

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

**October 26, 2015**

**PLEDGE OF ALLEGIANCE**

**CALL TO ORDER**

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

**ROLL CALL**

Directors Matheis, Reinhart, Swan, Withers and President LaMar

**NOTICE**

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

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**COMMUNICATIONS TO THE BOARD**

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1. A. Written:

B. Oral:

2. ITEMS RECEIVED TOO LATE TO BE AGENDIZED

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

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**CONSENT CALENDAR**

**Next Resolution No. 2015-30**

**Items 3-9**

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3. MINUTES OF BOARD MEETING

Recommendation: That the minutes of the October 12, 2015 Regular Board Meeting be approved as presented.

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

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

5. IRVINE RANCH WATER DISTRICT STRATEGIC MEASURES

Recommendation: That the Board receive and file the report.

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**CONSENT CALENDAR – Continued**

**Next Resolution No. 2015-30**

**Items 3-9**

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6. SEPTEMBER 2015 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Monthly Interest Rate Swap Summary for September 2015, and Disclosure Report of Reimbursements to Board Members and staff; approve the September 2015 summary of payroll ach payments in the total amount of \$1,552,677 and approve the September 2015 Accounts Payable Disbursement Summary of Warrants 361185 through 361857, workers' compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$17,783,291.

7. PLANNING AREA 51 HERITAGE FIELDS CAPITAL FACILITIES

Recommendation: That the Board authorize a budget increase for project 31213 (5536) in the amount of \$33,000, from \$383,900 to \$416,900, project 30503 (5758) in the amount of \$30,800, from \$240,900 to \$271,700, and project 11804 (5756) in the amount of \$67,100, from \$176,000 to \$243,100; authorize the addition of the Cultivate Street Sewer Improvements project 21286 (6331) to the FY 2015-16 Capital Budget in the amount of \$220,000; and authorize the General Manager to approve Expenditure Authorizations for projects 31213 (5536), 30503 (5758), 11804 (5756) and 31804 (5757).

8. RECOVERY CAPACITY FOR WATER EXCHANGE AGREEMENT

Recommendation: That the Board authorize the General Manager to execute the agreement with Steven Jackson, subject to non-substantive changes, to allow temporary access to the use of IRWD's recovery capacity in the Kern Water Bank in exchange for water transferred to IRWD's Kern Water Bank Storage account.

9. ANNUAL MICROSOFT ENTERPRISE AGREEMENT SOFTWARE MAINTENANCE RENEWAL

Recommendation: That the Board approve the renewal of the Microsoft Enterprise Agreement beginning December 1, 2015 for a total commitment of \$390,000.

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**ACTION CALENDAR**

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10. CULVER DRIVE SEWER MANHOLE IMPROVEMENTS CONSTRUCTION AWARD

Recommendation: That the Board authorize a budget increase for project 21169 (5450) in the amount of \$100,000, from \$368,000 to \$468,000; and authorize the General Manager to execute a construction contract with Paulus Engineering, Inc. in the amount of \$319,013 for the Culver Drive Sewer Manhole Improvements, project 21169 (5450).

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**ACTION CALENDAR - Continued**

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11. INITIAL DISINFECTION FACILITY SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM VARIANCE

Recommendation: That the Board authorize the General Manager to execute Variance No. 1 in the amount of \$169,914 with Carollo Engineers for the final design of the initial disinfection facility sodium hypochlorite storage and feed system, project 11838 (6213).

12. PROFESSIONAL SERVICES AGREEMENT FOR FATS, OILS AND GREASE PROGRAM

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with Environmental Engineering and Contracting, Inc. to provide fog program administration support services in the amount of \$165,950 for the period of November 1, 2015, to October 31, 2016.

13. MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES CONTRACT CHANGE ORDER AND VARIANCE

Recommendation: That the Board approve Contract Change Order No. 34 in the amount of \$164,775.28 for changing the manufacturer of knife gate valves and providing addressable smoke detectors, and credits that include IRWD costs related to overtime inspection, special inspections and review of submittals after the second time with Filanc/Balfour-Beatty; and authorize the General Manager to execute Variance No. 4 in the amount of \$370,570 with Black & Veatch for providing supplemental start-up services for Michelson Water Recycling Plant Biosolids and Energy Recovery Facilities, project 21146 (4286).

14. REVISED WATER BANKING, TRANSFERS AND WHEELING POLICY POSITION PAPER

Recommendation: That the Board approve the revised Water Banking, Transfer and Wheeling Policy position paper.

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**OTHER BUSINESS**

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Pursuant to Government Code Section 54954.2, members of the Board of Directors or staff may ask questions for clarification, make brief announcements, make brief reports on his/her own activities. The Board or a Board member may provide a reference to staff or other resources for factual information, request staff to report back at a subsequent meeting concerning any matter, or direct staff to place a matter of business on a future agenda. Such matters may be brought up under the General Manager's Report or Directors' Comments.

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**OTHER BUSINESS - Continued**

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15. A. General Manager's Report
- B. Directors' Comments
- C. CLOSED SESSION: Conference with Legal Counsel relative to: Anticipated litigation – Government Code Section 54956.9(d)(2) – significant exposure to litigation regarding claims or notification by Craig Realty Group, et al., to IRWD of potential liability under Government Claims Act for water damage occurrence at 4100 MacArthur Blvd., on file with the District (six potential cases)
- 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.

October 26, 2015

Prepared and

Submitted by: L. Bonkowski

Approved by: P. Cook



CONSENT CALENDAR

MINUTES OF BOARD MEETING

SUMMARY:

Provided are the minutes of the October 12, 2015 Regular Board Meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE OCTOBER 12, 2015 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – Minutes

EXHIBIT "A"

MINUTES OF REGULAR MEETING – OCTOBER 12, 2015

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President LaMar on October 12, 2015 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Reinhart, LaMar and Swan.

Directors Absent: Withers and Matheis.

Also Present: General Manager Cook, Executive Director of Finance and Administration Clary, Executive Director of Engineering and Planning Burton, Executive Director of Water Policy Weghorst, Director of Water Resources Sanchez, Director of Human Resources Roney, Executive Director of Operations Shields, Director of Treasury and Risk Management Jacobson, Legal Counsel Arneson, Secretary Bonkowski, Ms. Christine Compton, Mr. Matt Veeh, Mr. Eric Akiyoshi, Ms. Debbie Kanoff, Mr. Bruce Newell, Mr. Jim Reed, and other members of the public and staff.

WRITTEN AND ORAL COMMUNICATIONS: None.

CONSENT CALENDAR

Relative to Item No. 4, Director Reinhart noted that he will not be able to attend a meeting with the South Orange County Agencies' group on October 21, 2015 as listed. There being no further comments, on MOTION by Swan, seconded and unanimously carried, CONSENT CALENDAR ITEMS THROUGH THROUGH 6 WERE APPROVED AS FOLLOWS:

3. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the September 28, 2015 Regular Board meeting be approved as presented.

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

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

CONSENT CALENDAR (CONTINUED)

5. RESOLUTION OF COMMENDATION FOR LAURENCE LIZOTTE

Recommendation: That the Board adopt the following resolution by title commending Laurence Lizotte for his years of dedicated service to Moulton Niguel Water District.

RESOLUTION NO. 2015-29

RESOLUTION OF THE BOARD OF DIRECTORS  
OF THE IRVINE RANCH WATER DISTRICT  
COMMENDING MR. LAURENCE R. LIZOTTE  
FOR HIS YEARS OF DEDICATED SERVICE TO  
MOULTON NIGUEL WATER DISTRICT

6. 2015 LEGISLATIVE UPDATE

Recommendation: Receive and file.

ACTION CALENDAR

WATER SUPPLY RELIABILITY STUDY BUDGET INCREASE

General Manager Cook reported that in 2014, the Board approved a Professional Services Agreement with HDR Engineering, Inc. to update the District's 2008 Water Supply Reliability Study which would include evaluation of impacts of various supply and system interruption scenarios and will include development of enhanced modeling tools.

Using a PowerPoint presentation, Director of Water Resources Sanchez reported on the study's objectives; an IRWD project overview; demands and supply forecasts; coordination efforts with regional planning; scenario development; modeling; and schedule.

Ms. Sanchez then noted that to enhance this update to the Water Supply Reliability Study, staff has determined that additional work is required that was not included in HDR's original scope of work. The additional work to be performed by HDR includes: 1) additional project management requirements to align IRWD's Water Supply Reliability Study with information being developed by the Municipal Water District of Orange County (MWDOC) for its Orange County Reliability Study as well as information being developed by Metropolitan Water District of Southern California (Metropolitan) for its Integrated Resources Plan update. Included are two additional meetings that are needed to further coordinate with Metropolitan and MWDOC. The variance also includes: 1) additional project management time to accommodate weekly conference calls requested by staff; 2) a requirement to conduct an additional workshop to provide input to HDR relative to the Demand Tool that is being developed for the Water Supply Reliability Study; 3) a workshop that will allow HDR and staff to discuss the complexity of the Orange County Groundwater Basin supply sources and to conceptualize how the Orange County Groundwater Basin will be simulated in the model that is being developed to evaluate each supply and system

reliability scenario; 4) a scenario planning workshop with staff and various technical experts; and 5) inclusion of one additional scenario in the preparation of the updated Water Supply Reliability Study. This request will allow the evaluation of multiple levels of uncertainties in future Colorado River flows. Following discussion on the Board's interest relative to additional analysis and input, President LaMar asked staff to schedule a future workshop on this item. On MOTION by LaMar, seconded and unanimously carried, THE BOARD AUTHORIZED A BUDGET INCREASE TO THE FY 2015-16 CAPITAL BUDGET IN THE AMOUNT OF \$72,500 FOR PROJECT 11808 (6013).

### SAND CANYON PROFESSIONAL CENTER – PHASE II DEVELOPMENT DESIGN CONSULTANT RECOMMENDATIONS

Director of Treasury and Risk Management Jacobson reported that Phase II of the District's approved Sand Canyon Professional Center's master plan includes the planned construction of the 71,000 square foot professional office building on the remaining vacant land. Mr. Jacobson said that with improvements in office construction and leasing activity in the Irvine area, the District's brokers began marketing a build-to-suit office building on the site in June 2014. Based on initial feedback and concerns expressed by potential tenants and other commercial brokers regarding the previous conceptual building design, IRWD retained architects Ware Malcomb to provide revised conceptual designs for the future Phase II office building.

Mr. Jacobson said that staff identified and requested proposals from three qualified firms to provide architectural, engineering and landscape design services for the Phase II office project and included LPA (architect for the Sand Canyon headquarters facility), Lee & Sakahara Architects (architect for the District's medical office property) and Ware Malcomb. Based on proposals received, staff recommends that the District retain Ware Malcomb to provide required architectural services for the project. Mr. Jacobson said that staff also requested proposals from three qualified firms to provide civil engineering services for this project and included Fuscoe Engineering, RBF Consulting and Hall & Foreman of which the latter did not submit a proposal. He said based on the proposals received, staff recommends that Fuscoe Engineering be retained to provide required civil engineering services for the project.

Director Swan reported that this item was reviewed by the Asset Management Committee on December 9, 2014, March 12, 2015, June 30, 2015 and September 29, 2015, and with the current economic situation recovering and limited vacant professional offices, the Committee concurs with the staff recommendation. On MOTION by Swan, seconded and unanimously carried, THE BOARD APPROVED THE RETENTION OF WARE MALCOMB TO PROVIDE ARCHITECTURAL SERVICES FOR THE SAND CANYON PROFESSIONAL CENTER PHASE II OFFICE BUILDING; AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONTRACT WITH WARE MALCOMB FOR AN AMOUNT NOT TO EXCEED \$419,000; APPROVED THE RETENTION OF FUSCOE ENGINEERING TO PROVIDE CIVIL ENGINEERING SERVICES FOR THE SAND CANYON PROFESSIONAL CENTER PHASE II OFFICE BUILDING AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONTRACT WITH FUSCOE ENGINEERING FOR AN AMOUNT NOT TO EXCEED \$143,000.

GENERAL MANAGER’S REPORT

General Manager Cook reported on today’s management team meeting discussing potential goals and target activities for 2016 in preparation of November’s Strategic Planning Workshop.

Mr. Cook also reported on water conservation efforts for September which were 13% for potable water. Ms. Fiona Sanchez provided an update on next steps for additional conservation efforts.

DIRECTORS’ COMMENTS

Director Swan said that he attended a Clean Tech Orange County conference, a MWDOC Board workshop, a WACO meeting, a Newport Beach Chamber of Commerce meeting, a tour of projects in the Newport Bay Watershed, and an Irvine Historical Society event.

Director Reinhart reported that he attended his regular monthly meetings.

Director LaMar reported that he attended a WACO meeting, the 2015 Solar Decathlon’s opening ceremony in Irvine, and a Natural Communities meeting.

Consultants Newell and Reed reported on meetings they attended on the District’s behalf.

ADJOURNMENT

Director La Mar adjourned the meeting at 6:10 p.m.

APPROVED and SIGNED this 26<sup>th</sup> day of October, 2015.

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President, IRVINE RANCH WATER DISTRICT

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Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

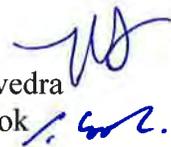
\_\_\_\_\_  
Legal Counsel - Bowie, Arneson, Wiles & Giannone

October 26, 2015

Prepared and

Submitted by: N. Savedra

Approved by: P. Cook



CONSENT CALENDAR

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

SUMMARY:

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

Events/Meetings

Steven LaMar

10/16/15	OCSD 2015 State of the District Event
10/28/15	UCI School of Social Ecology Awards Event
10/29/15	Southern California Water Committee Annual Meeting
10/30/15	NWRI Clark Prize Conference & Awards Event

Peer Swan

10/22/15	ACEC Meet Your Elected Officials Reception Event
10/23/15	Newport Beach Chamber of Commerce 2016 Economic Forecast
10/30/15	NWRI Clark Prize Conference & Awards Event

John Withers

10/28/15	UCI School of Social Ecology Awards Event
10/29/15	ISDOC Quarterly Meeting
10/29/15	Southern California Water Committee Annual Meeting
10/30/15	NWRI Clark Prize Conference & Awards Event

RECOMMENDATION:

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

LIST OF EXHIBITS:

None

October 26, 2015

Prepared by: T. Bertsch / C. Smithson

Submitted by: Cheryl Clary

Approved by: Paul Cook

## CONSENT CALENDAR

### IRVINE RANCH WATER DISTRICT STRATEGIC MEASURES

#### SUMMARY:

Provided as Exhibit "A" are the IRWD Strategic Measures and informational items for the Board's review. These measures are intended to reflect the critical performance measures that gauge the District's key business objectives.

#### BACKGROUND:

The proposed strategic measures document summarizes a number of operating performance, financial, customer and other key measures important to the ongoing operation of the District. These measures were selected and designed to provide a "snapshot" view of the measures that would be of interest to the Board.

#### FISCAL IMPACTS:

Not applicable.

#### ENVIRONMENTAL COMPLIANCE:

Not applicable.

#### RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE REPORT.

#### LIST OF EXHIBITS:

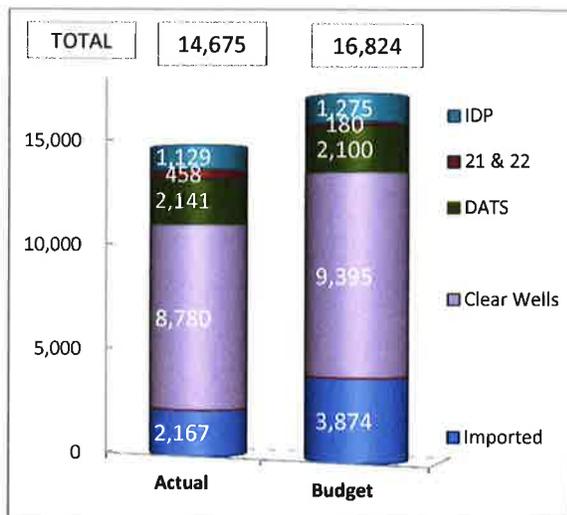
Exhibit "A" – September 2015 Strategic Measures

# IRVINE RANCH WATER DISTRICT

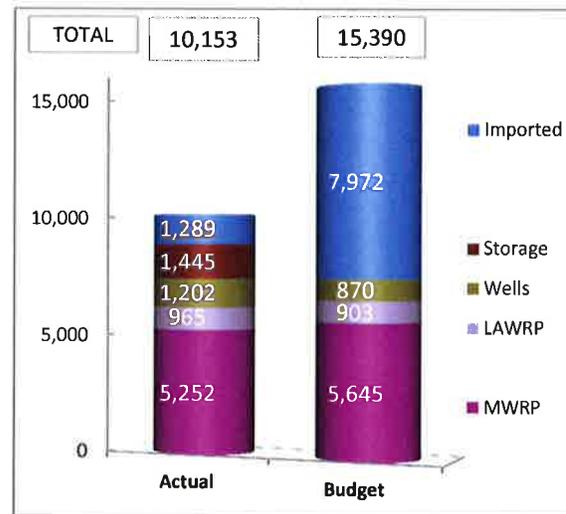
## Operational Performance Measures

Data as of September 30, 2015

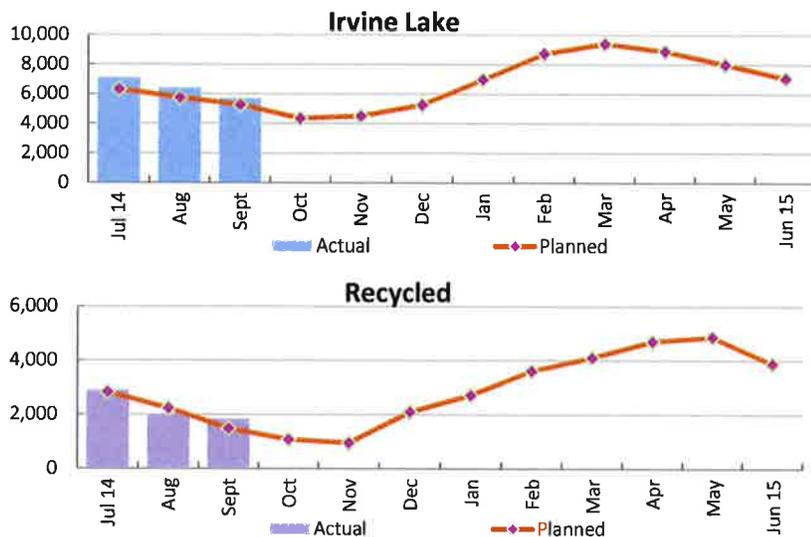
Potable Water Production FYTD (AF)



Non-Potable Water Production FYTD (AF)



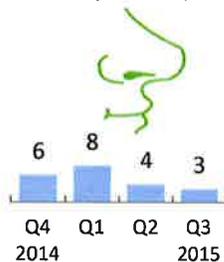
Non-Potable Reservoir Storage (AF)



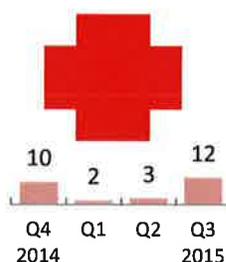
Cost Per MG At MWRP FYTD



Odor Complaints (by quarter)



OSHA Recordables Incidents



Regulatory Compliance Incidents

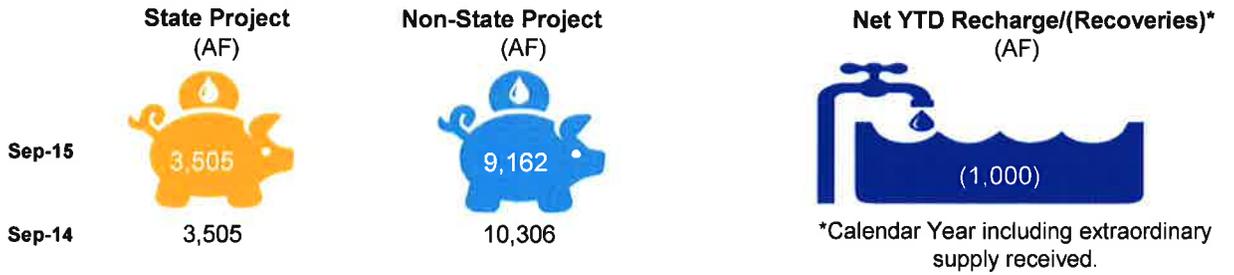
Category	Q4 2014	Q1 2015	Q2 2015	Q3 2015
AQMD	0	0	0	0
Plants	0	0	0	3
Sewer Spills	0	1	1	1

# IRVINE RANCH WATER DISTRICT

## Other Statistical Information

Data as of September 30, 2015

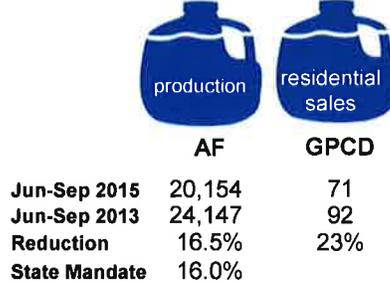
### Banked Water



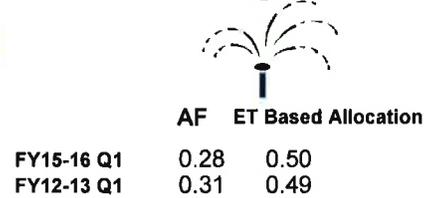
### Certificates of Occupancies FYTD



### Total Potable Water

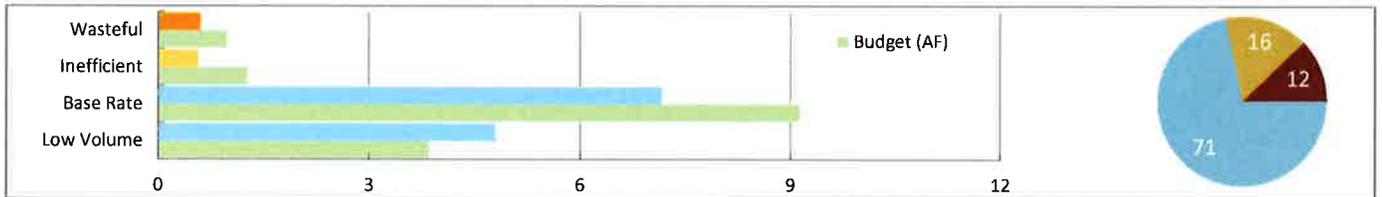


### Acre-Feet Per Acre Irrigation

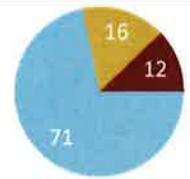


### Potable Sales by Tier FYTD

(in thousands)

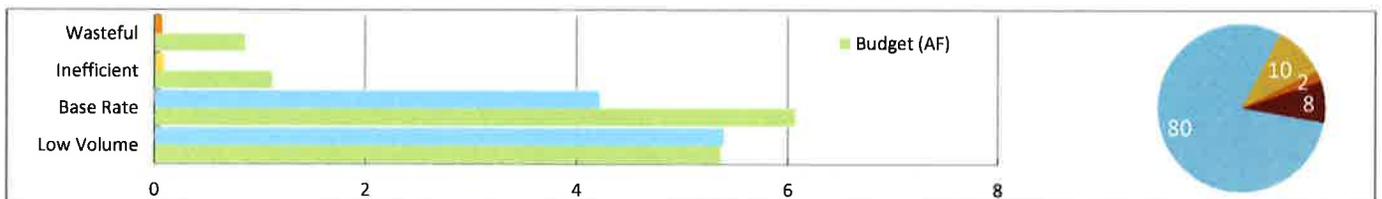


### % of Customers by Tier

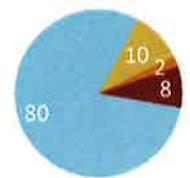


### Non-Potable Sales by Tier FYTD

(in thousands)

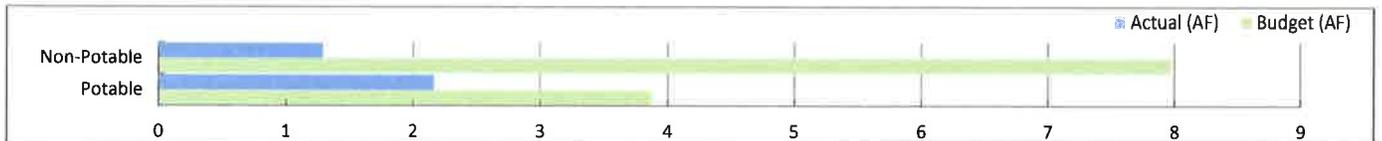


### % of Customers by Tier



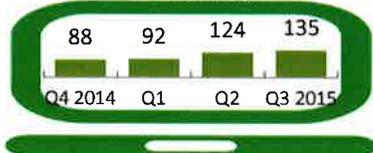
### Imported Water FYTD

(in thousands)



### Website Hits

(in thousands)



### Customer Satisfaction Index\*\*



\*\* 12 month rolling average

October 26, 2015

Prepared by: Jennifer Davis/Tanja Fournier

Submitted by: Robert Jacobson/Cheryl Clary

Approved by: Paul Cook

## CONSENT CALENDAR

### SEPTEMBER 2015 TREASURY REPORTS

#### SUMMARY:

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

- A. The Investment Summary Report for September 2015. This Investment Summary Report is in conformity with the 2015 Investment Policy and provides sufficient liquidity to meet estimated expenditures during the next six months, as outlined in Exhibit "A".
- B. The Monthly Interest Rate Swap Summary as of September 30, 2015, as outlined in Exhibit "B".
- C. The Summary of Payroll ACH payments in the total amount of \$1,552,677, as outlined in Exhibit "C".
- D. The September 30, 2015 Disbursement Summary of warrants 361185 through 361857, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$17,783,291 as outlined in Exhibit "D".
- E. The Disclosure Report of Reimbursements to Board Members and Staff for September 2015, detailing payments or reimbursements for individual charges of \$100.00 or more per transaction, as outlined in Exhibit "E".

#### FISCAL IMPACTS:

As of September 30, 2015, the book value of the investment portfolio was \$248,017,105, with a 0.55% rate of return and a market value of \$248,101,322. Based on the District's September 30, 2015 quarterly real estate investment rate of return of 12.84%, the weighted average return for the fixed income and real estate investments was 3.28%.

As of September 30, 2015, the total notional amount of the interest rate swap portfolio was \$130 million of fixed payer swaps. Cash accrual in September from all swaps was negative \$601,279.

Payroll ACH payments totaled \$1,552,677, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for September totaled \$17,783,291.

ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act Code of Regulations, Title 14, Chapter 3 Section 15378.

COMMITTEE STATUS:

This item was not submitted to a Committee; however, the investment and interest rate swap reports are submitted to the Finance and Personnel Committee on a monthly basis.

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE TREASURER'S INVESTMENT SUMMARY REPORT, THE MONTHLY INTEREST RATE SWAP SUMMARY FOR SEPTEMBER 2015, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF; APPROVE THE SEPTEMBER 2015 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$1,552,677 AND APPROVE THE SEPTEMBER 2015 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 361185 THROUGH 361857, WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$17,783,291.

LIST OF EXHIBITS:

Exhibit "A" – Investment Summary Report

Exhibit "B" – Monthly Interest Rate Swap Summary

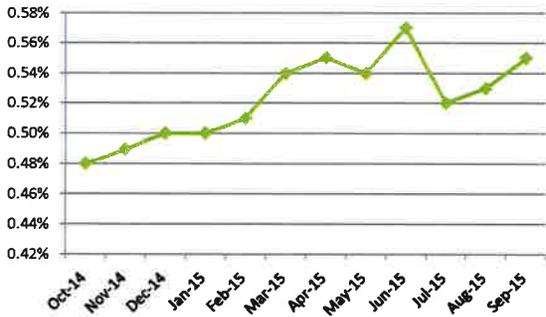
Exhibit "C" – Monthly Payroll ACH Summary

Exhibit "D" – Monthly Summary of District Disbursements

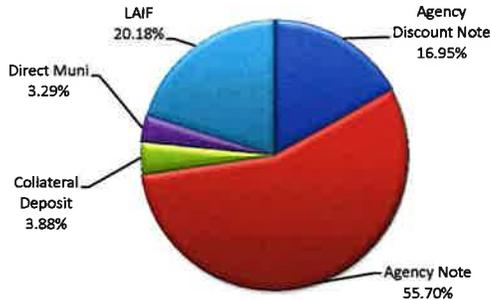
Exhibit "E" – Disclosure of Reimbursements to Board Members and Staff

Exhibit "A"  
**Irvine Ranch Water District  
Investment Portfolio Summary  
September 2015**

**Monthly Fixed Income Yield**



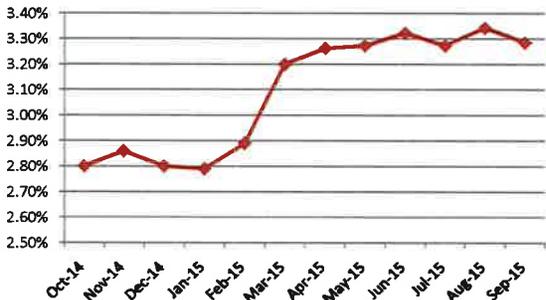
**Portfolio Distribution**



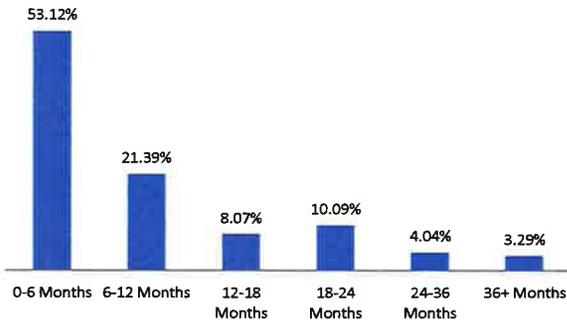
**Investment Summary**

Type	PAR	Book Value	Market Value
Agency Note	138,000,000	138,295,063	138,347,570
LAF	50,000,000	50,000,000	50,029,732
Agency Discount Note	42,000,000	41,980,892	41,982,870
Collateral Deposit	9,583,260	9,583,260	9,583,260
Direct Muni	8,157,889	8,157,889	8,157,889
<b>Grand Total</b>	<b>247,741,149</b>	<b>248,017,105</b>	<b>248,101,322</b>

**Weighted Average Return Including Real Estate Portfolio**



**Maturity Distribution**



**Top Issuers**

Issuer	PAR	% Portfolio
Fed Home Loan Bank	75,000,000	30.27%
Fed Home Loan Mortgage Corp	55,000,000	22.20%
State of California Treasury - LAF	50,000,000	20.18%
Fed Natl Mortgage Assoc	25,000,000	10.09%
Fed Farm Credit Bank	20,000,000	8.07%
ETWD	8,157,889	3.29%
Citi-Group Collateral	7,373,260	2.98%
Fed Ag Mortgage Corp	5,000,000	2.02%
Merrill Lynch Collateral	2,210,000	0.89%

IRVINE RANCH WATER DISTRICT  
INVESTMENT SUMMARY REPORT

09/30/15

SETTLEMENT #	Call	Schedule	Initial	Maturity	Ranking	INVESTMENT TYPE	ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	YTC	ORIGINAL COST	CARRY VALUE	MARKET VALUE <sup>(9)</sup>	UNREALIZED <sup>(9)</sup> GAIN/(LOSS)
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09/24/15				10/01/15	LAI#	State of California Tsy		\$50,000,000	0.330%			\$50,000,000.00	\$50,000,000.00	\$0.029,732.30	29,732.30
05/26/15				10/14/15	FHLB - Discount Note	Fed Home Loan Bank Discount Note	FHLB - Discount Note	4,000,000	0.120%	0.086%	0.086%	3,999,426.80	3,999,970.00	103.47	
09/10/15				10/23/15	NR	Fed Home Loan Bank Discount Note	FHLB - Discount Note	4,000,000	0.120%	0.123%	0.123%	3,999,426.80	3,999,970.00	103.47	
11/19/14				11/18/15	Aaa/NA/NR	Fed Home Loan Bank	FHLB - Note	5,000,000	0.125%	0.193%	0.193%	4,999,656.26	4,999,650.00	93.74	
09/24/15				11/23/15	NR	Fed Home Loan Bank Discount Note	FHLB - Discount Note	8,000,000	0.100%	0.101%	0.101%	7,998,666.67	7,999,200.00	377.77	
10/09/14				12/01/15	Aaa/AA+NR	Fed Natl Mortgage Assoc	FNMA - Note	5,000,000	0.270%	0.233%	0.233%	5,002,100.00	5,000,306.46	793.54	
10/29/14				12/18/15	FHLB - Note	Fed Home Loan Bank	FHLB - Note	5,000,000	0.300%	0.200%	0.200%	5,001,065.69	5,000,200.00	1,134.31	
05/27/14				12/21/15	Aaa/AA+VAAA	Fed Natl Mortgage Assoc	FNMA - Note	5,000,000	0.375%	0.241%	0.241%	5,001,477.23	5,000,700.00	1,222.77	
01/15/13				07/15/13	NA/AA+VAAA	Fed Home Loan Bank	FHLB - Note	5,000,000	0.375%	0.306%	0.306%	4,999,626.03	5,000,950.00	3,323.97	
06/30/15				01/25/16	NR	Fed Home Loan Bank Discount Note	FHLB - Discount Note	5,000,000	0.150%	0.152%	0.152%	4,997,645.83	4,997,900.00	316.57	
07/29/15				02/24/16	FHLB - Discount Note	Fed Home Loan Mortgage Corp - Discount Note	FHLB - Discount Note	10,000,000	0.175%	0.178%	0.178%	9,989,921.67	9,992,100.00	197.22	
04/28/15				02/26/16	NR	Fed Natl Mortgage Discount Note	FNMA - Discount Note	10,000,000	0.190%	0.193%	0.193%	9,983,797.22	9,992,030.55	769.45	
03/14/14	Continuous Offer			03/10/16	Aaa/AA+VAAA	Fed Farm Credit Bank	FFCB - Note	5,000,000	0.350%	0.874%	0.874%	4,998,615.89	5,000,100.00	1,484.11	
04/29/14				04/25/16	Aaa/AA+VAAA	Fed Farm Credit Bank	FFCB - Note	5,000,000	0.390%	0.448%	0.448%	4,994,250.00	4,998,950.00	962.86	
05/20/15				05/04/16	FHLB - Note	Fed Home Loan Bank	FHLB - Note	3,000,000	0.300%	0.315%	0.315%	2,999,731.54	3,000,420.00	688.46	
05/20/15				05/18/16	Aaa/AA+NR	Fed Home Loan Bank	FHLB - Note	5,000,000	2.500%	0.304%	0.304%	5,071,539.81	5,070,950.00	(589.81)	
06/04/15				06/20/16	Aaa/AA+NR	Fed Home Loan Bank	FHLB - Note	5,000,000	0.340%	0.355%	0.355%	4,999,200.00	4,999,500.00	50.79	
07/01/15				06/24/16	Aaa/AA+NR	Fed Home Loan Bank	FHLB - Note	5,000,000	0.375%	0.345%	0.345%	5,001,450.00	4,999,200.00	(5,878.41)	
11/20/14				06/27/16	FHLB - Note	Fed Home Loan Mortgage Corp	FHLB - Note	5,000,000	0.375%	0.424%	0.424%	4,998,196.15	4,999,700.00	1,503.85	
05/08/14				07/05/16	FNMA - Note	Fed Natl Mortgage Assoc	FNMA - Note	5,000,000	0.375%	0.484%	0.484%	4,988,300.00	5,000,000.00	4,372.43	
06/09/15	Continuous Offer			07/29/16	Aaa/AA+VAAA	Fed Farm Credit Bank	FFCB - Note	5,000,000	0.550%	0.550%	0.550%	10,137,918.51	10,142,700.00	5,381.49	
06/29/15				08/25/16	FHLB - Note	Fed Home Loan Mortgage Corp	FHLB - Note	10,000,000	2.000%	0.467%	0.467%	10,141,900.00	10,147,318.51	5,381.49	
11/28/14	Quantity			11/15/16	Aaa/AA+NR	Fed Home Loan Mortgage Corp	FHLB - Note	5,000,000	0.600%	0.600%	0.600%	5,000,000.00	5,002,850.00	2,850.00	
09/21/15				12/09/16	FHLB - Note	Fed Home Loan Bank	FHLB - Note	5,000,000	1.625%	0.522%	0.522%	5,064,663.48	5,064,950.00	286.52	
09/21/15				02/22/17	Aaa/AA+VAAA	Fed Home Loan Mortgage Corp	FHLB - Note	5,000,000	0.875%	0.570%	0.570%	5,021,500.00	5,023,450.00	2,363.46	
06/15/15				03/30/17	Aaa/AA+NR	Fed Home Loan Bank	FHLB - Note	5,000,000	0.625%	0.727%	0.727%	4,992,444.50	5,003,400.00	10,955.50	
10/28/14	Quantity			04/28/17	Aaa/AA+VAAA	Fed Home Loan Mortgage Corp	FHLB - Note	10,000,000	0.820%	0.820%	0.820%	10,000,000.00	9,999,300.00	(700.00)	
08/27/15				05/30/17	FHLB - Note	Fed Home Loan Bank	FHLB - Note	5,000,000	0.625%	0.642%	0.642%	4,998,500.00	5,000,500.00	1,918.22	
09/16/15	One Time			03/15/16	FHLB - Note	Fed Home Loan Mortgage Corp	FHLB - Note	5,000,000	0.900%	0.915%	0.915%	4,998,530.82	5,010,300.00	11,769.18	
09/29/15	Continuous Offer			09/28/17	Aaa/AA+NR	Fed Farm Credit Bank	FFCB - Note	5,000,000	0.810%	0.815%	0.815%	4,999,500.00	4,997,550.00	(1,951.37)	
07/29/15	Continuous Offer			10/16/17	Aaa/AA+NR	Fed Home Loan Bank	FHLB - Note	5,000,000	1.000%	0.997%	0.997%	5,000,000.00	5,000,400.00	400.00	

05/20/15	NA	NA	04/30/36	NR	Direct Muni	ETWD	4.570%	4.570%	4.570%	8,157,889	\$238,157,889
09/10/15	Collateral Deposit				Citigroup		0.070%	0.070%	0.070%	\$7,373,260	\$7,373,260.29
05/29/15	Collateral Deposit				Merrill Lynch		0.070%	0.070%	0.070%	\$2,210,000	\$2,210,000.00
SUB-TOTAL										\$9,583,260	\$9,583,260.29
09/10/15	Party Cash				Bank of America					3,400.00	3,400.00
September	Ck Balance									11,419,936.61	\$259,510,196.35

LAI# market value is as of the most recent quarter-end as reported by LAIF  
 Security market values are determined using Bank of New York ("Trading Prices"), Bloomberg  
 and/or broker dealer pricing  
 Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps)  
 Investment Balance:  
 \$197,300,000  
 \$259,510,196  
 132%  
 Portfolio - Average Number of Days To Maturity<sup>(8)</sup>  
 220  
 Real Estate<sup>(8)</sup>  
 Portfolio  
 Return  
 12.84%  
 September  
 Amount  
 0.53%  
 Change  
 0.02%  
 Weighted Avg.  
 Return  
 3.28%  
 3.34%  
 This Investment Summary Report is in conformity with the 2015 Investment Policy  
 and provides sufficient liquidity to meet the next six months estimated expenditures  
 (9) Swap Collateral Deposits assumes 6 month maturity, dependent on interest rate changes  
 (8) Calculation excludes Direct Muni - ETWD  
 (7) Real estate rate of return is based on most recent quarter end return  
 (6) Grant (Loss) calculated against carry value using the trading value provided by Bank of New York/or Brokers  
 (5) LAI# market value is as of the most recent quarter-end as reported by LAIF

IRVINE RANCH WATER DISTRICT  
SUMMARY OF MATURITIES

09/30/15

DATE	TOTAL	%	LAIF	Agency Notes	Agency Discount Notes	Collateral Deposit	Direct Muni
09/15	\$50,000,000	20.18%	\$50,000,000				
10/15	9,000,000	3.63%			9,000,000		
11/15	13,000,000	5.25%		5,000,000	8,000,000		
12/15	15,000,000	6.05%		15,000,000			
01/16	10,000,000	4.04%		5,000,000	5,000,000		
02/16	20,000,000	8.07%			20,000,000		
03/16	14,583,260	5.89%		5,000,000		\$9,583,260	
04/16	5,000,000	2.02%		5,000,000			
05/16	13,000,000	5.25%		13,000,000			
06/16	15,000,000	6.05%		15,000,000			
07/16	10,000,000	4.04%		10,000,000			
08/16	10,000,000	4.04%		10,000,000			
<b>SUB-TOTAL</b>							
	\$184,583,260	74.51%	\$50,000,000	\$83,000,000	\$42,000,000	\$9,583,260	
<b>13 Months - 3 YEARS</b>							
09/01/16 - 12/31/2016	15,000,000	6.05%		15,000,000			
1/1/2017 - 3/31/2017	10,000,000	4.04%		10,000,000			
04/01/17-06/30/17	15,000,000	6.05%		15,000,000			
07/01/17 - 9/30/2017	10,000,000	4.04%		10,000,000			
10/30/17 - 12/31/2017	5,000,000	2.02%		5,000,000			
	-						
	-						
04/30/2036	8,157,889	3.29%					8,157,889
<b>TOTALS</b>							
	\$247,741,149	100.00%	\$50,000,000	\$138,000,000	\$42,000,000	\$9,583,260	\$8,157,889

% OF PORTFOLIO

20.18%

55.70%

16.95%

3.88%

3.29%

Irvine Ranch Water District  
 Summary of Real Estate  
 9/30/2015

	<u>ACQUISITION DATE</u>	<u>PROPERTY TYPE</u>	<u>OWNERSHIP INTEREST</u>	<u>ORIGINAL COST</u>	<u>RATE OF RETURN QUARTER ENDED Sep-15</u>
Sycamore Canyon	Dec-92	Apartments	Fee Simple	\$ 43,550,810	16.97%
Wood Canyon Villas	Jun-91	Apartments	Limited Partner	\$ 6,000,000	8.53%
ITC (230 Commerce)	Jul-03	Office Building	Fee Simple	\$ 5,739,845	4.68%
Waterworks Business Pk.	Nov-08	Research & Dev.	Fee Simple	\$ 8,630,577	5.15%
Sand Canyon Professional Center	Jul-12	Medical Office	Fee Simple	\$ 8,648,594	8.12%
				<u>\$ 72,569,826</u>	<u>12.84%</u>

**IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT**  
**INVESTMENT ACTIVITY**  
**September 2015**

**MATURITIES/SALES/CALLS**

**PURCHASES**

DATE	SECURITY TYPE	PAR	YIELD	Settlement Date	Maturity Date	SECURITY TYPE	PAR	YIELD TO MATURITY
9/10/2015	FHLMC - Note	\$5,000,000	0.17%	9/10/2015	10/23/2015	FHLB - Discount Note	\$4,000,000	0.12%
9/21/2015	FHLMC - Note	\$5,000,000	0.75%	9/14/2015	4/30/1936	ETWD - Direct Muni	\$1,942,025	4.57%
9/21/2015	FHLMC - Note	\$5,000,000	0.76%	9/16/2015	9/15/2017	FHLMC - Note	\$5,000,000	0.92%
9/24/2015	FHLMC - Discount Note	\$10,000,000	0.08%	9/21/2015	12/9/2016	FHLB - Note	\$5,000,000	0.53%
9/29/2015	FFCB - Note	\$5,000,000	1.03%	9/21/2015	2/22/2017	FHLMC - Note	\$5,000,000	0.57%
9/30/2015	FHLMC - Note	\$7,500,000	0.88%	9/24/2015	11/23/2015	FHLB - Discount Note	\$8,000,000	0.10%
				9/29/2015	09/28/20107	FFCB - Note	\$5,000,000	0.82%

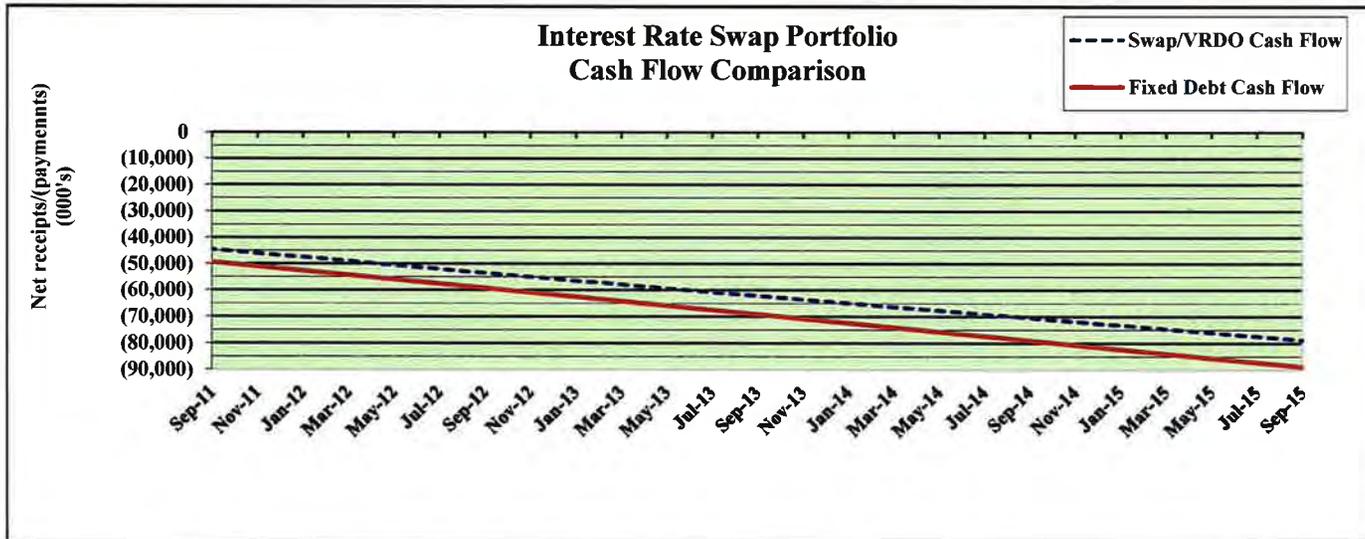
**IRVINE RANCH WATER DISTRICT  
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL  
September 30, 2015**

<b>LIBOR Avg %</b>	<b>Prior Mo.</b>	<b>Current Mo.</b>	<b>12-Mo Avg</b>
	0.20%	0.20%	0.18%

Current Fiscal Year Active Swaps								Cash Flow				(Since 6/06)	Mark to Market	
Effective Date	Maturity Date	Years to Maturity	Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Prior Month	Current Month	Fiscal YTD	Cumulative Cash Flow	Current Mark to Market	Notional Difference	
<b>Fixed Payer Swaps - By Effective Date</b>														
6/4/2006	6/4/2019	3.7	ML	\$ 20,000,000	FXP	LIBOR	6.200%	(103,377)	(96,527)	\$ (300,107)	\$ (8,955,074)	\$ 16,255,996	\$ (3,744,004)	
6/4/2006	6/4/2019	3.7	CG	20,000,000	FXP	LIBOR	6.200%	(103,377)	(96,527)	(300,107)	(8,955,074)	16,252,093	(3,747,907)	
6/17/2006	6/17/2019	3.7	CG	30,000,000	FXP	LIBOR	6.140%	(153,512)	(143,331)	(445,703)	(13,283,606)	24,397,882	(5,602,118)	
3/10/2007	3/10/2029	13.5	ML	30,000,000	FXP	LIBOR	5.687%	(141,833)	(132,447)	(411,766)	(11,921,574)	17,262,183	(12,737,817)	
3/10/2007	3/10/2029	13.5	CG	30,000,000	FXP	LIBOR	5.687%	(141,833)	(132,447)	(411,766)	(11,921,574)	17,228,077	(12,771,923)	
<b>Totals/Weighted Avgs</b>		<b>8.2</b>		<b>\$ 130,000,000</b>			<b>5.949%</b>	<b>\$ (643,932)</b>	<b>\$ (601,279)</b>	<b>\$ (1,869,449)</b>	<b>\$ (55,036,903)</b>	<b>\$ 91,396,231</b>	<b>\$ (38,603,769)</b>	
<b>Total Current Year Active Swaps</b>				<b>\$ 130,000,000</b>				<b>\$ (643,932)</b>	<b>\$ (601,279)</b>	<b>\$ (1,869,449)</b>	<b>\$ (55,036,903)</b>	<b>\$ 91,396,231</b>	<b>\$ (38,603,769)</b>	

Current Fiscal Year Terminated Swaps								Cash Flow				Mark to Market	
Effective Date	Maturity Date		Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Prior Month	Current Month	Fiscal YTD	Cumulative Cash Flow	Current Mark to Market	Notional Difference
<b>Total Current Year Terminated Swaps</b>								<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Current Fiscal Year - Total Swaps								Cash Flow				Mark to Market	
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Cash Flow Comparison Synthetic Fixed vs. Fixed Rate Debt	
Cash Flow to Date	
Synthetic Fixed =	\$78,806,026
Fixed Rate =	\$96,275,867
<b>Assumptions:</b>	
- Fixed rate debt issued at 5.10% in Jun-06, and 4.93% in Mar-07 (estimated TE rates - Bloomberg)	
- 'Synthetic' includes swap cash flow + interest + fees to date	

Exhibit "C"

**MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS**

**September  
2015**

	<b>AMOUNT</b>	<b>VENDOR</b>	<b>PURPOSE</b>
9/4/2015	767,411.32	BANK OF AMERICA	ACH Payments for Payroll
9/18/2015	785,265.60	BANK OF AMERICA	ACH Payments for Payroll
	<u><b>\$1,552,676.92</b></u>		

Exhibit "D"

>

IRWD Ledger Payment Register For 01-SEP-15 To 30-SEP-15 Report Date: 12-OCT-2015 10:52  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 1  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361185		03-SEP-15	Trementozzi, Cody		156.60	15-SEP-15	156.60	Reconciled
361186		03-SEP-15	Drake, Kenneth W (Ken)		1,602.48	09-SEP-15	1,602.48	Reconciled
361187		03-SEP-15	Borowski, Michael		183.58	14-SEP-15	183.58	Reconciled
361188		03-SEP-15	Savedra, Nancy H (Nancy)		65.00	08-SEP-15	65.00	Reconciled
361189		03-SEP-15	COUNTY OF ORANGE	1241 E DYER RD	9,868.00	23-SEP-15	9,868.00	Reconciled
361190		03-SEP-15	COUNTY OF ORANGE	1241 E DYER RD	6,354.00	23-SEP-15	6,354.00	Reconciled
361191		03-SEP-15	COUNTY OF ORANGE	1241 E DYER RD	3,440.00	23-SEP-15	3,440.00	Reconciled
361192		03-SEP-15	4IMPRINT, INC.		597.05	08-SEP-15	597.05	Reconciled
361193		03-SEP-15	ADT SECURITY SERVICES INC		395.26	14-SEP-15	395.26	Reconciled
361194		03-SEP-15	AIRGAS, INC.		620.60	08-SEP-15	620.60	Reconciled
361195		03-SEP-15	AKENAGA, HARUSATO		29.33			Negotiable
361196		03-SEP-15	ALEXANDER'S CONTRACT SERVICES, INC.		108,855.12	10-SEP-15	108,855.12	Reconciled
361197		03-SEP-15	ALPHA TRAFFIC SERVICES, INC.		570.00	09-SEP-15	570.00	Reconciled
361198		03-SEP-15	AMCAL GENERAL CONTRACTORS		651.87	09-SEP-15	651.87	Reconciled
361199		03-SEP-15	ANTHONY N. LARSEN		600.00	08-SEP-15	600.00	Reconciled
361200		03-SEP-15	APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC		80.92	08-SEP-15	80.92	Reconciled
361201		03-SEP-15	ARC		409.57	09-SEP-15	409.57	Reconciled
361202		03-SEP-15	AT&T		289.97	08-SEP-15	289.97	Reconciled
361203		03-SEP-15	AT&T		51.38	09-SEP-15	51.38	Reconciled
361204		03-SEP-15	AUTOZONE PARTS, INC.		91.57	14-SEP-15	91.57	Reconciled
361205		03-SEP-15	AUZA, MARIE		42.93	08-SEP-15	42.93	Reconciled
361206		03-SEP-15	BATTERIES PLUS AND BATTERIES PLUS BULBS		20.47	08-SEP-15	20.47	Reconciled
361207		03-SEP-15	BIGWIG MONSTER, LLC		7,200.00	09-SEP-15	7,200.00	Reconciled
361208		03-SEP-15	BILINGUAL TRAINING INSTITUTE		5,730.00	10-SEP-15	5,730.00	Reconciled
361209		03-SEP-15	BILL'S SWEEPING SERVICE INC		747.50	09-SEP-15	747.50	Reconciled
361210		03-SEP-15	BIOMERIEUX INC		619.86	08-SEP-15	619.86	Reconciled
361211		03-SEP-15	BOUDREAU PIPELINE CORP		1,084.32	28-SEP-15	1,084.32	Reconciled

IRWD Ledger Payment Register For 01-SEP-15 To 30-SEP-15 Report Date: 12-OCT-2015 10:52  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 2  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361212		03-SEP-15	BOWIE, ARNESON, WILES & GIANNONE		23,822.83	17-SEP-15	23,822.83	Reconciled
361213		03-SEP-15	BOYD & ASSOCIATES		3,438.00	08-SEP-15	3,438.00	Reconciled
361214		03-SEP-15	BRISTOL STREET PARTNERS LLC		1,091.67	09-SEP-15	1,091.67	Reconciled
361215		03-SEP-15	BUCCOLA LANDSCAPE SERVICES		55.76	09-SEP-15	55.76	Reconciled
361216		03-SEP-15	BURKE, WILLIAMS & SORENSEN, LLP		195.00	08-SEP-15	195.00	Reconciled
361217		03-SEP-15	CALIFORNIA BARRICADE INC		5,292.50	14-SEP-15	5,292.50	Reconciled
361218		03-SEP-15	CALIFORNIA PACIFIC HOMES		4.20	10-SEP-15	4.20	Reconciled
361219		03-SEP-15	CALIFORNIA URBAN WATER CONSERVATION COUNCIL		6,971.79	09-SEP-15	6,971.79	Reconciled
361220		03-SEP-15	CANON SOLUTIONS AMERICA, INC.		407.01	08-SEP-15	407.01	Reconciled
361221		03-SEP-15	CAPTIVE AUDIENCE MARKETING INC.		123.12	09-SEP-15	123.12	Reconciled
361222		03-SEP-15	CEPA OPERATIONS, INC		589.04	09-SEP-15	589.04	Reconciled
361223		03-SEP-15	CHAE, HEE		51.51	10-SEP-15	51.51	Reconciled
361224		03-SEP-15	CHEM TECH INTERNATIONAL INC		13,516.80	24-SEP-15	13,516.80	Reconciled

361225	03-SEP-15	CHEN, JOY	32.59	08-SEP-15	32.59	Reconciled
361226	03-SEP-15	CHOI, JUNG	26.63	08-SEP-15	26.63	Reconciled
361227	03-SEP-15	CITY OF IRVINE	5,625.60	10-SEP-15	5,625.60	Reconciled
361228	03-SEP-15	CITY OF NEWPORT BEACH	7,942.00	15-SEP-15	7,942.00	Reconciled
361229	03-SEP-15	CLEARINGHOUSE	477.67	11-SEP-15	477.67	Reconciled
361230	03-SEP-15	COASTAL IGNITION & CONTROLS, INC	1,976.07	09-SEP-15	1,976.07	Reconciled
361231	03-SEP-15	COMPUCOM SYSTEMS, INC.	7,165.47	08-SEP-15	7,165.47	Reconciled
361232	03-SEP-15	COUNTY OF ORANGE	3,096.00	23-SEP-15	3,096.00	Reconciled
361233	03-SEP-15	COX COMMUNICATIONS	102.46	08-SEP-15	102.46	Reconciled
361234	03-SEP-15	CURRAN, BARBARA	22.76	18-SEP-15	22.76	Reconciled
361235	03-SEP-15	DATAZEO, INC.	71.52	09-SEP-15	71.52	Reconciled
361236	03-SEP-15	DEE JASPAR & ASSOCIATES, INC.	4,578.19	15-SEP-15	4,578.19	Reconciled
361237	03-SEP-15	DEX MEDIA INC.	75.75	14-SEP-15	75.75	Reconciled
361238	03-SEP-15	DMS FACILITY SERVICES, INC.	16,653.86	10-SEP-15	16,653.86	Reconciled
361239	03-SEP-15	E.J. MEYER COMPANY, INC.	882,683.76	14-SEP-15	882,683.76	Reconciled

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 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361240		03-SEP-15	E.J. MEYER COMPANY, INC.		46,457.04	10-SEP-15	46,457.04	Reconciled
361241		03-SEP-15	ENRIQUES, ROBERT		32.47	08-SEP-15	32.47	Reconciled
361242		03-SEP-15	ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC.		9,236.25	09-SEP-15	9,236.25	Reconciled
361243		03-SEP-15	ENVIRONMENTAL EXPRESS INC		2,539.16	08-SEP-15	2,539.16	Reconciled
361244		03-SEP-15	ENVIRONMENTAL SCIENCE ASSOCIATES		1,243.75	09-SEP-15	1,243.75	Reconciled
361245		03-SEP-15	EXECUTIVE LIGHTING & ELECTRIC		1,326.73	09-SEP-15	1,326.73	Reconciled
361246		03-SEP-15	FISHER SCIENTIFIC COMPANY LLC		3,614.60	08-SEP-15	3,614.60	Reconciled
361247		03-SEP-15	FLEET SOLUTIONS LLC		97.20	10-SEP-15	97.20	Reconciled
361248		03-SEP-15	FRANK LA PLACA EXTERMINATING INC		175.00	11-SEP-15	175.00	Reconciled
361249		03-SEP-15	FULLER TRUCK ACCESSORIES		1,352.16	08-SEP-15	1,352.16	Reconciled
361250		03-SEP-15	GEORGE YARDLEY CO., INC.		3,255.60	08-SEP-15	3,255.60	Reconciled
361251		03-SEP-15	GRAINGER		131.00	08-SEP-15	131.00	Reconciled
361252		03-SEP-15	GRAYBAR ELECTRIC COMPANY		3,464.29	08-SEP-15	3,464.29	Reconciled
361253		03-SEP-15	GRIFFIN DEWATERING CORPORATION		5,322.20	09-SEP-15	5,322.20	Reconciled
361254		03-SEP-15	HACH COMPANY		933.97	08-SEP-15	933.97	Reconciled
361255		03-SEP-15	HACKETT PRINTING		659.18	08-SEP-15	659.18	Reconciled
361256		03-SEP-15	HARVARD COURT APARTMENTS		14.52	17-SEP-15	14.52	Reconciled
361257		03-SEP-15	HELPMATES STAFFING SERVICES		18,059.80	10-SEP-15	18,059.80	Reconciled
361258		03-SEP-15	HOME DEPOT USA INC		872.67	09-SEP-15	872.67	Reconciled
361259		03-SEP-15	HOPKINS TECHNICAL PRODUCTS INC		1,331.47	10-SEP-15	1,331.47	Reconciled
361260		03-SEP-15	ICE QUBE, INC.		2,682.28	08-SEP-15	2,682.28	Reconciled
361261		03-SEP-15	IDENTICARD SYSTEMS WORLDWIDE		1,188.15	10-SEP-15	1,188.15	Reconciled
361262		03-SEP-15	INDUSTRIAL METAL SUPPLY CO		105.84	08-SEP-15	105.84	Reconciled
361263		03-SEP-15	IRVINE PIPE & SUPPLY INC		1,053.36	08-SEP-15	1,053.36	Reconciled
361264		03-SEP-15	IRWD EMPLOYEE ASSOCIATION		790.00	11-SEP-15	790.00	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361265		03-SEP-15	JACOBS PROJECT MANAGEMENT CO.		28,000.00	11-SEP-15	28,000.00	Reconciled
361266		03-SEP-15	KENT & AMY DAHLBERG		1,510.00	09-SEP-15	1,510.00	Reconciled
361267		03-SEP-15	KIMBALL MIDWEST		3,710.63	11-SEP-15	3,710.63	Reconciled
361268		03-SEP-15	KPMG LLP		13,732.80	14-SEP-15	13,732.80	Reconciled
361269		03-SEP-15	KS DIRECT LLC		405.00	09-SEP-15	405.00	Reconciled

361270	03-SEP-15	L & S CONSTRUCTION INC	382.77				Negotiable
361271	03-SEP-15	LAKE PARK HOMEOWNERS ASSOCIATION	211.16	14-SEP-15	211.16		Reconciled
361272	03-SEP-15	LANDCARE HOLDINGS, INC.	57,206.87	11-SEP-15	57,206.87		Reconciled
361273	03-SEP-15	LAZZERI, TONY	950.11	14-SEP-15	950.11		Reconciled
361274	03-SEP-15	LEONARD, KRISTIN	43.42	14-SEP-15	43.42		Reconciled
361275	03-SEP-15	LEWIS BRISBOIS BISGAARD AND SMITH, LLP	6,846.91	10-SEP-15	6,846.91		Reconciled
361276	03-SEP-15	LI, FEI	19.88	08-SEP-15	19.88		Reconciled
361277	03-SEP-15	LOOS, ALAN	28.18	22-SEP-15	28.18		Reconciled
361278	03-SEP-15	LUBRICATION ENGINEERS, INC.	78.91	08-SEP-15	78.91		Reconciled
361279	03-SEP-15	MARVIN GARDENS LLC	241.54	03-SEP-15	241.54		Reconciled
361280	03-SEP-15	MC FADDEN-DALE INDUSTRIAL	966.14	09-SEP-15	966.14		Reconciled
361281	03-SEP-15	MC MASTER CARR SUPPLY CO	1,655.51	09-SEP-15	1,655.51		Reconciled
361282	03-SEP-15	MEJIA, FELIX	32.02				Negotiable
361283	03-SEP-15	NATIONAL READY MIXED CONCRETE CO.	4,712.36	08-SEP-15	4,712.36		Reconciled
361284	03-SEP-15	NATURES IMAGE INC	596.33	09-SEP-15	596.33		Reconciled
361285	03-SEP-15	NEW PIG CORPORATION	406.53	10-SEP-15	406.53		Reconciled
361286	03-SEP-15	NINYO & MOORE	22,464.50	10-SEP-15	22,464.50		Reconciled
361287	03-SEP-15	NOVACOAST INC	6,891.50	08-SEP-15	6,891.50		Reconciled
361288	03-SEP-15	OLIN CORPORATION	16,744.08	11-SEP-15	16,744.08		Reconciled
361289	03-SEP-15	ONESOURCE DISTRIBUTORS LLC	1,204.53	08-SEP-15	1,204.53		Reconciled
361290	03-SEP-15	ORANGE COUNTY AUTO PARTS CO	269.15	08-SEP-15	269.15		Reconciled
361291	03-SEP-15	ORANGE COUNTY VECTOR CONTROL DISTRICT	2,571.65	10-SEP-15	2,571.65		Reconciled
361292	03-SEP-15	ORCHARD HILLS APARTMENTS	108.37	22-SEP-15	108.37		Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361293		03-SEP-15	PACIFIC COAST BOLT CORP		851.46	09-SEP-15	851.46	Reconciled
361294		03-SEP-15	PACIFIC HYDROTECH CORP		755.18	09-SEP-15	755.18	Reconciled
361295		03-SEP-15	PAHLAVANAN, AL		77.04	28-SEP-15	77.04	Reconciled
361296		03-SEP-15	PARADA PAINTING INC		8,500.00	09-SEP-15	8,500.00	Reconciled
361297		03-SEP-15	PARKER, JACQUELINE		16.85	09-OCT-15	16.85	Reconciled
361298		03-SEP-15	PARKWAY LAWNMOWER SHOP		390.00	09-SEP-15	390.00	Reconciled
361299		03-SEP-15	PAYNE & FEARS LLP		13,683.50	10-SEP-15	13,683.50	Reconciled
361300		03-SEP-15	PERS LONG TERM CARE		851.14	14-SEP-15	851.14	Reconciled
361301		03-SEP-15	PRAXAIR DISTRIBUTION INC		783.11	08-SEP-15	783.11	Reconciled
361302		03-SEP-15	PRO MOBILE AUTO DETAILING		250.00	08-SEP-15	250.00	Reconciled
361303		03-SEP-15	RAINBOW NUT & BOLT INC		234.06	09-SEP-15	234.06	Reconciled
361304		03-SEP-15	RAM AIR ENGINEERING INC		4,607.72	08-SEP-15	4,607.72	Reconciled
361305		03-SEP-15	REAL PROPERTY MANAGEMENT COAST		1,080.44	11-SEP-15	1,080.44	Reconciled
361306		03-SEP-15	RED WING SHOES		200.00	08-SEP-15	200.00	Reconciled
361307		03-SEP-15	REECE, TROY OSWALD		5,000.00	09-SEP-15	5,000.00	Reconciled
361308		03-SEP-15	RICHEMS, FELICE		34.13	17-SEP-15	34.13	Reconciled
361309		03-SEP-15	ROBERT FERGUSON COMPANY		558.74	08-OCT-15	558.74	Reconciled
361310		03-SEP-15	ROBERT HALF INTERNATIONAL, INC.		2,376.00	08-SEP-15	2,376.00	Reconciled
361311		03-SEP-15	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT		213,871.64	09-SEP-15	213,871.64	Reconciled
361312		03-SEP-15	ROSZKOWSKI, KAZ		15.65	11-SEP-15	15.65	Reconciled
361313		03-SEP-15	S L RESIDENTIAL		785.00	30-SEP-15	785.00	Reconciled
361314		03-SEP-15	SANTA ANA BLUE PRINT		398.37	09-SEP-15	398.37	Reconciled
361315		03-SEP-15	SANTA MARGARITA FORD		447.61	08-SEP-15	447.61	Reconciled
361316		03-SEP-15	SCHINDLER ELEVATOR CORPORATION		180.14	08-SEP-15	180.14	Reconciled
361317		03-SEP-15	SHAMROCK SUPPLY CO INC		691.39	14-SEP-15	691.39	Reconciled

361318 03-SEP-15 SHARPE, DIANE D 48.37 08-SEP-15 48.37 Reconciled  
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 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361319		03-SEP-15	SHERWIN WILLIAMS COMPANY		1,115.21	09-SEP-15	1,115.21	Reconciled
361320		03-SEP-15	SIEMENS DEMAG DELAVAL TURBOMACHINERY, INC.		5,921.64	16-SEP-15	5,921.64	Reconciled
361321		03-SEP-15	SIGMA-ALDRICH INC		714.32	08-SEP-15	714.32	Reconciled
361322		03-SEP-15	SMITH, CAROL		31.55	10-SEP-15	31.55	Reconciled
361323		03-SEP-15	SMOG TIME		1,015.75	09-SEP-15	1,015.75	Reconciled
361324		03-SEP-15	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT		12,551.21	11-SEP-15	12,551.21	Reconciled
361325		03-SEP-15	SOUTH COAST TOYOTA		28,943.87	14-SEP-15	28,943.87	Reconciled
361326		03-SEP-15	SOUTHERN CALIFORNIA EDISON COMPANY		704,989.53	08-SEP-15	704,989.53	Reconciled
361327		03-SEP-15	SOUTHERN CALIFORNIA EDISON COMPANY		324.00	09-OCT-15	324.00	Reconciled
361328		03-SEP-15	SOUTHERN CALIFORNIA SECURITY CENTER, INC.		658.80	15-SEP-15	658.80	Reconciled
361329		03-SEP-15	SPARKLETTS		403.35	14-SEP-15	403.35	Reconciled
361330		03-SEP-15	SPATIAL WAVE, INC.		11,016.00	10-SEP-15	11,016.00	Reconciled
361331		03-SEP-15	SPX CORP		1,251.73	08-SEP-15	1,251.73	Reconciled
361332		03-SEP-15	STANDARD AUTOMATION AND CONTROL LP		23,524.75	11-SEP-15	23,524.75	Reconciled
361333		03-SEP-15	STANTEC CONSULTING SERVICES INC.		37,956.00	10-SEP-15	37,956.00	Reconciled
361334		03-SEP-15	STATE WATER RESOURCES CONTROL BOARD		5,975.00	09-SEP-15	5,975.00	Reconciled
361335		03-SEP-15	SUNNYHILLS RESTORATION		26,871.19	04-SEP-15	26,871.19	Reconciled
361336		03-SEP-15	TESTAMERICA LABORATORIES, INC		52.50	08-SEP-15	52.50	Reconciled
361337		03-SEP-15	TETRA TECH, INC		9,190.00	08-SEP-15	9,190.00	Reconciled
361338		03-SEP-15	TIC-OFFICE PROPERTIES		2,584.86	22-SEP-15	2,584.86	Reconciled
361339		03-SEP-15	TIC-SPECTRUM OFFICE		3,518.13	22-SEP-15	3,518.13	Reconciled
361340		03-SEP-15	TRI POINTE HOMES INC		20.00	10-SEP-15	20.00	Reconciled
361341		03-SEP-15	TRICOR DIRECT INC		250.57	10-SEP-15	250.57	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361342		03-SEP-15	TROPICAL PLAZA NURSERY INC		4,467.54	08-SEP-15	4,467.54	Reconciled
361343		03-SEP-15	TRUCPARCO		3,560.67	11-SEP-15	3,560.67	Reconciled
361344		03-SEP-15	TSUCHIYAMA, ANNIE		15.58			Negotiable
361345		03-SEP-15	TURELK, INC		248.47	10-SEP-15	248.47	Reconciled
361346		03-SEP-15	UNITED PARCEL SERVICE INC		22.60	08-SEP-15	22.60	Reconciled
361347		03-SEP-15	URS CORPORATION		2,308.80	08-SEP-15	2,308.80	Reconciled
361348		03-SEP-15	VERIZON CALIFORNIA INC		270.48	10-SEP-15	270.48	Reconciled
361349		03-SEP-15	VERIZON CALIFORNIA INC		80.10	10-SEP-15	80.10	Reconciled
361350		03-SEP-15	VERIZON WIRELESS SERVICES LLC		4,826.49	11-SEP-15	4,826.49	Reconciled
361351		03-SEP-15	VHG LABS, INC		241.00	14-SEP-15	241.00	Reconciled
361352		03-SEP-15	VULCAN MATERIALS COMPANY		1,339.38	08-SEP-15	1,339.38	Reconciled
361353		03-SEP-15	WALTERS WHOLESALE ELECTRIC		1,748.64	08-SEP-15	1,748.64	Reconciled
361354		03-SEP-15	WALTON MOTORS & CONTROLS INC		7,567.49	08-SEP-15	7,567.49	Reconciled
361355		03-SEP-15	WASTE MANAGEMENT OF ORANGE COUNTY		1,738.88	08-SEP-15	1,738.88	Reconciled
361356		03-SEP-15	WAXIE'S ENTERPRISES, INC		638.89	10-SEP-15	638.89	Reconciled
361357		03-SEP-15	WECK LABORATORIES		1,480.00	08-SEP-15	1,480.00	Reconciled

361358	03-SEP-15	INC WESTERN WATER WORKS SUPPLY COMPANY		1,449.00	08-SEP-15	1,449.00	Reconciled
361359	03-SEP-15	WILLIAMS, RAYMOND		41.37	08-SEP-15	41.37	Reconciled
361360	03-SEP-15	WOODRUFF, SPRADLIN & SMART APC		1,678.44	09-SEP-15	1,678.44	Reconciled
361361	03-SEP-15	YANG, PINGCHU		134.55	10-SEP-15	134.55	Reconciled
361362	08-SEP-15	LEE, HYUN J	PAY	140.29			Voided
361363	08-SEP-15	SYNAGRO-WWT, INC.	BALTIMORE	168,285.86	16-SEP-15	168,285.86	Reconciled
361364	08-SEP-15	JCI JONES CHEMICALS INC	CINCINNATI	5,505.50	11-SEP-15	5,505.50	Reconciled
361365	10-SEP-15	Kalinsky, Arseny (Arseny)		387.00	10-SEP-15	387.00	Reconciled
361366	10-SEP-15	Compton, Christine A		137.31	11-SEP-15	137.31	Reconciled
361367	10-SEP-15	Sitzler, Roberta K (Roberta)		46.22	10-SEP-15	46.22	Reconciled
361368	10-SEP-15	Martinez, Veronica P		41.22	15-SEP-15	41.22	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361369		10-SEP-15	AIRGAS, INC.		89.94	14-SEP-15	89.94	Reconciled
361370		10-SEP-15	ALVHUBAIB, NAWAF		76.27			Negotiable
361371		10-SEP-15	API FUND FOR PAYROLL EDUCATION, INC.		440.00	15-SEP-15	440.00	Reconciled
361372		10-SEP-15	APPLIED MEMBRANES INC		1,855.41	14-SEP-15	1,855.41	Reconciled
361373		10-SEP-15	AQUA BEN CORPORATION		33,642.00	16-SEP-15	33,642.00	Reconciled
361374		10-SEP-15	ARCADIS U.S., INC.		7,800.00	14-SEP-15	7,800.00	Reconciled
361375		10-SEP-15	ASSOCIATION OF CALIFORNIA CITIES		1,500.00	16-SEP-15	1,500.00	Reconciled
361376		10-SEP-15	ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA		33,402.95	17-SEP-15	33,402.95	Reconciled
361377		10-SEP-15	AT&T		3,396.06	15-SEP-15	3,396.06	Reconciled
361378		10-SEP-15	AUTOZONE PARTS, INC.		382.13	15-SEP-15	382.13	Reconciled
361379		10-SEP-15	AVISTA TECHNOLOGIES, INC		17,069.27	16-SEP-15	17,069.27	Reconciled
361380		10-SEP-15	BATTERIES PLUS AND BATTERIES PLUS BULBS		1,205.71	14-SEP-15	1,205.71	Reconciled
361381		10-SEP-15	BATTERY SPECIALTIES		709.80	15-SEP-15	709.80	Reconciled
361382		10-SEP-15	BIGWIG MONSTER, LLC		2,375.00	14-SEP-15	2,375.00	Reconciled
361383		10-SEP-15	BLACK & VEATCH CORPORATION		409,946.06	17-SEP-15	409,946.06	Reconciled
361384		10-SEP-15	BORCHARD SURVEYING & MAPPING, INC.		5,307.50			Negotiable
361385		10-SEP-15	BOYD & ASSOCIATES		270.00	14-SEP-15	270.00	Reconciled
361386		10-SEP-15	BRITHINEE ELECTRIC		10,077.56	16-SEP-15	10,077.56	Reconciled
361387		10-SEP-15	C WELLS PIPELINE MATERIALS INC		23,899.53	21-SEP-15	23,899.53	Reconciled
361388		10-SEP-15	CALIFORNIA BARRICADE INC		3,462.50	14-SEP-15	3,462.50	Reconciled
361389		10-SEP-15	CITY OF ORANGE		121.60	14-SEP-15	121.60	Reconciled
361390		10-SEP-15	COMMERCE ENERGY INC		161.65	14-SEP-15	161.65	Reconciled
361391		10-SEP-15	CR & R INCORPORATED		12.95	15-SEP-15	12.95	Reconciled
361392		10-SEP-15	CREATIVE ALLIANCE GROUP LLC		500.00	15-SEP-15	500.00	Reconciled
361393		10-SEP-15	CREDENTIAL CHECK CORPORATION		116.90	14-SEP-15	116.90	Reconciled

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

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361394		10-SEP-15	CROCKER & CROCKER		14,652.98	17-SEP-15	14,652.98	Reconciled
361395		10-SEP-15	D & G SIGNS		399.60	16-SEP-15	399.60	Reconciled
361396		10-SEP-15	D & H WATER SYSTEMS INC.		7,363.24	16-SEP-15	7,363.24	Reconciled
361397		10-SEP-15	EI&C ENGINEERING INC		26,460.00	18-SEP-15	26,460.00	Reconciled
361398		10-SEP-15	ENTERPRISE		3,611.10	14-SEP-15	3,611.10	Reconciled

361399	10-SEP-15	SECURITY, INC ENVIRONMENTAL RESOURCE ASSOCIATES	121.61	16-SEP-15	121.61	Reconciled
361400	10-SEP-15	ESCOBAR, JENNIFER	33.37	14-SEP-15	33.37	Reconciled
361401	10-SEP-15	ESRI	2,500.00	11-SEP-15	2,500.00	Reconciled
361402	10-SEP-15	EXECUTIVE LIGHTING & ELECTRIC	294.40	15-SEP-15	294.40	Reconciled
361403	10-SEP-15	FEDEX	719.99	16-SEP-15	719.99	Reconciled
361404	10-SEP-15	FIDELITY SECURITY LIFE INSURANCE COMPANY	6,039.58	15-SEP-15	6,039.58	Reconciled
361405	10-SEP-15	FIRE EXTINGUISHING SAFETY & SERVICE	877.38	14-SEP-15	877.38	Reconciled
361406	10-SEP-15	FIRST CHOICE SERVICES	1,052.23	16-SEP-15	1,052.23	Reconciled
361407	10-SEP-15	FISHER SCIENTIFIC COMPANY LLC	1,257.51	14-SEP-15	1,257.51	Reconciled
361408	10-SEP-15	FLOW SCIENCE INCORPORATED	1,007.10	14-SEP-15	1,007.10	Reconciled
361409	10-SEP-15	GANAHL LUMBER CO.	68.20	16-SEP-15	68.20	Reconciled
361410	10-SEP-15	GHD INC.	26,400.00	18-SEP-15	26,400.00	Reconciled
361411	10-SEP-15	GORDON, GINA	750.00			Negotiable
361412	10-SEP-15	GRAINGER	841.56	14-SEP-15	841.56	Reconciled
361413	10-SEP-15	GRAINGER	122.62	14-SEP-15	122.62	Reconciled
361414	10-SEP-15	GRAYBAR ELECTRIC COMPANY	117.26	11-SEP-15	117.26	Reconciled
361415	10-SEP-15	HACH COMPANY	37,402.95	17-SEP-15	37,402.95	Reconciled
361416	10-SEP-15	HARRINGTON INDUSTRIAL PLASTICS LLC	4,459.53	14-SEP-15	4,459.53	Reconciled
361417	10-SEP-15	HELP/SYSTEMS, LLC	2,309.00	14-SEP-15	2,309.00	Reconciled
361418	10-SEP-15	HELPMATES STAFFING SERVICES	30,256.76	16-SEP-15	30,256.76	Reconciled
361419	10-SEP-15	HILL BROTHERS CHEMICAL COMPANY	4,831.25	14-SEP-15	4,831.25	Reconciled
361420	10-SEP-15	HOME DEPOT USA INC	870.14	17-SEP-15	870.14	Reconciled
361421	10-SEP-15	HU, DE XIN	122.89	17-SEP-15	122.89	Reconciled

IRWD Ledger Payment Register For 01-SEP-15 To 30-SEP-15 Report Date: 12-OCT-2015 10:52  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 10  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361422		10-SEP-15	HYDRO-SCAPE PRODUCTS INC		335.96	14-SEP-15	335.96	Reconciled
361423		10-SEP-15	IBM CORPORATION		254.00	14-SEP-15	254.00	Reconciled
361424		10-SEP-15	INDUSTRIAL METAL SUPPLY CO		140.33	14-SEP-15	140.33	Reconciled
361425		10-SEP-15	IRVINE PIPE & SUPPLY INC		14.99	14-SEP-15	14.99	Reconciled
361426		10-SEP-15	JOHN MICHAEL COVAS		194.20	01-OCT-15	194.20	Reconciled
361427		10-SEP-15	JOHNSTONE SUPPLY		94.95	14-SEP-15	94.95	Reconciled
361428		10-SEP-15	KANG, JOO YEON		24.08	30-SEP-15	24.08	Reconciled
361429		10-SEP-15	KENNY THE PRINTER		970.10	14-SEP-15	970.10	Reconciled
361430		10-SEP-15	KILL-N-BUGS TERMITE AND PEST CONTROL SERVICES		1,300.00	14-SEP-15	1,300.00	Reconciled
361431		10-SEP-15	KLEINFELDER, INC.		11,685.85	16-SEP-15	11,685.85	Reconciled
361432		10-SEP-15	LANDCARE HOLDINGS, INC.		3,167.42	15-SEP-15	3,167.42	Reconciled
361433		10-SEP-15	LEE, JARED		15.62	14-SEP-15	15.62	Reconciled
361434		10-SEP-15	LU'S LIGHTHOUSE, INC.		620.09	14-SEP-15	620.09	Reconciled
361435		10-SEP-15	LUBRICATION ENGINEERS, INC.		98.30	14-SEP-15	98.30	Reconciled
361436		10-SEP-15	MAIL PROS		2,039.10	17-SEP-15	2,039.10	Reconciled
361437		10-SEP-15	MAILFINANCE INC		10,427.63	18-SEP-15	10,427.63	Reconciled
361438		10-SEP-15	MARINA LANDSCAPE MAINTENANCE, INC.		6,152.82	16-SEP-15	6,152.82	Reconciled
361439		10-SEP-15	MC FADDEN-DALE INDUSTRIAL		400.24	14-SEP-15	400.24	Reconciled
361440		10-SEP-15	MCCROMETER, INC.		725.67	14-SEP-15	725.67	Reconciled
361441		10-SEP-15	MEDORA CORPORATION		22,788.60	17-SEP-15	22,788.60	Reconciled
361442		10-SEP-15	MOBILE MODULAR MANAGEMENT CORPORATION		972.00	21-SEP-15	972.00	Reconciled
361443		10-SEP-15	MOROZOV, SERGEY		36.26	21-SEP-15	36.26	Reconciled
361444		10-SEP-15	MUTUAL PROPANE		27.00	15-SEP-15	27.00	Reconciled
361445		10-SEP-15	NATIONAL READY MIXED CONCRETE CO.		387.72	14-SEP-15	387.72	Reconciled
361446		10-SEP-15	NATURALWELL, LLC		990.00	14-SEP-15	990.00	Reconciled
361447		10-SEP-15	NCL OF WISCONSIN INC		155.21	17-SEP-15	155.21	Reconciled
361448		10-SEP-15	NINYO & MOORE		8,309.50	14-SEP-15	8,309.50	Reconciled
361449		10-SEP-15	O.I. ANALYTICAL		3,282.00	18-SEP-15	3,282.00	Reconciled
361450		10-SEP-15	OLIN CORPORATION		14,270.48	17-SEP-15	14,270.48	Reconciled
361451		10-SEP-15	ONESOURCE DISTRIBUTORS LLC		26,060.40	16-SEP-15	26,060.40	Reconciled

