

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

April 10, 2017

**PLEDGE OF ALLEGIANCE**

**CALL TO ORDER**

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

**ROLL CALL**

Directors LaMar, Matheis, Swan, Withers and President Reinhart

**NOTICE**

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

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**COMMUNICATIONS TO THE BOARD**

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1. A. Written:  
B. Oral:

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

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

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**WORKSHOP**

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3. **FISCAL YEAR 2017-18 OPERATING BUDGET AND PROPOSED RATES AND CHARGES**

Recommendation: That the Board review and provide comments on the proposed 2017-18 Operating Budget and proposed rates and charges.

CONSENT CALENDAR	Resolution No. 2017-10	Items 4-7
4.	<u>RATIFY/APPROVE BOARD OF DIRECTORS' ATTENDANCE AT MEETINGS AND EVENTS</u>  Recommendation: That the Board ratify/approve the meetings and events for Steven LaMar, Mary Aileen Matheis, Peer Swan, Douglas Reinhart and John Withers, as described.	
5.	<u>MINUTES OF REGULAR BOARD MEETING</u>  Recommendation: That the minutes of the March 27, 2017 Regular Board Meeting and the March 28, 2017 Adjourned Regular Board Meeting be approved as presented.	
6.	<u>BAKER WATER TREATMENT PLANT LANDSCAPING</u>  Recommendation: That the Board authorize the General Manager to execute a construction contract in the amount of \$189,356 with Tropical Plaza Nursery, Inc. for the Baker Water Treatment Plant Landscaping, project 05027.	
7.	<u>PLANNING AREA 51, DISTRICT 7 CAPITAL RECYCLED WATER FACILITIES</u>  Recommendation: That the Board authorize the General Manager to accept Heritage Hill's construction contract with FYDAQ in the amount of \$155,316 for project 07169.	
ACTION CALENDAR		
8.	<u>ANNUAL ORACLE SOFTWARE MAINTENANCE AND SUPPORT AGREEMENT RENEWAL</u>  Recommendation: That the Board approve renewal of the District's annual Oracle Software Maintenance and Support Agreements, and additional licenses and support, in the amount of \$926,000 effective May 30, 2017 (ULA) and May 22, 2017 (EBS), respectively.	
9.	<u>AUDIT FIRM EXTENSION FOR THE FISCAL YEAR ENDING JUNE 30, 2017</u>  Recommendation: That the Board authorize the General Manager to execute a new Audit Services Contract with Davis Farr LLP for the fiscal year ending June 30, 2017 at a cost of \$53,040 plus possible single audit fees not to exceed \$2,600.	

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**ACTION CALENDAR - Continued**

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10. TURTLE RIDGE PIPELINES REHABILITATION BUDGET ADDITION AND CONSULTANT SELECTION

Recommendation: That the Board authorize the addition of projects 07888 for \$309,000 and 07889 for \$309,000 to the FY 2016-17 Capital Budget; and authorize the General Manager to execute a Professional Services Agreement in the amount of \$135,809 with Psomas for the Turtle Ridge Pipelines Rehabilitation, projects 07888 and 07889.

11. TECHNOLOGY DRIVE AND LAGUNA CANYON ROAD CAPITAL RECYCLED WATER FACILITIES CONTRACT CHANGE ORDERS

Recommendation: That the Board approve Contract Change Orders Nos. 3, 4 and 5 in the amounts of \$382,074.72, \$116,550.97 and \$78,052.67, respectively, for the Technology Drive and Laguna Canyon Road Capital Recycled Water Facilities, project 01015.

12. RATIFICATION OF AGREEMENT FOR ONE-YEAR PROGRAM TO AUGMENT RECHARGE USING STOCKDALE WEST RECHARGE FACILITIES

Recommendation: That the Board ratify approval of IRWD's agreement with Buena Vista Water Storage District for a one-year program to augment recharge using Stockdale West Recharge Facilities.

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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.

13. A. General Manager's Report

B. Directors' Comments

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**OTHER BUSINESS - Continued**

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13. C. Closed Session:

- 1) CONFERENCE WITH LEGAL COUNSEL RELATIVE TO EXISTING LITIGATION – Government Code Section 54956.9(d)(1) IRWD v. OCWD Case No.30-2016-00858584-CU-WM-CJC), and
- 2) PUBLIC EMPLOYEE APPOINTMENT – Pursuant to Government Code Section 54957(b).  
Title: Legal Counsel

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 10, 2017  
 Prepared by: C. Smithson / J. Davis  
 Submitted by: C. Clary  
 Approved by: Paul Cook 

BOARD WORKSHOP

FISCAL YEAR 2017-18 OPERATING BUDGET  
AND PROPOSED RATES AND CHARGES

SUMMARY:

The proposed Fiscal Year (FY) 2017-18 Operating Budget for Irvine Ranch Water District is \$148.7 million, representing an increase of \$1.7 million, or 1.2%, when compared to the Operating Budget for FY 2016-17.

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 in development in FY 2016-17, the recommended increases in the operating budget also reflect additional expenses associated with operating or planning for the operation of those facilities. The proposed FY 2017-18 budget reflects the full cost of operating the Baker Water Treatment Plant in the individual line items with the reimbursement to IRWD for 76% of the operating expenses by the Baker Plant partners shown as a “reimbursement from Baker Plant Partners” below.

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

<u>Primary Drivers</u>	<u>Expenses (millions)</u>
Increase in regular labor: - Cost of Living Adjustment - Promotions/upgrades/merit - Proposed additions	\$1.6
Increase in overtime: - Blended increase for after hour services to all systems	\$0.3
Increase in employee benefits: - Public Employees Retirement System and health insurance	\$0.4
Decrease in purchased water: - Reduced imported water purchases offset by pass-through rate increases anticipated from other agencies	(\$0.9)
Reduction in electricity costs: - 8.0% rate decrease from budget - Increased electricity usage (kWh) due to: o Baker Plant includes 100% of costs of which IRWD is responsible for 24% - Shifts in well production	(\$0.2)

Increase in permits, licenses and fees:	
- Property taxes for land within Palo Verde Irrigation District	\$0.6
Decrease in Orange County Sanitation District repairs and maintenance based on OCSD's two-year budget for operating revenues	(\$0.5)
Increases in IRWD repairs and maintenance:	
- Baker Plant; includes 100% of costs	\$1.0
- Additional nine Natural Treatment System sites	
Increase in legal fees:	
- Litigation and additional support	\$1.1
Increase in alarm and patrol services:	
- Daytime patrol services	\$0.4
Conservation Rebates - tactical incentives and Always Water Smart reimbursements (will be offset by over-allocation revenue and a reduction in the conservation reserve)	(\$1.0)
All other increases, less than \$250,000 each	(\$0.1)
Reimbursement from Baker Plant Partners	(\$1.0)
<i>Total proposed budget increases in FY 2017-18:</i>	<i>\$1.7</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 operational expenses, which are a direct result of higher pass-through expenses from outside agencies and not a result of reduced commodity sales.

Rate increases are necessary to provide for cost of service equity. In the Irvine Ranch Rate Area, the proposed adjustment to rates include a low volume increase of \$0.15 per hundred cubic feet (ccf) and a base commodity rate increase of \$0.05 per ccf, with no change per month to the service charge for water and sewer. The Los Alisos Rate Area will be transitioned on to the IRWD rates this year, utilizing a portion of the revenue generated from the future property sale to establish rate parity. The commodity rate-setting methodology continues to utilize the four tiers beginning with a low volume tier, a base rate and two over-allocation tiers.

Based on the recommendation, a typical residential customer within the Irvine Ranch rate area will experience an increase of \$1.10 or 2.2%, from \$51.10 to \$52.20 per month and the average residential customer in the Los Alisos Rate Area who will be transitioning onto the IRWD rate structure this fiscal year, will experience a decrease of \$7.52 or 12.6% from \$59.72 to \$52.20.

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 24, 2017. Staff also intends to present Proposition 218 notices at the April 24, 2017 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>System Requirements (in thousands)</b>	<b>Treated</b>	<b>Sewer</b>	<b>Recycled</b>	<b>Conserve/ NTS</b>	<b>Total</b>	<b>Capital &amp; Non-Oper.</b>
FY 2016-17	\$75,407	\$51,234	\$21,972	\$12,021	\$160,634	\$18,592
FY 2017-18	\$74,649	\$51,780	\$21,763	\$9,131	\$157,323	\$21,693
Total Change to offset	\$758	(\$546)	\$209	\$2,890	\$3,311	
Revenue Applied:						
Change from Prior Year	(\$1,559)	\$546	\$1,199		\$186	
Rate Increases	\$801	\$0	(\$1,108)	\$36	(\$271)	
Over Allocation				(\$2,926)	(\$2,926)	
Other sources	\$0	\$0	(\$300)		(\$300)	
Total Additional Revenue	(\$758)	\$546	(\$209)	(\$2,890)	(\$3,311)	
Net	\$0	\$0	\$0	\$0	\$0	

**Budget Based Rate Structure:**

The District moved to a budget-based rate structure in 1991 and initially established the over-allocation use tiers 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 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 the District's need to

purchase expensive imported water, the District conservation efforts, and urban runoff treatment (Natural Treatment System) which is a byproduct of wasteful water usage. The rate structure is based on the cost of service to provide water to each tier.

The budget-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 2017-18 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.

Over-allocation revenue can fluctuate significantly from year to year; weather is typically the least predictable 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 fund is to be considered cyclical for use over a three- to five-year period. The proposed FY 2017-18 operating budget includes prioritized programs and expenditures that will utilize the fund and provide a benefit to the District during drier than normal years.

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.

The District's rate-setting methodology utilizes four tiers that include a low volume tier, a base rate and two over-allocation tiers. In the table below, staff has provided the detailed methodology for allocating costs to the budget-based rates consistent with Proposition 218 and Article X requirements. The allocation of costs associated with the tiers follow:



<b>Tiers</b>	<b>Low Volume</b>	<b>Base Rate</b>	<b>Inefficient</b>	<b>Wasteful</b>
Lowest Cost Source of Water	\$1.32			
District Wide Conservation	\$0.04	\$0.04	\$0.04	\$0.04
Melded Cost of Water		\$1.66		
Blended Cost of Baker and Import			\$2.95	
Loaded Cost of Imported Water				\$3.40
Conservation and NTS			\$1.10	\$8.62
<b>Proposed Rate per Tier (July 1)</b>	<b>\$1.36</b>	<b>\$1.70</b>	<b>\$4.09</b>	<b>\$12.06</b>
FY 2016-17 Rates by Tier	\$1.21	\$1.65	\$4.01	\$12.01
Change	\$0.15	\$0.05	\$0.08	\$0.05
Percent	12.4%	3.0%	2.0%	0.4%
Use of Sinking Fund for Rate Parity		\$1.75 million		

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. The proposed rates are shown in the table below:

<b>Proposed Pumping Zones</b>	<b>Current</b>	<b>Proposed</b>
<b>Potable</b>		
Zone 1	\$0.21	\$0.21
Zone 2	\$0.35	\$0.35
Zone 3	\$0.65	\$0.64
<b>Recycled</b>		
Zone A	\$0.22	\$0.21
Zone B	\$0.36	\$0.34
Zone C	\$0.49	\$0.47

FISCAL IMPACTS:

Planned operating expenses in the FY 2017-18 Proposed Operating Budget reflect an increase of \$1.7 million from the adopted Operating Budget for FY 2016-17. The budget and staff’s proposed rate increases were reviewed at Finance and Personnel Committee meetings on March 7, March 23, 2017 and April 4, 2017. It is expected that the proposed rate increases will result in a contribution to the enhancement and replacement funds of approximately \$3.9 million and \$24.7 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 7, 2017, March 23, 2017 and April 4, 2017.

RECOMMENDATION:

THAT THE BOARD REVIEW AND PROVIDE COMMENTS ON THE PROPOSED  
FY 2017-18 OPERATING BUDGET AND PROPOSED RATES AND CHARGES.

LIST OF EXHIBITS:

Exhibit "A" – Consolidated Operating Budget for All Departments FY 2017-18

***IRVINE RANCH WATER DISTRICT  
OPERATING BUDGET  
FISCAL YEAR 2017-18***



**Irvine Ranch**  
**WATER DISTRICT**

***“PROPOSED”***

***April 10, 2017***





## OPERATING BUDGET

### *Assumptions as of April 10, 2017 Fiscal Year 2017-18*

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 from outside agencies this year were partially offset by reductions in the cost of purchased water associated with a full year operation of the Baker Water Treatment Plant in FY 20-17-18. The FY 2017-18 recommended rate increase is primarily associated pass through rate increases from outside agencies.

This document is a preliminary summary of the major assumptions driving the development of the operating budget for FY 2017-18 for input by the Finance and Personnel Committee and the Board.

#### **I. REVENUES**

##### *Growth Estimates:*

Residential development growth included both apartments and single family homes for FY 2017-18. The unit estimate is based on the most current projections received from the major developers throughout the service area. Current estimates identify approximately 3,400 mixed units coming on line in FY 2017-18. As a result, the growth factor for residential development was estimated at 2.0% for FY 2017-18.

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 118 acres of development occurring in FY 2017-18 as well as 98 acres developing in the current fiscal year. Staff included a 2% growth rate for commercial and industrial development for FY 2017-18. Revenue assumptions used to estimate sewer revenue match the assumptions included for potable water.

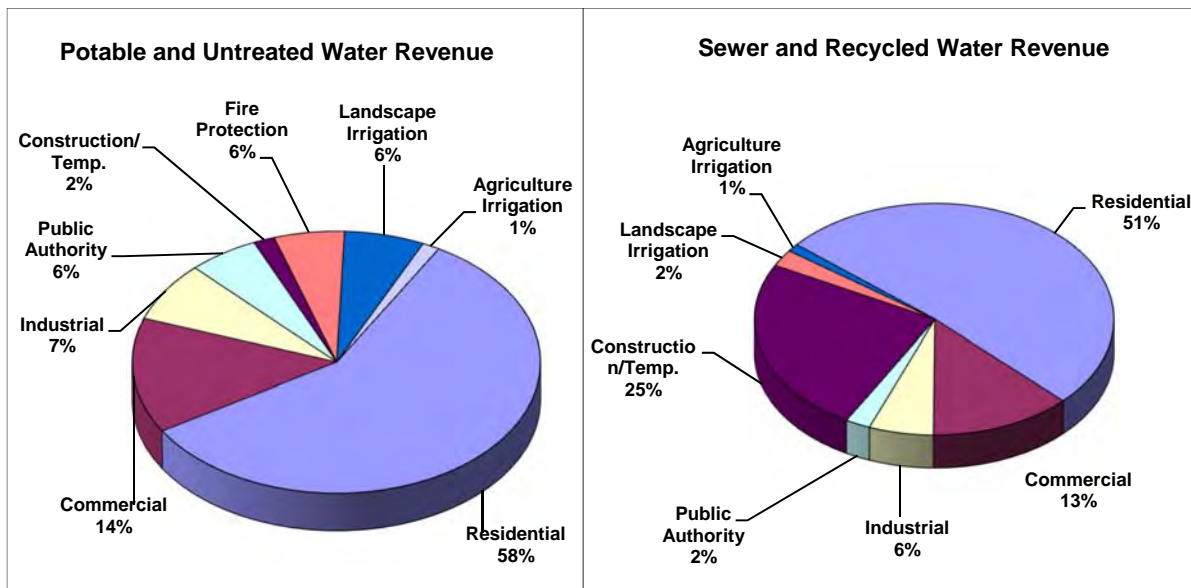


# OPERATING BUDGET

*Assumptions as of April 10, 2017  
Fiscal Year 2017-18*

*FY 2017-18 Estimate for Operating Revenue Sources, by Customer Type (in thousands):*

Customer Type	Potable	Sewer	Recycled	Total
Residential	\$ 43,233	\$ 36,799	\$ 630	\$ 80,662
Commercial	10,583	8,671	649	19,903
Industrial	5,504	4,150	72	9,726
Public Authority	4,160	1,640	0	5,800
Construction/Temp.	1,240		798	2,038
Fire Protection	4,172		0	4,172
Landscape Irrigation	4,728		17,910	22,638
Agriculture Irrigation	1,029		1,704	2,733
Over Allocation	8,326		805	9,131
Non Rate Generated	0	520	0	520
<b>Total</b>	<b>\$ 82,975</b>	<b>\$ 51,780</b>	<b>\$ 22,568</b>	<b>\$ 157,323</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 84% of the total operating revenues for both water and sewer.



## OPERATING BUDGET

*Assumptions as of April 10, 2017*  
*Fiscal Year 2017-18*

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 District continues to make efforts to do its part in encouraging its customers to conserve even though the area received significant rainfall during the past winter season. 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 and customers have responded well to this messaging.

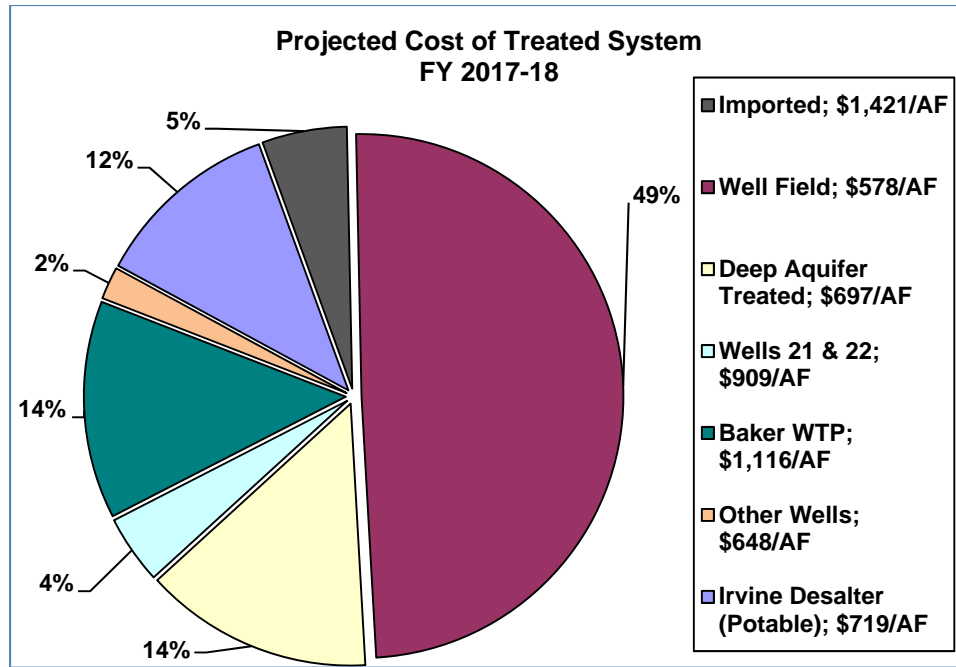
The FY 2017-18 budget anticipates no increase in use from FY 2016-17. The assumption is for a normal year of rainfall, consistent with the assumption last year. The District is projecting potable and untreated sales for FY 2017-18 to be 54,340 acre feet (AF), as compared to a budget of 54,385 AF in the prior year.

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 10, 2017  
Fiscal Year 2017-18*



### Groundwater Production

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

- The Replenishment Assessment (RA) in FY 2016-17 was \$400 per AF and the rate used in FY 2017-18 is \$445 per AF, an increase of 11%. 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 increase of 6%.
  - Chemical expense is relatively flat.
- Primary changes in costs include a \$45 per AF estimated rate increase for RA for the Irvine Desalter Project (IDP), the Potable Treatment Plant (PTP), and the Deep Aquifer Treatment System (DATS).

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

- MWD is expected to increase its treated and untreated rates again on January 1, 2018 by 4%.
- Staff assumes no substantial change to the costs associated with the IRWD Reservoir Management Systems.
- Los Alisos customers will be merged into the Irvine Ranch rate area effective July 1, 2017. Rate parity will be established through the use of a sinking fund by the sale of property initially contributed to the District which the District has then added significant value to by the recording of significant entitlements including the soon to be recorded final tract map.





# OPERATING BUDGET

## *Assumptions as of April 10, 2017 Fiscal Year 2017-18*

### Untreated Water

The sources for untreated water for FY 2017-18 will include purchased water.

- MWDOC purchases, Native Water and SAC water is expected to be used to meet all untreated demands. MWDOC purchases have significantly decreased as a result of a full year operation of the Baker Water Treatment Plant. Due to the rainfall in FY 2016-17, native water is expected to increase from 1,000 AF to 3,827 AF.
- Any MWDOC rate increases discussed above also apply to purchases for the untreated system.

### B. Recycled Water

Customer demands for the recycled system will increase slightly from the prior year due primarily to customer usage. Total recycled demand is estimated at 28,364 AF, an increase of 1,360 AF from the FY 2016-17 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.
- The recycled water system is expected to purchase 3,091 acre-feet of supplemental water from the untreated system.

### C. 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 December, 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 2016-17	\$31,258
New positions	723
COLA	453
Merit/Other	421
FY 2017-18	\$32,855



# OPERATING BUDGET

## *Assumptions as of April 10, 2017 Fiscal Year 2017-18*

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 16-17</b>	<b>FY 17-18</b>
PERS Employer Contribution	19.3%	19.3%
PERS in Excess of ARC	<u>5.7%</u>	<u>5.7%</u>
Combined Total	25.0%	25.0%
District Direct 401A Match	0.2%	0.3%
401A Matching Contribution of 3%	2.3%	2.3%

### 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 meet over allocation revenue in FY 2017-18. The conservation fund is projected to be approximately \$10.0 million at the end of FY 2017-18.

#### B. Enhancement Fund User Rate Component

The current enhancement fund contribution for both the water and sewer system for FY 2016-17 was a combined \$1.45 per month (\$0.70 for water and \$0.82 for sewer) for the average residential customer. There was no increase was built into these rates for FY 2017-18. It is estimated that the fund balance will be approximately \$30.0 million at the end of FY 2017-18.

#### C. Replacement Fund User Rate Component

The current replacement water service charge is \$2.10. The sewer service charge is \$9.31 per month for the average residential customer in FY 2017-18, no increase from the prior year. It is estimated that the fund balance will be approximately \$200 million as of the end of FY 2017-18. It is expected that the 4 years of increased funding totaling \$3.00 per month per customer will adequately cover the cost of debt associated with the project.

**IRVINE RANCH WATER DISTRICT**  
**CONSOLIDATED OPERATING BUDGET FOR ALL DEPARTMENTS FY 2017-18**  
(in thousands)

Expense Category / Name		2015-16 Actual	2016-17 YTD 12/31/16	2016-17 Original Budget	2017-18 Proposed Budget	Incr/(Decr)	%
Salaries & Benefits	Regular Labor	\$26,123	\$13,309	\$31,258	\$32,855	\$1,597	5.1%
	Overtime Labor	1,787	936	1,758	2,037	279	15.9%
	Contract Labor	2,675	823	1,347	1,470	123	9.1%
	Employee Benefits	7,787	4,226	16,938	17,366	428	2.5%
<b>Salaries &amp; Benefits Total</b>		<b>\$38,372</b>	<b>\$19,294</b>	<b>\$51,300</b>	<b>\$53,727</b>	<b>\$2,427</b>	<b>4.7%</b>
Water & Utilities	Water	29,028	18,699	36,234	35,287	(948)	-2.6%
	Electricity	11,794	6,122	14,829	14,631	(198)	-1.3%
	Fuel	505	273	566	627	61	10.8%
	Telecommunication	527	257	502	566	65	12.9%
	Other Utilities	158	72	178	171	(7)	-4.0%
<b>Water &amp; Utilities Total</b>		<b>\$42,012</b>	<b>\$25,423</b>	<b>\$52,309</b>	<b>\$51,282</b>	<b>(\$1,027)</b>	<b>-2.0%</b>
Materials & Supplies	Chemicals	2,101	1,105	3,133	3,074	(60)	-1.9%
	Operating Supplies	757	460	1,478	1,475	(2)	-0.2%
	Printing	211	69	265	276	12	4.4%
	Postage	596	286	579	594	15	2.7%
	Permits, Licenses and Fees	723	931	1,219	1,797	578	47.4%
	Office Supplies	77	37	128	109	(19)	-14.8%
	Duplicating Equipment	188	89	225	192	(33)	-14.7%
Equipment Rental	85	30	129	114	(15)	-11.6%	
<b>Materials &amp; Supplies Total</b>		<b>\$4,739</b>	<b>\$3,007</b>	<b>\$7,156</b>	<b>\$7,632</b>	<b>\$476</b>	<b>6.7%</b>
Professional Services	Rep & Maint OCSD & Other	15,744	7,120	14,400	13,852	(548)	-3.8%
	Rep & Maint IRWD	7,531	3,675	8,726	9,683	957	11.0%
	Insurance	781	499	1,004	1,021	17	1.7%
	Legal Fees	479	647	455	1,565	1,110	244.0%
	Engineering Fees	520	217	736	980	244	33.1%
	Accounting Fees	79	86	95	95	0	0.0%
	Data Processing	2,980	1,642	3,027	2,898	(130)	-4.3%
	Personnel Training	795	394	1,101	1,247	146	13.2%
	Personnel Physicals	27	15	51	51	0	0.0%
	Other Professional Fees	3,115	1,173	4,393	4,207	(186)	-4.2%
Directors' Fees	140	72	156	168	12	7.7%	
<b>Professional Services Total</b>		<b>\$32,190</b>	<b>\$15,543</b>	<b>\$34,144</b>	<b>\$35,766</b>	<b>\$1,622</b>	<b>4.8%</b>
Other	Mileage Reimbursement	165	82	132	140	8	6.0%
	Collection Fees	12	1	21	12	(9)	-42.9%
	Election Expense	30	110	145	145	0	0.0%
	Safety	157	42	83	108	25	29.8%
	Alarm and Patrol Services	113	36	170	520	350	205.9%
	Biosolids Disposals	113	59	374	246	(128)	-34.1%
	Commuter Program	141	59	156	156	0	0.0%
	Computer Backup Storage	25	6	24	12	(12)	-50.0%
	Contract Meter Reading	1,319	673	1,350	1,390	40	3.0%
	Other	30	0	12	12	0	0.0%
Conservation	2,294	(645)	2,965	2,012	(953)	-32.1%	
<b>Other Total</b>		<b>\$4,398</b>	<b>\$425</b>	<b>\$5,432</b>	<b>\$4,753</b>	<b>(\$679)</b>	<b>-12.5%</b>
<b>TOTAL</b>		<b>\$121,712</b>	<b>\$63,692</b>	<b>\$150,341</b>	<b>\$153,161</b>	<b>\$2,820</b>	<b>1.9%</b>
<b>Less: Reimbursement from Baker Partners</b>				<b>(3,408)</b>	<b>(4,498)</b>	<b>(1,090)</b>	
<b>Grand Total</b>		<b>\$121,712</b>	<b>\$63,692</b>	<b>\$146,933</b>	<b>\$148,663</b>	<b>\$1,730</b>	<b>1.2%</b>



# REVENUES AND EXPENSES BY SYSTEM

(in thousands)

	<u>Water</u>	<u>Sewer</u>	<u>Recycled</u>	<u>Consolidated</u>
<b>Revenue:</b>				
Commodity	\$ 41,013	\$ -	\$ 15,132	\$ 56,145
Service	33,636	51,780	6,631	92,047
Over Allocation	\$8,326	-	805	9,131
Rate Stabilization	-	-	-	-
Total Revenues	<u>\$ 82,975</u>	<u>\$ 51,780</u>	<u>\$ 22,568</u>	<u>\$ 157,323</u>
Contribution to Enhancement and Replacement Funds	(8,474)	(18,991)	(1,120)	(28,586)
Net Revenues	<u>\$ 74,501</u>	<u>\$ 32,789</u>	<u>\$ 21,448</u>	<u>\$ 128,737</u>
<b>Expenses:</b>				
Cost of Water	\$ 43,120	\$ -	\$ 9,190	\$ 52,310
Operations	11,098	11,284	6,838	29,219
Water Banking	-	-	-	-
OCSD - O&M	-	12,580	-	12,580
<i>Total Direct</i>	<u>\$ 54,218</u>	<u>\$ 23,863</u>	<u>\$ 16,028</u>	<u>\$ 94,109</u>
Customer Records and Collections	2,435	1,107	885	4,427
General & Admin Expense	8,899	7,087	3,445	19,431
<i>Total Indirect</i>	<u>\$ 11,334</u>	<u>\$ 8,194</u>	<u>\$ 4,330</u>	<u>\$ 23,858</u>
General Plant	623	732	284	1,639
Marsh/NTS/Conservation	8,326	-	805	9,131
Total Expenses	<u>\$ 74,501</u>	<u>\$ 32,789</u>	<u>\$ 21,447</u>	<u>\$ 128,737</u>
<b>Net Operating Position</b>	<u><u>\$ 0</u></u>	<u><u>\$ 0</u></u>	<u><u>\$ 0</u></u>	<u><u>\$ 0</u></u>



# NON-OPERATING

## *SUMMARY OF SOURCES AND USES*

(in thousands)

	<u>FY 2016-17</u>	<u>FY 2017-18</u>	<u>Change</u>
<b>Non-operating Revenue:</b>			
Property Taxes	\$47,689	\$52,500	\$4,811
Investment Income	2,686	4,200	1,514
Connection Fees	22,000	26,000	4,000
Real Estate Income	12,954	13,400	446
Other Income	6,500	8,000	1,500
Total Revenue	<u>\$91,829</u>	<u>\$104,100</u>	<u>\$12,271</u>
<b>Non-operating Expenses:</b>			
Interest Expense	\$24,606	\$28,300	\$3,694
Real Estate Expense	6,834	7,300	466
Other Expenses	1,000	2,000	1,000
Total Expense	<u>\$32,440</u>	<u>\$37,600</u>	<u>\$5,160</u>
<b>Net Sources &amp; Uses</b>	<u><u>\$59,389</u></u>	<u><u>\$66,500</u></u>	<u><u>\$7,111</u></u>



# CURRENT AND PROPOSED RESIDENTIAL RATES

Before Rate Adjustment:	Irvine Ranch	
	Potable	Wastewater
Current Residential Rates:	Water (1)	Sewer (2)
<b>Low Volume</b>	\$1.21	
Commodity Rate	\$1.65	
Residential Service	\$10.30	\$23.20
Operations	\$7.50	\$13.07
Replacements	\$2.10	\$9.31
Enhancements	\$0.70	\$0.82
Total Service Charge	\$10.30	\$23.20
Commodity (12 ccf's)	\$17.60	
Current Monthly	\$51.10	
<b>Proposed Residential Rate Adjustment:</b>		
<b>Low Volume</b>	\$1.36	12%
<b>Base Commodity Rate</b>	\$1.70	3%
<b>Operations</b>	\$7.50	\$13.07
<b>Replacements</b>	\$2.10	\$9.31
<b>Enhancements</b>	\$0.70	\$0.82
<b>Total Service Charge</b>	\$10.30	\$23.20
<b>Commodity (12 ccf's)</b>	\$18.70	
<b>Proposed Monthly</b>	\$52.20	
Current Monthly	\$51.10	
Difference	\$1.10	
<b>Change %</b>	<b>2.2%</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.



