANA pursuant to generally accepted auditing standards. Costs incurred due to this section are to be paid by the Party or Parties initiating the inspection or audit. SANTA ANA agrees to remain at all times in compliance with the terms of the Grant.

2.6.4 SANTA ANA shall forward to OCWD a copy of the Notice of Completion approved by the Director with written request for payment of the ONE MILLION DOLLARS and 00/100 (\$1,000,000.00) pursuant to this Agreement. OCWD's contribution will be deposited into the Project Fund and used prior to SANTA ANA invoicing the remaining Parties as part of the final reconciliation of the Project Fund.

2.6.5 Within forty (40) days of approval by the OCFCD Director of the Notice of Completion, SANTA ANA shall establish the **O&M Account** and deposit ONE MILLION DOLLARS and 00/100 (\$1,000,000.00) pursuant to this Agreement. SANTA ANA shall implement an annual disbursement from the O&M Account to the O&M Fund maintained by OCFCD as denoted in Exhibit C4.

2.6.5 SANTA ANA shall provide Project Fund account statements with updated accounting reconciliations provided upon written request from a Project Representative. Any interest accrued on the Project Fund shall be for the benefit of the Project Fund. A final reconciliation and detailed accounting report will be provided by SANTA ANA upon completion of the Project to each Party. Within forty-five (45) calendar days of Project completion, any excess funds remaining in the Project Fund, minus any unexpended Grant funds, shall be distributed to the Parties per the proportionate shares specified in Exhibit C2.

## 2.7 Operation and Maintenance (O&M)

2.7.1 SANTA ANA shall be responsible for the preparation of the O&M Manual for the Facility and components thereof as part of the construction contract and its distribution to the Parties for review and approval by the respective Project Representatives. The Notice of Completion for the Facilities shall not be prepared until the O&M Manual has been approved. SANTA ANA agrees the Facilities shall be exclusively for the mutual use and benefit of all the Parties and those additional parties allowed pursuant Section 8 below.

2.7.2 Within forty (40) days of the establishment of the O&M Account, SANTA ANA shall deposit the first years O&M funds to the O&M account, as indicated in Exhibit C4. As the Parties agree, SANTA ANA shall make supplemental disbursements from the O&M Account to the O&M Fund.

2.7.3 After the O&M Account as shown in Exhibit C4 is expended, including funds in the Reserve Fund maintained by OCFCD/COUNTY, SANTA ANA agrees to contribute to long-term O&M costs per its proportionate share as specified in Exhibit C2.

## 2.8 Project Design and Construction Administration Costs

2.8.1 SANTA ANA shall be reimbursed for design and construction administrations costs not to exceed the amounts shown on Exhibit C3 without prior approval of the Parties. SANTA ANA shall prepare invoices accordingly and shall be reimbursed from the Project Fund.

### **SECTION 3 RESPONSIBILITIES OF OCFCD AND COUNTY**

#### 3.1 General Responsibilities

3.1.1 OCFCD and COUNTY (“OCFCD/COUNTY”) shall review the Project plans and financially contribute toward the Project Fund as shown in Exhibit C2. Within forty (40) days of the execution of this Agreement, OCFCD and COUNTY shall deliver to SANTA ANA a lump sum amount for design, construction, and the annual O&M; not exceed ONE MILLION, SIX-HUNDRED THOUSAND (\$1,600,000) as established per Exhibit C2, which will be deposited into the Project Fund Account. Upon sign-off of all related CPP at completion of Project construction according to the Approved Plan, OCFCD shall take ownership, ongoing long term O&M for the portion of the Facility located upon OCFCD, COUNTY and/or JWA right-of-way.

#### 3.2 Environmental Review / Permitting

3.2.1 OCFCD/ COUNTY and JWA shall comply with all of the commitments and conditions set forth in the environmental documentation, environmental permits, approvals, and applicable agreements obtained for the Project provided those commitments and conditions have been approved by the OCFCD/COUNTY Project Representative and applied to each Party’s responsibilities under this Agreement.

3.2.2 OCFCD/ COUNTY Project Representative’s prior review and approval of permit conditions and other resource agency approvals shall be required for any that affect or could impact the construction or O&M of the Diversion Structure within OCFCD or COUNTY right-of-way or facilities, or other OCFCD/ COUNTY O&M activities.

#### 3.3 Design

3.3.1 OCFCD, COUNTY and JWA shall review all draft and final design reports, calculations, and PS&E submitted by SANTA ANA for Project through the CPP process. Such OCFCD, COUNTY, JWA review and approval will be limited to review of the proposed Facilities on OCFCD, COUNTY or JWA right-of-way for conformance with OCFCD, COUNTY or JWA standards, criteria, customs, and practices; to review implications upon the Golf Lessee and proposed remedies, and to ensure the proposed will not interfere with the flood control function of the Channel. Subsequent to the OCFCD, COUNTY, JWA final PS&E approval that becomes the Approved Plans upon mutual acceptance by all Project Representatives, any material design change variance shall require mutual approval by all Project Representatives. Any design change which if implemented would materially alter the terms and financial obligations of the

Parties shall require an amendment of this Agreement approved in writing by each Party's board or council.

### 3.4 Right of Way

#### 3.4.1 Temporary Construction Easement

Ninety (90) days prior to the commencement of any construction activities for the Project, JWA shall deliver to SANTA ANA a Temporary Construction Easement (TCE), substantially in the form of Exhibit D attached, signed and acknowledged by the Airport Director and approved by The Irvine Company in accordance with COUNTY's vesting document obligations. If requested by JWA, SANTA ANA shall provide a legal description in accordance with Section 2.4.1 above for this TCE in a form acceptable to The Irvine Company, COUNTY and OCFCD.

#### 3.4.2 Easement

Prior to the commencement of any construction activities for the Project, if the Airport Director deems it necessary, JWA shall deliver to the OCFCD's Director an easement deed substantially in the form of Exhibit E, with a legal description provided by SANTA ANA in accordance with Section 2.4.1 above that has been approved by The Irvine Company in accordance with the terms of COUNTY's vesting deed. The easement would convey rights to OCFCD needed for O&M of the portion of the Facilities located on COUNTY land.

### 3.5 Construction

3.5.1 In order to reduce Project costs, OCFCD, COUNTY and JWA shall waive any costs or fees with respect to the permits issued by either of them in furtherance of the Project. The terms and conditions of the permits shall be consistent with this Agreement, and in the case of a conflict, the terms and conditions of this Agreement shall control.

3.5.2 During construction OCFCD, COUNTY and JWA, their agents, employees and contractors, shall have adequate access to Project areas, to perform their responsibilities pursuant to any issued CPP, this Agreement, and activities authorized under the Orange County Flood Control Act. OCFCD and COUNTY shall assign a qualified OC Public Works inspector or representative through the CPP process ("Oversight Inspector") to verify that construction of the Diversion Structure and other Facilities on OCFCD and COUNTY right-of-way are accomplished in a good, workman-like manner and in accordance with the Approved Plans per OCFCD and COUNTY standard. The Oversight Inspector shall notify JWA and SANTA ANA's Project inspector of any issue with construction per the terms of the CPP.

3.5.3 Upon receipt of notification by SANTA ANA that the Facilities (including the Diversion Structure) have been substantially completed, the CPP Inspector shall conduct a walk-through to provide a list of outstanding items, if any, needed to close out the construction permit. The Oversight Inspector shall communicate his/her concerns on all matters related to construction of Facilities within, or affecting OCFCD and/or COUNTY's right-of-way through SANTA ANA's Project inspector. Upon completion of the construction and satisfaction of all outstanding items, the Director shall provide SANTA ANA with written approval that construction of the Diversion



Structure has been completed per the Approved Plans and the related CPP shall be signed off. Upon sign-off of all related CPP at completion of Project construction according to the Approved Plan, OCFCD/COUNTY shall take ownership and long-term O&M.

3.5.4 OCFCD/COUNTY costs associated with the Oversight Inspector, CPP, and any other independent inspection of the Project construction are a Project cost in Exhibit C3 and will not to exceed Seventy Five Thousand Dollars and 00/100 (\$75,000.00). SANTA ANA shall receive invoices accordingly through CPP for payment of said costs. SANTA ANA shall pay invoices as they become due from the Project Fund. OCFCD/COUNTY shall keep appropriate records and accounts supporting amounts invoiced. Said records and accounts shall be subject to reasonable inspection by Project Representatives at their expense and by any Grant funding authorities.