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BANK: Bank of America N.A. Branch : Los Angeles  
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 Payment Currency: USD ( US Dollar )  
 Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361452		10-SEP-15	ORACLE AMERICA, INC.		217,808.16	17-SEP-15	217,808.16	Reconciled
361453		10-SEP-15	ORANGE COUNTY AUTO PARTS CO		209.30	14-SEP-15	209.30	Reconciled
361454		10-SEP-15	ORANGE COUNTY VECTOR CONTROL DISTRICT		1,075.72	23-SEP-15	1,075.72	Reconciled
361455		10-SEP-15	PACIFIC GAS AND ELECTRIC COMPANY		22.67	16-SEP-15	22.67	Reconciled
361456		10-SEP-15	PAPER DEPOT DOCUMENT DESTRUCTION LLC		720.00	18-SEP-15	720.00	Reconciled
361457		10-SEP-15	PARKHOUSE TIRE INC		6,774.24	18-SEP-15	6,774.24	Reconciled
361458		10-SEP-15	PIERCE, TERI		28.31	18-SEP-15	28.31	Reconciled
361459		10-SEP-15	PINNACLE EXHIBITS, INC.		2,268.00	14-SEP-15	2,268.00	Reconciled
361460		10-SEP-15	PMK ASSOCIATES INC		18,000.00	17-SEP-15	18,000.00	Reconciled
361461		10-SEP-15	PRUDENTIAL OVERALL SUPPLY		4,890.43	14-SEP-15	4,890.43	Reconciled
361462		10-SEP-15	PTI SAND & GRAVEL INC		1,091.43	16-SEP-15	1,091.43	Reconciled
361463		10-SEP-15	R&B AUTOMATION, INC.		8,994.24	14-SEP-15	8,994.24	Reconciled
361464		10-SEP-15	RAM AIR ENGINEERING INC		12,141.97	18-SEP-15	12,141.97	Reconciled
361465		10-SEP-15	REED, JAMES D		1,930.00	21-SEP-15	1,930.00	Reconciled
361466		10-SEP-15	RESPONSE ENVELOPE, INC		2,544.26	15-SEP-15	2,544.26	Reconciled
361467		10-SEP-15	RINGCLEAR LLC		111.12	15-SEP-15	111.12	Reconciled
361468		10-SEP-15	ROBINSON, DYANI		45.73			Negotiable
361469		10-SEP-15	SANTA ANA BLUE PRINT		1,029.32	14-SEP-15	1,029.32	Reconciled
361470		10-SEP-15	SANTA MARGARITA FORD		662.86	14-SEP-15	662.86	Reconciled
361471		10-SEP-15	SAXENA, JUGESH		61.65	15-SEP-15	61.65	Reconciled
361472		10-SEP-15	SHAMROCK SUPPLY CO INC		414.28	14-SEP-15	414.28	Reconciled
361473		10-SEP-15	SHERWIN WILLIAMS COMPANY		74.35	15-SEP-15	74.35	Reconciled
361474		10-SEP-15	SIEMENS DEMAG DELAVAL TURBOMACHINERY, INC.		119.88	21-SEP-15	119.88	Reconciled
361475		10-SEP-15	SIGN MART / PLASTIC PLUS		222.26	14-SEP-15	222.26	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 12  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361476		10-SEP-15	SIGNATURE FLOORING INC		3,729.00	14-SEP-15	3,729.00	Reconciled
361477		10-SEP-15	SOUTH COAST ANSWERING SERVICE		741.33	15-SEP-15	741.33	Reconciled
361478		10-SEP-15	SOUTH COAST WATER CO.		40.00	17-SEP-15	40.00	Reconciled
361479		10-SEP-15	SOUTH COAST WATER CO.		151.68	14-SEP-15	151.68	Reconciled
361480		10-SEP-15	SOUTHERN CALIFORNIA EDISON COMPANY		9,054.16	14-SEP-15	9,054.16	Reconciled
361481		10-SEP-15	SOUTHLAND WATER TECHNOLOGIES LLC		4,422.40	15-SEP-15	4,422.40	Reconciled
361482		10-SEP-15	SPX CORP		195.10	14-SEP-15	195.10	Reconciled
361483		10-SEP-15	SS MECHANICAL CORPORATION		8,354.00	16-SEP-15	8,354.00	Reconciled
361484		10-SEP-15	STANDARD AUTOMATION AND CONTROL LP		71,272.10	18-SEP-15	71,272.10	Reconciled
361485		10-SEP-15	STULL, PAMELA		424.51	28-SEP-15	424.51	Reconciled
361486		10-SEP-15	THE GAS COMPANY		138.27	21-SEP-15	138.27	Reconciled
361487		10-SEP-15	THE IRVINE COMPANY LLC		31,500.00	17-SEP-15	31,500.00	Reconciled
361488		10-SEP-15	TRUCPARCO		1,368.75	22-SEP-15	1,368.75	Reconciled
361489		10-SEP-15	TRUJILLO, RENEE		40.23	30-SEP-15	40.23	Reconciled
361490		10-SEP-15	TSI INCORPORATED		509.47	14-SEP-15	509.47	Reconciled
361491		10-SEP-15	UNDERGROUND SERVICE ALERT OF SOUTHERN		928.50	15-SEP-15	928.50	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
361492	10-SEP-15	CALIFORNIA UNITED PARCEL SERVICE INC			35.84	14-SEP-15	35.84	Reconciled
361493	10-SEP-15	UNITED STATES POST OFFICE			27,083.33	18-SEP-15	27,083.33	Reconciled
361494	10-SEP-15	URS CORPORATION			20,647.50	18-SEP-15	20,647.50	Reconciled
361495	10-SEP-15	UTILITY SYSTEMS SCIENCE & SOFTWARE INC.			1,160.00	15-SEP-15	1,160.00	Reconciled
361496	10-SEP-15	VALLEYCREST LANDSCAPE DEVELOPMENT, INC.			3,375.12	11-SEP-15	3,375.12	Reconciled
361497	10-SEP-15	VULCAN MATERIALS COMPANY			1,436.16	14-SEP-15	1,436.16	Reconciled
361498	10-SEP-15	WALTERS WHOLESALE ELECTRIC			1,351.16	15-SEP-15	1,351.16	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 13  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361499	10-SEP-15	WASTE MANAGEMENT OF ORANGE COUNTY			2,500.96	14-SEP-15	2,500.96	Reconciled
361500	10-SEP-15	WATERLINE TECHNOLOGIES INC			2,280.00	14-SEP-15	2,280.00	Reconciled
361501	10-SEP-15	WAXIE'S ENTERPRISES, INC			1,075.20	15-SEP-15	1,075.20	Reconciled
361502	10-SEP-15	WECK LABORATORIES INC			3,195.00	15-SEP-15	3,195.00	Reconciled
361503	10-SEP-15	WESTERN NATIONAL CONTRACTORS			1,581.68	29-SEP-15	1,581.68	Reconciled
361504	10-SEP-15	WOLTERS KLUWER LAW & BUSINESS			300.74	14-SEP-15	300.74	Reconciled
361505	10-SEP-15	YP LLC			123.50	14-SEP-15	123.50	Reconciled
361506	10-SEP-15	FOOTHILL/EASTERN TRANSPORTATION	IRVINE		4,650.00	25-SEP-15	4,650.00	Reconciled
361507	11-SEP-15	LEE, HYUN J	PAY		140.29			Voided
361508	11-SEP-15	IRWD-PETTY CASH CUSTODIAN	IRVINE		1,256.37	14-SEP-15	1,256.37	Reconciled
361509	14-SEP-15	CHICAGO'S BEST	2540 MAIN ST		1,551.03	22-SEP-15	1,551.03	Reconciled
361510	15-SEP-15	CORPORATE HEALTH EDUCATION SOLUTIONS LLC	PURCHASE		597.99	21-SEP-15	597.99	Reconciled
361511	17-SEP-15	Nieto, Agustin			325.52	24-SEP-15	325.52	Reconciled
361512	17-SEP-15	Murphy, Alexander J (Alexander)			645.00	21-SEP-15	645.00	Reconciled
361513	17-SEP-15	Blaska, Erika M (Erika)			520.05	18-SEP-15	520.05	Reconciled
361514	17-SEP-15	4IMPRINT, INC.			1,372.93	21-SEP-15	1,372.93	Reconciled
361515	17-SEP-15	ABBOTT, SANDRA			23.70	28-SEP-15	23.70	Reconciled
361516	17-SEP-15	ACEVEDO, ALEX ACCT# 8089900000			487.00	22-SEP-15	487.00	Reconciled
361517	17-SEP-15	ADS LLC			1,936.50	21-SEP-15	1,936.50	Reconciled
361518	17-SEP-15	AFLAC			6,695.02	23-SEP-15	6,695.02	Reconciled
361519	17-SEP-15	AFLAC			314.54	25-SEP-15	314.54	Reconciled
361520	17-SEP-15	AIRGAS, INC.			291.60	21-SEP-15	291.60	Reconciled
361521	17-SEP-15	AKM CONSULTING ENGINEERS, INC.			46,600.00	23-SEP-15	46,600.00	Reconciled
361522	17-SEP-15	ALHAMBRA FOUNDRY CO LTD			6,424.60	21-SEP-15	6,424.60	Reconciled
361523	17-SEP-15	ALKEMA SOLUTIONS			1,000.00	21-SEP-15	1,000.00	Reconciled
361524	17-SEP-15	ALPHA TRAFFIC SERVICES, INC.			570.00	21-SEP-15	570.00	Reconciled
361525	17-SEP-15	ANTHEM BLUE CROSS			562.26	28-SEP-15	562.26	Reconciled

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 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361526	17-SEP-15	APARTMENT ASSOCIATION OF ORANGE COUNTY			1,000.00	21-SEP-15	1,000.00	Reconciled
361527	17-SEP-15	ARMORCAST PRODUCTS COMPANY			10,382.52	23-SEP-15	10,382.52	Reconciled
361528	17-SEP-15	AT&T			1,652.00	22-SEP-15	1,652.00	Reconciled
361529	17-SEP-15	ATHENS SERVICES			5,936.07	22-SEP-15	5,936.07	Reconciled
361530	17-SEP-15	BADGER METER INC			51,564.61	25-SEP-15	51,564.61	Reconciled
361531	17-SEP-15	BANK OF NEW YORK MELLON TRUST COMPANY NA			685.00	22-SEP-15	685.00	Reconciled
361532	17-SEP-15	BATTERY SPECIALTIES			112.49	22-SEP-15	112.49	Reconciled

361533	17-SEP-15	BDC SPECIAL WASTE	207.20	21-SEP-15	207.20	Reconciled
361534	17-SEP-15	BIOMAGIC INC	11,781.50	23-SEP-15	11,781.50	Reconciled
361535	17-SEP-15	BLOOMBERG FINANCE LP	12,465.00	25-SEP-15	12,465.00	Reconciled
361536	17-SEP-15	BLOOMBERG, JAVIN	28.56	22-SEP-15	28.56	Reconciled
361537	17-SEP-15	BUFFENBARGER, CAROL	20.96	22-SEP-15	20.96	Reconciled
361538	17-SEP-15	C WELLS PIPELINE MATERIALS INC	5,347.60	25-SEP-15	5,347.60	Reconciled
361539	17-SEP-15	CABELA'S MARKETING AND BRAND MANAGEMENT INC	226.95	21-SEP-15	226.95	Reconciled
361540	17-SEP-15	CALIFORNIA BARRICADE INC	7,988.78	22-SEP-15	7,988.78	Reconciled
361541	17-SEP-15	CANON FINANCIAL SERVICES, INC	402.85	21-SEP-15	402.85	Reconciled
361542	17-SEP-15	CEMEX, INC.	450.96	21-SEP-15	450.96	Reconciled
361543	17-SEP-15	CH2M HILL, INC	1,283.89	21-SEP-15	1,283.89	Reconciled
361544	17-SEP-15	CHEM TECH INTERNATIONAL INC	10,137.60	24-SEP-15	10,137.60	Reconciled
361545	17-SEP-15	CLEAN ENERGY	1,488.95	23-SEP-15	1,488.95	Reconciled
361546	17-SEP-15	CLEARINGHOUSE	477.67	22-SEP-15	477.67	Reconciled
361547	17-SEP-15	COLONIAL LIFE & ACCIDENT INSURANCE CO.	1,053.48	21-SEP-15	1,053.48	Reconciled
361548	17-SEP-15	COMPUCOM SYSTEMS, INC.	242.19	21-SEP-15	242.19	Reconciled
361549	17-SEP-15	CORELOGIC INC	12.00	21-SEP-15	12.00	Reconciled
361550	17-SEP-15	COUNTY OF ORANGE	24,720.00	21-SEP-15	24,720.00	Reconciled
361551	17-SEP-15	CURT PRINGLE AND ASSOCIATES	7,000.00	22-SEP-15	7,000.00	Reconciled
361552	17-SEP-15	D & H WATER SYSTEMS INC.	4,989.16	24-SEP-15	4,989.16	Reconciled

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 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361553		17-SEP-15	DALOB, CZARINA		54.50	21-SEP-15	54.50	Reconciled
361554		17-SEP-15	DANG, CRYSTAL		27.14	25-SEP-15	27.14	Reconciled
361555		17-SEP-15	DEE JASPAR & ASSOCIATES, INC.		3,628.50	24-SEP-15	3,628.50	Reconciled
361556		17-SEP-15	EMPLOYEE BENEFIT SPECIALIST, INC		1,190.00	28-SEP-15	1,190.00	Reconciled
361557		17-SEP-15	FARRELL & ASSOCIATES		202.59	21-SEP-15	202.59	Reconciled
361558		17-SEP-15	FDM		19,100.00	24-SEP-15	19,100.00	Reconciled
361559		17-SEP-15	FISHER SCIENTIFIC COMPANY LLC		8,026.97	21-SEP-15	8,026.97	Reconciled
361560		17-SEP-15	FLEET SOLUTIONS LLC		4,441.00	21-SEP-15	4,441.00	Reconciled
361561		17-SEP-15	FRANCHISE TAX BOARD		621.54	30-SEP-15	621.54	Reconciled
361562		17-SEP-15	GEORGE YARDLEY CO., INC.		5,732.16	21-SEP-15	5,732.16	Reconciled
361563		17-SEP-15	GM SAGER CONSTRUCTION CO, INC.		122,054.00	23-SEP-15	122,054.00	Reconciled
361564		17-SEP-15	GOULD, NATASHA		7.14			Negotiable
361565		17-SEP-15	GRAINGER		1,396.14	21-SEP-15	1,396.14	Reconciled
361566		17-SEP-15	GRAYBAR ELECTRIC COMPANY		5,613.89	18-SEP-15	5,613.89	Reconciled
361567		17-SEP-15	GRIFFIN DEWATERING CORPORATION		5,092.20	21-SEP-15	5,092.20	Reconciled
361568		17-SEP-15	HACH COMPANY		6,763.25	21-SEP-15	6,763.25	Reconciled
361569		17-SEP-15	HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY		132.24	22-SEP-15	132.24	Reconciled
361570		17-SEP-15	HDR ENGINEERING INC		59,562.50	24-SEP-15	59,562.50	Reconciled
361571		17-SEP-15	HELPMATES STAFFING SERVICES		23,922.82	23-SEP-15	23,922.82	Reconciled
361572		17-SEP-15	HILL BROTHERS CHEMICAL COMPANY		13,999.25	24-SEP-15	13,999.25	Reconciled
361573		17-SEP-15	HINES, CHAD		195.72	21-SEP-15	195.72	Reconciled
361574		17-SEP-15	HOME DEPOT USA INC		275.85	22-SEP-15	275.85	Reconciled
361575		17-SEP-15	HR/LABOR SOLUTIONS INC		2,989.55	01-OCT-15	2,989.55	Reconciled
361576		17-SEP-15	IBM CORPORATION		925.00	22-SEP-15	925.00	Reconciled
361577		17-SEP-15	IDEXX DISTRIBUTION, INC		9,232.25	21-SEP-15	9,232.25	Reconciled
361578		17-SEP-15	IRON MOUNTAIN INFORMATION MANAGEMENT INC		1,854.73	22-SEP-15	1,854.73	Reconciled

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 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361579		17-SEP-15	IRWD EMPLOYEE ASSOCIATION		880.00	18-SEP-15	880.00	Reconciled
361580		17-SEP-15	IRWD-PETTY CASH CUSTODIAN		929.36	18-SEP-15	929.36	Reconciled
361581		17-SEP-15	JCI JONES CHEMICALS INC		2,377.97	21-SEP-15	2,377.97	Reconciled
361582		17-SEP-15	JENNINGS, ROBERT		141.82	21-SEP-15	141.82	Reconciled
361583		17-SEP-15	JOHNSON, ROBERT		137.62	22-SEP-15	137.62	Reconciled
361584		17-SEP-15	KIKER, KRAIG		35.85	23-SEP-15	35.85	Reconciled
361585		17-SEP-15	KIM, YOUNG OK		33.45	29-SEP-15	33.45	Reconciled
361586		17-SEP-15	KLEINFELDER, INC.		94,369.00	23-SEP-15	94,369.00	Reconciled
361587		17-SEP-15	KOELLER NEBEKER CARLSON & HALUCK, LLP		2,534.42	21-SEP-15	2,534.42	Reconciled
361588		17-SEP-15	LANDCARE HOLDINGS, INC.		2,014.00	21-SEP-15	2,014.00	Reconciled
361589		17-SEP-15	LCS TECHNOLOGIES, INC.		4,860.00	21-SEP-15	4,860.00	Reconciled
361590		17-SEP-15	LEWIS OPERATING CORP		400.00	21-SEP-15	400.00	Reconciled
361591		17-SEP-15	LIN, SHUPEI		21.22	21-SEP-15	21.22	Reconciled
361592		17-SEP-15	MAHON, GENE		18.92	21-SEP-15	18.92	Reconciled
361593		17-SEP-15	MARVIN GARDENS LLC		89.15	17-SEP-15	89.15	Reconciled
361594		17-SEP-15	MAYFIELD, CONNIE		2,740.00	21-SEP-15	2,740.00	Reconciled
361595		17-SEP-15	MC MASTER CARR SUPPLY CO		519.19	21-SEP-15	519.19	Reconciled
361596		17-SEP-15	NATIONAL READY MIXED CONCRETE CO.		3,109.28	21-SEP-15	3,109.28	Reconciled
361597		17-SEP-15	NEPTUNE TECHNOLOGY GROUP, INC.		77,448.96	24-SEP-15	77,448.96	Reconciled
361598		17-SEP-15	NEWPORT BEACH CHAMBER OF COMMERCE		1,400.00	21-SEP-15	1,400.00	Reconciled
361599		17-SEP-15	NEWPORT WINDOW MAINTENANCE INC		1,312.00	22-SEP-15	1,312.00	Reconciled
361600		17-SEP-15	NINYO & MOORE		2,015.75	21-SEP-15	2,015.75	Reconciled
361601		17-SEP-15	O'HAREN GOVERNMENT RELATIONS		6,500.00	28-SEP-15	6,500.00	Reconciled
361602		17-SEP-15	O.I. ANALYTICAL		275.56	22-SEP-15	275.56	Reconciled
361603		17-SEP-15	OLIN CORPORATION		25,876.52	24-SEP-15	25,876.52	Reconciled
361604		17-SEP-15	ORANGE COUNTY AUTO PARTS CO		123.02	21-SEP-15	123.02	Reconciled
361605		17-SEP-15	OUTSOURCE TECHNICAL LLC		20,088.00	23-SEP-15	20,088.00	Reconciled
361606		17-SEP-15	PARKSIDE COMM ASSOC		16,375.66	06-OCT-15	16,375.66	Reconciled
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Bank Account Currency: USD ( US Dollar )					Payment Currency: USD ( US Dollar )			
Payment Type: All					Display Supplier Address: No			

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361607		17-SEP-15	PERS LONG TERM CARE		851.14	23-SEP-15	851.14	Reconciled
361608		17-SEP-15	PRAXAIR DISTRIBUTION INC		224.22	22-SEP-15	224.22	Reconciled
361609		17-SEP-15	PRE-PAID LEGAL SERVICES INC		1,333.54	24-SEP-15	1,333.54	Reconciled
361610		17-SEP-15	PRUDENTIAL OVERALL SUPPLY		154.30	21-SEP-15	154.30	Reconciled
361611		17-SEP-15	PTI SAND & GRAVEL INC		2,380.64	22-SEP-15	2,380.64	Reconciled
361612		17-SEP-15	PURE EFFECT INC		1,424.80	22-SEP-15	1,424.80	Reconciled
361613		17-SEP-15	RAINBOW DISPOSAL CO INC		325.21	22-SEP-15	325.21	Reconciled
361614		17-SEP-15	RANCHO MADERAS APTS		768.50	02-OCT-15	768.50	Reconciled
361615		17-SEP-15	RANCHO TIERRA APTS		38.67	02-OCT-15	38.67	Reconciled
361616		17-SEP-15	RED WING SHOES		200.00	06-OCT-15	200.00	Reconciled
361617		17-SEP-15	SAN LEON APTS		10.23	22-SEP-15	10.23	Reconciled
361618		17-SEP-15	SANTA ANA BLUE PRINT		546.43	22-SEP-15	546.43	Reconciled
361619		17-SEP-15	SANTA MARIA APTS		293.43	02-OCT-15	293.43	Reconciled
361620		17-SEP-15	SANTIAGO AQUEDUCT COMMISSION		21,481.08	21-SEP-15	21,481.08	Reconciled
361621		17-SEP-15	SHAMROCK SUPPLY CO INC		403.57	21-SEP-15	403.57	Reconciled
361622		17-SEP-15	SHEA HOMES		10,906.20			Negotiable
361623		17-SEP-15	SMOG TIME		119.50	22-SEP-15	119.50	Reconciled
361624		17-SEP-15	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT		628.53	25-SEP-15	628.53	Reconciled
361625		17-SEP-15	SOUTHERN CALIFORNIA EDISON		69,337.72	21-SEP-15	69,337.72	Reconciled

361626	17-SEP-15	COMPANY SOUTHERN CALIFORNIA GAS COMPANY	2,131.56	23-SEP-15	2,131.56	Reconciled
361627	17-SEP-15	SPX CORP	1,272.97	21-SEP-15	1,272.97	Reconciled
361628	17-SEP-15	SUSAN A. SIROTA	4,195.00	22-SEP-15	4,195.00	Reconciled
361629	17-SEP-15	SWAINS ELECTRIC MOTOR SERVICE	3,832.80	21-SEP-15	3,832.80	Reconciled
361630	17-SEP-15	TEKDRAULICS	9,986.60	25-SEP-15	9,986.60	Reconciled
361631	17-SEP-15	THE EASTWOOD COMPANY	125.07	25-SEP-15	125.07	Reconciled
361632	17-SEP-15	THE FURMAN GROUP, INC.	11,600.00	25-SEP-15	11,600.00	Reconciled
361633	17-SEP-15	THE GAS COMPANY	428.64	25-SEP-15	428.64	Reconciled

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 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361634	17-SEP-15	17-SEP-15	THE IRVINE COMPANY LLC		41,850.20	24-SEP-15	41,850.20	Reconciled
361635	17-SEP-15	17-SEP-15	THOMAS HARDER & CO		2,305.00	21-SEP-15	2,305.00	Reconciled
361636	17-SEP-15	17-SEP-15	THOMPSON INDUSTRIAL SUPPLY		313.58	22-SEP-15	313.58	Reconciled
361637	17-SEP-15	17-SEP-15	THYSENKRUPP ELEVATOR CORPORATION		173.65	21-SEP-15	173.65	Reconciled
361638	17-SEP-15	17-SEP-15	TITAN OUTDOOR LLC		10,114.45	24-SEP-15	10,114.45	Reconciled
361639	17-SEP-15	17-SEP-15	TROPICAL PLAZA NURSERY INC		30,282.71	23-SEP-15	30,282.71	Reconciled
361640	17-SEP-15	17-SEP-15	TYCO INTEGRATED SECURITY, LLC		680.90	22-SEP-15	680.90	Reconciled
361641	17-SEP-15	17-SEP-15	U.S. HEALTHWORKS MEDICAL GROUP, P.C.		880.00	21-SEP-15	880.00	Reconciled
361642	17-SEP-15	17-SEP-15	ULINE INC		714.67	23-SEP-15	714.67	Reconciled
361643	17-SEP-15	17-SEP-15	ULTRA SCIENTIFIC		487.35	22-SEP-15	487.35	Reconciled
361644	17-SEP-15	17-SEP-15	UNITED PARCEL SERVICE INC		83.38	21-SEP-15	83.38	Reconciled
361645	17-SEP-15	17-SEP-15	UNITED SITE SERVICES OF CALIFORNIA INC		630.56	23-SEP-15	630.56	Reconciled
361646	17-SEP-15	17-SEP-15	UNITED WAY OF ORANGE COUNTY		522.00	21-SEP-15	522.00	Reconciled
361647	17-SEP-15	17-SEP-15	UNIVAR USA INC		6,070.69	21-SEP-15	6,070.69	Reconciled
361648	17-SEP-15	17-SEP-15	URS CORPORATION		18,399.44	24-SEP-15	18,399.44	Reconciled
361649	17-SEP-15	17-SEP-15	VA CONSULTING, INC		7,590.00	21-SEP-15	7,590.00	Reconciled
361650	17-SEP-15	17-SEP-15	VERIZON CALIFORNIA INC		50.17	22-SEP-15	50.17	Reconciled
361651	17-SEP-15	17-SEP-15	VERIZON WIRELESS SERVICES LLC		2,967.52	24-SEP-15	2,967.52	Reconciled
361652	17-SEP-15	17-SEP-15	VILLA SIENNA APTS		13,608.91	02-OCT-15	13,608.91	Reconciled
361653	17-SEP-15	17-SEP-15	VRIDE INC		10,110.00	24-SEP-15	10,110.00	Reconciled
361654	17-SEP-15	17-SEP-15	VWR INTERNATIONAL, LLC		3,079.13	22-SEP-15	3,079.13	Reconciled
361655	17-SEP-15	17-SEP-15	WAKAYAMA, KAREN		115.01	23-SEP-15	115.01	Reconciled
361656	17-SEP-15	17-SEP-15	WALTERS WHOLESALE ELECTRIC		424.50	23-SEP-15	424.50	Reconciled
361657	17-SEP-15	17-SEP-15	WATERLINE TECHNOLOGIES INC		2,840.00	21-SEP-15	2,840.00	Reconciled
361658	17-SEP-15	17-SEP-15	WATERSMART SOFTWARE, INC		17,974.42	24-SEP-15	17,974.42	Reconciled
361659	17-SEP-15	17-SEP-15	WAXIE'S ENTERPRISES, INC		1,627.10	23-SEP-15	1,627.10	Reconciled

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 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361660	17-SEP-15	17-SEP-15	WECK LABORATORIES INC		160.00	28-SEP-15	160.00	Reconciled
361661	17-SEP-15	17-SEP-15	WESTERN EXTERMINATOR COMPANY		392.00	29-SEP-15	392.00	Reconciled
361662	17-SEP-15	17-SEP-15	WINDWOOD GLEN		56.86	22-SEP-15	56.86	Reconciled
361663	17-SEP-15	17-SEP-15	WIRELESS WATCHDOGS, LLC		432.00	25-SEP-15	432.00	Reconciled
361664	17-SEP-15	17-SEP-15	ZEE MEDICAL SERVICE CO		998.34	21-SEP-15	998.34	Reconciled
361665	18-SEP-15	18-SEP-15	US BANK NAT'L ASSOC N.DAKOTA	60 LIVINGSTON	11,780.13	22-SEP-15	11,780.13	Reconciled
361666	18-SEP-15	18-SEP-15	CITIGROUP GLOBAL MARKETS INC.	PITTSBURGH	2,655.21	23-SEP-15	2,655.21	Reconciled

361667	18-SEP-15	OLIN CORPORATION	ATLANTA	2,841.64	22-SEP-15	2,841.64	Reconciled
361668	18-SEP-15	CALIFORNIA BANK & TRUST	520 CAP MALL	22,487.92	23-SEP-15	22,487.92	Reconciled
361669	22-SEP-15	JCI JONES CHEMICALS INC	CINCINNATI	4,523.78	25-SEP-15	4,523.78	Reconciled
361670	23-SEP-15	JCI JONES CHEMICALS INC	CINCINNATI	9,909.90	28-SEP-15	9,909.90	Reconciled
361671	23-SEP-15	REGENTS OF THE UNIVERSITY OF CALIFORNIA	7601 IRVINE BLV	670.00	25-SEP-15	670.00	Reconciled
361672	23-SEP-15	STATE BOARD OF EQUALIZATION	SACRAMENTO	1,328.00	29-SEP-15	1,328.00	Reconciled
361673	24-SEP-15	Arant, Anita E (Anita)		10.92			Negotiable
361674	24-SEP-15	Reinhart, Douglas J		603.79	30-SEP-15	603.79	Reconciled
361675	24-SEP-15	Soto, Franklin E (Frank)		106.40	29-SEP-15	106.40	Reconciled
361676	24-SEP-15	Swan, Peer		168.45	28-SEP-15	168.45	Reconciled
361677	24-SEP-15	Shanafelt, Shane D (Shane)		275.29	28-SEP-15	275.29	Reconciled
361678	24-SEP-15	LaMar, Steven E		649.19	28-SEP-15	649.19	Reconciled
361679	24-SEP-15	Rice, Tera L		1,559.07	01-OCT-15	1,559.07	Reconciled
361680	24-SEP-15	HELPMATES STAFFING SERVICES	IRVINE	10,834.25	30-SEP-15	10,834.25	Reconciled
361681	24-SEP-15	ADVANCED ELECTRONICS INC		2,066.20	29-SEP-15	2,066.20	Reconciled
361682	24-SEP-15	AIRGAS, INC.		554.43	28-SEP-15	554.43	Reconciled
361683	24-SEP-15	ALL AMERICAN SEWER TOOLS		1,059.15	28-SEP-15	1,059.15	Reconciled
361684	24-SEP-15	ALSTON & BIRD LLP		1,533.11	28-SEP-15	1,533.11	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361685		24-SEP-15	ALTMAN SPECIALTY PLANTS, INC		748.57	28-SEP-15	748.57	Reconciled
361686		24-SEP-15	APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC		112.68	28-SEP-15	112.68	Reconciled
361687		24-SEP-15	ARCADIS U.S., INC.		107,865.29	01-OCT-15	107,865.29	Reconciled
361688		24-SEP-15	ASHFORD, WALT		472.81	30-SEP-15	472.81	Reconciled
361689		24-SEP-15	AT&T		50.18	29-SEP-15	50.18	Reconciled
361690		24-SEP-15	AT&T		3,590.13	29-SEP-15	3,590.13	Reconciled
361691		24-SEP-15	AT&T		5,862.71	29-SEP-15	5,862.71	Reconciled
361692		24-SEP-15	AT&T		48.51	29-SEP-15	48.51	Reconciled
361693		24-SEP-15	AUTOZONE PARTS, INC.		812.17	29-SEP-15	812.17	Reconciled
361694		24-SEP-15	BARTEL ASSOCIATES, LLC		1,569.20	28-SEP-15	1,569.20	Reconciled
361695		24-SEP-15	BATTERIES PLUS AND BATTERIES PLUS BULBS		642.06	28-SEP-15	642.06	Reconciled
361696		24-SEP-15	BATTERY SPECIALTIES		327.40	29-SEP-15	327.40	Reconciled
361697		24-SEP-15	BECKHAM, ANTONY		25.14			Negotiable
361698		24-SEP-15	BELL TOWER FLORIST & GIFTS		97.19	05-OCT-15	97.19	Reconciled
361699		24-SEP-15	BILINGUAL TRAINING INSTITUTE		1,910.00	02-OCT-15	1,910.00	Reconciled
361700		24-SEP-15	BONTERRA CONSULTING LLC		13,364.68			Negotiable
361701		24-SEP-15	BOWIE, ARNESON, WILES & GIANNONE		27,831.38			Negotiable
361702		24-SEP-15	C WELLS PIPELINE MATERIALS INC		9,761.59	30-SEP-15	9,761.59	Reconciled
361703		24-SEP-15	CALIFORNIA DEPT OF PUBLIC HEALTH		473.00	29-SEP-15	473.00	Reconciled
361704		24-SEP-15	CALIFORNIA PACIFIC HOMES		2,433.51	30-SEP-15	2,433.51	Reconciled
361705		24-SEP-15	CANON FINANCIAL SERVICES, INC		8,817.57	28-SEP-15	8,817.57	Reconciled
361706		24-SEP-15	CARL WARREN & CO		2,500.00	28-SEP-15	2,500.00	Reconciled
361707		24-SEP-15	CAROLLO ENGINEERS, INC		1,756.00	29-SEP-15	1,756.00	Reconciled
361708		24-SEP-15	CHERKASKY, ANDREW		96.32	28-SEP-15	96.32	Reconciled
361709		24-SEP-15	CITY OF IRVINE		2,599.67			Negotiable
361710		24-SEP-15	CITY OF NEWPORT BEACH		1,154.50	05-OCT-15	1,154.50	Reconciled
361711		24-SEP-15	CITY OF SANTA ANA		86.44	28-SEP-15	86.44	Reconciled
361712		24-SEP-15	CLA-VAL COMPANY		393.80	29-SEP-15	393.80	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361713		24-SEP-15	COATING SPECIALISTS AND INSPECTION SERVICES, INC.		3,990.00	29-SEP-15	3,990.00	Reconciled
361714		24-SEP-15	COLLIER, KANDACE		19.77	07-OCT-15	19.77	Reconciled
361715		24-SEP-15	COMMERCE ENERGY INC		269.24	28-SEP-15	269.24	Reconciled
361716		24-SEP-15	COX COMMUNICATIONS		251.97	28-SEP-15	251.97	Reconciled
361717		24-SEP-15	CREATIVE ALLIANCE GROUP LLC		4,564.41	28-SEP-15	4,564.41	Reconciled
361718		24-SEP-15	CREDENTIAL CHECK CORPORATION		295.56	29-SEP-15	295.56	Reconciled
361719		24-SEP-15	DATAGEAR, INC.		757.30	01-OCT-15	757.30	Reconciled
361720		24-SEP-15	DELL MARKETING LP		2,225.07	28-SEP-15	2,225.07	Reconciled
361721		24-SEP-15	DIRECTV INC		110.98	28-SEP-15	110.98	Reconciled
361722		24-SEP-15	DURAN CONSTRUCTION CORP		868.48	29-SEP-15	868.48	Reconciled
361723		24-SEP-15	EAST ORANGE COUNTY WATER DISTRICT		5,851.56	29-SEP-15	5,851.56	Reconciled
361724		24-SEP-15	EHS INTERNATIONAL, INC		3,240.00	28-SEP-15	3,240.00	Reconciled
361725		24-SEP-15	ELECTRABOND		7,314.00	30-SEP-15	7,314.00	Reconciled
361726		24-SEP-15	ELITE EQUIPMENT, INC.		270.56	02-OCT-15	270.56	Reconciled
361727		24-SEP-15	EMD MILLIPORE CORPORATION		1,722.92	02-OCT-15	1,722.92	Reconciled
361728		24-SEP-15	ENVIRONMENTAL RESOURCE ASSOCIATES		269.36	01-OCT-15	269.36	Reconciled
361729		24-SEP-15	EXECUTIVE LIGHTING & ELECTRIC		2,434.99	28-SEP-15	2,434.99	Reconciled
361730		24-SEP-15	FAIRBANK, MASLIN, MAULLIN, METZ & ASSOCIATES, INC.		29,098.48	05-OCT-15	29,098.48	Reconciled
361731		24-SEP-15	FARRELL & ASSOCIATES		180.99	05-OCT-15	180.99	Reconciled
361732		24-SEP-15	FARWEST CORROSION CONTROL COMPANY		7,634.98	28-SEP-15	7,634.98	Reconciled
361733		24-SEP-15	FEDEX		248.45	29-SEP-15	248.45	Reconciled
361734		24-SEP-15	FERGUSON ENTERPRISES, INC.		668.74	28-SEP-15	668.74	Reconciled
361735		24-SEP-15	FERGUSON, DAVID		2,175.00	30-SEP-15	2,175.00	Reconciled
361736		24-SEP-15	FISERV		14,507.26	29-SEP-15	14,507.26	Reconciled
361737		24-SEP-15	FISHER SCIENTIFIC COMPANY LLC		5,052.99	28-SEP-15	5,052.99	Reconciled
361738		24-SEP-15	FISHER, SANDRA		45.56	06-OCT-15	45.56	Reconciled
IRWD Ledger Payment Register For 01-SEP-15 To 30-SEP-15 Report Date: 12-OCT-2015 10:52								
BANK: Bank of America N.A.			Branch : Los Angeles		Account: Checking AP and PR		Page: 22	
Bank Account Currency: USD ( US Dollar )					Payment Currency: USD ( US Dollar )			
Payment Type: All					Display Supplier Address: No			

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361739		24-SEP-15	GANAHL LUMBER CO.		1,232.38	29-SEP-15	1,232.38	Reconciled
361740		24-SEP-15	GENERAL PUMP COMPANY INC		32,442.38	02-OCT-15	32,442.38	Reconciled
361741		24-SEP-15	GHD INC.		77,140.25	01-OCT-15	77,140.25	Reconciled
361742		24-SEP-15	GRAINGER		2,151.32	29-SEP-15	2,151.32	Reconciled
361743		24-SEP-15	HAAKER EQUIPMENT COMPANY		155.79	28-SEP-15	155.79	Reconciled
361744		24-SEP-15	HABITAT RESTORATION SCIENCES, INC.		2,103.00	02-OCT-15	2,103.00	Reconciled
361745		24-SEP-15	HACH COMPANY		685.80	28-SEP-15	685.80	Reconciled
361746		24-SEP-15	HAMILTON, KURT		2,245.36	28-SEP-15	2,245.36	Reconciled
361747		24-SEP-15	HARTFORD LIFE INSURANCE COMPANY		25,343.13	02-OCT-15	25,343.13	Reconciled
361748		24-SEP-15	HELPMATES STAFFING SERVICES		17,144.46	30-SEP-15	17,144.46	Reconciled
361749		24-SEP-15	HERMAN WEISSKER INC		699.95	28-SEP-15	699.95	Reconciled
361750		24-SEP-15	HILL BROTHERS CHEMICAL COMPANY		8,405.90	28-SEP-15	8,405.90	Reconciled
361751		24-SEP-15	HOME DEPOT USA INC		1,065.26	30-SEP-15	1,065.26	Reconciled
361752		24-SEP-15	HUNSAKER & ASSOCIATES IRVINE		26,245.00	30-SEP-15	26,245.00	Reconciled
361753		24-SEP-15	IBM CORPORATION		3,821.00	28-SEP-15	3,821.00	Reconciled
361754		24-SEP-15	IDEXX DISTRIBUTION, INC		878.43	28-SEP-15	878.43	Reconciled
361755		24-SEP-15	INDUSTRIAL METAL SUPPLY CO		613.50	29-SEP-15	613.50	Reconciled
361756		24-SEP-15	IRANI, KATY		124.34	08-OCT-15	124.34	Reconciled
361757		24-SEP-15	IRVINE PIPE & SUPPLY INC		806.82	29-SEP-15	806.82	Reconciled
361758		24-SEP-15	IRWD-PETTY CASH CUSTODIAN		1,088.80	28-SEP-15	1,088.80	Reconciled
361759		24-SEP-15	KIM, SOON TAE		2,300.00	29-SEP-15	2,300.00	Reconciled

361760	24-SEP-15	KIMBALL MIDWEST		909.91	28-SEP-15	909.91	Reconciled
361761	24-SEP-15	KINNING, DERIK		23.96	30-SEP-15	23.96	Reconciled
361762	24-SEP-15	KONECRANES INC		4,740.00	28-SEP-15	4,740.00	Reconciled
361763	24-SEP-15	KS DIRECT LLC		745.20	28-SEP-15	745.20	Reconciled
361764	24-SEP-15	L. G. SUPPLY COMPANY		1,094.68			Negotiable
361765	24-SEP-15	LAGUNA BEACH COUNTY WATER DISTRICT		4,826.51	29-SEP-15	4,826.51	Reconciled
361766	24-SEP-15	LANDCARE HOLDINGS, INC.		55,664.00	30-SEP-15	55,664.00	Reconciled
361767	24-SEP-15	LEE, BONNIE		1,220.74	29-SEP-15	1,220.74	Reconciled

IRWD Ledger      Payment Register For 01-SEP-15 To 30-SEP-15      Report Date: 12-OCT-2015 10:52  
 BANK: Bank of America N.A.      Branch : Los Angeles      Account: Checking AP and PR      Page: 23  
 Bank Account Currency: USD ( US Dollar )      Payment Currency: USD ( US Dollar )  
 Payment Type: All      Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361768		24-SEP-15	LEE, HYUN J		140.29	28-SEP-15	140.29	Reconciled
361769		24-SEP-15	LENNAR HOMES		200.00	28-SEP-15	200.00	Reconciled
361770		24-SEP-15	LEWIS OPERATING CORP		200.00	30-SEP-15	200.00	Reconciled
361771		24-SEP-15	LIAN, JING		29.18	28-SEP-15	29.18	Reconciled
361772		24-SEP-15	LILLESTRAND LEADERSHIP CONSULTING, INC.		586.03	05-OCT-15	586.03	Reconciled
361773		24-SEP-15	LUBRICATION ENGINEERS, INC.		565.27	28-SEP-15	565.27	Reconciled
361774		24-SEP-15	M & G PROPERTIES, LLC		450.00	29-SEP-15	450.00	Reconciled
361775		24-SEP-15	MARVIN GARDENS LLC		2,593.70	24-SEP-15	2,593.70	Reconciled
361776		24-SEP-15	MBC APPLIED ENVIRONMENTAL SCIENCES		1,300.00	28-SEP-15	1,300.00	Reconciled
361777		24-SEP-15	MBF CONSULTING, INC.		6,720.00	30-SEP-15	6,720.00	Reconciled
361778		24-SEP-15	MC FADDEN-DALE INDUSTRIAL		613.56	29-SEP-15	613.56	Reconciled
361779		24-SEP-15	MC MASTER CARR SUPPLY CO		766.74	28-SEP-15	766.74	Reconciled
361780		24-SEP-15	METTLER-TOLEDO INC		1,065.95	28-SEP-15	1,065.95	Reconciled
361781		24-SEP-15	MICHAEL BAKER INTERNATIONAL, INC.		7,706.68	28-SEP-15	7,706.68	Reconciled
361782		24-SEP-15	MISCOWATER		2,906.84	28-SEP-15	2,906.84	Reconciled
361783		24-SEP-15	MOBILE MODULAR MANAGEMENT CORPORATION		972.00	29-SEP-15	972.00	Reconciled
361784		24-SEP-15	MORTON SAFETY CO		1,231.20	28-SEP-15	1,231.20	Reconciled
361785		24-SEP-15	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		43,139.41	30-SEP-15	43,139.41	Reconciled
361786		24-SEP-15	NATURES IMAGE INC		1,562.50	28-SEP-15	1,562.50	Reconciled
361787		24-SEP-15	NOVACOAST INC		4,593.75	28-SEP-15	4,593.75	Reconciled
361788		24-SEP-15	OCTA		2,405.00	29-SEP-15	2,405.00	Reconciled
361789		24-SEP-15	OLIN CORPORATION		19,806.08	01-OCT-15	19,806.08	Reconciled
361790		24-SEP-15	ON ASSIGNMENT LAB SUPPORT		1,597.68	28-SEP-15	1,597.68	Reconciled
361791		24-SEP-15	ORANGE COUNTY AUTO PARTS CO		1,735.32	28-SEP-15	1,735.32	Reconciled
361792		24-SEP-15	ORANGE COUNTY SANITATION DISTRICT		1,570.00	28-SEP-15	1,570.00	Reconciled