# POTABLE REVENUE

## BUDGETED REVENUE SUMMARY BY SYSTEM

<i>(in thousands)</i>	<u>FY 2016-17</u>	<u>Usage Change</u>	<u>Proposed Rate Inc.</u>	<u>FY 2017-18</u>
<b>Water</b>				
Service	\$ 23,517	\$ (215)	\$ -	\$ 23,302
Enhancement	2,077	84	-	2,161
Replacement	6,231	82	-	6,313
Pumping Surcharge	775	(28)	-	747
Miscellaneous	975	138	-	1,113
Commodity	41,832	(1,620)	801	41,013
Over Allocation Revenue/Fund	10,092	(1,802)	36	8,326
Rate Stabilization / Non Rate Generated	-	-	-	-
	<u>\$ 85,499</u>	<u>\$ (3,361)</u>	<u>\$ 837</u>	<u>\$ 82,975</u>
<b>AF Sales</b>	54,385			54,340
<b>User Type</b>				
Residential	\$ 42,525	\$ (62)	\$ 770	\$ 43,233
Commercial	12,144	(1,683)	122	10,583
Industrial	5,011	390	103	5,504
Public Authority	3,659	433	68	4,160
Construction/Temp.	1,280	(40)	-	1,240
Fire Protection	4,263	(91)	-	4,172
Landscape Irrigation	5,006	(211)	(67)	4,728
Agriculture Irrigation	1,519	(295)	(195)	1,029
Over Allocation Revenue	10,092	(1,802)	36	8,326
Rate Stabilization / Non Rate Generated	-	-	-	-
	<u>\$ 85,499</u>	<u>\$ (3,361)</u>	<u>\$ 837</u>	<u>\$ 82,975</u>



# SEWER REVENUE

## *BUDGETED REVENUE SUMMARY BY SYSTEM*

<i>(in thousands)</i>	<u>FY 2016-17</u>	<u>Usage Change</u>	<u>Proposed Rate Inc.</u>	<u>FY 2017-18</u>
<b>Sewer</b>				
Service	\$ 31,114	\$ 826	\$ -	\$ 31,940
Enhancement	1,332	51	-	1,383
Replacement	17,287	321	-	17,608
Miscellaneous	430	(101)	-	329
Reimbursements	520	-	-	520
Rate Stabilization	551	(551)	-	-
	<u>\$ 51,234</u>	<u>\$ 546</u>	<u>\$ -</u>	<u>\$ 51,780</u>
<b>User Type</b>				
Residential	\$ 36,347	\$ 452	\$ -	\$ 36,799
Commercial	8,670	1	-	8,671
Industrial	3,569	581	-	4,150
Public Authority	1,577	63	-	1,640
Reimbursements	520	-	-	520
Rate Stabilization	551	(551)	-	-
	<u>\$ 51,234</u>	<u>\$ 546</u>	<u>\$ -</u>	<u>\$ 51,780</u>





# RECYCLED REVENUE

## BUDGETED REVENUE SUMMARY BY SYSTEM

<i>(in thousands)</i>	<u>FY 2016-17</u>	<u>Usage Change</u>	<u>Proposed Rate Inc.</u>	<u>FY 2017-18</u>
<b>Recycled</b>				
Service	\$ 4,784	\$ 479	\$ -	\$ 5,263
Enhancement	341	9	-	350
Replacement	748	22	-	770
Pumping Surcharge	446	(198)	-	248
Commodity	15,353	887	(1,108)	15,132
Over Allocation Revenue	1,929	(1,124)	-	805
Rate Stabilization	300	(300)	-	-
	<u>\$ 23,901</u>	<u>\$ (225)</u>	<u>\$ (1,108)</u>	<u>\$ 22,568</u>
<b>AF</b>	27,004			28,364
<b>User Type</b>				
Residential	\$ 1,134	\$ (428)	\$ (76)	\$ 630
Commercial	409	258	(18)	649
Industrial	40	32	-	72
Public Authority	-	-	-	-
Landscape Irrigation	19,531	(832)	(789)	17,910
Recycled Loans	-	-	-	-
Agriculture Irrigation	-	1,929	(225)	1,704
Construction/Temp.	557	241	-	798
Over Allocation Revenue	1,929	(1,124)	-	805
Rate Stabilization	300	(300)	-	-
	<u>\$ 23,901</u>	<u>\$ (225)</u>	<u>\$ (1,108)</u>	<u>\$ 22,568</u>



# COST OF WATER

## BUDGETED COST OF WATER

<i>(in thousands)</i>	FY 2016-17			FY 2017-18			Change	
	Acre Feet	Total	Cost / AF	Acre Feet	Total	Cost / AF	Acre Feet	Total
<b><u>TREATED</u></b>								
Purchased from MWDOC	7,755	\$ 9,397	\$1,212	2,960	\$ 4,207	\$1,421	(4,795)	\$ (5,190)
Dyer Road Well Field	27,680	14,238	\$514	28,000	16,176	\$578	320	1,938
Other Wells	650	402	\$618	700	454	\$648	50	52
Deep Aquifer Treatment System	7,680	5,301	\$690	8,000	5,576	\$697	320	275
Lost to Production (2%)	(154)			(160)			(6)	
Wells 21 & 22 Desalter	2,400	2,432	\$1,013	2,400	2,181	\$909	-	(251)
Lost to Production (15%)	(360)			(360)			-	
Irvine Desalter Project	4,644	3,611	\$778	6,540	4,702	\$719	1,896	1,091
Lost to Production (15%)	(697)			(981)			(284)	
Baker WTP	5,783	5,338	\$923	7,611	\$ 8,497	\$1,116	1,828	3,159
LA Well Water	432			432	39	\$90	-	39
Total Shrinkage	(3,309)			(2,626)			683	
<b>Total Irvine Ranch Potable</b>	<b>52,504</b>	<b>\$ 40,719</b>		<b>52,516</b>	<b>\$ 41,831</b>		<b>12</b>	<b>\$ 1,112</b>
<b><u>UNTREATED</u></b>								
Purchased from MWDOC	4,103	\$ 2,921	\$712	1,000	\$ 841	\$841	(3,103)	\$ (2,080)
Native Water	1,000	212	\$212	3,827	811	\$212	2,827	599
Santiago Aqueduct Commission	264	195	\$739	175	148	\$843	(89)	(47)
Transfer to RW System	(3,402)	(2,109)	\$620	(3,091)	(2,009)	\$650	311	100
Total Shrinkage	(84)			(87)			(3)	
<b>Total Untreated</b>	<b>1,881</b>	<b>\$ 1,219</b>		<b>1,824</b>	<b>\$ (209)</b>		<b>(57)</b>	<b>\$ (1,428)</b>
<b>Total Potable and Untreated</b>	<b>54,385</b>	<b>\$ 41,938</b>		<b>54,340</b>	<b>\$ 41,623</b>		<b>(45)</b>	<b>\$ (315)</b>

### Assumptions:

OCWD - replenishment assessment - \$445/acre foot.

MWDOC - Includes identified increases that will be effective January 1, 2018 from MWD.



# COST OF WATER

## BUDGETED COST OF RECYCLED WATER

<i>(in thousands)</i>	FY 2016-17			FY 2017-18			Change	
	Acre Feet	Total	Cost / AF	Acre Feet	Total	Cost / AF	Acre Feet	Total
<b>Groundwater</b>	0	\$ -	\$ -	-	\$ -	\$ -	-	\$ -
<b>Irvine Desalter Project</b>	4,165	2,724	\$654	4,165	2,904	\$697	-	180
Lost to Production	(625)			(625)			-	
<b>MWRP / LAWRP Production</b>	22,300	4,983	\$223	22,300	4,919	\$221	-	(64)
<b>Transfer from Untreated System</b>	3,402	2,109	\$620	3,091	2,009	\$650	(310)	(100)
<i>Total Shrinkage</i>	(2,238)			(567)			1,671	
<b>Total Recycled</b>	<u>27,004</u>	<u>\$ 9,816</u>		<u>28,364</u>	<u>\$ 9,832</u>		<u>1,360</u>	<u>\$ 16</u>
<b>Total Cost of Water for Billed Usage</b>	<u>81,389</u>	<u>\$ 51,754</u>		<u>82,704</u>	<u>\$ 51,455</u>		<u>1,316</u>	<u>\$ (299)</u>

### Assumptions:

OCWD - replenishment assessment - \$445/acre foot.

MWDOC - Includes identified increases that will be effective January 1, 2018 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 represents IRWD's policies and provides technical expertise to the legislative process, particularly on issues of water recycling, water use efficiency, water rates, 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;
- Promotes beneficial inter-governmental relations;
- Manages and coordinates the legal resources utilized by the District;
- 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 January 13, 2017, staff reviewed the 2017 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) approved for calendar year 2017 are summarized as follows:

#### **Major Goals**

1. Optimize and protect local water supply utilization
  - a. Update and implement near-term recommendations from 2014 Groundwater Work Plan



## **GENERAL MANAGER'S OFFICE**

### **OPERATING BUDGET SUMMARY**

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- b. Prepare sensitivity analysis update to water supply reliability study
  - c. Select preferred alternative and begin feasibility study to repair or replace the Irvine Lake Outlet Tower
  - d. Coordinate / collaborate with Orange County Water District (OCWD) on South Basin Clean-up Project
  - e. Investigate opportunities for brine recovery for potable uses
  - f. Work with OCWD on Green Acres Project water supply opportunities
  - g. Explore local indirect potable reuse (IRP) opportunities for aquifer and surface water storage within IRWD
2. Evaluate and invest in projects and programs that will enhance future long-term water supply reliability
    - a. Identify and procure property with high priority water rights
    - b. Implement agreements with Metropolitan Water District of Southern California (MWD) and Municipal Water District of Orange County (MWDOC) that will provide water supply reliability from high priority water rights during periods of drought and supply interruptions
    - c. Advocate methods for filling the Orange County Groundwater Basin
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. Execute long-term unbalanced exchange agreements for Stockdale
    - b. Execute long-term exchange agreement to maximize benefits of non-State Water Project water
    - c. Construct Drought Relief Project recovery and conveyance facilities
    - d. Develop Framework for water banking participation by Orange County Agencies
    - e. Identify and secure additional land as needed for recharge and recovery facilities
    - f. Construct Stockdale recovery facilities
4. Minimize discharge of recyclable water to the ocean
    - a. Complete construction of Irvine Lake Pipeline North Conversion
    - b. Convert University of California, Irvine (UCI) Cooling Towers and other projects to recycled water for minimum potable water savings of 250 AF per year
    - c. Include IRWD's recycled water demands in OCWD's total water demand calculations
    - d. Update Sewage Treatment Master Plan, including consideration of Irvine Business Complex flows
    - e. Update the Salt Management Plan – Impacts of Seawater Desalination and other issues
    - f. Perform CEQA, alternatives analysis and preliminary design for the Syphon Reservoir Expansion



## GENERAL MANAGER'S OFFICE

### OPERATING BUDGET SUMMARY

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- g. Prepare preliminary design for diverting Shallow Groundwater Unit discharge into the sewer system
- 5. Maximize resource recovery from fully functional biosolids and other resource recovery facilities
  - 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 process and schedule to introduce fats, oils and greases (FOG) to Biosolids Facilities
- 6. Improve electric service reliability, manage demands, and control costs
  - a. Develop program to maximize generation of renewable energy through food waste addition
  - b. Secure funding from Southern California Edison (SCE) for water conservation programs in high energy intensive areas identified through Embedded Energy Program
  - c. Pursue applications for IRWD to participate in SCE's Direct Access Program
  - d. Implement Energy Storage Projects
  - e. Prepare SCE/IRWD Phase 1 Status Report for Preferred Resource Pilot Program and prioritize next steps to further reduce peak demands
  - f. Collaborate on the development of micro-grid technologies through a partnership with UCI
  - g. Evaluate site constraints and requirements for photovoltaic installation and energy storage at the Baker Water Treatment Plant
  - h. Implement steps to outsource operation and maintenance of biogas treatment and micro-turbine systems
- 7. Maximize watershed protection
  - a. Explore potential conversion of some natural treatment system sites to infiltrate dry weather flows
  - b. Facilitate discussions with the County of Orange to identify facilities for potential cost effective recycled water recharge and storm water infiltration
  - c. Work with the County and others on Selenium total maximum daily limit (TMDL) offset trading program
  - d. Identify projects and partners to qualify for Measure M Funding
  - e. Evaluate customer Fats, Oils and Grease (FOG) and Pre-treatment programs including assessment of implementation, billing and program requirements
  - f. Complete Local Limits Study and obtain regulatory approvals
  - g. Continue to work with OC Flood to ensure appropriate capacity in San Diego Creek
  - h. Evaluate silt removal from San Joaquin Marsh Ponds



## **GENERAL MANAGER'S OFFICE**

### **OPERATING BUDGET SUMMARY**

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8. Ensure financial and rate stability
  - a. Complete environmental and final map approval process for IRWD's Serrano Summit property
  - b. Develop plan to invest revenue generated by the Lake Forest property; establish rate parity for IRWD Lake Forest customers
  - c. Evaluate development opportunities at other IRWD properties
  - d. Complete plans, permitting, development and leasing on remaining Sand Canyon campus and other facilities
  - e. Update the Replacement Planning Model
  - f. Develop a Cost of Service Study for the IRWD sewer system that includes the Biosolids Project operating
  - g. Develop IRWD debt policy
  
9. Identify, assess and implement new technologies and systems to improve operating efficiency
  - a. Complete the Implementation of Part 1 of Phase 2 of the Enterprise Asset Management System
  - b. Document outstanding deed, access and other contractual restrictions related to real property
  - c. Implement the Operations Database Management System
  - d. Simplify and optimize financial module to incorporate new Infrastructure District structure and project management
  - e. Implement findings of IT-related existing/new technology opportunity assessment while maintaining District security
  - f. Implement Process Development Steering Committee to identify operational process improvements and explore new technologies
  
10. Enhance customer communications
  - a. Enhance customer communication through an improved customer web access portal
  - b. Develop and implement new water efficiency outreach program
  - c. Implement redesigned customer bill to improve customers' understanding of IRWD rate structure
  - d. Enhance water supply reliability outreach program
  - e. Investigate development of an IRWD customer app
  
11. Maximize water use efficiency in the community
  - a. Update Water Shortage Contingency Plan based on new State regulations
  - b. Evaluate water use efficiency programs and Water Use Efficiency Plan
  - c. Broadcast guide for implementing budget-based rate structures





## **GENERAL MANAGER'S OFFICE**

### **OPERATING BUDGET SUMMARY**

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- d. Review current approach to water loss management, best practices, and compliance with new regulations
  - e. Evaluate remote meter monitoring program opportunities
  - f. Evaluate water efficiency programs
  - g. Develop automated methodologies for quantifying irrigated areas and meter locations
12. Recruit, develop and retain a highly skilled, motivated, and educated work force
- a. Implement NeoGov performance evaluation on-line system
  - b. Work with Employee Development Task Force to develop and implement a staff mentoring program
  - c. Develop employee cross training and job rotation guidelines
  - d. Develop a safety training database and two-year staff training plan based on the needs of the District
  - e. Evaluate improvements to IRWD standby / first responder systems
  - f. Evaluate future building space planning needs
13. Guide and lead local, state and federal policies and legislation
- a. Engage productively in legislative discussions regarding the development of a long-term conservation framework for California and related legislation
  - b. Advocate for legislation that protects local investments in water recycling and extraordinary supplies, and protects IRWD's ability to access those supplies, without penalty, during times of drought or shortage
  - c. Participate in the coalition(s) opposing legislative mandates to eliminate ocean discharges and seeking legislation to further indirect and direct potable reuse in California
  - d. Engage in discussions surrounding water and wastewater infrastructure financing including discussion related to Proposition 218 reforms consistent with Board direction
  - e. Provide input to the legislature and administration on developing water markets in California
  - f. Promote policies that encourage energy reliability and efficiency in the water industry
14. Engage and shape policies and regulations put forth by local, state and federal agencies
- a. Provide input to the State Water Resources Control Board on extensions of the statewide drought regulations
  - b. Provide input to the State Water Resources Control Board on revisions to the Mercury Policy
  - c. Seek regulatory changes promoting recycled water use in decorative lakes
  - d. Promote a "fit for purpose" approach to regulation of recycled water for both potable and non-potable uses



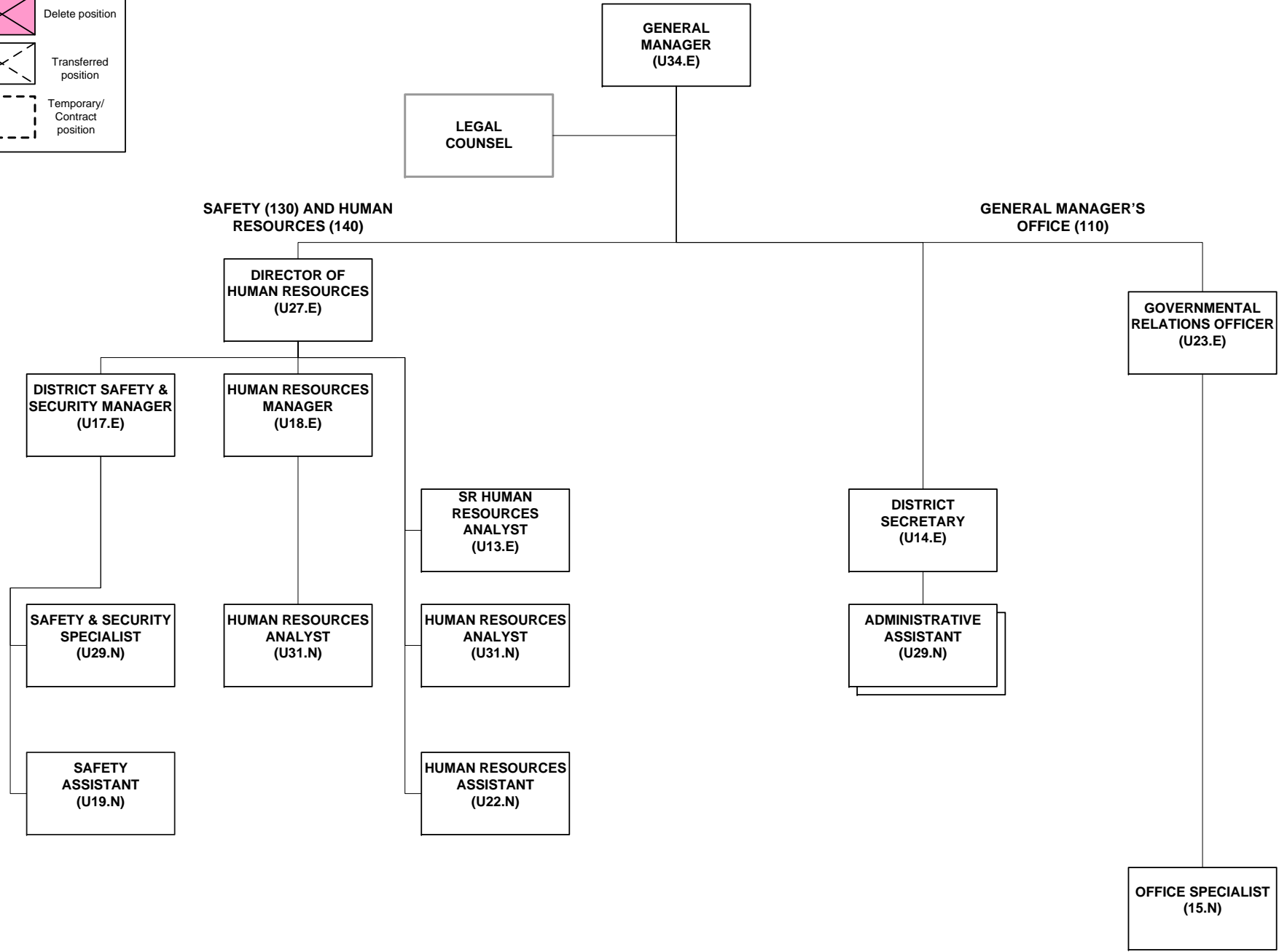
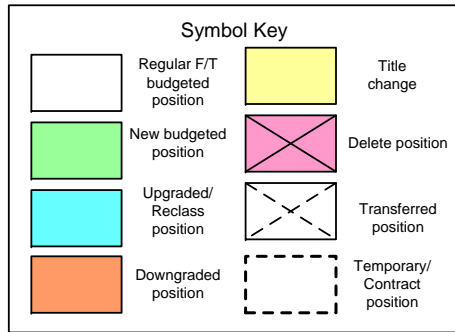
## **GENERAL MANAGER'S OFFICE**

### **OPERATING BUDGET SUMMARY**

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- e. Promote policies and regulations that will improve air quality and allow efficient operation of District facilities and equipment
15. Increase collaboration with other agencies and entities through leadership and innovation
- a. Update South Orange County water supply reliability policy
  - b. Advocate for IRWD's Desalination Policy Principles
  - c. Evaluate and promote opportunities for shared services such as third party billing for UC Irvine
  - d. Participate as leaders in industry associations
  - e. Advocate for regional Indirect Potable Reuse (IPR) and direct potable reuse projects including Metropolitan's Carson Regional IPR Project
  - f. Evaluate opportunities for reliability sharing including Irvine Lake and updating the Irvine Lake agreement
  - g. Evaluate opportunities to update South County Emergency Interconnect Agreement
  - h. Work with other agencies to maximize Orange County benefits from Integrated Regional Water Management processes, including capture of urban runoff by Orange County Sanitation District (OCSD) for use in Groundwater Replenishment System (GWRS)
  - i. Participate in the water efficiency data collaborative program
  - j. Work with OCSD to identify mutually beneficial opportunities for use of IRWD sewer flows
16. Evaluate opportunities that enhance safety and emergency preparedness throughout the District
- a. Implement facility security assessment starting with Michelson Water Recycling Plant (MWRP)
  - b. Design improvements to eliminate the use of chlorine gas at Preliminary Disinfection Facility
  - c. Update District Emergency Plan, including training for certain high-risk scenarios

**IRVINE RANCH WATER DISTRICT  
ADMINISTRATION  
FISCAL YEAR 2017-18**



Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Administration		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>General Managers Office</u>						
110	Regular Labor	558,472	346,928	730,950	754,188	23,238
110	Overtime Labor	271	0	1,000	0	(1,000)
110	Contract Labor	2,334	0	0	0	0
110	Operating Supplies	136	64	0	0	0
110	Printing	4,921	(150)	10,000	8,000	(2,000)
110	Postage	30	118	100	100	0
110	Permits, Licenses and Fees	83,610	64,793	84,500	37,500	(47,000)
110	Office Supplies	4,197	1,970	4,000	4,000	0
110	Legal Fees	339,888	503,259	360,000	1,420,000	1,060,000
110	Personnel Training	229,909	152,987	257,000	360,500	103,500
110	Other Professional Fees	286,372	222,327	668,050	641,000	(27,050)
110	Directors Fees	140,152	72,280	156,000	168,000	12,000
110	Election Expense	30,000	110,000	145,000	145,000	0
<b>Total General Managers Office</b>		1,680,292	1,474,576	2,416,600	3,538,288	1,121,688



# ***SAFETY AND SECURITY***

## ***OPERATING BUDGET 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**

- Evaluate opportunities that enhance safety and emergency preparedness throughout the District;
- Develop safety training data base and two-year staff training plan based on District needs;
- Update District Emergency Plan;
- Provide disaster response training for District staff, including high-risk scenarios; and,
- Implement facility security assessment starting with MWRP.

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Administration		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Safety and Security</u>						
130	Regular Labor	151,459	97,519	244,800	260,254	15,454
130	Overtime Labor	657	21,328	1,500	5,000	3,500
130	Contract Labor	42,635	21,903	0	0	0
130	Operating Supplies	72,780	43,442	70,500	72,500	2,000
130	Printing	1,017	0	9,300	2,000	(7,300)
130	Postage	0	153	0	500	500
130	Permits, Licenses and Fees	27,686	52,386	40,000	40,000	0
130	Office Supplies	8,339	12,318	40,000	30,000	(10,000)
130	Rep & Maint IRWD	18,069	0	0	0	0
130	Insurance	700	0	0	0	0
130	Personnel Training	90,039	52,228	114,000	115,000	1,000
130	Personnel Physicals	16,040	7,053	36,000	36,000	0
130	Other Professional Fees	48,612	122,148	125,000	125,000	0
130	Safety	129,149	37,282	25,000	45,000	20,000
130	Alarm and Patrol Services	112,838	36,117	170,000	520,000	350,000
130	Commuter Program	140,991	59,085	156,000	156,000	0
130	Other	17,250	0	0	0	0
<b>Total Safety and Security</b>		878,261	562,962	1,032,100	1,407,254	375,154



# **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 organization.

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;
- Develop and implement a staff mentoring program with input from the Employee Development Task Force;
- Implement new on-line performance evaluation system;
- Develop employee cross training and job rotation guidelines; and,
- Evaluate alternatives for standby/first responders.

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Administration		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
Human Resources						
140	Regular Labor	557,789	287,278	649,880	667,174	17,294
140	Overtime Labor	4,004	3,090	5,000	5,000	0
140	Employee Benefits	7,786,731	4,226,121	16,937,520	17,365,620	428,100
140	Contract Labor	0	0	2,500	2,500	0
140	Printing	2,623	0	0	0	0
140	Postage	54	0	100	100	0
140	Office Supplies	3,424	538	2,500	2,500	0
140	Rep & Maint IRWD	0	0	1,000	1,000	0
140	Legal Fees	138,744	143,939	95,000	145,000	50,000
140	Personnel Training	329,050	78,324	370,800	388,800	18,000
140	Personnel Physicals	10,490	8,446	15,000	15,000	0
140	Other Professional Fees	126,644	53,460	134,500	179,500	45,000
Total Human Resources		8,959,553	4,801,196	18,213,800	18,772,194	558,394
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Total Administration		11,518,106	6,838,734	21,662,500	23,717,736	2,055,236





# **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 of service 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;
- Stabilize the upgraded District-wide Financial System including incorporation of the most recent improvement district consolidation structure, and project management ; and
- Identify and implement enhanced 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
- Explore financial models for financing, construction and operation of renewable and storage projects.



# **FINANCE, TREASURY AND PROCUREMENT**

## **OPERATING BUDGET SUMMARY**

---

### **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;
- Evaluate development opportunities at other District properties;
- Complete environmental and final map approval process for property located in Lake Forest and market property for sale;
- Develop plan to invest revenue generated by the Lake Forest property; establish rate parity for Lake Forest customers;
- Complete plans, permitting, development and leasing of the Sand Canyon campus in Irvine; 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;
- Manage District letters of credit supporting variable rate debt; evaluate new credit support opportunities when necessary;
- 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;
- Develop District debt policy; 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.



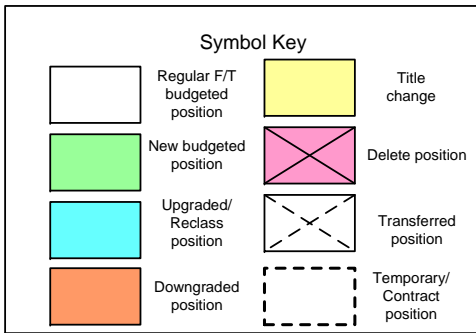
# **FINANCE, TREASURY AND PROCUREMENT**

## **OPERATING BUDGET SUMMARY**

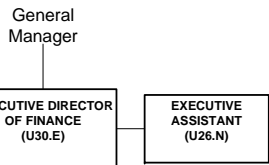
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### PROCUREMENT

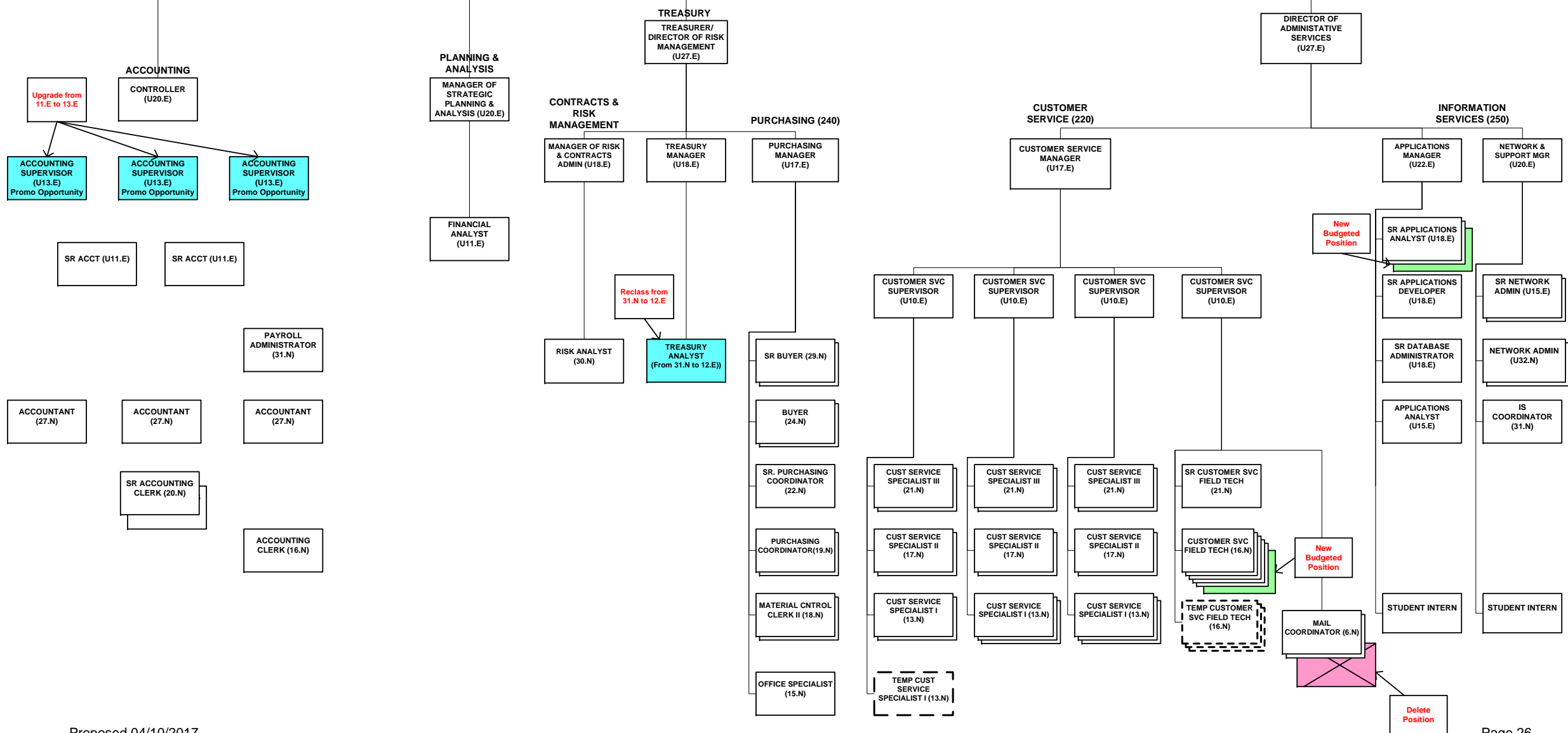
- Purchase materials, supplies and services in a timely manner with appropriate consideration given to quality and best pricing;
- Process all material/service requests timely and efficiently;
- Maintain warehouse inventory fill rate at 100% and review/adjust slow moving inventory;
- Streamline business 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  
FINANCE AND ADMINISTRATION  
FISCAL YEAR 2017-18**



**FINANCE/TREASURY (210)**



Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Finance & Administrative Services		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Finance and Treasury</u>						
210	Regular Labor	2,248,349	988,954	2,237,200	2,287,948	50,748
210	Overtime Labor	40,269	27,081	18,000	18,000	0
210	Contract Labor	87,925	83,149	165,800	29,000	(136,800)
210	Operating Supplies	1,115	1,458	700	2,800	2,100
210	Printing	64,453	0	70,000	70,000	0
210	Postage	8,223	4,488	8,000	9,000	1,000
210	Permits, Licenses and Fees	0	0	3,000	56,500	53,500
210	Office Supplies	3,540	1,780	5,000	5,000	0
210	Insurance	780,600	499,396	1,003,900	1,020,900	17,000
210	Accounting Fees	78,634	85,884	95,000	95,000	0
210	Data Processing	49,860	24,930	51,000	52,000	1,000
210	Personnel Training	18,570	10,238	27,500	27,000	(500)
210	Other Professional Fees	233,536	113,523	305,700	302,700	(3,000)
210	Mileage Reimbursement	90	0	100	0	(100)
210	Collection Fees	10,394	464	20,000	11,000	(9,000)
<b>Total Finance and Treasury</b>		3,625,558	1,841,345	4,010,900	3,986,848	(24,052)

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Finance & Administrative Services		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
Purchasing						
240	Regular Labor	706,747	351,736	787,600	792,594	4,994
240	Overtime Labor	16,596	10,128	4,000	8,000	4,000
240	Contract Labor	43,798	33,626	0	4,000	4,000
240	Operating Supplies	(494,235)	(239,233)	162,000	133,000	(29,000)
240	Printing	7,087	2,538	11,500	8,500	(3,000)
240	Postage	3,648	1,553	4,500	4,500	0
240	Office Supplies	17,416	6,736	24,000	18,000	(6,000)
240	Duplicating Equipment	187,774	89,480	225,000	192,000	(33,000)
240	Equipment Rental	14,124	0	20,000	18,000	(2,000)
240	Data Processing	277	0	0	0	0
240	Personnel Training	6,880	605	6,500	6,500	0
240	Other Professional Fees	230	32	2,000	2,000	0
<b>Total Purchasing</b>		510,342	257,201	1,247,100	1,187,094	(60,006)



# **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;
- Provide customers with an accurate and effective bill;
- Streamline bill printing and distribution process;
- Distribute customer satisfaction surveys and maintain 90% customer satisfaction;
- Implement redesigned customer bill to improve customer's understanding of District rate structure;
- Investigate enhanced customer communication through an improved customer web access portal;
- Investigate development of a District customer application; and
- Receive, route and deliver all District 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, mobile devices, printers and software applications that meet the needs of District staff;
- Provide reliable voice, data and wireless communications services;
- Implement new and improve existing software applications to meet the requirements of District staff;
- Complete scheduled hardware and software upgrades to District servers, personal computers, mobile devices, printers, network equipment and software applications;
- Begin implementation of projects identified and prioritized from the Technology Assessment;
- Complete the implementation of E-Mail Archiving; and
- Support the implementation of the Enterprise Asset Management System (EAM).



Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Finance & Administrative Services		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Customer Service</u>						
220	Regular Labor	1,532,656	785,408	1,972,880	1,974,544	1,664
220	Overtime Labor	68,145	38,331	60,000	60,000	0
220	Contract Labor	463,855	135,388	228,820	130,150	(98,670)
220	Operating Supplies	3,512	9,129	1,000	3,000	2,000
220	Printing	73,170	35,812	77,000	80,000	3,000
220	Postage	577,360	275,645	555,500	570,000	14,500
220	Office Supplies	5,373	2,249	5,500	5,500	0
220	Equipment Rental	50,947	20,573	42,500	42,500	0
220	Rep & Maint IRWD	71	0	0	0	0
220	Personnel Training	1,922	183	8,000	8,000	0
220	Other Professional Fees	3,467	1,213	2,000	2,000	0
220	Collection Fees	1,119	512	1,000	1,000	0
220	Contract Meter Reading	1,319,338	672,945	1,350,000	1,390,000	40,000
<b>Total Customer Service</b>		4,100,935	1,977,388	4,304,200	4,266,694	(37,506)

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Finance & Administrative Services		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Information Services</u>						
250	Regular Labor	1,173,730	510,230	1,442,100	1,608,164	166,064
250	Overtime Labor	40,841	20,510	30,000	40,000	10,000
250	Contract Labor	802,552	111,327	255,000	230,000	(25,000)
250	Telecommunication	457,587	219,154	433,000	484,500	51,500
250	Other Utilities	11,574	0	9,500	0	(9,500)
250	Operating Supplies	17	0	0	0	0
250	Printing	6,951	1,540	5,000	5,000	0
250	Postage	124	0	500	500	0
250	Office Supplies	0	15	1,000	1,000	0
250	Rep & Maint IRWD	272,608	130,752	292,500	300,000	7,500
250	Data Processing	2,929,432	1,617,365	2,976,200	2,833,100	(143,100)
250	Personnel Training	2,608	3,012	35,800	35,800	0
250	Other Professional Fees	50,121	32,740	60,000	115,000	55,000
250	Mileage Reimbursement	29	0	0	0	0
250	Computer Backup Storage	24,843	6,324	24,000	12,000	(12,000)
<b>Total Information Services</b>		5,773,017	2,652,969	5,564,600	5,665,064	100,464
<b>Total Finance &amp; Administrative Services</b>		14,009,852	6,728,903	15,126,800	15,105,700	(21,100)



## **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 spatial 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 and 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

- Update Water Resources Master Plan;
- Provide Inter-agency technical support;
- Develop alternative water supplies;
- Implement Criticality Based Replacement Planning Model;
- Initiate Sewer Collections Advisory Team;
- Update Strategic Water Resources Mass Balance Model and initiate Potable Reuse Alternatives Study; and
- Expand GIS based applications and cloud infrastructure.

#### Capital Projects

- MWRP Biosolids and Energy Recovery Facilities 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;
- Energy Storage System design and construction at multiple sites;
- Water Recycling Treatment Plant Master Plan update;
- Multi-Zone Recycled Water Booster Pump Station (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;
- Tustin Legacy Infrastructure design and construction; and,
- Irvine Business Complex Redevelopment Infrastructure design and construction;



## **ENGINEERING**

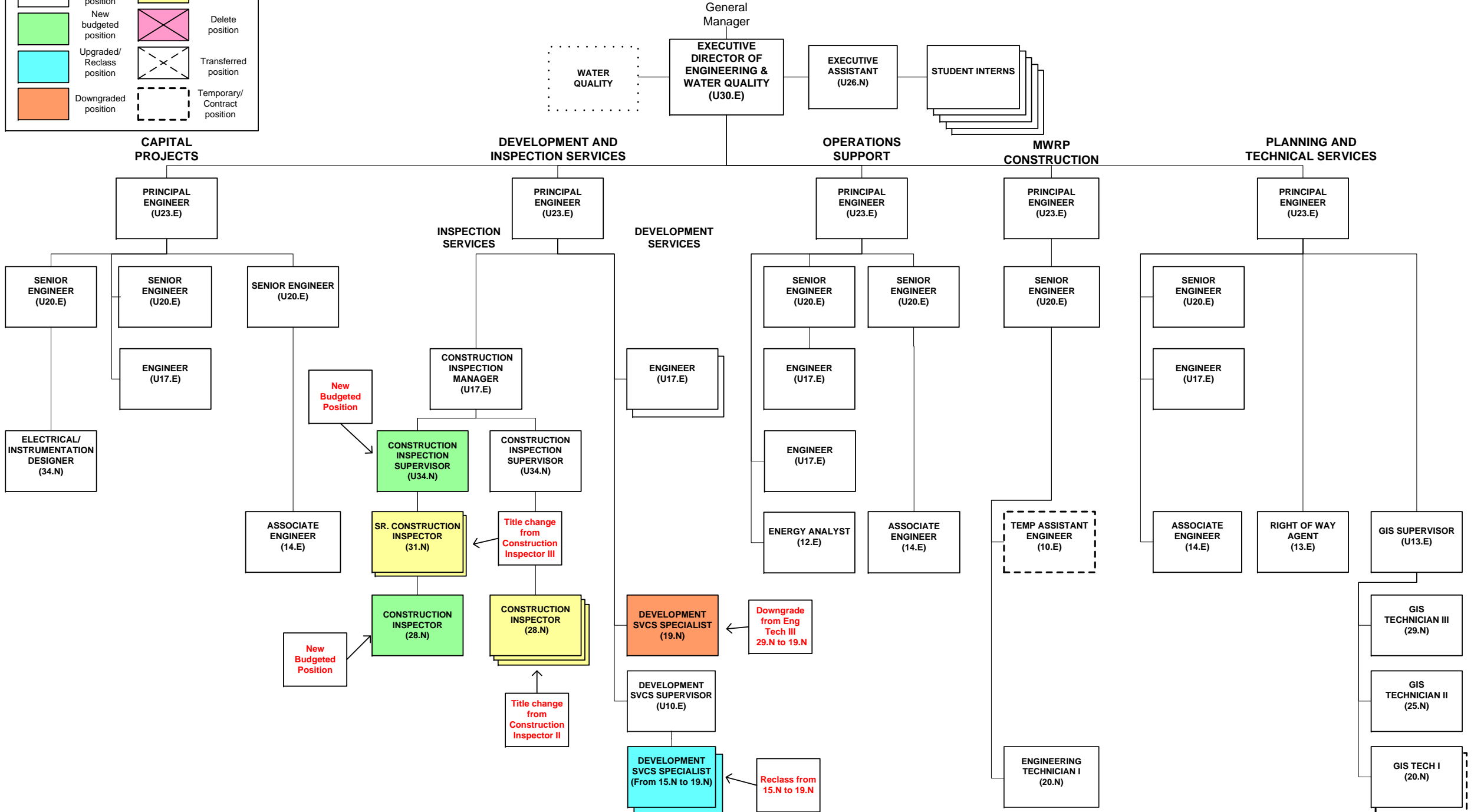
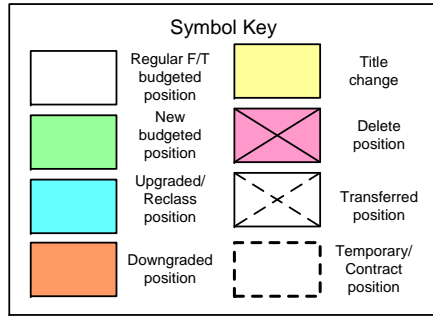
### **OPERATING BUDGET SUMMARY**

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#### Operations Support

- UCI Cooling Tower Recycled Water Conversion Pipeline construction;
- Newport Coast Lift Station Improvements construction;
- Michelson Sewer Force Main Rehabilitation design and construction;
- Operations Center Backup Generator Replacement construction;
- MWRP Filter Pump Station Discharge Manifold Piping Replacement construction;
- Santiago Dam Sloped Outlet Tower design;
- Well Rehabilitation design and construction;
- Dyer Road Well Field Surge Tank Replacement construction;
- Evaluate process control and water quality monitoring data to assess, correct or recommend performance improvement of membrane treatment facilities: 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; and,
- Assist in the development and coordinate district wide research, pilot and demonstration projects.

**IRVINE RANCH WATER DISTRICT  
ENGINEERING  
FISCAL YEAR 2017-18**



Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Engineering		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
Engineering						
300	Regular Labor	4,139,304	2,048,180	4,377,500	4,712,004	334,504
300	Overtime Labor	142,258	83,849	144,000	190,000	46,000
300	Contract Labor	261,121	113,550	221,000	411,000	190,000
300	Telecommunication	40	0	0	0	0
300	Operating Supplies	5,726	2,704	9,400	8,400	(1,000)
300	Printing	5,413	6,398	16,000	20,000	4,000
300	Postage	2,354	831	2,800	2,000	(800)
300	Permits, Licenses and Fees	1,606	0	2,000	2,000	0
300	Office Supplies	13,100	3,468	12,500	9,500	(3,000)
300	Rep & Maint IRWD	5,742	222	0	0	0
300	Engineering Fees	79,591	8,904	122,000	207,000	85,000
300	Personnel Training	20,271	13,774	30,000	30,000	0
300	Other Professional Fees	2,066	708	103,000	63,000	(40,000)
Total Engineering		4,678,592	2,282,588	5,040,200	5,654,904	614,704
Total Engineering		4,678,592	2,282,588	5,040,200	5,654,904	614,704







# **WATER QUALITY**

## **OPERATING BUDGET SUMMARY**

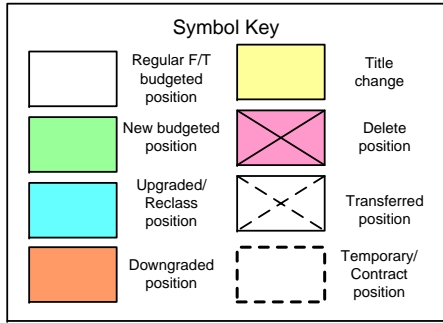
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### **Program Description**

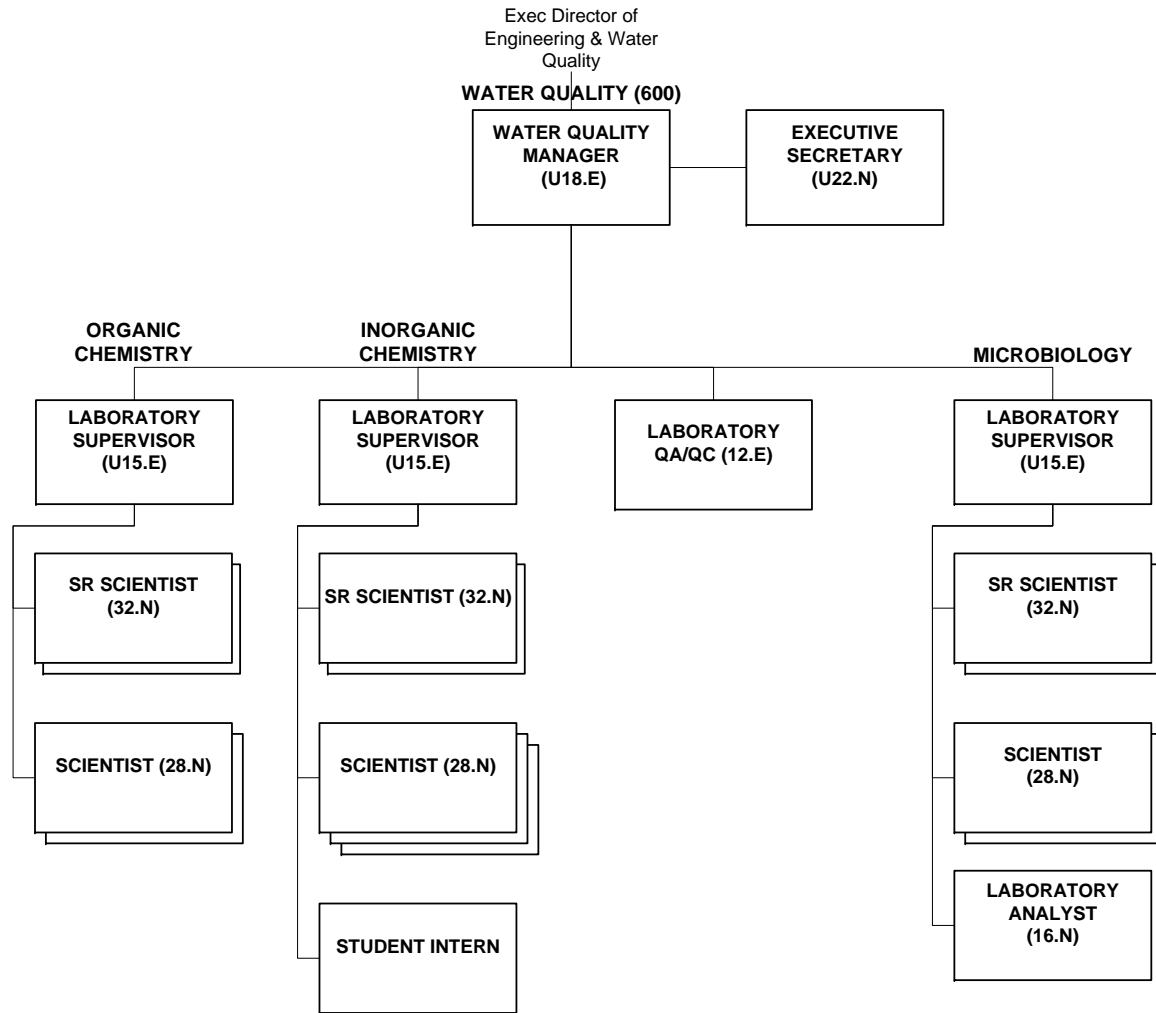
The Water Quality Department provides water quality related support to the operations and maintenance of the domestic and recycled water distribution and sewer collection systems and treatment facilities, and ensures that all District operations are conducted in a safe, reliable, environmentally sensitive manner to achieve a high level of customer satisfaction. The Water Quality Department provides internal and external customers with high quality data for regulatory monitoring and reporting, process control, research projects and capital projects utilizing state-of-the-art, United States Environmental Protection Agency (EPA) and State Water Resources Control Board Division of Drinking Water (DDW) approved analytical methods.

### **Major Goals**

- Perform necessary analyses and 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;
- 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;
- Maintain the laboratory's Environmental Laboratory Accreditation Program (ELAP) certification by successfully completing the site audit and proficiency testing;
- Prepare the laboratory to implement the new EPA Method Update Rule and the developing new ELAP accreditation standard;
- 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;
- Implement to the fullest extent possible automated reporting programs;
- Reduce paperwork by maximizing electronic data collection;
- 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  
FISCAL YEAR 2017-18**



Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Water Quality		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Water Quality</u>						
600	Regular Labor	1,518,599	752,795	1,726,230	1,762,174	35,944
600	Overtime Labor	49,455	24,197	26,200	33,600	7,400
600	Contract Labor	29,173	7,085	15,000	127,000	112,000
600	Operating Supplies	320,246	178,521	384,300	391,000	6,700
600	Postage	1,089	1,086	3,400	3,600	200
600	Permits, Licenses and Fees	5,975	9,003	9,000	11,250	2,250
600	Office Supplies	3,271	929	3,000	3,000	0
600	Equipment Rental	3,595	0	6,320	6,320	0
600	Rep & Maint IRWD	174,986	133,913	219,550	224,892	5,342
600	Engineering Fees	66,118	39,857	143,300	85,600	(57,700)
600	Personnel Training	10,273	28,783	25,650	34,850	9,200
600	Other Professional Fees	77,617	5,848	99,950	24,550	(75,400)
600	Mileage Reimbursement	102	0	0	0	0
600	Safety	2,255	1,163	6,400	7,200	800
<b>Total Water Quality</b>		2,262,754	1,183,180	2,668,300	2,715,036	46,736
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<b>Total Water Quality</b>		2,262,754	1,183,180	2,668,300	2,715,036	46,736





# **WATER OPERATIONS**

## **OPERATING BUDGET SUMMARY**

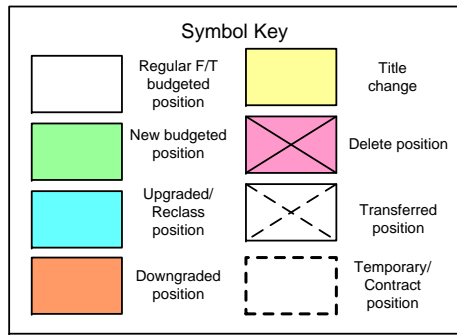
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### **Program Description**

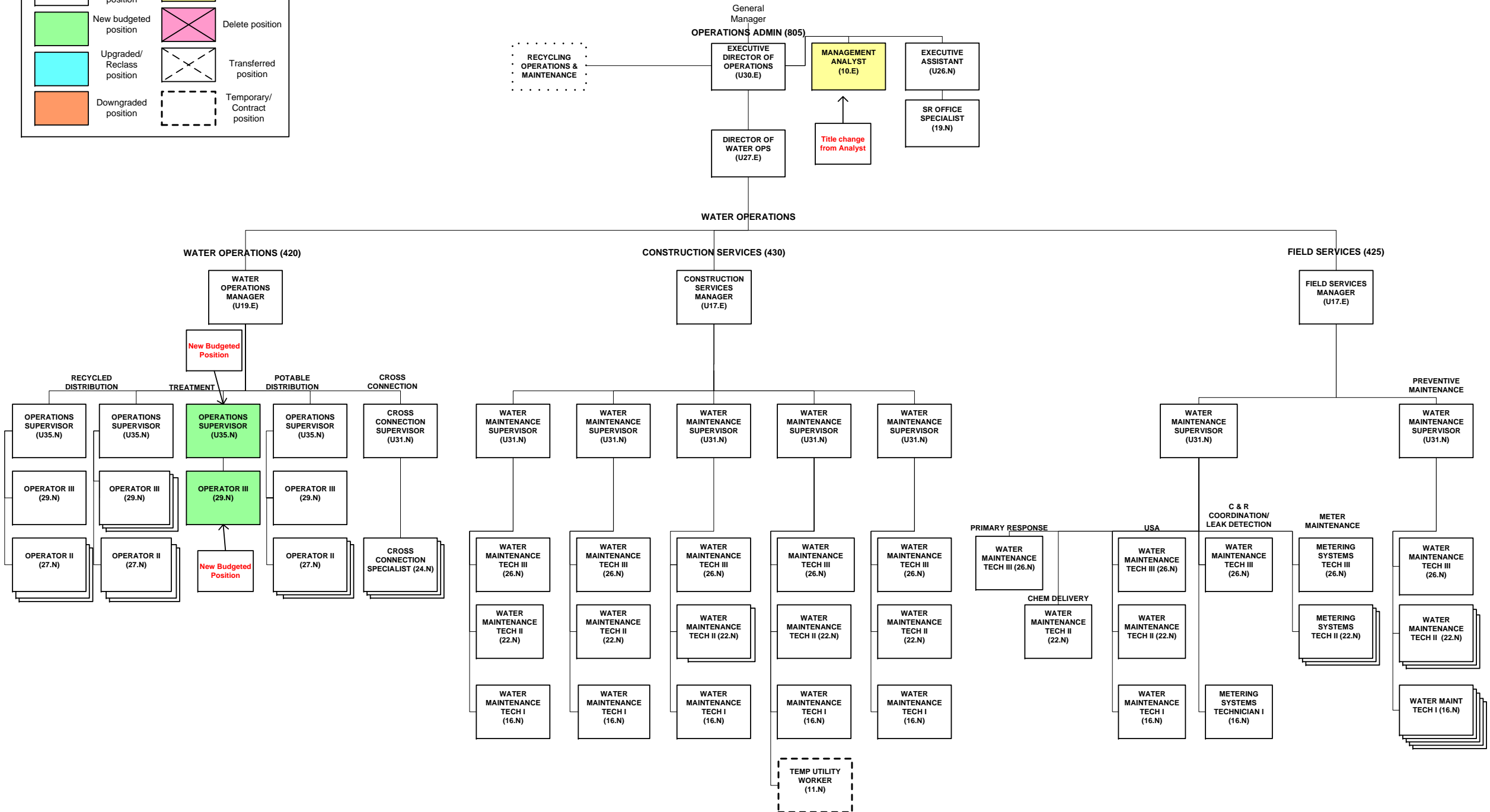
The mission of the Water Operations Department is to operate and maintain the District's potable water, recycled water and untreated water systems in an efficient, cost effective and environmentally safe manner that provides a high level of customer satisfaction. The Water Operations Department provides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

### **Major Goals**

- Manage the BWTP to achieve operational and budgetary goals for IRWD and the project Partners;
- Maintain 100% compliance with all regulatory permits;
- Meet the Department's adopted Operations and Maintenance budget;
- Add one additional Water Operators at the T-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;
- Maintain the Dyer Road Well Field and Deep Aquifer Treatment System domestic water flows in accordance with the Ground Water Pumping Plan;
- 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, efficient, cost effective and environmentally sensitive manner;
- Continue the sewer repair project to improve sewer system reliability;
- Complete 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 to and resolve all customer service requests promptly.



**IRVINE RANCH WATER DISTRICT  
OPERATIONS ADMINISTRATION & WATER OPERATIONS  
FISCAL YEAR 2017-18**



Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Water Operations		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Operations Administration</u>						
805	Regular Labor	711,320	328,505	952,450	1,005,296	52,846
805	Telecommunication	356	919	2,000	2,000	0
805	Operating Supplies	4,415	424	6,000	6,400	400
805	Printing	0	756	2,500	2,500	0
805	Postage	123	55	1,000	1,000	0
805	Office Supplies	10,774	3,211	20,000	20,000	0
805	Rep & Maint IRWD	38	0	0	0	0
805	Personnel Training	42,078	15,947	164,000	164,000	0
805	Other Professional Fees	51,036	10,030	163,500	163,500	0
<b>Total Operations Administration</b>		820,140	359,847	1,311,450	1,364,696	53,246
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<b>Total Water Operations</b>		46,161,787	27,722,928	58,765,850	58,094,890	(670,960)

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Water Operations		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Water Operations</u>						
420	Water Purchase	29,027,599	18,698,940	36,234,030	35,286,508	(947,522)
420	Regular Labor	1,630,882	733,419	1,808,890	2,013,302	204,412
420	Overtime Labor	331,708	182,048	379,700	453,300	73,600
420	Electricity	7,697,255	4,286,982	10,098,850	9,863,218	(235,632)
420	Fuel	32,769	17,289	35,600	45,800	10,200
420	Telecommunication	48,009	24,111	48,800	53,900	5,100
420	Other Utilities	30,675	10,683	33,400	34,800	1,400
420	Chemicals	925,856	526,465	1,589,910	1,465,004	(124,906)
420	Operating Supplies	62,062	34,916	47,600	64,960	17,360
420	Permits, Licenses and Fees	46,023	122,701	184,000	204,000	20,000
420	Equipment Rental	8,588	4,912	9,000	9,000	0
420	Rep & Maint OCSD & Other	266,253	380,128	873,800	824,300	(49,500)
420	Rep & Maint IRWD	543,752	111,465	1,179,420	1,274,130	94,710
420	Engineering Fees	156,722	65,179	108,000	117,360	9,360
420	Data Processing	0	0	0	12,500	12,500
420	Personnel Training	501	0	0	340	340
420	Other Professional Fees	32,290	8,780	75,500	78,000	2,500
420	Safety	0	0	3,000	3,000	0
<b>Total Water Operations</b>		40,840,944	25,208,018	52,709,500	51,803,422	(906,078)



Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Water Operations		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
Field Services						
425	Regular Labor	1,370,933	690,531	1,550,900	1,542,036	(8,864)
425	Overtime Labor	182,299	97,440	150,000	166,000	16,000
425	Contract Labor	57,249	24,842	62,400	124,800	62,400
425	Telecommunication	631	146	0	0	0
425	Chemicals	1,006	914	500	800	300
425	Operating Supplies	88,756	65,300	78,000	126,430	48,430
425	Permits, Licenses and Fees	13,461	6,268	13,000	14,800	1,800
425	Equipment Rental	0	1,807	2,500	2,500	0
425	Rep & Maint IRWD	266,600	58,337	250,800	209,800	(41,000)
425	Personnel Training	0	0	0	680	680
425	Other Professional Fees	636	124	1,000	1,000	0
<b>Total Field Services</b>		1,981,571	945,709	2,109,100	2,188,846	79,746

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Water Operations		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Construction Services</u>						
430	Regular Labor	1,569,998	695,263	1,626,000	1,646,816	20,816
430	Overtime Labor	191,517	111,246	221,000	223,000	2,000
430	Contract Labor	144,760	55,780	62,400	125,800	63,400
430	Telecommunication	205	105	0	0	0
430	Chemicals	467	228	400	400	0
430	Operating Supplies	126,111	80,623	158,000	164,520	6,520
430	Permits, Licenses and Fees	50,932	43,127	67,000	88,000	21,000
430	Equipment Rental	2,418	0	14,000	10,000	(4,000)
430	Rep & Maint IRWD	431,488	222,865	487,000	473,000	(14,000)
430	Engineering Fees	1,130	0	0	0	0
430	Personnel Training	0	0	0	6,390	6,390
430	Other Professional Fees	106	117	0	0	0
<b>Total Construction Services</b>		2,519,132	1,209,354	2,635,800	2,737,926	102,126



# **RECYCLING OPERATIONS**

## **OPERATING BUDGET SUMMARY**

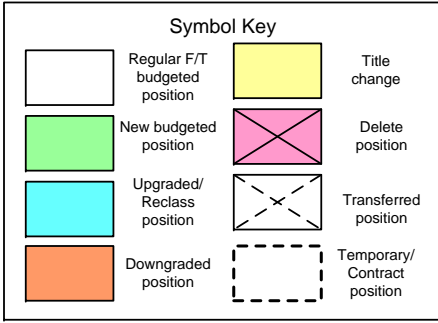
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### **Program Description**

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 Sewage Collection Systems, the Michelson Water Recycling Plant (MWRP), the Los Alisos Water Recycling Plant (LAWRP), the Natural Treatment System (NTS), and the Automation Systems.

### **Major Goals**

- Coordinate with Water Operations to optimize production of recycled water and balance with system storage;
- Meet the Department's adopted Operations budget;
- Achieve zero lost time accidents;
- Maintain 100% compliance with all regulatory requirements;
- Refine operational key performance indicators (KPIs) to optimize efficiency and cost effectiveness;
- Transition operational responsibilities for the completed portions of the MWRP Biosolids and Energy Recovery Facilities milestones to Recycling Operations;
- Finalize plan for FOG integration into the Biosolids facility once its facility is online;
- 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;
- Implement findings from the marketing and distribution of pellets from the MWRP Biosolids Project
- Develop concepts and partnerships relative to implementing a food waste addition/recycling program at the MWRP once the new solids handling facilities are completed;
- Collaborate with Encina Wastewater Authority on lessons learned, O&M, product marketing and distribution, and resource sharing opportunities related to Biosolids;
- Explore participation with other agencies in MWRP Biosolids facilities (bringing in class B solids);
- Evaluate and implement options for cleaning and inspection of large sewer lines within the IRWD service area;
- Continue to work with partners in Newport Bay Executive Committee to develop and implement the elements of the Nitrogen Selenium Management Plan; and
- Complete the upgrade of the Water Operations SCADA.



**IRVINE RANCH WATER DISTRICT  
RECYCLING OPERATIONS  
FISCAL YEAR 2017-18**

Exec Director of Operations

OPERATIONS ADMIN (805)

DIRECTOR OF RECYCLING OPERATIONS (U27.E)

MANAGEMENT ANALYST (10.E)

Title change from Analyst

RECYCLING OPERATIONS

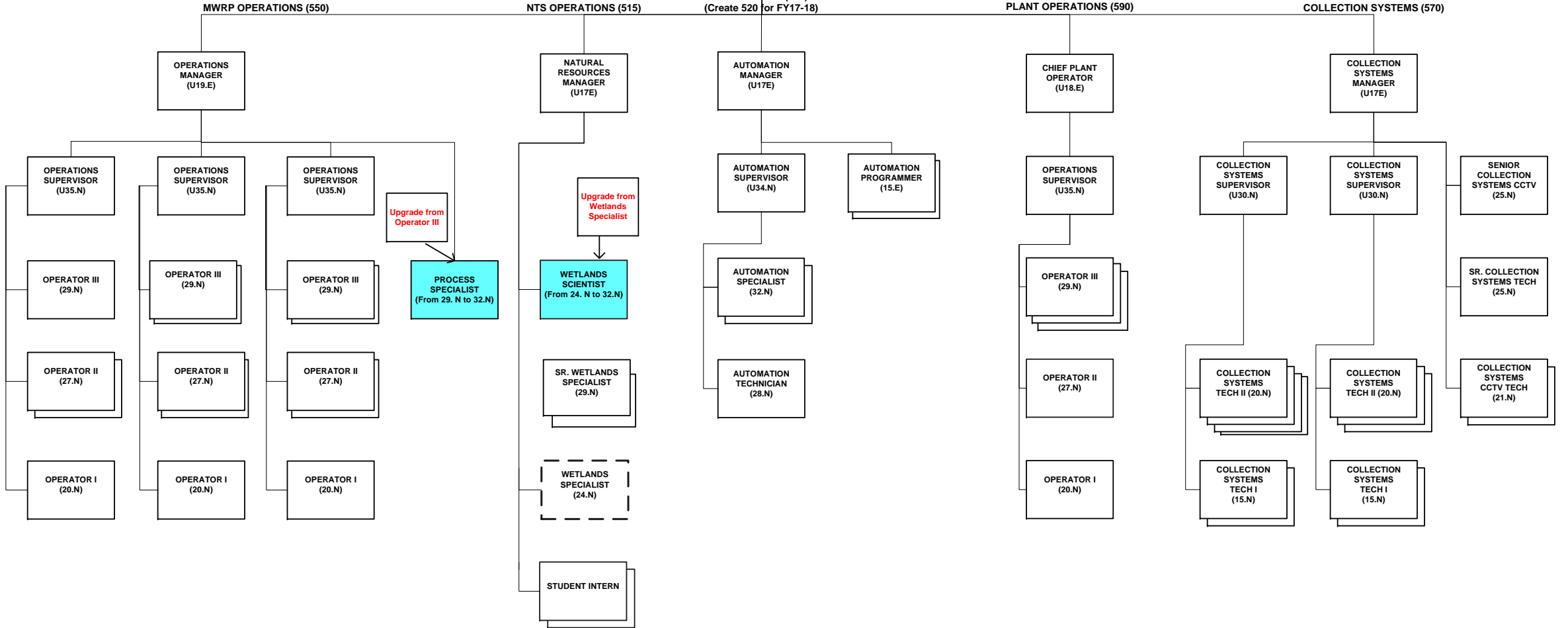
AUTOMATION (820)  
(Create 520 for FY17-18)

LOS ALISOS RECYCLING PLANT OPERATIONS (590)

COLLECTION SYSTEMS (570)

MWRP OPERATIONS (550)

NTS OPERATIONS (515)



Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Recycling Operations		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
NTS Operations						
515	Regular Labor	265,130	129,951	341,600	358,642	17,042
515	Overtime Labor	2,152	700	4,000	6,000	2,000
515	Contract Labor	72,692	29,272	30,000	85,000	55,000
515	Electricity	158,497	63,438	261,200	267,744	6,544
515	Telecommunication	425	1,854	0	3,500	3,500
515	Operating Supplies	18,418	3,550	22,000	14,000	(8,000)
515	Printing	826	81	0	1,000	1,000
515	Postage	228	0	0	0	0
515	Permits, Licenses and Fees	2,633	3,090	1,000	4,000	3,000
515	Equipment Rental	5,714	2,392	7,000	6,000	(1,000)
515	Rep & Maint OCSD & Other	24,059	6,559	24,000	26,000	2,000
515	Rep & Maint IRWD	987,916	563,073	1,043,300	1,460,000	416,700
515	Engineering Fees	43,107	17,515	92,500	192,500	100,000
515	Personnel Training	2,555	314	2,800	4,300	1,500
515	Other Professional Fees	577	0	0	0	0
515	Safety	499	0	0	0	0
515	Other	13,122	475	12,000	12,000	0
Total NTS Operations		1,598,550	822,264	1,841,400	2,440,686	599,286

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Recycling Operations		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
<a href="#">Dept No</a>	<a href="#">Expense Name</a>					
<u>Automation Department</u>						
520	Regular Labor	0	0	0	657,022	657,022
520	Overtime Labor		0	0	80,500	80,500
520	Operating Supplies		0	0	8,030	8,030
520	Rep & Maint IRWD		0	0	190,600	190,600
520	Personnel Training			0	170	170
520	Other Professional Fees		0	0	120,600	120,600
520	Safety		0	0	3,000	3,000
<b>Total Automation Department</b>		0	0	0	1,059,922	1,059,922

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Recycling Operations		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>MWRP Operations</u>						
550	Regular Labor	1,058,406	555,191	1,474,375	1,521,968	47,593
550	Overtime Labor	118,493	50,206	108,900	108,900	0
550	Contract Labor	38,783	0	30,000	30,000	0
550	Electricity	2,639,745	1,198,168	3,025,000	3,220,610	195,610
550	Fuel	7,481	3,145	76,400	100,617	24,217
550	Telecommunication	1,512	0	1,800	1,800	0
550	Chemicals	514,339	206,621	796,225	902,116	105,891
550	Operating Supplies	24,907	14,591	74,900	74,900	0
550	Permits, Licenses and Fees	0	0	250	250	0
550	Equipment Rental	0	0	12,000	12,000	0
550	Rep & Maint OCSD & Other	15,277,304	6,585,454	13,244,000	12,744,000	(500,000)
550	Rep & Maint IRWD	839	261	64,000	64,000	0
550	Personnel Training	1,421	0	2,000	4,020	2,020
550	Other Professional Fees	19	0	75,000	75,000	0
550	Safety	226	0	12,000	12,000	0
550	Biosolids Disposals	92,991	49,148	349,200	221,440	(127,760)
<b>Total MWRP Operations</b>		19,776,466	8,662,785	19,346,050	19,093,621	(252,429)

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Recycling Operations		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Collections Systems</u>						
570	Regular Labor	1,088,119	544,200	1,223,900	1,259,522	35,622
570	Overtime Labor	134,424	64,709	111,500	148,500	37,000
570	Electricity	111,202	55,369	113,000	108,929	(4,071)
570	Telecommunication	17,144	10,172	16,000	20,000	4,000
570	Chemicals	466,410	217,699	552,000	500,000	(52,000)
570	Operating Supplies	71,597	23,327	64,000	64,360	360
570	Rep & Maint IRWD	293,540	117,715	439,800	439,800	0
570	Personnel Training	50	0	0	4,720	4,720
570	Other Professional Fees	325	0	80,000	80,000	0
570	Mileage Reimbursement	0	1,720	0	2,000	2,000
570	Safety	1,926	0	10,000	10,000	0
<b>Total Collections Systems</b>		2,184,737	1,034,911	2,610,200	2,637,831	27,631



Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Recycling Operations		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
LAWRP Operations						
590	Regular Labor	605,780	273,194	615,050	611,538	(3,512)
590	Overtime Labor	66,130	26,055	61,100	66,400	5,300
590	Electricity	860,876	358,144	932,150	763,452	(168,698)
590	Fuel	1,009	134	1,000	1,000	0
590	Chemicals	191,769	153,255	194,400	205,500	11,100
590	Operating Supplies	10,937	4,078	6,600	6,600	0
590	Office Supplies	471	88	0	0	0
590	Rep & Maint OCSD & Other	174,647	147,875	256,000	256,000	0
590	Rep & Maint IRWD	100,372	36,069	104,000	104,000	0
590	Other Professional Fees	300	300	1,600	940	(660)
590	Safety	256	0	1,700	1,700	0
590	Biosolids Disposals	20,408	10,100	25,000	25,000	0
Total LAWRP Operations		2,032,955	1,009,292	2,198,600	2,042,130	(156,470)
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Total Recycling Operations		25,592,708	11,529,252	25,996,250	27,274,190	1,277,940





# **MAINTENANCE**

## **OPERATING BUDGET SUMMARY**

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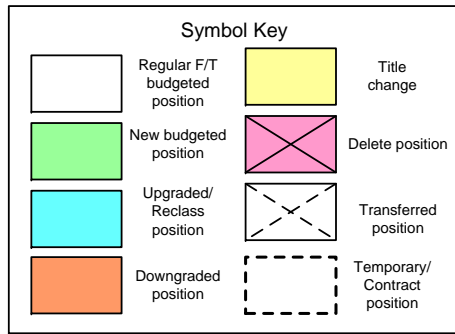
### **Program Description**

The mission of Maintenance Operations 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. Maintenance Operations coordinates the maintenance and repair of the District's electrical, mechanical, instrumentation, fleet and facility assets by utilizing a comprehensive enterprise asset management system to ensure safe, reliable, and cost effective operation.