### 3.6 Grant

3.6.1 OCFCD/COUNTY acknowledges the Project is made possible by virtue of certain Grants and agrees to make every effort to assist and cooperate with SANTA ANA, the Grant Administrator, for the Project to remain in full compliance with the terms of the Grant.

### 3.7 Operation and Maintenance

3.7.1 Upon OCFCD/COUNTY acceptance of Facilities within OCFCD/COUNTY and/or JWA right-of-way, OCFCD shall either perform Facility O&M or alternatively, OCFCD shall enter into a contract for a third party (“O&M Contractor”) to perform the Facilities O&M, provided that the third party is the lowest responsive and responsible bidder to a request for proposal for said work which the Project Representatives have reviewed and rated. The Facilities shall be operated and maintained in accordance with the terms approved by the Director as set forth in the O&M Manual. An approved O&M Manual pursuant to Section 2.7 above and O&M contracts covering the entire Facilities shall be provided to OCFCD/COUNTY and COSTA MESA by SANTA ANA prior to completion of Project construction to ensure long-term Facility O&M. In the case where OCFCD or COSTA MESA has chosen to perform their respective O&M duties without the aid of an independent contractor, an O&M contract may not be required.

3.7.2 OCFCD and COSTA MESA shall ensure their O&M Contractor and those performing O&M abide by the Insurance Requirements as specified in Exhibit G (Insurance, Bonds, and Warranties), and name each Party and JWA as an additional insured, and that such Contractor's and subcontractors' indemnity, defense, hold harmless, and insurance obligations under their respective O&M contract with the Contractor and that it expressly benefit each other Party and JWA in the same manner and to the same extent as if they were the original signatories of said contract. OCFCD and COSTA MESA shall further ensure workers including third party contractors follow the O&M Manual and other maintenance manuals or guides for the Facilities.

3.7.3 Within twenty (20) days of written notice from a Project Representative of a necessary repair and/or replacement or other remedial action for compliance with the O&M Manual or this Agreement, the O&M Contractor, OCFCD and/or COSTA MESA depending upon the location in need of said work shall promptly take the remedial action to perform the necessary work.

Should that party not commence or diligently work toward completion of the repairs, replacement, and/or remedy required, the Project Representative may perform or cause the repairs, replacement, and/or remedy to be completed, and the costs thereof may be reimbursed from the O&M Fund.

3.7.4 Periodically, OCFCD/COUNTY will review with the Parties the types and quantities of debris and trash collected at the Facility, and if unusual amounts of debris are found in the Facility, the Parties will discuss what upstream debris and trash reduction measures should be implemented in the tributary system to resolve this issue. Costs to implement these measures, as possible, will not be assessed against the O&M Fund unless agreed to by the Parties. Each Party shall maintain its infrastructure, as needed, to minimize the conveyance of any debris and trash to the Diversion Facility. If unusual amounts of debris are found in the Facility, the Parties will discuss what upstream debris and trash reduction measures should be implemented in the tributary system to resolve this issue.

### 3.7.5 Operational and Maintenance Costs

After the O&M Account is established, SANTA ANA shall disburse annual, upfront, lump-sum disbursement to the O&M Fund, as established in Exhibit C4.

A Party's proportionate share obligation to fund Additional Annual O&M Costs are to be paid as indicated on Exhibit C2 to OCFCD or COSTA MESA on, or before January 1<sup>st</sup> of each year, or as otherwise established in writing by the Parties. OCWD and IRWD shall not have any obligation to fund Additional O&M Costs. Amounts paid by the Parties for Additional Annual O&M shall be deposited into separate O&M Fund accounts held by either OCFCD or COSTA MESA designated for O&M of the Facilities. OCFCD and COSTA MESA shall pay costs out of their respective O&M Funds as they become due and in accordance with the terms of this Agreement. COSTA MESA O&M Fund and charges are addressed in Section 4.

### 3.7.6 Overhead

3.7.6.1 All O&M costs for Project Facilities allocated to the Parties in accordance with the terms herein shall include the cost of OCFCD/COUNTY labor, services and equipment, determined on a time and material basis, using the actual number of man-hours and equipment-hours required (including travel time to and from their respective facilities), multiplied by the applicable rates for the crew members and equipment deployed. After-hours services (defined as between 5:00 p.m. on a working day and 7:00 a.m. on the next, following work-day; a "work day" shall exclude Saturday, Sundays and designated holidays for OCFCD/COUNTY unless otherwise approved by the respective Project Representative for OCFCD/COUNTY) will be charged at time and a half. Equipment and material rates shall be approved by the Project Representative for OCFCD/COUNTY and in accordance with OCFCD/COUNTY's respective standards and practices.

3.7.6.2 The labor rates are comprised of direct and indirect components. The direct labor rate component is adjusted periodically by the authorized representatives of OCFCD/COUNTY as salary adjustments, which may include cost of living, competitive wage, benefit and annual hourly-rate schedule increases. The indirect component of the labor rate reflects the general and

administrative cost, which shall include burden rates as established by OCFCD/COUNTY covering costs associated with overhead, contract management and other services provided ("Burden Rate"). As of the Effective Date, the Burden Rate for OCFCD/COUNTY is Seventy Four Point Three Six Percent (74.36%). The Parties acknowledge said Burden Rate is subject to change, and agree to pay the Burden Rate in effect when labor, services or equipment are provided.

### 3.7.7 Nuisance Prevention Measures.

The Parties acknowledge the Diversion Structure is situated on COUNTY land with certain recorded deed restrictions and conditions prohibiting use of the land for any purpose which would constitute a nuisance or be offensive to the senses, health or safety of persons occupying the land or adjoining land. The Parties further agree OCFCD/COUNTY, the Director, an O&M Contractor or any party upholding the O&M duties of those portions of the Facilities on COUNTY land may take any reasonable action and incorporate cleaning and maintenance measures designed to reduce or eliminate odors or others aspects of the Facilities or Project at the site which might violate the aforementioned nuisance deed restrictions or to remedy a matter of particular concern they have been alerted to by person occupying the land or adjoining land. Costs associated with any such action, measure, and communications concerning these matters shall be reimbursed from the O&M Fund or Reserve Fund. The schedule for regular occurring maintenance, removal and hauling of trash and debris may be adjusted at the Director's sole discretion. The O&M Manual shall not limit the ability to adapt maintenance procedures or restrict implementation of alternate preventive measures to avoid the presence of a nuisance.

### 3.7.8 Hauling, Disposal and Discharge Costs.

Facilities O&M requires the handling, extraction, hauling and disposal of solids and the discharge of diverted flows; therefore, the Parties, with exception of OCWD and IRWD, agree to jointly share in the responsibility for any such costs and charges associated therewith. Each Party shall pay its respective proportionate share of these costs as an O&M cost obligation. Notwithstanding the foregoing, the Parties agree to abide the terms in Section 7 (Hazardous Material) concerning the presence of a hazardous or toxic substances, material or waste and that this section shall not be interpreted as restricting or limiting a Party's hazardous material responsibilities herein or under federal or state law.

### 3.7.9 Reserve Fund.

Any portion of the annual O&M fund that is not utilized shall be deposited into the **Reserve Fund** which is to be used to repair or replace the Facilities, Project-related Channel improvements and/or appurtenances, or portions thereof, if the annual funds in the O&M Fund are depleted. The Reserve Fund shall be established and maintained by OCFCD/COUNTY consistent with all applicable County or other governmental laws, rules and regulation pertaining thereto. COSTA MESA may utilize Reserve Funds for the portions of the Facilities it shall own and maintain by having their Project Representative send a written request to the Director that specifies use of funds consistent with Reserve Fund purposes. The Director shall provide Reserve Fund account statements upon request to Parties who have contributed to said fund.



### 3.7.10 Additional Annual O&M Costs

A Party's proportionate share obligation to fund Additional Annual O&M Costs are to be paid as indicated on Exhibit C2 to OCFCD on, or before January 1<sup>st</sup> of each year, or as otherwise established in writing by the Parties. OCWD and IRWD shall not have any obligation to fund Additional O&M Costs. OCFCD shall pay costs out of its O&M Fund as they become due and in accordance with the terms of this Agreement.