IRWD Ledger      Payment Register For 01-SEP-15 To 30-SEP-15      Report Date: 12-OCT-2015 10:52  
 BANK: Bank of America N.A.      Branch : Los Angeles      Account: Checking AP and PR      Page: 24  
 Bank Account Currency: USD ( US Dollar )      Payment Currency: USD ( US Dollar )  
 Payment Type: All      Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
361793		24-SEP-15	ORANGE COUNTY WATER DISTRICT		182,210.60	29-SEP-15	182,210.60	Reconciled
361794		24-SEP-15	OUTSOURCE TECHNICAL LLC		44,516.00	30-SEP-15	44,516.00	Reconciled
361795		24-SEP-15	OZONIA NORTH AMERICA, LLC		27,746.95	01-OCT-15	27,746.95	Reconciled
361796		24-SEP-15	PACIFIC PARTS & CONTROLS INC		10,666.95	30-SEP-15	10,666.95	Reconciled
361797		24-SEP-15	PACIFIC PARTY RENTAL		393.00	07-OCT-15	393.00	Reconciled
361798		24-SEP-15	PARKHOUSE TIRE INC		1,746.06	29-SEP-15	1,746.06	Reconciled
361799		24-SEP-15	PELLETIER & ASSOCIATES, INC.		2,680.00	01-OCT-15	2,680.00	Reconciled
361800		24-SEP-15	PINNACLE TOWERS LLC		640.42	28-SEP-15	640.42	Reconciled
361801		24-SEP-15	PIVOT INTERIORS		29,974.67	30-SEP-15	29,974.67	Reconciled



361840	24-SEP-15	US BANK NAT'L ASSOCIATION NORTH DAKOTA	89,095.97	06-OCT-15	89,095.97	Reconciled
361841	24-SEP-15	VARGAS, EDWIN	44.18	05-OCT-15	44.18	Reconciled
361842	24-SEP-15	VERIZON CALIFORNIA INC	265.65	29-SEP-15	265.65	Reconciled
361843	24-SEP-15	VERTECH INDUSTRIAL SYSTEMS, LLC	3,939.16	29-SEP-15	3,939.16	Reconciled
361844	24-SEP-15	VIRTUAL POLYMER COMPOUNDS	11,398.25	01-OCT-15	11,398.25	Reconciled
361845	24-SEP-15	WALTERS WHOLESAL ELECTRIC	31.21	29-SEP-15	31.21	Reconciled
361846	24-SEP-15	WATERLINE TECHNOLOGIES INC	2,840.00	28-SEP-15	2,840.00	Reconciled
361847	24-SEP-15	WAXIE'S ENTERPRISES, INC	738.56	29-SEP-15	738.56	Reconciled
361848	24-SEP-15	WECK LABORATORIES INC	6,775.00	30-SEP-15	6,775.00	Reconciled
361849	24-SEP-15	WEST ENVIRONMENTAL SERVICES & TECHNOLOGY, INC.	1,102.50			Negotiable
361850	24-SEP-15	WESTAMERICA COMMUNICATIONS, INC.	20,438.63	30-SEP-15	20,438.63	Reconciled
361851	24-SEP-15	WESTERN EXTERMINATOR COMPANY	1,309.00			Negotiable
361852	24-SEP-15	WOOD RODGERS, INC.	18,512.50	01-OCT-15	18,512.50	Reconciled
361853	24-SEP-15	WU, MINCHUAN	22.73	29-SEP-15	22.73	Reconciled
361854	24-SEP-15	XIE, YUEZENG	13.99	08-OCT-15	13.99	Reconciled
361855	24-SEP-15	YIP, ROBIN	24.02	28-SEP-15	24.02	Reconciled
361856	24-SEP-15	YSL, INC	28,612.61	01-OCT-15	28,612.61	Reconciled
361857	24-SEP-15	ZEBRON CONTRACTING INC	44,100.00	02-OCT-15	44,100.00	Reconciled

Payment Document Subtotal: 7,676,716.91 7,608,004.31

Payment Document : IRWD Wire

11150	08-SEP-15	YORK INSURANCE SERVICES GROUP INC - CA	PAY	7,214.66		Negotiable
11151	08-SEP-15	CALPERS	SACRAMENTO 1	378,328.91		Negotiable

IRWD Ledger Payment Register For 01-SEP-15 To 30-SEP-15 Report Date: 12-OCT-2015 10:52  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 27  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
11152		10-SEP-15	YORK INSURANCE SERVICES GROUP INC - CA	PAY	4,119.82			Negotiable
11153		15-SEP-15	YORK INSURANCE SERVICES GROUP INC - CA	PAY	12,195.30			Negotiable
11154		17-SEP-15	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	11,709.35			Negotiable
11155		18-SEP-15	INTERNAL REVENUE SERVICE	FRESNO	170,371.92			Negotiable
11156		18-SEP-15	FRANCHISE TAX BOARD	SACRAMENTO	46,357.19			Negotiable
11157		18-SEP-15	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	9,683.68			Negotiable
11158		18-SEP-15	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	500.17			Negotiable
11159		18-SEP-15	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	2,074.26			Negotiable
11160		18-SEP-15	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	10,646.23			Negotiable
11161		18-SEP-15	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	DENVER	95,426.61			Negotiable
11162		18-SEP-15	CITIGROUP GLOBAL MARKETS INC.	NEW YORK	365,128.83			Negotiable
11163		18-SEP-15	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	3,615.07			Negotiable
11164		18-SEP-15	SUMITOMO MITSUI BANKING CORPORATION	NEW YORK	120.60			Negotiable
11165		18-SEP-15	U.S. BANK NATIONALPAY ASSOCIATION		573.19			Negotiable
11166		18-SEP-15	BANK OF AMERICA	SAN FRANCISCO	573.19			Negotiable
11167		18-SEP-15	SUMITOMO MITSUI	NEW YORK	445.89			Negotiable

11168	18-SEP-15	BANKING CORPORATION U.S. BANK NATIONALPAY		293.86		Negotiable
11169	18-SEP-15	MERRILL LYNCH CHARLOTTE CAPITAL SERVICES, INC		824,865.01		Negotiable

IRWD Ledger Payment Register For 01-SEP-15 To 30-SEP-15 Report Date: 12-OCT-2015 10:52  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 28  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
11170		18-SEP-15	CITIGROUP GLOBAL MARKETS INC.	NEW YORK	824,864.27			Negotiable
11171		18-SEP-15	CALPERS	SACRAMENTO	85,958.67			Negotiable
11172		18-SEP-15	INTERNAL REVENUE SERVICE	FRESNO	171,246.02			Negotiable
11173		18-SEP-15	FRANCHISE TAX BOARD	SACRAMENTO	46,816.17			Negotiable
11174		18-SEP-15	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	9,512.98			Negotiable
11175		18-SEP-15	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	500.17			Negotiable
11176		18-SEP-15	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	2,074.26			Negotiable
11177		18-SEP-15	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	10,951.42			Negotiable
11178		18-SEP-15	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	DENVER	95,418.28			Negotiable
11179		18-SEP-15	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	125.00			Negotiable
11180		18-SEP-15	U.S. BANK NATIONAL ASSOCIATION	ST. LOUIS	8,859.48			Negotiable
11181		22-SEP-15	YORK INSURANCE SERVICES GROUP INC - CA	PAY	7,604.53			Negotiable
11182		22-SEP-15	GILLESPIE, DONNA	PAY	22.23			Negotiable
11183		23-SEP-15	PCL CONSTRUCTION, INC.	ACCT 6971821722	4,367,142.90			Negotiable
11184		23-SEP-15	PCL CONSTRUCTION, INC.	ESR 141511.1	485,238.10			Negotiable
11185		23-SEP-15	CALPERS	SACRAMENTO	85,958.67			Negotiable
11186		23-SEP-15	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	23,020.83			Negotiable
11187		23-SEP-15	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	1,940,200.00			Negotiable
11188		29-SEP-15	YORK INSURANCE SERVICES GROUP INC - CA	PAY	7,781.95			Negotiable

IRWD Ledger Payment Register For 01-SEP-15 To 30-SEP-15 Report Date: 12-OCT-2015 10:52  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 29  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
11189		30-SEP-15	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	112.50			Negotiable
11190		30-SEP-15	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	3,524.31			Negotiable

Payment Document Subtotal: 10,121,176.48

Bank Account Subtotal : 17,797,893.39 7,608,004.31

Report Count : 714 Report Total: 17,797,893.39 7,608,004.31

Total Disbursements

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

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IRWD Ledger  
 Include Zero Amount Payments: Yes  
 Display Payee Address: No

Void Payment Register  
 Period From: 01-SEP-15

Report Date: 12-OCT-2015 10:52  
 Page: 1  
 To: 30-SEP-15  
 Date: Void Date

Bank: Bank of America N.A. Branch: Los Angeles Account: Checking AP and PR  
 Bank Account Currency: USD Payment Currency: USD ( US Dollar )

Payment Number	Date	Payee Name	Site	Address	Payment Amount	Void Date
Payment Document: IRWD CHECK						
358434	15-MAY-15	CHEM TECH INTERNATIONAL INC	FULLERTON		13,516.80	02-SEP-15
358889	04-JUN-15	ASTRONICS TEST SYSTEMS INC	PAY		115.81	29-SEP-15
358996	04-JUN-15	PRIDEMARK CONTRACTORS INC	PAY		529.16	29-SEP-15
359027	04-JUN-15	SONG, ZHIYIN	PAY		14.95	29-SEP-15
359139	11-JUN-15	GOKA, RAHUL	PAY		26.78	29-SEP-15
359846	30-JUN-15	WALTERS WHOLESALE ELECTRIC	LONG BEACH		118.01	29-SEP-15
361362	08-SEP-15	LEE, HYUN J	PAY		140.29	08-SEP-15
361507	11-SEP-15	LEE, HYUN J	PAY		140.29	14-SEP-15

Payment Document Subtotal 14,602.09

Bank Account Subtotal 14,602.09

Report Count: 8

Report Total 14,602.09

Total Voids

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

\$ 17,797,893.39 Disbursements  
 <14,602.09> Voids  
 \$ 17,783,291.30 Total Disbursement and Voids

## Exhibit "E"

### IRWD Gov Code 53065.5 Disclosure Report

Payment or Reimbursements for Individual charges of \$100 or more per transaction for services or product received.

01-SEP-15 to 30-SEP-15

NAME	CHECK NO.	CHECK DATE	TRANSACTION	ITEM DESCRIPTION	EXPENSE JUSTIFICATION
Blaska, Erika	361513	17-Sep-15	520.05	Other(Misc)	Meeting supplies for Drought Survival Exposition
Borowski, Michael	361187	3-Sep-15	183.58	Other(Misc)	Safety shoes allowance
Kalinsky, Arseny	361365	10-Sep-15	115.00	Membership/Certification	Board of Professional Engineers membership renewal
Kalinsky, Arseny	361365	10-Sep-15	272.00	Membership/Certification	WEF membership renewal
LaMar, Steven	361678	24-Sep-15	224.27	Lodging	Urban Water Institute Annual Conf., San Diego, CA - Aug. 26-28, 2015
LaMar, Steven	361678	24-Sep-15	132.48	Lodging	Urban Water Institute Annual Conf., San Diego, CA - Aug. 26-28, 2015
Murphy, Alexander	361512	17-Sep-15	645.00	Other(Misc)	Basketball League fee
Reinhart, Douglas	361674	24-Sep-15	224.27	Lodging	Urban Water Institute Annual Conf., San Diego, CA - Aug. 26-28, 2015
Reinhart, Douglas	361674	24-Sep-15	224.27	Lodging	Urban Water Institute Annual Conf., San Diego, CA - Aug. 26-28, 2015
Shanafelt, Shane	361677	24-Sep-15	105.29	Other(Misc)	Wireless case reimbursement
Shanafelt, Shane	361677	24-Sep-15	170.00	Membership/Certification	CWEA membership renewal fee
Soto, Frank	361675	24-Sep-15	106.40	Other(Misc)	Safety shoes allowance
Trementozzi, Cody	361185	3-Sep-15	156.60	Other(Misc)	Safety shoes allowance
<b>Total Amount:</b>			<b>\$ 3,079.21</b>		

October 26, 2015

Prepared by: C. Kessler/K. Lew

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

Approved by: Paul Cook *(Signature)*

## CONSENT CALENDAR

### PLANNING AREA 51 HERITAGE FIELDS CAPITAL FACILITIES

#### SUMMARY:

Heritage Fields El Toro, LLC (Heritage Fields) is proceeding with development of District 4 within Planning Area (PA) 51 (Great Park), which includes the construction of streets, storm drains, domestic water, sewer, and recycled water improvements. Staff recommends that the Board:

- Authorize budget increases for Project 31213 in the amount of \$33,000, from \$383,900 to \$416,900; Project 30503 in the amount of \$30,800, from \$240,900 to \$271,700; and Project 11804 in the amount of \$67,100, from \$176,000 to \$243,100;
- Authorize the addition of the Cultivate Street Sewer Improvements, Project 21286, to the FY 2015-16 Capital Budget in the amount of \$ 220,000; and
- Authorize the General Manager to approve Expenditure Authorizations with adjustments to splits within Improvement Districts (IDs) for Projects 31213, 30503, 11804, and 31804.

#### BACKGROUND:

Heritage Fields is moving forward with the District 4 development within PA 51. District 4 is bound by Irvine Boulevard to the north, Cadence to the south, Bosque to the west and Chinon Street to the east. The project location map is shown as Exhibit "A". As part of this development, Heritage Fields will design and construct IRWD's domestic water, sewer, and recycled water capital improvements. The required IRWD capital facilities are documented in the PA 51 Sub-Area Master Plan Update, as prepared by RBF Consulting in September 2011.

The design and construction of the IRWD facilities will be performed under the terms of the Master Reimbursement Agreement and Supplemental Reimbursement Agreement between Heritage Fields and IRWD approved by the Board in August 2012 and August 2015, respectively.

#### Cadence and Chinon Domestic and Recycled Water Improvements:

The Cadence and Chinon Domestic Water and Recycled Water Improvements consist of installing approximately 6,000 feet of 12-inch diameter recycled water pipeline, 1,300 feet of 16-inch diameter domestic water pipeline, and 1,300 feet of 16-inch diameter recycled water pipeline within Cadence and Chinon between Bosque and Irvine Boulevard. Heritage Fields retained Hunsaker to prepare the Cadence and Chinon Domestic and Recycled Water Improvements plans and it received bids from five contractors. Heritage Fields recommends awarding the construction contract to the lowest bidder, FYDAQ, for a bid amount of \$692,182 as shown in Exhibit "B". In addition, Heritage Fields has received consultant proposals for geotechnical observation and testing, surveying, and construction support services. Staff has

reviewed the consultant proposals and the construction bids and found the amounts to be acceptable. Proposals for field archeological and paleontological monitoring were not necessary because those costs were included as a part of the previously-approved sanitary sewer improvements. A summary of the Cadence and Chinon Domestic and Recycled Water Improvement costs is shown below.

Design (Hunsaker)	\$103,850.00
Design Change Order No. 1 (Hunsaker)	\$ 4,400.00
Construction (FYDAQ)	\$692,182.00
Construction Change Order No. 1(FYDAQ)	\$<78,924.00>
Geotechnical Services (Engeo)	\$ 18,300.00
Construction Engineering/Surveying (Hunsaker)	\$ 59,400.00
Heritage Fields Administration Fee (1%)	<u>\$ 6,132.00</u>
	\$805,340.00

Cultivate Street Sewer Improvements:

Improvements to Cultivate Street consist of installing approximately 420 feet of 16-inch diameter sanitary sewer in Cultivate Street from Bosque to 500 feet east of Bosque. Heritage Fields retained Hunsaker to prepare the Cultivate Street Sewer Improvements plans and it received bids from three contractors. Heritage Fields recommends awarding the construction contract to the lowest bidder, FYDAQ, for a bid amount of \$104,155 as shown in Exhibit "C". In addition, Heritage Fields has received consultant proposals for geotechnical observation and testing, surveying and construction support services. Staff has reviewed the consultant proposals and the construction bids and found the amounts to be acceptable. Proposals for field archeological and paleontological monitoring were not necessary because those costs were included as a part of the previously-approved sanitary sewer improvements. A summary of the Cultivate Street Sewer Improvement costs is shown below.

Design (Hunsaker)	\$ 15,900.00
Construction (FYDAQ)	\$104,155.00
Geotechnical Services (Engeo)	\$ 10,900.00
Construction Engineering/Surveying (Hunsaker)	\$ 16,692.00
Heritage Fields Administration Fee (1%)	<u>\$ 1,041.55</u>
	\$148,688.55

FISCAL IMPACTS:

Projects 31213 (5536), 30503 (5758), 11804 (5756) and 31804 (5757) are included in the FY 2015-16 Capital Budget. Staff requests the addition of the Cultivate Street Sewer Improvements, Project 21286, to the FY 2015-16 Capital Budget in the amount of \$220,000, and Expenditure Authorization approval for Project 21286 (6331) will be requested at the General Manager approval level. Expenditure Authorization approval for Projects 31213 (5536), 30503 (5758), 11804 (5756) and 31804 (5757) require Board approval because of adjustments to splits within IDs. In an effort to better manage budgets, staff is adjusting the ID splits within PA 51 to more accurately reflect the actual ID cost responsibilities. The revised ID splits are shown in Expenditure Authorizations that are attached as Exhibit "D".

Project No.	Current Budget	Addition <Reduction>	Total Budget
31213 (5536)	\$ 383,900	\$ 33,000	\$ 416,900
30503 (5758)	\$ 240,900	\$ 30,800	\$ 271,700
11804 (5756)	\$ 176,000	\$ 67,100	\$ 243,100
31804 (5757)	\$ 240,900	\$ -0-	\$ 240,900
21286 (6331)	\$ -0-	\$ 220,000	\$ 220,000
Total	\$1,041,700	\$ 350,900	\$1,392,600

ENVIRONMENTAL COMPLIANCE:

Construction of capital domestic water, sewer, and recycled water facilities for the Great Park Development is subject to CEQA. In conformance with the California Code of Regulations Title 14, Chapter 3, Article 7 an Environmental Impact Report was certified by the City of Irvine, the lead agency on April 4, 2012 (SCH# 2002101020).

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE FOR PROJECT 31213 (5536) IN THE AMOUNT OF \$33,000, FROM \$383,900 TO \$416,900, PROJECT 30503 (5758) IN THE AMOUNT OF \$30,800, FROM \$240,900 TO \$271,700, AND PROJECT 11804 (5756) IN THE AMOUNT OF \$67,100, FROM \$176,000 TO \$243,100; AUTHORIZE THE ADDITION OF THE CULTIVATE STREET SEWER IMPROVEMENTS PROJECT 21286 (6331) TO THE FY 2015-16 CAPITAL BUDGET IN THE AMOUNT OF \$220,000; AND AUTHORIZE THE GENERAL MANAGER TO APPROVE EXPENDITURE AUTHORIZATIONS FOR PROJECTS 31213 (5536), 30503 (5758), 11804 (5756) AND 31804 (5757).

LIST OF EXHIBITS:

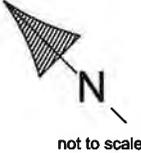
Exhibit "A" – Location Map

Exhibit "B" – Bid Summary, Cadence and Chinon Domestic and Recycled Water Improvements

Exhibit "C" – Bid Summary, Cultivate Street Sewer Improvements

Exhibit "D" – Expenditure Authorizations

EXHIBIT "A"



not to scale

Great Park Planning Area 51  
District 4 - Location Map

by	date
br/ck	8/5/15

EXHIBIT "B"

Bid Tabulations



Owner: Heritage Fields El Toro, LLC

Project: IRWD CODE 6196 CAPITAL and NON-CAPITAL Improvements Cadence from Bosque to Pusan 12" Recycled Water

Bid Date:6/23/2015

ITEM NO	DESCRIPTION	UNIT MEAS	QUAN	Engineer Estimate		FYDAQ Attn: Steve Beyer Tel: 714-447-9760		L&S Construction Attn: Elton Welham Tel: 714-528-3232		Kennedy Pipeline Construction Attn: David Chorak Tel: 949-380-8363		Leatherwood Construction Attn: Bobby Kaiwai Tel: 714-593-6575		KEC Engineering Attn: James P. Elfring Tel: 951-734-3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
1	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1	7,000.00	7,000.00	500.00	500.00	1,700.00	1,700.00	6,500.00	6,500.00	7,200.00	7,200.00	5,000.00	5,000.00
2	Furnish and Install Traffic Control, Complete	LS	1	500.00	500.00	0.00	0.00	250.00	250.00	1,000.00	1,000.00	100.00	100.00	7,000.00	7,000.00
3	Performance, Labor and Payment Bond, Complete	LS	1	2,000.00	2,000.00	3,800.00	3,800.00	4,700.00	4,700.00	6,700.00	6,700.00	6,000.00	6,000.00	4,000.00	4,000.00
4	Furnish and Install 12" PVC Purple Pipe, C-905, DR 18, w/trenching and bedding per IRWD Std. W-17 and all fittings, appurtenances and thrust blocks per IRWD Std. W-16 and W-19 and as shown on the plans, Complete	LF	4,286	65.00	277,280.00	42.00	179,172.00	49.00	209,034.00	55.00	234,630.00	50.00	215,960.00	78.00	332,748.00
5	Furnish and Install 10" PVC Purple Pipe, C-900, DR 14, w/trenching and bedding per IRWD Std. W-17 and all fittings, appurtenances and thrust blocks per IRWD Std. W-16 and W-19 and as shown on the plans, Complete	LF	85	85.00	5,525.00	48.00	3,910.00	41.00	3,485.00	50.63	4,203.55	60.00	5,100.00	84.00	7,140.00
6	Furnish and Install 20" Steel Casing with 60 lb Anodes at Each End per IRWD Std. W-21, including trenching, bedding, Complete	LF	91	150.00	13,650.00	130.00	11,830.00	200.00	18,200.00	147.00	13,377.00	120.00	10,920.00	550.00	50,050.00
7	Furnish and Install 12" Butterfly Valve, Cl 150, fgd, including valve box per IRWD Std. W-22, Complete	EA	5	4,200.00	21,000.00	5,000.00	25,000.00	3,075.00	15,375.00	3,565.00	17,825.00	4,000.00	20,000.00	7,200.00	36,000.00
8	Furnish and Install 10" Butterfly Valve, Cl 150, fgd, including valve box per IRWD Std. W-22, Complete	EA	1	3,300.00	3,300.00	3,400.00	3,400.00	2,770.00	2,770.00	3,000.00	3,000.00	3,550.00	3,550.00	6,900.00	6,900.00
9	Furnish and Install 4" Blow-off Assembly, Case 3 per IRWD Std. W-14, including Gate Valves, Manhole w/Frame & Cover, Zinc Anodes, all Appurtenances, Complete	EA	2	5,800.00	11,200.00	6,500.00	13,000.00	9,900.00	19,800.00	5,493.00	10,986.00	11,750.00	23,500.00	12,000.00	24,000.00
10	Furnish and Install 2" Air Vac Assembly, Case 3 including Gate Valve, Air Vent Cover, Concrete Pad, Adjustment, all Appurtenances, per IRWD Std. W-11, Complete	EA	3	5,800.00	17,400.00	3,800.00	11,400.00	3,870.00	11,610.00	4,052.00	12,156.00	5,400.00	16,200.00	6,000.00	18,000.00
11	Remove & Dispose of Temporary Flush-out Assembly and join existing 12" PVC Recycled Water Line, Complete	EA	1	1,500.00	1,500.00	1,500.00	1,500.00	4,300.00	4,300.00	4,014.00	4,014.00	3,100.00	3,100.00	2,300.00	2,300.00
12	Furnish and Install Temporary Flush-out Assembly per IRWD Std. W-12, including Gate Valves, Markers, Warning Tape, all Appurtenances, Complete	EA	3	2,500.00	7,500.00	1,500.00	4,500.00	2,350.00	7,050.00	2,102.00	6,306.00	1,700.00	5,100.00	9,200.00	27,600.00
13	Raise Valve Can to Interim Grade, Complete	EA	16	500.00	8,000.00	500.00	8,000.00	380.00	6,080.00	600.00	9,600.00	350.00	5,600.00	1,000.00	16,000.00
14	Raise Valve Can to Final Grade, Complete	EA	19	500.00	9,500.00	500.00	9,500.00	380.00	7,220.00	600.00	11,400.00	350.00	6,650.00	1,000.00	19,000.00
15	Pressure test pipeline, Complete	LS	1	7,000.00	7,000.00	3,600.00	3,600.00	4,150.00	4,150.00	1,087.00	1,087.00	3,150.00	3,150.00	23,000.00	23,000.00
SUB-TOTAL, IRWD CODE 6196 RECYCLED WATER CAPITAL IMPROVEMENTS.....					<b>\$390,865.00</b>		<b>\$277,812.00</b>		<b>\$314,584.00</b>		<b>\$341,984.65</b>		<b>\$371,080.00</b>		<b>\$576,738.00</b>

Project: IRWD CODE 6240 CAPITAL and NON-CAPITAL (CFD) Improvements Cadence from Pusan to Chinon 12" & 16" Recycled Water

Bid Date:6/23/2015

ITEM NO	DESCRIPTION	UNIT MEAS	QUAN	Engineer Estimate		FYDAQ Attn: Steve Beyer Tel: 714-447-9760		L&S Construction Attn: Elton Welham Tel: 714-528-3232		Leatherwood Construction Attn: Bobby Kaiwai Tel: 714-593-6576		Kennedy Pipeline Construction Attn: David Chorak Tel: 949-380-8363		KEC Engineering Attn: James P. Elfring Tel: 951-734-3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
1	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1	3,500.00	3,500.00	500.00	500.00	1,700.00	1,700.00	3,400.00	3,400.00	3,200.00	3,200.00	5,000.00	5,000.00
2	Furnish and Install Traffic Control, Complete	LS	1	500.00	500.00	0.00	0.00	660.00	660.00	100.00	100.00	950.00	950.00	7,000.00	7,000.00
3	Performance, Labor and Payment Bond, Complete	LS	1	1,000.00	1,000.00	2,014.00	2,014.00	2,400.00	2,400.00	2,999.00	2,999.00	3,350.00	3,350.00	2,200.00	2,200.00
4	Furnish and Install 16" PVC Purple Pipe, C-905, DR 18, w/trenching and bedding per IRWD Std. W-17	LF	132	85.00	11,220.00	75.00	9,900.00	93.00	12,276.00	110.00	14,520.00	78.00	10,296.00	119.00	15,708.00
5	Furnish and Install 12" PVC Purple Pipe, C-905, DR 18, w/trenching and bedding per IRWD Std. W-17	LF	1,642	85.00	139,370.00	42.00	68,964.00	48.00	78,816.00	55.00	90,310.00	58.00	95,160.00	82.00	134,644.00
6	Furnish and Install 16" Butterfly Valve, Cl 150, fgd, including valve box per IRWD Std. W-22, Complete	EA	2	8,000.00	16,000.00	6,000.00	12,000.00	7,940.00	15,880.00	5,350.00	10,700.00	6,940.00	13,880.00	10,500.00	21,000.00
7	Furnish and Install 12" Butterfly Valve, Cl 150, fgd, including valve box per IRWD Std. W-22, Complete	EA	4	4,200.00	16,800.00	5,000.00	20,000.00	3,075.00	12,300.00	4,100.00	16,400.00	3,562.00	14,248.00	7,000.00	28,000.00
8	Furnish and Install 4" Blow-off Assembly, Case 3 per IRWD Std. W-14, including Gate Valves, Manhole w/Frame & Cover, Zinc Anodes, all Appurtenances, Complete	EA	1	5,800.00	5,800.00	5,800.00	5,800.00	9,900.00	9,900.00	12,100.00	12,100.00	5,431.00	5,431.00	13,000.00	13,000.00
9	Furnish and Install 2" Air Vac Assembly, Case 3 including Gate Valve, Air Vent Cover, Concrete Pad, Adjustment, all Appurtenances, per IRWD Std. W-11, Complete	EA	1	5,800.00	5,800.00	3,751.00	3,751.00	3,870.00	3,870.00	4,500.00	4,500.00	4,100.00	4,100.00	9,000.00	9,000.00
10	Remove & Dispose of Temporary Flush-out Assembly and join existing 12" PVC Recycled Water Line, Complete	EA	1	1,500.00	1,500.00	1,500.00	1,500.00	4,300.00	4,300.00	3,000.00	3,000.00	3,765.00	3,765.00	2,500.00	2,500.00
11	Furnish and Install Temporary Flush-out Assembly per IRWD Std. W-12, including Gate Valves, Markers, Warning Tape, all Appurtenances, Complete	EA	2	2,500.00	5,000.00	1,500.00	3,000.00	3,480.00	6,920.00	2,450.00	4,900.00	2,200.00	4,400.00	9,800.00	19,600.00
12	Raise Valve Can to Interim Grade, Complete	EA	11	500.00	5,500.00	500.00	5,500.00	380.00	4,180.00	350.00	3,850.00	600.00	6,600.00	1,000.00	11,000.00
13	Raise Valve Can to Final Grade, Complete	EA	11	500.00	5,500.00	600.00	6,600.00	380.00	4,180.00	350.00	3,850.00	600.00	6,600.00	1,000.00	11,000.00
14	Pressure test pipeline, Complete	LS	1	4,000.00	4,000.00	3,600.00	3,600.00	3,500.00	3,500.00	2,500.00	2,500.00	2,200.00	2,200.00	10,000.00	10,000.00
SUB-TOTAL, IRWD CODE 6240 RECYCLED WATER CAPITAL IMPROVEMENTS.....					<b>\$194,850.00</b>		<b>\$141,828.00</b>		<b>\$180,882.00</b>		<b>\$172,630.00</b>		<b>\$170,842.00</b>		<b>\$289,652.00</b>

**Project: IRWD CODE 6245 CAPITAL AND NON-CAPITAL (CFD) IMPROVEMENTS CHINON (B) FROM CADENCE TO IRVINE BLVD.  
16" RECYCLED WATER & 12", 10" AND 8" DOMESTIC WATER  
Bid Date: 6/23/2015**

ITEM NO.	IRWD CODE 6245 RECYCLED WATER CAPITAL IMPROVEMENTS - CHINON (B) FROM CADENCE TO IRVINE BLVD.	UNIT MEAS	QUAN	Engineer Estimate		FYDAQ Attn: Steve Beyer Tel: 714-447-9780		L&S Construction Attn: Eilon Welham Tel: 714-528-3232		Kennedy Pipeline Construction Attn: David Chorak Tel: 949-380-8363		Leatherwood Construction Attn: Bobby Kawai Tel: 714-593-6575		KEC Engineering Attn: James Elfing Tel: 951-734-3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
1	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1	3,000.00	3,000.00	500.00	500.00	1,700.00	1,700.00	3,550.00	3,550.00	3,500.00	3,500.00	5,000.00	5,000.00
2	Furnish and Install Traffic Control, Complete	LS	1	2,000.00	2,000.00	2,500.00	2,500.00	3,500.00	3,500.00	1,500.00	1,500.00	1,000.00	1,000.00	13,500.00	13,500.00
3	Performance, Labor and Payment Bond, Complete	LS	1	1,000.00	1,000.00	1,849.00	1,849.00	3,143.00	3,143.00	3,600.00	3,600.00	3,000.00	3,000.00	2,100.00	2,100.00
4	Furnish and Install 16" PVC Purple Pipe, C-905, DR 18, w/trenching and bedding per IRWD Std W-17	LF	1,225	85.00	104,975.00	59.00	72,885.00	85.00	80,275.00	89.00	109,915.00	87.00	107,445.00	92.00	113,620.00
5	Furnish and Install 16" Ductile Iron Pipe, CI 350, FExFE w/trenching and bedding per IRWD Std W-17	LF	5	300.00	1,500.00	200.00	1,000.00	1,100.00	5,500.00	276.00	1,380.00	1,200.00	6,000.00	510.00	2,550.00
6	Furnish and Install 16" Butterfly Valve, CI 150, figd, including valve box per IRWD Std W-22, Complete	EA	2	8,000.00	12,000.00	6,000.00	12,000.00	8,200.00	12,400.00	7,000.00	14,000.00	5,300.00	10,600.00	10,000.00	20,000.00
7	Furnish and Install 16" Ductile Iron Curb Tee figd per IRWD Std W-16 and W-19 and as shown on the	EA	1	4,600.00	4,600.00	10,000.00	10,000.00	8,800.00	8,800.00	11,512.00	11,512.00	15,300.00	15,300.00	5,500.00	5,500.00
8	Furnish and Install 2" Air Vac Assembly, Case 3 including Gate Valve, Air Vent Cover, Concrete Pad,	EA	1	5,800.00	5,800.00	4,155.00	4,155.00	3,870.00	3,870.00	4,985.00	4,985.00	5,100.00	5,100.00	8,500.00	8,500.00
9	Remove & Dispose of Temporary Flush-out Assembly and join existing 12" PVC Recycled Water Line,	EA	1	1,500.00	1,500.00	1,500.00	1,500.00	4,300.00	4,300.00	4,430.00	4,430.00	3,350.00	3,350.00	2,300.00	2,300.00
10	Demo, Remove, Haul-off and Replace Existing Pavement per City of Irvine Std. 223, Alt. A and as shown	SF	480	25.00	12,000.00	20.00	9,600.00	15.00	7,200.00	30.00	14,400.00	19.00	9,120.00	53.00	25,440.00
11	Sawcut Existing AC Pavement, Complete	LF	166	5.00	830.00	10.00	1,660.00	7.00	1,162.00	5.00	830.00	10.00	1,660.00	28.00	4,316.00
12	Furnish and Install Slurry Backfill per IRWD specification on 16" PVC Pipe, Complete	LF	80	50.00	4,000.00	50.00	4,000.00	100.00	8,000.00	70.00	5,600.00	77.00	6,160.00	188.00	13,440.00
13	Cold Plane 10" and AC Cap Trench Repair, Complete	LS	1	2,000.00	2,000.00	2,000.00	2,000.00	3,500.00	3,500.00	3,010.00	3,010.00	3,900.00	3,900.00	6,500.00	6,500.00
14	Raise Valve Can to Intern Grade, Complete	EA	3	800.00	2,400.00	500.00	1,500.00	360.00	1,140.00	600.00	1,800.00	350.00	1,050.00	1,000.00	3,000.00
15	Raise Valve Can to Final Grade, Complete	EA	3	500.00	1,500.00	500.00	1,500.00	360.00	1,140.00	600.00	1,800.00	350.00	1,050.00	1,000.00	3,000.00
16	Pressure test pipeline, Complete	LS	1	4,000.00	4,000.00	3,600.00	3,600.00	3,500.00	3,500.00	3,575.00	3,575.00	2,500.00	2,500.00	134.00	134.00
<b>SUB-TOTAL, IRWD CODE 6245 RECYCLED WATER CAPITAL IMPROVEMENTS</b>				<b>\$181,705.00</b>	<b>\$130,229.00</b>	<b>\$149,127.00</b>	<b>\$186,887.00</b>	<b>\$186,887.00</b>	<b>\$186,887.00</b>	<b>\$186,887.00</b>	<b>\$186,887.00</b>	<b>\$186,887.00</b>	<b>\$186,887.00</b>	<b>\$186,887.00</b>	<b>\$186,887.00</b>

ITEM NO.	IRWD CODE 6245 DOMESTIC WATER CAPITAL IMPROVEMENTS - CHINON (B) FROM CADENCE TO IRVINE BLVD.	UNIT MEAS	QUAN	Engineer Estimate		FYDAQ Attn: Steve Beyer Tel: 714-447-9780		L&S Construction Attn: Eilon Welham Tel: 714-528-3232		Kennedy Pipeline Construction Attn: David Chorak Tel: 949-380-8363		Leatherwood Construction Attn: Bobby Kawai Tel: 714-593-6575		KEC Engineering Attn: James Elfing Tel: 951-734-3010		
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	
22	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1	3,000.00	3,000.00	500.00	500.00	1,700.00	1,700.00	3,300.00	3,300.00	3,700.00	3,700.00	5,000.00	5,000.00	
23	Furnish and Install Traffic Control, Complete	LS	1	2,000.00	2,000.00	2,500.00	2,500.00	3,500.00	3,500.00	1,500.00	1,500.00	1,500.00	1,500.00	13,500.00	13,500.00	
24	Performance, Labor and Payment Bond, Complete	LS	1	1,000.00	1,000.00	2,024.00	2,024.00	3,140.00	3,140.00	3,370.00	3,370.00	3,000.00	3,000.00	2,100.00	2,100.00	
25	Furnish and Install 12" PVC Pipe, C-900, DR 14, w/trenching and bedding per IRWD Std W-17 and all	LF	1,287	65.00	83,655.00	43.00	55,341.00	50.00	64,350.00	87.00	86,229.00	80.00	102,960.00	82.00	105,534.00	
26	Furnish and Install 12" Butterfly Valve, CI 150, figd, including valve box per IRWD Std W-22, Complete	EA	6	4,200.00	25,200.00	5,000.00	30,000.00	3,075.00	18,450.00	3,600.00	21,600.00	3,650.00	21,900.00	21,000.00	126,000.00	
27	Furnish and Install 36"x36"x12" CM/L&CSP Cur-in Tee, figd per detail 1 on plan sheet 6 & IRWD	EA	1	3,000.00	3,000.00	20,000.00	20,000.00	17,000.00	17,000.00	16,500.00	16,500.00	20,300.00	20,300.00	11,500.00	11,500.00	
28	Furnish and Install 2" Air Vac Assembly, Case 3 including Gate Valve, Air Vent Cover, Concrete Pad,	EA	3	5,800.00	17,400.00	3,887.00	11,661.00	3,870.00	11,610.00	3,110.00	9,330.00	4,800.00	14,400.00	8,500.00	25,500.00	
29	Furnish and Install Temporary Flush-out Assembly per IRWD Std W-12, including Gate Valves, Markers,	EA	3	2,500.00	7,500.00	1,500.00	4,500.00	2,350.00	7,050.00	2,431.00	7,293.00	1,650.00	4,950.00	9,500.00	28,500.00	
30	Raise Valve Can to Intern Grade, Complete	EA	8	500.00	4,000.00	500.00	4,000.00	380.00	3,040.00	600.00	4,800.00	350.00	2,800.00	1,600.00	12,800.00	
31	Raise Valve Can to Final Grade, Complete	EA	8	500.00	4,000.00	500.00	4,000.00	380.00	3,040.00	600.00	4,800.00	350.00	2,800.00	1,600.00	12,800.00	
32	Demo, Remove, Haul-off and Replace Existing Pavement per City of Irvine Std. 223, Alt. A and as shown	SF	420	25.00	10,500.00	20.00	8,400.00	15.00	6,300.00	30.00	12,600.00	21.00	8,820.00	54.00	22,680.00	
33	Sawcut Existing AC Pavement, Complete	LF	146	5.00	730.00	10.00	1,460.00	7.00	1,022.00	5.00	730.00	11.00	1,606.00	28.00	3,796.00	
34	Furnish and Install Slurry Backfill per IRWD specification on 12" PVC Pipe, Complete	LF	70	50.00	3,500.00	50.00	3,500.00	100.00	7,000.00	70.00	3,500.00	63.00	3,500.00	441.00	3,500.00	
35	Cold Plane 10" and AC Cap Trench Repair, Complete	LS	1	4,000.00	4,000.00	2,000.00	2,000.00	3,500.00	3,500.00	3,010.00	3,010.00	3,900.00	3,900.00	6,500.00	6,500.00	
36	Chlorinate & Pressure test pipeline, including Disposal of Chlorinated Water, Complete	LS	1	3,000.00	3,000.00	3,600.00	3,600.00	3,500.00	3,500.00	3,285.00	3,285.00	3,500.00	3,500.00	1,000.00	1,000.00	
<b>SUB-TOTAL, IRWD CODE 6245 DOMESTIC WATER CAPITAL IMPROVEMENTS</b>				<b>\$155,885.00</b>	<b>\$142,612.00</b>	<b>\$141,762.00</b>	<b>\$172,160.00</b>	<b>\$172,160.00</b>	<b>\$172,160.00</b>	<b>\$172,160.00</b>	<b>\$172,160.00</b>	<b>\$172,160.00</b>	<b>\$172,160.00</b>	<b>\$172,160.00</b>	<b>\$172,160.00</b>	<b>\$172,160.00</b>
<b>TOTAL</b>				<b>\$893,105.00</b>	<b>\$692,182.00</b>	<b>\$766,355.00</b>	<b>\$872,661.55</b>	<b>\$872,661.55</b>	<b>\$872,661.55</b>	<b>\$872,661.55</b>	<b>\$872,661.55</b>	<b>\$872,661.55</b>	<b>\$872,661.55</b>	<b>\$872,661.55</b>	<b>\$872,661.55</b>	<b>\$872,661.55</b>



# IRVINE RANCH WATER DIST EXHIBIT "D"

## Expenditure Authorization

Project Name: PA51 LQ ST FROM BOSQUE TO Z ST 12" RW  
 EPMS Project No: 31213 EA No: 1  
 Oracle Project No: 5536  
 Project Manager: LEW, KELLY  
 Project Engineer: KESSLER, CHRISTIAN  
 Request Date: October 13, 2015

ID Split: Miscellaneous

### Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
212	87.4	BONDS YET TO BE SOLD**
253	12.6	BONDS YET TO BE SOLD**
<b>Total</b>	<b>100.0%</b>	

### Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$416,900
<b>Total EA Requests:</b>	<b>\$416,900</b>
Previously Approved Budget:	\$383,900
Budget Adjustment Requested this EA:	\$33,000
<b>Updated Budget:</b>	<b>\$416,900</b>
<b>Budget Remaining After This EA</b>	<b>\$0</b>

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	15,000	0	15,000	0	15,000	15,000	5/14	6/15
ENGINEERING DESIGN - OUTSIDE	45,000	0	45,000	20,000	25,000	45,000	5/14	6/15
DESIGN STAFF FIELD SUPPORT	10,000	0	10,000	0	10,000	10,000	7/15	12/16
ENGINEERING - CA&I IRWD	20,000	0	20,000	0	20,000	20,000	7/15	12/16
ENGINEERING - CA&I OUTSIDE	35,000	0	35,000	10,000	25,000	35,000	7/15	12/16
CONSTRUCTION FIELD SUPPORT	10,000	0	10,000	0	10,000	10,000	7/15	12/16
CONSTRUCTION	240,000	0	240,000	0	240,000	240,000	7/15	12/16
LEGAL	4,000	0	4,000	0	4,000	4,000	7/15	12/16
Contingency - 10.00% Subtotal	\$37,900	\$0	\$37,900	\$3,000	\$34,900	\$37,900		
<b>Subtotal (Direct Costs)</b>	<b>\$416,900</b>	<b>\$0</b>	<b>\$416,900</b>	<b>\$33,000</b>	<b>\$383,900</b>	<b>\$416,900</b>		
Estimated G/A - 185.00% of direct labor*	\$101,800	\$0	\$101,800	\$0	\$101,800	\$101,800		
<b>Total</b>	<b>\$518,700</b>	<b>\$0</b>	<b>\$518,700</b>	<b>\$33,000</b>	<b>\$485,700</b>	<b>\$518,700</b>		
Direct Labor	\$55,000	\$0	\$55,000	\$0	\$55,000	\$55,000		