### **Major Goals**

- Complete part one of the IBM Maximo software implementation activities for the Enterprise Asset Management (EAM) system including the replacement of the current computerized maintenance management system (CMMS) with Maximo Asset Management and Maximo Scheduler;
- Complete the asset data collection for the MWRP Biosolids and Energy Recovery Facilities;
- Meet the Department's adopted Maintenance and General Plant budgets;
- Achieve zero lost time accidents;
- Maintain 100% compliance with all regulatory requirements;
- Identify and track operational Key Performance Indicators (KPIs) to optimize efficiency and cost effectiveness;
- Complete the request for proposal (RFP) for the operation and maintenance of the biogas cleaning facilities and microturbines. Secure the services of a contractor to perform these services;
- Develop and implement an efficient comprehensive maintenance plan for the Baker Water Treatment Facility;
- Support the District's battery energy storage systems project through the planning, construction and operational phases;
- 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;
- Support the design and construction of a compressed natural gas (CNG) filling station at the Operations Center to accommodate the District's growing CNG fueled fleet;
- Provide Engineering support for projects including the Biosolids and Energy Recovery Facilities, Newport Coast Lift Station improvements, Operations Center generator, San Diego Creek Pump Station improvements;
- 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  
FISCAL YEAR 2017-18**



Exec Director of Operations

OPERATIONS ADMIN (805)

DIRECTOR OF MAINTENANCE (U27.E)

MAINTENANCE OPERATIONS

FACILITIES SERVICES (850) & FLEET SERVICES (870)

ELECTRICAL SERVICES (820)

ASSET SYSTEMS (805)  
(Create 830 for FY17-18)

MECHANICAL SERVICES (840)

FACILITIES/FLEET MANAGER (U17.E)

ELECTRICAL & INSTRUMENTATION MANAGER (U17.E)

ASSET SYSTEMS MANAGER (U17.E)

MECHANICAL SERVICES MANAGER (U19.E)

BUILDING/REPAIR

LANDSCAPE

FLEET SERVICES

INSTRUMENTATION SUPERVISOR (U34.N)

ELECTRICAL SUPERVISOR (U34.N)

New Budgeted Position for 1/1/2018

2 New Budgeted Positions

ASSET SYSTEMS ANALYST (10.E)

ASSET MAINTENANCE COORDINATOR (32.N)

MECHANICAL SERVICES SUPERVISOR (U32.N)

MECHANICAL SERVICES SUPERVISOR (U32.N)

MECHANICAL SERVICES SUPERVISOR (U32.N)

FACILITIES SERVICES SUPERVISOR (U31.N)

LANDSCAPE CONTRACTS ADMINISTRATOR (28.N)

FLEET SUPERVISOR (U31.N)

SR INSTRUMENTATION TECHNICIAN (30.N)

SR ELECTRICAL TECHNICIAN (30.N)

SR MAINTENANCE MECHANIC (27.N)

SR MAINTENANCE MECHANIC (27.N)

SR MAINTENANCE MECHANIC (27.N)

SENIOR FACILITIES SVCS TECH (27.N)

SENIOR VEHICLE/EQUIP. MECHANIC (27.N)

INSTRUMENTATION TECHNICIAN (28.N)

ELECTRICAL TECHNICIAN (28.N)

MAINTENANCE MECHANIC (22.N)

MAINTENANCE MECHANIC (22.N)

MAINTENANCE MECHANIC (22.N)

FACILITIES SVCS TECHNICIAN (22.N)

VEHICLE/EQUIP MECHANIC (22.N)

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Maintenance		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Electrical Services</u>						
820	Regular Labor	1,346,855	715,443	1,768,350	1,202,510	(565,840)
820	Overtime Labor	163,527	74,074	158,700	161,900	3,200
820	Telecommunication	129	0	0	0	0
820	Operating Supplies	110,320	89,832	92,950	105,700	12,750
820	Rep & Maint IRWD	846,830	457,168	909,200	951,600	42,400
820	Personnel Training	145	0	0	0	0
820	Other Professional Fees	616	271	2,800	800	(2,000)
820	Safety	20,686	3,768	16,800	16,800	0
<b>Total Electrical Services</b>		2,489,108	1,340,556	2,948,800	2,439,310	(509,490)

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Maintenance		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
<u>Dept No</u>	<u>Expense Name</u>					
<u>Asset Systems</u>						
830	Regular Labor			0	321,824	321,824
830	Overtime Labor	0	0	0	6,000	6,000
830	Operating Supplies	0	0	0	9,000	9,000
830	Other Professional Fees	0	0	0	75,000	75,000
830	Safety	0	0	0	1,000	1,000
<b>Total Asset Systems</b>		0	0	0	412,824	412,824

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Maintenance		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Mechanical Services</u>						
840	Regular Labor	1,098,907	506,024	1,379,100	1,308,552	(70,548)
840	Overtime Labor	72,816	34,453	99,000	93,600	(5,400)
840	Contract Labor	43,258	140	0	40,000	40,000
840	Telecommunication	105	0	0	0	0
840	Chemicals	919	0	0	0	0
840	Operating Supplies	64,566	5,897	81,200	35,500	(45,700)
840	Equipment Rental	0	0	4,000	0	(4,000)
840	Rep & Maint IRWD	917,160	499,808	1,006,000	910,400	(95,600)
840	Personnel Training	103	0	0	1,690	1,690
840	Other Professional Fees	352	0	0	0	0
840	Safety	1,593	0	6,200	6,200	0
<b>Total Mechanical Services</b>		2,199,779	1,046,322	2,575,500	2,395,942	(179,558)

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Maintenance		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Facilities Services</u>						
850	Regular Labor	555,199	255,945	621,700	640,284	18,584
850	Overtime Labor	21,830	13,231	23,400	26,000	2,600
850	Contract Labor	74,031	8,400	25,000	0	(25,000)
850	Electricity	304,661	160,077	390,000	397,924	7,924
850	Fuel	20,544	43,005	30,000	30,000	0
850	Telecommunication	369	120	0	400	400
850	Other Utilities	60,954	33,025	73,400	74,400	1,000
850	Operating Supplies	68,153	38,301	83,900	83,900	0
850	Rep & Maint IRWD	1,638,838	803,181	1,574,900	1,642,100	67,200
850	Personnel Training	2,651	16,086	0	340	340
850	Other Professional Fees	244	0	0	0	0
<b>Total Facilities Services</b>		2,747,474	1,371,371	2,822,300	2,895,348	73,048



Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Maintenance		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
Fleet Services						
870	Regular Labor	374,081	184,590	375,000	387,176	12,176
870	Overtime Labor	11,247	3,010	10,300	10,300	0
870	Fuel	443,383	209,429	423,400	450,000	26,600
870	Other Utilities	54,914	28,563	61,600	61,600	0
870	Operating Supplies	13,350	1,418	7,800	7,800	0
870	Permits, Licenses and Fees	2,188	3,200	7,500	8,500	1,000
870	Equipment Rental	0	399	12,000	8,000	(4,000)
870	Rep & Maint IRWD	581,841	284,525	499,400	540,400	41,000
870	Personnel Training			0	1,692	1,692
870	Mileage Reimbursement	164,267	80,577	132,000	138,000	6,000
Total Fleet Services		1,645,271	795,711	1,529,000	1,613,468	84,468
Total Maintenance		9,081,632	4,553,960	9,875,600	9,756,892	(118,708)





# **RECYCLED WATER DEVELOPMENT**

## **OPERATING BUDGET SUMMARY**

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### **Program Description**

The Water Resources and Policy 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 program, regulatory requirements and public affairs.

Recycled Water Development: 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.

### **Major Goals**

#### **RECYCLED WATER DEVELOPMENT**

- Convert a minimum of 250 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 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 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;



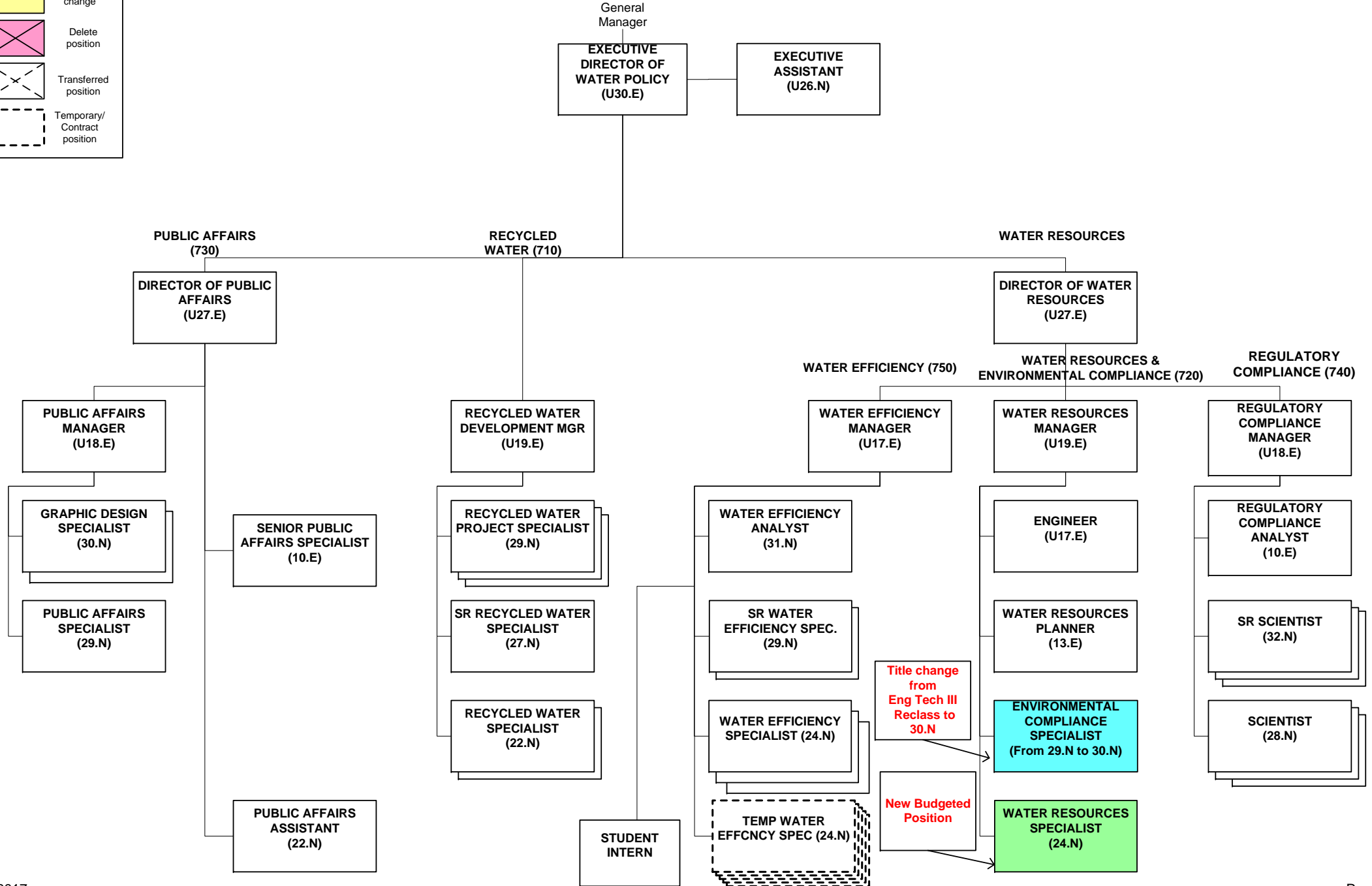
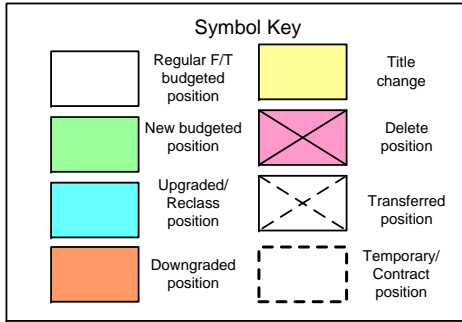
## ***RECYCLED WATER DEVELOPMENT***

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

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- 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  
FISCAL YEAR 2017-18**



Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Water Resources and Policy		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Recycled Water Development</u>						
710	Regular Labor	1,268,393	625,947	897,840	611,704	(286,136)
710	Overtime Labor	44,696	(850)	0	4,000	4,000
710	Contract Labor	440,840	5,771	97,100	46,000	(51,100)
710	Operating Supplies	128,817	68,899	60,000	30,000	(30,000)
710	Printing	45	143	500	500	0
710	Postage	2,944	910	2,000	2,000	0
710	Permits, Licenses and Fees	38,100	11,060	40,000	75,000	35,000
710	Office Supplies	3,605	1,536	4,000	4,000	0
710	Rep & Maint IRWD	26,186	73	0	0	0
710	Engineering Fees	73,187	33,000	108,000	115,000	7,000
710	Personnel Training	18,015	4,430	16,000	14,000	(2,000)
710	Other Professional Fees	862,443	281,660	576,600	458,600	(118,000)
710	Mileage Reimbursement	16	0	0	0	0
710	Conservation	2,294,006	(10,949)	0	0	0
<b>Total Recycled Water Development</b>		5,201,293	1,021,630	1,802,040	1,360,804	(441,236)



# **WATER RESOURCES AND ENVIRONMENTAL COMPLIANCE**

## **OPERATING BUDGET SUMMARY**

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### **Program Description**

The Water Resources and Policy 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 program, regulatory requirements and public affairs.

Water Resources and Environmental Compliance: 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. This department is also responsible for the participation of IRWD-owned lands located in the Palo Verde Irrigation District (PVID) in MWD's existing fallowing program and any new water conservation related programs that MWD and PVID implement in the future.

Other responsibilities of the Water Resources and Environmental Compliance department include managing the District's environmental compliance programs, and overseeing the District's salt management, energy efficiency and renewable energy planning activities. The environmental 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.



# **WATER RESOURCES AND ENVIRONMENTAL COMPLIANCE**

## **OPERATING BUDGET SUMMARY**

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### **Major Goals**

#### **WATER RESOURCES**

- Bank 90,000 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, Castaic Lake Water Agency and/or Antelope Valley-East Kern Water Agency and others;  
Renew a multi-year unbalanced exchange among Dudley Ridge Water District, MWD and Kern County Water Agency that facilitates exchanges of IRWD's SWP water allotment associated with the Jackson Ranch;
- 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;
- Participate in water conservation programs implemented by MWD and Palo Verde Irrigation District, such as land fallowing, which can make water available for other uses;
- 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 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**

- 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;





# **WATER RESOURCES AND ENVIRONMENTAL COMPLIANCE**

## **OPERATING BUDGET SUMMARY**

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- 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 2017-18**

Water Resources and Policy		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Water Resources and Environmental Compliance</u>						
720	Regular Labor	592,066	292,424	603,590	992,638	389,048
720	Overtime Labor	191	65	800	400	(400)
720	Contract Labor	6,361	41,008	23,290	0	(23,290)
720	Electricity	21,851	0	8,820	8,820	0
720	Permits, Licenses and Fees	84,440	215,141	263,500	732,000	468,500
720	Office Supplies	198	0	0	0	0
720	Rep & Maint IRWD	223,042	142,409	368,500	608,900	240,400
720	Engineering Fees	890	0	0	0	0
720	Personnel Training	3,671	969	3,000	0	(3,000)
720	Other Professional Fees	16,331	49,448	26,100	56,000	29,900
<b>Total Water Resources and Environmental Compliance</b>		949,041	741,464	1,297,600	2,398,758	1,101,158



## **PUBLIC AFFAIRS**

### **OPERATING BUDGET SUMMARY**

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#### **Program Description**

The Water Resources and Policy 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 program, regulatory requirements and public affairs.

#### **PUBLIC AFFAIRS:**

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, tap water 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.



## ***PUBLIC AFFAIRS***

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

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#### **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 2017-18**

Water Resources and Policy		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
Public Affairs						
730	Regular Labor	0	267,138	681,500	681,630	130
730	Overtime Labor	31,212	12,651	27,000	33,000	6,000
730	Contract Labor	63,705	0	0	0	0
730	Operating Supplies	16	0	700	700	0
730	Printing	44,784	21,671	62,800	78,800	16,000
730	Postage	0	45	200	200	0
730	Office Supplies	3,341	974	6,000	6,000	0
730	Personnel Training	5,894	1,071	12,400	11,400	(1,000)
730	Other Professional Fees	1,319,826	199,062	1,599,800	1,402,300	(197,500)
730	Mileage Reimbursement	58	0	0	0	0
Total Public Affairs		1,468,836	502,612	2,390,400	2,214,030	(176,370)





# **REGULATORY COMPLIANCE**

## **OPERATING BUDGET SUMMARY**

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### **Program Description**

The Water Resources and Policy 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 program, regulatory requirements and public affairs.

**Regulatory Compliance:** 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**

#### **REGULATORY COMPLIANCE:**

- 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;



# **REGULATORY COMPLIANCE**

## **OPERATING BUDGET SUMMARY**

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- 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;
- 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;
- Implement and manage the District's School Lead Sampling Program;
- 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 2017-18**

Water Resources and Policy		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
<u>Regulatory Compliance</u>						
740	Regular Labor	0	342,367	694,485	730,756	36,271
740	Overtime Labor	52,723	29,769	76,770	73,960	(2,810)
740	Contract Labor	0	15,946	0	14,500	14,500
740	Operating Supplies	55,585	32,082	61,100	59,400	(1,700)
740	Postage	109	1,326	800	800	0
740	Permits, Licenses and Fees	366,160	400,207	504,245	523,245	19,000
740	Office Supplies	97	372	800	800	0
740	Rep & Maint OCSD & Other	2,049	0	2,000	2,000	0
740	Rep & Maint IRWD	201,442	110,532	256,500	258,000	1,500
740	Engineering Fees	99,330	52,998	162,300	262,200	99,900
740	Personnel Training	8,145	1,464	10,000	9,400	(600)
740	Other Professional Fees	1,366	625	2,400	2,400	0
740	Safety	0	0	2,000	2,000	0
<b>Total Regulatory Compliance</b>		787,006	987,688	1,773,400	1,939,461	166,061





# WATER EFFICIENCY

## OPERATING BUDGET SUMMARY

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### Program Description

The Water Resources and Policy 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 and public affairs.

Water 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 sewage resource recycling. An updated Water Use Efficiency Plan was adopted in December 2013. The focus was shifted beginning in fiscal year 2015-16 in response to a state mandated conservation target in response to the statewide drought. As a result of significantly improved hydrologic conditions, staff anticipates transitioning back to implementing the District's long-term water efficiency programs. Water efficiency programs including the outdoor efficiency RightScope program, new data reporting technologies to engage customers, tactical incentives and participation in innovative pilots and research that maintain IRWD's leadership position are incorporated into the fiscal year 2017-18 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.

### Major Goals

#### WATER EFFICIENCY

- Assist IRWD customers in meeting state mandated water efficiency 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 RightScope 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; Implement 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;



## **WATER EFFICIENCY**

### **OPERATING BUDGET SUMMARY**

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- Actively engage in discussions with the State Water Resources Control Board, the Department of Water Resources and other stakeholders on implementation of state's Long Term Conservation Framework for efficient water use that balances local conditions and supplies, recycled water, prior conservation, growth and other equity adjustments;
- Establish the appropriate metrics and quantify water efficiency targets; and,
- Evaluate water use efficiency programs and Water Use Efficiency Plan.

Irvine Ranch Water District  
**Consolidated Operating Expense Budget for FY 2017-18**

Water Resources and Policy		2015-16 Actual	2016-17 Actual thru 12/31/16	2016-17 Orig Budget	2017-18 Prop Budget	Incr/(Decr)
Dept No	Expense Name					
Water Efficiency						
750	Regular Labor	0	0	474,200	542,316	68,116
750	Overtime Labor	0	8,573	36,000	16,000	(20,000)
750	Contract Labor	0	135,530	128,560	70,000	(58,560)
750	Operating Supplies	0	271	5,000	2,500	(2,500)
750	Office Supplies	0	390	0	0	0
750	Rep & Maint IRWD	0	2,884	30,000	30,000	0
750	Personnel Training	0	13,644	16,000	17,500	1,500
750	Other Professional Fees	0	70,989	288,000	238,000	(50,000)
750	Conservation	0	(633,607)	2,964,500	2,012,000	(952,500)
Total Water Efficiency		0	(401,326)	3,942,260	2,928,316	(1,013,944)
Total Water Resources and Policy		8,406,176	2,852,068	11,205,700	10,841,369	(364,331)
GRAND TOTAL		121,711,607	63,691,613	150,341,200	153,160,718	2,819,518





# GENERAL PLANT

## SUMMARY\*

	Fiscal Year 2017-18	Fiscal Year 2016-17	Increase (Decrease)	% Inc/(Dec)
Information Systems	\$ 681,800	\$ 696,700	\$ (14,900)	-2.14%
Transportation Equipment	580,000	563,000	17,000	3.02%
Laboratory Equipment	453,060	280,000	173,060	61.81%
Office Furniture and Equipment		119,500	(119,500)	-100.00%
Equipment	587,100	3,847,900	(3,260,800)	-84.74%
Structures/Improvements- Sand Canyon.MWRP	210,000	72,500	137,500	189.66%
<b>Sub-Total</b>	<b>\$ 2,511,960</b>	<b>\$5,579,600</b>	<b>(\$3,067,640)</b>	<b>-122.12%</b>
Less: Vehicle Salvage Value	(22,000)	(23,500)	1,500	-
<b>Total General Plant</b>	<b>\$ 2,489,960</b>	<b>\$ 5,556,100</b>	<b>\$ (3,066,140)</b>	<b>-123.14%</b>

### Fiscal Year 2017-18

Funded by User Charges	\$1,627,910	65.38%
Funded by Capital Funds	655,300	26.32%
Funded by Overalllocation Rev	206,750	8.30%
<b>Total Fiscal Year 2017-18</b>	<b>\$2,489,960</b>	<b>100.00%</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 Overalllocation Rev	80,000	1.44%
<b>Total Fiscal Year 2016-17</b>	<b>\$5,556,100</b>	<b>100.00%</b>

\* General Plant is included in the Capital Budget beginning 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	\$ -	\$ 624,800	\$ -	\$ 57,000	\$ -	\$ 681,800
Laboratory Equipment				78,000	375,060	453,060
Other General Plant						-
Office Furniture						-
Work Class Equipment				587,100		587,100
Transportation				580,000		580,000
Structures/Improvements - Sand Canyon/MWRP				210,000		210,000
<b>Subtotal</b>	<b>\$ -</b>	<b>\$ 624,800</b>	<b>\$ -</b>	<b>\$ 1,512,100</b>	<b>\$ 375,060</b>	<b>\$ 2,511,960</b>
Less Vehicle Salvage Value	-	-	-	(22,000)	-	(22,000)
<b>Total Fiscal Year 2017-18</b>	<b>\$ -</b>	<b>\$ 624,800</b>	<b>\$ -</b>	<b>\$ 1,490,100</b>	<b>\$ 375,060</b>	<b>\$ 2,489,960</b>
Total Fiscal Year 2016-17	-	696,700	-	4,635,400	224,000	5,556,100
Increase/(Decrease)	\$ -	\$ (71,900)	\$ -	\$ (3,145,300)	\$ 151,060	\$ (3,066,140)





# CONSOLIDATED

## GENERAL PLANT BUDGET

<b>TASK</b>		<b>Item Description</b>	<b>Quantity</b>	<b>Price</b>	<b>Proposed 2017-18</b>
<b>Department:</b>		<b>INFORMATION SERVICES</b>			
250	8030.250.1	iPad Replacement	25	\$ 792	\$ 19,800
250	8030.250.2	iPads - Water Use Efficiency Department	5	800	4,000
250	8031.250.1	Network Disk Storage Expansion and Replacement	1	245,000	245,000
250	8031.250.2	Audio Visual Equipment - OPS Center Biosolids Conference Room	1	6,000	6,000
250	8031.250.3	Server Replacement - Automation Department	1	22,000	22,000
250	8031.250.4	Debt and Investment Management Software	1	65,000	65,000
250	8041.250.1	PC Replacement	77	1,818	140,000
250	8041.250.2	Laptop Computer Replacement	19	2,447	46,500
250	8041.250.3	Tablet Computer Replacement	6	2,083	12,500
250	8041.250.4	Tablet Computers - Automation Department	6	3,167	19,000
250	8041.250.5	Tablet Computers - Biosolids Operations Department	7	3,143	22,000
250	8041.250.6	PC Replacement - Automation Department	7	929	6,500
250	8041.250.7	Tablet Computers - Water Quality Department	8	2,063	16,500
Sub-Total					\$ 624,800
<b>Department:</b>		<b>NTS OPERATIONS</b>			
515	8036.515.1	(3) Solar Mixers	3	\$ 26,000	\$ 78,000
Sub-Total					\$ 78,000
<b>Department:</b>		<b>AUTOMATION DEPARTMENT</b>			
520	8033.520.1	(7) SCADA Desktop Computers-MWRP SCADA System Operation	7	\$ 1,000	\$ 7,000
520	8033.520.2	(2) Dell Computer Servers-SCADA System	2	25,000	50,000
Sub-Total					\$ 57,000
<b>Department:</b>		<b>WATER QUALITY</b>			
600	8031.600.1	Misc. Laboratory Equipment for Unplanned Projects and Regulatory	1	\$45,000	\$ 45,000
600	8031.600.1	Laboratory Equipment for Biosolids and Energy Recovery Project.	1	\$25,000	\$ 25,000
600	8036.600.1	Laboratory Instrumentation for Future Biosolids and Energy Recovery Project.	1	\$55,000	\$ 55,000
600	8036.600.2	Existing Laboratory Equipment Replacement	1	\$162,000	\$ 162,000
600	8036.600.2	Laboratory Recirculating Deionized Water System	1	\$44,000	\$ 44,000
Sub-Total					\$ 331,000
<b>Department:</b>		<b>REGULATORY COMPLIANCE</b>			
740	8031.740.1	Multi parameter water quality monitoring sondes for receiving water	1	\$ 23,060	\$ 23,060
740	8031.740.2	Sigma automated samper used for sampling of LAWRP regulatory	1	\$ 8,000	\$ 8,000
740	8031.740.3	Sigma automated samper used for sampling of MWRP regulatory	1	\$ 8,000	\$ 8,000
740	8031.740.4	Rehabilitation/Replace of regulatory compliance sampling equipment	1	\$ 5,000	\$ 5,000
Sub-Total					\$ 44,060
<b>Department:</b>		<b>MECHANICAL SERVICES</b>			
840	8030.840.1	Vibexpert II - 2 channel system (part# VIB 5.310-2)	1	\$ 20,000	\$ 20,000
Sub-Total					\$ 20,000

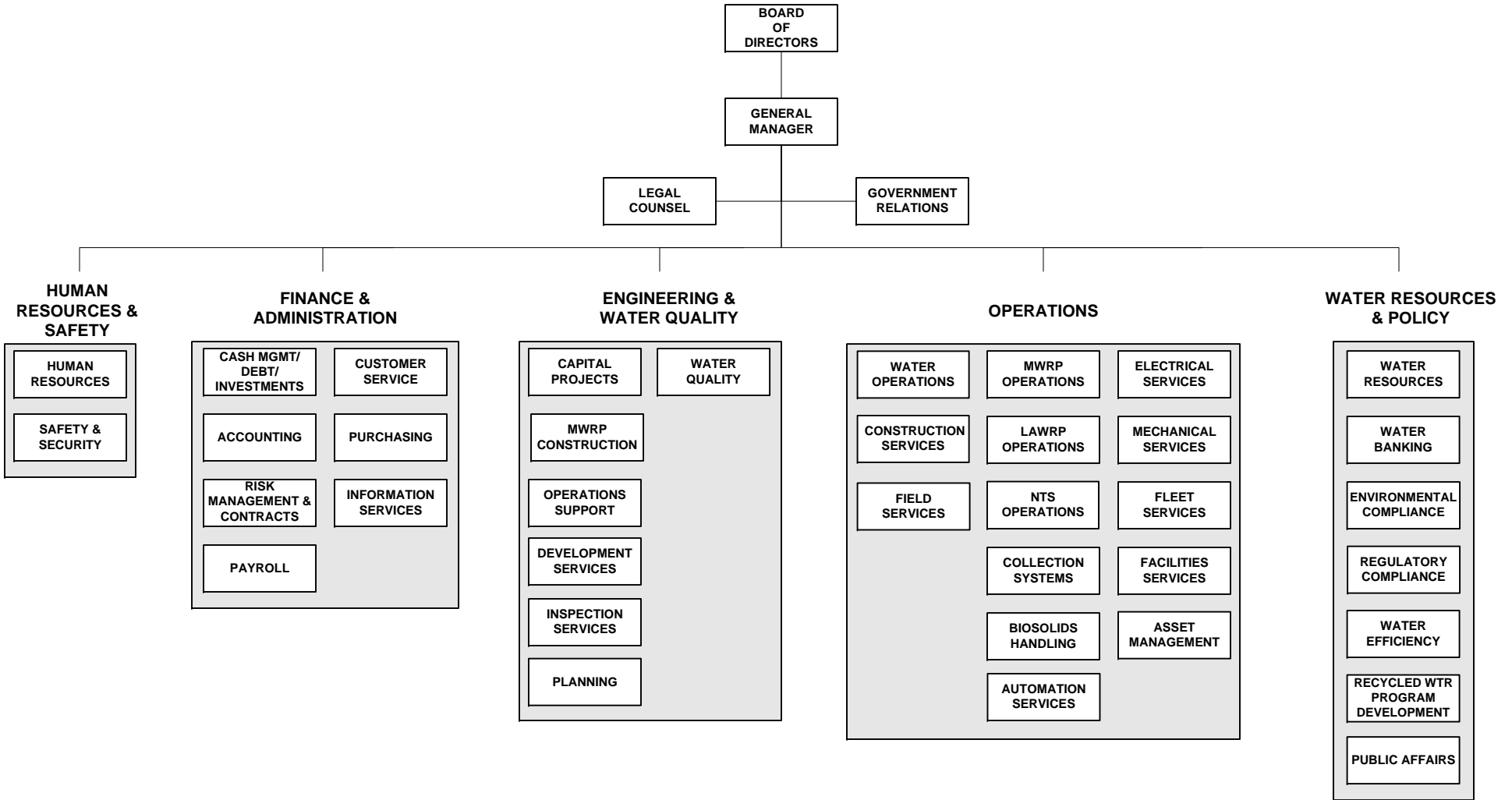


# CONSOLIDATED

## GENERAL PLANT BUDGET

<b>TASK</b>	<b>Item Description</b>	<b>Quantity</b>	<b>Price</b>	<b>Proposed 2017-18</b>
<b>Department:</b>				
	<b>FACILITIES SERVICES</b>			
850 8037.850.1	Michelson Operations Center Computer Room HVAC	1	\$ 185,000	\$ 185,000
850 8037.850.2	Sand Canyon HQ Central Plant HVAC Controller	1	25,000	25,000
	Sub-Total			\$ 210,000
<b>Department:</b>				
	<b>FLEET SERVICES</b>			
870 8037.870.1	Electric Cart (Warehouse)	1	\$ 10,500	\$ 10,500
870 8036.870.1	Boat, Controls, Engine, and Trailer	1	\$ 14,600	\$ 14,600
870 8036.870.2	(2) Amphibious ATV's and Storage Containers	1	\$ 51,500	\$ 51,500
870 8036.870.3	Forklift, Electric	1	\$ 38,400	\$ 38,400
870 8036.870.4	Utility Cart, Electric	1	\$ 13,500	\$ 13,500
870 8036.870.5	Scissor Lift, Electric	1	\$ 32,100	\$ 32,100
870 8038.870.1	Backhoe Loader	1	\$ 130,000	\$ 130,000
870 8038.870.2	CCTV Inspection Vehicle	1	\$ 199,500	\$ 199,500
870 8038.870.3	24K LB. Boom Crane (Crane Truck)	1	\$ 290,000	\$ 290,000
870 8055.870.1	Light Duty Pickup, 2WD	1	\$ 27,500	\$ 27,500
870 8055.870.10	Light Duty SUV, 2WD	1	\$ 27,000	\$ 27,000
870 8055.870.11	Medium Duty Pickup 2WD, DRW	1	\$ 37,000	\$ 37,000
870 8055.870.2	Medium Duty Pickup, 4WD w/utility bed	1	\$ 38,300	\$ 38,300
870 8055.870.3	Medium Duty Pickup, 2WD	1	\$ 27,500	\$ 27,500
870 8055.870.4	Medium Pickup, 4WD	1	\$ 31,400	\$ 31,400
870 8055.870.5	Medium Pickup, 4WD	1	\$ 31,400	\$ 31,400
870 8055.870.5	Medium Pickup, 4WD	1	\$ 31,400	\$ 31,400
870 8055.870.5	Medium Pickup, 4WD	1	\$ 31,400	\$ 31,400
870 8055.870.5	Medium Pickup, 4WD	1	\$ 31,400	\$ 31,400
870 8055.870.6	Light Duty Pickup, 2WD	1	\$ 27,500	\$ 27,500
870 8055.870.7	Light Duty SUV, 2WD	1	\$ 27,000	\$ 27,000
870 8055.870.8	Medium Duty Pickup, 2WD	1	\$ 29,600	\$ 29,600
	Sub-Total			\$1,147,100
Total General Plant				<u>\$2,511,960</u>

**Irvine Ranch Water District  
Organizational Chart  
(By Function)  
Fiscal Year 2017-18**





# POSITIONS BY COST CENTER

## THREE YEAR PERSONNEL COMPARISON

Department	Authorized Positions		
	2015-16	2016-17	2017-18
<b>Administration</b>			
Number of Positions	14.0	15.0	15.0
% change from prior year	27.3 %	7.1 %	0.0 %
<b>Finance and Administrative Services</b>			
Number of Positions	75.0	80.0	81.0
% change from prior year	5.6 %	6.7 %	1.3 %
<b>Engineering</b>			
Number of Positions	40.0	42.0	44.0
% change from prior year	5.3 %	5.0 %	4.8 %
<b>Water Quality</b>			
Number of Positions	20.0	20.0	20.0
% change from prior year	(28.6) %	0.0 %	0.0 %
<b>Water Policy</b>			
Number of Positions	34.0	36.0	37.0
% change from prior year	25.9 %	5.9 %	2.8 %
<b>Water Operations</b>			
Number of Positions	71.0	73.0	77.0 *
% change from prior year	1.4 %	2.8 %	5.5 %
<b>Recycling Operations</b>			
Number of Positions	48.0	50.0	55.0
% change from prior year	11.6 %	4.2 %	10.0 %
<b>Maintenance</b>			
Number of Positions	50.0	52.0	48.0 **
% change from prior year	4.2 %	4.0 %	(7.7) %
Total Number of Positions	352.0	368.0	377.0
Number of Changed Positions	<u>16.0</u>	<u>16.0</u>	<u>9.0</u>
% Change From Prior Year	<u>4.8 %</u>	<u>4.5 %</u>	<u>2.4 %</u>

\* Operations Administration is part of Water Operations.

