

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

September 25, 2017

PLEDGE OF ALLEGIANCE

CALL TO ORDER

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

ROLL CALL

Directors LaMar, Matheis, Swan, Withers and President Reinhart

NOTICE

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

COMMUNICATIONS TO THE BOARD

1. A. Written:

B. Oral:

2. ITEMS RECEIVED TOO LATE TO BE AGENDIZED

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

PRESENTATION

3. NATIONAL WATER RESEARCH INSTITUTE PRESENTATION

Mr. Kevin Hardy, NWRI's newly appointed Executive Director, will provide an update on current and future research activities.

CONSENT CALENDAR

Items 4- 7

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

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

CONSENT CALENDAR	Resolution No. 2017-24	Items 4-7
5.	<u>MINUTES OF REGULAR BOARD MEETING</u>	
	Recommendation: That the minutes of the September 11, 2017 Regular Board Meeting be approved as presented.	
6.	<u>AUGUST 2017 TREASURY REPORT</u>	
	Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Monthly Interest Rate Swap Summary for August 2017, and Disclosure Report of Reimbursements to Board Members and Staff; approve the August 2017 Summary of Payroll ACH payments in the total amount of \$1,741,273 and approve the August 2017 Accounts Payable Disbursement Summary of Warrants 379171 through 380087, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$20,753,760.	
7.	<u>IRVINE LAKE PIPELINE NORTH CONVERSION RESERVOIR CONTRACT CHANGE ORDER</u>	
	Recommendation: That the Board approve Contract Change Order No. 10 with Pascal & Ludwig Constructors in the Amount of \$473,623 for design changes associated with the postponement of the Santiago Hills II Development for the Irvine Lake Pipeline North Conversion Reservoir, Project 05407.	
ACTION CALENDAR		
8.	<u>ENVIRONMENTAL COMPLIANCE CONSULTANT SELECTION FOR THE SYPHON RESERVOIR IMPROVEMENT PROJECT</u>	
	Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with ESA to complete an Environmental Impact Report for the Syphon Reservoir Improvement Project for a not-to-exceed amount of \$611,226.	
9.	<u>BUSINESS INTELLIGENCE CLOUD DISASTER RECOVERY IMPLEMENTATION AND REPORTING CONTRACT AWARD</u>	
	Recommendation: That The Board authorize the addition of Projects 10345 For \$155,000 and 10347 for \$155,000 to the FY 2017-18 Capital Budget and authorize the General Manager to execute a Professional Services Agreement with Dilytics, Inc. in the amount of \$241,000.	

ACTION CALENDAR (CONTINUED)

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

Recommendation: That the Board approve the District's revised
Water Banking, Transfers and Wheeling Policy Position Paper.

OTHER BUSINESS

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.

- 11. A. General Manager's Report
- B. Directors' Comments
- C. 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.

September 25, 2017

Prepared and

Submitted by: L. Bonkowski

Approved by: P. Cook

CONSENT CALENDAR

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

SUMMARY:

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

Events/Meetings

Steven LaMar

October 25	OC Business Council's 23 rd Annual Economic Forecast Conference, Irvine
October 26	Southern California Water Committee Annual Meeting & Dinner, Anaheim

John Withers

October 19-20	NWRI Clark Award Reception & Conference, Irvine
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Douglas Reinhart

October 26	Southern California Water Committee Annual Meeting & Dinner, Anaheim
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Mary Aileen Matheis

August 15	Water Reliability Summit Presented by SMWD, Mission Viejo
October 6	ACWA Regions 9 and 10 Event, Corona
December 13-15	Colorado River Water Users Association Annual Conference, Las Vegas

RECOMMENDATION:

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

LIST OF EXHIBITS:

/ None.

September 25, 2017
Prepared and
Submitted by: K. Swann *KS*
Approved by: P. Cook *PC*

CONSENT CALENDAR

MINUTES OF BOARD MEETING

SUMMARY:

Provided are the minutes of the September 11, 2017 Board Meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE SEPTEMBER 11, 2017 BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – September 11, 2017 Minutes of Board Meeting

EXHIBIT "A"

MINUTES OF REGULAR MEETING – SEPTEMBER 11, 2017

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President Reinhart on September 11, 2017 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Reinhart, Swan, LaMar, and Withers (arrived at 5:07 p.m.).

Directors Absent: Matheis.

Also Present: General Manager Cook, Executive Director of Water Policy Weghorst, Executive Director of Engineering and Water Quality Burton, Executive Director of Finance and Administration Clary, Director of Treasury and Risk Management Jacobson, Director of Maintenance Drake, Director of Water Operations Roberts, Director of Water Resources Sanchez, Director of Public Affairs Beeman, Director of Recycling Operations Zepeda, Director of Human Resources Roney, Legal Counsel Smith, Secretary Bonkowski, Assistant Secretary Swan, Asset System Manager Meserlian, Principle Engineer Akiyoshi, Principle Engineer Cortez, Construction Services Manager Moore, Mechanical Services Manager Martin, Public Affairs Manager Fabris, Water Maintenance Supervisor Sanchez, Mr. Frank Tessers, Sr., Mr. Frank Tessers, Jr., and Mr. Bob Denhaan.

WRITTEN COMMUNICATIONS: None.

ORAL COMMUNICATIONS: None.

ITEMS TOO LATE TO BE AGENDIZED: None.

PRESENTATION

RESOLUTION COMMENDING FRANK H. W. TESSERS' SR. SERVICE TO THE DISTRICT

General Manager Cook honored Frank Tessers Sr. for his 34 years of service to the District, and presented him with a plaque. On MOTION by Swan, seconded by Director LaMar and carried (3-0 vote) (Reinhart, LaMar, and Swan voting aye and Withers and Matheis absent), THE BOARD ADOPTED THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2017-23

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT, ORANGE COUNTY,
CALIFORNIA COMMENDING FRANK H.W. TESSERS SR.
FOR HIS DEDICATED AND LOYAL SERVICE TO THE DISTRICT

Director Withers arrived at 5:07 p.m.

CONSENT CALENDAR

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

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

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

5. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the August 28, 2017 Regular Board Meeting be approved as presented.

6. DYER ROAD WELLFIELD WELL NO. 7 AND IRVINE DESALTER PROJECT WELL NO. 107 REHABILITATION FINAL ACCEPTANCE

Recommendation: That the Board accept construction of Dyer Road Wellfield Well No. 7 and Irvine Desalter Project Well No. 107 Rehabilitation, Projects 07093 And 07589; authorize the General Manager to file a Notice of Completion; and authorize the release of retention 35 days after filing of the Notice of Completion.

7. 2017 LEGISLATIVE AND REGULATORY UPDATE

Recommendation: Receive and file.

ACTION CALENDAR

UCI COOLING TOWER RECYCLED WATER CONVERSION PIPELINE PHASE II BUDGET INCREASE AND CONSTRUCTION AWARD

The UCI Cooling Tower Conversion Recycled Water Pipeline Phase II project will construct approximately 3,000 feet of 12- and 16-inch pipe to convert the water supply of the UCI Cooling Tower system from domestic to recycled water, as well as provide recycled water to the planned growth in the University Research Park area. The conversion of the cooling tower is estimated to save up to 50 million gallons of domestic water annually. This pipeline will connect to a 16-inch pipe that runs 200 feet up California Avenue from the intersection with University Drive.

Executive Director of Engineering and Water Quality Burton reported that while grant funding is not included for the project, he is hopeful for partial funding through the Metropolitan Water District of Southern California. Work for the project will be conducted at night, making the school pleased that it will not impact daily operations.

ACTION CALENDAR CONTINUED

Director LaMar reported that while this item was not reviewed by the Engineering and Operations Committee, it has been covered and discussed at great lengths by the Water Resources Policy and Communications Committee. On MOTION by LaMar, seconded by Swan and unanimously carried, THE BOARD AUTHORIZED A BUDGET INCREASE IN THE AMOUNT OF \$151,000, FROM \$951,500 TO \$1,102,500, FOR PROJECT 07101, AND \$391,600, FROM \$346,500 TO \$738,100, FOR PROJECT 07102; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH SULLY MILLER CONTRACTING COMPANY IN THE AMOUNT OF \$1,117,500 FOR THE UCI COOLING TOWER RECYCLED WATER CONVERSION PIPELINE PHASE II, PROJECTS 07101 AND 07102.

OTHER BUSINESS

GENERAL MANAGER'S REPORT

As noted on the agenda, General Manager Cook reported the Notice of Action Taken in Closed Session on August 14, 2017: the Board approved terms included in a draft Purchase & Sale Agreement for the sale of the property identified on Biscayne Bay Drive, Lake Forest, CA, subject to certain conditions, and authorized the District's General Manager to execute the final agreement and other related documents to close the transaction on behalf of the District once those conditions were met. Those conditions having been met, the General Manager has executed the agreement on behalf of the District.

He said the sale of the property was one of two featured in the press in Monday's Orange County Business Journal. Copies of the article were provided at the meeting. Director Withers has been recusing himself regarding the sale of the property due to his business relationship with several of the bidders. General Counsel Alfred Smith said the purchase and sale agreement is now available upon request by the public.

General Manager Cook also reported that The Division of Safety of Dams (DSOD) will be releasing classifications of what it considers to be downstream hazards. The classification is not related to the integrity of the dam, but is intended to reflect the potential hazards that exist below each dam.

The General Manager said that four of the District's five dams are classified: San Joaquin and Sand Canyon are classified as "extremely high", while Rattlesnake and Syphon are classified as "high". The designation for the Santiago Dam (Irvine Lake) has not been seen, but may also be classified as "extremely high" based on the other dams' classifications. General Manager Cook indicated that a link to this information has been made available on the District's Web site, to comply with the DSOD's call for transparency.

He said that he and Vice President Swan attended a meeting last week of the City of Newport Beach's Water Quality/Coastal Tidelands Committee to discuss how IRWD manages its recycled water resources. A general overview was provided of main services provided by the District, and explained that under extreme conditions the concept of discharging recycled water into the San Diego Creek watershed. Misinformation expressed by the group regarding how IRWD's water recycling operations interact with OCSD and OCWD were addressed and clarified. While a conclusion was not expected to be reached at this meeting, a commitment was made to the

GENERAL MANAGER'S REPORT CONTINUED

Committee that a workshop(s) would be conducted in the next month or two to develop a more thorough understanding of the issue. Director Swan added that a formal agreement needs to be made by the City of Newport Beach.

(Director Withers departed 5:21p.m.)

IRWD Information Services was unable to execute network upgrades due to technical issues that included the installation of some critical cabling that was delayed by Hurricane Harvey.

General Manager Cook announced that the Peters Canyon Water Channel Water Capture and Reuse Project has been awarded the Environmental Engineering Project of the Year by the Los Angeles Section of the American Society of Civil Engineers (ASCE); the project was recognized by the Orange County Branch of ASCE last spring. The awards ceremony will be held on October 14 in Los Angeles.

The General Manager indicated that he will be traveling to Washington D.C. Tuesday and Wednesday to discuss the Bureau of Reclamation's process for funding Title XVI projects.

DIRECTOR COMMENTS

Director LaMar reported that he attended the OC Forum's Breakfast featuring Gavin Newsom; the 2017 MWDOC Water Policy Forum; a monthly WACO meeting; and the ACWA Regions 3 & 4 Event: California's Headwaters-A Look at How Watersheds are Connected.

Director Swan reported that he attended the OC Forum's Breakfast featuring Gavin Newsom; a monthly WACO meeting; the Newport Chamber of Commerce Meeting; the Newport Beach Water Quality/Coastal Tidelands Committee Meeting with General Manager Cook, and OCWD Board and Committee meetings.

Director Reinhart reported that he met with the General Manager for their Monthly Discussion of District Activities; attended the 2017 MWDOC Water Policy Forum; participated in the South Orange County Agencies Meeting; attended the WACO Meeting; MWDOC Planning and Operations Committee Meeting; MWDOC Workshop with MWD Directors; and the SOCWA Board Meeting.

General Manager Cook reported that IRWD's Consultant, Mr. Bruce Newell is now in Florida providing rescue efforts from Hurricane Irma.

ADJOURNMENT

There being no further business, President Reinhart adjourned the meeting at 5:45 p.m.





APPROVED and SIGNED this 25th day of September, 2017.

President, IRVINE RANCH WATER DISTRICT

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Alfred Smith, Legal Counsel – Nossaman LLP

September 25, 2017 
Prepared by: J. Davis/T. Fournier 
Submitted by: R. Jacobson/C. Clary 
Approved by: Paul Cook 

CONSENT CALENDAR

AUGUST 2017 TREASURY REPORTS

SUMMARY:

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

- A. The Investment Summary Report for August 2017. This Investment Summary Report is in conformity with the 2017 Investment Policy and provides sufficient liquidity to meet estimated expenditures during the next six months, as outlined in Exhibit "A".
- B. The Summary of Fixed and Variable Debt as of August 31, 2017, as outlined in Exhibit "B"
- C. The Monthly Interest Rate Swap Summary as of August 31, 2017, as outlined in Exhibit "C".
- D. The August 31, 2017 Disbursement Summary of warrants 379171 through 380087, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$20,753,760 as outlined in Exhibit "D".
- E. The Summary of Payroll ACH payments in the total amount of \$1,741,273, as outlined in Exhibit "E".
- F. The Disclosure Report of Reimbursements to Board Members and Staff for August 2017, detailing payments or reimbursements for individual charges of \$100.00 or more per transaction, as outlined in Exhibit "F".

FISCAL IMPACTS:

As of August 31, 2017, the book value of the investment portfolio was \$321,342,095, with a 1.07% rate of return and a market value of \$320,257,030. Based on the District's June 30, 2017 quarterly real estate investment rate of return of 14.59%, the weighted average return for the fixed income and real estate investments was 3.54%.

As of August 31, 2017, the outstanding principal amount of fixed and variable rate debt was \$692,435,000. The monthly weighted average all-in variable rate was 1.01%. Including the District's weighted average fixed rate bond issues of 3.70% and the previous month's negative cash accruals from fixed payer interest rate swaps, which hedge a portion of the District's variable rate debt, the total average debt rate was 3.49%.

As of August 31, 2017, the total notional amount of the interest rate swap portfolio was \$130 million of fixed payer swaps. Cash accrual in August from all swaps was negative \$507,000.

Payroll ACH payments totaled \$1,741,273, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for August totaled \$20,753,760.

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 SUMMARY OF FIXED AND VARIABLE RATE DEBT, THE MONTHLY INTEREST RATE SWAP SUMMARY FOR AUGUST 2017, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF; APPROVE THE AUGUST 2017 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$1,741,273 AND APPROVE THE AUGUST 2017 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 379171 THROUGH 380087, WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$20,753,760.

LIST OF EXHIBITS:

Exhibit "A" – Investment Summary Report

Exhibit "B" – Summary of Fixed and Variable Debt

Exhibit "C" – Monthly Interest Rate Swap Summary

Exhibit "D" – Monthly Summary of District Disbursements

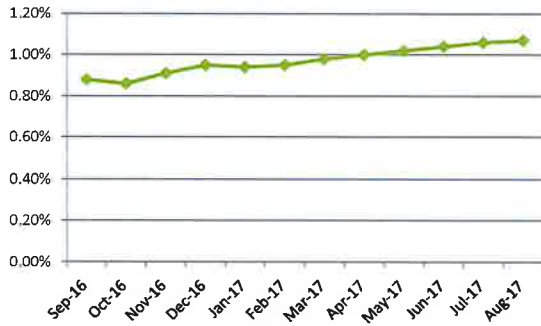
Exhibit "E" – Monthly Payroll ACH Summary

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

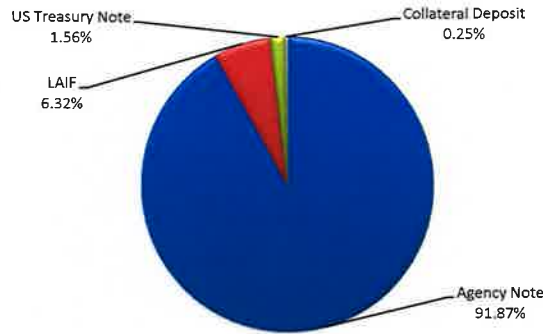
Exhibit "A"

Irvine Ranch Water District Investment Portfolio Summary August 2017

Monthly Fixed Income Yield



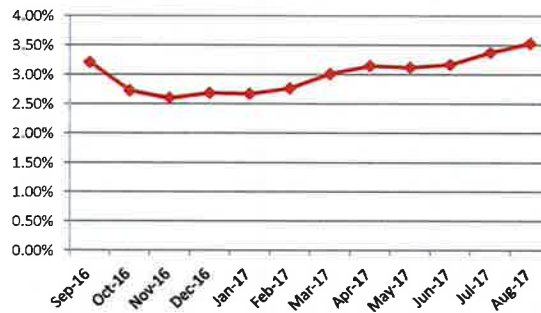
Portfolio Distribution



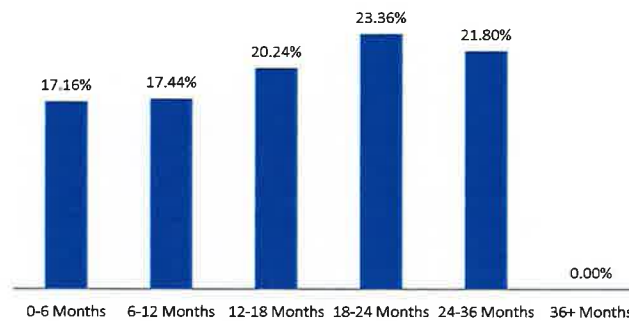
Investment Summary

Type	PAR	Book Value	Market Value
Agency Note	295,000,000	295,215,886	294,150,180
LAIF	20,300,000	20,300,000	20,283,272
US Treasury Note	5,000,000	5,009,231	5,006,600
Collateral Deposit	816,978	816,978	816,978
Grand Total	321,116,978	321,342,095	320,257,030

Weighted Average Return
Including Real Estate Portfolio



Maturity Distribution



Top Issuers

Issuer	PAR	% Portfolio
Fed Home Loan Bank	106,000,000	33.01%
Fed Home Loan Mortgage Corp	84,000,000	26.16%
Fed Farm Credit Bank	55,000,000	17.13%
Fed Natl Mortgage Assoc	50,000,000	15.57%
State of California Treasury - LAIF	20,300,000	6.32%
US Treasury Note	5,000,000	1.56%
Citi-Group Collateral	816,978	0.25%
Merrill Lynch Collateral	0	0.00%
Grand Total	321,116,978	100.00%