\*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator:

*Christian Kessler* 10/13/15

Department Director:

*Karin L. Bunker* 10/13/15

Finance:

\_\_\_\_\_

Board/General Manager:

\_\_\_\_\_

\*\* IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$500,000. This project is further described in the attached staff report and on of official intent to reimburse costs of the above-captioned

# IRVINE RANCH WATER DISTRICT

## Expenditure Authorization

Project Name: PA51 CADENCE - PUSANTO CHINON 12" & 16"  
 EPMS Project No: 30503 EA No: 1  
 Oracle Project No: 5758  
 Project Manager: LEW, KELLY  
 Project Engineer: KESSLER, CHRISTIAN  
 Request Date: October 5, 2015

ID Split: Miscellaneous

### Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
212	87.4	BONDS YET TO BE SOLD**
253	12.6	BONDS YET TO BE SOLD**
<b>Total</b>	<b>100.0%</b>	

### Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$271,700
<b>Total EA Requests:</b>	<b>\$271,700</b>
Previously Approved Budget:	\$240,900
Budget Adjustment Requested this EA:	\$30,800
<b>Updated Budget:</b>	<b>\$271,700</b>
<b>Budget Remaining After This EA</b>	<b>\$0</b>

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	10,000	0	10,000	0	10,000	10,000	8/14	6/15
ENGINEERING DESIGN - OUTSIDE	35,000	0	35,000	19,000	16,000	35,000	8/14	6/15
DESIGN STAFF FIELD SUPPORT	5,000	0	5,000	0	5,000	5,000	8/14	6/15
ENGINEERING - CA&I IRWD	10,000	0	10,000	0	10,000	10,000	7/15	12/16
ENGINEERING - CA&I OUTSIDE	25,000	0	25,000	9,000	16,000	25,000	7/15	12/16
CONSTRUCTION FIELD SUPPORT	5,000	0	5,000	0	5,000	5,000	7/15	12/16
CONSTRUCTION	155,000	0	155,000	0	155,000	155,000	7/15	12/16
LEGAL	2,000	0	2,000	0	2,000	2,000	8/14	12/16
Contingency - 10.00% Subtotal	\$24,700	\$0	\$24,700	\$2,800	\$21,900	\$24,700		
<b>Subtotal (Direct Costs)</b>	<b>\$271,700</b>	<b>\$0</b>	<b>\$271,700</b>	<b>\$30,800</b>	<b>\$240,900</b>	<b>\$271,700</b>		
Estimated G/A - 185.00% of direct labor*	\$55,600	\$0	\$55,600	\$0	\$55,600	\$55,600		
<b>Total</b>	<b>\$327,300</b>	<b>\$0</b>	<b>\$327,300</b>	<b>\$30,800</b>	<b>\$296,500</b>	<b>\$327,300</b>		
Direct Labor	\$30,000	\$0	\$30,000	\$0	\$30,000	\$30,000		

\*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator:

*Christian Kessler*

10/13/15

Department Director:

*Kevin J. Benton*

10/13/15

Finance:

Board/General Manager:

\*\* IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of additional documents, if any, which are hereby incorporated into the project is made under Treasury Regulation Section 1.1

# IRVINE RANCH WATER DISTRICT

## Expenditure Authorization

Project Name: PA51 "B" ST FROM SOCIABLE TO IRVINE BLV 12" ZN 4

EPMS Project No: 11804 EA No: 1

ID Split: Miscellaneous

Oracle Project No: 5756

Project Manager: LEW, KELLY

Project Engineer: KESSLER, CHRISTIAN

Request Date: October 5, 2015

### Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
112	98.2	BONDS YET TO BE SOLD**
153	1.8	BONDS YET TO BE SOLD**
<b>Total</b>	<b>100.0%</b>	

### Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$243,100
<b>Total EA Requests:</b>	<b>\$243,100</b>
Previously Approved Budget:	\$176,000
Budget Adjustment Requested this EA:	\$67,100
<b>Updated Budget:</b>	<b>\$243,100</b>
<b>Budget Remaining After This EA</b>	<b>\$0</b>

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	9,000	0	9,000	0	9,000	9,000	8/14	6/15
ENGINEERING DESIGN - OUTSIDE	20,000	0	20,000	9,000	11,000	20,000	8/14	6/15
DESIGN STAFF FIELD SUPPORT	6,000	0	6,000	0	6,000	6,000	8/14	6/15
ENGINEERING - CA&I IRWD	18,000	0	18,000	7,000	11,000	18,000	7/15	8/16
ENGINEERING - CA&I OUTSIDE	9,000	0	9,000	0	9,000	9,000	7/15	8/16
CONSTRUCTION FIELD SUPPORT	6,000	0	6,000	0	6,000	6,000	7/15	8/16
CONSTRUCTION	150,000	0	150,000	45,000	105,000	150,000	7/15	8/16
LEGAL	3,000	0	3,000	0	3,000	3,000	8/14	8/16
Contingency - 10.00% Subtotal	\$22,100	\$0	\$22,100	\$6,100	\$16,000	\$22,100		
<b>Subtotal (Direct Costs)</b>	<b>\$243,100</b>	<b>\$0</b>	<b>\$243,100</b>	<b>\$67,100</b>	<b>\$176,000</b>	<b>\$243,100</b>		
Estimated G/A - 185.00% of direct labor*	\$72,200	\$0	\$72,200	\$12,900	\$59,300	\$72,200		
<b>Total</b>	<b>\$315,300</b>	<b>\$0</b>	<b>\$315,300</b>	<b>\$80,000</b>	<b>\$235,300</b>	<b>\$315,300</b>		
Direct Labor	\$39,000	\$0	\$39,000	\$7,000	\$32,000	\$39,000		

\*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator:

*Christian Kessler* 10/13/15

Department Director:

*Ronnie L. Bunker* 10/13/15

Finance:

\_\_\_\_\_

Board/General Manager:

\_\_\_\_\_

\*\* IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \_\_\_\_\_ project is further described in the attached staff report and \_\_\_\_\_ ion of official intent to reimburse costs of the above-captioned

# IRVINE RANCH WATER DISTRICT

## Expenditure Authorization

Project Name: PA51 "B" ST FROM SOCIABLE TO IRVINE BLV 16" ZN C  
 EPMS Project No: 31804 EA No: 1  
 Oracle Project No: 5757  
 Project Manager: LEW, KELLY  
 Project Engineer: KESSLER, CHRISTIAN  
 Request Date: October 5, 2015

ID Split: Miscellaneous

### Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
212	87.4	BONDS YET TO BE SOLD**
253	12.6	BONDS YET TO BE SOLD**
<b>Total</b>	<b>100.0%</b>	

### Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$240,900
<b>Total EA Requests:</b>	<b>\$240,900</b>
Previously Approved Budget:	\$240,900
Budget Adjustment Requested this EA:	\$0
<b>Updated Budget:</b>	<b>\$240,900</b>
<b>Budget Remaining After This EA</b>	<b>\$0</b>

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	10,000	0	10,000	0	10,000	10,000	8/14	6/15
ENGINEERING DESIGN - OUTSIDE	20,000	0	20,000	4,000	16,000	20,000	8/14	6/15
DESIGN STAFF FIELD SUPPORT	5,000	0	5,000	0	5,000	5,000	8/14	6/15
ENGINEERING - CA&I IRWD	10,000	0	10,000	0	10,000	10,000	7/15	8/16
ENGINEERING - CA&I OUTSIDE	18,000	0	18,000	2,000	16,000	18,000	7/15	8/16
CONSTRUCTION FIELD SUPPORT	5,000	0	5,000	0	5,000	5,000	7/15	8/16
CONSTRUCTION	149,000	0	149,000	(6,000)	155,000	149,000	7/15	8/16
LEGAL	2,000	0	2,000	0	2,000	2,000	8/14	8/16
Contingency - 10.00% Subtotal	\$21,900	\$0	\$21,900	\$0	\$21,900	\$21,900		
<b>Subtotal (Direct Costs)</b>	<b>\$240,900</b>	<b>\$0</b>	<b>\$240,900</b>	<b>\$0</b>	<b>\$240,900</b>	<b>\$240,900</b>		
Estimated G/A - 185.00% of direct labor*	\$55,600	\$0	\$55,600	\$0	\$55,600	\$55,600		
<b>Total</b>	<b>\$296,500</b>	<b>\$0</b>	<b>\$296,500</b>	<b>\$0</b>	<b>\$296,500</b>	<b>\$296,500</b>		
Direct Labor	\$30,000	\$0	\$30,000	\$0	\$30,000	\$30,000		

\*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator:

*Christian Kessler* 10/13/15

Department Director:

*Kevin J. Burt* 10/13/15

Finance:

\_\_\_\_\_

Board/General Manager:

\_\_\_\_\_

\*\* IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$300,000. This is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. It is the official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-

October 26, 2015

Prepared by: K. Welch

Submitted by: F. Sanchez/P. Weghorst *FW*

Approved by: Paul Cook *PC*

## CONSENT CALENDAR

### RECOVERY CAPACITY FOR WATER EXCHANGE AGREEMENT

#### SUMMARY:

Staff has received an urgent request from Steven Jackson, in Dudley Ridge Water District (DRWD), to allow the use of IRWD's recovery capacity in the Kern Water Bank (KWB) in exchange for water transferred to IRWD. Staff recommends that the Board authorize the General Manager to execute an agreement with Steven Jackson to allow temporary access to IRWD recovery capacity at the KWB in exchange for the transfer of water into IRWD's KWB storage account.

#### BACKGROUND:

In 2010, IRWD completed the acquisition of the Jackson Ranch property in Kings County with the right to use 1,747 AF per year of State Water Project (SWP) Table A water through DRWD. In addition, IRWD purchased the property's assigned portion of DRWD's participation rights in the KWB providing 9,495 acre-feet (AF) of dedicated storage capacity and associated first priority recharge and recovery rights. Through this participation in the KWB, IRWD also obtained access to unused storage, recharge and recovery capacity in the KWB. IRWD's recovery capacity within the KWB is 6.58% of DRWD's capacity in the KWB. Over a five year rolling average, IRWD has rights to recovery of up to 6,330 AF. Currently, the District has 4,188 AF in its KWB storage account which must ultimately be used on the Jackson Ranch. Currently, the Jackson Ranch property is leased to Adee Honey Farms and the lessee's water requests for the year will be accommodated through direct deliveries from the SWP.

In March 2015, the Water Banking Committee authorized the General Manager to execute an agreement that allowed Steven Jackson to utilize a portion of IRWD's recovery capacity within the KWB to recover 300 AF of water from his KWB storage account. In exchange, Mr. Jackson transferred 150 AF of stored supplies to IRWD's KWB storage account.

Recently, Mr. Jackson contacted staff with an urgent request to again use IRWD recovery capacity in the KWB to recover 150 AF of his water in exchange for 75 AF to be transferred to IRWD's KWB account prior to the end of 2015. Staff and legal counsel have prepared an exchange agreement for this transaction based on the agreement approved in March 2015. This new exchange agreement is provided as Exhibit "A". IRWD has sufficient recovery capacity available in the KWB to facilitate the exchange and the transaction will not affect IRWD's ability to deliver water to the lessee this year. Staff recommends that the Board authorize the General Manager to execute the agreement with Steven Jackson.

FISCAL IMPACTS:

Steven Jackson will pay all costs for the exchange including costs to recover his 150 AF of water from the KWB. There will be no fees to transfer the 75 AF of water from Jackson's KWB storage account to IRWD's KWB storage account.

ENVIRONMENTAL COMPLIANCE:

An Initial Study/Negative Declaration for the IRWD Jackson Ranch Water Allocation Project was prepared and circulated for public review in compliance with the California Environmental Quality Act. A Notice of Determination for the final Negative Declaration for the Project was filed by IRWD on January 14, 2010, and by DRWD on January 20, 2010. DRWD filed a Notice of Determination for its 2005 Water Management Plan Negative Declaration on March 9, 2005.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE AGREEMENT WITH STEVEN JACKSON, SUBJECT TO NON-SUBSTANTIVE CHANGES, TO ALLOW TEMPORARY ACCESS TO THE USE OF IRWD'S RECOVERY CAPACITY IN THE KERN WATER BANK IN EXCHANGE FOR WATER TRANSFERRED TO IRWD'S KERN WATER BANK STORAGE ACCOUNT.

LIST OF EXHIBITS:

Exhibit "A" – Draft Agreement Between IRWD and Steven Jackson for Water Exchange

EXHIBIT "A"



**IRVINE RANCH WATER DISTRICT**

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

October \_\_, 2015

Mr. Steven D. Jackson  
5319 W. Delaware Ave  
Visalia, CA 93291

Re: Exchange for 2015

Dear Mr. Jackson:

This letter will confirm that Irvine Ranch Water District (“IRWD”) and Steven D. Jackson (“Exchange Partner”) have determined to proceed with the water exchange transaction described in the below-defined Term Sheet (the “Exchange”) (IRWD and Exchange Partner collectively are referred to as the “Parties” and each individually may be referred to as a “Party”). The Parties hereby agree that the Exchange will be implemented as described in this letter (the “Agreement”) and the specific terms set forth in Exhibit “A” attached hereto and incorporated herein by this reference (the “Term Sheet”), and that the Exchange will be governed by, and is entered into subject to, the terms and conditions of the Term Sheet together with the general terms, conditions and representations set forth in Exhibit “B” attached hereto and incorporated herein by this reference.

By its signature hereon, Exchange Partner accepts this Agreement, inclusive of Exhibits “A” and “B.” Please indicate Exchange Partner’s acceptance of the Agreement, by signing and returning the enclosed copy. Thank you for your cooperation.

Sincerely,

IRVINE RANCH WATER DISTRICT

By: \_\_\_\_\_  
Paul A. Cook, General Manager

READ, APPROVED AND ACCEPTED:

EXCHANGE PARTNER

By: \_\_\_\_\_  
Steven D. Jackson

## **Exhibit "A"**

### **Terms for a Water Exchange in 2015 (October \_\_, 2015)**

**Parties:** Steven D. Jackson ("Exchange Partner") and Irvine Ranch Water District ("IRWD")

**Description:** IRWD and Exchange Partner intend to enter into an Exchange of water during 2015 whereby Exchange Partner will use a portion of IRWD's allocated recovery capacity in the Kern Water Bank to recover 150 acre feet (AF) from Exchange Partner's Kern Water Bank stored water account and in exchange will transfer 75 AF from the Exchange Partner's Kern Water Bank stored water account to IRWD's Kern Water Bank stored water account.

**Term:** The Exchange must be complete by December 31, 2015.

**Exchange Water:** IRWD will allow Exchange Partner to use IRWD's allocated recovery capacity in the Kern Water Bank to recover up to 150 AF from Exchange Partner's Kern Water Bank stored water account. The recovered water will be delivered by Dudley Ridge Water District ("DRWD") to the Exchange Partner's property within DRWD at the Exchange Partner's requested Point of Delivery. The Exchange Partner will cause 75 AF ("Exchange Water") to be transferred from the Exchange Partner's Kern Water Bank stored water account to IRWD's Kern Water Bank stored water account. No delivery of the Exchange Water to a point of delivery will take place. Notwithstanding anything contained in Exhibit "B," IRWD shall not have liability for any control, carriage, handling, use, disposal, or distribution of any water in this Exchange. The net effect of the exchange will be a debit of 225 AF from the Exchange Partner's Kern Water Bank stored water account and a credit of 75 AF to IRWD's Kern Water Bank stored water account.

**Losses:** The Kern Water Bank Authority applies a 10 percent loss factor to all water recharged and stored in the KWB. The losses shall accrue to the Exchange Partner prior to the credit of the 75 AF of Exchange Water being transferred to IRWD's stored water account in the Kern Water Bank.

**Costs:** The Exchange Partner will pay the Kern Water Bank Authority's cost of pumping associated with the 150 AF of water to be recovered from the Exchange Partner's Kern Water Bank stored account. The Exchange Partner is responsible for any administrative costs, fees and environmental compliance and/or permitting costs required to facilitate the Exchange.

**CEQA:** Dudley Ridge Water District Negative Declaration, 2005 Water Management Plan, March 9, 2005.

## EXHIBIT “B”

### GENERAL TERMS, CONDITIONS AND REPRESENTATIONS – WATER EXCHANGE

The below general terms, conditions and representations are incorporated in the agreement (“Agreement”) between Irvine Ranch Water District (“IRWD”) and the counterparty or parties specified in such agreement (such party or such parties collectively herein referred to as “Exchange Partner”) (IRWD and Exchange Partner collectively are referred to as the “Parties” and each individually may be referred to as a “Party”). The “Exchange” means the transaction described in the term sheet which is attached to and incorporated in the agreement as Exhibit “A” (the “Term Sheet”). Each and all of the below terms and conditions are intended to supplement the Term Sheet and, to the extent inconsistent therewith, are intended to amend and replace said Term Sheet:

1. Mediation: The Parties agree that any and all disputes, claims or controversies regarding the Exchange, the Term Sheet, or the Agreement, shall be submitted to mediation in a mutually agreeable venue and if the matter is not resolved through mediation, then it may be submitted to any court of competent jurisdiction. Any affected Party may commence mediation by providing the other Party a written request for mediation, setting forth the subject of the dispute and the relief requested. The Parties shall cooperate with one another in selecting a mediator and in scheduling the mediation proceedings. The Parties covenant that they shall participate in the mediation in good faith, and that they shall share equally in costs charged by the mediator. All offers, promises, conduct and statements, whether oral or written, made in the course of the mediation by any of the Parties, their agents, employees, experts and attorneys, and by the mediator or any of the mediator’s employees, are confidential, privileged and inadmissible for any purpose, including impeachment, in any arbitration or other proceeding involving the Parties, provided that evidence that is otherwise admissible or discoverable shall not be rendered inadmissible or non-discoverable as a result of its use in the mediation. The provisions of the Agreement with respect to mediation may be enforced by any Court of competent jurisdiction, and the Party seeking such enforcement shall be entitled to an award of all costs, fees and expenses, including attorneys’ fees, to be paid by the Party against whom such enforcement is ordered.

2. Release and Indemnification: IRWD and its officers, agents, or employees shall not be liable for the control, carriage, handling, use, disposal, or distribution of exchange or return water upstream of the IRWD POD, or for the control, carriage, handling, use, disposal, or distribution of exchange or return water downstream of the Exchange Partner POD, nor for any claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal or distribution of such water, unless such damages or claims are a result of negligent, intentional or reckless misconduct on the part of IRWD.

Exchange Partner and its/their officers, agents, and employees shall not be liable for the control, carriage, handling, use, disposal, or distribution of exchange or return water downstream of IRWD POD or for the control, carriage, handling, use, disposal, or distribution of exchange or

return water upstream of the Exchange Partner POD, nor for any claim of damage of any nature whatsoever, including, but not limited to, property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal, or distribution of such water, unless such damages or claims are a result of negligent, intentional or reckless misconduct on the part of Exchange Partner.

For purposes of this Section, "IRWD POD" shall mean any point to which Exchange Partner is required to deliver water to IRWD or for its account pursuant to the Term Sheet, and "Exchange Partner POD" shall mean any point to which IRWD is required to deliver water to Exchange Partner or for its account pursuant to the Term Sheet.

Neither IRWD nor Exchange partner shall be liable to the other for any claims related to the impairment of the quality of water as a result of storage in any Party's banking facilities or the aquifer from any cause.

Each Party will indemnify, defend, and hold the other harmless from any claims made by landowners in the respective Party's service area as a result of activities of the indemnifying party or its diversion, control, carriage, handling, use, disposal or distribution of water into and out of storage in its performance under the Term Sheet or the Agreement, and any claims relating to any third party claiming a prior right, or interference with their right, to water delivered from one Party to the other.

Each Party shall at all times indemnify, defend and save the other Party free and harmless from, and pay in full, any and all causes of action, claims, liabilities, obligations, demands, losses, judgments, damages or expenses, including reasonable attorney fees and costs ("claims") in any manner arising out of or connected with the indemnifying Party's activities in its performance under the Term Sheet or the Agreement or its diversion, control, carriage, handling, use, disposal or distribution of water into and out of storage, excepting any loss, damage or expense and claims for loss, damage or expense resulting in any manner from the negligent act or acts of the other Party, or its Board of Directors, officers, representatives, consultants, contractors, agents or employees.

In the event a Party entitled to indemnification is made a party to any action, lawsuit, or other adversarial proceeding alleging negligent or wrongful conduct on the part of an indemnifying Party, then (1) the indemnifying Party shall provide a defense to the other or, at the indemnitee's option, reimburse the indemnitee its costs of defense, including reasonable attorneys' fees, incurred in defense of such claims, and (2) the indemnifying Party shall promptly pay any final judgment or portion thereof rendered against the indemnitee(s).

3. Notices: All written notices required to be given pursuant to the terms of the Term Sheet or the Agreement shall be either (i) personally delivered, (ii) deposited in the United States express mail or first class mail, registered or certified, return receipt requested, postage prepaid, (iii) delivered by overnight courier service, or (iv) delivered by facsimile transmission or e-mail, provided that the original of such notice is sent by certified United States mail, postage prepaid, or by overnight courier, no later than one (1) business day following such facsimile transmission or email. All such notices shall be deemed delivered upon actual receipt (or upon first attempt at

delivery pursuant to the methods specified in clauses (i), (ii) or (iii) above if the intended recipient refuses to accept delivery). All such notices shall be delivered to the addresses shown in this Agreement or to such other address as the receiving Party may from time to time specify by written notice to the other Party given in the manner provided herein.

4. Representations and Warranties:

- (A) Each of the Parties represents and warrants to the other Party that it is a duly organized or constituted entity, with all requisite power to carry out its obligations under the Term Sheet and the 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 representing Party, and shall not result in a violation of such representing Party's organizational documents.
- (B) Each of the Parties represents and warrants to the other Party and agrees that it has and, at all times during the term of this agreement shall have, insurance coverage for its facilities and operations, including those facilities owned or operated by such representing Party and those operations which will be carried out by such representing Party in any delivery, transport and receipt of Exchange or Return Water as specified in the Term Sheet.
- (C) Each of the Parties represents and warrants to the other Party that it has legally enforceable rights to carry out its performance under the terms of the Agreement.
- (D) Each of the Parties represents and warrants to the other Party that entry into the Agreement does not create or result in the breach of any other agreement to which such representing Party is a party or to which it is otherwise subject to or bound.
- (E) Each of the Parties represents and warrants to the other Party that, to such representing Party's knowledge at the time it executed the Agreement, there is no pending or threatened litigation involving such representing Party that will affect the Agreement.
- (F) Each of the Parties represents and warrants to the other Party that, prior to commencement of the performance of the Agreement, such representing Party has completed an environmental review or taken such other action, if any, required of such representing Party to comply with the California Environmental Quality Act (CEQA) with respect to the Exchange, and that to such representing Party's knowledge, no actions or proceedings have been initiated attacking the validity of such CEQA compliance.
- (G) The Parties have relied on the forgoing representations, warranties, and covenants as a material inducement to execute the Agreement, and should any material representation not be correct or true, it shall constitute a material breach of the Agreement.

5. **Termination For Breach:** Either Party may terminate the Agreement if the other Party breaches any material obligation under the Agreement and such breach continues for a period of sixty (60) days, or such other period as may be reasonable under the circumstances, after the date on which written notice is issued by the non-breaching Party. The non-breaching Party shall be entitled to seek any and all legal or equitable damages and/or remedies as a result of the breaching Party's breach.

In the event that either IRWD or Exchange Partner is in material default of this Agreement, the non-defaulting Party shall provide written notice to the defaulting Party, identifying with reasonable specificity the nature of the claimed default. If the defaulting Party has not cured the event(s) of material default which is (are) identified in the notice required by this section within twenty (20) business days after receipt of written notification, or such other period as is reasonable under the circumstances, the non-defaulting Party shall be entitled to any and all remedies which may be available to it at law or in equity. This provision is not intended to provide a separate termination right, which is set forth in the first paragraph of this Section.

6. **Governing Law:** The Term Sheet and the Agreement shall be construed and enforced in accordance with the laws of the State of California.

7. **Amendments:** No amendment of the Term Sheet or the Agreement shall be binding upon the Parties unless it is in writing and executed by both of the Parties.

8. **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 Exchange, consistent with each and all of the terms and conditions of the Term Sheet and the Agreement.

9. **Assignment:** No Party shall assign or otherwise transfer its rights or obligations in, under or to the Exchange, the Term Sheet, or the 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 the Agreement shall bind and inure to the benefit of the Parties' respective successors and permitted assigns.

10. **Force Majeure; Change In Law:** The respective obligations of each Party hereto shall be suspended while it is prevented from complying by acts of God; war; riots; civil insurrection; acts of civil or military authority; fires; floods; earthquakes; labor accidents or incidents; rules and regulations of any federal, state, or other governmental agency (other than the Parties themselves); changes in law, rules, or regulations of any federal, state or other governmental agency (other than the Parties themselves); or other cause of the same or other character any of which are beyond the reasonable control of such Party (collectively, "Force Majeure"). In the event of a suspension due to the foregoing, the Party whose obligations are suspended shall promptly notify the other Party in writing of such suspension and the cause and estimated duration of such suspension.

The Party providing such notice shall be excused from fulfilling its obligations under this Agreement until such time as the Force Majeure has ceased to prevent performance or other remedial action is taken, at which time the Party shall promptly notify the other Party of the

resumption of its obligations under the Agreement. Any Party rendered unable to fulfill any of its obligations by reason of a Force Majeure shall exercise due diligence to remove such inability with reasonable dispatch within a reasonable time period and mitigate the effects of the Force Majeure. The relief from performance shall be of no greater scope and of no longer duration than is required by the Force Majeure.

11. Joint Drafting and Negotiation: The Agreement has 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.

12. Headings: Headings used in the Agreement are for reference only and shall not affect the construction of the Agreement.

13. No Third Party Beneficiaries: No third party beneficiaries are intended by the Parties hereto, and no third party shall be entitled to claim or enforce any rights under the Agreement.

14. Severability: In the event that any provision of the Agreement is determined by a court to be invalid, the court shall reform the provision in a manner that is both consistent with the terms of the Agreement taken as a whole and legally valid. The remainder of the Agreement shall not be affected thereby.

15. Successors and Permitted Assigns: All covenants and agreements contained in the Agreement by or on behalf of any of the Parties shall bind and inure to the benefit of their respective successors and permitted assigns under Section 9, whether so expressed or not.

16. No Effect on Other Agreements or Transactions: Except to the extent otherwise specified in the Term Sheet, the Agreement and the Exchange are intended to be entirely independent of any other transaction or agreement between the Parties and shall have no effect upon, and shall not be affected by, any such other transaction or agreement.

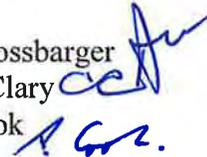
17. Costs and Expenses: Except to the extent otherwise provided in the Term Sheet, no compensation shall be due to either Party with respect to the Exchange and each Party shall be responsible for all of its engineering, legal and other costs and expenses to implement the Exchange transaction.

October 26, 2015

Prepared by: Tony Mossbarger

Submitted by: Cheryl Clary

Approved by: Paul Cook



## CONSENT CALENDAR

### ANNUAL MICROSOFT ENTERPRISE AGREEMENT SOFTWARE MAINTENANCE RENEWAL

#### SUMMARY:

The Microsoft Enterprise Agreement Software Maintenance, which provides upgrades and maintenance for all of the Microsoft software used by the District, expires November 30, 2015. This agreement provides discounted pricing for software maintenance and licenses to State and local government entities. Staff recommends renewal of the Microsoft Enterprise Agreement for a three-year period effective December 1, 2015 and through November 30, 2018, in the amount of \$390,000.

#### BACKGROUND:

The District participates in the Microsoft Enterprise Agreement for State and local governments, providing for software upgrades and maintenance for all Microsoft software used by the District. The agreement provides discounted pricing for software maintenance on existing licenses as well as new licenses. The District uses Microsoft Windows Desktop operating system, Microsoft Office (Word, Excel, PowerPoint, Access, Visio, and Project), Microsoft SQL Data Base, and Microsoft Server operating system software. The agreement covers all versions of the Microsoft software products purchased and allows the District to upgrade to new versions as they become available.

In addition to the software maintenance, the agreement provides on-line training for a majority of the software products, as well as training class vouchers for technical training provided by Microsoft certified training partners. Additionally, the agreement provides for use of Microsoft Office software by staff on their home computers through the Home Use Program. Employees are able to download this software for a nominal fee and install it for personal use as well.

Staff recommends renewal of the Microsoft Enterprise Agreement for the period beginning December 1, 2015 and ending November 30, 2018. The renewal amount for this period is \$390,000.00.

#### FISCAL IMPACTS:

The amount for FY 2015-16 based on the renewal of the Microsoft Enterprise Agreement Software Maintenance agreement is approximately \$130,000 per year and \$390,000 for the three-year term. The \$130,000 is included in the approved FY 2015-16 operating budget.

#### ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee meeting on October 19, 2015.

RECOMMENDATION:

THAT THE BOARD APPROVE THE RENEWAL OF THE MICROSOFT ENTERPRISE AGREEMENT BEGINNING DECEMBER 1, 2015 FOR A TOTAL COMMITMENT OF \$390,000.

LIST OF EXHIBITS.

None.

October 26, 2015

Prepared by: T. Bonkowski/M. Cortez

Submitted by: K. Burton 

Approved by: Paul Cook 

## ACTION CALENDAR

### CULVER DRIVE SEWER MANHOLE IMPROVEMENTS CONSTRUCTION AWARD

#### SUMMARY:

This project will replace the top components of 11 sewer manholes to enlarge the 24-inch diameter openings to 36-inch diameter. The manholes are located within Culver Drive between Main Street and Deerfield Avenue. Staff recommends that the Board:

- Authorize a budget increase for Project 21169 in the amount of \$100,000, from \$368,000 to \$468,000; and
- Authorize the General Manager to execute a construction contract with Paulus Engineering, Inc. in the amount of \$319,013, for the Culver Drive Sewer Manhole Improvements, Project 21169.

#### BACKGROUND:

The Culver Drive Trunk Sewer was constructed in 1970 with manholes that have 24-inch diameter covers. These openings do not provide adequate access to District personnel and hinder the use of emergency bypass equipment. This project will replace the existing covers with 36-inch diameter covers and construct all appurtenant improvements including manhole shaft and cone sections, coating, grade rings, frames, covers and replacement of street section. The manholes are located within Culver Drive between Main Street and Deerfield Avenue. A location map is attached as Exhibit "A".

#### Bid Opening:

The project was advertised August 31, 2015 to a select list of 19 contractors. The bid opening was held on October 8, 2015 with bids received from CCL Contracting, EJ Meyers Company, GCI Construction, Kennedy Pipeline, Paulus Engineering, and TE Roberts. The bids ranged from \$319,013 to \$1,100,820. Paulus Engineering is the apparent low bidder with a bid amount of \$319,013. The District's civil engineering consultant, Linkture, prepared the engineer's estimate of \$190,000 based on input from the concrete product manufacturer and local contractors familiar with work in the City of Irvine. Staff reviewed Paulus's bid and determined it to be responsive. Staff recommends awarding the construction contract to Paulus Engineering, Inc. in the amount of \$319,013. A bid summary is attached as Exhibit "B".

#### FISCAL IMPACTS:

Project 21169 (5450) is included in the FY 2015-16 Capital Budget. A budget increase is required to fund the construction and engineering support services for the project as shown in the following table.

Project No.	Current Budget	Addition <Reduction>	Total Budget
21169 (5450)	\$368,000	\$100,000	\$468,000

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

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

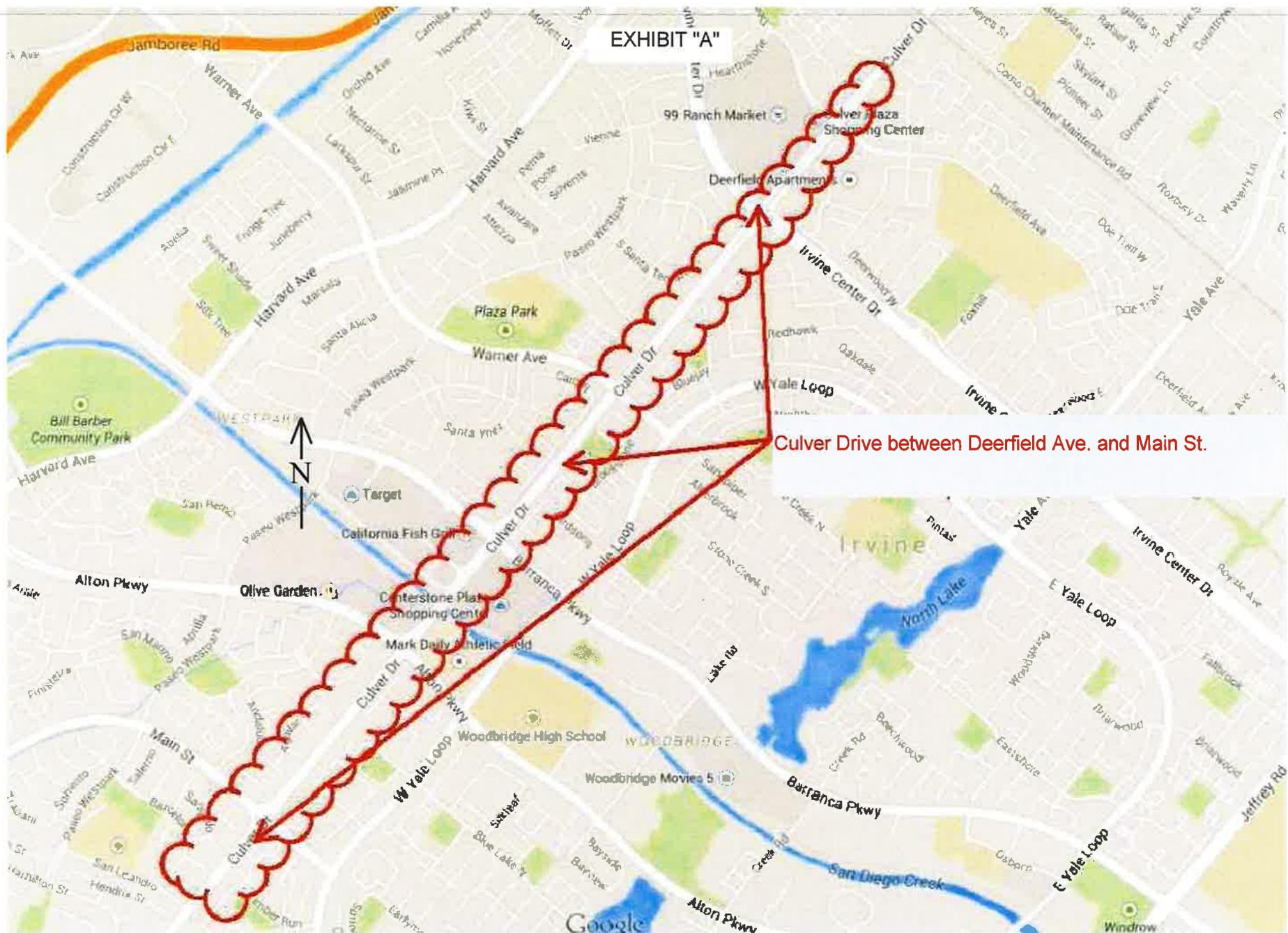
RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE FOR PROJECT 21169 (5450) IN THE AMOUNT OF \$100,000, FROM \$368,000 TO \$468,000; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH PAULUS ENGINEERING, INC. IN THE AMOUNT OF \$319,013 FOR THE CULVER DRIVE SEWER MANHOLE IMPROVEMENTS, PROJECT 21169 (5450).

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Bid Summary

EXHIBIT "A"



Culver Drive between Deerfield Ave. and Main St.

Bid Opening: Thursday, October 8, 2015 @ 2:00 p.m.

# EXHIBIT "B"

Irvine Ranch Water District Bid Summary For  
Culver Drive Sewer Manhole Improvements  
PR 21169 (5420) - Code 6502

Entered By: J.K. Irey

				<b>Engineer's Estimate</b>		<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>		<b>5</b>		<b>6</b>	
						<b>Paulus Engineering</b>	<b>CCL Contracting</b>	<b>GCI Construction, Inc.</b>	<b>E.J. Meyer Company</b>	<b>T.E. Roberts, Inc.</b>	<b>Kennedy Pipeline</b>						
						<b>Anaheim, CA</b>	<b>Escondido, CA</b>	<b>San Clemente CA</b>	<b>Highland, CA</b>	<b>Orange, CA</b>	<b>Aliso Viejo, CA</b>						
						<b>724114/100000540</b>	<b>798819/1000006638</b>	<b>755356/1000001150</b>	<b>218385/1000002087</b>	<b>603008/100000280</b>	<b>986360/1000011313</b>						
Item No.	Description	Qty	Unit	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount
1	Mobilization, Demobilization, Cleanup and Spoil Disposal	1	LS	\$10,400.00	\$10,400.00	\$16,000.00	\$16,000.00	\$27,500.00	\$27,500.00	\$25,000.00	\$25,000.00	\$15,944.00	\$15,944.00	\$29,200.00	\$29,200.00	\$20,000.00	\$20,000.00
2	Traffic Control for the Construction Work Area	1	LS	\$14,500.00	\$14,500.00	\$10,000.00	\$10,000.00	\$6,900.00	\$6,900.00	\$16,000.00	\$16,000.00	\$20,000.00	\$20,000.00	\$80,000.00	\$80,000.00	\$60,000.00	\$60,000.00
3	Excavation and Safety Measures	1	LS	\$5,000.00	\$5,000.00	\$1,700.00	\$1,700.00	\$10,900.00	\$10,900.00	\$39,000.00	\$39,000.00	\$11,000.00	\$11,000.00	\$48,000.00	\$48,000.00	\$15,000.00	\$15,000.00
4	Remove Manhole Top Sections	11	EA	\$5,000.00	\$55,000.00	\$5,000.00	\$55,000.00	\$5,900.00	\$64,900.00	\$7,302.00	\$80,322.00	\$8,000.00	\$88,000.00	\$7,700.00	\$84,700.00	\$38,810.00	\$426,910.00
5	Construct New Manhole Top Sections	11	EA	\$5,000.00	\$55,000.00	\$15,575.00	\$171,325.00	\$15,200.00	\$167,200.00	\$9,000.00	\$99,000.00	\$26,500.00	\$291,500.00	\$14,500.00	\$159,500.00	\$38,810.00	\$426,910.00
6	Repair Pavement at Manhole Excavation Locations	60	Tons	\$115.00	\$6,900.00	\$480.00	\$28,800.00	\$120.00	\$7,200.00	\$1,000.00	\$60,000.00	\$150.00	\$9,000.00	\$420.00	\$25,200.00	\$500.00	\$30,000.00
7	Pavement Slurry Seal	11,000	SF	\$0.80	\$8,800.00	\$2.18	\$23,980.00	\$2.18	\$23,980.00	\$1.50	\$16,500.00	\$3.00	\$33,000.00	\$3.50	\$38,500.00	\$10.00	\$110,000.00
8	Backfill with 1-Sack slurry	60	CY	\$115.00	\$6,900.00	\$104.00	\$6,240.00	\$115.00	\$6,900.00	\$608.00	\$36,480.00	\$150.00	\$9,000.00	\$270.00	\$16,200.00	\$150.00	\$9,000.00
9	Replace Existing Striping	1	LS	\$8,500.00	\$8,500.00	\$3,968.00	\$3,968.00	\$5,600.00	\$5,600.00	\$6,600.00	\$6,600.00	\$5,000.00	\$5,000.00	\$13,300.00	\$13,300.00	\$1,000.00	\$1,000.00
10	Final Record Drawings	1	LS	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00
	Subtotal				\$173,000.00		\$319,013.00		\$323,080.00		\$380,902.00		\$484,444.00		\$496,600.00		\$1,100,820.00
	Adjustment (- or +)		Contingency		\$17,000.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
	<b>TOTAL AMOUNT OF BID</b>				<b>\$190,000.00</b>		<b>\$319,013.00</b>		<b>\$323,080.00</b>		<b>\$380,902.00</b>		<b>\$484,444.00</b>		<b>\$496,600.00</b>		<b>\$1,100,820.00</b>
						<b>Manufacturers:</b>	<b>Manufacturers:</b>	<b>Manufacturers:</b>	<b>Manufacturers:</b>	<b>Manufacturers:</b>	<b>Manufacturers:</b>						
						Manhole Coatings: Zebtron	Manhole Coatings: Sancon Technologies	Manhole Coatings: Sancon	Manhole Coatings: Sancon	Manhole Coatings: Sancon	Manhole Coatings: Zebtron						
						<b>Subcontractors:</b>	<b>Subcontractors:</b>	<b>Subcontractors:</b>	<b>Subcontractors:</b>	<b>Subcontractors:</b>	<b>Subcontractors:</b>						
						MCS, Inc (445161): Manholes	Olsen Precast (751277): Manholes	Sancon Technologies (774055): Manhole Coating	Sancon Technologies (774055): Manhole Lining	Sancon Technologies (774055): Manhole Lining	MCS, Inc (445161): Manholes						
						Pavement Coatings Co (303609): Slurry Seal	Pavement Coatings Co (303609): Slurry Seal	Superior Pavement Markings (776306): Striping	Superior Pavement Markings (776306): Striping	Orange County Striping Services (346095): Striping	All American Asphalt (267073): Pave						
							Sancon Technologies (774055): Manhole Coating	Mission Paving & Sealing (624257): Asphalt	All American Asphalt (267073): Paving & Slurry Seal	BC Traffic Specialist (877686): Traffic Control							
							All American Asphalt (267073): Grind & Cap			Pavement Coatings Co (303609): Slurry Seal							

October 26, 2015

Prepared by: J. Moeder/R. Mori

Submitted by: K. Burton *KLB*

Approved by: Paul Cook *P. Cook*

## ACTION CALENDAR

### INITIAL DISINFECTION FACILITY SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM VARIANCE

#### SUMMARY:

Carollo Engineers is on schedule to complete the Preliminary Design Report in November 2015 for the conversion of chlorine gas to sodium hypochlorite at the Initial Disinfection Facility (IDF). Staff proposes to immediately transition to the final design phase upon completion of the Preliminary Design Report. Staff recommends that the Board authorize the General Manager to execute Variance No. 1 in the amount of \$169,914 with Carollo for the final design of the IDF Sodium Hypochlorite Storage and Feed System project.