\*\* For FY 2017-18, one position is budgeted to start January 2018.



# SALARIES AND WAGES

## 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	\$30,778	\$1,613	\$6,275	\$4,353	\$1,690	\$3,338	\$5,770	\$4,242	\$3,498
Annual Increase	1,354	69	280	\$193	\$72	\$154	\$266	\$167	\$153
Sub-Total Regular Salaries & Wages	32,132	1,682	6,555	4,546	1,762	3,492	6,037	4,409	3,651
New Positions:									
Gross Pay	723	0	109	\$166	\$0	\$68	\$171	\$0	\$210
Total Regular Salaries & Wages	32,855	1,682	6,663	4,712	1,762	3,559	6,208	4,409	3,860
Insurance and Benefits	7,768	398	1,575	1,114	417	841	1,468	1,042	913
Employment Tax & PERS Contributions	9,598	491	1,947	1,377	515	1,040	1,813	1,288	1,128
Total Regular Salaries & Wages, health Insurance and employment taxes	\$50,221	\$2,571	\$10,185	\$7,203	\$2,694	\$5,440	\$9,489	\$6,739	\$5,901
Employee Count:	377	15	81	44	20	37	77	55	48



# BENEFITS AND EMPLOYMENT TAX

## HEALTH INSURANCE AND EMPLOYER CONTRIBUTIONS

(in thousands)

	<u>FY 2016-17</u>	<u>FY 2017-18</u>	<u>Change</u>
<b>Insurance and Benefits</b>			
Health Ins Actives	\$5,019	\$5,220	\$201
Dental Premiums	419	421	2
Wrkrs Comp Premiums	708	660	(48)
Wrkrs Comp Paid Claims	758	612	(146)
Life Ins Actives	185	150	(35)
LT Disability Premiums	104	103	(1)
Medical Premiums - Retirees	123	115	(8)
Vision Benefit Premiums	80	85	5
RHCAP Payments - OPEB	360	325	(35)
Life Ins Retirees	33	14	(19)
Other	54	63	9
	<u>\$7,843</u>	<u>\$7,768</u>	<u>(\$75)</u>
<b>Employment Tax and PERS</b>			
PERS Employer Portion	\$6,033	\$6,340	\$307
PERS In Excess Of ARC	1,781	1,872	91
401A Employer Match Portion	734	734	0
401A Employer Direct Portion	60	126	66
Medicare Tax	437	476	39
St Unemployment Tax	50	50	0
	<u>\$9,095</u>	<u>\$9,598</u>	<u>\$503</u>
<b>Total Insurance, Benefits, and Taxes</b>	<u>\$16,938</u>	<u>\$17,366</u>	<u>\$428</u>

**FY 2017/18 Budget  
Summary of Proposed Budgeted Personnel Changes**

<b>Proposed Changes to Existing Budgeted Positions</b>						
<b>Dept</b>	<b>Job Title</b>	<b>Current Sal Grade</b>	<b>Proposed Action</b>	<b>Proposed Job Title</b>	<b>Proposed Sal Grade</b>	<b>Salary Costs</b>
210	Treasury Analyst	31.N	Reclass 1 Position	Treasury Analyst	12.E	\$4,500
210	Senior Accountant	U11.E	Reclass 3 Positions	Accounting Supervisor	U13.E	\$12,000
300	Construction Inspector III	31.N	Title Change 2 positions	Senior Construction Inspector	31.N	\$0
300	Construction Inspector II	28.N	Title Change 3 positions	Construction Inspector	28.N	\$0
300	Development Services Specialist	15.N	Reclass 2 Positions	Development Services Specialist	19.N	\$8,100
300	Engineering Technician III	29.N	Downgrade 1 Position	Development Services Specialist	19.N	-\$19,200
515	Wetlands Specialist	24.N	Upgrade 1 Position	Wetlands Scientist	32.N	\$8,040
550	Operator III	29.N	Upgrade 1 Position	Process Specialist	32.N	\$3,600
720	Engineering Technician III	29.N	Upgrade 1 Position	Environmental Compliance Specialist	30.N	\$900
805	Analyst	10.E	Title Change 2 positions	Management Analyst	10.E	\$0
<b>Subtotal</b>						<b><u>\$17,940</u></b>

<b>Proposed Deleted Positions</b>			
<b>Dept</b>	<b>Job Title</b>	<b>Sal Grade</b>	<b>Salary Costs</b>
220	Mail Coordinator	6.N	-\$42,000
<b>Subtotal</b>			<b><u>-\$42,000</u></b>

<b>Proposed New Positions</b>			
<b>Dept</b>	<b>Job Title</b>	<b>Sal Grade</b>	<b>Salary Costs</b>
220	Customer Service Field Technician	16.N	\$49,200
250	Senior Applications Analyst	U18.E	\$109,200
300	Construction Inspection Supervisor	U34.N	\$88,800
300	Construction Inspector	28.N	\$74,400
420	Operations Supervisor	U35.N	\$91,200
420	Operator III	29.N	\$76,800
830	Asset Maintenance Coordinator	32.N	\$84,000
830	Asset Maintenance Coordinator	32.N	\$84,000
830	Asset Systems Analyst	10.E	\$41,400
720	Water Resources Specialist	24.N	\$66,000
<b>Subtotal</b>			<b><u>\$765,000</u></b>

To be filled 1/2018

**Total**                      **\$740,940**



# LABOR

## *PROPOSED LABOR CHANGES*

### **Proposed Personnel Budget Changes Reflected in the FY 2017/18 Operating Budget**

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

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

Treasury Analyst (From Salary Grade 31.N to Salary Grade 12.E)

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

Senior Accountant (Salary Grade U11.E) (3 positions) ➔ Accounting Supervisor (Salary Grade U13.E)

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

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

Construction Inspector III (Salary Grade 31.N) (2 positions) ➔ Senior Construction Inspector (Salary Grade 31.N)

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

Construction Inspector II (Salary Grade 28.N) (3 positions) ➔ Construction Inspector (Salary Grade 28.N)

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

Development Services Specialist (From Salary Grade 15.N to Salary Grade 19.N) (2 positions)

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

Engineering Technician III (Salary Grade 29.N) ➔ Development Services Specialist (Salary Grade 19.N)

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





# LABOR

## *PROPOSED LABOR CHANGES*

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

Wetlands Specialist (Salary Grade 24.N) ➔ Wetlands Scientist (Salary Grade 32.N)  
This position upgrade is being requested to more properly reflect the higher level duties and responsibilities of this position.

### ***MWRP Operations (550):***

Operator III (Salary Grade 29.N) ➔ Process Specialist (Salary Grade 32.N)  
This position upgrade is being requested to more properly reflect the higher level duties and responsibilities of this position.

### ***Water Resources and Policy (720):***

Engineering Technician III (Salary Grade 29.N) ➔ Environmental Compliance Specialist (Salary Grade 30.N)  
This position upgrade and title change is being requested to more properly reflect the specific duties and responsibilities of this position.

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

Analyst (Salary Grade 10.E) ➔ Management Analyst (Salary Grade 10.E)  
This title change is being requested to more properly reflect the specific duties and responsibilities of the position.

### **Eliminated Positions:**

Mailroom Coordinator (Salary Grade 6.N) (one position) –  
This position is being eliminated due to increased efficiency in current processes and cross-training of current customer service staff.

### **New Positions:**

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

Customer Service Field Technician (Salary Grade 16.N) – one position  
This position is required to due to increased workload in the customer service department resulting from increased development. This position is currently staffed by temporary labor.

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

Senior Applications Analyst (Salary Grade 15.N) – one position  
This position is required to support the high level of complexity in the District's tier one Oracle Enterprise Applications. This position is currently filled by contract labor.



# LABOR

## *PROPOSED LABOR CHANGES*

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

Construction Inspection Supervisor (Salary Grade U34.N) – one position

This position is required due to an increase in workload in the inspection services group as a result of an increase in active construction projects.

Construction Inspector (Salary Grade 28.N) - one position

This position is required due to an increase in workload in the inspection services group as a result of an increase in active construction projects.

### ***Water Operations (420):***

Operations Supervisor (Salary Grade U35.N) – one position

This position is required to provide a high level of on-site monitoring on a daily basis to maintain uninterrupted water production at the Baker Water Treatment Plant.

Operator III (Salary Grade 29.N) – one position

This position is required to manage the increased workload in Water Operations as a result of the growth and complexity of IRWD's water system assets.

### ***Water Resources and Policy (720):***

Water Resources Specialist (Salary Grade 24.N) – one position

This position is required due to the increased workload in water resources as a result of IRWD's supply reliability program which has significantly expanded over the past year.

### ***Asset Systems (830):***

Asset Maintenance Coordinator (Salary Grade 32.N) – two positions

These positions are required to manage the District's new Enterprise Asset Management (EAM) program and the implementation of its software program including the database and for planning and scheduling predictive, reactive, and preventive maintenance activities.

Asset Systems Analyst (Salary Grade 10.E) – one position

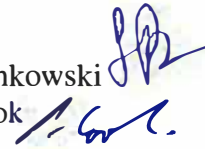
This position is required to manage the District's new Enterprise Asset Management (EAM) program and the implementation of its software program including data management and report generation.

April 10, 2017

Prepared and

submitted by: L. Bonkowski

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

March 1-2	ACWA Winter Conference, Washington, D.C.
March 30	ACWA Energy Storage Summit, Sacramento
April 12-14	CA Environmental Dialogue Plenary Meeting, Sonoma
April 20	Tour of Syphon Reservoir for Linda Ackerman

John Withers

March 19-21	WateReuse California Annual Conference, San Diego
April 13	2017 IRWD Business Outreach Lunch

Douglas Reinhart

April 25	Monthly Discussion of District Activities with the General Manager
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Mary Aileen Matheis

March 1-2	ACWA Winter Conference, Washington D.C.
April 13	2017 IRWD Business Outreach Lunch
May 8-12	ACWA 2017 Spring Conference, Monterey

Peer Swan

March 1-2	ACWA Winter Conference, Washington, D.C.
April 12	Water Education Foundation Water Summit, Sacramento
April 13	2017 IRWD Business Outreach Lunch
April 25	Monthly Discussion of District Activities with the General Manager

RECOMMENDATION:

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

Consent Calendar: Ratify/Approve Board of Directors' Attendance at Meetings and  
Events  
April 10, 2017  
Page 2

LIST OF EXHIBITS:

None.

April 10, 2017

Prepared and

Submitted by: L. Bonkowski

Approved by: P. Cook



CONSENT CALENDAR

MINUTES OF BOARD MEETINGS

SUMMARY:

Provided are the minutes of the March 27, 2017 Regular Board Meeting and the March 28, 2017 Adjourned Regular Board Meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE MARCH 27, 2017 REGULAR BOARD MEETING AND THE MARCH 28 ADJOURNED REGULAR MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – March 27, 2017 Minutes

Exhibit "B" – March 28, 2017 Minutes

## EXHIBIT "A"

### MINUTES OF REGULAR MEETING – MARCH 27, 2017

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 Reinhart on March 27, 2017 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Swan, LaMar, Matheis, Reinhart, and Withers (arrived at 5:13 p.m.).

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Finance Clary, Executive Director of Water Policy Weghorst, Executive Director of Operations Sheilds, Executive Director of Engineering and Water Quality Burton, Director of Water Resources Sanchez, Director of Public Affairs Beeman, Director of Treasury and Risk Management Jacobson, Director of Human Resources Roney, Director of Recycling Operations Zepeda, Director of Water Operations Roberts, Director of Maintenance Drake, Legal Counsel Arneson (via teleconference), Secretary Bonkowski, Principle Engineer Akiyoshi, Government Relations Officer Compton, Mr. Allen Shinbashi, Mr. Alex Munoz, Mr. Jim Reed, Mr. Bruce Newell, Mr. Ric Cox, Ms. Cathy Paxton, Mr. K.R. Jagannatti, Ms. Laurel Wykes, and Mr. Dru Whitefeather.

#### ORAL COMMUNICATIONS:

Mr. Ric Cox and Ms. Cathy Paxton inquired about a coordinated effort with their homeowners' association and the District relative to landscaping at IRWD's former Perez Reservoir site. Director Withers arrived at 5:13 p.m. Director Swan suggested that staff research a landscaping easement indemnifying the District.

Mr. Dru Whitefeather and Ms. Laurel Madonado made an inquiry relative to connection fees for residential service in the former Orange Park Acres area as they are in the process of building a second residence on an existing property which has a septic system which will not accommodate additional flow. Executive Director of Engineering and Water Quality Burton provided them information relative to sewer hookup fees. He further said staff will be revisiting these fees in a few months and will be making recommendations for each home.

WRITTEN COMMUNICATIONS: None.

ITEMS TOO LATE TO BE AGENDIZED: None.

#### PRESENTATIONS

#### CALIFORNIA WATER ENVIRONMENT ASSOCIATION (CEWEA) AWARD

General Manger Cook reported that Mr. Henry Solis was recognized by the CWEA for receiving its Richard D. Pomeroy Award for his efforts to the industry that have helped expand knowledge, improve methods and introduce new techniques that enhance the professional development of sewage collection personnel.

PRESENTATIONS (CONTINUED)

HYATT HOUSE, IRVINE – CALIFORNIA’S FIRST FULLY DUAL-PLUMBED HOTEL

Using a PowerPoint presentation, Mr. Gabriel Vargas provided a presentation on the new Hyatt House in Irvine, the first fully dual-plumbed hotel in California.

CONSENT CALENDAR

On MOTION by Withers, seconded and unanimously carried, CONSENT CALENDAR ITEMS 4 THROUGH 7 WERE APPROVED AS FOLLOWS:

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

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

5. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the March 13, 2017 Regular Board Meeting be approved as presented.

6. FEBRUARY 2017 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer’s Investment Summary Report, the Monthly Interest Rate Swap Summary for February 2017, and Disclosure Report of Reimbursements to Board members and staff; approve the February 2017 Summary of Payroll ACH payments in the total amount of \$1,691,520 and approve the February 2017 accounts payable Disbursement Summary of warrants 374709 through 375074, Workers’ Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$12,161,916.

7. UC IRVINE COOLING TOWER RECYCLED WATER CONVERSION PIPELINE PHASE 1 FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the UC Irvine Cooling Tower Recycled Water Conversion Pipeline Phase I, project 07102; authorize the General Manager to file a Notice of Completion; and authorize the payment of the retention 35 days after the date of recording the Notice of Completion

## ACTION CALENDAR

### 2017 LEGISLATIVE UPDATE

Government Relations Officer Compton placed before each Board member a copy of amended Assembly Bills Nos. 574, No.791, 792, and 793, along with a draft opposition letter to Assemblymember Garcia opposing ABs 791, 792, and 793 (Frazier). Ms. Compton reviewed these bills and recommended that the Board take an oppose position. Following discussion, Director LaMar asked to follow up with a summary of ABs 791, 792, and 793. On MOTION by Matheis, seconded and unanimously carried, THE BOARD ADOPTED A "SUPPORT" POSITION ON AB 574 (QUIRK), AND AN "OPPOSE" POSITION ON AB 1667 (FRIEDMAN), AND AUTHORIZED STAFF TO COMMUNICATE THE DISTRICT'S CONCERNS REGARDING STATEWIDE REQUIREMENTS FOR DEDICATED IRRIGATION METERS TO THE AUTHOR; AND A "CO-SPONSOR AND SUPPORT" POSITION ON AB 986 AND AB 1654, AS PROPOSED TO BE AMENDED BY ACWA; REAFFIRMED ITS "SUPPORT" FOR THE TAX-EXEMPT STATUS OF MUNICIPAL BONDS AND "OPPOSE" ANY CAP ON TAX-EXEMPT MUNICIPAL BOND INTEREST; AND AN "OPPOSE" POSITION ON ABs 791, 792, AND 793.

### ASSOCIATION OF CALIFORNIA WATER AGENCIES POLICY STATEMENT ON BAY-DELTA FLOW REQUIREMENTS

Government Relations Manager Compton reported that the State Water Resources Control Board (State Board) proposed an amendment to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. Ms. Compton said that the proposed amendments would increase the unimpaired flow requirements for the San Joaquin River, which would negatively affect water supply reliability for California's urban and agricultural communities. She said that after reviewing the proposed amendments, the Association of California Water Agencies (ACWA) drafted an "ACWA Policy Statement on Bay-Delta Flow Requirements," which was approved by the ACWA Board of Directors earlier this month. She said that ACWA is now asking its members to adopt a resolution in support of the policy statement. Following discussion, staff was asked to submit a cover letter with the resolution explaining the District's rationale on this issue. On MOTION by LaMar, seconded and unanimously carried, THE BOARD ADOPTED THE FOLLOWING RESOLUTION BY TITLE:

#### RESOLUTION NO. 2017-8

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT IN SUPPORT OF THE  
ASSOCIATION OF CALIFORNIA WATER AGENCIES POLICY  
STATEMENT ON BAY-DELTA FLOW REQUIREMENTS

### REVISED REAL ESTATE INVESTMENT POLICY

General Manager Cook said that a resolution was placed before each Director. Mr. Cook said that for fiscal year ended June 30, 2016, the District implemented the Government Accounting Standards Board's (GASB) Rule No. 72, *Fair Value Measurement and Application*. Under the new Rule, real estate investment values previously reported on a cost basis are now reported on the District's annual financial statements at fair market value. He said that consistent with the



change in valuation for financial reporting, staff recommends a revision to the District's Real Estate Investment Policy relative to the valuation used in the percentage limitation guidelines.

Director Withers reported that this item was reviewed and approved by the Asset Management Committee on March 23, 2017. On MOTION by Withers, seconded and unanimously carried, THE BOARD ADOPTED THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2017-9

RESOLUTION OF THE BOARD OF DIRECTORS  
OF THE IRVINE RANCH WATER DISTRICT  
RESCINDING RESOLUTION NO. 2008-2 AND  
ADOPTING REVISED REAL ESTATE INVESTMENT  
POLICY

SAND CANYON OFFICE DEVELOPMENT – PHASE II PROJECT/CONSTRUCTION  
MANAGEMENT

Director of Treasury and Risk Management Jacobson reported that in February 2008, the Board approved Phase I of the Sand Canyon Office Project on land adjacent to the Sand Canyon headquarters site. This project was completed in early 2012 and the medical office building is fully leased through April 2022. Mr. Jacobson said that Phase II of the approved campus master plan includes construction of an approximate 71,000 square foot professional office building on the remaining vacant land.

Mr. Jacobson said that the Board previously approved the retention of Ware Malcomb to provide architectural services related to design of the Phase II building and site work. Following the pre-application process with the City of Irvine, building plans were submitted and are currently in the second round of plan review. Plan approval is estimated to be complete in June/July 2017.

Mr. Jacobson said that based on the plan approval status, retaining a project manager is recommended to assist staff with completion of the plan approval process, to provide a project cost estimate, as well as management of the bidding, contractor selection and construction of the project. Staff anticipates that construction will begin when a key tenant lease agreement is secured. Mr. Jacobson said that staff requested proposals from three firms to perform project management services related to completing the plan approval process and construction of Phase II. The firms include Newport Real Estate Services, Bernards and Abacus Project Management. Two of the firms, NRES and Bernards, submitted complete proposals, and the Abacus proposal did not include pricing information requested. He said that based on the proposals received, staff recommends the retention of NRES to manage Phase II of the Sand Canyon office development project.

Director Withers reported that this item was reviewed and approved by the Asset Management Committee on March 23, 2017. On MOTION by Withers, seconded and unanimously carried, THE BOARD APPROVED THE RETENTION OF NEWPORT REAL ESTATE SERVICES TO PROVIDE PROJECT/CONSTRUCTION MANAGEMENT SERVICES RELATED TO THE SAND CANYON OFFICE DEVELOPMENT PHASE II IN AN AMOUNT NOT TO EXCEED \$230,000.

## GENERAL MANAGER'S REPORT

General Manager Cook noted that tonight's Board meeting will be adjourned to March 28, 2017 at 7:45 a.m. to hold a tour of the District's Michelson Water Recycling Plant Biosolids and Energy Recovery facility.

Mr. Cook said that he and Executive Director of Water Policy Weghorst will be traveling to Buena Vista Water District on Wednesday, and that on Thursday, he will be traveling to Sacramento to participate on a panel during its Energy Storage Summit. He further said that next week he and Government Relations Manager Compton will be in Washington D.C. meeting with various legislators and staff.

## DIRECTORS' COMMENTS

Director Matheis reported that she attended a Santiago Aqueduct Commission meeting where she was appointed Alternate Commissioner, a WateReuse Annual Conference in San Diego, and the 34<sup>th</sup> Annual Water Education Foundation's Executive Briefing in Sacramento.

Director LaMar reported that he attended the NWRA Federal Water Issues Conference in Washington, D.C. for four days last week.

Director Withers reported on his attendance at a WateReuse Annual Conference in San Diego, and a University Temple program relative to water development in Israel.

Director Swan reported on his attendance at Newport Bay Watershed meetings, a Newport Chamber of Commerce meeting, a WACO Planning meeting, and a San Bernardino Valley Water District meeting relative to the Santa Ana River Watershed's integrated regional water management plan, One Water One Watershed.

Director Reinhart said that he attended a South Orange County agency meeting.

## OTHER BUSINESS

President Reinhart said that the following Closed Session items would be held:

- 1) CONFERENCE WITH LEGAL COUNSEL RELATIVE TO ANTICIPATED LITIGATION – Government Code Section 54956.9(d)(2) – significant exposure to litigation (one or more potential cases);
- 2) CONFERENCE WITH LEGAL COUNSEL RELATIVE TO EXISTING LITIGATION – Government Code Section 54956.9(d)(1) IRWD v. OCWD Case No.30-2016-00858584-CU-WM-CJC);
- 3) CONFERENCE WITH LEGAL COUNSEL RELATIVE TO ANTICIPATED LITIGATION – Government Code Section 54956.9(d)(2) – significant exposure to litigation (one potential case); and
- 4) PUBLIC EMPLOYEE APPOINTMENT – Pursuant to Government Code Section 54957(b). Title: Legal Counsel

OPEN SESSION

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

ADJOURNMENT

There being no further business, President Reinhart adjourned the meeting to Tuesday, March 28, 2017 at 7:45 a.m. at IRWD's Operations Center for a tour of the Michelson Water Recycling Plant Biosolids and Energy Recovery Facility. He closed the meeting in memory of Serrano Water District's Director Rich Freschi.

APPROVED and SIGNED this 10th day of April, 2017.

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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

## EXHIBIT "B"

### MINUTES OF ADJOURNED REGULAR MEETING – MARCH 28, 2017

The adjourned regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 7:45 a.m. by President Reinhart on March 28, 2017 at the Operations Center, 3512 Michelson, Irvine, California.

Directors Present: Matheis, Reinhart, LaMar and Swan.

Directors Absent: Withers.

Also Present: General Manager Cook, Executive Director of Finance Clary, Executive Director of Water Policy Weghorst, Executive Director of Operations Shields, Executive Director of Engineering and Water Quality Burton, Director of Water Resources Sanchez, Director of Water Operations Roberts, Director of Maintenance Drake, Director of Recycling Operations Zepeda, Principal Engineer Malloy, and Ray Bennett.

Written and Oral Communications: None.

Items too later to be agendized: None.

### PRESENTATION

#### TOUR OF IRWD'S MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES

The Board of Directors and staff toured IRWD's Michelson Water Recycling Plant Biosolids and energy recovery facilities.

### ADJOURNMENT

There being no further discussion, President Reinhart adjourned the meeting at 8:40 a.m.

APPROVED and SIGNED this 10<sup>th</sup> day of April, 2017.

\_\_\_\_\_  
President, IRVINE RANCH WATER DISTRICT

\_\_\_\_\_  
Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

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Legal Counsel - Bowie, Arneson,  
Wiles & Giannone

EXHIBIT "B"

MINUTES OF ADJOURNED REGULAR MEETING – MARCH 28, 2017

The adjourned regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 7:45 a.m. by President Reinhart on March 28, 2017 at the Operations Center, 3512 Michelson, Irvine, California.

Directors Present: Matheis, Reinhart, LaMar and Swan.

Directors Absent: Withers.

Also Present: General Manager Cook, Executive Director of Finance Clary, Executive Director of Water Policy Weghorst, Executive Director of Operations Shields, Executive Director of Engineering and Water Quality Burton, Director of Water Resources Sanchez, Director of Water Operations Roberts, Director of Maintenance Drake, Director of Recycling Operations Zepeda, Principal Engineer Malloy, and Ray Bennett.

Written and Oral Communications: None.

Items too later to be agendized: None.

PRESENTATION

TOUR OF IRWD'S MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES

The Board of Directors and staff toured IRWD's Michelson Water Recycling Plant Biosolids and energy recovery facilities.

ADJOURNMENT

There being no further discussion, President Reinhart adjourned the meeting at 8:40 a.m.

APPROVED and SIGNED this 10<sup>th</sup> day of April, 2017.

\_\_\_\_\_  
President, IRVINE RANCH WATER DISTRICT

\_\_\_\_\_  
Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

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Legal Counsel - Bowie, Arneson,  
Wiles & Giannone

April 10, 2017

Prepared by: T Bonkowski/M Cortez

Submitted by: K. Burton *(KLB)*

Approved by: Paul Cook *[Signature]*

## CONSENT CALENDAR

### BAKER WATER TREATMENT PLANT LANDSCAPING CONSTRUCTION AWARD

#### SUMMARY:

The construction of the Baker Water Treatment Plant is complete and ready for the installation of the site landscaping and irrigation system. Staff recommends that the Board authorize the General Manager to execute a construction contract with Tropical Plaza Nursery, Inc. in the amount of \$189,356 for the Baker Water Treatment Plant Landscaping project.

#### BACKGROUND:

The newly constructed Baker Water Treatment Plant provides an operational source of supply for drinking water and in the event of short-term water shortage emergencies, enhances the water reliability for the participant water districts of El Toro, Moulton Niguel, Santa Margarita, Trabuco Canyon and Irvine Ranch. This project will install the site landscaping and irrigation system. Exhibit "A" reflects the landscaped areas of infill planting, non-irrigated hydroseed and mulch, and gravel and cobble. The construction contract will also include a 60-day maintenance period.

#### Construction Award:

Staff requested bids for the design-build project from a select list of two landscape contractors, Marina Landscape and Tropical Plaza Nursery. Both contractors have worked with the District for many years and are knowledgeable of District standards and preferences. A pre-bid site meeting was held on February 20, 2017, and both contractors submitted bids on March 18. Tropical Plaza Nursery is the apparent low bidder with a bid of \$189,356; staff's estimate of the improvements was \$200,000. The Bid Summary is attached as Exhibit "B".

#### FISCAL IMPACTS:

Project 05027 is included in the FY 2016-17 Capital Budget. The existing budget is sufficient to fund the project.

#### ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA) and an Environmental Impact Report (EIR) was prepared in conformance with California Code of Regulations Title 14, Chapter 3, Article 7. The Final EIR was certified and adopted by the Board in April 2011. Addenda No. 1 and No. 2 to the EIR were prepared in accordance with Section 15164 of the CEQA Guidelines and were approved by the Board on March 15, 2012 and March 12, 2013, respectively.



COMMITTEE STATUS:

Construction awards are not routinely taken to Committee prior to submittal to the Board.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT IN THE AMOUNT OF \$189,356 WITH TROPICAL PLAZA NURSERY, INC. FOR THE BAKER WATER TREATMENT PLANT LANDSCAPING, PROJECT 05027.