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

08/31/17

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE ⁽¹⁾ 8/31/2017	UNREALIZED ⁽²⁾ GAIN/(LOSS)
08/23/17			09/01/17		LAIF	State of California Tsy.	\$20,300,000		1.080%	\$20,300,000.00	\$20,300,000.00	20,283,271.81	(16,728.19)
09/16/15	N/A	N/A	09/15/17	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.900%	0.915%	4,998,500.00	4,999,971.23	5,000,050.00	78.77
01/30/17	N/A	N/A	10/31/17	NR	US Treasury - Note	US Treasury	5,000,000	1.875%	0.743%	5,042,154.40	5,009,230.89	5,006,600.00	(2,630.89)
12/08/16	N/A	N/A	11/21/17	AAA/NR/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	0.750%	0.866%	9,989,000.00	9,997,439.66	9,992,800.00	(4,639.66)
12/18/15	Continuous after	12/13/13	12/12/17	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.820%	1.132%	4,969,500.00	4,995,708.97	4,998,000.00	2,291.03
04/22/16	N/A	N/A	01/29/18	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	4,000,000	0.850%	0.856%	3,999,600.00	3,999,907.26	3,996,600.00	(3,307.26)
03/01/16	Quarterly	05/26/16	02/26/18	NR/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.050%	1.050%	5,000,000.00	5,000,000.00	4,996,650.00	(3,350.00)
03/23/16	N/A	N/A	03/23/18	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.100%	0.908%	5,019,000.00	5,005,283.56	4,994,200.00	(11,083.56)
04/07/16	N/A	N/A	04/09/18	NA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.750%	0.790%	4,996,000.00	4,998,797.81	4,987,600.00	(11,197.81)
05/16/16	N/A	N/A	05/16/18	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.750%	0.801%	4,995,000.00	4,998,239.73	4,988,350.00	(9,889.73)
05/13/16	N/A	N/A	05/21/18	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.875%	0.768%	5,010,700.00	5,003,798.64	4,987,700.00	(16,098.64)
05/24/16	N/A	N/A	06/08/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	11,000,000	1.250%	0.995%	11,056,540.00	11,021,249.93	11,001,430.00	(19,819.93)
06/29/16	N/A	N/A	06/29/18	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	10,000,000	1.000%	0.679%	10,016,000.00	10,006,597.26	9,978,100.00	(28,497.26)
09/01/16	N/A	N/A	07/27/18	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.750%	0.928%	4,983,250.00	4,992,059.44	4,976,800.00	(15,259.44)
12/21/16	N/A	N/A	08/15/18	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.000%	1.245%	4,980,000.00	4,988,438.54	4,988,000.00	(438.54)
09/01/16	One Time	02/28/17	08/28/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.000%	1.000%	5,000,000.00	5,000,000.00	4,986,150.00	(13,850.00)
09/01/16	NA	NA	09/14/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.125%	0.916%	5,021,000.00	5,010,683.71	4,991,800.00	(18,883.71)
12/28/16	NA	NA	09/14/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.125%	1.225%	4,991,500.00	4,994,859.20	4,991,800.00	(3,059.20)
10/12/16	N/A	N/A	09/27/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	0.900%	0.952%	9,990,000.00	9,994,251.75	9,968,000.00	(26,251.75)
10/12/16	N/A	N/A	09/28/18	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.880%	0.942%	4,994,000.00	4,996,547.49	4,982,300.00	(14,247.49)
09/01/16	NA	NA	10/01/18	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.030%	0.925%	5,010,750.00	5,005,587.17	4,989,250.00	(16,337.17)
10/12/16	N/A	N/A	10/12/18	Aaa/NR/NR	FFCB - Note	Fed Farm Credit Bank	10,000,000	1.000%	1.041%	9,992,000.00	9,995,331.51	9,953,800.00	(41,531.51)
10/12/16	N/A	N/A	11/27/18	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	10,000,000	1.625%	0.956%	10,140,360.00	10,085,373.61	10,041,400.00	(43,973.61)
12/21/16	N/A	N/A	12/05/18	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.100%	1.319%	4,978,900.00	5,051,342.57	4,986,600.00	(64,742.57)
09/01/16	NA	NA	12/14/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.750%	0.941%	5,091,300.00	5,027,169.43	5,026,350.00	(819.43)
12/27/16	NA	NA	12/14/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.750%	1.320%	5,041,536.20	4,986,406.16	5,026,350.00	39,943.84
09/01/16	One Time	07/30/18	01/30/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.950%	1.009%	4,993,000.00	4,995,900.11	4,970,200.00	(25,700.11)
10/26/16	One Time	07/30/18	01/30/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.950%	1.035%	4,990,500.00	4,993,996.37	4,970,200.00	(23,796.37)
10/26/16	One Time	07/30/18	01/30/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.950%	1.040%	4,990,000.00	4,993,680.39	4,970,200.00	(23,480.39)
10/12/16	Continuous after	02/12/18	02/12/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	1.050%	1.093%	9,990,000.00	9,993,563.89	9,950,200.00	(43,363.89)
09/01/16	NA	NA	03/08/19	Aaa/AA+/AAA	FHLB - Note	Fed Home Loan Bank	5,000,000	1.500%	0.964%	5,066,500.00	5,040,059.37	5,010,800.00	(29,259.37)
10/12/16	N/A	N/A	03/29/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.050%	1.050%	4,999,950.00	4,999,966.93	4,970,850.00	(29,116.93)
10/12/16	N/A	N/A	04/15/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	10,000,000	1.125%	0.992%	10,032,800.00	10,021,902.51	9,967,300.00	(54,602.51)
10/31/16	N/A	N/A	04/26/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.050%	1.060%	4,998,750.00	4,999,168.96	4,971,900.00	(27,268.96)
09/01/16	One Time	08/28/17	05/28/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.030%	1.048%	4,997,550.00	4,998,445.15	4,962,250.00	(36,195.15)

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

08/31/17

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE ⁽¹⁾ 8/31/2017	UNREALIZED ⁽²⁾ GAIN/(LOSS)
09/01/16	NA	NA	06/14/19	Aaa/AA+NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.625%	0.987%	5,087,400.00	5,056,001.38	5,019,950.00	(36,051.38)
10/12/16	NA	NA	06/14/19	Aaa/AA+NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.625%	1.103%	5,068,515.88	5,047,152.98	5,019,950.00	(27,202.98)
10/12/16	NA	NA	07/19/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.875%	1.098%	4,969,652.90	4,978,787.08	4,953,250.00	(25,537.08)
09/01/16	NA	NA	07/26/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.150%	1.180%	4,995,700.00	4,997,183.46	4,972,850.00	(24,333.46)
09/01/16	One Time	08/28/17	08/28/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.150%	1.160%	4,998,500.00	4,999,001.83	4,937,450.00	(61,551.83)
09/01/16	NA	NA	08/28/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.125%	1.132%	4,999,000.00	4,999,334.56	4,968,750.00	(30,584.56)
09/28/16	Quarterly	03/09/17	09/09/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.125%	1.142%	4,997,500.00	4,998,283.13	4,962,750.00	(35,533.13)
09/28/16	Continuous after	12/27/16	09/27/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.250%	1.189%	5,001,500.00	5,001,036.56	4,959,450.00	(41,586.56)
10/12/16	Continuous after	10/03/17	10/03/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	1.125%	1.160%	9,989,780.00	9,992,640.85	9,915,500.00	(77,140.85)
10/12/16	Continuous after	10/11/17	10/11/19	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	10,000,000	1.120%	1.205%	9,975,000.00	9,981,946.98	9,916,100.00	(65,846.98)
11/08/16	Quarterly	05/08/17	11/08/19	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.250%	1.245%	5,000,750.00	5,000,546.58	4,966,550.00	(33,996.58)
11/28/16	NA	NA	11/15/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.375%	1.440%	4,990,550.00	4,992,969.27	4,994,750.00	1,780.73
11/28/16	Quarterly	05/25/17	11/25/19	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.400%	1.503%	4,985,000.00	4,988,804.95	4,985,800.00	(3,004.95)
12/12/16	NA	NA	12/12/19	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.450%	1.440%	5,001,450.00	5,001,101.42	4,998,200.00	(2,901.42)
12/21/16	NA	NA	12/19/19	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.500%	1.621%	4,982,350.00	4,986,451.65	5,001,900.00	15,448.35
05/12/17	One Time	10/27/17	04/27/20	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.750%	1.729%	5,003,000.00	5,002,914.76	5,003,000.00	85.24
SUB-TOTAL							\$320,300,000			\$320,711,289.38	\$320,525,116.61	\$319,440,051.81	(\$1,085,064.81)
RESTRICTED CASH (Swap Collateral Deposits)⁽⁴⁾													
04/01/17					Collateral Deposit	Citi-Group	\$816,978		1.160%	\$816,977.89	\$816,977.89	816,977.89	
					Collateral Deposit	Merrill Lynch	-			-	-	-	
SUB-TOTAL							\$816,978			\$816,977.89	\$816,977.89	\$816,977.89	
TOTAL INVESTMENTS							\$321,116,978			\$321,528,267.27	\$321,342,094.50	\$320,257,029.70	
					Petty Cash					3,400.00			
					Ck Balance	Bank of America				941,091.65			
										\$322,472,758.92			

⁽¹⁾ LAIF market value is as of the most recent quarter-end as reported by LAIF. Security market values are determined using Bank of New York ("Trading Prices"), Bloomberg and/or broker dealer pricing. ⁽²⁾ Gain (loss) calculated against carry value using the trading value provided by Bank of New York/or Brokers ⁽³⁾ Real estate rate of return is based on most recent quarter end return ⁽⁴⁾ Swap Collateral Deposits assumes 6 month maturity, dependent on interest rate changes	Outstanding Variable Rate Debt \$291,900,000 Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps) \$161,900,000 Investment Balance: \$322,472,759 Investment to Variable Rate Debt Ratio: 199% Portfolio - Average Number of Days To Maturity ⁽⁴⁾ 456															
	<table border="1"> <thead> <tr> <th></th> <th>Investment Portfolio</th> <th>Real Estate⁽³⁾ Portfolio</th> <th>Weighted Avg. Return</th> </tr> </thead> <tbody> <tr> <td>August</td> <td>1.07%</td> <td>14.59%</td> <td>3.54%</td> </tr> <tr> <td>July</td> <td>1.06%</td> <td>14.59%</td> <td>3.38%</td> </tr> <tr> <td>Change</td> <td>0.01%</td> <td></td> <td>0.16%</td> </tr> </tbody> </table>		Investment Portfolio	Real Estate ⁽³⁾ Portfolio	Weighted Avg. Return	August	1.07%	14.59%	3.54%	July	1.06%	14.59%	3.38%	Change	0.01%	
	Investment Portfolio	Real Estate ⁽³⁾ Portfolio	Weighted Avg. Return													
August	1.07%	14.59%	3.54%													
July	1.06%	14.59%	3.38%													
Change	0.01%		0.16%													
This Investment Summary Report is in conformity with the 2017 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures. *S - Step up																

IRVINE RANCH WATER DISTRICT
SUMMARY OF MATURITIES

08/31/17

DATE	TOTAL	%	LAIF	Agency Notes	Agency Discount Notes	Collateral Deposit	US Treasury
09/17	\$25,300,000	7.88%	\$20,300,000	5,000,000			
10/17	5,000,000	1.56%					5,000,000
11/17	10,000,000	3.11%		10,000,000			
12/17	5,000,000	1.56%		5,000,000			
01/18	4,816,978	1.50%		4,000,000		816,978	
02/18	5,000,000	1.56%		5,000,000			
03/18	5,000,000	1.56%		5,000,000			
04/18	5,000,000	1.56%		5,000,000			
05/18	10,000,000	3.11%		10,000,000			
06/18	21,000,000	6.54%		21,000,000			
07/18	5,000,000	1.56%		5,000,000			
08/18	10,000,000	3.11%		10,000,000			
SUB-TOTAL	\$111,116,978	34.60%	\$20,300,000	\$85,000,000		\$816,978	\$5,000,000
13 Months - 3 YEARS							
9/01/18 - 10/31/2018	40,000,000	12.46%		40,000,000			
11/01/18 - 1/31/2019	25,000,000	7.79%		25,000,000			
2/01/19 - 4/30/2019	50,000,000	15.57%		50,000,000			
4/01/2019 - 7/31/19	25,000,000	7.79%		25,000,000			
8/01/19 - 10/31/2019	40,000,000	12.46%		40,000,000			
11/01/2019 - 1/31/2020	25,000,000	7.79%		25,000,000			
02/01/2020 - 04/30/2020	5,000,000	1.56%		5,000,000			
	-						
	-						
TOTALS	\$321,116,978	100.00%	\$20,300,000	\$295,000,000		\$816,978	\$5,000,000

% OF PORTFOLIO

6.32%

91.87%

0.25%

1.56%

Irvine Ranch Water District
 Summary of Real Estate - Income Properties
 6/30/2017

	<u>ACQUISITION DATE</u>	<u>PROPERTY TYPE</u>	<u>OWNERSHIP INTEREST</u>	<u>ORIGINAL COST</u>	<u>ESTIMATED MARKET VALUE 6/30/2017</u>	<u>RATE OF RETURN QUARTER ENDED 6/30/2017</u>
Sycamore Canyon	Dec-92	Apartments	Fee Simple	\$ 43,550,810	\$ 147,507,750	19.05%
Wood Canyon Villas	Jun-91	Apartments	Limited Partner	\$ 6,000,000	\$ 28,934,076	8.57%
ITC (230 Commerce)	Jul-03	Office Building	Fee Simple	\$ 5,739,845	\$ 9,571,680	9.09%
Waterworks Business Pk.	Nov-08	Research & Dev.	Fee Simple	\$ 8,630,577	\$ 7,803,000	5.94%
Sand Canyon Professional Center	Jul-12	Medical Office	Fee Simple	\$ 8,648,594	\$ 10,820,160	8.59%
				<u>\$ 72,569,826</u>	<u>\$ 204,636,666</u>	14.59%

IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT
INVESTMENT ACTIVITY
Aug-17

MATURITIES/SALES/CALLS

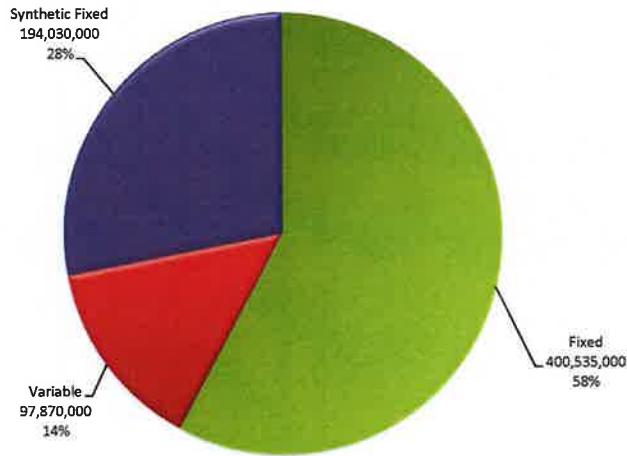
PURCHASES

DATE	SECURITY TYPE	PAR	YIELD	Settlement Date	Maturity Date	SECURITY TYPE	PAR	YIELD TO MATURITY
8/28/2017	FHLB - Note	\$5,000,000	0.80%					

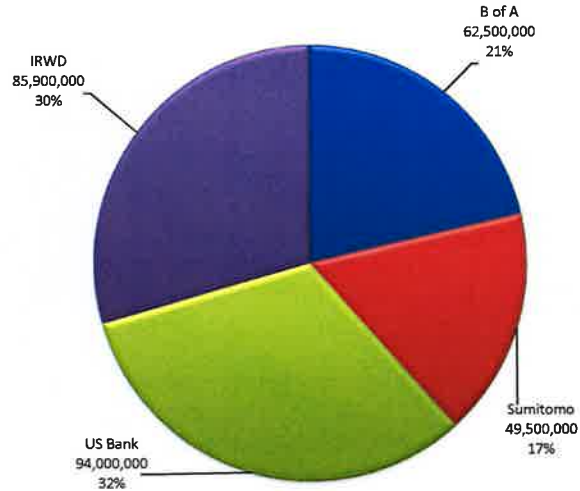
Exhibit "B"

Irvine Ranch Water District Summary of Fixed and Variable Rate Debt August 2017

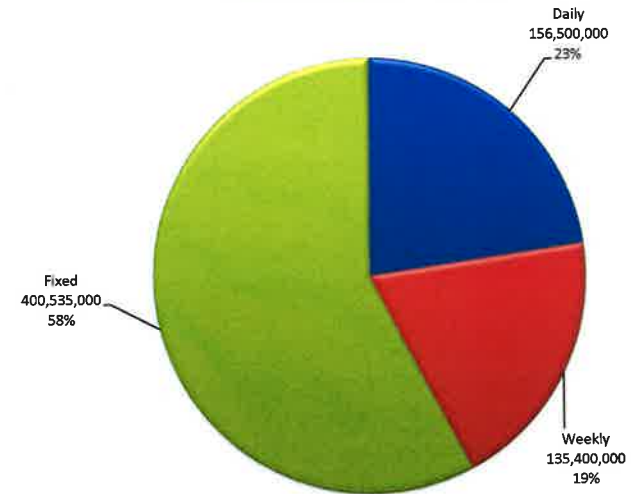
Current Debt Mix By Type



Letters of Credit / Support



Current Debt Rate Reset



Outstanding Par by Series

Series	Issue Date	Maturity Date	Remaining		Letter of Credit	Rmkt Agent	Mode	Reset
			Principal	Percent				
Series 1993	05/19/93	04/01/33	\$31,500,000	4.55%	US Bank	BAML	Variable	Daily
Series 2008-A Refunding	04/24/08	07/01/35	\$49,500,000	7.15%	Sumitomo	BAML	Variable	Weekly
Series 2011-A-1 Refunding	04/15/11	10/01/37	\$51,540,000	7.44%	IRWD	Goldman	Variable	Weekly
Series 2011-A-2 Refunding	04/15/11	10/01/37	\$34,360,000	4.96%	IRWD	Morgan	Variable	Weekly
Series 2009 - A	06/04/09	10/01/41	\$62,500,000	9.03%	US Bank	US Bank	Variable	Daily
Series 2009 - B	06/04/09	10/01/41	\$62,500,000	9.03%	B of A	Goldman	Variable	Daily
2010 Refunding Cops	02/23/10	03/01/20	\$5,390,000	0.78%	N/A	N/A	Fixed	Fixed
2016 COPS	09/01/16	03/01/46	\$116,745,000	16.86%	N/A	N/A	Fixed	Fixed
2010 Build America Taxable Bond	12/16/10	05/01/40	\$175,000,000	25.27%	N/A	N/A	Fixed	Fixed
Series 2016	10/12/16	02/01/46	\$103,400,000	14.93%	N/A	N/A	Fixed	Fixed
Total			\$692,435,000	100.00%				