#### BACKGROUND:

The IDF provides initial disinfection of groundwater from the Dyer Road Well Field to mitigate biological growth and odors prior to the Primary Disinfection Facility (PDF). The existing chlorine gas system consists of 16 one-ton chlorine gas cylinders, chlorinators, chlorine booster pumps, emergency scrubber system, and a fully-enclosed containment area for truck unloading of the cylinders. This project includes the removal of the existing chlorine gas system and related appurtenances and the installation of new sodium hypochlorite storage and feed facilities in the existing chlorination building.

Staff is nearing completion of a similar chlorine gas conversion project at the Rattlesnake Reservoir Chlorination Facility. Construction of the Rattlesnake project, which was also designed by Carollo, is about 80 percent complete and is anticipated to be online in December 2015. Carollo continues to perform well on the Rattlesnake project and will apply its experience and lessons learned from the project to the design of the IDF conversion project. Given the similarities between the two projects, staff selected Carollo Engineers to prepare the preliminary design for the IDF conversion. As part of the Preliminary Design Report, several workshops were held with operations and maintenance staff to optimize the use of the existing building for the new improvements. Carollo is on schedule to complete the Preliminary Design Report for the IDF conversion in November 2015 and will be ready to begin the final design immediately thereafter.

In accordance with IRWD Goals and Target Activities for 2015, the IDF conversion from chlorine gas to liquid sodium hypochlorite aligns with the District's goal of assessing the ongoing use of chlorine gas and investigating potential conversions to liquid sodium hypochlorite. After conversion of this facility, PDF will be the only remaining District facility using chlorine gas.

In addition, staff recently completed a comprehensive surge analysis for the Dyer Road Well Field and the Zone 1 system that identified the need for surge facilities to be installed at Dyer

Road Well Field Well No. 16. Since Well No. 16 is located at the site of IDF, staff incorporated the new surge tank into the Preliminary Design Report and into the scope of work for final design.

Variance No. 1:

Carollo Engineers submitted Variance No. 1 in the amount of \$169,914 for final design phase services. The variance, which is attached as Exhibit "A", provides for engineering design and bid phase services for the removal and demolition of the existing chlorine gas system and for the installation of a new sodium hypochlorite storage and feed system, and for the surge suppression system. Construction phase services, which are not included in the variance, will be developed at the end of the final design phase when the project is fully defined. The final design is anticipated to be complete and ready for bid advertisement in June 2016. Staff recommends the Board authorize the General Manager to execute Variance No. 1 in the amount of \$169,914 with Carollo for the final design of the IDF Sodium Hypochlorite Storage and Feed System.

FISCAL IMPACTS:

The IDF Sodium Hypochlorite Storage and Feed System, Project 11838 (6213) is included in the FY 2015-16 Capital Budget. The existing budget is sufficient to fund Variance No. 1.

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 which provides exemption for minor alterations of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. Staff will prepare a Notice of Exemption and file it with the Orange County Clerk/Recorder.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 1 IN THE AMOUNT OF \$169,914 WITH CAROLLO ENGINEERS FOR THE FINAL DESIGN OF THE INITIAL DISINFECTION FACILITY SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM, PROJECT 11838 (6213).

LIST OF EXHIBITS:

Exhibit "A" – Variance No. 1 with Carollo Engineers

# EXHIBIT "A"

## IRVINE RANCH WATER DISTRICT PROFESSIONAL SERVICES VARIANCE

Project Title: Initial Disinfection Facility Sodium Hypochlorite Storage and Feed System  
 Project No.: 11838(6213) Date: 10/5/15  
 Purchase Order No.: \_\_\_\_\_ Variance No.: 1

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

Description of Variance (*attach any back-up material*):  
Current scope of supply provides preliminary design services for the project. Variance #1 will provide final design and bid period services. Consultant shall prepare bid ready construction documents for the new chemical storage and feed facilities at the IDF. The full scope is included with this variance form.

**Engineering & Management Cost Impact:**

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
Senior Engineer	18	\$229	\$4,122	\$500		\$4,622
Project Engineer	416	\$189	\$78,624	\$1,250		\$79,874
Assistant Engineer	180	\$155	\$27,900	\$500		\$28,400
Designer	352	\$147	\$51,744	\$1,500		\$53,244
Document Processing	34	\$111	\$3,774	\$0		\$3,774
<b>Total \$ =</b>						<b>\$169,914</b>

**Schedule Impact:**

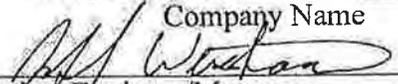
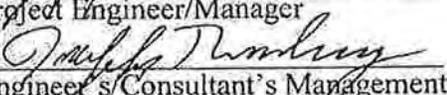
Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
2	Final Design	0 days	180 days	180 days

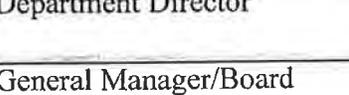
**Required Approval Determination:**

Total Original Contract	<u>\$49,450</u>	<input type="checkbox"/> Director: Cumulative total of Variances less than or equal to \$50,000.
Previous Variances \$0		
This Variance	<u>\$169,914</u>	<input type="checkbox"/> Executive Director: Cumulative total of Variances less than or equal to \$75,000.
Total Sum of Variances	<u>\$169,914</u>	
New Contract Amount	<u>\$219,364</u>	<input type="checkbox"/> General Manager: Cumulative total of Variances less than or equal to \$100,000.
Percentage of Total Variances to Original Contract	<u>344%</u>	<input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$100,000.
%		

ENGINEER/CONSULTANT: Carollo Engineers

IRVINE RANCH WATER DISTRICT

Company Name  
  
 Project Engineer/Manager  
  
 Engineer's/Consultant's Management

  
 Department Director  
  
 General Manager/Board

Date 10/8/15  
 Date 10/8/15

Date 10/12/15  
 Date \_\_\_\_\_



October 8, 2015

Mr. Jacob Moeder, P.E.  
Capital Projects Engineer  
Irvine Ranch Water District  
15600 Sand Canyon Avenue  
Irvine Ranch, CA 92619

Subject: Proposal for Initial Disinfection Facility (IDF) Sodium Hypochlorite Storage & Feed System  
Final Design Services

Dear Mr. Moeder:

Please find attached our scope of work and proposed fee to complete the final design for the subject project. We are nearing completion of the Preliminary Design Report (PDR) and are excited to continue working with IRWD on this important project.

Please note our team will not change as we transition to the next phase of the project. The discipline engineers who have helped ensure the success of the Rattlesnake Reservoir Sodium Hypochlorite Conversion Project (Rattlesnake project) and conversion to bulk chemical storage and feed and assisted in the IDF PDR will continue to support this project. Their continued knowledge of IRWD preferences and experience working with staff will be an asset moving forward and help us maintain a high level of efficiency.

Our Scope of Work is detailed in Exhibit A. This scope is based on the scope developed for the Rattlesnake project. We have included the appropriate number of meetings necessary for the final design phase.

The proposed fee has been broken down into two tables. Exhibit B provides the proposed fee for the sodium hypochlorite storage and feed system final design. Exhibit C provides the proposed fee for the surge tank final design. This has been done so that we may offer certain cost savings to IRWD related to the chemical storage and feed system. The proposed cost and savings can be easily compared to the Rattlesnake fee for your convenience.

The budgeted hours reflect the savings that we believe will be achieved over the course of the project due to having recently completed the Rattlesnake project. We are extensively familiar with IRWD preferences for design related to chemical storage and handling. We can extend this knowledge into the design for the IDF facility and offer efficiencies in producing the final bid documents. Additionally, as the Rattlesnake construction nears completion, we are aware of the "lessons learned" that resulted from requests for information, design clarifications, and change orders. We have applied those lessons to the PDR and will carry them forward to the design phase. Our fee reflects these efficiency savings.

The table below summarizes our proposed fee for the sodium hypochlorite storage and feed system and surge tank final design.

Mr. Jacob Moeder, P.E.  
Capital Projects Engineer  
October 8, 2015  
Page 2

IDF Sodium Hypochlorite System Design	\$	151,212
IDF Surge Tank Design	\$	18,702
<hr/>		
Total Proposal Fee	\$	169,914

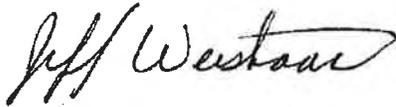
Our schedule is shown in the next table. The schedule is based on a notice to proceed date of November 2. The final bid-ready documents will be made available by June, 2016.

Milestone	Date
Notice to Proceed	Nov. 2, 2015
60% Design Submittal	Jan. 26, 2016
60% Review Meeting	Feb. 10, 2016
90% Design Submittal	March 23, 2016
90% Review Meeting	April 6, 2016
100% Design Submittal	May 5, 2016
100% Review Meeting	May 19, 2016
Final Bid Documents	June 3, 2016

Please review the attached information. We look forward to discussing the project scope and fee at your earliest convenience.

Sincerely,

CAROLLO ENGINEERS, INC.



Jeff Weishaar, JW

JW:JW

Enclosures: Budget Tables, Scope of Work (Exhibit A )  
cc: Rich Mori, P.E.  
Jim Meyerhofer, P.E

# EXHIBIT A

## SCOPE OF SERVICES

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IRVINE RANCH WATER DISTRICT

INITIAL DISINFECTION FACILITY  
SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM FINAL DESIGN

OCTOBER 2015

### **BACKGROUND**

The Irvine Ranch Water District (District) is in the process of replacing existing chlorine gas facilities with bulk sodium hypochlorite as a disinfectant. Chlorine gas is a hazardous chemical and requires additional training, inspections, permitting and safety measures for its safe use. The purpose of this project is to replace the chlorine gas system at the District's Initial Disinfection Facility (IDF). The District also has a desire to install a new surge tank at Well 16 on the IDF site. Carollo and the District are nearing completion of the preliminary design report for the new sodium hypochlorite storage and feed system and the surge tank installation at IDF. This exhibit provides the scope of work to provide final design for the project.

### **SCOPE OF WORK**

#### **Task 1 Project Management**

##### **Task 1.01 – Project Status Reports**

Weekly and monthly written status reports will be provided to the District. Monthly reports will accompany and supplement monthly invoices along with updated project schedules. These reports will provide a narrative summary of progress on the Project, including budget and schedule status. The report will discuss work completed on the Project for the reporting period and anticipated work for the next period. Critical decisions and outstanding action items will be documented and included with each report. Any out-of-scope work, if needed, will be identified in this progress report.

##### **Tasks 1.02 – Meetings and Workshops**

Carollo will attend and chair meetings to present project progress and discuss major decisions and action items. A Kick-Off meeting will be used to review the scope of work, establish lines of communication, and discuss project goals and approach. At the meeting, project issues and concerns can be expressed by IRWD staff. Data and other information needs will be discussed. A total of four (4) meetings are scheduled:

- Final Design Kick-off Meeting (2 hr meeting)
- 60% Design Review Meeting (4 hr meeting)

- 90% Design Review Meeting (4 hr meeting)
- 100% Design Review Meeting (4 hr meeting)

Draft agenda and supporting materials will be distributed for review approximately five days prior to each meeting and workshop. Draft and final conference notes will be distributed to all attendees and other interested staff within one week of the meeting.

### **Task 1 Deliverables**

- Electronic weekly status reports and monthly status reports submitted with the invoice.
- Meeting agenda and electronic meeting minutes.

## **Task 2 Final Design**

### **Task 2.01 – Project Manual**

The Project Manual will be prepared using IRWD's standard format and IRWD's front end documents. Supplement and special provisions will be included as required to supplement the standard and front end documents. Work sequence and restraints will include allowable shutdown durations and sequencing to minimize facility down time. IRWD technical specifications will be included. Carollo will provide project specific technical specifications to complete the Project Manual for the project. Submittals of the Project Manual will be per the Task 2 Deliverables.

### **Task 2.02 – Construction Plans**

Carollo shall prepare detailed construction drawings in the latest version of AutoCAD and using NCS V 4.0 layering standards, on 24-inch x 36-inch sheets utilizing IRWD's standard border template. Separate sheets with sheet index, location map/legend, general notes, index map, construction notes, condensed profiles, phasing, and detail connections shall be included. Construction notes shall be used (callouts on the plans are not allowed) on all construction drawings. Existing IRWD utilities shall be identified on the plan view by as-built plan set number with the pipeline material and IRWD pressure zone labeled. The index map shall include sheet legend, final alignment, valve locations, surrounding streets, and significant project site locations. Construction plans shall be prepared using the NA VD 88 and NAD 83 survey standards.

### **Task 2.03 – Utility Research**

Carollo has reviewed the as-built information provided with the RFP. The location of existing underground utilities and other physical features will be accurately shown on the construction plans. This will include material, size, horizontal and vertical locations as needed.

### **Task 2.04 – Electrical and Instrumentation**

Carollo will prepare Programming and Instrumentation Diagrams (P&IDs), single line diagrams, control equipment lists, and integration of the new facility into the District's existing SCADA system. We will meet with IRWD electrical and telemetry staff in order to properly and efficiently incorporate IRWD's standard operations, programming, and tagging requirements. Operation schemes and control descriptions will be provided to the District for review and comment.

### **Task 2.05 – Project Schedule**

The project construction schedule and construction sequencing will be updated from the Preliminary Design Report at each submittal point as the design is refined and new features are added.

### **Task 2.06 – Liquidated Damages**

Carollo will prepare IRWD's standard liquidated damages calculation form in order to assist the District in determining the proper damages to assess for exceeding of the contracted construction time.

### **Task 2.07 – Opinion of Probable Construction Cost**

The cost estimates will be updated at each submittal point as the design is refined and new features are added.

### **Task 2.07 – Final Design Deliverables**

- Ten (10) copies and one (1) compact disc of PDF's of the 60-percent plan set, including Project Manual, Construction Plans, Opinion of Probable Construction Plans, Project Schedule and Liquidated Damages Spreadsheet.
- Ten (10) copies and one (1) compact disc of PDF's of the 90-percent plan set , including Project Manual, Construction Plans, Opinion of Probable Construction Plans, Project Schedule and Liquidated Damages Spreadsheet.
- Ten (10) copies and one (1) compact disc of PDF's and one( 1) compact disc of AutoCAD files of the 100-percent plan set, including Project Manual, Construction Plans, Opinion of Probable Construction Plans, Project Schedule and Liquidated Damages Spreadsheet.
- One (1) final set of stamped and signed reproducible plans on mylar and original Project Manual for District signature.
- Carollo will attend a Final Plan Signature Meeting to discuss the final project with the District and answer any remaining questions prior to the bid period.

### **Task 2.08 – Addenda Preparation and Pre-Bid Meeting**

Carollo will assist in conducting one pre-bid meeting, including a site visit with potential bidders. Up to two (2) bid addenda will be prepared to provide information and clarification of the bid documents.

#### **Task 2 Deliverables**

- 60-Percent Plan Set

- 90-Percent Plan Set
- 100-Percent Plan Set
- Final Biddable and Reproducible Plan Set
- Pre-Bid Meeting Minutes
- Two (2) Addenda

Exhibit B  
Irvine Ranch Water District  
Initial Disinfection Facility  
Sodium Hypochlorite Storage Feed System  
Final Design Services

Task	Task Description	Meyerhofer	Weishaar	Assistant Engineer	Doering	Doan	Hedlund	Carreon	Designer	Document Processing	Task Hours	Task Subtotal	Reproduction	Task Total
<b>1</b>	<b>Project Management</b>													
1.01	Project Status Reports	0	12	0	0	0	0	0	0	0	12	\$ 2,268	\$ -	\$ 2,268
1.02	Meetings and Workshops	14	14	14	4	0	4	4	0	4	58	\$ 10,734	\$ 500	\$ 11,234
1.03	Quality Assurance/Quality Control	1	18	0	4	0	4	0	0	0	27	\$ 5,143	\$ -	\$ 5,143
	<b>Task Subtotal</b>	<b>15</b>	<b>44</b>	<b>14</b>	<b>8</b>	<b>0</b>	<b>8</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>97</b>	<b>\$ 18,145</b>	<b>\$ 500</b>	<b>\$ 18,645</b>
<b>2</b>	<b>Final Design</b>													
2.01	Project Manual	0	8	18	2	8	8	8	0	8	60	\$ 10,104	\$ -	\$ 10,104
2.02	Construction Plans	0	24	64	2	36	30	36	140	6	338	\$ 55,358	\$ -	\$ 55,358
2.03	Utility Research	0	2	8	0	0	2	2	0	0	14	\$ 2,374	\$ -	\$ 2,374
2.04	Electrical/Instrumentation	0	4	0	0	0	56	64	140	0	264	\$ 44,016	\$ -	\$ 44,016
2.05	Project Schedule	0	2	8	0	0	0	0	0	0	10	\$ 1,618	\$ -	\$ 1,618
2.06	Liquidated Damages Spreadsheet	0	0	2	0	0	0	0	0	0	2	\$ 310	\$ -	\$ 310
2.07	Opinion of Probable Construction Cost	0	2	8	0	0	0	0	0	0	10	\$ 1,618	\$ -	\$ 1,618
2.08	Final Design Deliverables													
	60 Percent Deliverable	0	2	6	0	0	0	0	2	2	12	\$ 1,824	\$ 750	\$ 2,574
	90 Percent Deliverable	0	2	6	0	0	0	0	2	2	12	\$ 1,824	\$ 750	\$ 2,574
	100 Percent Deliverable	0	2	6	0	0	0	0	2	2	12	\$ 1,824	\$ 750	\$ 2,574
	Final Deliverable	0	2	6	0	0	0	0	2	2	12	\$ 1,824	\$ 750	\$ 2,574
2.09	Addenda Preparation & Pre-Bid Meeting	0	5	22	0	4	4	4	0	0	39	\$ 6,623	\$ 250	\$ 6,873
	<b>Task Subtotal</b>	<b>0</b>	<b>55</b>	<b>154</b>	<b>4</b>	<b>48</b>	<b>100</b>	<b>114</b>	<b>288</b>	<b>22</b>	<b>785</b>	<b>\$ 129,317</b>	<b>\$ 3,250</b>	<b>\$ 132,567</b>
	Hours Total	15	99	168	12	48	108	118	288	26	882			
	Rate	\$ 229	\$ 189	\$ 155	\$ 189	\$ 189	\$ 189	\$ 189	\$ 147	\$ 111				
	<b>Project Subtotal</b>	<b>\$ 3,435</b>	<b>\$ 18,711</b>	<b>\$ 26,040</b>	<b>\$ 2,268</b>	<b>\$ 9,072</b>	<b>\$ 20,412</b>	<b>\$ 22,302</b>	<b>\$ 42,336</b>	<b>\$ 2,886</b>		<b>\$147,462</b>	<b>\$3,750</b>	<b>\$151,212</b>

Exhibit C  
Irvine Ranch Water District  
Initial Disinfection Facility  
Surge Tank Final Design Services

Task	Task Description	Meyerhofer	Weishaar	Assistant Engineer	Doering	Doan	Hedlund	Carreon	Designer	Document Processing	Task Hours	Task Subtotal	Reproduction	Task Total
<b>2</b>	<b>Final Design</b>													
2.01	Project Manual	1	1	4	1	2	2	2	0	2	15	\$ 2,583	\$ -	\$ 2,583
2.02	Construction Plans	1	1	8	1	4	0	0	32	6	53	\$ 7,973	\$ -	\$ 7,973
2.03	Utility Research	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -	\$ -
2.04	Electrical/Instrumentation	1	1	0	0	0	8	8	32	0	50	\$ 8,146	\$ -	\$ 8,146
2.05	Project Schedule	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -	\$ -
2.06	Liquidated Damages Spreadsheet	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -	\$ -
2.07	Opinion of Probable Construction Cost	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -	\$ -
2.08	Final Design Deliverables													
	60 Percent Deliverable	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -	\$ -
	90 Percent Deliverable	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -	\$ -
	100 Percent Deliverable	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -	\$ -
	Final Deliverable	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -	\$ -
2.09	Addenda Preparation & Pre-Bid Meeting	0	0	0	0	0	0	0	0	0	0	\$ -	\$ -	\$ -
	<b>Task Subtotal</b>	<b>3</b>	<b>3</b>	<b>12</b>	<b>2</b>	<b>6</b>	<b>10</b>	<b>10</b>	<b>64</b>	<b>8</b>	<b>118</b>	<b>\$ 18,702</b>	<b>\$ -</b>	<b>\$ 18,702</b>
	Hours Total	3	3	12	2	6	10	10	64	8	118			
	Rate	\$ 229	\$ 189	\$ 155	\$ 189	\$ 189	\$ 189	\$ 189	\$ 147	\$ 111				
	<b>Project Subtotal</b>	<b>\$ 687</b>	<b>\$ 567</b>	<b>\$ 1,860</b>	<b>\$ 378</b>	<b>\$ 1,134</b>	<b>\$ 1,890</b>	<b>\$ 1,890</b>	<b>\$ 9,408</b>	<b>\$ 888</b>		<b>\$ 18,702</b>	<b>\$ 0</b>	<b>\$ 18,702</b>

October 26, 2015

Prepared by: L. Lewis

Submitted by: F. Sanchez/P. Weghorst *FW*

Approved by: Paul Cook *PC*

## ACTION CALENDAR

### PROFESSIONAL SERVICES AGREEMENT FOR FATS, OILS AND GREASE PROGRAM

#### SUMMARY:

IRWD has utilized contract services to administer the District's Fats, Oils and Grease (FOG) program since 2004. In 2014, Environmental Engineering and Contracting, Inc. (EEC) was identified through a competitive process as the only qualified company to provide the services and was issued a purchase order agreement to provide FOG program assistance. Staff has negotiated new rates for ECC to continue providing FOG services through October 2016. Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement with EEC for FOG program administrative support services in the amount of \$165,950.

#### BACKGROUND:

When the District initiated its FOG program in 2004, EEC was retained to develop a FOG characterization study. The scope of work for this study included inspection of food service establishments (FSEs), development of hot spot maps, FOG source characterizations and the design of a database management system for the FOG program. The District's FOG program has expanded over the last 10 years and currently has over 1,200 FSEs in the system. EEC's scope of work has evolved to include overall program management, routine FSE inspections and enforcement support.

In September 2014, staff distributed a Request for Proposals (RFP) for FOG services that was sent to six potential service providers. While staff received three proposals, two of the firms were found to have not met the minimum experience requirements specified in the RFP. Based on this competitive process, ECC was issued a purchase order agreement to perform FOG services. EEC has provided FOG program management services to over 30 cities and sewer collection and treatment districts. The company is also nationally recognized as a FOG control expert and has provided excellent services to the District.

Staff will be conducting an evaluation of the implementation of the FOG program as well as the development of a pre-treatment program prior to the District's biosolids facility coming on line. In the interim and for the next year, staff recommends that EEC continue to provide FOG program support services through the execution of a Professional Services Agreement. A copy of ECC's proposed scope of work and updated rates for the next year is attached as Exhibit "A". Staff considers the negotiated rates to be fair and reasonable.

FISCAL IMPACTS:

FOG Program Services funding in the amount of \$200,000 is included in the adopted FY 2015-16 operating budget.

ENVIRONMENTAL COMPLIANCE:

Services provided by EEC will be in compliance with the District's FOG Control Program Manual and Grease Control Rules and Regulations that are included in the District's Sewer System Management Plan (SSMP), the District's Rules and Regulations for Use of District Sewerage Facilities and consistent with the State Water Resources Control Board Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order Number 2006-0003.

COMMITTEE STATUS:

This item was not reviewed by Committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC. TO PROVIDE FOG PROGRAM ADMINISTRATION SUPPORT SERVICES IN THE AMOUNT OF \$165,950 FOR THE PERIOD OF NOVEMBER 1, 2015, TO OCTOBER 31, 2016.

LIST OF EXHIBITS:

Exhibit "A" – EEC Scope of Work and Rates

# EXHIBIT "A"

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## Section 3.0 – Scope

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### 3.1 FOG Program Management Support

EEC currently manages and supports FOG control programs for four Southern California agencies, including the District, utilizing comprehensive databases and GIS tools to collect, organize, analyze, and manage FOG data. Having been closely involved in the development and implementation of key FOG program tools and processes, EEC's technical and field staff is thoroughly knowledgeable with the field data acquisition systems and work flows currently employed by the District.

EEC will provide the following as-needed services under this task:

- Collect, organize, and manage the District's FOG Control Program data
- Review FSE inspection results for QA/QC
- Develop reports to summarize inspection results and compliance efforts
- Establish inspection schedules, and coordinate compliance and enforcement tasks with District staff
- Provide as-needed new FSE plan review/plan check support and District staff training
- Conduct regular meetings/calls with District staff to evaluate the FOG Control Program status, provide recommendations, and prioritize project efforts (minimum of bi-weekly)
- Provide monthly reports summarizing activities conducted and recommendations to the District's FOG Program Manager
- Provide follow-up documentation assistance and expertise to the FOG Program Manager
- Manage the FOG geodatabase and GIS files such as map documents
- Monitor the Orange County Health Care Agency's (OCHCA's) inventory of restaurants and append any updates, changes, or additions to the District's FSE inventory
- Obtain data and information to keep the FSE inventory up to date
- As needed, develop and coordinate evaluation of new and emerging grease control technologies, including GRE and chemical/biological additives
- Provide the District with experienced and knowledgeable professional staff
- Provide the district with inspectors equipped with proper identification including contractor badges

Additionally, based on our recognized FOG expertise, EEC is afforded the opportunity to work with agencies across the country, exposing the team to a variety of innovative ideas and concepts that can be shared with the District. EEC also works with some of the District's neighboring agencies and can share field intelligence regarding sewer investigations and FSE issues that might impact the District's programs.

### 3.2 FSE Inspections and Enforcement

EEC inspectors are fully trained on FOG inspection procedures and the District's specific FOG regulations. To ensure the efficiency, quality and consistency of our inspections, EEC will routinely perform QA/QC of FOG inspectors as well as the inspection data. EEC will closely monitor inspection progress to ensure the FOG control program tasks are on track to meet inspection and follow-up targets. EEC will also work

with the District's FOG Program Manager to evaluate implementation of FOG risk-based inspection prioritization processes to further optimize the District's inspection resources.

EEC will provide the following services under this task:

- Conduct on-site physical inspections of FSEs as determined by the FOG Program Manager (during the District's regular business hours)
- Provide recommendations for enforcement actions and support coordination and execution of these actions
- Provide outreach and educational materials to FSEs
- Provide the District with educational and BMP information
- Promote the importance of kitchen BMPs to the FSE community
- Require inspectors to clearly identify themselves both verbally and with proper identification badges as contract inspectors of the District
- Require inspectors to identify their vehicles as contract vehicles of the District (if requested)
- Coordinate and establish work schedules

Specific FSE inspection categories include the following:

**1. Permitting Inspections.** EEC will conduct initial permitting inspections for new, change-of-ownership, and remodeled FSEs. Through initial inspections, also referred to as FSE characterization, EEC will identify the type of food, cooking equipment, kitchen practices, and grease removal equipment utilized at each new FSE. Each FSE will be provided with educational materials and detailed verbal guidance to help the FSE understand the District's Program and minimize their risk for FOG discharge into the District's collection system.



An FSE's Cooking Equipment Inventory Undergoes FOG Inspection

**2. Grease Removal Equipment Inspections.** EEC will conduct GRE inspections for FSEs with a grease interceptor or grease trap to ensure each device is in good operational and maintenance condition and confirm that appropriate maintenance practices are implemented. The inspections are comprehensive and thorough to support potential enforcement efforts in the future.

Specifically, EEC inspectors will conduct the following:

- Measure the layer of floating FOG and settable solids
- Determine conformance with compliance criteria
- Inspect the mechanical condition of the GRE
- Review the maintenance logs and record the last pump-out date
- Evaluate GRE pumping record-keeping
- Document and capture photographic evidence of all violations



Grease Interceptor is Opened for Inspection

**3. Best Management Practice Inspections.** Having conducted over 20,000 kitchen BMP inspections, EEC understands the importance of educating FSEs on proper BMPs. EEC will conduct BMP inspections to evaluate compliance with all required kitchen BMPs, including employee education and training practices. These inspections also provide an opportunity to provide new program educational materials.

Specifically, EEC inspectors will assess the following:

- Removal of food grinder
- Drain screens installed/maintained
- Kitchen signage (BMP poster) posted
- Scraping practices
- Food waste disposal practices
- Emergency spill response materials
- Utilization of drainage additives
- Segregation and proper storage of waste cooking oil
- Grease collection log maintained
- Employee training log maintained
- Lateral cleaning and spill log maintained



A Kitchen BMP Violation is Identified During Inspection

**4. Compliance Inspections.** ECC will conduct follow-up inspections for non-compliance issues as required by the District's FOG Program Manager. This may include issuance of notices of violation (NOV) to FSEs that are found to be in non-compliance of the FOG control regulations.

EEC will assist the District in managing enforcement actions for violations of the District's Rules and Regulations. For any FSE or critical source facility identified with deficiencies, EEC will meet with FSE managers/owners or property owners to discuss violations and enforcement and to help develop an appropriate corrective action plan to achieve and maintain compliance. Based on the results of follow-up inspections and issued notices of non-compliance, EEC will review, provide recommendations, and assist the District with elevated enforcement actions required as a result of violations of the District's FOG Rules and Regulations.

EEC understands the District's FSE inventory database and key FSE details necessary to determine each FSE's potential to discharge FOG into the sewer system (*e.g.*, cooking equipment). Inspection results collected in the field are recorded in the geodatabase and used to determine and monitor each FSE's compliance status and history.



A Probe is Used to Measure the FOG Accumulation in a Grease Interceptor

### 3.3 Safety

EEC inspectors are extensively trained in inspection safety and have an impeccable safety track record. EEC inspectors also receive training in SSO response procedures and are readily familiar with the SSO emergency response procedures implemented by the District.

With over 20,000 facility and grease interceptor inspections conducted to date, EEC understands the potential hazards associated with conducting facility inspections. EEC inspectors adhere to safety protocols and safety equipment including, but not limited to, the following:

- Anti-slip steel toed boots
- Latex gloves
- Safety glasses
- Long pants
- Traffic safety vests
- Traffic cones
- Hand sanitizer

If requested, EEC can develop a Site Safety Plan specific to this project. The Site Safety Plan would outline the steps to be taken during each inspection to not only protect inspectors/public from harm, but also satisfy the District's specific requirements (if any). Such a Site Safety Plan would be kept in each inspection vehicle and provided to the District upon request.

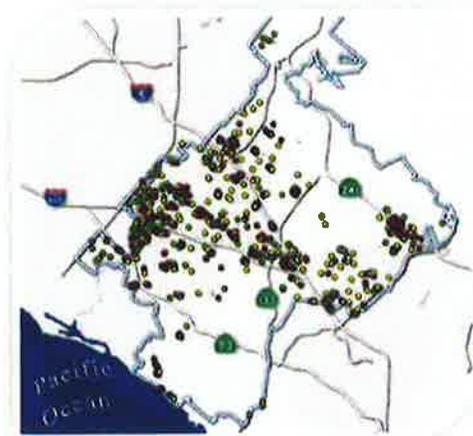
### 3.4 Mapping Services

EEC fully understands the District's use of GIS and other systems to manage FOG program data and inspection tasks. EEC understands that the District is requesting mapping and GIS support services to continue use of these systems.

Since 2004, EEC has provided GIS support services to the District, including determining the most effective way to manage the District's FOG control program. EEC created and implemented the District's Esri's ArcGIS and MS Access system to manage inspections of the more than 1,000 FSEs and more than 400 GREs.

EEC will provide the following services under this task:

- Manage and maintain FSE/GRE geodatabase
- Review FOG inspection results
- Generate reports and inspection statistics
- Maintain FSE and GRE feature classes
- Maintain map documents for Esri software



FSEs Located in IRWD's Service Area

- Conduct geospatial analysis to determine FSE inspection priorities
- Provide GIS support as specified by the District
- Identify and address problems or errors in the GIS

The FOG program Geodatabase is also used to manage issuance of NOVs and subsequent compliance inspections. Using these GIS and database resources developed in-house, EEC will continue to provide effective and efficient inspection management services for the District.

EEC has also developed customized tools to query and review copious amounts of FSE data for analysis and reporting. For example, an inspector or manager can find an SSO or sewer hotspot in the GIS and readily identify the associated FSEs. Hyperlink tools in the GIS are provided to quickly query the FSE database to return pertinent information related to an FSE's inspection history, site pictures, and inspection reports.

### 3.5 Waste Discharge Requirement and Sewer Management Plan Support

EEC staff has comprehensive experience in conducting a wide range of program audits, including sewer system management plan (SSMP) audits. This broad experience has provided EEC with a unique insight to both a regulator's view on conducting audits and a regulated entity's view on being audited. Since the issuance of Order No. R8-2002-0014 by the California Regional Water Quality Control Board in 2002, and subsequent issuance of the current Statewide General Waste Discharge Requirements (SSS WDR) for Sanitary Sewer Systems (Order No. 2006-0003-DWQ) in 2006, EEC applied its insight to developing and implementing practical and defensible programs designed to reduce SSOs. EEC can provide continued support to the District with WDR and SSMP development and implementation as requested.



An SSO is Simulated During SSO Response Training

EEC continues to serve local governments in developing, implementing, and monitoring sensible sewer system management programs tailored to address specific local conditions and ensure compliance with applicable WDRs. EEC has extensive expertise in key SSO mitigation strategies, including FOG control programs, overflow emergency response plans (ERP), and SSMP performance assessment and audits. EEC continues to assist cities and independent special districts, including the Cities of Santa Ana, La Habra, Buena Park, El Segundo, and Anaheim, as well as CMSD, with development, implementation, and/or audit of their key SSMP strategies.

As needed, EEC can support the District with the on-going efforts toward SSMP assessment and enhancement to ensure continued compliance with the SSS WDR. EEC's service capabilities range from cursory review/discussion of specific SSMP elements to a comprehensive audit and update of the entire SSMP program.

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### **3.6 Training and Miscellaneous Support**

EEC developed and currently conducts California's only Grease Interceptor Inspector Training Workshop for the California Water Environment Association (formerly conducted for CalFOG). To date, EEC has conducted seven workshops and trained more than 400 inspectors. EEC most recently provided specialized training for City Redondo Beach and South San Luis Obispo Sanitation District inspectors as well as City of Santa Ana Code Enforcement staff.

As needed, EEC can provide the District with FOG Program and inspection training services tailored to suit the District's current program needs as well as supporting the District's long-term program goals.

### **3.7 Summary of Deliverables**

Based on the scope of services, the following deliverables are anticipated for this project:

- Up-to-date insurance certificate(s) addressing all District requirements including Worker's Compensation, General Liability, and Auto Liability (current District's Insurance certificate (Attachment C))
- FOG program protocols assessment reports and recommendations (as needed)
- Monthly inspection status reports summarizing inspections conducted, compliance status, and recommendations for follow-up and enforcement actions
- Quarterly program review/status meetings with District staff
- FOG outreach and educational materials procurement support and distribution (as needed)
- Updates of FSE inspection database with new FSE data from a variety of sources (as needed)
- FOG program initiative recommendations (as needed)
- Evaluation/assessment reports for emerging GRE devices and additives (as needed)
- Mapping document updates and recommendation reports (as needed)
- Work flow development recommendations (as needed)
- Memoranda/reports on emerging WDR/SSMP requirements (as needed)
- SSMP internal audit report and recommendations (as needed)
- Classroom and field training on a wide range of FOG/WDR/SSMP/GIS/CMMS topics (as needed)
- Monthly Invoices including number of hours by labor category and hourly rates (as included in the fee proposal)

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**Request for Proposal (RFP #cp100114)  
Fats, Oils, and Grease (FOG) Program Services  
Attachment "A"**

Fee Schedule

The charge for all time required for the performance of the Scope of Work, including administrative, office, field, and travel time will be billed at the hourly rate according to the labor tasks set forth below:

Administrative Services	Hourly Rate	<u>\$ 150</u>
FOG Program - Analytical Services	Hourly Rate	<u>\$ 180</u>
FOG Program - Plan Check Review	Hourly Rate	<u>\$ 150</u>
FSE Field Inspections	Hourly Rate	<u>\$ 105</u>
FSE Compliance Inspections	Hourly Rate	<u>\$ 115</u>
GIS/Information Technology	Hourly Rate	<u>\$ 135</u>
Emergency Response – Business hrs.	Hourly Rate	<u>\$ 125</u>
Emergency Response – Non-Business hrs.	Hourly Rate	<u>\$ 200</u>

**Table 3-1, Projected Costs for 11/2015 - 10/2016**

Labor Task	Projected Hours	Hourly Rate	Projected Year 1 Cost
<b>Administrative Services</b> <ul style="list-style-type: none"> <li>IRWD customer call support and coordination</li> <li>FSE inspection planning and coordination</li> </ul>	70	\$150	\$10,500
<b>FOG Program – Analytical Services</b> <ul style="list-style-type: none"> <li>Program development and management support</li> <li>Enforcement recommendations and support</li> <li>Special project coordination and planning support</li> <li>Program status updates/meetings</li> </ul>	90	\$180	\$16,200
<b>FOG Program – Plan Check Review</b> <ul style="list-style-type: none"> <li>New FSE plan review support</li> <li>Plan processing and comment letter support</li> </ul>	50	\$150	\$7,500
<b>Field Inspections</b> <ul style="list-style-type: none"> <li>New FSE Initial Inspections</li> <li>Best Management Practice (BMP) inspections</li> <li>Grease Removal Equipment (GRE) inspections</li> <li>Inspection data processing</li> </ul>	840	\$105	\$88,200
<b>Compliance Inspections</b> <ul style="list-style-type: none"> <li>Non-compliance follow-up inspections</li> <li>Non-compliance coordination and data processing</li> </ul>	240	\$115	\$27,600
<b>GIS/Information Technology</b> <ul style="list-style-type: none"> <li>Mapping support</li> <li>Data/database management support</li> <li>Status report support</li> </ul>	70	\$135	\$9,450
<b>Emergency Response – Business hours</b> <ul style="list-style-type: none"> <li>Private/Public SSO follow-up</li> </ul>	20	\$125	\$2,500
<b>Emergency Response – Non-business hours</b> <ul style="list-style-type: none"> <li>Private/Public SSO follow-up</li> </ul>	20	\$200	\$4,000
<b>Projected Total (11/1/2015 through 10/31/2016)</b>			<b>\$165,950</b>

October 26, 2015

Prepared by: B. Stewart/S. Malloy

Submitted by: K. Burton

Approved by: Paul Cook

## ACTION CALENDAR

### MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES CONTRACT CHANGE ORDER AND VARIANCE

#### SUMMARY:

Filanc/Balfour-Beatty (FBB) is constructing the Michelson Water Recycling Plant (MWRP) Biosolids and Energy Recovery Facilities (Biosolids Project). Contract Change Order (CCO) No. 34 includes several additions and credits. The additions include changing the knife gate valves manufacturer and providing addressable smoke detectors. The credits include IRWD costs related to overtime inspection, special inspection for soil and structural support, and review of submittals after the second time. Variance No. 4 with Black & Veatch will provide supplemental start-up services. Staff recommends that the Board:

- Approve CCO No. 34 in the amount of \$164,775.28 with FBB for the MWRP Biosolids and Energy Recovery Facilities project, and
- Authorize the General Manager to execute Variance No. 4 in the amount of \$370,570 with Black & Veatch for providing supplemental start-up services for the MWRP Biosolids and Energy Recovery Facilities project.

#### BACKGROUND:

Construction of the Biosolids Project was awarded to FBB in March 2013 in the amount of \$163,513,307. The Biosolids Project will provide biosolids digestion, dewatering, energy production, and on-site sludge drying. The project includes excavation for subsurface structures; installation of 3,009 foundation piles; three egg-shaped digesters; a state-of-the-art odor control system; a biogas conditioning system and power generation using micro-turbines; a fats, oil and grease receiving station; and new utility services. These facilities are being constructed on the land north of IRWD's existing Operations Center, maintenance shops, water quality laboratory, and warehouse.

#### CCO No. 34:

Staff negotiated with FBB to resolve several items contained in CCO No. 34. The items are as follows:

*Changing of Manufacturer of Knife Gate Valves:* FBB submitted high pressure Orbinox knife gate valves that minimally met the requirements of the contract specifications. The project includes eight 10-inch electrically-actuated, one 10-inch manually-actuated, and one 16-inch manually-actuated knife gate valves that will handle sludge. Staff and Black & Veatch reviewed FBB's proposed knife gate valve along with an alternative knife gate valve from DeZurik.

Over time, sludge could accumulate inside the Orbinox valve that was submitted, resulting in the knife gate valve being plugged. The DeZurik valve has a mechanism that prevents the sludge from accumulating inside the valve. If the Orbinox valves were to be installed, it would require significant effort from staff to ensure that each valve remained operable. The DeZurik valves have a proven and lengthier track record for use in handling sludge and are manufactured of heavier duty material. After a comprehensive life cycle cost analysis, staff determined that the DeZurik valves were the superior product. Therefore, staff directed FBB to provide the DeZurik valves. This item is for the cost differential between the two valves. The avoided cost of maintenance for the Orbinox valve over a 25-year period is greater than the differential cost. The cost of this change is \$275,954.90.

*Addressable Smoke Detectors:* After an Orange County Fire Authority review of the contract drawings, it was decided that 15 non-addressable smoke detectors needed to be changed to addressable. When a non-addressable smoke detector is activated, a general alarm is sent. The alarm from a non-addressable smoke detector does not provide a specific location of the potential danger. Alarms from an addressable smoke detector will provide the specific location of the detector, allowing the fire authority to respond quicker and more accurately to the alarm. This change also follows the Fire Authority's standard. This item includes the cost differential between the two types of detectors along with associated cable, wires, and SCADA programming. The cost of this change is \$38,650.88.

*Credit for IRWD Review of Submittals after Two Reviews:* The contract documents require that the contractor reimburse IRWD for the review costs of submittals that have been submitted more than two times. The cost included in this item is for the time required for the design engineer to review the submittals after the second time. The cost credit is through May 31, 2015. The credit for this item is <\$39,502.50>.