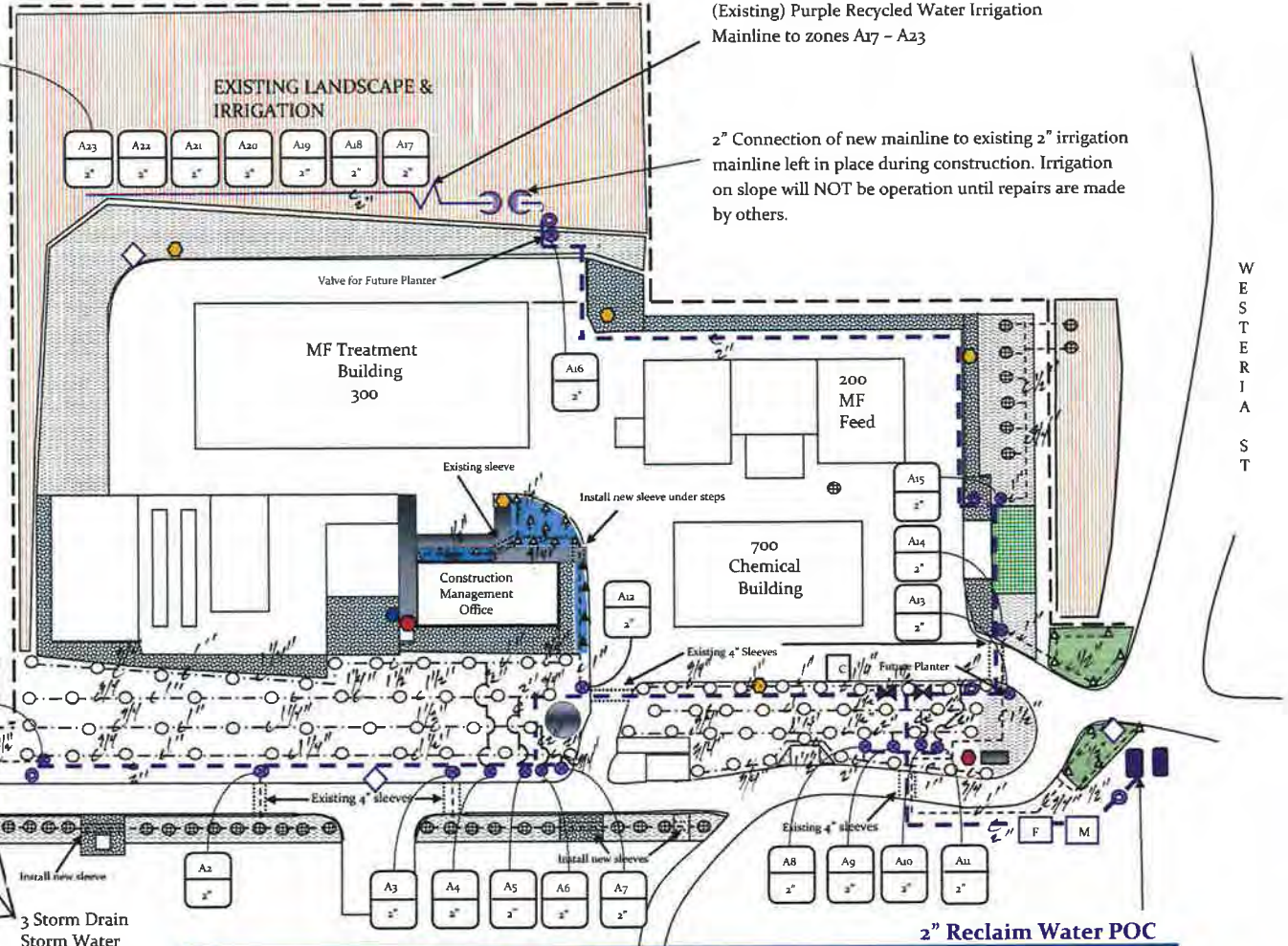
LIST OF EXHIBITS:

- Exhibit "A" – Site Plan
- Exhibit "B" – Bid Summary

# EXHIBIT "A"

- ▲ Rainbird 1812 Sam
- ⊕ Rainbird 1804 Bubblers
- ▲ Rainbird 12H Nozzles
- ▲ Rainbird 15 SST Nozzles
- ▲ Rainbird 8H Nozzles
- Rainbird 5000 -PC-SAM-SHRUB ROTORS
- ⊙ Rainbird 2" EFB-CP Series Brass Valves
- ⊙ Rainbird 44LRC Quick Coupler Purple Cover
- M Griswold Master Valve 2" Normally Closed
- F CalSense Flow Meter
- C CalSense SSE Heavy Duty Enclosure. Existing ET2000 controller to be placed in new enclosure
- Nelson Brass Ball valve 2"
- Purple Recycled Water PVC Pipe 2" CLASS 315 as Mainline
- ..... Sch40 PVC Sleeve 2x size of lateral line & Mainline
- - - - Purple Recycled Water PVC Pipe 1/2"-2" sch40 as lateral line
- - - - Brownline PVC UV railed pipe
- Existing Fire Hydrants
- Existing Red Backflow
- Existing Potable backflow
- Reclaim Warning Signs

Zone A17 - A23 are existing



(Existing) Purple Recycled Water Irrigation Mainline to zones A17 - A23

2" Connection of new mainline to existing 2" irrigation mainline left in place during construction. Irrigation on slope will NOT be operation until repairs are made by others.

WESTERIA



3 Storm Drain Storm Water Biofiltration Planter boxes

2" Reclaim Water POC

Project Name: Baker Waste Water Treatment Plant Irrigation & Landscape Install		PLAN VIEW
Location: Baker Waste Water Treatment Plant 21082 Wisteria Lake Forest CA. 92630	Bulletin: Irrigation & Landscape	SHEET REF:  L-1
Owner: Irvine Ranch Water District	Description: Install new Irrigation system & Landscape around new treatment plant	
Issued Date: March, 18, 2017		
By: Victor Zamora		

# EXHIBIT "B"

Opening: March 18, 2017

Irvine Ranch Water District Bid Summary Form  
 Baker Water Treatment Plant  
 Landscape Improvements  
 PR 05027

Entered By: T Bonkowski

				<b>1</b>		<b>2</b>				
				<b>Engineer's Estimate</b>		<b>Tropical Plaza Nursery</b>		<b>Marina Landscape Maintenance</b>		
				Budget		9642 Santiago Blvd		1900 S Lewis St		
						Villa Park, CA 92861		Anaheim, CA 92805		
Item No.	Description	Qty	Unit	Unit	Total	Unit	Total	Unit	Total	
				Price	Amount	Price	Amount	Price	Amount	
1	Demo	1	LS			\$3,800.00	\$3,800.00	\$4,270.39	\$4,270.39	
2	Header Board Installation	1	LS			\$15,000.00	\$15,000.00	\$10,213.19	\$10,213.19	
3	Gravel Installation	1	LS			\$24,000.00	\$24,000.00	\$46,843.37	\$46,843.37	
4	Irrigation Installation	1	LS			\$112,800.00	\$112,800.00	\$80,611.90	\$80,611.90	
5	Planting	1	LS			\$8,000.00	\$8,000.00	\$6,405.59	\$6,405.59	
6	Hydroseeding	1	LS			\$7,000.00	\$7,000.00	\$21,376.00	\$21,376.00	
7	Mulch Installation	1	LS			\$14,000.00	\$14,000.00	\$35,725.98	\$35,725.98	
8	60-day Maintenance	1	LS			\$2,000.00	\$2,000.00	\$0.00	\$0.00	
9	Bonds	1	LS			\$2,756.00	\$2,756.00	\$0.00	\$0.00	
Subtotal						\$200,000.00		\$189,356.00		\$205,446.42
Adjustment (+ or -)						\$0.00		\$0.00		\$0.00
<b>TOTAL AMOUNT OF BID</b>						<b>\$200,000.00</b>		<b>\$189,356.00</b>		<b>\$205,446.42</b>
						<b><u>Manufacturers:</u></b>		<b><u>Manufacturers:</u></b>		
						CalSense	Controller	CalSense	Controller	
						CalSense	S S Controller Box	CalSense	S S Controller Box	
						Griswald	Master Valve	Griswald	Master Valve	
						Rainbird	Valves, Nozzles, Bubbler	Rainbird	Valves	
						Carlson	Valve Boxes	Carlson	Valve Boxes	
						Rainbird	Quick Coupler	Nelson		

April 10, 2017

Prepared by: C. Kessler/K. Lew

Submitted by: K. Burton *KLB*

Approved by: Paul Cook *[Signature]*

CONSENT CALENDAR

PLANNING AREA 51, DISTRICT 7 CAPITAL RECYCLED WATER FACILITIES

SUMMARY:

Heritage Hills Irvine, LLC, (Heritage Hills) is proceeding with development of a portion of District 7 within Planning Area 51 (PA 51). The development includes the construction of streets, storm drains, domestic water, sewer, and recycled water improvements. Staff recommends that the Board authorize the General Manager to accept Heritage Hill’s construction contract with FYDAQ in the amount of \$155,316 for the District 7, Recycled Water Facilities.

BACKGROUND:

Heritage Hills is moving forward with development of backbone recycled water improvements within PA 51, District 7. PA 51 District 7 is located north of Irvine Boulevard between Aquila and Axis. A location map is attached as Exhibit “A”.

The design and construction of the IRWD facilities are being performed under the terms of a Reimbursement Agreement between Heritage Hills and IRWD approved by the Board in August 2016. Heritage Hills began construction of facilities in September 2016.

The PA 51 District 7, Recycled Water Facility Improvements consist of installing approximately 600 feet of 8-inch diameter and 3,900 feet of 6-inch diameter recycled water pipeline within Aquila and Axis. Heritage Hills retained Hunsaker to prepare the recycled water plans and received bids from two of the five contractors that were invited to bid. Heritage Hills recommends awarding the construction contract to the lowest bidder, FYDAQ, for a bid amount of \$155,316 as shown in Exhibit “B”. In addition, Heritage Hills has received consultant proposals for geotechnical observation and testing, surveying, field archeological and paleontological monitoring and construction support services. Staff has reviewed the consultant proposals and the construction bids and found the amounts to be acceptable. A summary of the PA 51 District 7 Recycled Water Facilities costs is shown below.

Design (Hunsaker)	\$ 35,000.00
Construction (FYDAQ)	\$155,316.00
Geotechnical Services (Engeo)	\$ 5,900.00
Construction Engineering/Surveying (Hunsaker)	\$ 6,000.00
Archeo/Paleo Monitoring (LSA)	\$ 2,625.00
Heritage Hills Administration Fee (1%)	<u>\$ 15,531.60</u>
	\$220,372.60

FISCAL IMPACTS:

Project 07169 is included in the FY 2016-17 Capital Budget and has sufficient budget.

ENVIRONMENTAL COMPLIANCE:

Construction of capital recycled water facilities in Planning Area 51, District 7 is subject to CEQA. In conformance with the California Code of Regulations Title 14, Chapter 3, Article 7 a Supplemental Environmental Impact Report was certified by the City of Irvine on April 4, 2012 (2002101020).

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 28, 2017.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO ACCEPT HERITAGE HILL'S CONSTRUCTION CONTRACT WITH FYDAQ IN THE AMOUNT OF \$155,316 FOR PROJECT 07169.

LIST OF EXHIBITS:

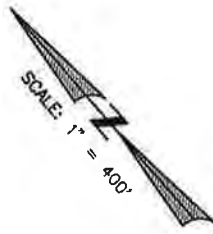
Exhibit "A" – PA 51, District 7 Location Map

Exhibit "B" – Bid Summary for PA 51 District 7 Capital Recycled Water Facilities

# EXHIBIT "A"

PLOTTED BY: manselo DATE: May 18, 2016 TIME: 11:07 AM

F:\0375\Engineering\SA\_District\SA\_Backbone\Imp\_Capital\Exhibit\07-RWC\CapitalLines.dwg



### LEGEND

- PROPOSED 8" RECYCLED WATER (ZONE C) - IRWD CODE 6745
- PROPOSED 6" RECYCLED WATER (ZONE C) - IRWD CODE 6745
- - - EXISTING RECYCLED WATER (ZONE C)

PREPARED BY:



**HUNSAKER & ASSOCIATES**  
 IRVINE, INC.  
 PLANNING ■ ENGINEERING ■ SURVEYING  
 Three Hughes • Irvine, CA 92618 • PH: (949) 583-1010 • FX: (949) 583-0759

PLANNING AREA 51, HERITAGE HILLS  
 DISTRICT 7  
 CAPITAL RECYCLED WATER

FIGURE  
 1

# EXHIBIT "B"

3/2/2017 1:14 PM

## Bid Comparison Altair Irvine - District 7 IRWD Capital Recycled Water Improvements

Job No. 5133180

Fydaq Company (Low Bid)

L & S Construction

Boudreau Pipeline

Kana Pipeline

Shoffeitt Pipeline

Engineer's Estimate - Hunsaker Associates  
Irvine - dated 6/24/16

COST CODE	WORK DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM TOTAL	UNIT PRICE	ITEM TOTAL	UNIT PRICE	ITEM TOTAL	UNIT PRICE	ITEM TOTAL	UNIT PRICE	ITEM TOTAL	QTY	UM	Unit Price	Total Cost
	<b>Irvine Ranch Water District Planning Area 51 - District 7 IRWD Code 6745 Capitol Recycled Water Improvements</b>																
	<b>This Project is for the Capital Improvements for the Irvine Ranch Water District and shall require Prevailing Wages and Certified Payrolls</b>																
	<b>Schedule 1 - Capital Improvements:</b>																
2751	Mobilization, Site Preparation, Establish Construction Water (Not to Exceed 2% of Bid) - Complete	LS	1	1,500.00	1,500.00	1,850.00	1,850.00	0.00	0.00	0.00	0.00						
2751	Payment/Performance & Labor/Materials Bond (Not to Exceed 2% of Bid) - Complete	LS	1	2,500.00	2,500.00	3,200.00	3,200.00	0.00	0.00	0.00	0.00						
2751	Remove Temporary Flush-out Assembly & Join Existing 8" PVC Water Main - Complete	EA	1	3,600.00	3,600.00	2,900.00	2,900.00	0.00	0.00	0.00	0.00	1	EA		\$806.00	\$806.00	
2751	Remove Temporary Flush-out Assembly & Join Existing 6" PVC Water Main - Complete	EA	1	3,600.00	3,600.00	2,300.00	2,300.00	0.00	0.00	0.00	0.00	1	EA		\$806.00	\$806.00	
2751	Construct 8" PVC (Purple), C900 D14 Water Main w/All Fittings & Thrust Blocks with Trench & Bedding per IRWD Std. Dwg. W-17 - Complete	LF	600	30.00	18,000.00	38.00	22,800.00	0.00	0.00	0.00	0.00	600	LF		\$41.16195	\$24,697.17	
2751	Construct 6" PVC (Purple), C900 D14 Water Main w/All Fittings & Thrust Blocks with Trench & Bedding per IRWD Std. Dwg. W-17 - Complete	LF	3,841	28.00	107,548.00	28.00	107,548.00	0.00	0.00	0.00	0.00	3,841	LF		\$40.579	\$155,863.94	
2751	Construct 8" Resilient Wedge Gate Valve, CL 150 Flg'd Valve Box per IRWD Std. Dwg. W-22 - Complete	EA	2	1,899.00	3,798.00	2,100.00	4,200.00	0.00	0.00	0.00	0.00	2	EA		\$1,835.00	\$3,670.00	
2751	Construct 6" Resilient Wedge Gate Valve, CL 150 Flg'd Valve Box per IRWD Std. Dwg. W-22 - Complete	EA	3	1,590.00	4,770.00	1,790.00	5,370.00	0.00	0.00	0.00	0.00	3	EA		\$1,726.00	\$5,178.00	
2751	Construct 2" Air-Vac Assembly - Case 3 per IRWD Std. Dwg. W-11 - Complete	EA	2	5,000.00	10,000.00	4,400.00	8,800.00	0.00	0.00	0.00	0.00	2	EA		\$2,805.00	\$5,610.00	
	<b>Subtotal Schedule 1 - Capitol Recycled Water Improvements:</b>				<b>155,316.00</b>		<b>158,968.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>						<b>\$196,631.11</b>

April 10, 2017

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 2017, 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 renewal of the annual Oracle Software Maintenance and Support Agreements, and additional licenses and support, in the amount of \$926,000, which will become effective (ULA) May 30, 2017 and (EBS) May 22, 2017 respectively.

#### 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. The District uses Oracle Technology software to run the servers and databases that support the Oracle EBS Financial applications, Oracle CC&B applications, Oracle Business Intelligence, and Maximo Enterprise Asset Management 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 upgrade to new versions as they become available. Included in the agreement was a zero percent increase in software and support maintenance for renewals commencing after 2015 and through 2021. The renewal amount remains unchanged from 2016.

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 4.7% from 2016.

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 \$35,500 for additional licenses and support, as required by the agreement.

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 & Support Maintenance	\$ 639,300
Oracle CC&B Software & Support Maintenance	\$ 132,400
Oracle EBS Financial Software & Support Maintenance	\$ 118,800
Oracle EBS Financial Software Additional Licenses & Support Based on \$M Revenue (28.7K license, 6.8K support)	\$ 35,500
Total Oracle Software Maintenance and Support Agreements & Additional Licenses & Support	\$ 926,000

Staff recommends renewal of the annual Oracle Software Maintenance and Support Agreements and additional licenses and support in the amount of \$926,000.

FISCAL IMPACTS:

Oracle Software Maintenance and Support Agreements are included in the FY 2017-18 Operating Budget.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on April 4, 2017.

RECOMMENDATION:

THAT THE BOARD APPROVE RENEWAL OF THE DISTRICT'S ANNUAL ORACLE SOFTWARE MAINTENANCE AND SUPPORT AGREEMENTS, AND ADDITIONAL LICENSES AND SUPPORT, IN THE AMOUNT OF \$926,000 EFFECTIVE MAY 30, 2017 (ULA) AND MAY 22, 2017 (EBS), RESPECTIVELY.

LIST OF EXHIBITS.

None.

April 10, 2017

Prepared by: Eileen Lin

Submitted by: Cheryl Clary

Approved by: Paul Cook 

## ACTION CALENDAR

### AUDIT FIRM EXTENSION FOR THE FISCAL YEAR ENDING JUNE 30, 2017

#### SUMMARY:

In 2012, the Board approved a five-year professional services contract with Mayer Hoffman McCann P.C. (MHM) for financial statement audit services. In 2015, the key principals at MHM left the firm and formed a new firm, Davis Farr LLP. The Board approved a two-year audit services contract with Davis Farr, commencing with the fiscal year ended June 30, 2015. The two-year contract was for \$100,000 plus possible single audit fees relating to government grants not to exceed \$2,600 over the two-year period.

In 2017, the District upgraded to a new version of the Oracle Financial System. The project included consolidation of several of the District's improvement districts of which the audit firm is familiar. In order to maintain continuity and have a smooth transition of the changes as a result of the implementation, staff recommends the Board authorize the General Manager to execute a new audit services contract with Davis Farr LLP for the fiscal year ending June 30, 2017 at a cost of \$53,040 plus possible single audit fees not to exceed \$2,600.

#### BACKGROUND:

In April 2012, the Board approved a five-year audit services contract commencing fiscal year ended June 30, 2012 with MHM for financial statement audit services. The agreement was for \$255,000 plus possible single audit fees relating to government grants not to exceed \$12,490.

In 2015, MHM notified District staff that the local government audit practice of MHM was leaving MHM and starting a new firm, Davis Farr LLP. Most of the principals and staff transitioned to the new firm. In order to maintain continuity and the institutional knowledge of the District, the Board approved a two-year audit services contract for fiscal years ended June 30, 2015 and June 30, 2016 with Davis Farr, LLP for financial statement audit services. The agreement was for \$100,000 plus possible single audit fees not to exceed \$2,600 over the two-year period.

In 2017, the District upgraded to a new version of the Oracle Financial System. The project included improvement district consolidations as well as implementation of a Project Management Module. The District has utilized the auditors from MHM and now Davis Farr since 2006. The firms have provided quality audit services to the District and they are familiar with the improvement district changes. In order to maintain continuity and have a smooth transition of the changes as a result of the implementation, staff recommends extending the existing contract with Davis Farr LLP to perform the audit services for the fiscal year ending June 30, 2017. The audit fees for fiscal year 2017 are the same as the audit fees for Fiscal Year 2016.

Action Calendar: Audit Firm Extension for the Fiscal Year Ending June 30, 2017  
April 10, 2017  
Page 2

At the end of the contract for Fiscal Year 2017, staff and the Finance and Personnel Committee will consider whether it is appropriate to issue a Request for Proposal for new audit services.

FISCAL IMPACTS:

The one-year agreement is in the amount of \$53,040 plus possible Single Audit fees not to exceed \$2,600 and is included in the Fiscal Year 2016-17 Operating Budget.

ENVIRONMENTAL COMPLIANCE:

None.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on April 4, 2017.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A NEW AUDIT SERVICES CONTRACT WITH DAVIS FARR LLP FOR THE FISCAL YEAR ENDING JUNE 30, 2017 AT A COST OF \$53,040 PLUS POSSIBLE SINGLE AUDIT FEES NOT TO EXCEED \$2,600.

EXHIBITS:

Exhibit "A" - Engagement Letter from Davis Farr, LLP  
Exhibit "B" - System Review Report on Davis Farr LLP

## Exhibit "A"



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

**March 23, 2017**

**Irvine Ranch Water District  
Cheryl Clary, Director of Finance  
15600 Sand Canyon Ave  
Irvine, CA 92618**

Dear Ms. Clary:

We are pleased to confirm the arrangements of our engagement and the nature of the services we will provide **Irvine Ranch Water District** (the "Entity").

### **ENGAGEMENT OBJECTIVES**

We will audit the financial statements of the Entity's as of **June 30, 2017** and for the year then ended, and the related notes to the financial statements.

Also, accounting principles generally accepted in the United States of America ("US GAAP") provide for certain required supplementary information ("RSI"), such as management's discussion and analysis ("MD&A"), to supplement the Entity's basic financial statements. Such information, although not a part of the basic financial statements, is required by the Government Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to the Entity's RSI in accordance with auditing standards generally accepted in the United States of America ("US GAAS"). These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance. The following RSI is required by US GAAP and will be subjected to certain limited procedures, but will not be audited.

1. Management's Discussion and Analysis
2. Schedule of Changes in the Net Pension Liability and Related Ratio
3. Schedule of Pension Contributions

### **OUR RESPONSIBILITIES**

The objective of our audit is the expression of an opinion as to whether the financial statements are fairly presented, in all material respects, in conformity with US GAAP and to report on the fairness of the additional information referred to above when considered in relation to the financial statements taken as a whole.

We will also provide a report, which does not include an opinion, on internal controls related to the financial statements and compliance with the provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a material effect on the financial statements as required by *Government*

*Auditing Standards.* The reports on internal control and compliance will each include a paragraph that states the report is solely to describe the scope and testing of internal control over financial reporting and compliance, and the results of that testing, and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance and that the report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering internal control over financial reporting and compliance and that the report is not suitable for any other purpose.

### **Audit**

Our audit will be conducted in accordance with US GAAS and the standards for financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, and will include tests of the accounting records and other procedures we consider necessary to enable us to express such an opinion. We cannot provide assurance that an unmodified opinion will be expressed. Circumstances may arise in which it is necessary for us to modify our opinion or add an emphasis-of-matter or other-matter paragraph. If our opinion on the financial statements is other than unmodified, we will fully discuss the reasons with management in advance. If, for any reason, we are unable to complete the audit, or are unable to form or have not formed an opinion, we may decline to express an opinion or withdraw this engagement.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts (e.g., tests of the physical existence of inventories, direct confirmation of certain assets and liabilities by correspondence with selected customers, creditors, and financial institutions, etc.). We may also request written representations from the Entity's attorneys as part of the engagement, and they may bill the Entity for responding to this inquiry.

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We will plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether from errors, fraudulent financial reporting, misappropriation of assets, or violations of laws or governmental regulations that are attributable to the Entity or to acts by management or employees acting on behalf of the Entity. Because the determination of abuse is subjective, *Government Auditing Standards* do not expect auditors to provide reasonable assurance of detecting abuse.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal controls, and because we will not perform a detailed examination of all transactions, there is a risk that material misstatements may exist and not be detected by us, even though the audit is properly planned and performed in accordance with US GAAS. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements. We will inform the appropriate level of management and those charged with governance of any material errors, fraudulent financial reporting, or misappropriation of assets that comes to our attention. We will also inform the appropriate level of management and those charged with governance of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential, and of any material abuse that comes to our attention. Our responsibility, as auditors, is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

**Internal Control**

Our audit will include obtaining an understanding of the Entity and its environment, including internal controls sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing, and extent of further audit procedures.

We will obtain an understanding of the design of the relevant controls and whether they have been placed in operation, and we will assess control risk. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Tests of controls relative to the financial statements are required only if control risk is assessed below the maximum level. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards*.

An audit is not designed to provide assurance on internal controls or to identify control deficiencies. However, we will inform management and those charged with governance of internal control matters that are required to be communicated under professional standards.

**Compliance**

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of the Entity's compliance with the provisions of applicable laws, regulations, contracts, agreements, and grants. However, the objective of our audit will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards*.

The services described above do not relieve management or those charged with governance of their responsibilities.

**THOSE CHARGED WITH GOVERNANCE**

The preparation and presentation of the financial statements of the Entity are the responsibility of management with oversight from those charged with governance. Those charged with governance are also responsible for overseeing the strategic direction of the Entity and any obligations related to its accountability, resolving disagreements between management and us regarding financial reporting, appointing us to perform the services described above, and informing us about all known or suspected fraud involving the Entity. In turn, we will provide those charged with governance with any communications required by the professional standards described above.

**MANAGEMENT'S RESPONSIBILITIES**

Management is responsible for all management decisions and performing all management functions, and for designating an individual, preferably from senior management, with suitable skill, knowledge, or experience to oversee these services, any bookkeeping services, tax services, or other services we provide. Management is responsible for evaluating the adequacy and results of the services performed and accepting responsibility for them.

Management is responsible for making all financial records and related information available to us and for the accuracy and completeness of that information. Management is also responsible for providing us with (a) access to all information they are aware of that is relevant to the preparation and fair presentation of the financial statements, (b) additional information that we may request for the purpose of this engagement, and (c) unrestricted access to persons within the Entity from whom we determine it necessary to obtain information.

Management is responsible for establishing and maintaining internal controls, including monitoring ongoing activities, for the selection and application of accounting principles, for the safeguarding of assets, and for the preparation and fair presentation of the financial statements in conformity with US GAAP even though we may assist management with their preparation. Accordingly, management may be required to acknowledge in the written representation letter our assistance with preparation of the financial statements and that management has reviewed and approved the financial statements and related notes prior to their issuance and has accepted responsibility for them.

Management is responsible for adjusting the financial statements to correct material misstatements and for confirming to us in the management representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

Management is responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the Entity involving (a) management, (b) employees who have significant roles in internal controls, and (c) others where the fraud could have a material effect on the financial statements. Management is also responsible for informing us of any known allegations of fraud or suspected fraud affecting the Entity received in communications from employees, former employees, regulators, or others. In addition, management is also responsible for identifying and ensuring that the Entity complies with applicable laws, regulations, contracts, agreements, and grants and for taking timely and appropriate steps to remedy any fraud, illegal acts, violations of contracts or grant agreements, or abuse that we may report.

During the course of our engagement, we will request information and explanations from management regarding the Entity. At the conclusion of our engagement, we will require, as a precondition to the issuance of our report, that management provide certain representations in a written representation letter. The procedures we will perform in our engagement and the conclusions we reach as a basis for our report will be heavily influenced by the written and oral representations that we receive from management. In view of the foregoing, the Entity agrees to release our firm, its shareholders, and other personnel from any liability and costs relating to our services under this letter resulting from false or misleading representations made to us by any member of the Entity's management.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying for us previous financial audits, attestation engagements, performance audits or other related studies. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or other studies. Management is responsible for providing its views on our current findings, conclusions, and recommendations, as well as management's planned corrective actions, for the report, and for the timing and format for providing that information.

### **OTHER SERVICES**

The Entity must obtain our written consent before including its financial statements and our report in an offering or other document, or otherwise distributing our report or referencing our Firm in connection with an offering. Management agrees to provide reasonable notice to allow sufficient time for us to perform certain additional procedures. Management will also provide us with a copy of the final reproduced material for our approval before it is distributed. Our fees for such services are in addition to those discussed elsewhere in this letter, and the specific terms of any such future services will be determined at the time the services are to be performed.

As a result of our prior or future services, we might be requested to provide information or documents to the Entity or a third party in a legal, administrative, or arbitration or similar proceeding in which we are not a party. If this occurs, our efforts in complying with such requests will be deemed billable to the Entity as a separate engagement. We shall be entitled to compensation for our time and reasonable reimbursement for our expenses (including legal fees) in complying with the request. For all requests, we will observe the confidentiality requirements of our profession and will notify management promptly of the request.

### **ENGAGEMENT FEES**

Our fees for the services previously outlined are \$53,040. Our fees are based upon the complexity of the work to be performed, timing of the engagement, experience level of the personnel required, and estimates of the professional time to complete the required services.

Additionally, our fees are dependent on the availability, quality, and completeness of the Entity's records and, where applicable, upon the Entity's personnel providing the level of assistance identified in the "prepared by client" request list distributed at the end of our planning work (e.g., Entity employees preparing confirmations and schedules we request, locating documents selected by us for testing, etc.).

Should our assumptions with respect to these matters be incorrect, or should the condition of the records, degree of cooperation, or other matters beyond our reasonable control require additional commitments by us beyond those upon which our estimated fees are based, we may adjust our fees and planned completion dates. If significant additional time is necessary, we will discuss it with management and arrive at a new fee estimate as soon as reasonably practicable. In addition, fees for any related projects, such as proposed business combinations or research and/or consultation on special business or financial issues, will be billed separately from the fee referred to above and will be subject to separate arrangements.

We consider telephone calls and meetings on accounting and reporting matters to be an integral part of the engagement and no additional fees are charged for these services. If, however, there is a significant transaction or new accounting issue that requires us to spend a substantial amount of time that was not anticipated in our fees, there may be additional billings.

The fee estimate above assumes no adjustments will be necessary for routine accounting entries normally made before the beginning of the engagement. If, for any reason, we are asked to assist in the preparation of these entries, before beginning this service, we will provide an estimate of the time required to perform such services and the additional fees to be billed.

Invoices will be submitted as the work progresses and a final invoice will be submitted upon completion of the services. Invoices are payable upon receipt. If our invoices for this, or any other engagements the Entity may have with us, are not paid within 30 days, we may suspend or terminate our services for this and any other



engagements. In the event our work is suspended or terminated as a result of nonpayment, the Entity agrees we will not be responsible for any consequences.

**OTHER ENGAGEMENT MATTERS**

The undersigned is the engagement partner responsible for supervising the engagement and signing the report.

We appreciate the opportunity to provide these services and believe this letter accurately summarizes the significant terms of our engagement. Please sign the enclosed copy of this letter and return it to us.

Very truly yours,



Jennifer Farr, CPA  
Davis Farr LLP

---

The services and arrangements described in this letter are in accordance with our understanding and are acceptable to us.

**Irvine Ranch Water District**

By \_\_\_\_\_  
**Cheryl Clary, Director of Finance and Administration**

Date \_\_\_\_\_

## Exhibit "B"

JOHN LERIAS, CPA  
STEPHEN C. WILLIAMS, CPA  
JOSEPH O. ROMERO, CPA



### System Review Report

#### DAVIS FARR LLP

Irvine, California;

and the Peer Review Committee of the California Society of CPAs

We have reviewed the system of quality control for the accounting and auditing practice of Davis Farr LLP (the firm) in effect for the year ended May 31, 2016. Our peer review was conducted in accordance with the Standards for Performing and Reporting on Peer Reviews established by the Peer Review Board of the American Institute of Certified Public Accountants. As part of our peer review, we considered reviews by regulatory entities, if applicable, in determining the nature and extent of our procedures. The firm is responsible for designing a system of quality control and complying with it to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Our responsibility is to express an opinion on the design of the system of quality control and the firm's compliance therewith based on our review. The nature, objectives, scope, limitations of, and the procedures performed in a System Review are described in the standards at [www.aicpa.org/prsummary](http://www.aicpa.org/prsummary).

As required by the standards, engagements selected for review included engagements performed under *Government Auditing Standards* and an examination of a service organization control (SOC) 1 Type 2.

In our opinion, the system of quality control for the accounting and auditing practice of Davis Farr LLP in effect for the year ended May 31, 2016, has been suitably designed and complied with to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Firms can receive a rating of *pass*, *pass with deficiency(ies)* or *fail*. Davis Farr LLP has received a peer review rating of *pass*.

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Ontario, CA 91764

909.948.9990  
800.644.0696  
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gylfd@gyldecauwer.com  
www.gyldecauwer.com

*Gyl Decauwer LLP*  
Ontario, California  
June 29, 2016

*your*  
*Success*  
*is our*  
DESTINATION

CPA  
INTERNATIONAL  
Crowe Horwath International

April 10, 2017

Prepared by: J. Smyth / M. Cortez

Submitted by: K. Burton (KLB)

Approved by: Paul Cook / 

## ACTION CALENDAR

### TURTLE RIDGE PIPELINES REHABILITATION BUDGET ADDITION AND CONSULTANT SELECTION

#### SUMMARY:

Corrosion-related leaks have occurred in the 10-inch ductile iron recycled water and 16-inch ductile iron domestic water mains in Turtle Ridge in 2014 and 2016 due to severely corrosive soil conditions. The first phase of the project requires preparation of a Preliminary Design Report with conceptual designs for the rehabilitation, replacement, or cathodic protection of the pipelines. Staff recommends that the Board:

- Authorize the addition of Project 07888 for \$309,000 and Project 07889 for \$309,000 to the FY 2016-17 Capital Budget; and
- Authorize the General Manager to execute a Professional Services Agreement with Psomas in the amount of \$135,809 for the preparation of the Turtle Ridge Pipelines Rehabilitation Design Report.

#### BACKGROUND:

In August 2016, a corrosion-related leak occurred in the 16-inch ductile iron domestic water main in Turtle Ridge located in Irvine. A similar corrosion-related leak was repaired on the parallel 10-inch ductile iron recycled water main in 2014. The District constructed both pipelines in 2003. The District's consultant, HDR, investigated the cause of the corrosion and attributed the damage to severely corrosive soil conditions.

The first phase of this project includes the preparation of a Preliminary Design Report with conceptual designs for rehabilitation, replacement, or cathodic protection of the 16-inch domestic and 10-inch recycled water pipes in Turtle Ridge Drive from Bonita Canyon Drive to Summit Park Drive in Irvine. A location map is attached as Exhibit "A".