IRVINE RANCH WATER DISTRICT
SUMMARY OF DEBT RATES
Aug-17

Rmkt Agent	GOLDMAN DAILY	GOLDMAN WEEKLY	MORGAN STANLEY WEEKLY	MERRILL LYNCH DAILY	MERRILL LYNCH WEEKLY	US BANK DAILY
Bond Issue	2009 - B	2011 A-1	2011 A-2	1993	2008-A	2009-A
Par Amount	62,500,000	51,540,000	34,360,000	31,500,000	49,500,000	62,500,000
Bank	BOFA	(SIFMA+7)	(SIFMA+7)	US BANK	Sumitomo	US BANK
Reset		Wednesday	Wednesday		Wednesday	
8/1/2017	0.50%	0.89%	0.89%	0.47%	0.77%	0.57%
8/2/2017	0.46%	0.89%	0.89%	0.43%	0.77%	0.48%
8/3/2017	0.42%	0.86%	0.86%	0.41%	0.74%	0.47%
8/4/2017	0.42%	0.86%	0.86%	0.44%	0.74%	0.46%
8/5/2017	0.42%	0.86%	0.86%	0.44%	0.74%	0.46%
8/6/2017	0.42%	0.86%	0.86%	0.44%	0.74%	0.46%
8/7/2017	0.45%	0.86%	0.86%	0.44%	0.74%	0.46%
8/8/2017	0.45%	0.86%	0.86%	0.43%	0.74%	0.46%
8/9/2017	0.43%	0.86%	0.86%	0.43%	0.74%	0.45%
8/10/2017	0.43%	0.85%	0.85%	0.43%	0.73%	0.45%
8/11/2017	0.44%	0.85%	0.85%	0.46%	0.73%	0.44%
8/12/2017	0.44%	0.85%	0.85%	0.46%	0.73%	0.44%
8/13/2017	0.44%	0.85%	0.85%	0.46%	0.73%	0.44%
8/14/2017	0.45%	0.85%	0.85%	0.46%	0.73%	0.44%
8/15/2017	0.45%	0.85%	0.85%	0.44%	0.73%	0.46%
8/16/2017	0.45%	0.85%	0.85%	0.44%	0.73%	0.47%
8/17/2017	0.47%	0.84%	0.84%	0.50%	0.70%	0.48%
8/18/2017	0.50%	0.84%	0.84%	0.52%	0.70%	0.52%
8/19/2017	0.50%	0.84%	0.84%	0.52%	0.70%	0.52%
8/20/2017	0.50%	0.84%	0.84%	0.52%	0.70%	0.52%
8/21/2017	0.53%	0.84%	0.84%	0.54%	0.70%	0.54%
8/22/2017	0.53%	0.84%	0.84%	0.55%	0.70%	0.54%
8/23/2017	0.57%	0.84%	0.84%	0.55%	0.70%	0.55%
8/24/2017	0.57%	0.85%	0.85%	0.58%	0.78%	0.60%
8/25/2017	0.62%	0.85%	0.85%	0.61%	0.78%	0.62%
8/26/2017	0.62%	0.85%	0.85%	0.61%	0.78%	0.62%
8/27/2017	0.62%	0.85%	0.85%	0.61%	0.78%	0.62%
8/28/2017	0.70%	0.85%	0.85%	0.63%	0.78%	0.64%
8/29/2017	0.68%	0.85%	0.85%	0.63%	0.78%	0.69%
8/30/2017	0.70%	0.85%	0.85%	0.66%	0.78%	0.69%
8/31/2017	0.72%	0.86%	0.86%	0.66%	0.75%	0.69%
Avg Interest Rates	0.51%	0.85%	0.85%	0.51%	0.74%	0.52%
Rmkt Fee	0.10%	0.13%	0.13%	0.10%	0.07%	0.07%
LOC Fee	0.40%			0.33%	0.32%	0.41%
All-In Rate	1.01%	0.98%	0.98%	0.94%	1.13%	1.01%
Par Amount		114,040,000	34,360,000	81,000,000		62,500,000

Interest Rate Mode	Percent of Total Variable Rate Debt	Par Outstanding	Weighted All-In Average Rate	Base Rate Average
Daily	53.61%	156,500,000	1.00%	0.52%
Weekly	46.39%	135,400,000	1.03%	0.81%
Fixed	100.00%	\$ 291,900,000	1.01%	0.65%
COPS 2010	1.35%	5,390,000	3.82%	
COPS 2016	29.15%	116,745,000	2.90%	
BABS 2010	43.69%	175,000,000	4.46%	(1)
SERIES 2016	25.82%	103,400,000	3.32%	
	100.00%	\$ 400,535,000	3.70%	
All-In Debt Rate Including \$130 Million Notional Amount of Swaps				3.49%

(1) Rate adjusted up from 4.35% as a result of sequestration reducing BAB's subsidy by 6.8%

**IRVINE RANCH WATER DISTRICT
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL
August 31, 2017**

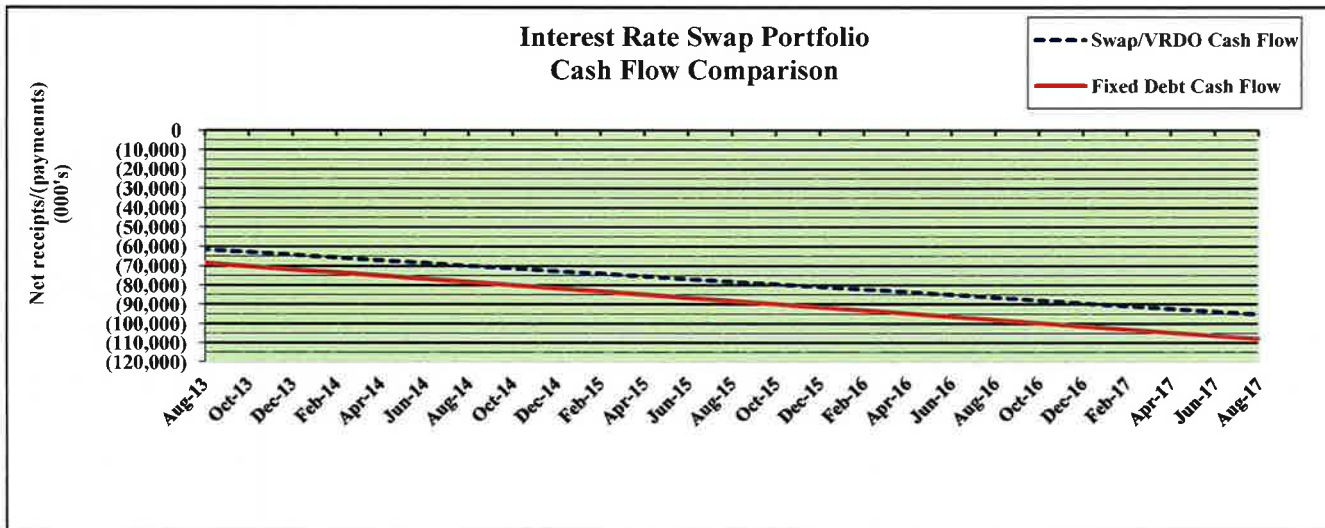
Exhibit "C"

LIBOR Avg %	Prior Mo. 1.23%	Current Mo. 1.23%	12-Mo Avg 0.84%
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Current Fiscal Year Active Swaps								Cash Flow				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
Fixed Payer Swaps - By Effective Date													
6/4/2006	6/4/2019	1.8	ML	\$ 20,000,000	FXP	LIBOR	6.200%	(86,029)	(82,155)	\$ (168,184)	\$ (11,091,476)	\$ 18,343,296	\$ (1,656,704)
6/4/2006	6/4/2019	1.8	CG	20,000,000	FXP	LIBOR	6.200%	(86,029)	(82,155)	(168,184)	(11,091,476)	18,343,627	(1,656,373)
6/17/2006	6/17/2019	1.8	CG	30,000,000	FXP	LIBOR	6.140%	(127,185)	(121,807)	(248,992)	(16,451,649)	27,498,356	(2,501,644)
3/10/2007	3/10/2029	11.5	ML	30,000,000	FXP	LIBOR	5.687%	(116,187)	(110,442)	(226,629)	(14,832,436)	18,745,107	(11,254,893)
3/10/2007	3/10/2029	11.5	CG	30,000,000	FXP	LIBOR	5.687%	(116,187)	(110,442)	(226,629)	(14,832,436)	18,741,362	(11,258,638)
Totals/Weighted Avgs		6.3		\$ 130,000,000			5.949%	\$ (531,616)	\$ (507,000)	\$ (1,038,616)	\$ (68,299,472)	\$ 101,671,748	\$ (28,328,252)
Total Current Year Active Swaps				\$ 130,000,000				\$ (531,616)	\$ (507,000)	\$ (1,038,616)	\$ (68,299,472)	\$ 101,671,748	\$ (28,328,252)

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
Total Current Year Terminated Swaps				\$ -				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Current Fiscal Year - Total Swaps								Cash Flow				Mark to Market	
Prior Month	Current Month	Fiscal YTD	Cumulative Cash Flow	Current Mark to Market	Notional Difference								
\$ (531,616)	\$ (507,000)	\$ (1,038,616)	\$ (68,299,472)	\$ 101,671,748	\$ (28,328,252)								



Cash Flow Comparison Synthetic Fixed vs. Fixed Rate Debt	
Cash Flow to Date	
Synthetic Fixed =	\$95,053,368
Fixed Rate =	\$116,027,048
Assumptions:	
- 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 "D"

IRWD Ledger Upgrade

Void Payment Register

Report Date: 01-SEP-2017 10:11

Include Zero Amount Payments: Yes
 Display Payee Address: No

Period From: 01-AUG-17

Page: 1
 To: 31-AUG-17
 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						
376473	13-APR-17	RICHMOND AMERICAN HOMES OF	PAY		46.70	16-AUG-17
376537	13-APR-17	Cortez, Malcolm A (Malcolm)	HOME		97.91	18-AUG-17
376826	26-APR-17	RICOH ELECTRONICS INC	PAY		78.69	16-AUG-17
378439	29-JUN-17	HOWELL, CHUCK	ORANGE		1,071.07	15-AUG-17
379696	17-AUG-17	WEISE, STEVE A & AMBER	ORANGE		474.84	17-AUG-17
379715	18-AUG-17	Riddle, Rosemary T (Rosemar	HOME		9,789.30	21-AUG-17

Payment Document Subtotal	11,558.51
Bank Account Subtotal	11,558.51
Report Total	11,558.51

Report Count: 6

*** End of Report ***

IRWD Ledger Upgrade Payment Register For 01-AUG-17 To 31-AUG-17 Report Date: 01-SEP-2017 10:09
 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								
379171		03-AUG-17	Akiyoshi, Eric S (Eric)		208.11	03-AUG-17	208.11	Reconciled
379172		03-AUG-17	Hankla, Jeremy		455.00	11-AUG-17	455.00	Reconciled
379173		03-AUG-17	Johnson, Susanne		109.83	14-AUG-17	109.83	Reconciled
379174		03-AUG-17	Karpan, Casey L (Casey)		60.00	10-AUG-17	60.00	Reconciled
379175		03-AUG-17	Mossbarger, Anthony J (Tony)		103.09	03-AUG-17	103.09	Reconciled
379176		03-AUG-17	Nash, Joel		68.48	08-AUG-17	68.48	Reconciled
379177		03-AUG-17	Oldewage, Lars D (Lars)		49.83	08-AUG-17	49.83	Reconciled
379178		03-AUG-17	Robinson, Mitchell S		138.96	03-AUG-17	138.96	Reconciled
379179		03-AUG-17	Shih, Han-Tsuei (Josephine)		391.57	11-AUG-17	391.57	Reconciled
379180		03-AUG-17	Shinbashi, Allen		276.86	08-AUG-17	276.86	Reconciled
379181		03-AUG-17	Spangenberg, Carl W (Carl)		312.00	04-AUG-17	312.00	Reconciled
379182		03-AUG-17	ABC ICEHOUSE, INC.		273.18	15-AUG-17	273.18	Reconciled
379183		03-AUG-17	ADS LLC		1,936.50	07-AUG-17	1,936.50	Reconciled
379184		03-AUG-17	AGILENT TECHNOLOGIES, INC.		37,106.64	10-AUG-17	37,106.64	Reconciled
379185		03-AUG-17	ALLIANT INSURANCE SERVICES, INC		4,724.00	09-AUG-17	4,724.00	Reconciled
379186		03-AUG-17	ALSTON & BIRD LLP		26,802.46	11-AUG-17	26,802.46	Reconciled
379187		03-AUG-17	APEX LIFE SCIENCES, LLC		4,359.25	08-AUG-17	4,359.25	Reconciled
379188		03-AUG-17	ARMORCAST PRODUCTS COMPANY		11,167.16	10-AUG-17	11,167.16	Reconciled
379189		03-AUG-17	AT&T		4,230.66	09-AUG-17	4,230.66	Reconciled
379190		03-AUG-17	AT&T		51.92	09-AUG-17	51.92	Reconciled
379191		03-AUG-17	AUTOZONE PARTS, INC.		279.64	07-AUG-17	279.64	Reconciled
379192		03-AUG-17	AVISTA TECHNOLOGIES, INC		16,952.52	11-AUG-17	16,952.52	Reconciled
379193		03-AUG-17	BARKLAGE, MICHAEL		28.56	08-AUG-17	28.56	Reconciled
379194		03-AUG-17	BC WIRE ROPE & RIGGING		157.83	08-AUG-17	157.83	Reconciled
379195		03-AUG-17	BEHRENS AND ASSOCIATES, INC.		1,185.25	08-AUG-17	1,185.25	Reconciled
379196		03-AUG-17	BILL'S SWEEPING SERVICE INC		1,050.00	11-AUG-17	1,050.00	Reconciled
379197		03-AUG-17	BIOENERGY ASSOCIATION OF CALIFORNIA		1,100.00	10-AUG-17	1,100.00	Reconciled
379198		03-AUG-17	BIOMAGIC INC		19,874.55	10-AUG-17	19,874.55	Reconciled

IRWD Ledger Upgrade Payment Register For 01-AUG-17 To 31-AUG-17 Report Date: 01-SEP-2017 10:09
 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								
379199		03-AUG-17	BLACK & VEATCH CORPORATION		223,785.08	14-AUG-17	223,785.08	Reconciled
379200		03-AUG-17	BRENNTAG PACIFIC INC		18,454.13	10-AUG-17	18,454.13	Reconciled
379201		03-AUG-17	BTC ACQUISITIONS PARTNERS, LLC		435.35	11-AUG-17	435.35	Reconciled
379202		03-AUG-17	C WELLS PIPELINE MATERIALS INC		13,313.59	14-AUG-17	13,313.59	Reconciled
379203		03-AUG-17	CALIFORNIA BARRICADE RENTAL, INC.		6,222.50	14-AUG-17	6,222.50	Reconciled
379204		03-AUG-17	CALIFORNIA PACIFIC HOMES		193.67			Negotiable
379205		03-AUG-17	CANON SOLUTIONS AMERICA, INC.		677.25	07-AUG-17	677.25	Reconciled
379206		03-AUG-17	CAPTIVE AUDIENCE MARKETING INC.		79.00	08-AUG-17	79.00	Reconciled
379207		03-AUG-17	CDW GOVERNMENT LLC		522.72	09-AUG-17	522.72	Reconciled
379208		03-AUG-17	CHEMGLASS LIFE SCIENCES, LLC		424.66	08-AUG-17	424.66	Reconciled
379209		03-AUG-17	CITY OF IRVINE		7,027.00	07-AUG-17	7,027.00	Reconciled
379210		03-AUG-17	CITY OF TUSTIN		106,122.03	09-AUG-17	106,122.03	Reconciled
379211		03-AUG-17	COASTLINE EQUIPMENT COMPANY		738.18	07-AUG-17	738.18	Reconciled
379212		03-AUG-17	COOPER, GEORGETA		132.45	16-AUG-17	132.45	Reconciled
379213		03-AUG-17	CORIX WATER PRODUCTS (US) INC.		11,049.78	11-AUG-17	11,049.78	Reconciled

379214	03-AUG-17	COUNTY OF ORANGE		53,194.35	09-AUG-17	53,194.35	Reconciled
379215	03-AUG-17	COX COMMUNICATIONS, INC.		256.20	07-AUG-17	256.20	Reconciled
379216	03-AUG-17	CRALL, CHARLES		45.04	08-AUG-17	45.04	Reconciled
379217	03-AUG-17	CUESTA CONSTRUCTION COMPANY		1,489.34			Negotiable
379218	03-AUG-17	CULLIGAN OF SANTA ANA		2,005.70	07-AUG-17	2,005.70	Reconciled
379219	03-AUG-17	DENNIS E RISSE		602.65	15-AUG-17	602.65	Reconciled
379220	03-AUG-17	DISCOUNT COURIER SERVICE		155.80	08-AUG-17	155.80	Reconciled
379221	03-AUG-17	DRAEGER, INC.		2,051.94	08-AUG-17	2,051.94	Reconciled
379222	03-AUG-17	DTSC		1,717.50	17-AUG-17	1,717.50	Reconciled
379223	03-AUG-17	DUDLEY RIDGE WATER DISTRICT		13,828.47	18-AUG-17	13,828.47	Reconciled
379224	03-AUG-17	EHS INTERNATIONAL, INC		1,800.00	09-AUG-17	1,800.00	Reconciled

IRWD Ledger Upgrade Payment Register For 01-AUG-17 To 31-AUG-17 Report Date: 01-SEP-2017 10:09
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 3
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
379225		03-AUG-17	EI&C ENGINEERING INC		41,747.00	17-AUG-17	41,747.00	Reconciled
379226		03-AUG-17	ENVIRONMENTAL EXPRESS INC		2,076.48	08-AUG-17	2,076.48	Reconciled
379227		03-AUG-17	ENVIRONMENTAL RESOURCE ASSOCIATES		426.98	08-AUG-17	426.98	Reconciled
379228		03-AUG-17	ENVIRONMENTAL SCIENCE ASSOCIATES		16,426.53	14-AUG-17	16,426.53	Reconciled
379229		03-AUG-17	EQUIPMENT DIRECT INC		314.97	07-AUG-17	314.97	Reconciled
379230		03-AUG-17	EXECUTIVE LIGHTING & ELECTRIC		2,683.26	08-AUG-17	2,683.26	Reconciled
379231		03-AUG-17	FEDEX		890.19	07-AUG-17	890.19	Reconciled
379232		03-AUG-17	FIRST CHOICE SERVICES		1,105.41	08-AUG-17	1,105.41	Reconciled
379233		03-AUG-17	FISHER SCIENTIFIC COMPANY LLC		2,342.69	07-AUG-17	2,342.69	Reconciled
379234		03-AUG-17	FISHER, TOM		42.16			Negotiable
379235		03-AUG-17	FORESTRY SUPPLIERS INC		85.90	07-AUG-17	85.90	Reconciled
379236		03-AUG-17	FRONTIER CALIFORNIA INC.		270.10	10-AUG-17	270.10	Reconciled
379237		03-AUG-17	FUJII, YUTA		17.10	23-AUG-17	17.10	Reconciled
379238		03-AUG-17	FULLER TRUCK ACCESSORIES		632.46	07-AUG-17	632.46	Reconciled
379239		03-AUG-17	FUSCOE ENGINEERING, INC.		2,762.50	07-AUG-17	2,762.50	Reconciled
379240		03-AUG-17	GENERAL ELECTRIC INTERNATIONAL INC		14,270.00	16-AUG-17	14,270.00	Reconciled
379241		03-AUG-17	GOLDMAN, SACHS & CO. LLC		15,582.19	16-AUG-17	15,582.19	Reconciled
379242		03-AUG-17	GRAINGER		1,214.05	07-AUG-17	1,214.05	Reconciled
379243		03-AUG-17	GRAYBAR ELECTRIC COMPANY		2,377.63	07-AUG-17	2,377.63	Reconciled
379244		03-AUG-17	HAAKER EQUIPMENT COMPANY		1,288.13	07-AUG-17	1,288.13	Reconciled
379245		03-AUG-17	HABITAT RESTORATION SCIENCES, INC.		150.00	15-AUG-17	150.00	Reconciled
379246		03-AUG-17	HACH COMPANY		22,024.91	11-AUG-17	22,024.91	Reconciled
379247		03-AUG-17	HARDY & HARPER, INC.		40,000.00	10-AUG-17	40,000.00	Reconciled
379248		03-AUG-17	HARRINGTON INDUSTRIAL PLASTICS LLC		758.57	07-AUG-17	758.57	Reconciled

IRWD Ledger Upgrade Payment Register For 01-AUG-17 To 31-AUG-17 Report Date: 01-SEP-2017 10:09
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 4
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
379249		03-AUG-17	HARRY H. KOBZEFF		2,200.00	08-AUG-17	2,200.00	Reconciled
379250		03-AUG-17	HATHAWAY DINWIDDIE		741.96	08-AUG-17	741.96	Reconciled
379251		03-AUG-17	HDR ENGINEERING INC		31,694.48	11-AUG-17	31,694.48	Reconciled
379252		03-AUG-17	HELPMATES STAFFING SERVICES		11,417.44	10-AUG-17	11,417.44	Reconciled
379253		03-AUG-17	HERNANDEZ, MICHAEL J		295.73	11-AUG-17	295.73	Reconciled