3.7.11 After the O&M Account is expended, as well as the Reserve Fund maintained by OCFCD/COUNTY, OCFCD/COUNTY agree to contribute to long term O&M costs per its joint proportionate share as specified in Exhibit C2.

### 3.7.12 Records

OCFCD shall maintain a complete set of records and accounts of all O&M Costs, maintenance activities and schedules in accordance with generally accepted accounting principles. Upon reasonable notice, OCFCD shall permit a Party or Parties' Project Representatives to inspect and audit all work, materials, payroll, books, accounts, and other data and records of OCFCD. Project Representatives shall also have the right to reproduce any such books, records, and accounts. The above provisions with respect to audits shall extend to and/or be included in contracts with OCFCD'S contractors. Costs incurred due to this section are to be paid by the Party or Parties initiating any inspection or audit.

## **SECTION 4 RESPONSIBILITIES OF NEWPORT BEACH**

### 4.1 General Responsibilities

NEWPORT BEACH shall each review the Project's plans and financially contribute toward the Project Fund as indicated in Exhibit C2.

### 4.2 Environmental Review: Permitting

NEWPORT BEACH shall each comply with all of the commitments and conditions set forth in the environmental documentation, environmental permits, approvals, and applicable agreements obtained for the Project as those commitments and conditions apply to their responsibilities under this Agreement. Notwithstanding the foregoing, each through its designated Project Representative shall review and approve all permit conditions and other resource agency approvals that affect the construction and O&M of the Facilities, or any portion thereof within its jurisdiction and in, on, or about its right-of-way as to its respective compliance with applicable Regulations.

### 4.3 Design

NEWPORT BEACH shall review all draft and final Project design reports, and PS&E submitted for their approval. Each shall have their Project Representative respond in writing to SANTA ANA as to a submittal's review for approval in a timely manner. Subsequent to approval of the

final design, any material design change variance shall require mutual approval by the Project Representatives.

#### 4.4 Right of Way

As indicated in the Preliminary Plan (Exhibit B) no pipelines for the Project are proposed to be installed within the public right-of-way of NEWPORT BEACH. However, in the event the final design necessitates the use of public right-of-way and in order to reduce Project costs, provided that a request is in compliance with all permits and regulatory approvals, NEWPORT BEACH shall allow the Project Facilities or portion thereof (including the aforementioned pipelines) to be constructed, operated, and maintained within its respective right of way at no additional cost.

#### 4.5 Construction

NEWPORT BEACH shall each waive any costs or fees with respect to the permits issued by either of them in furtherance of the Project. The terms and conditions of the permits shall be consistent with this Agreement, and in the case of a conflict, the terms and conditions of this Agreement shall control.

Prior to SANTA ANA's construction completion of the Diversion Structure and other Facilities, NEWPORT BEACH shall have their respective Project Representative conduct a walk-through to promptly review the improvements and provide any comments. Upon satisfaction of any and all the comments or items, NEWPORT BEACH shall have their respective Project Representative provide written approval to SANTA ANA that the Facilities have been constructed in accordance with the Approved Plans or are otherwise acceptable.

#### 4.6 Contribution

4.6.1 Within forty (40) days of the execution of this Agreement, NEWPORT BEACH shall deposit a lump sum amount of ONE MILLION, FIVE-HUNDRED THOUSAND DOLLARS and 00/100 (\$1,500,000.00), as established per Exhibit C3, into the Project Fund Account.

4.6.2 After the O&M Account is expended, as well as the Reserve Fund maintained by OCFCD/COUNTY, NEWPORT BEACH agrees to contribute to long term O&M costs per its joint proportionate share as specified in Exhibit C2.

### SECTION 5 RESPONSIBILITIES OF COSTA MESA

#### 5.1 General Responsibilities

COSTA MESA shall review the Project plans and financially contribute toward the Project Fund as shown in Exhibit C2. In furtherance of the Project, Costa Mesa may include the installation of a segment of the Project's force main in conjunction with one of their City's current construction contracts. In this case, costs to construct this portion shall off-set its financial contribution shown in Exhibit C2. Upon completion of the Project, COSTA MESA shall take



ownership, ongoing long-term O&M responsibilities for the Project force main or pipeline, excluding those portions which are part of the Facilities located on OCFCD, COUNTY and/or JWA right-of-way.

#### 5.2 Environmental Review / Permitting.

COSTA MESA shall comply with all of the commitments and conditions set forth in the environmental documentation, environmental permits, approvals, and applicable agreements obtained for the Project as those commitments and conditions apply to their responsibilities under this Agreement. Notwithstanding the foregoing, COSTA MESA through its designated Project Representative shall review and approve all permit conditions and other resource agency approvals that affect the construction and O&M of those portions of the Facilities not on OCFCD, COUNTY and/or JWA right-of-way as to its respective compliance with applicable Regulations.

#### 5.3 Design

COSTA MESA shall review all draft and final Project design reports, and PS&E submitted for their approval and have their Project Representative respond in writing to SANTA ANA in a timely manner. Subsequent to approval of the final design, any material design change variance shall require mutual approval by the Project Representatives.

#### 5.4 Right of Way

As indicated in the Preliminary Plan (Exhibit B) pipelines for the Project are proposed to be installed within the public right-of-way of COSTA MESA. In order to reduce Project costs, provided that a request is in compliance with all permits and regulatory approvals, COSTA MESA shall each allow the Project Facilities or portion thereof (including the aforementioned pipelines) to be constructed, operated, and maintained within their respective right of way at no additional cost.

#### 5.5 Construction

In order to reduce Project costs, COSTA MESA shall waive any costs or fees with respect to the permits issued by either of them in furtherance of the Project. The terms and conditions of the permits shall be consistent with this Agreement, and in the case of a conflict, the terms and conditions of this Agreement shall control.

Upon receipt of notification that the Facilities or separately constructed portions thereof have been substantially completed, COSTA MESA shall have their Project Representative conduct a walk-through to promptly review the improvements and provide any comments as to any portion of the Facilities not on OCFCD, COUNTY and/or JWA right-of-way. Upon satisfaction of any and all the comments or items, COSTA MESA shall have their Project Representative provide written approval to SANTA ANA that said Facility components have been constructed in accordance with the Approved Plans or otherwise acceptable. Said notice shall be deemed COSTA MESA'S acceptance of ownership and maintenance responsibility for the portions of the Facilities not on OCFCD, COUNTY and/or JWA right-of-way.

## 5.6 Contribution

5.6.1 Within forty (40) days of the execution of this Agreement, COSTA MESA shall deposit a lump sum amount of SIX-HUNDRED THOUSAND DOLLARS AND 00/100 (\$600,000.00), as indicated in Exhibit C2, into the Project Fund Account. COSTA MESA has the option to construct a segment of the force main in conjunction with one of their construction contracts; in this case, costs expended to construct this portion shall off-set their financial contribution as established herein; in which their portion of the \$600,000 shall be used. SANTA ANA shall advance COSTA MESA, under separate agreement, the \$600,000 and any additional funds required for the construction of a portion of the force main with one of their construction contracts. COSTA MESA shall reimburse SANTA ANA as stipulated per their agreement.

## 5.7 Operation and Maintenance

5.7.1 Upon COSTA MESA acceptance of certain Facility pipeline and appurtenant components, COSTA MESA or its contractor shall perform the O&M for said improvements with all expenses and costs reimbursed from O&M Fund, as specified in Section 3.7.3 or Reserve Fund. . The Facilities shall be operated and maintained in accordance with the terms as set forth in the O&M Manual. COSTA MESA shall ensure any of its contractors performing O&M on the Facilities abide by the Insurance Requirements as specified in Exhibit G (Insurance, Bonds, and Warranties), and name each Party and JWA as an additional insured, and that such contractor's and subcontractors' indemnity, defense, hold harmless, and insurance obligations under their respective contract expressly benefit each other Party and JWA in the same manner and to the same extent as if they were the original signatories of said contract. COSTA MESA shall further ensure workers including third party contractors follow the O&M Manual and other maintenance manuals or guides for the Facilities.

5.7.2 Within twenty (20) days of written notice from a Project Representative of a necessary repair and/or replacement or other remedial action for compliance with the O&M Manual or this Agreement within those portions of the Facilities owned and maintained by COSTA MESA, COSTA MESA shall promptly take the remedial action to perform or have its contract perform the necessary work. Should it not commence or diligently work toward completion of the repairs, replacement, and/or remedy required, OCFCD may perform or cause the repairs, replacement, and/or remedy to be completed, and the costs thereof may be reimbursed by invoicing the other Parties according to their proportionate share as shown in Exhibit C2 and the terms herein.