*Credit for IRWD-Incurred Costs for Inspection:*

- A. FBB requested to work outside of the contract hours of 7:00 a.m. and 3:30 p.m. in an attempt to regain project schedule. The credit is through May 31, 2015. The credit for this item is <\$80,850>.
- B. Special inspections for the installation of certain geotechnical activities (such as backfill) and installation of structural anchors were required to be provided by FBB. Staff waived these requirements in exchange for a credit and performed the inspection with on-site inspection staff. The credit for these inspections is <\$27,500>.

*Credit for Changes in Low Voltage SWGR-14 Circuit Breaker:* The circuit breaker requirements changed from 2,000 amp-frame/2,000 amp-trip to 800 amp-frame/500 amp-trip. This credit is for the cost differential between the two breakers. The credit for this item is <\$1,978>.

None of the items included in this change order result in any time extension to any of the milestones or completion date.

Staff recommends the Board approve CCO No. 34 in the amount of \$164,775.28 which is attached as Exhibit "A". The Construction Change Order Summary is attached as Exhibit "B".

Variance No. 4:

The Biosolids project is complicated and includes the installation of many pieces of mechanical and electrical equipment, all of which require a series of tests during start-up activities. The level of complexity requires a breadth and depth of knowledge from experienced personnel to aid staff during the start-up and commissioning phase. Staff requested the design engineer, Black & Veatch, to submit a proposal to provide supplemental start-up monitoring services. The Black & Veatch proposal includes 14 months of full-time equivalent (FTE) for a start-up engineer to work on-site. Black & Veatch will help ensure that FBB successfully completes the start-up activities in a timely manner.

The scope of work of the supplemental start-up services includes:

- Develop a detailed deliverables list and turnover documents for FBB. Review these documents and ensure that they are archived in the project document control system. Maintain a checklist of current completion status;
- Develop and maintain a detailed schedule for FBB and MMC/Delta (system integrator under contract with FBB) start-up activities;
- Check progress on FBB start-up activities and prepare weekly progress reports;
- Witness startup activities in the field related to mechanical equipment, electrical power, I&C, and programming;
- Conduct weekly meetings with staff to review start-up activity status and address any questions and concerns from IRWD operations staff;
- O&M Specialists will attend weekly project construction meetings to coordinate with IRWD, FBB, MMC/Delta and other project stakeholders;
- Communicate and coordinate with the Black & Veatch commissioning team prior to the start of commissioning activities;
- Advise IRWD of any issues that need to be resolved and perform special tasks directed by IRWD related to FBB start-up activities; and
- Attend special meetings as directed by the IRWD.

Staff recommends that the Board authorize the General Manager to execute Variance No. 4 with Black & Veatch in the amount of \$370,570, which is attached as Exhibit "C".

FISCAL IMPACTS:

The MWRP Biosolids and Energy Recovery Facilities Project 21146 (4286) is included in the FY 2015-16 Capital Budget. The existing budget is sufficient to fund CCO No. 34 and Variance No. 4.

ENVIRONMENTAL COMPLIANCE:

The MWRP Biosolids and Energy Recovery Facilities is subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, a Supplemental Environmental Impact Report (SEIR), SCH # 2011031091, was certified by IRWD at its October 22, 2012 meeting. The City of Irvine Planning Commission approved a conditional use permit for the IRWD Biosolids Project at its December 6, 2012 meeting.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD APPROVE CONTRACT CHANGE ORDER NO. 34 IN THE AMOUNT OF \$164,775.28 FOR CHANGING THE MANUFACTURER OF KNIFE GATE VALVES AND PROVIDING ADDRESSABLE SMOKE DETECTORS, AND CREDITS THAT INCLUDE IRWD COSTS RELATED TO OVERTIME INSPECTION, SPECIAL INSPECTIONS AND REVIEW OF SUBMITTALS AFTER THE SECOND TIME WITH FILANC/BALFOUR-BEATTY; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 4 IN THE AMOUNT OF \$370,570 WITH BLACK & VEATCH FOR PROVIDING SUPPLEMENTAL START-UP SERVICES FOR MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES, PROJECT 21146 (4286).

LIST OF EXHIBITS:

Exhibit "A" – Contract Change Order No. 34 with FBB  
Exhibit "B" – Construction Change Order Summary  
Exhibit "C" – Variance No. 4 with Black & Veatch

# CON EXHIBIT "A" DER

**IRVINE RANCH WATER DISTRICT**  
 15600 Sand Canyon Avenue  
 Irvine, California 92618  
 (949) 453-5300  
 MWRP Biosolids and Energy Recovery Facilities



C.O. No. 34

Final

Project No. 21146 (4286)

Date: September 22, 2015

Project Title

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
1. Credit for Submittal Review After Second Review Through 05/31/2015 (CR-088) PR 21146 (4286) Task 1065	\$0.00	\$39,502.50	0
2. Credit for Overtime Inspection Hours Through 05/31/2015 (CR-089) PR 21146 (4286) Task 3520	\$0.00	\$80,850.00	0
3. Credit for Special Inspections for Structural Anchors and Geotechnical Investigation (CR-089A) PR 21146 (4286) Task 1065	\$0.00	\$27,500.00	0
4. Change in Knife Gate Valve Manufacturer (CR-187) PR 21146 (4286) Task 3520	\$275,954.90	\$0.00	0
5. Credit for Changes in Low Voltage SWGR-14 Circuit Breaker (CR-163) PR 21146 (4286) Task 3510	\$0.00	\$1,978.00	0
6. Change to Addressable Smoke Detectors (CR-220) PR 21146 (4286) Task 3510	\$38,650.88	\$0.00	0
Notes: 1. The project completion date of October 28, 2016 is unchanged by this Change Order.			
<b>TOTAL</b>	<b>\$314,605.78</b>	<b>\$149,830.50</b>	<b>0</b>

		DAYS ±
1. NET AMOUNT THIS CHANGE ORDER =	\$164,775.28	0
2. ORIGINAL CONTRACT AMOUNT =	\$163,465,940.00	1,278
3. TOTAL PREVIOUS CHANGE ORDERS =	\$3,533,078.26	0
4. TOTAL BEFORE THIS CHANGE ORDER (2+ 3) =	\$166,999,018.26	1,278
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4) =	\$167,163,793.54	1,278

We hereby agree to make the above change subject to the terms of this change order for the sum of: \_\_\_\_\_  
 ----- One Hundred Sixty-Four Thousand Seven Hundred Seventy-Five and 28/100 ----- Dollars

10/13/15  
Date

Filanc/Balfour Beatty, JV  
Contractor

[Signature]  
Harry Cosmos, President

SIGNATURE	DATE	APPROVAL LEVEL REQUIRED
<u>[Signature]</u> IRWD Engineer or Consulting Engineer	<u>10/13/15</u> Date	Department Director Approval Required <input type="checkbox"/> Executive Department Director Approval Required <input type="checkbox"/> General Manager Approval Required <input type="checkbox"/> Board Approval Required <input checked="" type="checkbox"/>
<u>[Signature]</u> Principal Engineer - MWRP Construction	<u>10-13-15</u> Date	
<u>[Signature]</u> Executive Director of Engineering and Water Quality	<u>10/14/15</u> Date	
<u>[Signature]</u> General Manager	<u>                    </u> Date	
		By _____ Date _____
		Purchase Order No. _____

NOTE: The documents supporting this Change Order, including any drawings and estimates of cost, if required are attached hereto and made a part hereof. This Change Order shall not be considered as such until it has been signed by the Owner and the Contractor. Upon final approval, distribution of copies will be made as required. The parties mutually agree the pricing set forth in this Change Order are complete and fair compensation for the entirety of the work authorized under this Change Order and that no additional compensation is warranted nor shall it be allowed.

CHANGES: All workmanship and materials called for by this Order shall be fully in accord with the original Contract Documents insofar as the same may be applied without conflict to the conditions set forth by this Order. The time for completing the contract will not be extended unless expressly provided for in this Change Order.

**MWRP Biosolids and Energy Recovery Facilities EXHIBIT "B"**  
**PR 21146 (4286)**  
**Construction Change Order Summary**

Contractor: Filanc/Balfour-Beatty  
 Design Engine Black & Veatch

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum Total C O days	Revised Total Contract Days	Revised Completion Date
1	Approved by Exe. Director of Engineering and Water Quality Approved on October 24, 2013 1.1 Modifications to Road to Development Area - Delete AC to Triangle, add AB to Michelson (CR-004)	A	IRWD	\$ 20,202.42	\$20,202.42	\$0.00	\$20,202.42	0.01%	\$163,486,142.42	0	0	0	1,278	10/28/2016
2	Approved by Exe. Director of Engineering and Water Quality Approved on November 13, 2013 2.1 Street Light Conduit Modifications (CR-007)	B	IRWD	\$ 12,475.08	\$12,475.08	\$20,202.42	\$32,677.50	0.02%	\$163,498,617.50	0	0	0	1,278	10/28/2016
3	Approved by Board of Directors Approved on March 10, 2014 3.1 Bid Quantity Adjustment of Bid Item 8.6 Pre-Drill	B	FBB	\$ 745,503.00	\$745,503.00	\$32,677.50	\$778,180.50	0.48%	\$164,244,120.50	0	0	0	1,278	10/28/2016
4	Approved by Exe Dir of Eng & Water Quality Approved on March 14, 2014 4.1 Installation of Five Additional Groundwater Wells and Monitoring - (CR-006) PR 21146 (4286) Task 3505 4.2 Brace Bay Modifications at the FOG Station - (CR-015) PR 21146 (4286) Task 3505 4.3 Grounding Extension at Nitrogen and Mineral Oil System (CR-025) PR 21146 (4286) Task 3510	A	IRWD	\$11,047.81	\$23,029.22	\$778,180.50	\$801,209.72	0.49%	\$164,267,149.72	0	0	0	1,278	10/28/2016
5	Approved by Exe Dir of Eng & Water Quality Approved on March 14, 2014 5.1 Unidentified Utility - Meter Shop Discharge (CR-008) PR 21146 (4286) Task 3505 5.2 Connection Beam Modifications at Solids Handling Facility (CR-014) PR 21146 (4286) Task 3235 5.3 Increased Grating Thickness at Solids Handling Facility (CR-041) PR 21146 (4286) Task 3505	B	IRWD	\$15,225.75	\$24,851.73	\$801,209.72	\$826,061.45	0.51%	\$164,292,001.45	0	0	0	1,278	10/28/2016
6	Approved by General Manager Approved on March 20, 2014 6.1 Additional Costs to Install Piles to the Design Tip (CR-033) PR 21146 (4286) Task 3505	B	FBB	\$31,815.00	\$31,815.00	\$826,061.45	\$857,876.45	0.52%	\$164,323,816.45	0	0	0	1,278	10/28/2016
7	Approved by Exe Dir of Eng & Water Quality Approved on April 21, 2014 7.1 Meter Shop Discharge Pipe Leak Investigation and Repair (CR-013) PR 21146 (4286) Task 3505 7.2 Additional Reinforcement and Lifting Eyes for Removable Slabs at Solids Handling Building (CR-021) PR 21146 (4286) Task 3505 7.3 Increased Grating Thickness at Solids Handling Facility (CR-041) PR 21146 (4286) Task 3505 Additional Conductance Probe Materials for Relay Level Switches for Various Sumps Located at the Microturbine Area PR 21146 (4286) Task 3510	B	IRWD	\$2,542.00	\$24,725.00	\$857,876.45	\$882,601.45	0.54%	\$164,348,541.45	0	0	0	1,278	10/28/2016

**MWRP Biosolids and Energy Recovery Facilities  
PR 21146 (4286)  
Construction Change Order Summary**

Contractor: Filano/Balfour-Beatty  
Design Engine Black & Veatch

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cumulative Total C O days	Revised Total Contract Days	Revised Completion Date
8	Approved by General Manager Approved on April 21, 2014				(\$49,990.00)	\$882,601.45	\$832,611.45	0.51%	\$164,298,551.45	0	0	0	1,278	10/28/2016
8.1	Cost Sharing for Project Partnering	A	IRWD	(\$14,611.00)						0				
8.2	Credit for Primavera 7.0 Project Portfolio Management Software (CR-002) PR 21146 (4286) Task 3235	A	IRWD	(\$2,700.00)						0				
8.3	Deletion of Concrete Pad near Development Area (CR-004A) PR 21146 (4286) Task 3235	A	IRWD	(\$3,865.00)						0				
8.4	Deletion of Ground Test Device (CR-034) PR 21146 (4286) Task 3210	A	IRWD	(\$15,579.00)						0				
8.5	Deletion of Existing T-4 Switchgear Level Indicating Switch (CR-035) PR 21146 (4286) Task 3210	A	IRWD	(\$9,167.00)						0				
8.6	Change to NEMA 4X Panels and Modification to NEMA 4X Bar Graph Display (CR-046) PR 21146 (4286) Task 3210	A	IRWD	(\$4,068.00)						0				
9	Approved by Exe. Director of Eng. & Water Quality Approved on May 31, 2014				\$24,840.17	\$832,611.45	\$857,451.62	0.52%	\$164,323,391.62	0	0	0	1,278	10/28/2016
9.1	Additional Circuits for Gas Monitors and Re-route of Conduits in Solids Handling Facility (CR-028) PR 21146 (4286) Task 3510	C	FBB	\$1,187.49						0				
9.2	Cantilevered Beam Support Modifications in the Solids Handling Facility (CR-049) PR 21146 (4286) Task 3505	C	FBB	\$4,605.30						0				
9.3	Additional Ethernet Switches (CR-062) PR 21146 (4286) Task 3510	C	IRWD	\$19,047.38						0				
10	Approved by Exe. Director of Eng. & Water Quality Approved on May 31, 2014				\$21,398.99	\$857,451.62	\$878,850.61	0.54%	\$164,344,790.61	0	0	0	1,278	10/28/2016
10.1	Additional Grace Ports for Various PLCs (CR-030) PR 21146 (4286) Task 3510	C	IRWD	\$8,580.62						0				
10.2	Provide H-20 Rated Hatches at WAS Pump Station and Valve Vault (CR-061) PR 21146 (4286) Task 3505	C	IRWD	\$12,818.37						0				
11	Approved by Exe. Director of Eng. & Water Quality Approved on June 4, 2014				\$24,739.76	\$878,850.61	\$903,590.37	0.55%	\$164,369,530.37	#REF!	0	#REF!	#REF!	10/28/2016
11.1	Waste Activated Sludge (WAS) Pump Station Structural Modifications (CR-023) PR 21146 (4286) Task 3505	C	IRWD	\$12,905.49						0				
11.2	Removable Slab Modifications on the Second Floor of Solids Handling Building (CR-064) PR 21146 (4286) Task 3505	C	IRWD	\$11,834.27						0				

**MWRP Biosolids and Energy Recovery Facilities  
PR 21146 (4286)  
Construction Change Order Summary**

Contractor: Filanc/Balfour-Beatty  
Design Engine Black & Veatch

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C O days	Revised Total Contract Days	Revised Completion Date
12	Approved by Board of Directors Approved on July 21, 2014				\$156,580.22	\$903,590.37	\$1,060,170.59	0.65%	\$164,526,110.59	0	0	0	1,278	10/28/2016
12.1	Final Bid Quantity Adjustment for Bid Item No. 5.2 – Undocumented Fill (suitable) – Remedial Grading – Remove and Re-compact a net increase of 8,104.7 CY from 51,700 CY to 59,804.7 CY at \$5/CY PR 21146 (4286) Task 3505	B	N/A	\$40,523.37						0				
12.2	Final Bid Quantity Adjustment for Bid Item No. 5.5 - Undocumented Fill (not suitable) - Remedial Grading - Remove and Export Offsite, a net increase of 60 CY, from 1,800 CY to 1,860 CY at \$25 /CY PR 21146 (4286) Task 3505	B	N/A	\$1,500.00						0				
12.3	Final Bid Quantity Adjustment for Bid Item No. 5.6 - Geotextile Fabric - Remedial Grading, a net decrease of 5,414 SF, from 181,500 SF to 176,086 SF at \$0.40/SF PR 21146 (4286) Task 3505	B	N/A	(\$2,165.60)						0				
12.4	Final Bid Quantity Adjustment for Bid Item No. 5.6 - Geotextile Fabric - Remedial Grading, a net decrease of 5,414 SF, from 181,500 SF to 176,086 SF at \$0.40/SF PR 21146 (4286) Task 3505	B	N/A	(\$6,523.33)						0				
12.5	Final Bid Quantity Adjustment for Bid Item No. 5.8 - Undocumented Fill - Deep Foundations – Removal, a net increase of 966 CY, from 21,650 CY to 22,616 CY at \$5.50/CY PR 21146 (4286) Task 3505	B	N/A	\$5,313.00						0				
12.6	Final Bid Quantity Adjustment for Bid Item No. 5.9 - Alluvium - Remedial Grading - Removal and Export Offsite, a net increase of 2,076 CY, from 28,154 CY to 30,230 CY at \$35/CY PR 21146 (4286) Task 3505	B	N/A	\$72,665.98						0				
12.7	Final Bid Quantity Adjustment for Bid Item No. 5.10 - Undocumented Fill Deep Foundations - Compaction of stockpiled materials, a net increase of 3,117 CY, from 11,400 CY to 14,517 CY at \$15/CY PR 21146 (4286) Task 3505	B	N/A	\$46,755.00						0				
12.8	Final Bid Quantity Adjustment for Bid Item No. 5.11 - Undocumented Fill - Deep Foundations - Export excess offsite a net decrease of 2,151 CY, from 10,250 CY to 8,099 CY PR 21146 (4286) Task 3505	B	N/A	(\$30,114.00)						0				
12.9	Final Bid Quantity Adjustment for Bid Item No. 5.12 - Geotextile Fabric - Deep Foundations, a net increase of 9,218 SF, from 51,500 SF to 60,718 SF at \$0.60/SF PR 21146 (4286) Task 3505	B	N/A	\$5,530.80						0				
12.10	Final Bid Quantity Adjustment for Bid Item No. 5.13 - Aggregate Base - Deep Foundations, a net increase of 513.2 CY, from 2,860 CY to 3,373.2 CY at \$45/CY PR 21146 (4286) Task 3505	B	N/A	\$23,095.00						0				
13	Approved by Exe Director of Engineering & Water Quality Approved on July 10, 2014				\$10,129.18	\$1,060,170.59	\$1,070,299.77	0.63%	\$164,536,239.77	0	0	0	1,278	10/28/2016
13.1	Modifications to Switchgear 16 (CR-070) PR 21146 (4286) Task 3510	A	FBB	\$10,129.18						0				
14	Approved by General Manager Approved on June 24, 2014				\$44,543.19	\$1,070,299.77	\$1,114,842.96	0.68%	\$164,580,782.96	0	0	0	1,278	10/28/2016
14.1	Slide Gates Clarification Regarding Actuators (CR-039) PR 21146 (4286) Task 3520	A	IRWD	\$44,543.19						0				

**MWRP Biosolids and Energy Recovery Facilities  
PR 21146 (4286)  
Construction Change Order Summary**

Contractor: Filanc/Balfour-Beatty  
Design Engine Black & Veatch

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum Total C. O. days	Revised Total Contract Days	Revised Completion Date
15	Approved by General Manager Approval on July 31, 2014				\$45,214.40	\$1,114,842.96	\$1,160,057.36	0.71%	\$164,625,997.36	0	0	0	1,278	10/28/2016
15.1	Provide Masonry Shelf Angle at Digester Control Building (CR-031) PR 21146 (4286) Task 3505	C	FBB	\$27,543.19						0				
15.2	Beam Size Increase for Monorail Runway in Solids Handling Building - (CR-074) PR 21146 (4286) Task 3505	C	FBB	\$1,200.47						0				
15.3	Upsize Odor Control Circulation Pump Motor Disconnects (CR-082) PR 21146 (4286) Task 3510	B	FBB	\$1,184.83						0				
15.4	Additional Deck Support for the Solids Handling Building Roof (CR-044) PR 21146 (4286) Task 3505	C	FBB	\$15,285.91						0				
16	Approved by E&O Committee Approved on August 19, 2014				\$62,037.10	\$1,160,057.36	\$1,222,094.46	0.75%	\$164,688,034.46	0	0	0	1,278	10/28/2016
16.1	Installation of Level 3 Diesel Particulate Filter (DPF) on the Standby Generator - (CR-073) PR 21146 (4286) Task 3520	B	IRWD	\$62,037.10						0				
17	Approved by Board of Directors Approved on August 25, 2014				(\$106,241.99)	\$1,222,094.46	\$1,115,852.47	0.68%	\$164,581,792.47	0	0	0	1,278	10/28/2016
17.1	Modifications to Switchgear 16 (CR-070A) PR 21146 (4286) Task 3510	A	FBB	(\$106,241.99)						0				
18	Approved by Board of Directors Approved on August 25, 2014				\$108,087.55	\$1,115,852.47	\$1,223,940.02	0.75%	\$164,689,880.02	0	0	0	1,278	10/28/2016
18.1	Stormwater Drainage System Modification (CR-017) PR 21146 (4286)	A	IRWD	\$108,087.55						0				
19	Approved by Executive Director of Engineering & Water Quality Approved on September 30, 2014				\$72,572.86	\$1,223,940.02	\$1,296,512.88	0.79%	\$164,762,452.88	0	0	0	1,278	10/28/2016
19.1	Modification to Switchgear 16 (CR-070B) PR 21146 (4286) Task 3510	A	IRWD	\$1,125.75						0				
19.2	Alluvium Removal Due to 36-inch Storm Drain Installation (CR-085) PR 21146 (4286) Task 3520	B	N/A	\$14,140.00						0				
19.3	Additional Structural Support for Fats, Oils, and Grease (FOG) Grinders (CR-081) PR 21146 (4286) Task 3505	C	FBB	\$8,323.99						0				
19.4	Portable Lift Truck for 480V ABB Breakers (CR-108) PR 21146 (4286) Task 3510	A	IRWD	\$2,625.12						0				
19.5	Retaining Wall North and West of Biosolids Site (CR-010) PR 21146 (4286) Task 3505	B	IRWD	\$46,358.00						0				
20	Approved by Executive Director of Engineering & Water Quality Approved on November 19, 2014				\$54,485.63	\$1,296,512.88	\$1,350,998.51	0.83%	\$164,816,938.51	0	0	0	1,278	10/28/2016
20.1	Nitrogen Slab Modifications (CR-052) PR 21146 (4286) Task 3505	A	IRWD	\$24,855.80						0				
20.2	Additional Conduits and Circuits for the Access Control Systems for the Solids Handling Building and the Digester Control Building (CR-082) PR 21146 (4286) Task 3510	A	IRWD	\$3,412.13						0				
20.3	Digital Power Meters Change for SWGR-14 and SWGR-15 (CR-109) PR 21146 (4286) Task 3510	A	IRWD	\$3,863.22						0				
20.4	Truck Unloading Panel Modifications (CR-115) PR 21146 (4286) Task 3510	A	IRWD	\$12,843.50						0				
20.5	Switchgear SWGR-14 Modifications (CR-116) PR 21146 (4286) Task 3510	A	IRWD	\$9,510.98						0				
21	Approved by General Manager Approved on January 30, 2015				\$98,506.19	\$1,350,998.51	\$1,449,504.70	0.89%	\$164,915,444.70	0	0	0	1,278	10/28/2016
21.1	Additional Anchorage for Methane Digesters (CR-051A) PR 21146 (4286) Task 3520	B	FBB	\$92,367.44						0				
21.2	Additional Input/Outputs Review of Master I/O List (CR-136) PR 21146 (4286) Task 3510	C	FBB	\$6,138.75						0				

**MWRP Biosolids and Energy Recovery Facilities  
PR 21146 (4286)  
Construction Change Order Summary**

Contractor: Filanc/Balfour-Beatty  
Design Engine Black & Veatch

Change Order	Description	Category	IRWD or FBB	Contract Amount						Contract Days				Original Completion Date:
				Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum Total C.O days	Revised Total Contract Days	Revised Completion Date
22	Approved by Board of Directors Approved on February 9, 2015				\$964,324.51	\$1,449,504.70	\$2,413,829.21	1.48%	\$165,879,769.21	0	0	0	1,278	10/28/2016
22.1	Electrical Conduit Overfill (CR-055) PR 21146 (4286) Task 3510	C	FBB	\$485,250.28						0				
22.2	Heat Dryer Equipment Escalation Costs (CR-057) PR 21146 (4286) Task 3520	B	FBB	\$333,477.50						0				
22.3	Glass-lining Sludge Density Meters (CR-067) PR 21146 (4286) Task 3510	A	IRWD	\$71,010.74						0				
22.4	Switchgear-16 Enclosure (CR-040) PR 21146 (4286) Task 3510	C	FBB	\$56,882.30						0				
22.5	Propane Gas Tank Foundation Demolition (CR-084) PR 21146 (4286) Task 3505	C	IRWD	\$2,004.98						0				
22.6	Credit for travel costs related to inspection of centrifuges in Germany (CR-091) PR 21146 (4286) Task 3520	A	IRWD	(\$5,573.42)						0				
22.7	Deletion of MMC Switchgear-14 Breaker (CR-092) PR 21146 (4286) Task 3510	A	IRWD	(\$5,032.00)						0				
22.8	Increase of Fiber Optic Conduit Size (CR-097) PR 21146 (4286) Task 3510	C	IRWD	\$23,269.61						0				
22.9	Overtime to perform work in the Solids Handling electrical room (CR-103) PR 21146 (4286) Task 3510	A	IRWD	\$1,384.47						0				
22.10	Credit for modification to the Uninterruptible Power System (CR-118) PR 21146 (4286) Task 3510	A	IRWD	(\$9,771.72)						0				
22.11	Addition of Low Voltage Compartment in SCE Switch "C" (CR-160) PR 21146 (4286) Task 3510	A	IRWD	\$2,156.20						0				
22.12	Addition of input/output points relating to sump pumps located at the Solids Handling Building (CR-161) PR 21146 (4286) Task 3510	A	FBB	\$9,265.57						0				
23	Approved by General Manager Approved on February 26, 2015				\$97,005.10	\$2,413,829.21	\$2,510,834.31	1.54%	\$165,976,774.31	0	0	0	1,278	10/28/2016
23.1	Additional Steel Reinforcement the Pellet Storage Silos Anchor Bolts (CR-094) PR 21146 (4286) Task 3505	B	FBB	\$5,514.57						0				
23.2	Differential Pressure Transmitter (CR-094) PR 21146 (4286) Task 3510	A	IRWD	\$2,535.33						0				
23.3	Additional Aluminum Trench Grating in Digester Control Building (CR-107) PR 21146 (4286) Task 3520	A	IRWD	\$7,552.11						0				
23.4	Light Weight Concrete for Electrical Conduits Underneath the Solids Handling Building Electrical Room (CR-113) PR 21146 (4286) Task 3520	A	IRWD	\$30,535.94						0				
23.5	Adding Energyjets Weir Plates to Dewatering Centrifuges - (CR-124) PR 21146 (4286) Task 3520	A	IRWD	\$11,139.25						0				
23.6	Provide Angle Supports for the Removable Slabs at the Solids Handling Building - (CR-137) PR 21146 (4286) Task 3520	A	IRWD	\$20,671.61						0				
23.7	Structural Modification at Solids Handling Building - (CR-140) PR 21146 (4286) Task 3520	C	FBB	\$1,109.42						0				
23.8	Increase of Fiber Optic Conduit Size (CR-097) PR 21146 (4286) Task 3520	A	IRWD	\$5,516.45						0				
23.9	Steel Joist Framing Modifications at Digester Control Building (CR-151) PR 21146 (4286) Task 3505	C	FBB	\$2,286.29						0				
23.10	WAS Valve Vault and Piping Modifications (CR-100) PR 21146 (4286) Task 3520	A	IRWD	\$10,144.13						0				
24	Approved by General Manager Approved on March 6, 2015				\$99,122.95	\$2,510,834.31	\$2,609,957.26	1.60%	\$166,075,897.26	0	0	0	1,278	10/28/2016
24.1	Coating of WAS/Primary Sludge Pump Stations & Sludge Wetwells per RFI-0612A (CR-127) PR 21146 (4286) Task 3505	A	FBB	\$99,122.95						0				

**MWRP Biosolids and Energy Recovery Facilities  
PR 21146 (4286)  
Construction Change Order Summary**

Contractor: Filanc/Balfour-Beatty  
Design Engine Black & Veatch

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum Total C O days	Revised Total Contract Days	Revised Completion Date
25	Approved by Board of Directors Approved on March 23, 2015				\$280,575.97	\$2,609,957.26	\$2,890,533.23	1.77%	\$166,356,473.23	0	0	0	1,278	10/28/2016
25.1	Lightning Protection for the Methane Digesters (CR-121) PR 21146 (4286) Task 3505	C	FBB	\$158,259.68						0				
25.2	Deflagration Quench Tubes outside of the Dryer Room (CR-143) PR 21146 (4286) Task 3505	B	FBB	\$122,316.29						0				
26	Approved by Exe. Dir. Of Engineering & Water Quality Approved on April 14, 2015				\$74,815.79	\$2,890,533.23	\$2,965,349.02	1.81%	\$166,431,289.02	0	0	0	1,278	10/28/2016
26.1	UPS and Power Fail Alarms per RFI 357 (CR-056) PR 21146 (4286) Task	C	FBB	\$3,646.82						0				
26.2	I/O Points for Methane Digester Sump Pumps per RFI-356 (CR-077) PR 21146 (4286) Task 3510	C	FBB	\$6,489.00						0				
26.3	Loss of Power Alarms to the SCADA Network per RFI-0393B (CR-093)	A	FBB	\$20,297.16						0				
26.4	FOG Flushing and Rock Trap Modifications per RFI-0534 (CR-101) PR	A	IRWD	\$18,093.61						0				
26.5	Install Grounding Pig Tails in Solids Handling Building Area Electrical Room per RFI 0594 (CR-105) PR 21146 (4286) Task 3510	A	IRWD	\$1,593.10						0				
26.6	Additional Pushbuttons, Light and Relays for the FOG Receiving Control Panel (CR-114) PR 21146 (4286) Task 3510	A	IRWD	\$6,892.40						0				
26.7	Changes to the HMI Enclosures at the Sludge Receiving Area (CR-133) PR 21146 (4286) Task 3510	A	IRWD	\$7,114.17						0				
26.8	Provide Storage Shelf for Keyboard and Mouse to the HMI Enclosures at the Sludge Receiving Area (CR-135) PR 21146 (4286) Task 3510	A	IRWD	\$1,163.26						0				
26.9	Dewatering Feed Pump Station Guardrail Additions (CR-142) PR 21146 (4286) Task 3520	C	FBB	\$4,204.00						0				
26.10	Additional I/O Points for PLC-4300 (CR-156) PR 21146 (4286) Task 3510	C	FBB	\$3,035.28						0				
26.11	Shoring Revision to Roof Slab of Dewatering Feed Pump Station (CR-189) PR 21146 (4286) Task 3510	B	FBB	\$1,286.99						0				
26.12	Coating of the Sludge Receiving Bins (CR-199) PR 21146 (4286) Task 3520	A	FBB	\$1,000.00						0				

**MWRP Biosolids and Energy Recovery Facilities  
PR 21146 (4286)  
Construction Change Order Summary**

Contractor: Filano/Balfour-Beatty  
Design Engine Black & Veatch

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				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cumulative Total C O days	Revised Total Contract Days	Revised Completion Date
27	Approved by Board of Directors Approved on April 27, 2015				\$107,253.26	\$2,965,349.02	\$3,072,602.28	1.88%	\$166,538,542.28	0	0	0	1,278	10/28/2016
27.1	Modifications to Human-Machine Interface (HMI) for the Microturbine Area (CR-078) PR 21146 (4286) Task 3510	A	IRWD	\$29,744.43						0				
27.2	Modifications to the Piping and Automation Features at Fats, Oils, and Grease (FOG) Facility (CR-129) PR 21146 (4286) Task 3510	A	IRWD	\$35,771.81						0				
27.3	Structural Support to the Monorail at the Dewatering Feed Pump Station (CR-152) PR 21146 (4286) Task 3505	C	FBB	\$13,697.51						0				
27.4	Two Additional Magnetic Flowmeters at Polymer Feed System (CR-158) PR 21146 (4286) Task 3510	A	IRWD	\$9,522.81						0				
27.5	Modifications to PLCs at Sludge Receiving Area (CR-180) PR 21146 (4286) Task 3510	A	IRWD	\$18,516.70						0				
28	Approved by Exe Dir Of Eng. & Water Quality Approved on May 15, 2015				\$74,550.35	\$3,072,602.28	\$3,147,152.63	1.93%	\$166,613,092.63	0	0	0	1,278	10/28/2016
28.1	Decanter Control Panel Modifications (CR-215) Task 3520	C	FBB	\$22,451.01						0				
28.2	Additional Structural Support in the Solids Handling Building (CR-075) Task 3505	C	FBB	\$12,028.44						0				
28.3	Additional Sump Pump Drain Line in the Bulk Polymer Storage Area (CR-119) Task 3520	C	FBB	\$1,433.86						0				
28.4	Install Three 5-inch conduits on Southwest Side of the Biosolids Site (CR-120) Task 3510	C	FBB	\$16,033.58						0				
28.5	Provide Power to Several Instruments Located at the Solids Handling Building and Digester Control Building (CR-154) Task 3520	C	FBB	\$3,454.91						0				
28.6	Install Foam Separator Drain at Digester Control Building (CR-167) Task 3520	C	FBB	\$11,013.75						0				
28.7	Install Support for 14-inch Plug Valve at Centrate Treatment Wetwell (CR-197) Task 3520	C	FBB	\$1,715.20						0				
28.8	Trench Modifications at the Sludge Cake Load-Out Area of the Solids Handling Building (CR-123) Task 3505	C	FBB	\$6,419.60						0				
29	Approved by Board of Directors Approved on June 22, 2015				\$225,971.77	\$3,147,152.63	\$3,373,124.40	2.06%	\$166,839,064.40	0	0	0	1,278	10/28/2016
29.1	Foul Air Pipe Supports in the Solids Handling Building Basement (CR-106) PR 21146 (4286) Task 3520	C	FBB	\$119,937.87						0				
29.2	Secondary Circuit Breaker for Transformer T-14 (CR-185) PR 21146 (4286) Task 3510	A	IRWD	\$106,033.90						0				



**MWRP Biosolids and Energy Recovery Facilities  
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				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C O days	Revised Total Contract Days	Revised Completion Date
33	Approved by Executive Director of Engineering & Water Quality Approved on September 30, 2015				\$58,247.75	\$3,474,830.51	\$3,533,078.26	2.16%	\$166,999,018.26	0	0	0	-	1/0/1900
33.1	Realignment of 8-inch Reclaimed Water Line at Gate 2 (CR-225) PR 21146 (4286) Task 3520	B	FBB	\$24,017.48										
33.2	Additional Conduits and Wires for Lighting Circuits to Minimize Voltage Drop (CR-228) PR 21146 (4286) Task 3510	C	IRWD	\$32,399.41										
33.3	Cable and Conduit Changes at Solids Handling Building and Dewatering Feed Pump Station (CR-231) PR 21146 (4286) Task 3510	C	IRWD	\$1,830.86										

**MWRP Biosolids and Energy Recovery Facilities  
PR 21146 (4286)  
Construction Change Order Summary**

Contractor: Filanc/Balfour-Beatty  
Design Engine Black & Veatch

Change Order	Description	Category	IRWD or FBB	Contract Amount						Contract Days				Original Completion Date: 10/28/2016
				Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum Total C O days	Revised Total Contract Days	
34	Pending Approval by Board of Directors Pending approval on October 26, 2015				\$164,775.28	\$3,533,078.26	\$3,697,853.54	2.26%	\$167,163,793.54	0	0	0	1,278	10/28/2016
34.1	Credit for Third Submittal Review Through 05/31/2015 (CR-088) PR 21146 (4286) Task 1065	B	IRWD	(\$39,502.50)										
34.2	Credit for Overtime Inspection Hours Through 05/31/2015 (CR-089) PR 21146 (4286) Task 3520	E	FBB	(\$80,850.00)										
34.3	Credit for Special Inspections for Structural Anchors and Geotechnical Investigation (CR-295) PR 21146 (4286) Task 1065	A	IRWD	(\$27,500.00)										
34.4	Change in Knife Gate Valve Manufacturer (CR-187) PR 21146 (4286) Task 3520	E	FBB	\$275,954.90										
34.5	Credit for Changes in Low Voltage SWGR-14 Circuit Breaker (CR-163) PR 21146 (4286) Task 3510	A	IRWD	(\$1,978.00)										
34.6	Change to Addressable Smoke Detectors (CR-220) PR 21146 (4286) Task 3510	B	IRWD	\$38,650.88										

Category	Total Amount	% of Original Contract
A - District Convenience/Initiation - Project Related	\$ 224,376.75	0.14%
B - Differing Site Conditions	\$ 1,783,641.78	1.09%
C - Design Oversight	\$ 1,617,173.95	0.99%
D - District Convenience/Initiation - Non-Project Related	\$ -	0.00%
E - Contractor Convenience/Initiation	\$ 72,661.06	0.04%
<b>TOTAL (A + B + C + D)</b>	<b>\$ 3,697,853.54</b>	<b>2.26%</b>

Category	Total Amount	% of Original Contract
IRWD-Initiation/Driven	\$ 827,057.91	0.51%
FBB-Initiation/Driven	\$ 2,700,075.41	1.65%
Not applicable	\$ 170,720.22	0.10%
<b>TOTAL</b>	<b>\$ 3,697,853.54</b>	<b>2.26%</b>

# EXHIBIT "C"

IRVINE RANCH WATER DISTRICT

## PROFESSIONAL SERVICES VARIANCE

Project Title: MWRP Biosolids & Energy Recovery Facilities – Construction Phase Services

Project No.: 21146 (4286)

Date: October 9, 2015

Purchase Order No.: 514248

Variance No.: 4

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

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

At the request of IRWD, perform additional startup monitoring services for the MWRP Biosolids & Energy Recovery Facilities project. Additional O&M Specialist services from the B&V Commissioning Team were requested in order to help ensure that Filanc-Balfour Beatty (FBB) successfully completes the startup activities associated with each early completion milestone in a timely fashion. See attached scope of work for a detailed description of the work tasks.

**Engineering & Management Cost Impact:**

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
O&M Specialist 8	1,000	215	215,000	44,000		259,000
O&M Specialist 6	480	175	84,000	20,000		104,000
O&M Specialist 4	40	125	5,000	2,570		7,570
<b>Total \$ =</b>						<b>370,570</b>

**Schedule Impact:**

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
5	Training, Commissioning, and Startup Services	April 30, 2017	0 days	April 30, 2017

**Required Approval Determination:**

Total Original Contract	\$ <u>12,509,031</u>	<input type="checkbox"/> Director: Cumulative total of Variances less than or equal to \$50,000.
Previous Variances	\$ <u>1,676,265</u>	<input type="checkbox"/> Executive Director: Cumulative total of Variances less than or equal to \$75,000.
This Variance	\$ <u>370,570</u>	<input type="checkbox"/> General Manager: Cumulative total of Variances less than or equal to \$100,000.
Total Sum of Variances	\$ <u>2,046,835</u>	<input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$100,000.
New Contract Amount	\$ <u>14,555,866</u>	
Percentage of Total Variances to Original Contract	<u>16.4%</u>	

ENGINEER/CONSULTANT: Black & Veatch Corp.  
Company Name

IRVINE RANCH WATER DISTRICT

[Signature]  
Project Engineer/Manager

October 9, 2015  
Date

[Signature]  
Department Director

10/14/15  
Date

[Signature]  
Engineer's/Consultant's Management

October 9, 2015  
Date

General Manager/Board

Date



**IRVINE RANCH WATER DISTRICT  
MWRP BIOSOLIDS & ENERGY RECOVERY FACILITIES  
(BIOSOLIDS PROJECT)  
CONSTRUCTION PHASE SERVICES  
Project No. 21146 (4286)**

**VARIANCE #4**

**SCOPE OF WORK**

**BACKGROUND**

The Irvine Ranch Water District (IRWD) owns and operates the Michelson Water Recycling Plant (MWRP). New biosolids and energy recovery facilities are currently under construction by Filanc-Balfour Beatty (FBB), the construction contractor. Due to the importance of FBB successfully completing their contractual startup activities on schedule, IRWD has requested additional startup monitoring engineering services from Black & Veatch to support the project.

Black & Veatch will furnish additional O&M Specialist staff time led by Mr. Gary Neun (B&V Commissioning Manager) to support IRWD in monitoring FBB startup work activities. The role and responsibilities of the O&M Specialists are described below.

**BASIS FOR VARIANCE**

The Biosolids & Energy Recovery Facilities (Biosolids Project) are currently under construction. Due to the design and operational complexity of these new treatment facilities, seven (7) different Early Completion Milestones dates have been established in the construction contract (see Section 01700) for FBB. FBB is contractually required to perform startup activities in order to achieve Substantial Completion for each Early Completion Milestone as detailed in Specification Section 01510 and other related specification sections. All FBB work required in these specification sections are collectively referred to as "FBB startup activities" in this scope of work. Upon successful completion of all FBB startup activities for each milestone, substantial completion is achieved and commissioning activities will begin. Commissioning of milestone facilities consists of operation by IRWD with assistance from B&V O&M Specialists and warranty support from FBB.

Current staffing, planning and scheduling efforts by FBB and past IRWD project experience have created concerns by IRWD over the successful and timely completion of their startup activities. IRWD believes that adequate startup monitoring services are crucial to having FBB meet each early milestone completion date and ensure the facility design intent is preserved.

## **EXISTING SCOPE OF WORK**

Black & Veatch's existing scope of work includes *Task 5 – Training, Commissioning, and Startup Services* and a copy of this task description is included in Attachment A. *Sub-Task 3 – Startup Testing Coordination* covers startup coordination provided by B&V to confirm that FBB has met its startup testing requirements prior to achieving substantial completion. Currently, the Black & Veatch existing scope of services includes only coordination and confirmation that FBB has completed successful startup of each milestone and IRWD has requested a more proactive role for Black & Veatch. The additional scope of services for Black & Veatch is described below.