379254	03-AUG-17	HILL BROTHERS CHEMICAL COMPANY	7,803.67	07-AUG-17	7,803.67	Reconciled
379255	03-AUG-17	HIRIAN RAJU, PRASAN	18.02	08-AUG-17	18.02	Reconciled
379256	03-AUG-17	HOME DEPOT USA INC	75.18	08-AUG-17	75.18	Reconciled
379257	03-AUG-17	HOPKINS TECHNICAL PRODUCTS INC	1,193.58	08-AUG-17	1,193.58	Reconciled
379258	03-AUG-17	HORIZON TECHNOLOGY INC	109.73	11-AUG-17	109.73	Reconciled
379259	03-AUG-17	IBM CORPORATION	42,265.73	11-AUG-17	42,265.73	Reconciled
379260	03-AUG-17	IRVINE PIPE & SUPPLY INC	2,856.70	07-AUG-17	2,856.70	Reconciled
379261	03-AUG-17	IRWD-PETTY CASH CUSTODIAN	1,450.69	04-AUG-17	1,450.69	Reconciled
379262	03-AUG-17	JCI JONES CHEMICALS INC	5,360.25	09-AUG-17	5,360.25	Reconciled
379263	03-AUG-17	JIG CONSULTANTS	1,560.00	08-AUG-17	1,560.00	Reconciled
379264	03-AUG-17	KAESER COMPRESSORS, INC.	354.00	07-AUG-17	354.00	Reconciled
379265	03-AUG-17	KIMBALL MIDWEST	1,043.11	07-AUG-17	1,043.11	Reconciled
379266	03-AUG-17	KIMBALL MIDWEST	1,676.13	09-AUG-17	1,676.13	Reconciled
379267	03-AUG-17	L & S CONSTRUCTION INC	41,050.00	11-AUG-17	41,050.00	Reconciled
379268	03-AUG-17	LAGUNA BEACH COUNTY WATER DISTRICT	12,061.45	17-AUG-17	12,061.45	Reconciled
379269	03-AUG-17	LEE, JONGSU	7.01	28-AUG-17	7.01	Reconciled
379270	03-AUG-17	LENNAR HOMES	77.16	09-AUG-17	77.16	Reconciled
379271	03-AUG-17	LEWIS BRISBOIS BISGAARD AND SMITH, LLP	700.00	14-AUG-17	700.00	Reconciled
379272	03-AUG-17	MC MASTER CARR SUPPLY CO	1,330.97	07-AUG-17	1,330.97	Reconciled
379273	03-AUG-17	MCR TECHNOLOGIES INC	448.37	09-AUG-17	448.37	Reconciled
379274	03-AUG-17	MITCHELL GENERAL CONTRACTORS	629.54	10-AUG-17	629.54	Reconciled

IRWD Ledger Upgrade Payment Register For 01-AUG-17 To 31-AUG-17 Report Date: 01-SEP-2017 10:09
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 5
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
379275		03-AUG-17	MOBILE MODULAR MANAGEMENT CORPORATION		1,018.24	07-AUG-17	1,018.24	Reconciled
379276		03-AUG-17	MR CRANE INC		1,365.00	07-AUG-17	1,365.00	Reconciled
379277		03-AUG-17	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		127,926.00	10-AUG-17	127,926.00	Reconciled
379278		03-AUG-17	NAKAE & ASSOCIATES		1,975.00	11-AUG-17	1,975.00	Reconciled
379279		03-AUG-17	NATIONAL METER & AUTOMATION, INC.		109,387.80	14-AUG-17	109,387.80	Reconciled
379280		03-AUG-17	NEWPORT WINDOW MAINTENANCE INC		912.00	08-AUG-17	912.00	Reconciled
379281		03-AUG-17	NINYO & MOORE		16,553.00	10-AUG-17	16,553.00	Reconciled
379282		03-AUG-17	O'HAREN GOVERNMENT RELATIONS		6,500.00	14-AUG-17	6,500.00	Reconciled
379283		03-AUG-17	OLIN CORPORATION		19,814.16	14-AUG-17	19,814.16	Reconciled
379284		03-AUG-17	ONESOURCE DISTRIBUTORS LLC		92.89	07-AUG-17	92.89	Reconciled
379285		03-AUG-17	ORANGE COUNTY AUTO PARTS CO		132.71	07-AUG-17	132.71	Reconciled
379286		03-AUG-17	PACIFIC COAST BOLT CORP		1,592.56	09-AUG-17	1,592.56	Reconciled
379287		03-AUG-17	PACIFIC EH&S SERVICES, INC.		8,027.73	14-AUG-17	8,027.73	Reconciled
379288		03-AUG-17	PACIFIC RIM HYDROSEEDING, INC.		1,629.63	08-AUG-17	1,629.63	Reconciled
379289		03-AUG-17	PRAXAIR		16.68	08-AUG-17	16.68	Reconciled
379290		03-AUG-17	DISTRIBUTION INC PRIME CONTROLS COMPANY INC		1,429.98	08-AUG-17	1,429.98	Reconciled
379291		03-AUG-17	PRO MOBILE AUTO DETAILING		750.00	08-AUG-17	750.00	Reconciled
379292		03-AUG-17	PSOMAS		3,536.25	09-AUG-17	3,536.25	Reconciled
379293		03-AUG-17	PTI SAND & GRAVEL INC		1,089.08	08-AUG-17	1,089.08	Reconciled
379294		03-AUG-17	PURE EFFECT INC		5,635.00	08-AUG-17	5,635.00	Reconciled
379295		03-AUG-17	QUINN COMPANY		116,915.75	10-AUG-17	116,915.75	Reconciled
379296		03-AUG-17	RAFI, SAEED		1,028.59	08-AUG-17	1,028.59	Reconciled
379297		03-AUG-17	RAIN FOR RENT		6,323.32	07-AUG-17	6,323.32	Reconciled
379298		03-AUG-17	RAM AIR ENGINEERING INC		15,575.68	10-AUG-17	15,575.68	Reconciled
379299		03-AUG-17	RAMIREZ, JULIA		2.18	16-AUG-17	2.18	Reconciled
379300		03-AUG-17	RED WING SHOE STORE		150.30	08-AUG-17	150.30	Reconciled

IRWD Ledger Upgrade Payment Register For 01-AUG-17 To 31-AUG-17 Report Date: 01-SEP-2017 10:09
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 6
 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								
379301		03-AUG-17	RESILIENT COMMUNICATIONS INC.		463,820.79			Negotiable
379302		03-AUG-17	RINCON TRUCK CENTER INC.		3,311.40	07-AUG-17	3,311.40	Reconciled
379303		03-AUG-17	ROYAL WHOLESALE ELECTRIC		3,533.27	07-AUG-17	3,533.27	Reconciled
379304		03-AUG-17	S & J SUPPLY CO INC		5,415.47	07-AUG-17	5,415.47	Reconciled
379305		03-AUG-17	SAFETY-KLEEN SYSTEMS, INC		232.00	08-AUG-17	232.00	Reconciled
379306		03-AUG-17	SANTA ANA BLUE PRINT		346.46	09-AUG-17	346.46	Reconciled
379307		03-AUG-17	SANTA MARGARITA FORD		3,866.30	08-AUG-17	3,866.30	Reconciled
379308		03-AUG-17	SCHINDLER ELEVATOR CORPORATION		202.95	08-AUG-17	202.95	Reconciled
379309		03-AUG-17	SCOTT HEALTH & SAFETY		2,128.07	09-AUG-17	2,128.07	Reconciled
379310		03-AUG-17	SHAMROCK SUPPLY CO INC		194.73	08-AUG-17	194.73	Reconciled
379311		03-AUG-17	SIGMA-ALDRICH INC		167.99	07-AUG-17	167.99	Reconciled
379312		03-AUG-17	SITMATIC		657.75	07-AUG-17	657.75	Reconciled
379313		03-AUG-17	SOUTH BAY FOUNDRY, INC		1,718.62	08-AUG-17	1,718.62	Reconciled
379314		03-AUG-17	SOUTHERN CALIFORNIA EDISON COMPANY		392,084.52	08-AUG-17	392,084.52	Reconciled
379315		03-AUG-17	SOUTHERN CALIFORNIA EDISON COMPANY		12,963.56	08-AUG-17	12,963.56	Reconciled
379316		03-AUG-17	SOUTHERN CALIFORNIA WATER COMMITTEE INC		25,000.00	14-AUG-17	25,000.00	Reconciled
379317		03-AUG-17	SPARKLETTS		459.24	10-AUG-17	459.24	Reconciled
379318		03-AUG-17	ST. MICHAELS ABBEY		2,144.04	08-AUG-17	2,144.04	Reconciled
379319		03-AUG-17	STETSON ENGINEERS INC.		10,339.78	10-AUG-17	10,339.78	Reconciled
379320		03-AUG-17	STEVEN ENTERPRISES INC		235.00	07-AUG-17	235.00	Reconciled
379321		03-AUG-17	SUNSTATE EQUIPMENT CO		3,098.21	07-AUG-17	3,098.21	Reconciled
379322		03-AUG-17	TAYLOR MORRISON		785.81	30-AUG-17	785.81	Reconciled
379323		03-AUG-17	TESTAMERICA LABORATORIES, INC		622.65	08-AUG-17	622.65	Reconciled
IRWD Ledger Upgrade Payment Register For 01-AUG-17 To 31-AUG-17 Report Date: 01-SEP-2017 10:09 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 7 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar) Payment Type: All Display Supplier Address: No								

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
379324		03-AUG-17	THERMO ELECTRON NORTH AMERICA LLC		3,329.00	08-AUG-17	3,329.00	Reconciled
379325		03-AUG-17	THYSSENKRUPP ELEVATOR CORPORATION		185.84	07-AUG-17	185.84	Reconciled
379326		03-AUG-17	TOLL BROS., INC.		418,687.76	23-AUG-17	418,687.76	Reconciled
379327		03-AUG-17	TROPICAL PLAZA NURSERY INC		8,526.00	07-AUG-17	8,526.00	Reconciled
379328		03-AUG-17	TRUCPARCO		2,758.78	10-AUG-17	2,758.78	Reconciled
379329		03-AUG-17	TUCKER, SHELLA		273.39	09-AUG-17	273.39	Reconciled
379330		03-AUG-17	TUSTIN CHAMBER OF COMMERCE		889.00	21-AUG-17	889.00	Reconciled
379331		03-AUG-17	ULINE INC		84.47	10-AUG-17	84.47	Reconciled
379332		03-AUG-17	ULTRA SCIENTIFTC		1,493.13	09-AUG-17	1,493.13	Reconciled
379333		03-AUG-17	UNITED PARCEL SERVICE INC		39.28	07-AUG-17	39.28	Reconciled
379334		03-AUG-17	UNITED SITE SERVICES OF CALIFORNIA INC		152.29	08-AUG-17	152.29	Reconciled
379335		03-AUG-17	USA BLUEBOOK		1,121.18	08-AUG-17	1,121.18	Reconciled
379336		03-AUG-17	VAUGHAN'S INDUSTRIAL REPAIR CO INC		5,227.77	08-AUG-17	5,227.77	Reconciled
379337		03-AUG-17	VERIZON WIRELESS SERVICES LLC		2,332.46	08-AUG-17	2,332.46	Reconciled
379338		03-AUG-17	VRIDE INC		11,070.00	11-AUG-17	11,070.00	Reconciled
379339		03-AUG-17	VULCAN MATERIALS COMPANY		1,387.39	07-AUG-17	1,387.39	Reconciled
379340		03-AUG-17	VWR INTERNATIONAL, LLC		1,923.52	08-AUG-17	1,923.52	Reconciled
379341		03-AUG-17	WARD, WILLIAM P		692.00	07-AUG-17	692.00	Reconciled

379342	03-AUG-17	JR. WASTE MANAGEMENT OF ORANGE COUNTY	2,276.47	07-AUG-17	2,276.47	Reconciled
379343	03-AUG-17	WATER RESEARCH FOUNDATION	25,000.00	14-AUG-17	25,000.00	Reconciled
379344	03-AUG-17	WATERLINE TECHNOLOGIES INC	5,680.00	07-AUG-17	5,680.00	Reconciled
379345	03-AUG-17	WAXIE'S ENTERPRISES, INC	359.99	09-AUG-17	359.99	Reconciled
379346	03-AUG-17	WECK LABORATORIES INC	2,720.00	14-AUG-17	2,720.00	Reconciled
379347	03-AUG-17	WENG, SHU-HANG	12.73			Negotiable
379348	03-AUG-17	YAO, JIAWEI	98.11			Negotiable
379349	03-AUG-17	YORKE ENGINEERING LLC	848.50	10-AUG-17	848.50	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 8
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
379350		03-AUG-17	ZEE MEDICAL SERVICE CO		366.17	07-AUG-17	366.17	Reconciled
379351		07-AUG-17	CLEARINGHOUSE	PHOENIX	477.67	10-AUG-17	477.67	Reconciled
379352		07-AUG-17	ORANGE COUNTY SHERIFF'S OFFICE	4601 JAMBOREE	62.50	14-AUG-17	62.50	Reconciled
379353		07-AUG-17	IRWD EMPLOYEE ASSOCIATION	15600 SC	1,325.00	11-AUG-17	1,325.00	Reconciled
379354		07-AUG-17	PERS LONG TERM CARE	PASADENA	878.66	11-AUG-17	878.66	Reconciled
379355		08-AUG-17	JCI JONES CHEMICALS INC	TAMPA	2,978.22	14-AUG-17	2,978.22	Reconciled
379356		10-AUG-17	Bonkowski, Thomas J (Thomas)		64.96	21-AUG-17	64.96	Reconciled
379357		10-AUG-17	Compton, Christine A		45.47			Negotiable
379358		10-AUG-17	De Leon, Sharon		118.25	14-AUG-17	118.25	Reconciled
379359		10-AUG-17	Lai, Andre		130.00			Negotiable
379360		10-AUG-17	Navarro, Hector R		127.07	15-AUG-17	127.07	Reconciled
379361		10-AUG-17	Pfister, Ken D (Ken)		205.00	18-AUG-17	205.00	Reconciled
379362		10-AUG-17	Schreiner, Terrance M Jr (Terrance)		280.00	16-AUG-17	280.00	Reconciled
379363		10-AUG-17	Solis, Henry (Henry)		180.00	16-AUG-17	180.00	Reconciled
379364		10-AUG-17	Tran, Jason M (Jason)		80.00	23-AUG-17	80.00	Reconciled
379365		10-AUG-17	A. J. KLEIN, INC. T. DENATALE, B. GOLDNER		213.00	14-AUG-17	213.00	Reconciled
379366		10-AUG-17	ACWA		4,700.00	17-AUG-17	4,700.00	Reconciled
379367		10-AUG-17	ADS LLC		2,160.00	15-AUG-17	2,160.00	Reconciled
379368		10-AUG-17	ALEXANDER'S CONTRACT SERVICES, INC.		114,939.49	16-AUG-17	114,939.49	Reconciled
379369		10-AUG-17	ALL AMERICAN SEWER TOOLS		357.55	16-AUG-17	357.55	Reconciled
379370		10-AUG-17	ALLIANT INSURANCE SERVICES, INC		2,250.00	14-AUG-17	2,250.00	Reconciled
379371		10-AUG-17	ALPHA TRAFFIC SERVICES, INC.		1,040.00	14-AUG-17	1,040.00	Reconciled
379372		10-AUG-17	APEX LIFE SCIENCES, LLC		4,273.07	15-AUG-17	4,273.07	Reconciled
379373		10-AUG-17	APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC		72.28	14-AUG-17	72.28	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 9
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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								
379374		10-AUG-17	AQUA BEN CORPORATION		35,764.38	17-AUG-17	35,764.38	Reconciled
379375		10-AUG-17	ARCHROCK SERVICES, L. P.		10,567.95	18-AUG-17	10,567.95	Reconciled
379376		10-AUG-17	ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA		33,709.93	18-AUG-17	33,709.93	Reconciled
379377		10-AUG-17	AT&T		591.78	16-AUG-17	591.78	Reconciled
379378		10-AUG-17	AUTOZONE PARTS, INC.		203.26	15-AUG-17	203.26	Reconciled
379379		10-AUG-17	BATTERIES PLUS AND BATTERIES PLUS		5,836.29	14-AUG-17	5,836.29	Reconciled

379380	10-AUG-17	BULBS BECKMAN COULTER INC	1,974.60	16-AUG-17	1,974.60	Reconciled
379381	10-AUG-17	BEHRENS AND ASSOCIATES, INC.	8,880.50	14-AUG-17	8,880.50	Reconciled
379382	10-AUG-17	BELTRAN, BEATRICE	768.29	21-AUG-17	768.29	Reconciled
379383	10-AUG-17	BEST DRILLING AND PUMP, INC.	42,697.75	16-AUG-17	42,697.75	Reconciled
379384	10-AUG-17	BIOMERIEUX INC	808.31	14-AUG-17	808.31	Reconciled
379385	10-AUG-17	BRENNTAG PACIFIC INC	3,680.00	14-AUG-17	3,680.00	Reconciled
379386	10-AUG-17	BRUCE NEWELL	2,500.00	15-AUG-17	2,500.00	Reconciled
379387	10-AUG-17	C WELLS PIPELINE MATERIALS INC	13,218.77	23-AUG-17	13,218.77	Reconciled
379388	10-AUG-17	CALIFORNIA BARRICADE RENTAL, INC.	6,650.00	14-AUG-17	6,650.00	Reconciled
379389	10-AUG-17	CANON FINANCIAL SERVICES, INC	1,312.40	15-AUG-17	1,312.40	Reconciled
379390	10-AUG-17	CANON SOLUTIONS AMERICA, INC.	241.81	15-AUG-17	241.81	Reconciled
379391	10-AUG-17	CDW GOVERNMENT LLC	993.32	16-AUG-17	993.32	Reconciled
379392	10-AUG-17	CHARLES P CROWLEY COMPANY INC	2,226.63	17-AUG-17	2,226.63	Reconciled
379393	10-AUG-17	CITY OF IRVINE	355.89	14-AUG-17	355.89	Reconciled
379394	10-AUG-17	CITY OF SANTA ANA	202.85	14-AUG-17	202.85	Reconciled
379395	10-AUG-17	CIVILSOURCE, INC.	21,520.00	21-AUG-17	21,520.00	Reconciled
379396	10-AUG-17	COMMERCIAL DOOR OF ORANGE COUNTY, INC.	6,728.00	16-AUG-17	6,728.00	Reconciled
379397	10-AUG-17	COTTONS POINT DESIGN, INC	1,392.17	18-AUG-17	1,392.17	Reconciled
379398	10-AUG-17	CR & R INCORPORATED	395.29	17-AUG-17	395.29	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 10
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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								
379399		10-AUG-17	CULLIGAN OF SANTA ANA		3,008.55	14-AUG-17	3,008.55	Reconciled
379400		10-AUG-17	D & G SIGNS		5,470.30	16-AUG-17	5,470.30	Reconciled
379401		10-AUG-17	DMS FACILITY SERVICES, INC.		18,251.93	16-AUG-17	18,251.93	Reconciled
379402		10-AUG-17	EAGLE PRINT DYNAMICS		3,424.51	14-AUG-17	3,424.51	Reconciled
379403		10-AUG-17	EHS INTERNATIONAL, INC		1,800.00	16-AUG-17	1,800.00	Reconciled
379404		10-AUG-17	ENTERPRISE INFORMATION SYSTEMS, INC.		2,500.00	18-AUG-17	2,500.00	Reconciled
379405		10-AUG-17	ENVIRONMENTAL RESOURCE ASSOCIATES		158.79	16-AUG-17	158.79	Reconciled
379406		10-AUG-17	EXECUTIVE LIGHTING & ELECTRIC		738.57	15-AUG-17	738.57	Reconciled
379407		10-AUG-17	FARRELL & ASSOCIATES		3,126.13	14-AUG-17	3,126.13	Reconciled
379408		10-AUG-17	FEDEX		226.79	17-AUG-17	226.79	Reconciled
379409		10-AUG-17	FIDELITY SECURITY LIFE INSURANCE COMPANY		6,647.54	21-AUG-17	6,647.54	Reconciled
379410		10-AUG-17	FISHER SCIENTIFIC COMPANY LLC		1,439.03	14-AUG-17	1,439.03	Reconciled
379411		10-AUG-17	GENERAL PUMP COMPANY INC		1,480.01	14-AUG-17	1,480.01	Reconciled
379412		10-AUG-17	GENTERRA CONSULTANTS INC		4,217.50	15-AUG-17	4,217.50	Reconciled
379413		10-AUG-17	GRAINGER		10,276.70	17-AUG-17	10,276.70	Reconciled
379414		10-AUG-17	HDPE SUPPLY		2,994.71	14-AUG-17	2,994.71	Reconciled
379415		10-AUG-17	HDR ENGINEERING INC		29,474.60	17-AUG-17	29,474.60	Reconciled
379416		10-AUG-17	HELPMATES STAFFING SERVICES		11,836.76	15-AUG-17	11,836.76	Reconciled
379417		10-AUG-17	HOME DEPOT USA INC		99.00	16-AUG-17	99.00	Reconciled
379418		10-AUG-17	HORIZON TECHNOLOGY INC		34,845.21	18-AUG-17	34,845.21	Reconciled
379419		10-AUG-17	IBM CORPORATION		4,075.00	15-AUG-17	4,075.00	Reconciled
379420		10-AUG-17	INNOVYZE, INC.		15,000.00	16-AUG-17	15,000.00	Reconciled
379421		10-AUG-17	IRVINE PIPE & SUPPLY INC		2,084.17	14-AUG-17	2,084.17	Reconciled
379422		10-AUG-17	IRWD-PETTY CASH CUSTODIAN		729.34	14-AUG-17	729.34	Reconciled
379423		10-AUG-17	JIG CONSULTANTS		3,745.00	15-AUG-17	3,745.00	Reconciled
379424		10-AUG-17	JOHN MICHAEL COVAS		191.70	21-AUG-17	191.70	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 11
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 Payment Type: All Display Supplier Address: No