## 5.8 Additional Annual O&M Costs

5.8.1 A Party's proportionate share obligation to fund Additional Annual O&M Costs are to be paid as indicated on Exhibit C2 to COSTA MESA on, or before January 1<sup>st</sup> of each year, or as otherwise established in writing by the Parties. OCWD and IRWD shall not have any obligation to fund Additional O&M Costs. COSTA MESA shall pay costs out of its O&M Fund as they become due and in accordance with the terms of this Agreement.

## 5.9 O&M or Reserve Fund Utilization

5.9.3 In addition to reimbursement for payment of expenses, COSTA MESA may recover as O&M costs allocated to the Parties in accordance with the terms herein its labor, services and equipment costs determined on a time and material basis, using the actual number of man-hours and equipment-hours required (including travel time to and from their respective facilities), multiplied by the applicable rates for the crew members and equipment deployed. After-hours services (defined as between 5:00 p.m. on a working day and 7:00 a.m. on the next, following work-day; a "work day" shall exclude Saturday, Sundays and designated holidays for COSTA MESA unless otherwise approved by the respective Project Representative for COSTA MESA) will be charged at time and a half. Equipment and material rates shall be approved by the Project Representative for COSTA MESA, as the case may be, and in accordance with its respective standards and practices.

5.9.4 The labor rates are comprised of direct and indirect components. The direct labor rate component is adjusted periodically by the authorized representatives of COSTA MESA as salary adjustments, which may include cost of living, competitive wage, benefit and annual hourly-rate schedule increases. The indirect component of the labor rate reflects the general and administrative cost, which shall include COSTA MESA Burden Rate. As of the Effective Date, the Burden Rate for COSTA MESA is 89%. The Parties acknowledge said Burden Rate is subject to change, and agree to pay the Burden Rates in effect when labor, services or equipment are provided.

5.8.4 COSTA MESA shall notify OCFCD and all Project Representatives in writing of any material changes in cost or expenses associated with their ability to provide O&M labor, services and equipment, on a time and material basis, in accordance with the terms of this Agreement.

5.8.5 COSTA MESA may utilize Reserve Funds to repair or replace the Facilities or portions thereof, damaged due to a catastrophic event (e.g. a severe storm, seismic activity, or fire) by sending a written request to the Director that specifies a use of funds consistent with Reserve Fund purposes. Upon completion of work paid with Reserve Funds, COSTA MESA shall send OCFCD an accounting of expended funds and return any unused funds for deposit back into the Reserve Account.

5.8.6 After the O&M Account is expended, as well as the Reserve Fund maintained by OCFCD/COUNTY, COSTA MESA agrees to contribute to long term O&M costs per its joint proportionate share as specified in Exhibit C2.

#### 5.9 Records

COSTA MESA shall maintain a complete set of records and accounts of all O&M costs, maintenance activities and schedules in accordance with generally accepted accounting principles. Upon reasonable notice, COSTA MESA shall permit a Party or Parties' Project Representatives to inspect and audit all work, materials, payroll, books, accounts, and other data and records of COSTA MESA. Project Representatives shall also have the right to reproduce any such books, records, and accounts. The above provisions with respect to audits shall extend to and/or be included in contracts with COSTA MESA'S contractors. Costs incurred due to this section are to be paid by the Party or Parties initiating any inspection or audit.



## SECTION 6 RESPONSIBILITIES OF IRWD

### 6.1 General Responsibilities

IRWD shall review the Project's plans and financially contribute toward the Project Fund as shown on Exhibit C1.

### 6.2 Environmental Review; Permitting

IRWD shall comply with all of the commitments and conditions set forth in the environmental documentation, environmental permits, approvals, and applicable agreements obtained for the Project as those commitments and conditions apply to their responsibilities under this Agreement.

### 6.3 Design

IRWD shall review all draft and final Project design reports, and PS&E submitted for their approval. Their Project Representative shall respond in writing to SANTA ANA as to a submittal's review for approval in a timely manner. Subsequent to approval of the final design, any material design change variance shall require mutual approval by the Project Representatives.

### 6.4 Right of Way - Not Used

### 6.5 Construction

IRWD shall waive any costs or fees with respect to the permits issued by IRWD in furtherance of the Project. The terms and conditions of the permits shall be consistent with this Agreement, and in the case of a conflict, the terms and conditions of this Agreement shall control.

Prior to SANTA ANA's construction completion of the Diversion Structure and other Facilities, IRWD shall have its Project Representative conduct a walk-through to promptly review the improvements and provide any comments. Upon satisfaction of any and all the comments or items, IRWD shall have its Project Representative provide written approval to SANTA ANA that the Facilities have been constructed in accordance with the Approved Plans or are otherwise acceptable.

### 6.6 Contribution

6.6.1 Within forty (40) days of the later of (i) execution of this Agreement or (ii) the expiration of the applicable challenge periods for the Project environmental documentation or (iii) the resolution of all court actions challenging such environmental documentation, IRWD shall deposit a lump sum amount ONE HUNDRED AND NINETY-FIVE THOUSAND DOLLARS (\$195,000), as denoted per Exhibit C1, into the Project Fund Account.

6.6.3 IRWD shall not be obligated to pay or contribute to O&M costs or required to contribute to the Reserve Fund for the Facility. Provisions in this Agreement stating IRWD's non-responsibility for particular costs or contributions shall not limit the generality of this Section.

6.7 Discharges During the Term

6.7.1 IRWD shall have the right to continue to apply for permits allowing for their discharge(s) into Santa Ana Gardens Channel (which further discharges to the Channel) from its Well Nos. IRWD-1, IRWD-11, IRWD-C-8, and IRWD-C-9 and its Deep Aquifer Treatment System, and directly into the Channel from its Well Nos. IRWD-2, IRWD-4, IRWD-5 and IRWD-6, or any replacements to these wells in kind, with similar discharge release quantities and timing.

6.7.2 COUNTY shall not unreasonably cancel or withhold renewal of any such discharge permits to IRWD, which are in full compliance and effect on the Effective Date, on substantially the same terms and conditions, provided IRWD abides by COUNTY's permit application and renewal process with payment of applicable standard fees.

**SECTION 7  
ORANGE COUNTY WATER DISTRICT**

7.1 General Responsibilities

The Project proposes to divert dry-weather flows an Orange County Sanitation District ("OCSD") trunk line for conveyance to its sanitary sewer treatment plant and thereafter to the OCWD Groundwater Replenishment System. In furtherance of the Project, OCWD will make a one-time, lump-sum payment of ONE MILLION DOLLARS (\$1,000,000) toward the Project construction costs ("**OCWD Project Contribution**") pursuant to the terms and conditions provided herein. OCWD shall have no responsibility for the design, construction, operation, maintenance or repair of the Project. OCWD's sole responsibility under this Agreement shall be payment of the OCWD Project Contribution in accordance with the terms herein.

7.2 Environmental Review; Permitting. *Intentionally deleted*

7.3 Design. *Intentionally deleted*

7.4 Right of Way. *Intentionally deleted*

7.5 Construction. *Intentionally deleted*

7.6 Contribution.

Within fifteen days of receipt from SANTA ANA of a copy of the issued Notice of Completion, OCWD shall pay SANTA ANA the OCWD Project Contribution.

OCWD shall not be responsible for sharing the O&M Costs to operate and maintain the Facility or required to contribute to the Reserve Fund for the Facility.

## 7.7 Water Recipient.

OCWD agrees to receive water generated by the Project by allowing flows which are diverted by the Project into an OCSD trunk line and sanitary treatment plant to be conveyed via transmission pipelines into OCWD's Groundwater Replenishment System. The Parties mutually agree that neither the Project nor operation of the Facilities shall require OCWD to pay for its receipt of the Project's water (other than OCWD's payment of the OCWD Project Contribution).

Nothing contained in this Agreement or in any document related hereto shall be construed to imply any representation or warranty, either express or implied, by any Party as to the quantity, quality, nature or condition of water or flows diverted by virtue of the Project or a guarantee with regard to water rights or any interest therein.