#### Consultant Selection:

Staff issued a Request for Proposal on January 20, 2017 to Brown and Caldwell, GHD, HDR, Michael Baker International, and Psomas for preliminary design services. Staff held a pre-proposal meeting on February 2, 2017 to review and discuss the project and scope of work. Proposals were received on February 22, 2017 from three consultants: GHD, HDR, and Psomas. Michael Baker and Brown and Caldwell declined to submit a proposal. After evaluating the proposals, staff recommends the selection of Psomas based on its outstanding proposal, pipeline assessment methodology, project understanding, experienced team and best value. The consultant selection matrix is attached as Exhibit "B". Psomas' proposal in the amount of \$135,809 is attached as Exhibit "C".

FISCAL IMPACTS:

Projects 07888 and 07889 are not included in the FY 2016-17 Capital Budget. Staff requests the addition of Projects 07888 and 07889 to the FY 2016-17 Capital Budget as shown in the table below. Funding for Projects 07888 and 07889 will be provided by the Water (1100) and Sewer (2100) Replacement Funds respectively.

Project No.	Current Budget	Addition <Reduction>	Total Budget
07888	\$-0-	\$309,000	\$309,000
07889	\$-0-	\$309,000	\$309,000
Total	\$-0-	\$618,000	\$618,000

ENVIRONMENTAL COMPLIANCE:

Design activities are not subject to the California Environmental Quality Act (CEQA). Prior to approval of the project and in conformance with the California Code of Regulations Title 14, Chapter 3, Section 15004, the appropriate environmental document will be prepared when meaningful information becomes available.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 28, 2017.

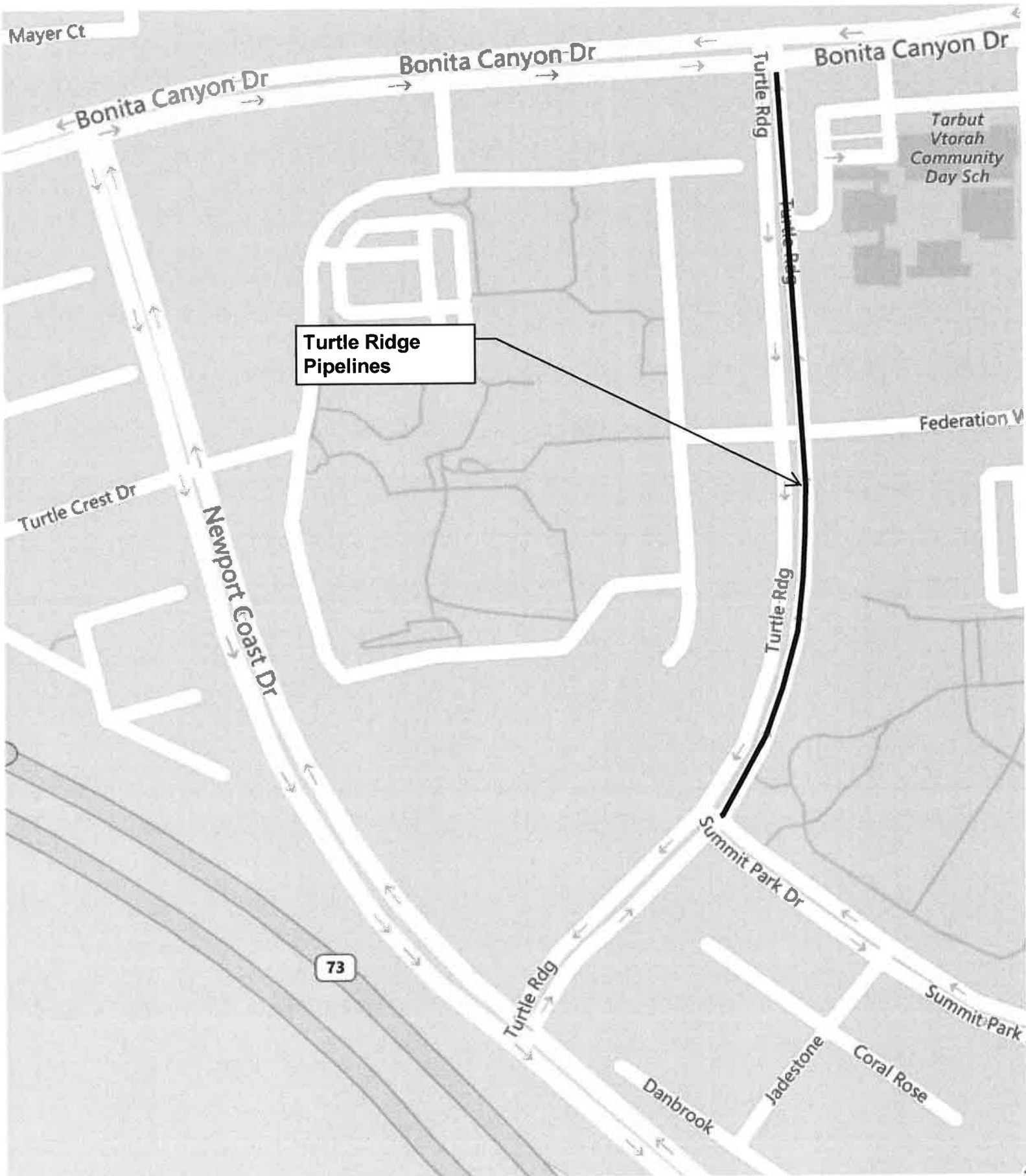
RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION OF PROJECTS 07888 FOR \$309,000 AND 07889 FOR \$309,000 TO THE FY 2016-17 CAPITAL BUDGET; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT IN THE AMOUNT OF \$135,809 WITH PSOMAS FOR THE TURTLE RIDGE PIPELINES REHABILITATION, PROJECTS 07888 AND 07889.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Consultant Selection Matrix
- Exhibit "C" – Psomas' Proposal

EXHIBIT "A"  
LOCATION MAP

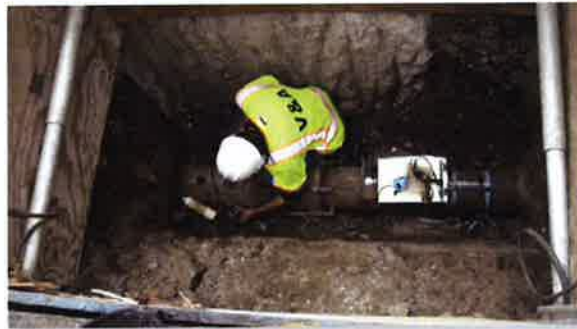


**EXHIBIT "B"**  
**Consultant Selection Matrix**  
**Turtle Ridge Pipelines Rehabilitation**

Item	Description	Weights	Psomas/V&A Consulting		HDR		GHD	
A	<b>TECHNICAL APPROACH</b>	<b>40%</b>						
1	Overall Project Understanding / Approach	40%	1		2		3	
2	Scope of Proposal	40%	1		2		3	
3	Man Hour Estimates	20%	1		3		2	
	<u>Weighted Score (Technical Approach)</u>		1.0		2.2		2.8	
B	<b>QUALIFICATION AND EXPERIENCE</b>	<b>60%</b>						
1	Firm/Team	20%	1		3		2	
2	Project Manager	40%	1		3		2	
			Neha Gajjar		Brien Clark		Eduardo Pinzon	
3	Project Engineer	20%	1		2		3	
			Neha Gajjar		Amy Omae		Casey Raines	
4	Project Engineer - Assessment	20%	1		3		2	
			Glenn Willson/Debra Kaye		Dan Ellison		Jeff Knauer/Trel Mangarin	
	<u>Weighted Score (Experience)</u>		1.0		2.8		2.2	
	<u>COMBINED WEIGHTED SCORE</u>		1.0		2.6		2.4	
	<b>Ranking of Consultants</b>		<b>1</b>		<b>3</b>		<b>2</b>	
C	<b>SCOPE OF WORK</b>							
TASK			Task Hours	FEE	Task Hours	FEE	Task Hours	FEE
1	PDR		202	\$36,625	412	\$83,298	273	\$59,281
2	Condition Assessment		62	\$99,184	26	\$97,900	52	\$95,740
	<b>TOTAL FEE</b>		<b>264</b>	<b>\$135,809</b>	<b>438</b>	<b>\$181,198</b>	<b>325</b>	<b>\$155,021</b>
D	<b>OTHER</b>							
	Joint Venture		Yes		No		No	
	DIR Registration		Psomas1000010904 V&A1000007205		Not Provided		GHD1000018754 B&A1000012180 MBC1000001341	
	Exceptions taken to IRWD Std. Contract		No		No		No	
	Insurance (Professional & General Liability)		Yes		Less than req'd		Yes	

Forced Ranking: 1 - Best, 2 - Next Best, 3 - Third Best

PSOMAS



# Engineering Design Services for the Turtle Ridge Pipeline Rehabilitation



**Irvine Ranch Water District**

February 22, 2017

Malcom Cortez, PE  
Principal Engineer  
**IRVINE RANCH WATER DISTRICT**  
The Michelson Water Recycling Plant  
3512 Michelson Drive  
Irvine, CA 92612

**Subject: Proposal for Engineering Design Services for the Turtle Ridge Pipelines Rehabilitation**

Dear Mr. Cortez:

We truly appreciate the opportunity to submit our proposal for engineering design services for the Turtle Ridge Pipelines Rehabilitation project. We are highly motivated and look forward to the challenges offered by this project. You have our commitment that, if Psomas is selected for this assignment, it will be executed by those individuals listed herein and completed on schedule and within budget, unless otherwise modified by IRWD.

We look forward to working with IRWD staff and the opportunity to provide engineering services to the Irvine Ranch Water District. Should you have any questions concerning our proposal, please do not hesitate to contact us at (714) 751-7373.

Respectfully submitted,

**PSOMAS**



Joseph L. Boyle, PE, ENV SP  
Vice President



Neha Gajjar, PE, ENV SP  
Task Manager

3 Hutton Centre Drive  
Suite 200  
Santa Ana, CA 92707

Tel 714.751.7373  
Fax 714.481.8883  
[www.psomas.com](http://www.psomas.com)





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Conflict of Interest Statement  
Contract Exceptions  
Insurance Certificates  
DIR Registrations

# 1 | Scope of Work



**Irvine Ranch Water District**

*Engineering Design Services for the Turtle Ridge Pipelines Rehabilitation*

## PROJECT UNDERSTANDING AND METHOD OF APPROACH

Irvine Ranch Water District (IRWD) wishes to assess the condition of two water mains in the Turtle Ridge area of its system. In 2014, a 10-inch ductile iron recycled water main experienced a pipeline failure and was subsequently repaired. As a result, IRWD authorized an evaluation of the pipe to determine the cause of the failure. The study concluded severely corrosive soils and a lack of electrical isolation at the connection with the CML&C steel pipe as the primary cause of the leak. Recently, the adjacent 16-inch ductile iron domestic water main also experienced a major failure, and was repaired in August 2016. This last repair accelerated the need to address the issue and the Request for Proposal (RFP) was issued.

The first step will be to perform a pipeline condition assessment for both mains. Our subconsultant, V&A Consulting, will conduct external non-destructive testing on both pipelines at two locations each. The actual testing will be performed using Broadband Electro-Magnetic (BEM) testing to measure the pipe wall thickness. The findings will be summarized in a report.

The RFP requests a preliminary design report (PDR) to determine the optimal approach to mitigate any future damage to the pipes. IRWD prefers the consultant evaluate three specific alternatives: (a) cured-in-place pipe (CIPP), (b) pipeline replacement, or (c) installation of cathodic protection components. During the pre-proposal meeting, the CIPP method was discussed. The lining of pressure pipelines with CIPP is limited to a maximum operating pressure of 150 psi due to structural limitations of the liner. Based on information provided by IRWD, the subject pipelines have high operating pressures (289 psi in the domestic 16-inch main and 226 psi in the 10-inch recycled main), so the use of CIPP is not a viable alternative. Therefore, this proposal does not include CIPP as a rehabilitation option.

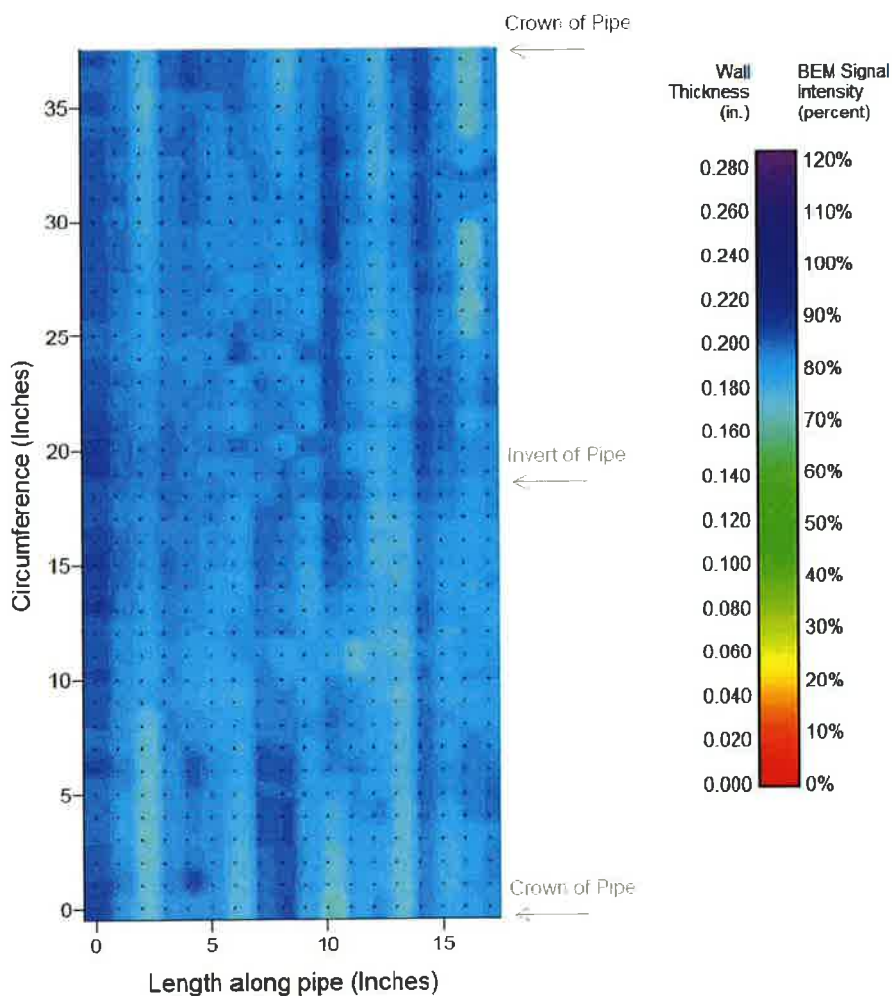
The PDR will include an exhibit identifying the extent of the recommended replacement and/or cathodic protection, depending on the results of the condition assessment. The exhibit will utilize aerial photogrammetry (from Google Maps® or other similar source) and IRWD-provided GIS. We anticipate two exhibits, one for each of the mains.

## SCOPE OF WORK

### Task 1: Preliminary Design Phase Services

Design services will include preparation of a preliminary design report (PDR) evaluating the pipeline condition assessment and recommending either main replacement or cathodic protection. The PDR will include two exhibits identifying the extents of the recommended alternative for each main and an associated construction cost estimate for each alternative. The scope will include the following items.

1. **Project Meetings:** Psomas will conduct and attend project meetings at IRWD offices including preparation of agendas and minutes for each of these meetings. Three (3) meetings will be included for the design services, including a kick-off meeting and one meeting each to review the 60% and 100% Draft PDR submittals.
2. **Review of Background Material:** Psomas and V&A will review the available plans (atlas maps and as-built drawings) provided by IRWD, and HDR's corrosion evaluation report prior to the condition assessment activities to determine the requirements for the condition assessment. V&A will prepare all field equipment necessary for condition assessment testing, including personal protective equipment.
3. **Condition Assessment:** V&A will perform a condition assessment of the existing 10-inch and 16-inch ductile iron pipelines. The pipelines will be excavated in two locations per pipeline by Jamison Engineering Contractors (JEC). It is assumed that the depth of the excavations will not exceed five (5) feet and that dewatering will not be needed. The excavation dimensions are assumed to be four (4) feet wide by six (6) feet long. At each excavation, pipe wall thickness measurements will be obtained for the entire circumference of the pipe over a length of approximately three (3) feet using Broadband Electro-Magnetic (BEM) technology. BEM testing is a non-destructive frequency-independent application of electromagnetic or eddy current systems that produces a thickness profile of a pipe. The BEM scan is not affected by background electromagnetic interference, and the test frequencies can be adjusted to the specific pipe material and site conditions. This technology allows for the assessment of ferrous metal pipe thickness. Metallurgic changes in the pipe composition, as formed by corrosion processes such as graphitization, can be identified. The figure below is an example of a contour plot of BEM thickness measurements around the circumference of a pipe with very minor corrosion.



In addition, the following test methods will be used:

- Ultrasonic testing-the ultrasonic wall thickness measurements will be taken at discrete locations as verification of BEM data.
  - Visually check for and measure the graphitization on the pipe.
  - Measure pit depth on the surface using a pit depth gauge.
  - The condition of the pipe will be evaluated using the VANDA™ Metal Condition Index Rating System. This system provides a graphic means to convey the condition of metallic surfaces to the owner. The Index provides a consistent reporting of corrosion damage based on qualitative, objective criteria. Condition of corrosion can vary from Level 1 to Level 4 based upon visual observations and field measurements, with Level 1 indicating the best case and Level 4 indicating severe damage.
  - The exterior condition of the pipe will be documented at each excavation.
  - V&A will describe the pipe bedding as observed after excavation. This will be a general description of the pipe bedding and not a geotechnical evaluation.
  - The condition of the pipelines and site conditions will be documented with digital photographs.
4. **Construction Cost Estimate:** Psomas will provide an itemized construction cost estimate for the two alternatives (pipeline replacement or cathodic protection) at the 60% Draft PDR and update it at the 100% Draft PDR stage.
  5. **60% Draft PDR:** A 60% Draft PDR submittal will include a discussion on the corrosion assessment, two exhibits identifying the recommended alternative, and a construction cost estimate for each of the alternatives. Since the BEM testing analysis and results process takes 4-6 weeks, the results will be provided at the 100% draft PDR to maintain IRWD's schedule.
  6. **100% Draft PDR:** A 100% submittal will include everything from the 60% Draft PDR and will incorporate IRWD staff comments on the submittal. The engineer's estimate will also be updated for this submittal.
  7. **Final PDR:** A Final submittal will include everything from the 100% Draft PDR and will incorporate IRWD staff comments on the submittal. The engineer's estimate will also be updated for this submittal.

## 2 | Team

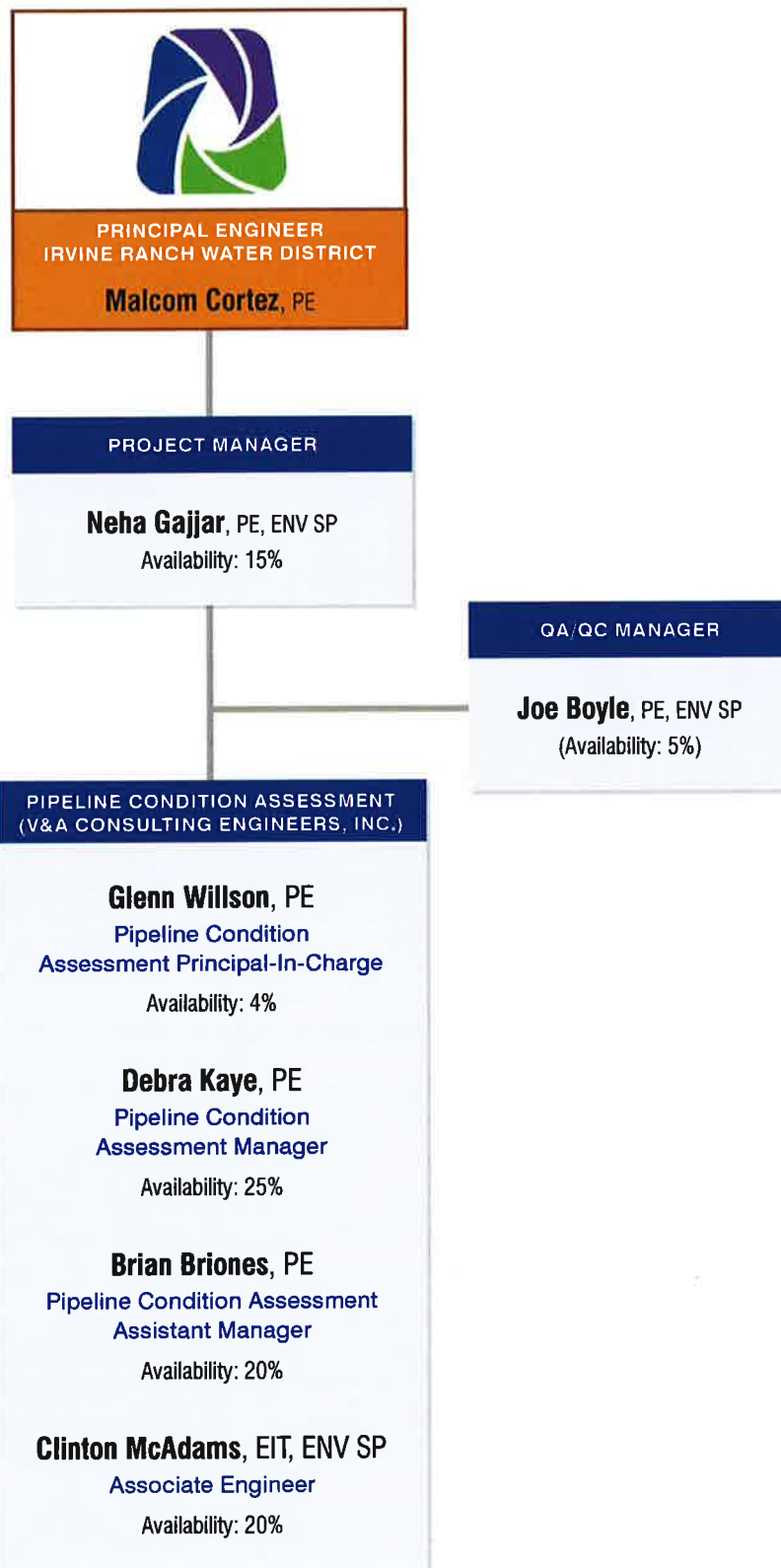


**Irvine Ranch Water District**

*Engineering Design Services for the Turtle Ridge Pipelines Rehabilitation*

## Organization Chart

The chart below identifies our proposed team organization and each team member role.



## SUBCONSULTANT OVERVIEW

### V&A Consulting Engineers, Inc. (DBE/MBE/SBE)

V&A Consulting Engineers, Inc. (V&A) is a firm providing responsive service and successful solutions specialized in corrosion engineering. Headquartered in Oakland, California, they have evolved into a multi-disciplined engineering organization concentrating on civil infrastructure. V&A services municipalities, special districts, counties, and private agencies. They team with design consultants and municipal clients on projects such as evaluation and condition assessment of tanks, utilities, and water treatment plants; design of galvanic and impressed current cathodic protection systems for tanks, pipelines and water treatment plants; coating systems recommendations and evaluation; field testing cathodic protection systems; corrosion failure analysis; materials selection; and more.

### Condition Assessment

For more than 30 years, V&A has conducted condition assessments of coated or uncoated steel and concrete structures within municipal civil infrastructure facilities and collection systems. They provide the necessary recommendations and design services for the rehabilitation or replacement of these structures.

Typical projects include pipelines, tunnels, tanks, digesters, outfall pipelines, water treatment plants, wastewater treatment plants, and pump stations. V&A uses a 3-step approach to determine condition including evaluation of existing condition, in-the-field data collection, and then analysis of design and operational requirements against collected data in order to prepare detailed reports and technical memos.

V&A has capabilities to determine the condition of reinforced concrete structures such as splitter boxes, grit chambers, clarifiers, activated sludge tanks, secondary clarifiers, chlorine contact tanks, digesters, tunnels, and dissolved air floatation tanks. They measure corrosion rates for process piping made of steel,

ductile iron, cast iron and copper. V&A has completed plant shutdowns as part of condition assessment efforts. All their engineers are confined-space certified and trained in CPR/First Aid, allowing condition assessment work inside of pipelines, digesters, and similar confined spaces.





## Corrosion Engineering

Today's municipal infrastructure assets were designed to be in service 60 to 100 years. Many systems are past their prime and V&A engineers assist agencies in protecting these assets from a shortened service life due to the damaging effects of corrosion. They pinpoint the causes of corrosion—whether atmospheric, immersed, or buried—and recommend solutions for mitigating their damaging effects. Their process approach incorporates evaluation of assets to determine the extent of corrosion, design corrosion control/cathodic protection system, and finally plan master corrosion control plans for long-term protection and operation.

## V&A + Psomas

Over the past 10 years, V&A has successfully teamed with Psomas providing condition assessment corrosion engineering services for several projects. These include:

- Gird to Monserate Hill Water Pipeline Condition Assessment, Rainbow Municipal Water District
- Corona Del Mar Water Transmission Main Corrosion Engineering, City of Newport Beach
- Seismic Retrofit of Water Transmission Pipelines, City of San Diego
- Paula Lane Reservoir Construction Assistance, City of Petaluma
- Mid-City Pipeline Phase 2 Corrosion Control Design, City of San Diego
- DeLuz 1 & 2--Fallbrook 6, Plan Comments Review, San Diego County Water Authority




**IRVINE RANCH WATER DISTRICT**  
**Turtle Ridge Pipelines Rehabilitation Project**  
**Estimated Labor Hours & Fee**


Scope of Work Tasks	PSOMAS				V&A						Total Hours	FEE	Direct Costs	Total Fee
	In-House Labor Hours				Labor Hours									
	PM	QC	CADD	PA	PIC	SPM	SPE	AE	Ast E	PA				
	\$205	\$230	\$115	\$90	\$297	\$259	\$216	\$173	\$141	\$86				
<b>Preliminary Design</b>														
1   Kick-off & 2 Project Meetings	6	0	0	0	0	12	8	0	0	0	26	\$6,066	\$30	\$6,096
2   Review Background Material	0	0	0	0	0	6	4	6	8	2	26	\$4,756	\$0	\$4,756
3   Perform Pipeline Condition Assessment	0	0	0	0	0	4	4	20	30	4	62	\$9,934	\$89,250	\$99,184
4   Prepare 60% Draft PDR & Exhibit	16	2	12	4	1	4	4	16	12	2	73	\$12,309	\$75	\$12,384
5   Prepare 100% Draft PDR & Exhibit	12	1	8	2	1	4	4	8	8	2	50	\$8,671	\$75	\$8,746
6   Prepare Final Draft PDR & Exhibit	8	0	4	1	0	2	2	2	4	2	25	\$4,222	\$75	\$4,297
7   Opinion of Probable Construction Costs (60%, 100% & Final)	0	0	0	0	0	0	0	2	0	0	2	\$346	\$0	\$346
<b>Subtotal Preliminary Design Services</b>	<b>42</b>	<b>3</b>	<b>24</b>	<b>7</b>	<b>2</b>	<b>32</b>	<b>26</b>	<b>54</b>	<b>62</b>	<b>12</b>	<b>264</b>	<b>\$46,304</b>	<b>\$89,505</b>	<b>\$135,809</b>
<b>Total Estimated Hours and Fee</b>	<b>42</b>	<b>3</b>	<b>24</b>	<b>7</b>	<b>2</b>	<b>32</b>	<b>26</b>	<b>54</b>	<b>62</b>	<b>12</b>	<b>264</b>	<b>\$46,304</b>	<b>\$89,505</b>	<b>\$135,809</b>

Legend
<b>Psomas Staff</b>
PM - Project Manager (Neha Gajjar, PE)
QC - Quality Control (Joseph Boyle, PE)
CADD - CAD Designer
PA - Project Assistant
<b>V&amp;A Staff</b>
PIC - Principal-In-Charge (Glenn Willson, PE)
SPM - Senior Project Manager (Debra Kaye, PE)
SPE - Senior Project Engineer (Brian Briones, PE)
AE - Associate Engineer (Clinton McAdams, EIT)
Ast E - Assistant Engineer
PA - Project Admin

April 10, 2017

Prepared by: C. Kessler/K. Lew

Submitted by: K. Burton 

Approved by: Paul Cook 

## ACTION CALENDAR

### TECHNOLOGY DRIVE AND LAGUNA CANYON ROAD CAPITAL RECYCLED WATER FACILITIES CONTRACT CHANGE ORDERS

#### SUMMARY:

Irvine Community Development Company (ICDC) is proceeding with the Technology Drive Extension project which includes the construction of streets, storm drains, domestic water, and recycled water improvements. As part of the project, ICDC is constructing IRWD capital recycled water facilities within Technology Drive and Laguna Canyon Road. Staff recommends that the Board approve Contract Change Orders (CCO) Nos. 3, 4 and 5 in the amounts of \$382,074.72, \$116,550.97 and \$78,052.67, respectively.

#### BACKGROUND:

ICDC is constructing the Technology Drive and Laguna Canyon Road Zone B Recycled Water pipeline as part of its Technology Drive Extension project under Master and Supplemental Reimbursement Agreements executed in May 1997 and December 2014, respectively. The project consists of approximately 6,000 feet of 24-inch cement mortar lined and coated steel pipeline within Laguna Canyon Road and the new Technology Drive extension. Construction of the pipeline began in March 2016 and approximately 2,000 feet has been constructed. The project is scheduled to be complete in fall 2017. The improvements are shown in Exhibit "A".

The project has encountered several issues that have had substantial impacts to schedule and budget including an unforeseen Caltrans embankment repair needed at the I-5 Freeway overpass, redesign of Technology Drive grade to account for the Marshburn channel being higher than record drawings indicated, and substantially thicker than standard street sections that are as much as 13-inches of asphalt concrete over 25-inches of base within Laguna Canyon Road. Recently, the contractor encountered numerous conflicting utilities near the recycled water pipeline connection point at Irvine Center Drive and Laguna Canyon Road that were not on any record drawings. As a result, additional potholing was required to resolve utility conflicts at the connection point.

A detailed summary of the project design and construction change orders is summarized in the Staff Report attached as Exhibit "B". Staff requests approval of CCO Nos. 3, 4 and 5 in the amounts of \$382,074.72, \$116,550.97 and \$78,052.67 respectively. The CCOs are attached as Exhibit "C".

#### FISCAL IMPACTS:

Project 01015 is included in the FY 2016-17 Capital Budget. The existing budget is sufficient to fund these CCOs.

Action Calendar: Technology Drive and Laguna Canyon Road Capital Recycled Water  
Facilities Contract Change Orders  
April 10, 2017  
Page 2

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 28, 2017.

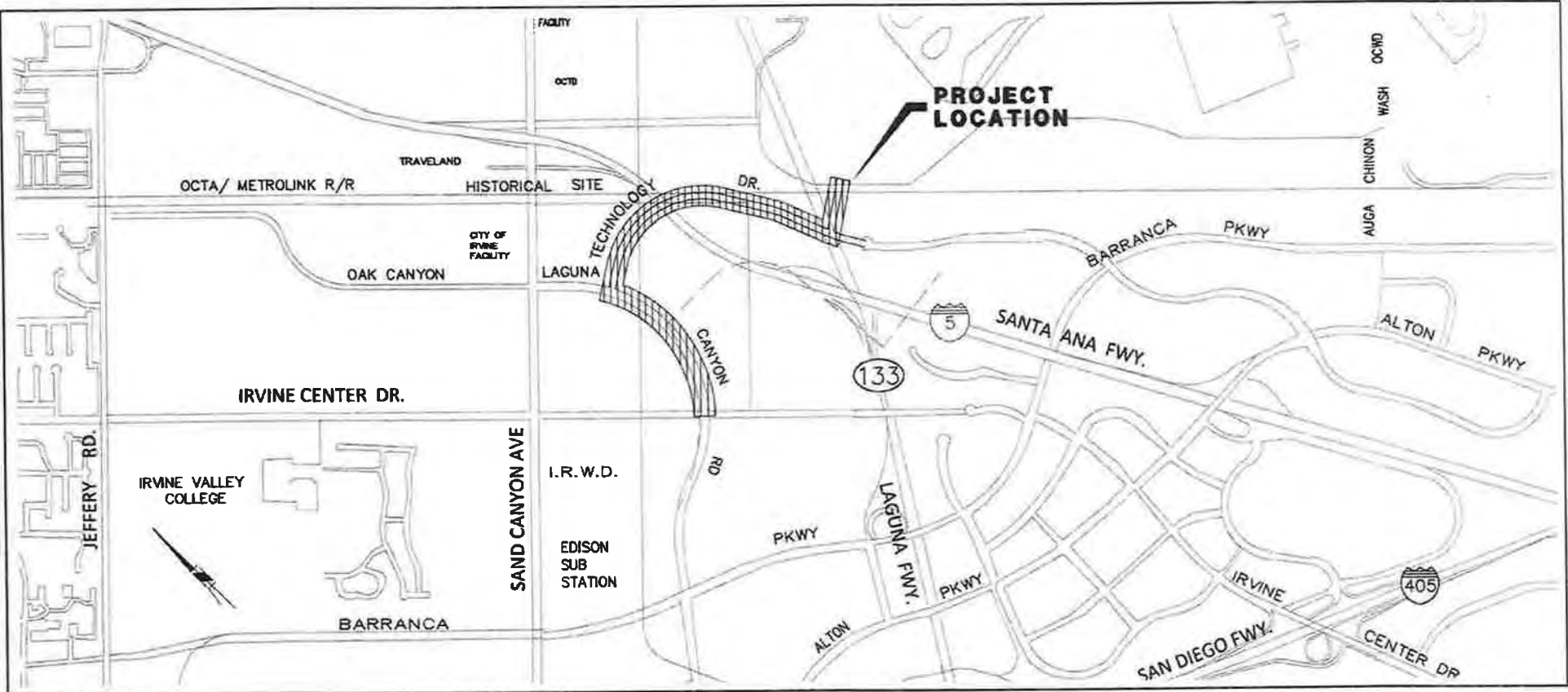
RECOMMENDATION:

THAT THE BOARD APPROVE CONTRACT CHANGE ORDERS NOS. 3, 4 AND 5 IN THE AMOUNTS OF \$382,074.72, \$116,550.97 AND \$78,052.67, RESPECTIVELY, FOR THE TECHNOLOGY DRIVE AND LAGUNA CANYON ROAD CAPITAL RECYCLED WATER FACILITIES, PROJECT 01015.