379467	10-AUG-17	RESPONSE ENVELOPE, INC		2,078.24	22-AUG-17	2,078.24	Reconciled
379468	10-AUG-17	RINGCLEAR LLC		106.68	16-AUG-17	106.68	Reconciled
379469	10-AUG-17	SANTA ANA BLUE PRINT		1,037.77	17-AUG-17	1,037.77	Reconciled
379470	10-AUG-17	SHAMROCK SUPPLY CO INC		992.26	15-AUG-17	992.26	Reconciled
379471	10-AUG-17	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT		5,638.79	22-AUG-17	5,638.79	Reconciled
379472	10-AUG-17	SOUTH COAST WATER CO.		40.00	17-AUG-17	40.00	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
379473		10-AUG-17	SOUTHERN CALIFORNIA EDISON COMPANY		228,585.06	15-AUG-17	228,585.06	Reconciled
379474		10-AUG-17	SPX CORP		1,244.18	15-AUG-17	1,244.18	Reconciled
379475		10-AUG-17	STANTEC CONSULTING SERVICES INC.		7,750.00	15-AUG-17	7,750.00	Reconciled
379476		10-AUG-17	SUKLE ADVERTISING INC.		24,220.00	22-AUG-17	24,220.00	Reconciled
379477		10-AUG-17	SUNSHINE SUPPLY COMPANY, INC.		2,734.70	14-AUG-17	2,734.70	Reconciled
379478		10-AUG-17	SUSAN A. SIROTA		4,295.00	14-AUG-17	4,295.00	Reconciled
379479		10-AUG-17	TESTAMERICA LABORATORIES, INC		369.60	16-AUG-17	369.60	Reconciled
379480		10-AUG-17	TETRA TECH, INC		14,086.00	17-AUG-17	14,086.00	Reconciled
379481		10-AUG-17	THE GAS COMPANY		1,547.81	18-AUG-17	1,547.81	Reconciled
379482		10-AUG-17	TIMOTHY W. HOGAN		5,492.57	15-AUG-17	5,492.57	Reconciled
379483		10-AUG-17	TROPICAL PLAZA NURSERY INC		54,504.50	16-AUG-17	54,504.50	Reconciled
379484		10-AUG-17	TRUCPARCO		79.33	16-AUG-17	79.33	Reconciled
379485		10-AUG-17	TUSTIN TOYOTA		195.50	14-AUG-17	195.50	Reconciled
379486		10-AUG-17	ULTRA SCIENTIFIC		1,169.16	16-AUG-17	1,169.16	Reconciled
379487		10-AUG-17	UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA		38.91	16-AUG-17	38.91	Reconciled
379488		10-AUG-17	UNITED PARCEL SERVICE INC		21.82	16-AUG-17	21.82	Reconciled
379489		10-AUG-17	USA BLUEBOOK		22,202.50	22-AUG-17	22,202.50	Reconciled
379490		10-AUG-17	UTILITY SPECIALISTS, INC		660.31	15-AUG-17	660.31	Reconciled
379491		10-AUG-17	VERIZON WIRELESS SERVICES LLC		338,590.90	16-AUG-17	338,590.90	Reconciled
379492		10-AUG-17	W.M. LYLES CO		613.00	21-AUG-17	613.00	Reconciled
379493		10-AUG-17	WARD, WILLIAM P JR.		2,733.99	15-AUG-17	2,733.99	Reconciled
379494		10-AUG-17	WASTE MANAGEMENT OF ORANGE COUNTY		2,449.17	14-AUG-17	2,449.17	Reconciled
379495		10-AUG-17	WAXIE'S ENTERPRISES, INC		485.00	17-AUG-17	485.00	Reconciled
379496		10-AUG-17	WECK LABORATORIES INC		16,521.03	18-AUG-17	16,521.03	Reconciled
379497		10-AUG-17	WEST YOST ASSOCIATES, INC		2,922.00	14-AUG-17	2,922.00	Reconciled
379498		10-AUG-17	WESTAMERICA COMMUNICATIONS, INC.					

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles
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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
379499		10-AUG-17	WESTERN EXTERMINATOR COMPANY		10,678.00	17-AUG-17	10,678.00	Reconciled
379500		10-AUG-17	W.M. LYLES CO	ESCR 35110399	17,820.58	16-AUG-17	17,820.58	Reconciled
379501		14-AUG-17	TACHDJIAN, MATTHEW	ORANGE	17,100.00			Negotiable
379502		14-AUG-17	JCI JONES CHEMICALS INC	TAMPA	4,532.79	22-AUG-17	4,532.79	Reconciled
379503		14-AUG-17	CONSOLIDATED CONTRACTING SERVICES, INC.	PAY	1,171.43	23-AUG-17	1,171.43	Reconciled
379504		14-AUG-17	STICE COMPANY, INC.	PAY	1,179.06	21-AUG-17	1,179.06	Reconciled
379505		17-AUG-17	Bennett, Ray R		262.17	21-AUG-17	262.17	Reconciled

379506	17-AUG-17	(Ray) Borowski, Michael	88.00				Negotiable
379507	17-AUG-17	(Mike) Cadena, Miguel	106.00	23-AUG-17	106.00		Reconciled
379508	17-AUG-17	Coria, Alejandro	260.00	18-AUG-17	260.00		Reconciled
379509	17-AUG-17	(Alex) Justice, Jack L	90.00				Negotiable
379510	17-AUG-17	(Jack) Lee, Sun (Sunny)	8.04				Negotiable
379511	17-AUG-17	Navarro, Hector R	605.00				Negotiable
379512	17-AUG-17	Oldewage, Lars D	26.75	21-AUG-17	26.75		Reconciled
379513	17-AUG-17	(Lars) Olson, Richard Jr	60.00	28-AUG-17	60.00		Reconciled
379514	17-AUG-17	(Richard) Reed, James W	80.00	22-AUG-17	80.00		Reconciled
379515	17-AUG-17	(James) Reynoso, Pio (Pio)	93.00	22-AUG-17	93.00		Reconciled
379516	17-AUG-17	Saini, Mohit	54.26	17-AUG-17	54.26		Reconciled
379517	17-AUG-17	ABRAHIM, BIBI	2.01	23-AUG-17	2.01		Reconciled
379518	17-AUG-17	ACCUSOURCE, INC.	577.60				Negotiable
379519	17-AUG-17	AGILENT	82.32	21-AUG-17	82.32		Reconciled
379520	17-AUG-17	TECHNOLOGIES, INC.	464.64	21-AUG-17	464.64		Reconciled
379521	17-AUG-17	AIRGAS, INC.	229.00	22-AUG-17	229.00		Reconciled
379522	17-AUG-17	AMAZON CAPITAL	150.00	24-AUG-17	150.00		Reconciled
379523	17-AUG-17	SERVICES, INC. AMERICAN SOCIETY	208.43	22-AUG-17	208.43		Reconciled
379524	17-AUG-17	OF CIVIL ENGINEERS	546.33	22-AUG-17	546.33		Reconciled
379525	17-AUG-17	ORANGE COUNTY ANTHEM BLUE CROSS	546.33	22-AUG-17	546.33		Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 15
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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
379526	17-AUG-17	17-AUG-17	ANTHEM BLUE CROSS		281.97	22-AUG-17	281.97	Reconciled
379527	17-AUG-17	17-AUG-17	ANTHONY N. LARSEN		600.00	21-AUG-17	600.00	Reconciled
379528	17-AUG-17	17-AUG-17	ARCHITERRA INC.		3,109.99	21-AUG-17	3,109.99	Reconciled
379529	17-AUG-17	17-AUG-17	AT&T		5,445.06	23-AUG-17	5,445.06	Reconciled
379530	17-AUG-17	17-AUG-17	AT&T		48.66	23-AUG-17	48.66	Reconciled
379531	17-AUG-17	17-AUG-17	ATHENS SERVICES		7,804.64	22-AUG-17	7,804.64	Reconciled
379532	17-AUG-17	17-AUG-17	AUTOZONE PARTS, INC.		292.05	23-AUG-17	292.05	Reconciled
379533	17-AUG-17	17-AUG-17	BAKER RANCH COMMUNITY ASSOCIATION		361.42	23-AUG-17	361.42	Reconciled
379534	17-AUG-17	17-AUG-17	BAVAR, SHAHIN		31.81	25-AUG-17	31.81	Reconciled
379535	17-AUG-17	17-AUG-17	BAVCO BACKFLOW APPARATUS & VALVE COMPANY		187.32	21-AUG-17	187.32	Reconciled
379536	17-AUG-17	17-AUG-17	BLAIRS TOWING INC		75.00			Negotiable
379537	17-AUG-17	17-AUG-17	BOBCAT COMPANY		4,759.90	23-AUG-17	4,759.90	Reconciled
379538	17-AUG-17	17-AUG-17	BORCHARD SURVEYING & MAPPING, INC.		2,635.00	22-AUG-17	2,635.00	Reconciled
379539	17-AUG-17	17-AUG-17	BURKE, WILLIAMS & SORENSEN, LLP		5,427.50	22-AUG-17	5,427.50	Reconciled
379540	17-AUG-17	17-AUG-17	BUTIER ENGINEERING INC		22,400.00	23-AUG-17	22,400.00	Reconciled
379541	17-AUG-17	17-AUG-17	CABELA'S MARKETING AND BRAND MANAGEMENT INC		687.46	22-AUG-17	687.46	Reconciled
379542	17-AUG-17	17-AUG-17	CALIFORNIA BARRICADE RENTAL, INC.		915.04	21-AUG-17	915.04	Reconciled
379543	17-AUG-17	17-AUG-17	CANON SOLUTIONS AMERICA, INC.		67.64	22-AUG-17	67.64	Reconciled
379544	17-AUG-17	17-AUG-17	CAROLLO ENGINEERS, INC		21,662.68	28-AUG-17	21,662.68	Reconciled
379545	17-AUG-17	17-AUG-17	CDW GOVERNMENT LLC		2,652.10	23-AUG-17	2,652.10	Reconciled
379546	17-AUG-17	17-AUG-17	CHAIREL CUSTOM HAY, INC.		4,220.75	22-AUG-17	4,220.75	Reconciled
379547	17-AUG-17	17-AUG-17	CHANG, LAURA		104.37			Negotiable
379548	17-AUG-17	17-AUG-17	CHEM SERVICE INC.		102.30	21-AUG-17	102.30	Reconciled
379549	17-AUG-17	17-AUG-17	CHO DESIGN ASSOCIATES, INC		800.00	24-AUG-17	800.00	Reconciled
379550	17-AUG-17	17-AUG-17	CITY OF IRVINE		9,267.60	22-AUG-17	9,267.60	Reconciled
379551	17-AUG-17	17-AUG-17	CITY OF TUSTIN		556.91	21-AUG-17	556.91	Reconciled
379552	17-AUG-17	17-AUG-17	CIVILSOURCE, INC.		27,766.00			Negotiable
379553	17-AUG-17	17-AUG-17	CLARIS STRATEGY INC.		17,427.50	23-AUG-17	17,427.50	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 16
 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
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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
379554		17-AUG-17	COMMERCIAL COATING RESOURCE INC		1,195.00			Negotiable
379555		17-AUG-17	COMMERCIAL DOOR OF ORANGE COUNTY, INC.		6,410.00	23-AUG-17	6,410.00	Reconciled
379556		17-AUG-17	COUNTY OF RIVERSIDE		2,769.10			Negotiable
379557		17-AUG-17	CPI-INTERNATIONAL, INC		695.34	21-AUG-17	695.34	Reconciled
379558		17-AUG-17	CR & R INCORPORATED		101.84	22-AUG-17	101.84	Reconciled
379559		17-AUG-17	CUMMINS PACIFIC, LLC		189.12	21-AUG-17	189.12	Reconciled
379560		17-AUG-17	CYPRESS VILLAGE CADENZA		848.56			Negotiable
379561		17-AUG-17	CYPRESS VILLAGE MURANO		949.99			Negotiable
379562		17-AUG-17	DEE JASPAR & ASSOCIATES, INC.		28,477.33	31-AUG-17	28,477.33	Reconciled
379563		17-AUG-17	DEL REY APARTMENTS		11,556.46			Negotiable
379564		17-AUG-17	DELL MARKETING LP		36,922.63	23-AUG-17	36,922.63	Reconciled
379565		17-AUG-17	DELPHIN COMPUTER SUPPLY		400.18	24-AUG-17	400.18	Reconciled
379566		17-AUG-17	DIBA, ROXANNA		113.66	22-AUG-17	113.66	Reconciled
379567		17-AUG-17	DISCOUNT COURIER SERVICE		158.50	22-AUG-17	158.50	Reconciled
379568		17-AUG-17	DPR CONSTRCUTION		3,526.79	23-AUG-17	3,526.79	Reconciled
379569		17-AUG-17	EHS INTERNATIONAL, INC		1,800.00	21-AUG-17	1,800.00	Reconciled
379570		17-AUG-17	ENVIRONMENTAL EQUIPMENT SUPPLY		801.28	22-AUG-17	801.28	Reconciled
379571		17-AUG-17	EVANS, SEAN		428.56	21-AUG-17	428.56	Reconciled
379572		17-AUG-17	EXECUTIVE LIGHTING & ELECTRIC		1,974.29	21-AUG-17	1,974.29	Reconciled
379573		17-AUG-17	FEDEX		590.96	21-AUG-17	590.96	Reconciled
379574		17-AUG-17	FIERRO, SERGIO D		554.56			Negotiable
379575		17-AUG-17	FIRST CHOICE SERVICES		351.45	23-AUG-17	351.45	Reconciled
379576		17-AUG-17	FISHER SCIENTIFIC COMPANY LLC		1,396.36	21-AUG-17	1,396.36	Reconciled
379577		17-AUG-17	FLEET SOLUTIONS LLC		4,821.10	21-AUG-17	4,821.10	Reconciled
379578		17-AUG-17	FRONTIER CALIFORNIA INC.		316.71	24-AUG-17	316.71	Reconciled
379579		17-AUG-17	GANAHL LUMBER CO.		1,421.15	23-AUG-17	1,421.15	Reconciled
379580		17-AUG-17	GHD INC.		10,485.50	23-AUG-17	10,485.50	Reconciled
IRWD Ledger Upgrade Payment Register For 01-AUG-17 To 31-AUG-17 Report Date: 01-SEP-2017 10:09 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 17 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar) Payment Type: All Display Supplier Address: No								

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
379581		17-AUG-17	GM SAGER CONSTRUCTION CO, INC.		31,840.00	23-AUG-17	31,840.00	Reconciled
379582		17-AUG-17	GONZALEZ, DENISE		96.79	25-AUG-17	96.79	Reconciled
379583		17-AUG-17	GRAINGER		100.59	21-AUG-17	100.59	Reconciled
379584		17-AUG-17	GRAYBAR ELECTRIC COMPANY		3,683.22	21-AUG-17	3,683.22	Reconciled
379585		17-AUG-17	GREAT-WEST FINANCIAL		807.00	21-AUG-17	807.00	Reconciled
379586		17-AUG-17	GREAT-WEST FINANCIAL		5,495.92	21-AUG-17	5,495.92	Reconciled
379587		17-AUG-17	GREAT-WEST FINANCIAL		166.67	21-AUG-17	166.67	Reconciled
379588		17-AUG-17	GREAT-WEST FINANCIAL		3,421.28	21-AUG-17	3,421.28	Reconciled
379589		17-AUG-17	GREAT-WEST FINANCIAL		158.71	21-AUG-17	158.71	Reconciled
379590		17-AUG-17	GREAT-WEST FINANCIAL		86.26	21-AUG-17	86.26	Reconciled
379591		17-AUG-17	GREAT-WEST FINANCIAL		991.95	21-AUG-17	991.95	Reconciled
379592		17-AUG-17	HAAKER EQUIPMENT COMPANY		683.76			Negotiable
379593		17-AUG-17	HACH COMPANY		2,355.97	22-AUG-17	2,355.97	Reconciled
379594		17-AUG-17	HELPMATES STAFFING SERVICES		9,439.93	21-AUG-17	9,439.93	Reconciled
379595		17-AUG-17	HILL BROTHERS CHEMICAL COMPANY		10,448.85	25-AUG-17	10,448.85	Reconciled
379596		17-AUG-17	INTEGRITY IT SOLUTIONS INC.		20,000.00	28-AUG-17	20,000.00	Reconciled
379597		17-AUG-17	IRVINE PIPE & SUPPLY INC		4,475.20	21-AUG-17	4,475.20	Reconciled
379598		17-AUG-17	KATZ, Yael		11.54			Negotiable
379599		17-AUG-17	KENT & AMY DAHLBERG		16,249.30	24-AUG-17	16,249.30	Reconciled