## SECTION 8 INDEMNIFICATION

8.1 In contemplation of the provisions of Section 895.2 of the California Government Code imposing certain tort liability jointly upon public entities solely by reason of such entities being parties to an agreement as defined by Section 895 of the Government Code, each Party, pursuant to the authorization contained in Sections 895.4 and 895.6 of the Government Code, hereby agree to and shall indemnify and hold harmless the other Parties as provided in this Section.

8.2 SANTA ANA shall assume the defense of, indemnify and hold harmless the other Parties and each of their elected or appointed officers, employees, officials, volunteers, and agents from and against any and all actions, damages, liability or claims for death, injury, loss, damage or expense to persons or property arising from or related to, or claimed to have arisen from or be related to, the Diversion Structure, the Facilities and/or the Project or implementation of this Agreement, including claims or liability associated with SANTA ANA's responsibilities herein, including but not limited to, environmental compliance, design, construction, replacement, use, operation, maintenance, and/ or repair, of the segment of Channel impacted by the Project, the Diversion Structure, and/or the Facilities, or resulting from SANTA ANA's breach of its obligations under the Agreement, except to the extent such actions, damages, claims, losses, expenses or liabilities have arisen from or relate to the willful misconduct or negligent acts of the indemnified Party, or result from such Party's breach of its obligation(s) under the Agreement.

8.3 Each of the Parties, other than SANTA ANA and OCWD, shall assume the defense of, indemnify and hold harmless the other Parties and each of their officers, employees and agents from and against any and all actions, damages, liability or claims for death, injury, loss, damage or expense to persons or property arising from or related to, or claimed to have arisen from or be related to, the willful misconduct or negligent acts or omissions of, or result from the breach of this Agreement by, such Party in connection with its participation in the Project or use of the Diversion Structure or other component of the Facilities, except to the extent such actions, damages, claims, losses, expenses or liabilities have arisen from the willful misconduct or negligent acts or omissions of, or result from the breach of this Agreement by, the indemnified Party. If judgment is entered against all the Parties by a court of competent jurisdiction because



of the concurrent active negligence or improper acts of one or more Parties, the Parties agree that liability will be apportioned as determined by the court. No Party shall request a jury apportionment.

8.4 To the fullest extent permitted by law, each of the Parties other than IRWD, shall defend, indemnify, protect, and hold harmless OCWD, its officers, agents, employees, and independent contractors (OCWD Indemnitees) from and against any and all liabilities, actions, suits, claims, demands, losses, costs, tortious, contractual, condemnation, inverse condemnation, judgments, arbitration awards, settlements, damages, demands, orders, penalties, and expenses including legal costs and attorney fees (collectively "Claims"), including but not limited to Claims arising from injuries to or death of persons, for damage to property, or liability of any kind or nature which OCWD Indemnitees may sustain or incur upon them or any of them as a result of, arising out of, or in any way connected with this Agreement, use, operation, maintenance, replacement, and/ or repair of improvements, the segment of Channel in association with the Project, the Diversion Structure, and Facilities or portions thereof, from any violation of any federal, state, or local law or ordinance, except to the extent such actions, damages, claims, losses, expenses or liabilities are alleged to be proximately caused by the negligent acts, omissions or willful misconduct of OCWD Indemnitees in connection with or arising out of this Agreement, or the performance or breach of this Agreement or the O&M Manual.

## **SECTION 9 HAZARDOUS MATERIAL**

"HM-1" is defined as hazardous material (including, but not limited to, hazardous waste) that may require removal and disposal pursuant to federal or state law existing prior to the Project and not disturbed by the Project. "HM-2" is defined as hazardous material (including, but not limited to, hazardous waste) that may require removal and disposal pursuant to federal or state law only if disturbed by the Project or as a result of the Project. "HM Management Activities" is defined as management activities related to either HM-1 or HM-2 including, without limitation, any necessary manifest requirements, clean-up and disposal facility designations.

If HM-1 or HM-2 is found during Project implementation, SANTA ANA will immediately notify the Parties. The Parties are responsible for any HM-1 found within property they own to the extent provided by applicable law, and entry into this Agreement shall not cause that liability to be assumed by or transferred to any other Party. If HM-1 is discovered, the Parties will meet to determine the most cost-effective solution to deal with the HM-1 including, but not limited to, changes to the Project. Unless otherwise mutually agreed by the Parties, other Parties shall not be responsible for the cost of HM Management Activities related to HM-1 on another Party's property, if any. If HM-2 is found within Project limits, SANTA ANA will be responsible for HM Management Activities related to HM-2 within the Project limits. HM-2 related HM Management Activities during construction shall be paid as a Project construction cost. HM-2 related HM Management Activities after construction shall be paid from the O&M Fund in accordance with the terms herein.

## **SECTION 10 REGULATORY CREDITS & OFFSETS**



If the Project is considered a qualified offset program by the Regional Board, such that load reductions create regulatory credits or offsets that may be traded among the Parties or collectively traded or sold to others by actions taken by a Party's Project Representative, the Parties agree that the credits will accrue to OCFCD, the COUNTY, COSTA MESA, NEWPORT BEACH, IRWD, and SANTA ANA (individually "Sponsor" and collectively as "Sponsors") in proportion to the financial contribution made by each to the Project Fund, excluding Grant funds, shown as their "Sponsorship Share" on Exhibit C2. Prior to offering its regulatory credits or offsets for trade or sale to others, a Sponsor through its associated Project Representative shall first present such offer to the other Sponsors' Project Representatives who shall have a first right of refusal, to acquire according to their Sponsorship Share.

## SECTION 11 ADDITIONAL POINT SOURCE PARTICIPANTS

11.1 At any time the Project Facilities becoming operational, additional parties may wish to participate in the Project. Parties may initiate negotiations with others that move into the Watershed Area as point source dischargers or beneficiaries ("Additional Participants"), such that they could enter into an agreement to receive regulatory compliance, offsets or credits offered by the Project, provided that the party appropriately contributes toward the O&M costs.

11.2 Additional Participants shall enter into an agreement with a term coinciding with this Agreement that is signed by all Parties. The Additional Participant shall agree to comply with the terms and conditions herein (excluding those pertaining solely to the Project's design and construction) and to pay invoices for their Cost Share of O&M costs within forty (40) days of receipt of an invoice. Each Additional Participant shall indemnify and hold the Parties and JWA and each of their elected or appointed officers, employees, officials, volunteers, and agents from and against any and all actions, damages, liability or claims for death, injury, loss, damage or expense to persons or property arising from or related to, or claimed to have arisen from or be related to, the willful misconduct or negligent acts or omissions of, or result from the breach of this Agreement by, such Party in connection with its participation in the Project or use of the Diversion Structure or other component of the Facilities. Additional Participants shall not have a Project Representative for this Agreement, unless such party later becomes an assignee or successor of a Party.

11.3 After entering into an Additional Participant agreement the Parties may amend the Cost Share percentages, with any material alteration in the financial obligations of the Parties requiring an amendment to this Agreement to be approved in writing by the Party's board, council, or governing body. Additional Participants' Cost Share shall include a premium above what is attributable to them by virtue of their Watershed acreage percentage, percentage of discharge or acknowledged benefit. An additional One Point Five Percent (1.5%) premium shall be paid by the Additional Participant into the O&M Fund. The amount of premium may be revised by written approval of the Project Representatives.

## SECTION 12 SUCCESSORS AND ASSIGNS

This Agreement shall inure to and be for the benefit of the successors and assigns of the Parties hereto. A Party shall not assign or delegate its responsibilities or performance under this Agreement, nor any part thereof, without the prior written consent of the non-assigning Parties. Prior to any such assignment or conveyance, that Party shall provide the Project Representatives with the proposed assignee's written assumption of all of the respective Party's responsibilities and obligations pursuant to this Agreement. Such consent shall not be unreasonably withheld. Any purported assignment, conveyance or encumbrance of any of the Facilities without such unanimous written consent shall be null and void.

In the event of any assignment, conveyance, and/or encumbrance of a Party's respective interests in the Watershed Drainage Area right-of-way, that Party shall provide the other Parties at least three (3) months' written notice of any such proposed transaction or event.

### **SECTION 13 ATTORNEY'S FEES**

Unless otherwise specified herein, in any action or proceeding to enforce or interpret any provision of this Agreement, or where any provision hereof is validly asserted as a defense, the Parties shall each bear their own attorney's fees, costs and expenses.