LIST OF EXHIBITS:

- Exhibit "A" – Project Location Map
- Exhibit "B" – Staff Report – Summary of Design and Construction Change Orders
- Exhibit "C" – Sukut CCO Nos. 3, 4 and 5

# EXHIBIT "A"



LOCATION MAP

# EXHIBIT "B"

**Staff Report  
Technology Drive and Laguna Canyon Road Capital Recycled Water Facilities  
Summary of Design and Construction Change Orders**

<b>Michael Baker International Design Contract</b>				
<b>Contract No.</b>	<b>Date</b>	<b>Description</b>	<b>Amount</b>	<b>Status</b>
Original Design	Dec 2014	The original design contract was authorized in December 2014.	\$288,680.00	Approved
Design CO No. 1	Nov 2015	Pipeline diameter increased from 20-inch to 24-inch and material from PVC to cement mortar lined and coated steel (CMLC).	\$40,777.00	Approved
<b>DESIGN CONTRACT TOTAL</b>			<b>\$329,457.00</b>	
<b>Sukut Construction Contract</b>				
<b>Contract No.</b>	<b>Date</b>	<b>Description</b>	<b>Amount</b>	<b>Status</b>
Original Construction Contract	Nov 2015	Original Construction Contract was authorized November 23, 2015.	\$2,344,000.00	Approved
Construction CO No. 1	Mar 2017	Railroad Insurance Premium. Additional insurance requirements for construction within railroad right-of-way	\$30,976.25	Approved
Construction CO No. 2	Mar 2017	Added Ductile Iron (DI) Spools. Correction to plan per RFI 18. Per specification, IRWD requested DI spools to be changed from CLMC to ductile iron and be installed on both sides of butterfly valves. Increased quantity by 7.	\$10,486.48	Approved
Construction CO No. 3	Mar 2017	<b>AC Street Sections.</b> While potholing existing facilities it was discover that the existing roadway structural sections were vastly different than how it was shown on plans. Approved plans show standard cover of 4-inch asphalt over 6-inch rock base. Due to poor soil conditions, actual street sections were designed and installed as much as 13-inch asphalt over 25-inch rock base. This change order includes additional costs related to additional removal and replacement.	\$382,074.72	Currently requested

<b>Contract No.</b>	<b>Date</b>	<b>Description</b>	<b>Amount</b>	<b>Status</b>
Construction CO No. 4	Mar 2017	<b>Approved Plans Bid Adjustment.</b> Revisions to bid quantities including correction CMLC pipe thickness from 0.13 inch to IRWD specification of 0.25 inch, addition of 9 cathodic protection stations and one temporary flush out. Deduction of \$1,109,400 and addition of items 1 thru 7 in the total amount of \$1,225,950.97	\$116,550.97	Currently requested
Construction CO No. 5	Mar 2017	<b>Added Potholing Costs.</b> 1) Potholing of existing utilities as identified by Underground Service Alert/Dig alert. 2) A Southern California Edison (SCE) encasement was located during potholing that had not made it to SCE's record drawings. The SCE encasement runs the entire length of the project within Laguna Canyon Road and substantial potholing was necessary to redesign around conflicts. 3) At the Irvine Center Drive point of connection, numerous utility crossings hindered constructability. As a result, additional potholing was required in order to design a siphon to the Irvine Desalter Project's brine line.	\$78,052.67	Currently requested
Construction CO No. 6	Mar 2017	Utility Conflicts and Relocations. Additional cost associated with slower production/additional shoring due to crossing existing 4-inch RW at Civil Station (STA) 30+70 that was not identified on plans. Additional cost to modify an airvac at STA 40+22 to maintain min. clearance to adjacent utilities.	\$4,334.64	Approved
<b>CONSTRUCTION CONTRACT TOTAL</b>			<b>\$2,966,475.73</b>	

# EXHIBIT "C"

CHANGE NO.: 003  
DATE: Feb. 16, 2017

## POTENTIAL CHANGE OF WORK ACKNOWLEDGEMENT & VALUE (FOR IRWD CAPITAL IMPROVEMENTS)

The purpose of this form is to acknowledge a change in work for the intent of reimbursement of costs. Upon acceptance a change order will be issued.

IRWD P.O. No.: CODE 6401 ICDC Contract No.: 4500093830  
Owner: Irvine Community Development Company  
Contractor/Consultants: SUKUT CONSTRUCTION  
Sewer   
Domestic Water   
Reclaim Water   
Other   
Design Engineer: MICHAEL BAKER INTERNATIONAL  
IRWD Mgr. CHRIS KESSLER

Project Description: CAPITAL 24" RECYCLED WATER : SPECTRUM 6, TECHNOLOGY DRIVE EXTENSION BID B00237

### PART A - POTENTIAL CHANGE OF WORK:

Plan Revision Required:  YES  NO **Estimated Cost:** \$382,074.72

Change Initiated By: While potholing the existing utilities it was discovered that the existing roadway structural section was vastly different then structural section shown on the approved plans. The approved plan indicates 4" asphalt/ 6" rock base. The actual existing sections are 6" AC/22" CII Base, 7" AC/13" CII Base, & 8" AC/14" CII Base.

Work Description: This change order request that additional cost of removing and replacing the thicker sections of Asphalt & Class II Base material. It is broken down in the 3 attached request COR.004.1 Revised pavement sections to be constructed (Add of \$294,500.00), COR.006.1 additional cost for the removal of the thicker sections (Add \$53,950.00), & COR.010 Force account paving, this is the time & material for the work that has been completed for the permanent paving at the intersection of Technology & Laguna Canyon Road (add \$33,624.72)

1. Submitted by: David Burger 2-16-17 DB 2/16/17  
Owner Representative / Date
- 2a. In IRWD's opinion the aforementioned work **does**  **does not**   
qualify as a potential change in work.
- 2b. IRWD comments (required if representative does not concur with the potential change):  
\_\_\_\_\_
- 2c. Reviewed by: Christa Wash 3/17/17  
IRWD Representative / Date
3. Received and Recorded by: \_\_\_\_\_  
Owner Representative / Date

**PART B - CHANGE OF WORK VALUE:** \$ \_\_\_\_\_

S:\ICDC\COMMUNITY DEV & CONSTRUCTION\CONSTRUCTION AND ENGINEERING\Burger\TECHNOLOGY DRIVE\CCOS-PCOWS\IRWD PCOWS\SUKUT\2.06.17 FORWARD\IRWD PCOW.003 ASPHALT SECTION CHANGES \$382,074.72\IRWD PCOW.003 ASPHALT SECTION CHANGES \$382,074.72.doc

Revised 10/7/02



Detailed Backup Attached

1. Submitted by: \_\_\_\_\_  
Owner Representative / Date
  2. Recommended by: Kevin J. Banta 3/20/17  
IRWD Representative / Date
-

CHANGE NO.: 004  
DATE: Feb. 16, 2017

**POTENTIAL CHANGE OF WORK ACKNOWLEDGEMENT & VALUE  
(FOR IRWD CAPITAL IMPROVEMENTS)**

The purpose of this form is to acknowledge a change in work for the intent of reimbursement of costs. Upon acceptance a change order will be issued.

IRWD P.O. No.: CODE 6401 ICDC Contract No.: 4500093830  
Owner: Irvine Community Development Company  
Contractor/Consultants: SUKUT CONSTRUCTION  
Sewer   
Domestic Water   
Reclaim Water   
Other   
Design Engineer: MICHAEL BAKER INTERNATIONAL  
IRWD Mgr. CHRIS KESSLER

Project Description: CAPITAL 24" RECYCLED WATER : SPECTRUM 6, TECHNOLOGY DRIVE  
EXTENSION BID B00237

**PART A - POTENTIAL CHANGE OF WORK:**

Plan Revision Required:  YES  NO **Estimated Cost: \$116,550.97**

Change Initiated By: Bid to approved plan changes

Work Description: This change order request that quantifies the bid to approved plan changes including adjustments to the existing contract items (Deduct -\$1,109,400.00) and an add of "NEW ITEM 1-7" (Add +\$1,225,950.97) for a net change/addition of \$116,550.97(See attached detailed description & back up)

1. Submitted by: David Burger 2-16-17 *DOB 2/16/17*  
Owner Representative / Date
- 2a. In IRWD's opinion the aforementioned work does  does not   
qualify as a potential change in work.
- 2b. IRWD comments (required if representative does not concur with the potential change):
- 2c. Reviewed by: Christian Vanda 3/17/17  
IRWD Representative / Date
3. Received and Recorded by: \_\_\_\_\_  
Owner Representative / Date

**PART B - CHANGE OF WORK VALUE:** \$ \_\_\_\_\_

Detailed Backup Attached

1. Submitted by: \_\_\_\_\_  
Owner Representative / Date
2. Recommended by: Chris Z Burger 3/20/17  
IRWD Representative / Date

S:\ICDC\COMMUNITY DEV & CONSTRUCTION\CONSTRUCTION AND  
ENGINEERING\Burger\TECHNOLOGY DRIVE\CCO-PCOW\IRWD  
PCOW\SUKUT2 06.17 FORWARD\IRWD PCOW 004 BID TO APPROVED PLAN  
CHANGES \$116,550.97\IRWD PCOW 004 BID TO APPROVED PLAN CHANGES  
\$116,550.97.doc

Revised 10/7/02

CHANGE NO.: 005  
DATE: Feb. 16, 2017

**POTENTIAL CHANGE OF WORK ACKNOWLEDGEMENT & VALUE  
(FOR IRWD CAPITAL IMPROVEMENTS)**

The purpose of this form is to acknowledge a change in work for the intent of reimbursement of costs. Upon acceptance a change order will be issued.

IRWD P.O. No.: CODE 6401 ICDC Contract No.: 4500093830  
Owner: Irvine Community Development Company  
Contractor/Consultants: SUKUT CONSTRUCTION  
Sewer   
Domestic Water   
Reclaim Water   
Other   
Design Engineer: MICHAEL BAKER INTERNATIONAL  
IRWD Mgr. CHRIS KESSLER

Project Description: CAPITAL 24" RECYCLED WATER : SPECTRUM 6, TECHNOLOGY DRIVE EXTENSION BID B00237

**PART A – POTENTIAL CHANGE OF WORK:**

Plan Revision Required:  YES  NO **Estimated Cost: \$78,052.67**

Change Initiated By: Additional work due to unknown/conflicting utilities.

Work Description: Additional potholing of unknown utilities not shown on the plans and the excavation of the unknown utilities to gather information needed for the re-design of the 24" Capital line POC in the intersection of Irvine center Drive & Laguna Canyon Road. This is broken down in the 3 attached detailed request, COR.007.1 Potholing of existing utilities identified by USA/Dig Alert that were not shown on the plans (Add of \$11,675.00), COR.009 additional cost for the excavation & support to Edison crews to chip away the slurry encasement conflicting with the POC (Add \$42,518.12), & COR.011 Time & Materials potholing of the Brine line for relocation design information (add \$23,859.55) (See attached detailed descriptions & back up).

- 1. Submitted by: David Burger 2-16-17 *DB* 2/16/17  
Owner Representative / Date
- 2a. In IRWD's opinion the aforementioned work **does**  **does not**   
qualify as a potential change in work.
- 2b. IRWD comments (required if representative does not concur with the potential change):
- 2c. Reviewed by: Chris Kessler 3/17/17  
IRWD Representative / Date
- 3. Received and Recorded by: \_\_\_\_\_  
Owner Representative / Date

**PART B – CHANGE OF WORK VALUE:** \$ \_\_\_\_\_

Detailed Backup Attached

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Revised 10/7/02


1. Submitted by: \_\_\_\_\_  
Owner Representative / Date

2. Recommended by: Kari + Bob 3/20/17  
IRWD Representative / Date

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April 10, 2017

Prepared by: K. Welch/F. Sanchez

Submitted by: P. Weghorst 

Approved by: Paul Cook 

## ACTION CALENDAR

### RATIFICATION OF AGREEMENT FOR ONE-YEAR PROGRAM TO AUGMENT RECHARGE USING STOCKDALE WEST RECHARGE FACILITIES

#### SUMMARY:

In February 2016, the Water Banking Committee approved terms for a one-year recharge program that would allow Buena Vista Water Storage District (BVWSD) to recharge high-flow Kern River water using the recharge basins at IRWD's Stockdale West Ranch. The program was not pursued in 2016 because the Kern River did not reach high-flow conditions. With the current wet year conditions BVWSD is now interested in using the Stockdale West Ranch recharge basins. On March 30, BVWSD requested reasonable modifications to the proposed terms and offered to begin immediate delivery of water to the Strand and Stockdale West water banking projects. Staff and legal counsel prepared a letter agreement that encompassed IRWD's terms and BVWSD's requested revisions. The agreement was then reviewed with the Supply Reliability Programs Committee. On March 31, the Committee authorized the General Manager to execute the agreement on an urgent necessity basis to facilitate the immediate delivery of BVWSD's water to both the Strand and Stockdale West Ranch Projects. Staff recommends the Board ratify approval of the agreement with BVWSD for a one-year program to augment recharge using Stockdale West recharge facilities.

#### BACKGROUND:

In 2010, IRWD and BVWSD entered into a long-term Agreement for Water Acquisition by Irvine Ranch Water District from Buena Vista Water Management Program (Exchange Agreement) for an exchange program at the Strand Ranch Integrated Banking Project. The Exchange Agreement allows BVWSD to recharge up to 17,500 acre-feet (AF) of high-flow Kern River water per year at the Strand Ranch on an unbalanced exchange basis, with IRWD receiving 50% of the water, less a share of the losses.

After purchasing the Stockdale West property in December 2010, IRWD implemented a Pilot Project for recharge on the property by constructing recharge basins. In August 2011, IRWD and BVWSD entered into an agreement allowing BVWSD to use the Stockdale West Pilot Project recharge basins for one year to capture up to 10,000 AF of high-flow Kern River water on an unbalanced exchange basis. BVWSD recharged 3,268 AF of high flow Kern River water under the Pilot Project in addition to 17,500 AF at the Strand Ranch.

Staff has been working with BVWSD in implementing a one-year program to use the recharge basins at the Stockdale West Ranch under substantially the same terms as those implemented in the 2011 pilot program. The following is an overview of the Stockdale Integrated Banking Project, the terms of a proposed one-year program to use the Stockdale West recharge basins, requested revisions to the terms made by BVWSD and the need to ratify approval of a one-year

Action Calendar: Ratification of Agreement for One-Year Program to Augment Recharge Using Stockdale West Recharge Facilities

April 10, 2017

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program agreement based on the revised terms that facilitated the urgent need to avoid the lost opportunity to immediately begin recharging water at both the Strand and Stockdale West projects.

Stockdale Integrated Banking Project:

In December 2015, the Board approved the Final Environmental Impact Report (EIR) for the Stockdale Integrated Banking Project. The EIR provided for the development of the Stockdale West property into a fully functioning water banking facility, including construction of conveyance facilities and three extraction wells which are currently being equipped. The Board also approved the Water Banking and Exchange Agreement between Rosedale-Rio Bravo Water Storage District and IRWD for the use and operation of the Stockdale Integrated Banking Project facilities (Stockdale Operating Agreement).

Proposed One-Year Recharge Program:

At the Water Banking Committee meeting in February 2016, staff reviewed a draft term sheet providing for a one-year recharge program that would have allowed BVWSD to use the Stockdale West recharge facilities. The proposed terms were similar to those of the 2011 Pilot Program. The terms would have allowed BVWSD to recharge and store up to 20,000 AF of its water on an unbalanced exchange basis by augmenting the 17,500 AF of recharge allowed on Strand Ranch. All other terms for the one-year program were consistent with the Exchange Agreement and the terms and conditions of the Stockdale Operating Agreement. Because the Kern River failed to reach anticipated high-flow conditions, the BVWSD Board of Directors declined to enter into the one-year recharge program in 2016.

Requested Modifications to Terms for One-Year Recharge Program:

Current wet year conditions have resulted in increased outflows from Lake Isabella, thus creating high-flow conditions on the Kern River. To maximize recharge of Kern River water supplies under these current conditions, BVWSD has expressed interest in the use of Stockdale West recharge basins in addition to Strand Ranch recharge basins. In February 2017, the Supply Reliability Programs Committee responded by approving an updated term sheet that would allow BVWSD to use the recharge facilities at the Stockdale West. The updates had been made to the original term sheet which was approved by the Water Banking Committee in 2016. Upon approval of the Committee, staff presented the updated terms to staff at BVWSD. On March 30, 2017, BVWSD requested modifications to the terms and offered to immediately begin deliveries of Kern River water to the Strand and Stockdale West projects upon IRWD's acceptance of the modifications. The modifications requested by BVWSD are described below.

*Revised Deliveries:*

The first requested modification would allow for 12,500 AF of deliveries to the Stockdale West as opposed to the original proposal of 20,000 AF that was included in the February 2017 term

Action Calendar: Ratification of Agreement for One-Year Program to Augment Recharge Using Stockdale West Recharge Facilities

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sheet. When combined with the 17,500 AF of water to be delivered to the Strand Ranch, BVWSD would be making total deliveries of 30,000 AF through the upcoming summer.

*Increased Recovery Capacity:*

The second modification that was requested by BVWSD was for an additional 833 AF per year of recovery capacity. If accepted by IRWD, the increased capacity would be used to recover BVWSD's share of water delivered to the Strand and Stockdale West Ranches during the one-year program, thus augmenting the annual rate of return from 6,667 AF per year to 7,500 AF per year. This increased rate would not apply to the future return of water that would be recharged outside of the one-year program. Considering that the equipping of the wells on the Stockdale West Ranch is nearly complete, staff determined that this increased rate of return would have no impact on other IRWD exchange programs or upon its ability to recover water for use by IRWD.

*Schedule for Additional Transfers to IRWD:*

The final modification requested by BVWSD was to the schedule for additional transfers to IRWD should BVWSD delay requesting return deliveries of its share of the water recharged in the one-year program. The revised schedule would shorten the time it would take for 100% of the water to be deemed transferred to IRWD while giving BVWSD additional time to request return deliveries before having to transfer additional water to IRWD. The revised schedule would not affect additional transfers of water to IRWD as a result of future recharge events that are not part of the one-year program. Staff considers the proposed modification to the schedule to be fair and equitable.

Revised One-Year Program Letter Agreement:

In order to avoid a lost opportunity to capture high-flow Kern River water, staff worked with legal counsel to expedite the preparation of a letter agreement for the one-year program that incorporated BVWSD's requested revisions to the one-year program terms. Staff reviewed the revised terms and agreement with the Supply Reliability Programs Committee on March 30, 2017. The Committee concurred with the fair and equitable revisions to the term sheet and authorized the General Manager to proceed on an urgent necessity basis with the execution of the letter agreement that would facilitate the immediate delivery of BVWSD water to both the Strand and Stockdale West Ranch and to present the executed agreement for ratification by the full Board of Directors. The fully executed agreement is attached as Exhibit "A". Staff recommends that the Board ratify approval of the executed agreement.

FISCAL IMPACTS:

The total cost of the IRWD share of water under the proposed recharge program is estimated to range from \$50 to \$85 per AF, depending upon recovery costs. Pursuant to the revised terms, if after Year Seven BVWSD has not recovered its water, IRWD shall compensate BVWSD for additional water transferred from BVWSD to IRWD in excess of 50% at BVWSD's then current

Action Calendar: Ratification of Agreement for One-Year Program to Augment Recharge Using Stockdale West Recharge Facilities

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State Water Project Table A Variable Operations, Maintenance, Power and Replacement unit cost rate for water. The current estimated cost of the additional water is approximately \$27 per AF.

ENVIRONMENTAL COMPLIANCE:

In compliance with the California Environmental Quality Act (CEQA), the California Public Resources Code Section 21000 et. seq., and per the California CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3, Rosedale as lead agency filed a Notice of Determination for the Stockdale Integrated Banking Project Final EIR with the County of Kern on December 8, 2015, and with the State Clearinghouse on December 9, 2015. IRWD, as a responsible agency, filed a Notice of Determination with the County of Orange on December 14, 2015, with the California State Clearinghouse on December 15, 2015, and with the County of Kern on December 21, 2015. The banking of BVWSD high flow Kern River water available from BVWSD pre-1914 water rights is consistent with the sources evaluated in the Stockdale Final EIR as well as the Final EIR for the Strand Ranch Integrated Banking Project. A Final EIR for the Buena Vista Water Management Project (BVWMP) was prepared, certified and the project approved by BVWSD. The BVWMP Final EIR covers the delivery of BVWSD high flow Kern River water to water banking facilities such as the Strand and Stockdale Integrated Banking Projects and including Rosedale facilities.

COMMITTEE STATUS:

The revised terms and agreement with BVWSD for a one-year program to augment recharge using the Stockdale West recharge facilities was reviewed and approved by the Supply Reliability Programs Committee on March 31, 2017.

RECOMMENDATION:

THAT THE BOARD RATIFY APPROVAL OF THE AGREEMENT WITH BUENA VISTA WATER STORAGE DISTRICT FOR A ONE-YEAR PROGRAM TO AUGMENT RECHARGE USING STOCKDALE WEST RECHARGE FACILITIES.

LIST OF EXHIBITS:

Exhibit "A" – Fully Executed Agreement for the One-Year Program to Augment Recharge Using Stockdale West Recharge Facilities



# EXHIBIT "A"



## IRVINE RANCH WATER DISTRICT

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

March 31, 2017

Honorable Board of Directors  
Buena Vista Water Storage District  
P.O. Box 756  
525 N. Main Street  
Buttonwillow, CA 93206

Re: One-Year Program to Augment Recharge Using Stockdale West Recharge Facilities

Dear Board Members:

Please be advised that the Board of Directors of Irvine Ranch Water District ("IRWD") has determined to proceed with the one-year augmentation program described in the below-defined Term Sheet (the "One-Year Program") with Buena Vista Water Storage District ("BVWSD") (IRWD and BVWSD collectively are referred to as the "Parties" and each individually may be referred to as a "Party"). The Parties hereby agree that the One-Year Program will be implemented as described in the "**Terms for a One-Year Recharge Program to Augment Recharge Under the Agreement Between Irvine Ranch Water District and Buena Vista Water Storage District Using Stockdale West Recharge Facilities**" (the "Term Sheet") which is attached hereto as Exhibit "A" and incorporated herein by this reference. The One-Year Program will be governed by the terms and conditions of this letter (the "Letter Agreement") and the Term Sheet, including as specified and incorporated in the Term Sheet certain terms and conditions of the Agreement for Water Acquisition by Irvine Ranch Water District from Buena Vista Water Management Program executed December 22, 2010 and dated as of January 1, 2011 (the "IRWD/BV Exchange Agreement").

In signing below, each of the Parties represents and warrants to the other Party that each is a duly organized or constituted entity, with all requisite power to carry out its obligations under the Term Sheet and this Letter Agreement, and that the execution, delivery and performance of these documents have been duly authorized by all necessary action of the board of directors or other governing body of such Party, and shall not result in a violation of such Party's organizational documents. The Parties further agree as follows:

1. **Amendments:** No amendment of the Term Sheet or this Letter Agreement shall be binding upon the Parties unless it is in writing and executed by both of the Parties.
2. **Further Action:** The Parties agree to and shall take such further action and execute and deliver such additional documents as may be reasonably required to effectuate the One-Year Program, consistent with each and all of the terms and conditions of the Term Sheet and this Letter Agreement.

3. **Assignment:** No Party shall assign or otherwise transfer its rights or obligations in, under or to the One-Year Program, the Term Sheet, or this Letter Agreement, in whole or in part, without the prior written consent of the other Party. All covenants and agreements contained in the Term Sheet and this Letter Agreement shall bind and inure to the benefit of the Parties' respective successors and permitted assigns.
4. **Joint Drafting and Negotiation:** The Term Sheet and this Letter Agreement have been jointly negotiated and drafted. The language of each shall be construed as a whole according to its fair meaning and without regard to or aid of Civil Code Section 1654 or similar judicial rules of construction. Each Party acknowledges that it has had the opportunity to seek the advice of experts and legal counsel prior to executing said documents and that it is fully aware of and understands all of their respective terms and the legal consequences thereof.
5. **Representations:** Each Party represents to the other Party that all representations made by it pursuant to the Agreement are true and accurate as of the date of this Letter Agreement.

By its signature hereon, IRWD accepts the Term Sheet as amended and supplemented by the terms and provisions contained in this Letter Agreement. Please indicate the acceptance of BVWSD of the Term Sheet, as amended and supplemented by the terms and provisions contained in this Letter Agreement, by signing and returning the enclosed copy. Thank you for your cooperation.

IRWD intends that this Letter Agreement and the Term Sheet are consistent with, and are entered into by IRWD pursuant to, that certain Water Banking and Exchange Program Agreement (Stockdale West and Stockdale East Properties) between Rosedale-Rio Bravo Water Storage District and Irvine Ranch Water District dated as of January 25, 2016.

This Letter Agreement may be signed in counterparts, each of which shall be deemed an original, and when taken together shall constitute one and the same instrument.

Very truly yours,

IRVINE RANCH WATER DISTRICT

By:   
General Manager

Approved  
as to form:



READ, APPROVED AND ACCEPTED:

BUENA VISTA WATER STORAGE DISTRICT

By:   
Title: ENGINEER - MANAGER

**EXHIBIT "A"**

**Terms for a One-Year Recharge Program to  
Augment Recharge Under the Agreement Between  
Irvine Ranch Water District and  
Buena Vista Water Storage District  
Using Stockdale West Recharge Facilities**

**GENERAL TERMS**

- Entities:** Irvine Ranch Water District (the "IRWD"); Buena Vista Water Storage District (the "BV")
- Description:** IRWD and BV seek to carry out a one-year recharge program ("Recharge Program") to augment the recharge capacities under the IRWD Water Exchange Program established in the long-term Agreement for Water Acquisition by IRWD from BV Water Management Program that was executed on December 22, 2010 ("IRWD/BV Exchange Agreement"). Recharge would be augmented through the delivery of BV Exchange Water to IRWD's Stockdale West property on a 2-for-1 basis consistent with the IRWD/BV Exchange Agreement as described in this term sheet ("Term Sheet"). Capitalized terms used herein and not otherwise defined shall have the same meanings as are given to such terms in the IRWD/BV Exchange Agreement.
- Effective Date:** April 1, 2017 (the "Effective Date").
- Term:** One year from the Effective Date, terminating on March 30, 2018.
- Stockdale West:** IRWD has constructed recharge facilities at its Stockdale West property in Kern County, California. These facilities consist of approximately 259 acres of recharge basins and appurtenant facilities to convey water to the Stockdale West property from the Strand Ranch Integrated Banking Project and a turnout from the Cross Valley Canal that is expected to be operational in spring 2017. By augmenting recharge abilities under the IRWD/BV Exchange Agreement, the Recharge Program will provide improved water management and reliability. The Recharge Program may include use of recovery wells on Stockdale West which have been constructed and expected to be operational in Summer 2017.
- Exchange Program:** The IRWD/BV Exchange Agreement provides for storage of BV Exchange Water on a 2-for-1 basis consistent with the BV Water Management Program that includes a Water Exchange Program that allows BV to more effectively and beneficially manage BV's water resources. The IRWD/BV Exchange Agreement allows BV to supply up

to 17,500 AF of BV Exchange Water in any given year for recharge at the Strand Ranch Integrated Banking Project and provides for IRWD to return fifty percent (50%) of the water less losses at a rate of no more than 6,667 AF in any given year. As consideration, the remainder of the water is deemed transferred to IRWD with provisions for additional transfers that are dependent on time length of storage. The IRWD/BV Exchange Agreement has a term through January 13, 2039, extendable by the parties.

**Non-Binding Effect:** This Term Sheet is intended to be a statement of the terms of the proposed transaction. It is subject to the execution of a letter agreement (“Letter Agreement”) by IRWD and BV inclusive of the terms and conditions set forth herein.

**General Expenses:** Each party shall be responsible for its own fees and expenses arising out of the negotiation and execution of agreements related to this transaction, obtaining necessary approvals, and the like.

**CEQA Compliance:** Both parties shall comply with CEQA and cooperate with one another with respect to CEQA compliance for the proposed Recharge Program. BV was the lead agency with respect to CEQA compliance for its BV Water Management Program, which included the Water Exchange Program, and adopted a Final Environmental Impact Report (EIR) on January 12, 2010. IRWD was a responsible agency with respect to CEQA compliance for the Stockdale Integrated Banking Project, including the delivery of BV Exchange Water to the Stockdale West, and adopted a Final EIR on December 14, 2015. IRWD was a responsible agency with respect to CEQA compliance for the Strand Ranch Integrated Banking Project, and adopted a Final EIR on May 27, 2008. BV and IRWD shall each be responsible for its own fees and costs associated with future or additional CEQA compliance regarding its participation in the Recharge Program, including litigation expenses if any.

**Permit Costs:** As provided in the IRWD/BV Exchange Agreement (Section 1(F)). However, no permit costs are expected for the Recharge Program.

**Water Rights:** As provided in the IRWD/BV Exchange Agreement (Section 1(G); Section 3(B) (ii) (4)).

#### RECHARGE AUGMENTATION TERMS

**Source of Water:** As provided in the IRWD/BV Exchange Agreement (Section 2(A)(i)).

**Quantity:** Up to 12,500 additional acre-feet (AF) of water during the one year term hereof (“Augmentation Water”), to augment the 17,500 AF of BV Exchange Water that BV is allowed to supply to the Strand Ranch Integrated Banking Project as specified in the IRWD/BV Exchange Agreement, resulting in a total of 30,000 AF of BV Exchange Water to be

recharged during the Recharge Program. The Augmentation Water is to be stored in an account within the Stockdale Integrated Banking Project within the estimated storage capacity of 26,000. The use of this storage capacity in the Stockdale Integrated Banking Project will not increase the dedicated storage capacity amount as specified in the IRWD/BV Exchange Agreement. The Recharge Program shall augment or increase the existing annual recovery capacity of 6,667 AF as provided in the IRWD/BV Exchange Agreement for delivery of IRWD Return Water to BV by an annual amount of 833 AF. The resulting 7,500 AF augmented recovery capacity will be used to make IRWD Return Water deliveries to BV associated with this Recharge Program and shall not augment or increase future IRWD Return Water deliveries not associated with this Recharge Program.

- Quality:** As provided in the IRWD/BV Exchange Agreement (Section 2(A)(iii)).
- Availability:** As provided in the IRWD/BV Exchange Agreement (Section 2(A)(IV)).
- Delivery Points:** As provided in the IRWD/BV Exchange Agreement (Section 2(A) (v)). Notwithstanding that recharge of the Augmentation Water will occur on the Stockdale West property, the location of storage, recovery, return and delivery points shall be the same as for water other than Augmentation Water.
- Consideration:** The provisions governing the Additional Transferred Water specified in the IRWD/BV Exchange Agreement (Section 2(A) (vii)) shall apply but shall be modified with respect to the 30,000 AF of BV Exchange Water recharged through this Recharge Program as shown in the following table and shall not affect the future consideration provided to IRWD as a result of future BV Exchange Water deliveries in accordance with Section 2(A) (vii) of the IRWD/BV Exchange Agreement:

Modified Consideration for Recharge Program Only

Year Following Recharge Event	Percent Transferred to IRWD	Percent Returned to BV if Returned During or Before the Indicated Year
1	50	50
2	50	50
3	50	50
4	50	50
5	60 <sup>**</sup> 50	40 50
6	70 <sup>**</sup> 50	30 50
7	80 75*	20 25
8	90 100*	10 0
9	100*	0

\*\* Additional Transferred Water is the amount of water over 50%

**Other Terms:**

Except where otherwise specified above or the context requires otherwise, all terms and conditions of the IRWD/BV Exchange Agreement are incorporated and will apply to this Term Sheet, the Letter Agreement and disposition of the Augmentation Water including without limitation the return of water to BV, construction of facilities, indemnifications and duties related to the operation, maintenance, power and repairs. For the purpose of this Term Sheet and the Letter Agreement, such terms and conditions of the IRWD/BV Exchange Agreement shall be read and construed as though references therein to the Agreement or the words "herein," "hereof," and the like were to this Term Sheet and the Letter Agreement, and references to water included the Augmentation Water.