379600	17-AUG-17	KONECRANES INC		2,845.00	22-AUG-17	2,845.00	Reconciled
379601	17-AUG-17	KPMG LLP		114,435.00	25-AUG-17	114,435.00	Reconciled
379602	17-AUG-17	KS DIRECT LLC		1,137.84	21-AUG-17	1,137.84	Reconciled
379603	17-AUG-17	LANCER SALES USA, INC.		366.60	24-AUG-17	366.60	Reconciled
379604	17-AUG-17	LEE & RO, INC.		21,414.41	24-AUG-17	21,414.41	Reconciled
379605	17-AUG-17	LIM, EUNSUN		13.85			Negotiable
379606	17-AUG-17	LIM, HYUNG JUN		180.09	24-AUG-17	180.09	Reconciled
379607	17-AUG-17	LIN, NANCY		113.43			Negotiable
379608	17-AUG-17	LINE-X OF SOUTH COAST		519.35	21-AUG-17	519.35	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 18
 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								
379609		17-AUG-17	LSA ASSOCIATES INC		15,852.30	23-AUG-17	15,852.30	Reconciled
379610		17-AUG-17	M.CUBED		1,086.25	22-AUG-17	1,086.25	Reconciled
379611		17-AUG-17	MAKAR PROPERTIES, LLC		195,000.00	24-AUG-17	195,000.00	Reconciled
379612		17-AUG-17	MBK ENGINEERS		35,665.00	24-AUG-17	35,665.00	Reconciled
379613		17-AUG-17	MC MASTER CARR SUPPLY CO		1,425.06	21-AUG-17	1,425.06	Reconciled
379614		17-AUG-17	MERAZ, GINA		233.39	21-AUG-17	233.39	Reconciled
379615		17-AUG-17	MICHAEL BAKER INTERNATIONAL, INC.		59,697.13	24-AUG-17	59,697.13	Reconciled
379616		17-AUG-17	MOSLEHPOUR, KEVIN		137.82	23-AUG-17	137.82	Reconciled
379617		17-AUG-17	MYERS & SONS HI-WAY SAFETY, INC.		2,605.40	21-AUG-17	2,605.40	Reconciled
379618		17-AUG-17	NATIONAL READY MIXED CONCRETE CO.		1,265.92	21-AUG-17	1,265.92	Reconciled
379619		17-AUG-17	NATURES IMAGE INC		1,665.43	21-AUG-17	1,665.43	Reconciled
379620		17-AUG-17	NMG GEOTECHNICAL INC		11,887.17			Negotiable
379621		17-AUG-17	NOSSAMAN LLP		87,323.74	23-AUG-17	87,323.74	Reconciled
379622		17-AUG-17	OLIN CORPORATION		17,528.64	24-AUG-17	17,528.64	Reconciled
379623		17-AUG-17	ONESOURCE DISTRIBUTORS LLC		167.47	21-AUG-17	167.47	Reconciled
379624		17-AUG-17	ORANGE COUNTY AUTO PARTS CO		652.69	21-AUG-17	652.69	Reconciled
379625		17-AUG-17	ORANGE COUNTY FIRE AUTHORITY		418.00	21-AUG-17	418.00	Reconciled
379626		17-AUG-17	OUTSOURCE TECHNICAL LLC		20,590.00	22-AUG-17	20,590.00	Reconciled
379627		17-AUG-17	PACIFIC COAST TOOL & SUPPLY		1,005.03	21-AUG-17	1,005.03	Reconciled
379628		17-AUG-17	PACIFIC GAS AND ELECTRIC COMPANY		168.64	21-AUG-17	168.64	Reconciled
379629		17-AUG-17	PACIFIC PARTS & CONTROLS INC		2,970.41	22-AUG-17	2,970.41	Reconciled
379630		17-AUG-17	PALOMA SUMMIT		15,671.27	30-AUG-17	15,671.27	Reconciled
379631		17-AUG-17	PARKHOUSE TIRE INC		435.59	22-AUG-17	435.59	Reconciled
379632		17-AUG-17	PASCAL & LUDWIG CONSTRUCTORS		31,857.40	23-AUG-17	31,857.40	Reconciled
379633		17-AUG-17	PASCAL & LUDWIG CONSTRUCTORS		605,290.60	23-AUG-17	605,290.60	Reconciled
379634		17-AUG-17	PCP MOTORSPORTS		1,300.00			Negotiable
379635		17-AUG-17	PERKINELMER HEALTH SCIENCES INC		39,456.36	24-AUG-17	39,456.36	Reconciled
379636		17-AUG-17	PINNACLE TOWERS LLC		692.68	22-AUG-17	692.68	Reconciled

IRWD Ledger Upgrade Payment Register For 01-AUG-17 To 31-AUG-17 Report Date: 01-SEP-2017 10:09
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 19
 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								
379637		17-AUG-17	PRADO, CHRISTINA		183.17	29-AUG-17	183.17	Reconciled
379638		17-AUG-17	PRAXAIR DISTRIBUTION INC		495.14	22-AUG-17	495.14	Reconciled
379639		17-AUG-17	PRO MOBILE AUTO DETAILING		650.00	21-AUG-17	650.00	Reconciled
379640		17-AUG-17	PRUDENTIAL OVERALL SUPPLY		5,103.29	21-AUG-17	5,103.29	Reconciled
379641		17-AUG-17	PSOMAS		10,057.86	24-AUG-17	10,057.86	Reconciled
379642		17-AUG-17	QUICKEL PAVING INC		2,995.00	21-AUG-17	2,995.00	Reconciled
379643		17-AUG-17	QUINCY COMPRESSOR LLC		2,860.66	24-AUG-17	2,860.66	Reconciled
379644		17-AUG-17	RAIN FOR RENT		6,581.32	21-AUG-17	6,581.32	Reconciled
379645		17-AUG-17	RAM AIR ENGINEERING INC		3,045.00	22-AUG-17	3,045.00	Reconciled
379646		17-AUG-17	RANCHO MADERAS APTS		17.64			Negotiable

379647	17-AUG-17	RED WING SHOE STORE	137.91	21-AUG-17	137.91	Reconciled
379648	17-AUG-17	RED WING SHOE STORE	718.94	21-AUG-17	718.94	Reconciled
379649	17-AUG-17	REFRIGERATION SUPPLIES DISTRIBUTOR	159.81	21-AUG-17	159.81	Reconciled
379650	17-AUG-17	RELIANCE SAFETY CONSULTANTS, INC.	1,450.00	25-AUG-17	1,450.00	Reconciled
379651	17-AUG-17	ROBERTS, ERIC	12.75	23-AUG-17	12.75	Reconciled
379652	17-AUG-17	ROYAL WHOLESALE ELECTRIC	11,490.14	23-AUG-17	11,490.14	Reconciled
379653	17-AUG-17	SADDLEBACK GOLF CARS	9,966.88	21-AUG-17	9,966.88	Reconciled
379654	17-AUG-17	SAN CARLOS APARTMENTS	28.58			Negotiable
379655	17-AUG-17	SAN REMO APTS	39.22			Negotiable
379656	17-AUG-17	SANDERS CONSTRUCTION SERVICES	504.89	21-AUG-17	504.89	Reconciled
379657	17-AUG-17	SANTA ANA BLUE PRINT	249.93	22-AUG-17	249.93	Reconciled
379658	17-AUG-17	SANTA MARGARITA FORD	610.28	21-AUG-17	610.28	Reconciled
379659	17-AUG-17	SEALS WEST PACKING CO.	3,502.41	21-AUG-17	3,502.41	Reconciled
379660	17-AUG-17	SEFERIAN, KATHLEEN	51.17	21-AUG-17	51.17	Reconciled
379661	17-AUG-17	SEPARATION PROCESSES INC	2,887.25	21-AUG-17	2,887.25	Reconciled

IRWD Ledger Upgrade Payment Register For 01-AUG-17 To 31-AUG-17 Report Date: 01-SEP-2017 10:09
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 20
 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								
379662		17-AUG-17	SHERWIN WILLIAMS COMPANY		452.55	28-AUG-17	452.55	Reconciled
379663		17-AUG-17	SITMATIC		709.78	21-AUG-17	709.78	Reconciled
379664		17-AUG-17	SOCAL REMOVAL		11,481.46	25-AUG-17	11,481.46	Reconciled
379665		17-AUG-17	SOUTH COAST ANSWERING SERVICE		548.88	21-AUG-17	548.88	Reconciled
379666		17-AUG-17	SOUTH COAST WATER CO.		151.66	25-AUG-17	151.66	Reconciled
379667		17-AUG-17	SOUTHERN CALIFORNIA EDISON COMPANY		36,657.52	22-AUG-17	36,657.52	Reconciled
379668		17-AUG-17	SOUTHERN COUNTIES LUBRICANTS LLC		1,493.96	22-AUG-17	1,493.96	Reconciled
379669		17-AUG-17	SPX CORP		1,504.39	22-AUG-17	1,504.39	Reconciled
379670		17-AUG-17	STANTEC CONSULTING SERVICES INC.		3,969.00	22-AUG-17	3,969.00	Reconciled
379671		17-AUG-17	STERIS CORPORATION		154.43	21-AUG-17	154.43	Reconciled
379672		17-AUG-17	SURF CITY OPTOMETRY		225.00	28-AUG-17	225.00	Reconciled
379673		17-AUG-17	TELEDYNE INSTRUMENTS, INC.		77.58	22-AUG-17	77.58	Reconciled
379674		17-AUG-17	TESTAMERICA LABORATORIES, INC		192.15	22-AUG-17	192.15	Reconciled
379675		17-AUG-17	TETRA TECH, INC		14,072.50	24-AUG-17	14,072.50	Reconciled
379676		17-AUG-17	THE FURMAN GROUP, INC.		12,540.00	24-AUG-17	12,540.00	Reconciled
379677		17-AUG-17	THE GAS COMPANY		671.15	25-AUG-17	671.15	Reconciled
379678		17-AUG-17	THOMAS HARDER & CO		1,745.00			Negotiable
379679		17-AUG-17	TIC-RETAIL PROPERTIES		416.21			Negotiable
379680		17-AUG-17	TIC-SPECTRUM OFFICE		260.55	31-AUG-17	260.55	Reconciled
379681		17-AUG-17	TROPICAL PLAZA NURSERY INC		6,208.23	21-AUG-17	6,208.23	Reconciled
379682		17-AUG-17	TRUCPARCO		543.45	22-AUG-17	543.45	Reconciled
379683		17-AUG-17	ULINE INC		250.93	24-AUG-17	250.93	Reconciled
379684		17-AUG-17	ULTRA SCIENTIFIC		279.30	23-AUG-17	279.30	Reconciled
379685		17-AUG-17	UNITED PARCEL SERVICE INC		120.91	21-AUG-17	120.91	Reconciled
379686		17-AUG-17	UNITED SITE SERVICES OF CALIFORNIA INC		478.06	22-AUG-17	478.06	Reconciled
379687		17-AUG-17	UNITED STATES POST OFFICE		25,000.00	28-AUG-17	25,000.00	Reconciled
379688		17-AUG-17	USA BLUEBOOK		336.18	24-AUG-17	336.18	Reconciled

IRWD Ledger Upgrade Payment Register For 01-AUG-17 To 31-AUG-17 Report Date: 01-SEP-2017 10:09
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 21
 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								

379689	17-AUG-17	UTILITY SYSTEMS SCIENCE & SOFTWARE INC.		3,630.00	23-AUG-17	3,630.00	Reconciled
379690	17-AUG-17	VAUGHAN'S INDUSTRIAL REPAIR CO INC		600.00	22-AUG-17	600.00	Reconciled
379691	17-AUG-17	VULCAN MATERIALS COMPANY		1,424.00	21-AUG-17	1,424.00	Reconciled
379692	17-AUG-17	WATERLINE TECHNOLOGIES INC		2,840.00	21-AUG-17	2,840.00	Reconciled
379693	17-AUG-17	WATERWISE CONSULTING, INC.		1,250.00	21-AUG-17	1,250.00	Reconciled
379694	17-AUG-17	WAXIE'S ENTERPRISES, INC		265.18	21-AUG-17	265.18	Reconciled
379695	17-AUG-17	WECK LABORATORIES INC		115.00	23-AUG-17	115.00	Reconciled
379696	17-AUG-17	WEISE, STEVE A & AMBER		474.84			Voided
379697	17-AUG-17	YANG, MENGJIA		18.44			Negotiable
379698	17-AUG-17	YONG, KENNEY		55.90	21-AUG-17	55.90	Reconciled
379699	17-AUG-17	YP LLC		125.00	22-AUG-17	125.00	Reconciled
379700	17-AUG-17	YSI, INC		1,072.67	22-AUG-17	1,072.67	Reconciled
379701	17-AUG-17	ZEE MEDICAL SERVICE CO		372.03	21-AUG-17	372.03	Reconciled
379702	17-AUG-17	ZHANG, WEN		496.62	24-AUG-17	496.62	Reconciled
379703	17-AUG-17	WEISER, STEVE A & ORANGE AMBER		474.84			Negotiable
379704	18-AUG-17	IRWD EMPLOYEE ASSOCIATION	15600 SC	1,355.00			Negotiable
379705	18-AUG-17	PERS LONG TERM CARE	PASADENA	878.66	23-AUG-17	878.66	Reconciled
379706	18-AUG-17	ORANGE COUNTY SHERIFF'S OFFICE	4601 JAMBOREE	62.50	25-AUG-17	62.50	Reconciled
379707	18-AUG-17	CLEARINGHOUSE	PHOENIX	477.67	24-AUG-17	477.67	Reconciled
379708	18-AUG-17	COLONIAL LIFE & ACCIDENT INSURANCE CO.	COLUMBIA	1,336.20	24-AUG-17	1,336.20	Reconciled
379709	18-AUG-17	PRE-PAID LEGAL SERVICES INC	PO BOX 2629	1,336.14	29-AUG-17	1,336.14	Reconciled
379710	18-AUG-17	HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY	ATLANTA	112.48	25-AUG-17	112.48	Reconciled
379711	18-AUG-17	AFLAC	1932 WYNNTON RD	6,764.70	24-AUG-17	6,764.70	Reconciled
379712	18-AUG-17	AFLAC	PO BOX 84069	203.12	24-AUG-17	203.12	Reconciled

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 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	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
379713		18-AUG-17	EMPLOYMENT DEVELOPMENT DEPARTMENT	WEST SACRAMENTO	10,405.32	23-AUG-17	10,405.32	Reconciled
379714		18-AUG-17	STATE BOARD OF EQUALIZATION	SACRAMENTO	1,486.00	23-AUG-17	1,486.00	Reconciled
379715		18-AUG-17	Riddle, Rosemary THOME (Rosemary)		9,789.30			Voided
379716		23-AUG-17	SUKLE ADVERTISING PURCHASE INC.		120,600.00	28-AUG-17	120,600.00	Reconciled
379717		23-AUG-17	SUKLE ADVERTISING PURCHASE INC.		295,000.20	28-AUG-17	295,000.20	Reconciled
379718		24-AUG-17	CITY OF IRVINE	IRVINE 1	530.00	25-AUG-17	530.00	Reconciled
379719		24-AUG-17	CITY OF LAKE FOREST	25550 COMMERCEN	600.00			Negotiable
379720		24-AUG-17	Bennett, Ray R (Ray)		178.71	31-AUG-17	178.71	Reconciled
379721		24-AUG-17	Cascelli, Craig M (Craig)		260.00			Negotiable
379722		24-AUG-17	Cortez, Malcolm A (Malcolm)		171.21			Negotiable
379723		24-AUG-17	Leal, Eliberto (Eliberto)		260.00			Negotiable
379724		24-AUG-17	Lewis, Lyndy R		11.77			Negotiable
379725		24-AUG-17	Lum, Christopher A (Christopher)		36.59			Negotiable
379726		24-AUG-17	Malloy, Steven L (Steven)		30.00	29-AUG-17	30.00	Reconciled
379727		24-AUG-17	McElroy, Dorien		85.00	28-AUG-17	85.00	Reconciled
379728		24-AUG-17	Moeder, Jacob J (Jacob)		502.81			Negotiable
379729		24-AUG-17	Nash, Joel		130.41	29-AUG-17	130.41	Reconciled
379730		24-AUG-17	Oldewage, Lars D (Lars)		107.84	28-AUG-17	107.84	Reconciled
379731		24-AUG-17	Parsons, Sheryl		125.00	31-AUG-17	125.00	Reconciled
379732		24-AUG-17	Perez, Cesar (Cesar)		275.00			Negotiable
379733		24-AUG-17	Solis, Henry		95.00			Negotiable

379734	24-AUG-17	(Henry)		1,277.04				Negotiable
379735	24-AUG-17	Swan, Peer		65.95	24-AUG-17	65.95		Reconciled
		Weghorst, Paul A (Paul)						
379736	24-AUG-17	36 SOUTH SUR LLC		262.31				Negotiable
379737	24-AUG-17	A&A WIPING CLOTH CO		1,249.90				Negotiable
379738	24-AUG-17	ACC CONSTRUCTION, INC.		1,011.52				Negotiable

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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								
379739		24-AUG-17	ACE STAINLESS SUPPLY		370.54			Negotiable
379740		24-AUG-17	ACI		2,069.65	30-AUG-17	2,069.65	Reconciled
379741		24-AUG-17	AIRGAS, INC.		624.95	30-AUG-17	624.95	Reconciled
379742		24-AUG-17	ALEXANDER'S CONTRACT SERVICES, INC.		250.00	31-AUG-17	250.00	Reconciled
379743		24-AUG-17	ALLIANCE AG SERVICES, LLC		3,000.00			Negotiable
379744		24-AUG-17	ALMETEK INDUSTRIES, INC		1,124.47			Negotiable
379745		24-AUG-17	AMAZON CAPITAL SERVICES, INC.		1,095.00	31-AUG-17	1,095.00	Reconciled
379746		24-AUG-17	ANDERSONPENNA PARTNERS, INC.		3,894.00	29-AUG-17	3,894.00	Reconciled
379747		24-AUG-17	APEX LIFE SCIENCES, LLC		4,427.50			Negotiable
379748		24-AUG-17	ARCADIS U.S., INC.		102,723.40			Negotiable
379749		24-AUG-17	ARCHITERRA INC.		2,816.00	30-AUG-17	2,816.00	Reconciled
379750		24-AUG-17	ARIZONA INSTRUMENT LLC		187.38	30-AUG-17	187.38	Reconciled
379751		24-AUG-17	AT&T		6,109.94			Negotiable
379752		24-AUG-17	AUTOZONE PARTS, INC.		198.86			Negotiable
379753		24-AUG-17	BAKER RANCH COMMUNITY ASSOCIATION		1,006.38			Negotiable
379754		24-AUG-17	BANK OF NEW YORK MELLON TRUST COMPANY NA		1,186.00	31-AUG-17	1,186.00	Reconciled
379755		24-AUG-17	BATTERIES PLUS AND BATTERIES PLUS BULBS		1,954.67	31-AUG-17	1,954.67	Reconciled
379756		24-AUG-17	BEE EMERGENCY RESPONSE TEAM		175.00	31-AUG-17	175.00	Reconciled
379757		24-AUG-17	BEST MANAGEMENT CONSTRUCTION, INC.		798.76	29-AUG-17	798.76	Reconciled
379758		24-AUG-17	BILL'S SWEEPING SERVICE INC		460.00			Negotiable
379759		24-AUG-17	BIOMAGIC INC		17,813.34	31-AUG-17	17,813.34	Reconciled
379760		24-AUG-17	BORDEAUX APTS		892.88			Negotiable
379761		24-AUG-17	BUSH & ASSOCIATES INC		1,984.00			Negotiable
379762		24-AUG-17	C WELLS PIPELINE MATERIALS INC		20,024.27			Negotiable