### **SECTION 14 ENTIRE AGREEMENT; GOVERNING LAW; AMENDMENT; COUNTERPART; AVAILABILITY OF FUNDS**

14.1 Entire Agreement. This Agreement including the Exhibits and all applicable permits and CPP constitutes the entire agreement between the Parties hereto and supersedes all prior agreements and understandings, both written and oral, among the Parties with respect to the subject matter hereof. Notwithstanding the foregoing, this provision shall not release any Party from any obligations under any prior agreements to be performed through the Effective Date or from any obligations of indemnification based upon events occurring prior to the Effective Date. This Agreement shall be construed as if prepared by all Parties hereto.

14.2 Governing Law. California law shall govern the interpretation of this Agreement. Any action or proceeding brought to enforce the Agreement, or related to the Agreement, shall be brought in Orange County, California, notwithstanding the provisions of California Code of Civil Procedure Section 394.

14.3 Amendment. Any amendment to this Agreement shall be made in writing and signed by all of the Parties hereto.

14.4 Counterpart. The Agreement and any amendment hereto may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

14.5 Availability of Funds. All obligations of the Parties, including those exercised through the Project Representatives, under the terms of this Agreement are subject to the availability of funds appropriated for this purpose, and nothing herein shall be construed as obligating any Party

to expend or as involving any Party in any other contract or obligation for the future payment of money in excess of appropriations authorized by law.

## **SECTION 15 NOTICES**

Any notices given pursuant to the Agreement or regarding matters contained within this Agreement shall be deemed delivered upon personal delivery or five (5) days after deposit in the United States Mail, first class, postage prepaid, addressed to the Project Representative of each Party at the address included in the signature section. Notice under this Agreement shall be given to each Party and JWA using the following contact information, unless any Project Representative gives notice of a change in Project Representative or contact information pursuant to this Section, in which case the new information shall be substituted for the information set forth in this Section.

Final Draft (03022012)

**City of Santa Ana**

Tyrone Chesanek, P.E.  
Principal Civil Engineer

Public Works Agency - Construction  
20 Civic Center Plaza M-22  
Santa Ana, CA 92702

Phone: (714) 647-5045  
Email: [tchesanek@santa-ana.org](mailto:tchesanek@santa-ana.org)

**City of Newport Beach**

Dave Kiff  
City Manager

100 Civic Center Drive  
PO Box 1768  
Newport Beach, CA 92658  
Phone: (949) 644-3001  
Email: [dkiff@newportbeachca.gov](mailto:dkiff@newportbeachca.gov)

**City of Costa Mesa**

Nabil Toma  
Engineer

Public Services  
77 Fair Drive, 4<sup>th</sup> Flr  
Costa Mesa, CA. 92626  
Phone: (714) 754-5222  
Email: [NABIL.TOMA@costamesaca.gov](mailto:NABIL.TOMA@costamesaca.gov)

**OCWD**

John Kennedy  
Executive Director of Engineering  
and Water Resources

Orange County Water District  
18700 Ward Street  
Fountain Valley, CA 92708

Phone: (714) 378-3304  
Email: [jkennedy@ocwd.com](mailto:jkennedy@ocwd.com)

**County of Orange/  
Orange County Flood Control District**

Director  
OC Public Works  
300 North Flower Street  
Santa Ana, CA 92703-5000  
Facsimile: (714) 834-2395  
RE: D15-013 F01 Diversion Project

with copy to:

**John Wayne Airport**

Airport Director  
Barry A. Rondinella  
3160 Airway Avenue  
Costa Mesa, CA 92626  
Facsimile: (949) 252-5044  
RE: Santa Ana-Delhi Diversion Project

**IRWD**

General Manager

Irvine Ranch Water District  
15600 Sand Canyon Ave  
Irvine, CA 92716

Phone: (949) 453-5300  
Facsimile: (949) 453-1228  
Email: [cook@irwd.com](mailto:cook@irwd.com)



**SECTION 16  
SEVERABILITY**

If any covenant, term, condition, or provision of this Agreement shall, to any extent, be invalid or unenforceable, the remainder of this Agreement shall be valid and enforceable to the fullest extent permitted by law unless that covenant, term, condition, or provision declared to be invalid is so material that its invalidity deprives any Party of the basic benefit of its bargain or renders the remainder of this Agreement meaningless.

**SECTION 17  
NO THIRD PARTY BENEFICIARIES**

No customer, other person or entity other than the Parties and JWA shall be deemed to be a third party beneficiary hereof, and nothing in this Agreement, either express or implied, is intended to confer upon any other person or entity, other than the Parties and JWA and their respective successors and assigns, any rights, remedies, obligations or liabilities under or by reason of this Agreement.

**SECTION 18  
DISPUTE RESOLUTION**

The Parties desire to resolve as quickly and as amicably as possible any disputes as to the meaning of any portion of this Agreement, the validity of any determination or calculation, or the rights or obligations of the Parties pursuant hereto. Therefore, prior to initiation by a Party of any litigation or other proceeding in connection with this Agreement, the Parties shall meet and make good-faith efforts to resolve any such disputes on an informal basis. The Party that first raises a claim against any other Party in connection with a dispute shall be responsible for providing written notice to such other Party or Parties and initiating the informal dispute resolution efforts. Such informal efforts may include mediation of the dispute if agreed by the Parties involved in the dispute. Not sooner than thirty (30) days after diligent efforts to resolve a dispute have been initiated, if the Parties have been unable to resolve the dispute on such informal basis, any Party involved in the dispute may, in its discretion and after providing written notice to the other Parties that the informal dispute-resolution efforts are being terminated, proceed to take any and all such action to enforce or protect its rights as permitted by law and/or this Agreement. If a Party initiates informal dispute resolution with respect to a dispute, any statutory limitation for filing of a court action or commencement of any other proceeding shall be tolled for a period of days equal to the number of days that elapsed between delivery of the notice initiating informal dispute resolution and the notice terminating informal dispute-resolution.

**SECTION 19  
TERMINATION AND EXPIRATION**

In the event that Project construction is not initiated within two (2) years of the execution date of this Agreement, this Agreement shall automatically expire, unless sooner terminated by a Project Representative written notice to all other Parties, or extended in writing by mutual agreement of the Project Representatives.

Once construction has begun, unless otherwise mutually agreed by all Project Representatives, a Party may not unilaterally terminate its obligations under this Agreement. Notwithstanding any termination of this Agreement, each of the Parties must comply with all terms and conditions of the Grants. In the event of a termination of this Agreement, each of the Parties shall be responsible for finding and arranging an alternate means of discharging its respective duties or other Regulatory obligations, and for payment of any fines, penalties or costs incurred by that Party as the result of a suspension or termination.

Unless otherwise terminated or extended, this Agreement shall be effective for an initial term of twenty-five (25) years commencing on the Effective Date, and shall automatically renew for a one time ten year term thereafter (the initial term and renewal terms shall collectively be referred to as the “Term”). Project Representatives may meet and confer to determine continued use, termination of this Agreement, transfer, closure, removal and/or abandonment of the Facilities or components thereof. The Project Representatives shall also meet and confer upon the fifteenth (15<sup>th</sup>) anniversary of Project completion to assess O&M for the Project including the payment of the Parties’ fair share of O&M costs. Prior to any termination of this Agreement, the Project Representatives are to agree upon demobilization or transfer of the Facilities and whether to sell any part of it, the proceeds of such sale and outstanding Project debts and obligations shall be allocated among the Parties in accordance with their respective proportionate share percentages in Exhibit C2.

Upon termination of this Agreement or abandonment of the Project, the Parties shall, within 120 days from written demand from JWA, remove the Diversion Structure or restore the Project Area as nearly as possible to the same condition as the Project Area was in prior to the execution of this Agreement. All costs of removal or restoration shall be borne by the Parties, in accordance with their respective proportionate share percentages in Exhibit C2.

SANTA ANA shall be responsible and ensure that the Diversion Structure and appurtenant improvements are removed from the Channel and OCFCD or COUNTY right-of-way as specified by the Director, Regulations, and all applicable laws.