## **O&M SPECIALIST NEW SCOPE OF WORK**

Black & Veatch is proposing additional O&M Specialist staff time led by Mr. Gary Neun (B&V Commissioning Manager) to perform these additional services. The following additional tasks have been requested by IRWD:

- Develop detailed deliverables list and turnover documents for FBB. Review these documents and ensure that they are archived in the project document control system (DCS). Maintain a checklist of current completion status.
- Develop and maintain a detailed schedule for FBB and MMC/Delta (system integrator under contract with FBB) startup activities.
- Check progress on FBB startup activities and prepare weekly progress report.
- Witness startup activities in the field related to mechanical equipment, electrical power, I&C, and programming.
- Conduct weekly meetings with IRWD plant staff and the IRWD construction management team to review startup activity status and address any questions and concerns from IRWD operations staff.
- Gary Neun or O&M Specialists will attend weekly project construction meetings to coordinate with IRWD, FBB, MMC/Delta and other project stakeholders.
- Communicate and coordinate with the B&V commissioning team prior to the start of commissioning activities.
- Advise the IRWD Construction Manager (CM) of any issues that need to be resolved and perform special tasks directed by the IRWD CM related to FBB startup activities.
- Attend special meetings as directed by the IRWD CM.

## **SCHEDULE AND LEVEL OF EFFORT**

Gary Neun and other B&V O&M Specialists are currently assigned to work on the project to confirm FBB startup activities and to provide commissioning activities outlined in Attachment A. A total of 910 hours were budgeted for startup coordination activities in the engineering fee. As noted above, IRWD has requested a more proactive monitoring role for B&V to help ensure that FBB successfully completes each milestone on schedule.

For purposes of estimating the level of effort for the new activities, Black & Veatch is assuming full time O&M Specialist over the planned 14-month duration to complete FBB startup activities for all milestones. A detailed engineering fee spreadsheet is attached providing the estimated additional level of effort itemized by each early completion milestone. A total of 1,520 additional hours is proposed to perform this work. When these hours are combined with the original allocation of 910 hours for support services this equates to approximately one full time equivalent 1.0 (FTE) over the anticipated 14-month duration. Gary Neun will provide the bulk of the staff hours for this effort and be onsite for most of his time commitment. A summary of the hours by staff person is included in the detailed engineering fee spreadsheet. Actual presence from Gary Neun on site will be dictated by FBB activities and any special direction from the IRWD PM. The total additional engineering fee proposed for these additional services, including labor and reimbursable travel expenses, is \$370,570.

Variance #4 - Proposed Additional Startup Assistance Level of Effort

Staff Name	Title	Milestone #1 - WAS and PS Processing	Milestone #2 - WAS and PS Thickening	Milestone #3 - FOG Receiving	Milestone #4 - Anaerobic Digestion	Milestone #5 - Class B Cake	Milestone #6 - Microturbine Power	Milestone #7 - Class A Pellet	Total Hours	Billing Rate	Labor
Gary W. Neun	O&M Specialist 8	120	160	120	160	160	120	160	1000	\$215	\$215,000
Ari Copeland	O&M Specialist 6	40	40	0	40	40	0	80	240	\$175	\$42,000
Neil Massart	O&M Specialist 6	0	80	0	0	80	0	80	240	\$175	\$42,000
Levon Pogoson	O&M Specialist 4	0	0	0	0	0	40	0	40	\$125	\$5,000
Ammar Al-Zarjawi	O&M Specialist 4	0	0	0	0	0	0	0	0	\$125	\$0
Variance #4 Totals =		160	280	120	200	280	160	320	1520		<b>\$304,000</b>

**Expenses = \$66,570**

**Total Fee = \$370,570**

October 26, 2015

Submitted by: P. Weghorst 

Approved by: Paul Cook 

## ACTION CALENDAR

### REVISED WATER BANKING, TRANSFERS AND WHEELING POLICY POSITION PAPER

#### SUMMARY:

Irvine Ranch Water District policy position papers are reviewed periodically to determine if the positions are still valid, need revisions or if additional papers need to be written on different issues of importance to the District. Staff has modified the existing Water Banking, Transfers and Wheeling policy position paper that was last revised and approved on August 2, 2013. These revisions take into consideration progress that has occurred in establishing IRWD's water banking programs and the potential for the development of a water market within the State. Staff recommends that the Board approve the Policy Position Paper as revised with input from the Water Banking Committee.

#### BACKGROUND:

In 2004, IRWD began producing policy position papers on topics of particular interest and importance to the District. Because of the IRWD Board of Directors' standing in the water industry, the opinions of individual Board members are regularly solicited on issues of vital interest to the industry and the community. To keep these position papers current, staff occasionally recommends that the Board review the papers and when appropriate, incorporate revisions.

IRWD's Water Banking, Transfers and Wheeling position paper was last revised and adopted by the Board on August 2, 2013. At that time, the approved policy reflected the construction of the Strand Ranch Integrated Banking Project, acquisition of the Jackson Ranch property, development of the Stockdale Integrated Banking Project, development of an agreement with Metropolitan Water District of Southern California for coordinated delivery of State Water Project supplies, and the execution of approved pilot and long-term water supply programs involving unbalanced exchanges. Since that time, IRWD has entered into an agreement with Rosedale-Rio Bravo Water Storage District (Rosedale) for the construction and operation of wells in Rosedale's service area that will assist both agencies achieve groundwater recovery objectives. In addition, the two agencies are now contemplating incorporating a third project site into the Stockdale project. These significant changes in addition to the Administration's interest in establishing a water market for the State of California that would streamline water transfers and exchanges, has resulted in the need to update the policy position paper.

Staff has updated the Water Banking, Transfers and Wheeling Policy Position Paper. The revisions incorporate input from the Water Banking Committee that was provided on October 15, 2015. The revised paper is provided as Exhibit "A". A copy of the paper with changes identified from the August 2, 2013 version of the document is provided as Exhibit "B".

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

None.

COMMITTEE STATUS:

This item was reviewed by the Water Banking Committee on October 15, 2015.

RECOMMENDATION:

THAT THE BOARD APPROVE THE REVISED WATER BANKING, TRANSFERS AND WHEELING POLICY POSITION PAPER.

LIST OF EXHIBITS:

Exhibit "A" – Updated Policy Paper: Water Banking, Transfers and Wheeling

Exhibit "B" – Updated Policy Paper: Water Banking, Transfers and Wheeling with Changes  
Identified from August 2, 2013

# EXHIBIT "A"

## DRAFT IRVINE RANCH WATER DISTRICT POLICY POSITION WATER BANKING, TRANSFERS AND WHEELING

Revised: October 26, 2015

### Issue Summary:

The Irvine Ranch Water District is further diversifying its water supply portfolio by developing water banking facilities in Kern County in the southern San Joaquin Valley. As water supplies become fully subscribed and as shortage limitations being experienced at the Sacramento-San Joaquin Delta may continue to stress water deliveries, water banking storage and recovery programs will continue to provide a highly reliable and cost efficient alternative to improving water supply reliability. These programs and participation by retail agencies should be encouraged throughout the State.

### Background:

The continued rapid growth in statewide population, coupled with challenges of drought, limitations in the Delta and expanding regulatory and environmental pressures may continue to stress the State's water supplies. Strategies for addressing these challenges include securing supplemental supplies to store for future use and for the development of groundwater storage capabilities with corresponding recharge and recovery facilities (water banking). The conveyance or "wheeling" of water through federal, state, regional, and local facilities to points of use is a critical issue related to water banking, transfer programs, and the end users. The following are descriptions of the District's requirements for diversifying its water supplies through water banking, actions that IRWD has taken to date relative to the development of its water banking program, a summary of current and planned water banking capacities, objectives for acquiring supplemental supplies and objectives for expanding its water banking program capacities. This paper concludes with Policy Principals for the District's water banking program.

### IRWD Supply Diversity Requirements:

IRWD's primary mission is to provide a safe and reliable water supply to its customers. Supply reliability is directly related to supply diversity. Along with the implementation of numerous water use efficiency programs, IRWD has developed and continues to develop a diverse mix of local and non-local supplies including the use of high quality groundwater, impaired groundwater, and recycled water. After taking these efforts into consideration, current projections indicate that IRWD has long-term requirements for the storage of at least 88,000 acre-feet of supplemental water that could be called upon during drought conditions and / or supply interruptions. In the event of a major supply interruption, this amount of water would fulfill IRWD's estimated needs for import water for three years in a row based on projected water demands. IRWD's water banking program will provide IRWD the ability to store and recover this supplemental water to meet long-term supply reliability requirements.

A significant risk of a major supply interruption exists at the Delta, where an earthquake or other natural disaster could damage the series of levees in the Sacramento Bay Delta. Various water and regulatory agencies have indicated water exports from the Delta could be interrupted for one or two years due to actual levee failures and subsequent repairs. Some estimates indicate that it

could take up to three years to repair the levees. In addition, the risk of shortages of water from the Colorado River must be considered. The Colorado River basin is in a 15-year drought and the U.S. Department of Interior projects that supply shortages on the Colorado River will occur in the future. Based on these projections, it is possible that shortages could result in impacts to supplies available to IRWD.

If during a major water supply interruption, Metropolitan Water District of Southern California (MWD) is unable to deliver IRWD's imported water demands of 28,000 acre-feet (AF) in 2035, then IRWD would need to supplement imported supplies with 28,000 AF per year (AFY) from storage in its water banking program to offset this shortfall. IRWD has determined that it needs to develop at least 28,000 AFY capacity to recover water from its water banking program to provide a reliable supply of water to its customers during major import water supply interruptions. In preparation for a major three-year interruption in imported water supplies and assuming the need to recover and deliver 28,000 AFY from storage for each of the three years, while taking into consideration in-ground losses, IRWD would need at least 88,000 AF of water in storage in its water banking programs.

To ensure that water can be delivered into storage when available in wet years, IRWD has also determined that it needs the capacity to recharge at least 28,000 AFY.

#### IRWD Actions to Date:

Following is a summary of actions to date to develop IRWD's water banking program:

##### *Strand Ranch Facilities:*

Since 2005, IRWD has made significant progress in the development of its water banking program and in securing supplemental supplies to store in the program in Kern County. The process began with the acquisition of the Strand Ranch in Kern County. Subsequent to the purchase, IRWD successfully negotiated a 30-year water banking partnership agreement with Rosedale-Rio Bravo Water Storage District which certified an Environmental Impact Report for the Strand Ranch Integrated Water Banking Project. IRWD has constructed 502 acres of recharge basins, seven production wells, Cross Valley Canal turnouts and turn-ins, recovery pipelines, and three monitoring wells. A small capacity in the CVC was also purchased by IRWD. The storage capacity associated with the Strand Ranch Water Bank is 50,000 AF. Recharge and recovery facilities have been developed for capacities of 17,500 AF per year. The Strand Ranch Water Bank is integrated into Rosedale's Conjunctive Use Program. IRWD also has access to three well sites within Rosedale's service area and the three wells are currently under construction as part of Rosedale's Drought Relief Project. These three new wells will be used to increase the instantaneous recovery capacity associated with the Strand Ranch Integrated Banking Project.

*State Water Project Supplies:*

In 2010, IRWD completed the acquisition of the Jackson Ranch property in Kings County with the right to use 1,747 AFY of State Water Project (SWP) Table A water through the Dudley Ridge Water District (DRWD). In addition, IRWD purchased the property's assigned portion of DRWD's participation rights in the Kern Water Bank (KWB) for an additional 9,495 AF of dedicated storage capacity and associated first priority recharge and recovery rights. Through this participation in the KWB, IRWD obtained access to unused storage, recharge and recovery capacity in the KWB. In December 2013, the California Department of Water Resources, DRWD, MWD and the Kern County Water Agency executed the Multi-Year Exchange and Change in Point of Delivery Agreement that allows the delivery of Table A water associated with the Jackson Ranch for storage in the Strand Ranch banking program on an unbalanced exchange basis.

In 2011, IRWD, MWD and Municipal Water District of Orange County (MWDOC) executed a Coordinated Exchange and Delivery Agreement for delivery of SWP supplies from the Strand Ranch Water Bank to IRWD's service area. The agreement allows IRWD to secure SWP supplies with the concurrence of MWD with MWD maintaining control of the introduction of these supplies into its service area.

IRWD has also completed two pilot projects with the Central Coast Water Agency (CCWA) for unbalanced exchanges of Carpinteria Valley Water District's (CVWD) SWP Table A amounts. A pilot unbalanced exchange program was also executed with Antelope Valley East Kern Water Agency (AVEK). A total of 7,000 AF of water has been delivered to the Strand Ranch from both the CCWA and AVEK programs and IRWD retains 50% (less a proportional share of losses) of the water for recovery and use in its service area. In 2014 and 2015, IRWD returned to both CCWA and AVEK their respective shares of the water. The development of these supplemental supplies is consistent with the District's objectives for acquiring supplemental water supplies. Currently, IRWD is pursuing long-term exchange program agreements with both CCWA and AVEK.

*Non-State Water Project Supplies:*

In 2010, IRWD completed a pilot project agreement with Buena Vista Water Storage District (BVWSD), whereby BVWSD could store up to 5,000 AF of its pre-1914, high flow Kern River water at the Strand Ranch on an unbalanced exchange basis where IRWD retains 50% of the stored supplies. In December 2010, IRWD and BVWSD executed an agreement for a long-term program whereby BVWSD can store up to 40,000 AF of its pre-1914 high flow Kern River water with IRWD retaining the rights to the use of half of this water. By the end of 2012, BVWSD had stored 25,473 AF of water at the Strand Ranch. In 2013 and 2015, IRWD returned to BVWSD the 50% share of the water that was stored for the benefit of BVWSD.

In 2014, IRWD, MWD and MWDOC executed a template Wheeling Agreement that facilitated the delivery of 1,000 AF of SWP water into IRWD's service area that was received from MWD in exchange for high flow Kern River water that was recovered from the Strand Ranch project and delivered to Arvin Edison Water Storage District on behalf of MWD. This Wheeling

Agreement was implemented consistent with MWD’s Administrative Code. IRWD completed taking delivery of the 1,000 AF water into its service area in 2015 as extraordinary supply consistent with MWD’s Water Supply Allocation Plan.

*Stockdale West Facilities:*

In 2010, IRWD completed the purchase of the Stockdale West Ranch property located just west of the Strand Ranch. In 2011, IRWD constructed four recharge basins over 259 acres as part of a one-year Pilot Recharge Project. In August 2011, IRWD and BVWSD entered into a one-year pilot program whereby BVWSD stored 3,268 AF of high flow Kern River water. This pilot was used to determine the recharge capabilities of the property and to provide important information necessary for the design of a long-term water banking project on the project.

IRWD and Rosedale have entered into a development agreement for the joint development of banking facilities on the Stockdale West Ranch and Rosedale’s Stockdale East property located to the east of the Strand Ranch. This combined project is called the Stockdale Integrated Banking Project and currently IRWD and Rosedale are finalizing an Environmental Impact Report (EIR) and long-term partnership agreement for the project. Included in the Stockdale Integrated Banking Project will be the lease by Rosedale to IRWD of a total of 50,000 AF of storage in Rosedale’s Conjunctive Use Program. Under the proposed project, IRWD and Rosedale would each have second priority use of each other’s facilities on both the Stockdale West and Stockdale East properties.

The EIR for the Stockdale Integrated Banking Project contemplates that a third water banking project site would be secured and developed by IRWD and Rosedale to help meet both IRWD and Rosedale storage, recharge and recovery requirements. It is expected that the third project site could comprise up to 640 acres and could result in a storage capacity of approximately 51,200 AF, a recharge capacity of about 52,200 AFY and a recovery capacity of approximately 22,500 AFY. If IRWD and Rosedale participated equally in the purchase of the land, the storage capacity would be divided equally to IRWD and Rosedale and each agency would get access to 50 percent of the resulting recharge and recovery capacities on a first priority basis. Each agency would also get access to each other’s share of the recharge and recovery capacity on a second priority basis.

Water Banking Capacities:

The following table presents an overview of the storage, recharge and recovery capacities that have been developed to date and that are expected to be developed at IRWD’s water banking projects on both the Strand Ranch and the Stockdale West Ranch. The table also provides an overview of how these capacities are shared and expected to be shared with IRWD’s unbalanced exchange partners. At the bottom of the table is a summary of IRWD requirements and additional capacities that are needed to meet these requirements. The table indicates that IRWD will have a shortfall of annual recovery capacity in the amount of 4,417 AF that would likely be achieved by securing and developing two recovery wells on the third water banking project site that is contemplated in the EIR for the Stockdale Integrated Banking Project. Any excess

storage, recharge and recovery capacities that would be available to IRWD from the third project site could be used to share reliability benefits with other retail water supply agencies.

Existing and Currently Planned Storage, Recharge, and Recovery Capacity in IRWD’s Water Banking Program

Water Banking Property	Storage Capacity (AF)	Recharge Capacity		Recovery Capacity	
		First Priority Recharge Capacity (AFY)	Second Priority Recharge Capacity (AFY)	First Priority Recovery Capacity (AFY)	Second Priority Recovery Capacity (AFY)
Strand Ranch	50,000	17,500	0	17,500	0
Stockdale West	26,000	27,100	0	11,250	0
Stockdale East	0		19,000		7,500
Storage Lease in Rosedale’s Conjunctive Use Program	50,000	0	0	0	0
<b>Total to Date</b>	<b>126,000</b>	<b>44,600</b>	<b>19,000</b>	<b>28,750</b>	<b>7,500</b>
Exchange Partner Share	38,000	22,300	9,500	12,667	0
IRWD Share	88,000	22,300	9,500	16,083	7,500
		<i>First + Second:</i>	31,800	<i>First + Second:</i>	23,583
IRWD Stated Capacity Needs:	88,000		28,000	28,000	
IRWD’s Needs: Excess (Shortfall)	0		3,800	(4,417)	

Objectives for Acquiring Supplemental Water Supplies:

IRWD’s objectives for acquiring supplemental water supplies for recharge, storage and recovery within IRWD’s water banking program excluding supplies needed to fulfill local operations (including irrigation) are as follows:

1. IRWD seeks to acquire low-cost and diverse supplemental sources of water such as high flow Kern River water, State Water Project supplies, water associated with pre-1914 rights, CVP supplies and water from other available sources depending on annual availability and conveyance capacity availability.
2. Generally, IRWD seeks to acquire up to 67% of its supplemental supplies during wet hydrologic periods subject to the conditions established by the water supplier and availability. IRWD does not intend to compete for supplemental supplies during dry years when supply availability may be less.

3. IRWD plans to acquire up to 33% of its supplemental supplies through smaller sustained, controllable and schedulable supply sources. Such supplies are expected to be acquired through the purchases of farm land that have water supply entitled to it. IRWD will attempt to preserve existing agricultural uses wherever possible and will schedule excess water for direct or exchange delivery to its water banking programs through rotational fallowing or onsite conservation using methods that where necessary attempt to minimize third-party impacts to local economies.

The acquisition of supplemental supplies is likely to require the use of unbalanced exchange concepts whereby IRWD stores water on behalf of another party in return for 50 percent of the water being transferred to IRWD. The sharing of the District's water banking facilities will result in the need to expand water banking capacity to ensure that the District can meet its water supply diversification requirements while meeting the requirements of IRWD's exchange partners.

Objectives for Developing Additional Capacity:

IRWD seeks to develop additional recovery capacity to meet IRWD's recovery needs and to ensure that IRWD and its exchange partner's rights to the use of the recovery facilities during peak summer demand periods can be maximized. It is anticipated that a total recovery capacity of up to 70 cfs will need to be developed to meet these needs. Access to second priority use of wells by IRWD would also be effective for periods when IRWD can recover water for its use off-peak to other uses in Kern County.

Rosedale is currently constructing three wells in its service area as part of the Rosedale Drought Relief Project that will be available for IRWD's use in conjunction with the wells on the Strand Ranch project. These additional wells will help IRWD achieve its goal of 70 cfs of instantaneous recovery capacity. At least two more wells will need to be developed by IRWD on the third Stockdale project site that is described above to fulfill the identified 4,417 AF per year shortfall in recovery capacity.

Land Acquisition Opportunities:

IRWD will consider land acquisition opportunities which will have associated near and/or long-term water supply benefits where water can be conserved or made available through temporary fallowing or onsite conservation. Such water would be scheduled for delivery to storage in the water banking facilities or other storage facilities through methods that where necessary attempt to minimize third-party impacts and environmental resource impacts. Such water supplies would be useful in performing in-lieu recharge or recovery operations associated with IRWD's water banking program.

IRWD will also consider land acquisition opportunities with the most favorable conditions for groundwater recharge, storage and recovery capacity as needed to meet IRWD capacity requirements as described above and as they may change in the future.

Policy Principles:

Based on the information provided above, the following IRWD policy principals have been developed:

1. The State's water supply situation is being impacted by persistent drought, problems in the Delta, a growing population, increasing regulatory pressure, potential climate change impacts, and an imbalance between available water supplies and available storage. As a result, IRWD has the need for supplemental supplies and storage facilities to store the supplemental water supplies for use during dry periods.
2. Based on economic and environmental criteria, water banking programs involving storage in groundwater aquifers have demonstrated that they are less expensive and preferable to surface storage.
3. A primary mission of IRWD is to provide a highly reliable supply of water. Reliability is enhanced by having multiple redundant sources of supply. To address this need, IRWD will develop diverse supplemental water supply sources and water banking capacity.
4. IRWD seeks to secure low-cost and diverse supplemental sources of water including high flow Kern River, State Water Project supplies, water with pre-1914 rights, CVP supplies and water from other available sources depending on annual availability and conveyance and/or exchange capacity that will allow IRWD to achieve its goal of storing 88,000 AF of water in its water banking program.
5. Because of the District's obligation to its customers, long-term equity ownership of water banking capacity as well as in lands that have water supplies entitled to them is strongly preferred over contract or lease arrangements. Equity partnerships that provide benefits to both the District and to local entities are preferred.
6. The District's water banking partnerships benefit from the sharing of recharge, storage and recovery capacity through unbalanced exchanges. In addition, due to potential climate change, the future intervals between wet years are expected to become longer with increases in the rate of runoff. These issues may make it necessary for IRWD in the future to consider increasing recharge, storage and recovery capacities in its water banking program.
7. Expansion of water banking capacities may be considered through equity purchases of capacities available in existing water banking programs or development of partnerships for capacity expansion.
8. IRWD will support wheeling policies and rates adopted by MWD and other agencies to the extent they reflect cost of service approach. Any wheeling or exchange of water through MWD's conveyance facilities should be consistent with MWD's Administrative Code, must not financially impact MWD or its Member Agencies and should protect MWD's rights including its SWP contract.

9. IRWD will put all available supplemental water supplies to beneficial use using methods that where necessary attempt to minimize third-party impacts while preserving the agricultural benefits of the contributing lands through temporary fallowing arrangements and / or water conservation efforts.
10. IRWD will seek partnerships that result in mutually beneficial exchange opportunities including the ability to enhance direct and in-lieu recharge or recovery operations associated with IRWD's water banking program.
11. IRWD will support and actively work with the State and the Federal governments and available legislative processes to streamline procedures for the implementation of short and long-term water transfers and exchanges as well as the formation of local, regional and statewide water marketing systems.
12. IRWD will support the development of water marketing systems in the State of California that are consistent with and do not expand existing lawful authorities, provide local and regional oversight of markets, encourage regional and statewide cooperation, protect existing land, water and capacity rights, attempt to protect communities from unreasonable third party impacts and environmental impacts, do not interfere with contract rights and that result in streamlined abilities to effectuate water transfers, exchanges and wheeling of supplies among voluntary market participants.
13. IRWD will support sharing reliability from its water banking program after IRWD's reliability requirements are fulfilled. Such sharing would occur in a way that ensures IRWD is kept financially whole on the transactions.

## EXHIBIT "B"

DRAFT

### IRVINE RANCH WATER DISTRICT POLICY POSITION WATER BANKING, TRANSFERS AND WHEELING

Revised: ~~October 26~~<sup>15</sup>~~August 2~~, 201~~5~~<sup>3</sup>

#### Issue Summary:

The Irvine Ranch Water District is further diversifying its water supply portfolio by developing water banking facilities in Kern County in the southern San Joaquin Valley. As water supplies become fully subscribed and ~~as shortage~~<sup>the</sup> limitations being experienced at the Sacramento-San Joaquin Delta ~~may~~ continue to stress water deliveries, water banking storage and recovery programs will continue to provide a highly reliable and cost efficient alternative to improving water supply reliability. These programs and participation by retail agencies should be encouraged throughout the State.

#### Background:

The continued rapid growth in statewide population, coupled with challenges ~~of drought, and~~ limitations in the Delta ~~and~~ ~~and~~ expanding regulatory and environmental pressures; ~~may~~<sup>will</sup> continue ~~to~~ stress the State's water supplies. Strategies for addressing these challenges include securing supplemental supplies to store for future use and for the development of groundwater storage capabilities with corresponding recharge and recovery facilities (water banking). The conveyance or "wheeling" of water through federal, state, regional, and local facilities to points of use is a critical issue related to water banking, transfer programs, and the end users. The following are descriptions of the District's requirements for diversifying its water supplies through water banking, actions that IRWD has taken to date relative to the development of its water banking program, a summary of current and planned water banking capacities, objectives for acquiring supplemental supplies and objectives for expanding its water banking program capacities. This paper concludes with Policy Principals for the District's water banking program.

#### IRWD Supply Diversity Requirements:

IRWD's primary mission is to provide a safe and reliable water supply to its customers. Supply reliability is directly related to supply diversity. Along with the implementation of numerous water use efficiency programs, IRWD has developed and continues to develop a diverse mix of local and non-local supplies including the use of high quality groundwater, impaired groundwater, and recycled water. After taking these efforts into consideration, current projections indicate that IRWD has long-term requirements for the storage of at least 88,000 acre-feet of supplemental water that could be called upon during drought conditions and / or supply interruptions. In the event of a major supply interruption, this amount of water would fulfill IRWD's estimated needs for import water for three years in a row based on projected water demands. IRWD's water banking program will provide IRWD the ability to store and recover this supplemental water to meet long-term supply reliability requirements.

A significant risk of a major supply interruption exists at the Delta, where an earthquake or other natural disaster could damage the series of levees in the Sacramento Bay Delta. Various water and regulatory agencies have indicated water exports from the Delta could be interrupted for one or two years due to actual levee failures and subsequent repairs. Some estimates indicate that it

could take up to three years to repair the levees. In addition, the risk of shortages of water from the Colorado River must be considered. The Colorado River basin is in a ~~153~~-year drought and the U.S. Department of Interior projects that supply shortages on the Colorado River will ~~become more severe~~ occur in the future. Based on these projections, it is possible that shortages could result in impacts to supplies available to IRWD.

If during a major water supply interruption, Metropolitan Water District of Southern California (MWD) is unable to deliver IRWD's imported water demands of 28,000 acre-feet (AF) in 2035, then IRWD would need to supplement imported supplies with 28,000 AF per year (AFY) from storage in its water banking program to offset this shortfall. IRWD has determined that it needs to develop at least 28,000 AFY capacity to recover water from its water banking program to provide a reliable supply of water to its customers during major import water supply interruptions. In preparation for a major three-year interruption in imported water supplies and assuming the need to recover and deliver 28,000 AFY from storage for each of the three years, while taking into consideration in-ground losses, IRWD would need at least ~~88~~ 88,000 AF of water in storage in its water banking programs.

To ensure that water can be delivered into storage when available in wet years, IRWD has also determined that it needs the capacity to recharge at least 28,000 AFY.

#### IRWD Actions to Date:

Following is a summary of actions to date to develop IRWD's water banking program:

#### *Strand Ranch Facilities:*

Since 2005, IRWD has made significant progress in the development of its water banking program and in securing supplemental supplies to store in the program in Kern County. The process began with the acquisition of the Strand Ranch in Kern County. Subsequent to the purchase, IRWD successfully negotiated a 30-year water banking partnership agreement with Rosedale-Rio Bravo Water Storage District ~~which and jointly~~ certified an Environmental Impact Report for the Strand Ranch Integrated Water Banking Project. IRWD has constructed 502 acres of recharge basins, seven production wells, Cross Valley Canal turnouts and turn-ins, recovery pipelines, and three monitoring wells. A small capacity in the CVC was also purchased by IRWD. The storage capacity associated with the Strand Ranch Water Bank is 50,000 AF. Recharge and recovery facilities have been developed for capacities of 17,500 AF per year. The Strand Ranch Water Bank is integrated into Rosedale's Conjunctive Use Program. IRWD also has ~~access to threetwo~~ well sites ~~reserved~~ within Rosedale's service area and the three wells are currently under construction as part of Rosedale's Drought Relief Project. ~~With additional appropriate environmental review, t~~ These three new wells ~~will be used to could be constructed to~~ increase the instantaneous recovery capacity associated with the Strand Ranch Integrated Banking Project.

*State Water Project Supplies:*

In 2010, IRWD completed the acquisition of the Jackson Ranch property in Kings County with the right to use 1,747 AFY of State Water Project (SWP) Table A water through the Dudley Ridge Water District (DRWD). In addition, IRWD purchased the property's assigned portion of DRWD's participation rights in the Kern Water Bank (KWB) for an additional 9,495 AF of dedicated storage capacity and associated first priority recharge and recovery rights. Through this participation in the KWB, IRWD obtained access to unused storage, recharge and recovery capacity in the KWB. In December 2013, the California Department of Water Resources, DRWD, MWD and the Kern County Water Agency executed ~~is currently preparing the necessary~~ Multi-Year Exchange and Change in Point of Delivery Agreement agreements to that allows the delivery of Table A water associated with the Jackson Ranch for storage in the Strand Ranch banking program on an unbalanced exchange basis.

In 2011, IRWD, MWD and Municipal Water District of Orange County (MWDOC) executed a Coordinated Exchange and Delivery Agreement for delivery of SWP supplies from the Strand Ranch Water Bank to IRWD's service area. The agreement allows IRWD to secure SWP supplies with the concurrence of MWD with MWD maintaining control of the introduction of these supplies into its service area.

IRWD has also completed two pilot projects with the Central Coast Water Agency (CCWA) for unbalanced exchanges of ~~CCWA's member agency~~ Carpinteria Valley Water District's (CVWD) SWP Table A amounts. A pilot unbalanced exchange program was also executed with Antelope Valley East Kern Water Agency (AVEK). A total of 7,000 AF of water has been delivered to the Strand Ranch from both the CCWA and AVEK programs and IRWD retains 50% (less a proportional share of losses) of the water for recovery and use in its service area. In 2014 and 2015, IRWD returned to both CCWA and AVEK their respective shares of the water. The development of these supplemental supplies is consistent with the District's objectives for acquiring supplemental water supplies. Currently, IRWD is pursuing long-term exchange program agreements with both CCWA and AVEK.

*Non-State Water Project Supplies:*

In 2010, IRWD completed a pilot project agreement with Buena Vista Water Storage District (BVWSD), whereby BVWSD ~~could~~ store up to 5,000 AF of its pre-1914, high flow Kern River water at the Strand Ranch on an unbalanced exchange basis where IRWD retains 50% of the stored supplies. In December 2010, IRWD and BVWSD executed an agreement for a long-term program whereby BVWSD can store up to 40,000 AF of its pre-1914 high flow Kern River water with IRWD retaining the rights to the use of half of this water ~~in its service area~~. By the end of 2012, BVWSD had stored 25,473 AF of water at the Strand Ranch. In 2013 and 2015, IRWD returned to BVWSD the 50% share of the water that was stored for the benefit of BVWSD.

In 2014, IRWD, MWD and MWDOC executed ~~has prepared~~ a template Wheeling Agreement that will facilitate the ~~delivery of recovery and delivery of~~ 1,000 AF of SWP water into IRWD's service area that was received from MWD in exchange for high flow Kern River water ~~that was~~

recovered from the Strand Ranch project and delivered to Arvin Edison Water Storage District on behalf of MWD. This Wheeling Agreement was implemented consistent into IRWD's service area consistent with MWD's Administrative Code. IRWD completed taking delivery of the 1,000 AF water into its service area in 2015 as extraordinary supply consistent with MWD's Water Supply Allocation Plan. This agreement is expected to be tested in 2013 with the recovery and delivery of 1,000 AF of water to IRWD's service area.

*Stockdale West Facilities:*

In 2010, IRWD completed the purchase of the Stockdale West Ranch property located just west of the Strand Ranch. In 2011, IRWD constructed four recharge basins over 259 acres as part of a one-year Pilot Recharge Project. In August 2011, IRWD and BVWSD entered into a one-year pilot program whereby BVWSD stored 3,268 AF of high flow Kern River water. This pilot was used to determine the recharge capabilities of the property and to provide important information necessary for the design of a long-term water banking project on the project.

IRWD and Rosedale have entered into a development agreement for the joint development of banking facilities on the Stockdale West Ranch and Rosedale's Stockdale East property located to the east of the Strand Ranch. This combined project is called the Stockdale Integrated Banking Project and currently IRWD and Rosedale are preparing-finalizing an Environmental Impact Report (EIR) and long-term partnership agreement for the project. Included in the Stockdale Integrated Banking Project description-iswill be the lease by Rosedale to IRWD of a total of 50,000 AF of storage in Rosedale's Conjunctive Use Program. Under the proposed project, IRWD and Rosedale would each have second priority use of each other's facilities on both the Stockdale West and Stockdale East properties.

The EIR for the Stockdale Integrated Banking Project contemplates that a third water banking project site would be secured and developed by IRWD and Rosedale to help meet both IRWD and Rosedale storage, recharge and recovery requirements. It is expected that the third project site could comprise up to 640 acres and could result in a storage capacity of approximately 51,200 AF, a recharge capacity of about 52,200 AFY and a recovery capacity of approximately 22,500 AFY. If IRWD and Rosedale participated equally in the purchase of the land, the storage capacity would be divided equally to IRWD and Rosedale and each agency would get access to 50 percent of the resulting recharge and recovery capacities on a first priority basis. Each agency would also get access to each other's share of the recharge and recovery capacity on a second priority basis.

Water Banking Capacities:

The following table presents an overview of the storage, recharge and recovery capacities that have been developed to date and that are expected to be developed at IRWD's water banking projects on both the Strand Ranch and the Stockdale West Ranch. The table also provides an overview of how these capacities are shared and expected to be shared with IRWD's unbalanced exchange partners. At the bottom of the table is a summary of IRWD requirements and additional capacities that are needed to meet these requirements. The table indicates that IRWD will have a shortfall of annual recovery capacity in the amount of 4,417 AF that would likely be

achieved by securing and developing two recovery wells on the third water banking project site that is contemplated in the EIR for the Stockdale Integrated Banking Project. Any excess storage, recharge and recovery capacities that would be available to IRWD from the third project site could be used to share reliability benefits with other retail water supply agencies.

Existing and Currently Planned Storage, Recharge, and Recovery Capacity in IRWD’s Water Banking Program

Water Banking Property	Storage Capacity (AF)	Recharge Capacity		Recovery Capacity	
		First Priority Recharge Capacity (AFY)	Second Priority Recharge Capacity (AFY)	First Priority Recovery Capacity (AFY)	Second Priority Recovery Capacity (AFY)
Strand Ranch	50,000	17,500	0	17,500	0
Stockdale West	26,000	27,100	0	<del>11,250</del> 9,000	0
Stockdale East	0		19,000		<del>7,500</del> 6,000
Storage Lease in Rosedale’s Conjunctive Use Program	50,000	0	0	0	0
<b>Total to Date</b>	<b>126,000</b>	<b>44,600</b>	<b>19,000</b>	<b>28,750</b> <del>6,500</del>	<b>7,500</b> <del>6,000</del>
Exchange Partner Share	38,000	22,300	9,500	<del>12,667</del> 13,250	0
IRWD Share	88,000	22,300 <i>First + Second:</i>	9,500 31,800	<del>16,083</del> 3,250 <i>First + Second:</i>	<del>7,500</del> 6,000 23,583 <del>19,250</del>
IRWD Stated Capacity Needs:	88,000		28,000	28,000	
IRWD’s Needs: Excess (Shortfall)	0		3,800	<del>(4,417)</del> 8,750	

Objectives for Acquiring Supplemental Water Supplies:

IRWD’s objectives for acquiring supplemental water supplies for recharge, storage and recovery within IRWD’sfor the water banking program excluding supplies needed to fulfill local operations (including irrigation) are as follows:

1. IRWD seeks to acquire low-cost and diverse supplemental sources of water including such as high flow Kern River water, State Water Project supplies, water water associated with pre-1914 rights, and/or CVP supplies and water from other available sources depending on annual availability and conveyance capacity availability.
2. Generally, IRWD seeks to acquire up to 67% of its supplemental supplies during wet hydrologic periods subject to the conditions established by the water supplier and availability. IRWD does not intend to compete for supplemental supplies during dry years when supply availability may be less.

3. IRWD plans to acquire up to 33% of its supplemental supplies through smaller sustained, controllable and schedulable supply sources. Such supplies are expected to be acquired through the purchases of farm land that have water supply entitled to it. IRWD will attempt to preserve existing agricultural uses wherever possible and will schedule excess water for direct or exchange delivery to its water banking programs through rotational fallowing or onsite conservation using methods that where necessary attempt to minimize third-party impacts to local economies.

The acquisition of supplemental supplies is likely to require the use of unbalanced exchange concepts whereby IRWD stores water on behalf of another party in return for 50 percent of the water being transferred to IRWD. The sharing of the District's water banking facilities will result in the need to expand water banking capacity to ensure that the District can meet its water supply diversification requirements while meeting the requirements of IRWD's exchange partners.

Objectives for Developing Additional Capacity ~~as Needed~~:

IRWD seeks to develop additional recovery capacity to meet IRWD's recovery needs and to ensure that IRWD and its exchange partner's rights to the use of the recovery facilities during peak summer demand -periods can be maximized. It is anticipated that a total recovery capacity of up to 70 cfs will need to be developed to meet these needs. Access to second priority use of wells by IRWD would also be effective for periods when IRWD can recover water for its use off-peak to other uses in Kern County.

Rosedale is currently constructing three wells in its service area as part of the Rosedale Drought Relief Project that will be available for IRWD's use in conjunction with the wells on the Strand Ranch project. These additional wells will help IRWD achieve its goal of 70 cfs of instantaneous recovery capacity. ~~IRWD may construct additional exchange wells within Rosedale's service area to meet these objectives and already has the rights to two wells sites in the Rosedale service area. Additional environmental review may be needed to operate wells on these sites.~~ At least two more wells will need to be developed by IRWD on the third Stockdale project site that is described above to fulfill the identified 4,417 AF per year shortfall in recovery capacity.

Land Acquisition Opportunities:

IRWD will consider land acquisition opportunities which will have ~~an~~ associated near and/or long-term water supply benefits where water can be conserved or made available through temporary fallowing or onsite conservation. Such water would be scheduled for delivery to storage in the water banking facilities or other storage facilities through methods that where necessary attempt to minimize ~~with minimal~~ third-party impacts and environmental resource impacts. Such water supplies would be useful in performing in-lieu recharge or recovery operations associated ~~with of water from~~ IRWD's the water banking program.

IRWD will also consider land acquisition opportunities with the most favorable conditions for groundwater recharge, storage and recovery capacity as needed to meet IRWD capacity requirements as described above and as they may change in the future.

Policy Principles:

Based on the information provided above, the following IRWD policy principals have been developed:

1. The State's water supply situation is being impacted by persistent drought, problems in the Delta, a growing population, increasing regulatory pressure, potential climate change impacts, and an imbalance between available water supplies and available storage. As a result, IRWD has the need for supplemental supplies and storage facilities to store the supplemental water supplies for use during dry periods.
2. Based on economic and environmental criteria, water banking programs involving storage in groundwater aquifers have demonstrated that they are less expensive and preferable to surface storage.
3. A primary mission of IRWD is to provide a highly reliable supply of water. Reliability is enhanced by having multiple redundant sources of supply. To address this need, IRWD will develop diverse~~has developed~~ supplemental water supply sources and water banking capacity.
4. IRWD seeks to secure low-cost and diverse supplemental sources of water including high flow Kern River, State Water Project supplies, water with pre-1914 rights, ~~and/or~~ CVP supplies and water from other available sources depending on annual availability and conveyance and/or exchange capacity ~~availability~~ that will allow IRWD to achieve its goal of storing 88,000 AF of water in its water banking program.
5. Because of the District's obligation to its customers, long-term equity ownership of water banking capacity as well as in lands that have water supplies entitled to them is strongly preferred over contract or lease arrangements. Equity partnerships that provide benefits to both the District and to local entities are preferred.
6. The District's water banking partnerships benefit from the sharing of recharge, storage and recovery capacity through unbalanced exchanges. In addition, due to potential climate change, the future intervals between wet years are expected to become longer with increases in the rate of runoff. These issues may make it necessary for IRWD in the future to consider increasing recharge, storage and recovery capacities in its water banking program.

7. Expansion of water banking capacities may be considered through equity purchases of capacities available in existing water banking programs or development of partnerships for capacity expansion.
8. IRWD will support wheeling policies and rates adopted by MWD and other agencies to the extent they reflect ~~a uniform~~, cost of service approach. Any wheeling or exchange of water through MWD's conveyance facilities should be consistent with MWD's Administrative Code, must not financially impact MWD or its Member Agencies and should protect MWD's rights including under its SWP contract.
9. IRWD will put all available supplemental water supplies to beneficial use using methods that where necessary attempt to minimize third-party impacts while preserving the agricultural benefits of the contributing lands through temporary fallowing arrangements and / or water conservation efforts.
10. IRWD will seek partnerships that result in mutually beneficial exchange opportunities including the ability to enhance direct and in-lieu recharge or recovery operations associated with IRWD's water banking program.
11. IRWD will support and actively work with the State and the Federal governments and available legislative processes to streamline procedures for the implementation of short and long-term water transfers and exchanges as well as the formation of local, regional and statewide water marketing systems.
- ~~10.~~12. IRWD will support the development of water marketing systems in the State of California that are consistent with and do not expand existing lawful authorities, provide local and regional oversight of markets, encourage regional and statewide cooperation, protect existing land, water and capacity rights, attempt to protect communities from unreasonable third party impacts and environmental impacts, do not interfere with contract rights and that result in streamlined abilities to effectuate water transfers, exchanges and wheeling of supplies among voluntary market participants.
- ~~11.~~13. IRWD will support sharing reliability from its water banking program after IRWD's reliability requirements are fulfilled. Such sharing would occur in a way that ensures IRWD is kept financially whole on the transactions.