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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								
379763		24-AUG-17	CABELA'S MARKETING AND BRAND MANAGEMENT INC		68.51	31-AUG-17	68.51	Reconciled
379764		24-AUG-17	CALATLANTIC HOMES		297.86			Negotiable
379765		24-AUG-17	CALIFORNIA BARRICADE RENTAL, INC.		8,725.00	29-AUG-17	8,725.00	Reconciled
379766		24-AUG-17	CALIFORNIA STATE UNIVERSITY, FULLERTON		4,200.00			Negotiable
379767		24-AUG-17	CANON FINANCIAL SERVICES, INC		8,091.14			Negotiable
379768		24-AUG-17	CAROLLO ENGINEERS, INC		1,211.85			Negotiable
379769		24-AUG-17	CDW GOVERNMENT LLC		278.25			Negotiable
379770		24-AUG-17	CHEM TECH INTERNATIONAL INC		19,697.79			Negotiable
379771		24-AUG-17	CHEN, LINDA		8.71			Negotiable
379772		24-AUG-17	CITY OF NEWPORT		1,174.80	30-AUG-17	1,174.80	Reconciled

379773	24-AUG-17	BEACH COASTLINE EQUIPMENT COMPANY	534.23	30-AUG-17	534.23	Reconciled
379774	24-AUG-17	COUNTY OF ORANGE	3,223.90	29-AUG-17	3,223.90	Reconciled
379775	24-AUG-17	COX COMMUNICATIONS, INC.	3,250.01	31-AUG-17	3,250.01	Reconciled
379776	24-AUG-17	CULLIGAN OF SANTA ANA	2,005.70	31-AUG-17	2,005.70	Reconciled
379777	24-AUG-17	D & G SIGNS	1,506.38			Negotiable
379778	24-AUG-17	DATA CLEAN CORPORATION	534.00			Negotiable
379779	24-AUG-17	DATAGEAR, INC.	399.42			Negotiable
379780	24-AUG-17	DDB ENGINEERING, INC.	24,000.00	30-AUG-17	24,000.00	Reconciled
379781	24-AUG-17	DEE JASPAR & ASSOCIATES, INC.	42,073.26	31-AUG-17	42,073.26	Reconciled
379782	24-AUG-17	DIRECTV INC	121.98			Negotiable
379783	24-AUG-17	DISCLOSURE SOURCE	250.00			Negotiable
379784	24-AUG-17	DPR CONSTRUCTION	3,209.66			Negotiable
379785	24-AUG-17	DUNCAN, CHRIS	31.56			Negotiable
379786	24-AUG-17	EAGLE AERIAL PHOTOGRAPHY, INC.	48,325.20			Negotiable
379787	24-AUG-17	EHS INTERNATIONAL, INC	1,885.00	30-AUG-17	1,885.00	Reconciled
379788	24-AUG-17	EMPLOYEE BENEFIT SPECIALIST, INC	1,250.00	31-AUG-17	1,250.00	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								
379789		24-AUG-17	ENVIRONMENTAL SCIENCE ASSOCIATES		9,684.75			Negotiable
379790		24-AUG-17	EVANS-HYDRO INC		46,822.08			Negotiable
379791		24-AUG-17	EVERGREEN INVESTMENT CAPITAL, LLC		1,567.69	31-AUG-17	1,567.69	Reconciled
379792		24-AUG-17	EXECUTIVE LIGHTING & ELECTRIC		490.02	30-AUG-17	490.02	Reconciled
379793		24-AUG-17	FALBER, JAN		15.20			Negotiable
379794		24-AUG-17	FARRELL & ASSOCIATES		243.18	30-AUG-17	243.18	Reconciled
379795		24-AUG-17	FARZAM, FARZAD		15.33	31-AUG-17	15.33	Reconciled
379796		24-AUG-17	FINK, SAMANTHA		2,601.46			Negotiable
379797		24-AUG-17	FISERV		18,345.83	30-AUG-17	18,345.83	Reconciled
379798		24-AUG-17	FISHER SCIENTIFIC COMPANY LLC		2,161.23	30-AUG-17	2,161.23	Reconciled
379799		24-AUG-17	FRONTIER CALIFORNIA INC.		310.31			Negotiable
379800		24-AUG-17	FUSCOE ENGINEERING, INC.		7,709.44	29-AUG-17	7,709.44	Reconciled
379801		24-AUG-17	GANAHL LUMBER CO.		35.58			Negotiable
379802		24-AUG-17	GENERAL PUMP COMPANY INC		36,010.85	31-AUG-17	36,010.85	Reconciled
379803		24-AUG-17	GEORGE HILLS COMPANY, INC.		561.00			Negotiable
379804		24-AUG-17	GRAINGER		280.76			Negotiable
379805		24-AUG-17	GRAYBAR ELECTRIC COMPANY		5,926.93	30-AUG-17	5,926.93	Reconciled
379806		24-AUG-17	HAAKER EQUIPMENT COMPANY		13,403.84	31-AUG-17	13,403.84	Reconciled
379807		24-AUG-17	HACH COMPANY		5,057.69			Negotiable
379808		24-AUG-17	HARRINGTON INDUSTRIAL PLASTICS LLC		4,127.49	30-AUG-17	4,127.49	Reconciled
379809		24-AUG-17	HDR ENGINEERING INC		71,771.29			Negotiable
379810		24-AUG-17	HELPMATES STAFFING SERVICES		20,237.28	30-AUG-17	20,237.28	Reconciled
379811		24-AUG-17	HILL BROTHERS CHEMICAL COMPANY		6,597.09			Negotiable
379812		24-AUG-17	HOME DEPOT USA INC		683.25			Negotiable
379813		24-AUG-17	HOPKINS TECHNICAL PRODUCTS INC		9,822.20			Negotiable
379814		24-AUG-17	IBM CORPORATION		925.00			Negotiable
379815		24-AUG-17	IDEXX DISTRIBUTION, INC		1,593.03	31-AUG-17	1,593.03	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 26
 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								

379816	24-AUG-17	INDUSTRIAL ELECTRIC MACHINERY LLC	1,930.31	31-AUG-17	1,930.31	Reconciled
379817	24-AUG-17	INDUSTRIAL METAL SUPPLY CO	829.04	31-AUG-17	829.04	Reconciled
379818	24-AUG-17	INTERNATIONAL E-Z UP, INC.	654.69	30-AUG-17	654.69	Reconciled
379819	24-AUG-17	IRON MOUNTAIN INFORMATION MANAGEMENT INC	1,409.60	30-AUG-17	1,409.60	Reconciled
379820	24-AUG-17	IRVINE COMMUNITY DEVELOPMENT COMPANY LLC	33,416.10			Negotiable
379821	24-AUG-17	IRVINE PACIFIC	11.96	30-AUG-17	11.96	Reconciled
379822	24-AUG-17	IRVINE PIPE & SUPPLY INC	890.99	29-AUG-17	890.99	Reconciled
379823	24-AUG-17	IRWD-PETTY CASH CUSTODIAN	967.88	28-AUG-17	967.88	Reconciled
379824	24-AUG-17	JOHNSON-PELTIER	91,880.25	31-AUG-17	91,880.25	Reconciled
379825	24-AUG-17	JUST ENERGY SOLUTIONS INC.	142.51	30-AUG-17	142.51	Reconciled
379826	24-AUG-17	KAESER COMPRESSORS, INC.	22,320.63			Negotiable
379827	24-AUG-17	KAYUGA SOLUTION INC	6,080.00	31-AUG-17	6,080.00	Reconciled
379828	24-AUG-17	KB HOMES	149.34			Negotiable
379829	24-AUG-17	KILL-N-BUGS TERMITE AND PEST CONTROL SERVICES	4,350.00	31-AUG-17	4,350.00	Reconciled
379830	24-AUG-17	KLEINFELDER, INC.	14,657.21			Negotiable
379831	24-AUG-17	KOELLER NEBECKER CARLSON & HALUCK, LLP	1,600.00	29-AUG-17	1,600.00	Reconciled
379832	24-AUG-17	KULKARNI, NISHAD	40.38			Negotiable
379833	24-AUG-17	LANDCARE HOLDINGS, INC.	5,601.96			Negotiable
379834	24-AUG-17	LCS TECHNOLOGIES, INC.	1,620.00			Negotiable
379835	24-AUG-17	LIGHTING RESOURCES, LLC	702.20	30-AUG-17	702.20	Reconciled
379836	24-AUG-17	LUBRICATION ENGINEERS, INC.	1,430.06	31-AUG-17	1,430.06	Reconciled
379837	24-AUG-17	LUCY PET PRODUCTS, LLC	1,053.37			Negotiable
379838	24-AUG-17	MAILFINANCE INC	10,909.74			Negotiable
379839	24-AUG-17	MARVIN GARDENS LLC	2,593.70	24-AUG-17	2,593.70	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
379840		24-AUG-17	MC FADDEN-DALE INDUSTRIAL		110.17	30-AUG-17	110.17	Reconciled
379841		24-AUG-17	MC MASTER CARR SUPPLY CO		1,346.07			Negotiable
379842		24-AUG-17	MEDORA CORPORATION		22,534.00			Negotiable
379843		24-AUG-17	MUROW CM		500.00	29-AUG-17	500.00	Reconciled
379844		24-AUG-17	NEILSON CONSTRUCTION INC		1,124.38			Negotiable
379845		24-AUG-17	NEWPORT BEACH CHAMBER OF COMMERCE		1,000.00			Negotiable
379846		24-AUG-17	NEWPORT WINDOW MAINTENANCE INC		2,314.00			Negotiable
379847		24-AUG-17	NINYO & MOORE		6,379.25	30-AUG-17	6,379.25	Reconciled
379848		24-AUG-17	OLIN CORPORATION		11,652.08			Negotiable
379849		24-AUG-17	OLSON, HAGEL & FISHBURN, LLP		637.00	31-AUG-17	637.00	Reconciled
379850		24-AUG-17	OMAR DANDASHI		2,839.76			Negotiable
379851		24-AUG-17	ONESOURCE DISTRIBUTORS LLC		11,081.25	31-AUG-17	11,081.25	Reconciled
379852		24-AUG-17	ORACLE AMERICA, INC.		1,636.20	30-AUG-17	1,636.20	Reconciled
379853		24-AUG-17	ORANGE COUNTY AUTO PARTS CO		345.57	30-AUG-17	345.57	Reconciled
379854		24-AUG-17	ORANGE COUNTY COASTKEEPER		2,500.00			Negotiable
379855		24-AUG-17	OWINGS, DONALD		3.04			Negotiable
379856		24-AUG-17	PACIFIC COAST BOLT CORP		875.35	31-AUG-17	875.35	Reconciled
379857		24-AUG-17	PACIFIC PARTS & CONTROLS INC		823.69	31-AUG-17	823.69	Reconciled
379858		24-AUG-17	PARKHOUSE TIRE INC		3,906.26	30-AUG-17	3,906.26	Reconciled
379859		24-AUG-17	PHAM, AMANDA		34.09			Negotiable
379860		24-AUG-17	PILLSBURY WINTHROP SHAW PITTMAN LLP		868.00	30-AUG-17	868.00	Reconciled
379861		24-AUG-17	PIVOT INTERIORS INC		543.24	31-AUG-17	543.24	Reconciled
379862		24-AUG-17	PLC ALTON		1,210.74			Negotiable

379863	24-AUG-17	APARTMENTS, LLC PRO MOBILE AUTO DETAILING		900.00	31-AUG-17	900.00	Reconciled
379864	24-AUG-17	PRUDENTIAL OVERALL SUPPLY		347.84	30-AUG-17	347.84	Reconciled
379865	24-AUG-17	PSOMAS		18,416.28			Negotiable
379866	24-AUG-17	QUAIL MEADOW APARTMENTS		25.47			Negotiable

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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								
379867		24-AUG-17	R&B AUTOMATION, INC.		10,440.59			Negotiable
379868		24-AUG-17	RAM AIR ENGINEERING INC		7,253.83	29-AUG-17	7,253.83	Reconciled
379869		24-AUG-17	RED WING SHOE STORE		836.48	30-AUG-17	836.48	Reconciled
379870		24-AUG-17	RELIANCE STANDARD LIFE INSURANCE COMPANY		26,916.36			Negotiable
379871		24-AUG-17	RICHARD C. SLADE & ASSOCIATES LLC		14,496.47			Negotiable
379872		24-AUG-17	RMC WATER AND ENVIRONMENT		6,157.50			Negotiable
379873		24-AUG-17	RODRIGUEZ, STEPHANIE		261.15			Negotiable
379874		24-AUG-17	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT		389,714.60			Negotiable
379875		24-AUG-17	ROYAL WHOLESAL ELECTRIC		4,820.42	30-AUG-17	4,820.42	Reconciled
379876		24-AUG-17	SAN CARLO APARTMENTS		177.46			Negotiable
379877		24-AUG-17	SAN MARCO APTS		12.61			Negotiable
379878		24-AUG-17	SANDBERG, PAT		6.19			Negotiable
379879		24-AUG-17	SANDERS PAVING INC		50,352.00	31-AUG-17	50,352.00	Reconciled
379880		24-AUG-17	SEAL ANALYTICAL INC		10,290.00			Negotiable
379881		24-AUG-17	SENG, JULIA		113.85			Negotiable
379882		24-AUG-17	SHAMROCK SUPPLY CO INC		3,854.31	31-AUG-17	3,854.31	Reconciled
379883		24-AUG-17	SIGMA-ALDRICH INC		94.85	31-AUG-17	94.85	Reconciled
379884		24-AUG-17	SITEONE LANDSCAPE SUPPLY, LLC		42,909.32			Negotiable
379885		24-AUG-17	SOFTWAREONE INC		4,985.00			Negotiable
379886		24-AUG-17	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT		1,517.22			Negotiable
379887		24-AUG-17	SOUTH COAST WATER DISTRICT		102.99	29-AUG-17	102.99	Reconciled
379888		24-AUG-17	SOUTHERN CALIFORNIA EDISON COMPANY		7,749.99	30-AUG-17	7,749.99	Reconciled
379889		24-AUG-17	SOUTHERN CALIFORNIA EDISON COMPANY		15.98	31-AUG-17	15.98	Reconciled

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 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 CHECK								
379890		24-AUG-17	SOUTHERN CALIFORNIA EDISON COMPANY		874,521.83	28-AUG-17	874,521.83	Reconciled
379891		24-AUG-17	SOUTHERN CALIFORNIA SECURITY CENTERS, INC.		35.56			Negotiable
379892		24-AUG-17	STANDARD REGISTER, INC.		2,517.67			Negotiable
379893		24-AUG-17	STANFORD COURT APARTMENTS		26.54			Negotiable
379894		24-AUG-17	STANTEC CONSULTING SERVICES INC.		10,994.00			Negotiable
379895		24-AUG-17	STRADLING YOCCA CARLSON & RAUTH		1,624.00	29-AUG-17	1,624.00	Reconciled
379896		24-AUG-17	SUMMIT CHEMICAL SPECIALTY PRODUCTS		10,358.80			Negotiable
379897		24-AUG-17	TETRA TECH, INC		1,047.50	31-AUG-17	1,047.50	Reconciled
379898		24-AUG-17	THE NEW HOME COMPANY SOUTHERN		2,314.92			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
379899	24-AUG-17		CALIFORNIA LLC		4.81			Negotiable
379900	24-AUG-17		TIC-IPG-COMMON		0.55			Negotiable
379901	24-AUG-17		OFFICE TROPICAL PLAZA NURSERY INC		32,180.12	31-AUG-17	32,180.12	Reconciled
379902	24-AUG-17		TRUCPARCO		99.24			Negotiable
379903	24-AUG-17		TURTLE ROCK RIDGE GARDEN HOA		1,372.16			Negotiable
379904	24-AUG-17		UCT, LLC		390.48			Negotiable
379905	24-AUG-17		ULINE INC		3,391.48			Negotiable
379906	24-AUG-17		UNITED PARCEL SERVICE INC		46.17	31-AUG-17	46.17	Reconciled
379907	24-AUG-17		UNITED PARTITION SYSTEMS INC		16,317.98			Negotiable
379908	24-AUG-17		UNITED SITE SERVICES OF CALIFORNIA INC		152.29	31-AUG-17	152.29	Reconciled
379909	24-AUG-17		USA BLUEBOOK		1,264.93			Negotiable
379910	24-AUG-17		VERTECH INDUSTRIAL SYSTEMS, LLC		13,378.71			Negotiable
379911	24-AUG-17		VIGNOE, MICHELE		63.57			Negotiable
379912	24-AUG-17		VWR INTERNATIONAL, LLC		1,344.64	31-AUG-17	1,344.64	Reconciled
379913	24-AUG-17		WALTERS WHOLESALE ELECTRIC		332.16	30-AUG-17	332.16	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 30
 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								
379914	24-AUG-17		WANG, MEI-HUI		69.96			Negotiable
379915	24-AUG-17		WARE MALCOMB		237.67	29-AUG-17	237.67	Reconciled
379916	24-AUG-17		WATERSMART SOFTWARE, INC		13,597.50	31-AUG-17	13,597.50	Reconciled
379917	24-AUG-17		WAXIE'S ENTERPRISES, INC		2,662.96			Negotiable
379918	24-AUG-17		WECK LABORATORIES INC		2,879.00			Negotiable
379919	24-AUG-17		WESTAMERICA COMMUNICATIONS, INC.		450.00	29-AUG-17	450.00	Reconciled
379920	24-AUG-17		WESTERN EXTERMINATOR COMPANY		172.00			Negotiable
379921	24-AUG-17		WIRELESS WATCHDOGS, LLC		620.00			Negotiable
379922	28-AUG-17		JCI JONES CHEMICALS INC	TAMPA	4,716.94			Negotiable
379923	30-AUG-17		Bertsch, Frederick J (Jeff)		221.07			Negotiable
379924	30-AUG-17		Guzman, Juan (Juan)		70.00			Negotiable
379925	30-AUG-17		Lynch, Toni Marie		5.99	31-AUG-17	5.99	Reconciled
379926	30-AUG-17		Murphy, Alexander J (Alexander)		225.00			Negotiable
379927	30-AUG-17		Mwe, Nang		5.99			Negotiable
379928	30-AUG-17		AGARWAL, BIPUL		110.15			Negotiable
379929	30-AUG-17		AIRGAS, INC.		1,466.72			Negotiable
379930	30-AUG-17		ALEXANDER'S CONTRACT SERVICES, INC.		3,715.00			Negotiable
379931	30-AUG-17		ALL AMERICAN SEWER TOOLS		690.81			Negotiable
379932	30-AUG-17		ANDERSONPENNA PARTNERS, INC.		36,345.00			Negotiable
379933	30-AUG-17		ANTHONY N. LARSEN		400.00			Negotiable
379934	30-AUG-17		APTEAN, INC.		19,992.74			Negotiable
379935	30-AUG-17		AT&T		51.15			Negotiable
379936	30-AUG-17		AT&T		240.09			Negotiable
379937	30-AUG-17		AUTOZONE PARTS, INC.		150.57			Negotiable
379938	30-AUG-17		BARNAWI, USMAN		17.50			Negotiable
379939	30-AUG-17		BARTEL ASSOCIATES, LLC		6,138.50			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 31
 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								
379940	30-AUG-17		BATTERIES PLUS AND BATTERIES PLUS BULBS		1,785.04			Negotiable