## **SECTION 20 SURVIVAL CLAUSE**

The obligations regarding: environmental commitments (as set forth in Sections herein); indemnification (as set forth in Section herein); operation, maintenance, cost allocation and ownership (as set forth in Sections herein); and specific performance (as set forth in Section herein) shall survive termination of the Agreement, as applicable, and shall remain in effect until terminated or modified in writing by mutual agreement of all Parties and JWA or the applicable statute of limitations is reached.

## **SECTION 21 SPECIFIC PERFORMANCE**

The Parties acknowledge that monetary damages would be an inadequate remedy for breach of this Agreement, and that a Party’s breach will result in immeasurable and irreparable

harm to the other Parties. Therefore, in addition to any other remedy to which it may be entitled by reason of another Party's breach of this clause, the moving Party shall be entitled to seek temporary, preliminary and permanent injunctive relief from any court of competent jurisdiction restraining the other Parties from committing or continuing any breach. This clause shall survive any termination of this Agreement.

## SECTION 22 EXHIBITS

This Agreement contains the following exhibits, which are attached hereto:

Exhibit A – *Santa Ana Delhi Drainage System*

Exhibit B – *Preliminary Plan*

Exhibit C – *Funding Table, Participant Shares & Estimated Costs*

Exhibit D – *Temporary Construction Easement to the City of Santa Ana*

Exhibit E – *Easement COUNTY to OCFCD*

Exhibit F – *Project Schedule*

Exhibit G – *Insurance, Bonds and Warranties*



IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the Effective Date written above.

**CITY OF SANTA ANA,**  
a Municipal corporation of the State of  
California

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

David Cavazos  
City Manager

APPROVED AS TO FORM:

\_\_\_\_\_  
Sonia R. Carvalho  
City Attorney

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

Jose Sandoval  
Chief Assistant City Attorney

ATTEST:

\_\_\_\_\_  
Maria D. Huizar  
Clerk of the Council

SIGNED AND CERTIFIED THAT A COPY  
OF THIS AGREEMENT HAS BEEN  
DELIVERED TO THE CHAIR OF THE  
BOARD PER G.C. Sec 25103, Reso 79-1535

Attest:

**ORANGE COUNTY FLOOD CONTROL  
DISTRICT,** a body corporate and politic

By: \_\_\_\_\_  
Chairman of the Board of Supervisors  
County of Orange, California

\_\_\_\_\_  
Robin Stieler  
Interim Clerk of the Board  
County of Orange, California

APPROVED AS TO FORM  
Office of the County Counsel  
County of Orange, California

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

Date: \_\_\_\_\_

**COUNTY OF ORANGE**, a political  
subdivision of the state of California

By: \_\_\_\_\_  
Chairman of the Board of Supervisors  
County of Orange, California

APPROVED AS TO FORM  
Office of the County Counsel  
County of Orange, California

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

Date: \_\_\_\_\_

**CITY OF NEWPORT BEACH**,  
a California municipal corporation and charter  
city

By: \_\_\_\_\_  
Dave Kiff  
City Manager

APPROVED AS TO FORM:  
City of Newport Beach

ATTEST:  
City of Newport Beach

\_\_\_\_\_  
Aaron C. Harp  
City Attorney

\_\_\_\_\_  
Leilani I. Brown  
City Clerk

**CITY OF COSTA MESA**, a California  
municipal corporation

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

Tom Hatch  
Chief Executive Officer

APPROVED AS TO FORM:

\_\_\_\_\_  
Tom Duarte  
City Attorney

ATTEST:

\_\_\_\_\_  
Brenda Green  
City Clerk

APPROVED AS TO FORM

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

**ORANGE COUNTY WATER DISTRICT**,  
a subdivision of the State of California  
organized under Chapter 924 of the Statutes of  
1933,

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

APPROVED AS TO FORM

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

**IRVINE WATER RANCH DISTRICT**,  
a California water district,

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

**EXHIBIT A**  
Santa Ana-Delhi Drainage System

**EXHIBIT B**  
Preliminary Project Plans

Final Draft (03022016)

**EXHIBIT C1**

**PROJECT FUNDING COMMITMENTS**

M2 Grant	\$	2,572,875.00
City of Santa Ana	\$	1,900,000.00
OCFCD & County of Orange	\$	1,600,000.00
City of Newport Beach	\$	1,500,000.00
OCWD	\$	1,000,000.00
City of Costa Mesa	\$	600,000.00
IRWD	\$	195,000.00
Funding Total	\$	9,367,875.00

**EXHIBIT C2**

**PROJECT FUNDING PARTNER COMMITMENTS**

<b>Funding Partner</b>	<b>Funding Commitment</b>	<b>Sponsorship Share*</b>	<b>Sponsorship Share**</b>
City of Santa Ana	\$ 1,900,000.00	33.93%	32.79%
OCFCD & County of Orange	\$ 1,600,000.00	28.57%	27.61%
City of Newport Beach	\$ 1,500,000.00	26.79%	25.88%
City of Costa Mesa	\$ 600,000.00	10.71%	10.35%
IRWD	\$ 195,000.00	0.00%	3.37%
<b>Total</b>	<b>\$ 5,795,000.00</b>	<b>100.00%</b>	<b>100.00%</b>
<p>*Sponsorship Share in this column shall be used to determine the funding partners' participation percentage for purposes of: 1.Distribution of project savings, and 2. O&amp;M cost share in excess of the 20-year lump sum estimate, and other purposes as specified by reference to Exhibit C2 in this agreement, except for Credit/Offsets percentage.</p> <p>**Sponsorship Share in this column shall be used to determine the funding partners' participation percentage for purposes of: Credit/Offsets percentage</p>			



**EXHIBIT C3**

**ESTIMATED PROJECT COSTS<sup>1</sup>**

<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Amount</b>
0	Project Administration (COSA)	%	4%	n/a	\$ 272,710.00
1	Design Engineering	LS	1.00	\$ 300,000.00	\$ 300,000.00
2	Permits/ROW/Easements	LS	1	\$ 40,000.00	\$ 40,000.00
3	Environmental Report	LS	1.00	\$ 50,000.00	\$ 50,000.00
4	Survey	LS	1.00	\$ 60,000.00	\$ 60,000.00
5	Pothole	LS	1.00	\$ 20,000.00	\$ 20,000.00
6	Site Work	LS	1.00	\$ 950,000.00	\$ 950,000.00
7	Channel Work	LS	1.00	\$ 1,101,000.00	\$ 1,010,000.00
8	Equipment/Discharge	EA	7.00	\$ 140,000.00	\$ 980,000.00
9	14" PVC Sewer Force Main	LF	8,475	\$ 240.00	\$ 2,034,000.00
10	Project Contingency	%	20%	n/a	\$ 1,010,800.00
11	Construction Management (COSA)	%	8%	n/a	\$ 404,320.00
12	Inspection & Testing (COSA)	%	7%	n/a	\$ 353,780.00
13	Inspection (County)	%	1.50%	n/a	\$ 75,810.00
14	Survey/Construction Staking	%	3%	n/a	\$ 151,620.00
15	Attorney Fees	LS	1	\$ 100,000.00	\$ 100,000.00
16	O&M (20yr) & Administration	LS	1	\$ 1,000,000.00	\$ 1,000,000.00
17	Site Security/Cameras	LS	1	\$ 150,000.00	\$ 150,000.00
18	Golf Course Lost Revenue	LS	1	\$ 400,000.00	\$ 400,000.00
<b>TOTAL</b>					<b>\$ 9,363,040.00</b>

<sup>1</sup> Amounts above are from an Opinion of Probable Construction Cost referenced as "Engineer's Estimate 15-058" by AECOM dated 7/24/2015 based upon 60% Design Plans; including 20 year O&M costs, and was used as a basis to estimate the project costs and were revised accordingly to reflect the adjustments above as agreed by the Funding Partners.



**EXHIBIT C4**

**ESTIMATED 20-YEAR O&M COSTS BREAKDOWN<sup>2</sup>**

1	Contract Administration	\$100,000
2	Inspection (monthly)	\$240,000
3	Solids Handling and Disposal (monthly)	\$430,000
4	Boom Reset (2-year cycle)	\$30,000
5	Repair of Equipment (Reserve Fund)	\$150,000
6	Diversion Utility Costs	\$50,000
	<b>Total</b>	<b>\$1,000,000</b>
	Projected Annual Payment*	\$50,000
<p>*The annual O&amp;M costs will be evaluated annually, to ensure an adequate maintenance schedule is maintained and to assess whether the contributing parties are sufficiently maintain its facilities and the diversion structure is not burdened by the lack of maintenance.</p>		

<sup>2</sup> Amounts above are from an Opinion of Probable Construction Cost referenced as "Engineer's Estimate 15-058" by AECOM dated 7/24/2015 based upon 60% Design Plans. Estimates include .5% allowance for All Risk Insurance and Wage Rates based upon prevailing wage rates for Orange County, California. Total wage rate includes hourly wage plus craft fringes and 32% burden with a typical work week of 1 eight hour shift per day/ five days per week.

**EXHIBIT D**  
Temporary Construction Easement Deed  
County to City of Santa Ana

Final Draft (03022016)

**EXHIBIT E**

Easement Deed

Final Draft (03022016)

**EXHIBIT F**  
**Project Schedule**  
*Subject to Change*

Task	Date
<p>Completion of environmental review and all regulatory approvals, and completion of design</p> <ul style="list-style-type: none"> <li>• Construction Plans and Specifications – 12 months</li> <li>• Environmental Work – 10 months</li> <li>• CEQA Documentation – 10 months</li> <li>• Permits – 10 months</li> <li>• Right of Way – 8 months</li> <li>• Construction Bid and Award – 3 months</li> </ul>	<p>January 2016            Complete Environmental, CEQA, Permits, and Right of Way</p> <p>February 2016            Complete Final Review of Construction Documents</p> <p>March 2016 Advertise Construction Contract</p> <p>May 2016            Award Construction Contract</p>
<p>Construction of Project</p>	<p>July 2016            Start Construction</p>
<p>Operations and Maintenance</p>	

**EXHIBIT G**  
Insurance, Bonds and Warranties

**I. Design and Construction**

***Insurance Requirements***

All consultants, engineers, mitigation agents, the Contractor and each subcontractor to perform work on the Project environmental, design and construction or satisfy obligations in this Agreement shall maintain and provide OCFCD, or COSTA MESA if applicable, with proof of insurance for coverage as set forth below prior to commencement of work:

**Coverage/Limits**

Coverage	Minimum Limits
Commercial General Liability with products and completed operations and contractual liability	\$1,000,000 limit per occurrence \$2,000,000 aggregate
Automobile Liability including coverage for owned, non-owned and hired vehicles	\$1,000,000 limit per occurrence
Workers' Compensation	Statutory
Employer's Liability Insurance	\$1,000,000 limit per occurrence
Professional Liability Insurance	\$1,000,000 limit per claims made or occurrence \$1,000,000 aggregate

**Required Coverage Forms**

The Commercial General Liability coverage shall be written on Insurance Services Office (ISO) form CG 00 01, or a substitute form providing liability coverage at least as broad.

The Business Auto Liability coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing liability coverage as broad.

**Qualified Insurer**

The policy or policies of insurance must be issued by an insurer licensed to do business in the state of California (California Admitted Carrier) or have a minimum rating of A- (Secure A.M. Best's rating) and VIII (Financial Size Category) as determined by the most current edition of the **Best's Key Rating Guide/Property-Casualty/United States or ambest.com**

**Required Endorsements**

The Commercial General Liability policy shall contain the following endorsements, which shall accompany the Certificate of Insurance:

- 1) An Additional Insured endorsement using ISO form CG 2010 or CG 2033 or a form at least as broad naming each Party and its elected and appointed officials, officers, employees, and agents as Additional Insureds.
- 2) A primary non-contributing endorsement evidencing that the contractor's insurance is primary and any insurance maintained by any Party shall be excess and non-contributing.
- 3) A Products and Completed Operations endorsement using ISO Form CG2037 (ed. 10/01) or a form at least as broad, or an acceptable alternative is the ISO from CG2010 (ed. 11/85).

All insurance policies required herein shall waive all rights of subrogation against the Parties and their respective elected and appointed officials, officers, agents and employees when acting within the scope of their appointment or employment.

If a Professional Liability policy is a "claims made" policy, that contractor shall agree to maintain professional liability coverage for three years following completion of construction and acceptance of work. The Products and Completed Operations coverage shall also be maintained for three years following completion of construction and acceptance of work.

The procuring of such required policy or policies of insurance shall not be construed to limit the Contractor and/or its subcontractor's liability, nor to fulfill an indemnification provisions and requirements, nor in any way to reduce the policy coverage and limits available from the insurer.

### ***Required Bonds***

Contractor shall provide a faithful performance bond, payment bond, and warranty bond (individually "**Bond**" or collectively "**Bonds**") subject to Director prior approval and the terms herein. Each Bond shall name the Parties as beneficiaries and grant each Project Representative the right to enforce the bond to complete the Facilities in compliance with all construction obligations including but not limited to those for warranties.

Sureties providing these Bonds shall be a Treasury Listed Surety Admitted in California (Federal Register) with a current minimum Best's Key Rating of A- and a Financial Size Category (FSC) of VIII or better. Contractor shall pay all premiums and costs thereof and incidental thereto. SANTA ANA and the Project Representatives agree to not release the Contractor from its Bond(s) without the first obtaining mutual written approval by the Project Representatives. Release of a warranty bond(s) shall occur no earlier than the third anniversary of the sign-off date on the applicable CPP(s).

Contractor to provide faithful performance bond(s) in an amount to cover 100% of the estimated construction cost for the Facilities (including labor and materials) to insure the Contractor's faithful performance of all work under the construction contract



and the replacing of, or making acceptable, any defective materials or faulty workmanship. No alterations, time extensions, additional work or other changes authorized by the Agreement or the contract may be made without securing consent of the surety or sureties on the Bonds.

Contractor to provide payment bond(s) in an amount deemed the by Project Representatives as sufficient to guarantee the Contractor's faithful performance of contract obligations, including those required for warranties and any performed post-construction.

**Required Warranties**

Contractor to warrant that materials and equipment furnished be new or good quality and carry all available manufacturer's and installer's warranties and that construction be of good and workmanlike quality in accordance with the terms of this Agreement for a period of three years from completion of Project construction and the sign-off date on applicable CPP(s). Any work not conforming to these requirements shall be considered defective work. The construction contract shall not limit the time that owner of improvements has to pursue any action for defective work for a time period less than the applicable statute of limitations.

**II. Operation and Maintenance**

An O&M contractor(s) shall maintain and provide OCFCD and/or COSTA MESA, with proof of insurance for coverage, at minimum, as set forth below:

**Coverage/Limits**

Coverage	Minimum Limits
Commercial General Liability with products and completed operations and contractual liability	\$1,000,000 limit per occurrence \$1,000,000 aggregate
Automobile Liability including coverage for owned, non-owned and hired vehicles	\$1,000,000 limit per occurrence
Workers' Compensation	Statutory
Employer's Liability Insurance	\$1,000,000 limit per occurrence

**Required Coverage Forms**

The Commercial General Liability coverage shall be written on Insurance Services Office (ISO) form CG 00 01, or a substitute form providing liability coverage at least as broad.

The Business Auto Liability coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing liability coverage as broad.

**Qualified Insurer**

The policy or policies of insurance must be issued by an insurer licensed to do business in



the state of California (California Admitted Carrier) or have a minimum rating of A- (Secure A.M. Best's rating) and VIII (Financial Size Category) as determined by the most current edition of the **Best's Key Rating Guide/Property-Casualty/United States or ambest.com**

**Required Endorsements**

The Commercial General Liability policy shall contain the following endorsements, which shall accompany the Certificate of Insurance:

- 4) An Additional Insured endorsement using ISO form CG 2010 or CG 2033 or a form at least as broad naming each Party and its elected and appointed officials, officers, employees, and agents as Additional Insureds.
- 5) A primary non-contributing endorsement evidencing that the contractor's insurance is primary and any insurance maintained by any Party shall be excess and non-contributing.
- 6) A Products and Completed Operations endorsement using ISO Form CG2037 (ed. 10/01) or a form at least as broad, or an acceptable alternative is the ISO form CG2010 (ed. 11/85).

All insurance policies required herein shall waive all rights of subrogation against the Parties and their respective elected and appointed officials, officers, agents and employees when acting within the scope of their appointment or employment.

The procuring of such required policy or policies of insurance shall not be construed to limit the contractor and/or subcontractor liability, nor to fulfill an indemnification provision and requirement, nor in any way to reduce the policy coverage and limits available from the insurer.