379987 30-AUG-17 HDR ENGINEERING 35,161.90 Negotiable
 379988 30-AUG-17 INC 26,500.00 Negotiable
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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								
379989		30-AUG-17	HELPMATES STAFFING SERVICES		11,268.17			Negotiable
379990		30-AUG-17	HERITAGE FIELDS EL TORO, LLC		100.00			Negotiable
379991		30-AUG-17	HILL BROTHERS CHEMICAL COMPANY		14,158.88			Negotiable
379992		30-AUG-17	HILBEBRECHT, WARREN K		668.45			Negotiable
379993		30-AUG-17	HOME DEPOT USA INC		1,147.58			Negotiable
379994		30-AUG-17	IBM CORPORATION		4,075.00			Negotiable
379995		30-AUG-17	ION WAVE TECHNOLOGIES, INC.		19,435.00			Negotiable
379996		30-AUG-17	IRVINE PIPE & SUPPLY INC		945.16			Negotiable
379997		30-AUG-17	IRVINE PROPERTY MANAGEMENT		32.45			Negotiable
379998		30-AUG-17	JACKSON TIDUS, A LAW CORPORATION		12,432.00			Negotiable
379999		30-AUG-17	JOHNSTONE SUPPLY		256.35			Negotiable
380000		30-AUG-17	JPI DEVELOPMENT GROUP INC.		702.53			Negotiable
380001		30-AUG-17	KENT & AMY DAHLBERG		2,548.00			Negotiable
380002		30-AUG-17	KIMBALL MIDWEST		2,560.60			Negotiable
380003		30-AUG-17	LABELMASTER		141.86			Negotiable
380004		30-AUG-17	LGC GEOTECHNICAL, INC.		2,791.00			Negotiable
380005		30-AUG-17	LIN, STEVEN		721.92			Negotiable
380006		30-AUG-17	LU'S LIGHTHOUSE, INC.		290.45			Negotiable
380007		30-AUG-17	MA, BO		40.37			Negotiable
380008		30-AUG-17	MBC APPLIED ENVIRONMENTAL SCIENCES		1,300.00			Negotiable
380009		30-AUG-17	MC MASTER CARR SUPPLY CO		1,157.14			Negotiable
380010		30-AUG-17	MCBAIN SYSTEMS LP		550.00			Negotiable
380011		30-AUG-17	MCCALL'S METERS, INC.		2,097.51			Negotiable
380012		30-AUG-17	MISSION COMMUNICATIONS, LLC		1,474.20			Negotiable
380013		30-AUG-17	MSC INDUSTRIAL SUPPLY CO		228.93			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 34
 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								
380014		30-AUG-17	MUNICIPAL MAINTENANCE EQUIPMENT INC		1,181.11			Negotiable
380015		30-AUG-17	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		11,674.45			Negotiable
380016		30-AUG-17	NATIONAL READY MIXED CONCRETE CO.		393.29			Negotiable
380017		30-AUG-17	NINYO & MOORE		670.00			Negotiable
380018		30-AUG-17	OCEAN BLUE ENVIRONMENTAL SERVICES INC		4,662.21			Negotiable
380019		30-AUG-17	OLIN CORPORATION		23,614.35			Negotiable
380020		30-AUG-17	ONESOURCE DISTRIBUTORS LLC		1,866.68			Negotiable
380021		30-AUG-17	ORACLE AMERICA, INC.		13,437.90			Negotiable
380022		30-AUG-17	ORANGE COUNTY AUTO PARTS CO		223.18			Negotiable
380023		30-AUG-17	ORANGE COUNTY FIRE AUTHORITY		980.00			Negotiable
380024		30-AUG-17	ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT		1,871.44			Negotiable
380025		30-AUG-17	OUTSOURCE		6,875.00			Negotiable

380026	30-AUG-17	TECHNICAL LLC PACIFIC PARTS & CONTROLS INC		155.16		Negotiable
380027	30-AUG-17	PACRIM ENGINEERING INC.		5,940.00		Negotiable
380028	30-AUG-17	PARKHOUSE TIRE INC		127.02		Negotiable
380029	30-AUG-17	PARKWAY LAWNMOWER SHOP		228.43		Negotiable
380030	30-AUG-17	PAYNE & FEARS LLP		10,753.43		Negotiable
380031	30-AUG-17	POLLARDWATER.COM		1,764.95		Negotiable
380032	30-AUG-17	PSOMAS		14,416.59		Negotiable
380033	30-AUG-17	PTI SAND & GRAVEL INC		1,079.36		Negotiable
380034	30-AUG-17	PURDUE UNIVERSITY		1,540.00		Negotiable
380035	30-AUG-17	QUINN COMPANY		278.10		Negotiable
380036	30-AUG-17	RAM AIR ENGINEERING INC		3,951.87		Negotiable
380037	30-AUG-17	RESPONSE ENVELOPE, INC		2,618.33		Negotiable
380038	30-AUG-17	RESTEK CORPORATION		477.58		Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

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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								
380039		30-AUG-17	RINCON TRUCK CENTER INC.		261.98			Negotiable
380040		30-AUG-17	ROBLES, SERGIO		53.36			Negotiable
380041		30-AUG-17	ROYAL WHOLESALE ELECTRIC		3,542.58			Negotiable
380042		30-AUG-17	RS HUGHES COMPANY, INC.		1,255.29			Negotiable
380043		30-AUG-17	S & J SUPPLY CO INC		25,113.03			Negotiable
380044		30-AUG-17	SANTA ANA BLUE PRINT		1,565.61			Negotiable
380045		30-AUG-17	SANTA MARGARITA FORD		15.80			Negotiable
380046		30-AUG-17	SECURITAS SECURITY SERVICES USA, INC.		28,686.31			Negotiable
380047		30-AUG-17	SMITH, KEVIN		120.48			Negotiable
380048		30-AUG-17	SOUTH BAY FOUNDRY, INC		6,211.79			Negotiable
380049		30-AUG-17	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT		1,089.36			Negotiable
380050		30-AUG-17	SOUTHERN CALIFORNIA EDISON COMPANY		265,096.00			Negotiable
380051		30-AUG-17	SPARKLETT'S		482.25			Negotiable
380052		30-AUG-17	SPARKLING INSTRUMENTS LLC		3,096.73			Negotiable
380053		30-AUG-17	SPX CORP		1,501.54			Negotiable
380054		30-AUG-17	STEEL UNLIMITED INC		856.61			Negotiable
380055		30-AUG-17	STETSON ENGINEERS INC.		2,861.31			Negotiable
380056		30-AUG-17	SUKLE ADVERTISING INC.		5,800.00			Negotiable
380057		30-AUG-17	SUNSTATE EQUIPMENT CO		3,098.21			Negotiable
380058		30-AUG-17	TALLEY INC		227.48			Negotiable
380059		30-AUG-17	TESTAMERICA LABORATORIES, INC		579.60			Negotiable
380060		30-AUG-17	THE NEW HOME COMPANY SOUTHERN CALIFORNIA LLC		126.54			Negotiable
380061		30-AUG-17	TRAFFIC CONTROL ENGINEERING, INC		9,800.00			Negotiable
380062		30-AUG-17	TRI POINTE HOMES, INC.		63.08			Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

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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								
380063		30-AUG-17	TRUCPARCO		1,805.64			Negotiable
380064		30-AUG-17	TUSTIN TOYOTA		49.78			Negotiable
380065		30-AUG-17	UNITED PARCEL SERVICE INC		41.02			Negotiable
380066		30-AUG-17	US BANK NAT'L ASSOCIATION NORTH DAKOTA		75,432.72			Negotiable

380067	30-AUG-17	VERIZON WIRELESS SERVICES LLC		6,997.39	Negotiable
380068	30-AUG-17	VULCAN MATERIALS COMPANY		1,418.04	Negotiable
380069	30-AUG-17	VVR INTERNATIONAL, LLC		743.74	Negotiable
380070	30-AUG-17	WALTERS WHOLESALE ELECTRIC		331.47	Negotiable
380071	30-AUG-17	WASTE MANAGEMENT OF ORANGE COUNTY		2,786.79	Negotiable
380072	30-AUG-17	WAXIE'S ENTERPRISES, INC		458.67	Negotiable
380073	30-AUG-17	WEST COAST SAFETY SUPPLY INC		2,621.91	Negotiable
380074	30-AUG-17	WESTPOINT PROPERTY MANAGEMENT		25.00	Negotiable
380075	30-AUG-17	WILLIAM D ROYER		695.00	Negotiable
380076	30-AUG-17	WIN-911 SOFTWARE		495.00	Negotiable
380077	30-AUG-17	WINN, SANDRA		100.24	Negotiable
380078	30-AUG-17	WORKFORCE SAFETY LLC		3,430.00	Negotiable
380079	30-AUG-17	YAN, ALYSSA		15.62	Negotiable
380080	30-AUG-17	YEAWARY, NEELOFAR		103.01	Negotiable
380081	30-AUG-17	YORKE ENGINEERING LLC		4,153.92	Negotiable
380082	30-AUG-17	YOU, YOUNG IM		71.32	Negotiable
380083	30-AUG-17	YSI, INC		29,548.26	Negotiable
380084	30-AUG-17	ZHAO, HAITAO		21.19	Negotiable
380085	31-AUG-17	JCI JONES CHEMICALS INC	TAMPA	5,255.25	Negotiable
380086	31-AUG-17	Nash, Joel	HOME	105.93	Negotiable
380087	31-AUG-17	Fehser, Noah (Noah)	HOME	60.00	Negotiable

Payment Document Subtotal: 11,052,588.98 7,979,661.24

Payment Document : IRWD Wire
 IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
12192		03-AUG-17	YORK INSURANCE SERVICES GROUP INC - CA	PAY	9,039.48			Negotiable
12193		03-AUG-17	CALPERS	SACRAMENTO	661.20			Negotiable
12194		14-AUG-17	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	8,666.71			Negotiable
12195		15-AUG-17	YORK INSURANCE SERVICES GROUP INC - CA	PAY	2,721.56			Negotiable
12196		15-AUG-17	INTERNAL REVENUE SERVICE	FRESNO	194,611.23			Negotiable
12197		15-AUG-17	FRANCHISE TAX BOARD	SACRAMENTO	53,293.41			Negotiable
12198		15-AUG-17	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	11,166.02			Negotiable
12199		15-AUG-17	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	230.77			Negotiable
12200		15-AUG-17	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	12,452.70			Negotiable
12201		15-AUG-17	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	DENVER	127,582.40			Negotiable
12202		15-AUG-17	FILANC-BALFOUR BEATTY JV	ACT 4427724347	1,209,879.61			Negotiable
12203		15-AUG-17	FILANC-BALFOUR BEATTY JV	ESR 211084000	1,927.57			Negotiable
12204		16-AUG-17	CITIGROUP GLOBAL MARKETS INC.	NEW YORK	212,723.30			Negotiable
12205		16-AUG-17	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	62,201.02			Negotiable
12206		16-AUG-17	U.S. BANK NATIONALST. ASSOCIATION	LOUIS	30,171.20			Negotiable
12207		16-AUG-17	BANK OF AMERICA	SAN FRANCISCO	30,319.86			Negotiable
12208		17-AUG-17	CALPERS	SACRAMENTO	176,586.41			Negotiable
12209		17-AUG-17	YORK INSURANCE SERVICES GROUP INC - CA	PAY	8,805.43			Negotiable
12210		18-AUG-17	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	2,134.60			Negotiable
12211		19-AUG-17	CALPERS	SACRAMENTO	465,201.10			Negotiable

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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 Wire								
12212		19-AUG-17	CALPERS	SACRAMENTO	2,867.15			Negotiable
12213		21-AUG-17	U.S. BANK NATIONALST. LOUIS ASSOCIATION		8,130.48			Negotiable
12214		21-AUG-17	CALPERS	SACRAMENTO	176,142.18			Negotiable
12215		21-AUG-17	CALPERS	SACRAMENTO	96,851.15			Negotiable
12216		21-AUG-17	CALPERS	SACRAMENTO	1,035.28			Negotiable
12217		22-AUG-17	YORK INSURANCE SERVICES GROUP INC - CA	PAY	5,662.35			Negotiable
12218		23-AUG-17	INTERNAL REVENUE SERVICE	FRESNO	214,507.46			Negotiable
12219		23-AUG-17	FRANCHISE TAX BOARD	SACRAMENTO	59,735.04			Negotiable
12220		28-AUG-17	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	11,572.84			Negotiable
12221		28-AUG-17	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	230.77			Negotiable
12222		28-AUG-17	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	2,134.60			Negotiable
12223		28-AUG-17	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	12,144.01			Negotiable
12224		28-AUG-17	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	DENVER	123,329.55			Negotiable
12225		29-AUG-17	FILANC-BALFOUR BEATY JV	ACT 4427724347	848,716.41			Negotiable
12226		29-AUG-17	FILANC-BALFOUR BEATY JV	ESR 211084000	12,909.82			Negotiable
12227		29-AUG-17	SUMITOMO MITSUI BANKING CORPORATION	NEW YORK	32,927.66			Negotiable
12228		29-AUG-17	U.S. BANK NATIONALST. LOUIS ASSOCIATION		14,567.67			Negotiable
12229		29-AUG-17	MUNICIPAL WATER DISTRICT OF ORANGEVALLEY COUNTY	FOUNTAIN	1,045,861.73			Negotiable
12230		29-AUG-17	YORK INSURANCE SERVICES GROUP INC - CA	PAY	7,755.63			Negotiable
12231		31-AUG-17	U.S. BANK NATIONALST. LOUIS ASSOCIATION		2,918,625.00			Negotiable

IRWD Ledger Upgrade Payment Register For 01-AUG-17 To 31-AUG-17 Report Date: 01-SEP-2017 10:09
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 39
 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								
12232		31-AUG-17	FORESITE ESCROW, INC.	BARDEEN PT/PVID	1,496,627.00			Negotiable

Payment Document Subtotal: 9,712,729.36

Bank Account Subtotal : 20,765,318.34 7,979,661.24

Report Count : 958 Report Total: 20,765,318.34 7,979,661.24

*** End of Report ***

\$ 20,765,318.34 Disbursements
 <11,558.51> Voids
 \$ 20,753,759.83 Total Disbursements and Voids

Exhibit "E"

MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS

August
2017

	AMOUNT	VENDOR	PURPOSE
8/4/2017	848,258.04	BANK OF AMERICA	ACH Payments for Payroll
8/18/2017	893,014.97	BANK OF AMERICA	ACH Payments for Payroll
	<u><u>\$1,741,273.01</u></u>		

Exhibit "F"

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-AUG-17 to 31-AUG-17

NAME	CHECK NO.	CHECK	AMOUNT	ITEM DESCRIPTION	EXPENSE JUSTIFICATION
Bennett, Ray	379720	24-Aug-17	163.71	Mileage	Rosedale-Rio Broavo DRP Project Tour/Inspection - August 2017
Bennett, Ray	379505	17-Aug-17	163.71	Mileage	Rosedale-Rio Broavo DRP Project Tour/Inspection - July 2017
Bertsch, Jeff	379923	30-Aug-17	201.81	Other(Misc)	Meeting supplies
Cascelli, Craig	379721	24-Aug-17	172.00	Membership Renewal	CWEA membership
Coria, Alex	379508	17-Aug-17	172.00	Membership Renewal	CWEA membership
Hankla, Jeremy	379172	3-Aug-17	180.00	Membership Renewal	CWEA membership
Hankla, Jeremy	379172	3-Aug-17	100.00	Certification Renewal	CWEA Mechanical Grade 4 certification
Leal, Eliberto	379723	24-Aug-17	172.00	Membership Renewal	CWEA membership
Moeder, Jacob	379728	24-Aug-17	312.00	Certification Renewal	WEF Renewal
Moeder, Jacob	379728	24-Aug-17	109.09	Auto Rental	Tesla Gigafactory Tour - Reno, NV - August 16, 2017
Murphy, Alex	379926	30-Aug-17	225.00	Other(Misc)	Cell phone insurance deductible
Navarro, Hector	379511	17-Aug-17	605.00	Membership Renewal	Membership renewal
Perez, Cesar	379732	24-Aug-17	180.00	Membership Renewal	CWEA membership
Pfister, Ken	379361	10-Aug-17	205.00	Certification Renewal	SWRCB Water Distribution Operator Grade D5 certification
Schreiner, Terrance	379362	10-Aug-17	280.00	Certification Renewal	CWEA Electrical Instrumentation Grade IV certification
Shinbashi, Allen	379180	3-Aug-17	120.55	Other(Misc)	Williams Ranch - Life Estate Assessment - new door locks for entire property
Solis, Henry	379363	10-Aug-17	180.00	Membership Renewal	CWEA membership
Spangenberg, Carl	379181	3-Aug-17	312.00	Membership Renewal	WEF membership
Swan, Peer	379734	24-Aug-17	555.96	Airfare	WEF's Bay-Delta Tour, Sacramento, CA - June 13-16, 2017
Swan, Peer	379734	24-Aug-17	226.86	Lodging	WEF's Bay-Delta Tour, Sacramento, CA - June 13, 2017
Total Amount:			\$4,636.69		

September 25, 2017

Prepared by: J. Moeder/R. Mori

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

Approved by: Paul A. Cook *P. Cook*

CONSENT CALENDAR

IRVINE LAKE PIPELINE NORTH CONVERSION RESERVOIR CONTRACT CHANGE ORDER

SUMMARY:

Pascal & Ludwig Constructors (P&L) is constructing the Irvine Lake Pipeline (ILP) North Conversion Reservoir, which is about 40% complete. Staff recommends that the Board approve Contract Change Order No. 10 in the amount of \$473,623 for design changes associated with the postponement of the Santiago Hills II development.

BACKGROUND:

As part of IRWD's strategic plan to increase recycled water usage and reduce reliance on imported water supplies, IRWD is converting a significant portion of the ILP from untreated water to recycled water. The ILP North Conversion Reservoir project includes construction of a 2.4 million gallon buried concrete reservoir, modifications at the Rattlesnake complex, and modifications at the Orchard Hills Strainer Facility. Construction of the ILP North Conversion Reservoir project began in October 2016.

Contract Change Order No. 10:

During the design phase, staff and the Irvine Company closely coordinated the project design with the anticipation that the Irvine Company would construct the adjacent Santiago Hills II development and associated infrastructure improvements concurrent with the reservoir project. As such, the project included provisions for connecting to the proposed storm drain, sewer, and grading improvements that were to be constructed with the development. In November 2016, the Irvine Company informed staff that construction of the development was being postponed, which prompted the need to design and construct several improvements at the reservoir site to successfully integrate the project with the existing conditions. The needed improvements consist of several items, but most notably include the following:

- Onsite and offsite storm drain piping, outfall structure, erosion protection, and grading modifications;
- Strainer backwash recycling system that includes a concrete vault, pumps, valves, and a pump control panel; and
- Miscellaneous revisions including site grading, yard piping, and electrical modifications.

Staff developed the design of the improvements with Kleinfelder and requested P&L to submit pricing for its construction. After several rounds of negotiation and scope review, P&L submitted a change request in the amount of \$473,623, which includes a request for a Contract Time extension of 56 calendar days. Staff reviewed the change order and confirmed that both the cost and the time extension request are acceptable. Staff recommends approval of Contract Change

Order No. 10, which is presented as Exhibit “A”, in the amount of \$473,623. A summary of change orders to date is provided as Exhibit “B”.

FISCAL IMPACTS:

Project 05407 is included in the FY 2017-18 Capital Budget. The existing budget is sufficient to fund the contract change order.

The ILP North Conversion Project, which includes the reservoir and associated off-site pipelines, is receiving grant funding from the United States Department of Bureau of Reclamation (USBR) and the State Water Resources Control Board (SWRCB). The USBR funding in the amount of \$300,000 is being provided through the Drought Resiliency Grant program with 75% IRWD matching requirements. The SWRCB is providing Proposition 1 Recycled Water Program grant funds, which will contribute up to a 35% match on eligible construction costs up to a maximum of \$29,510,300 in project costs.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA) and in conformance with California Code of Regulations Title 14, Chapter 3, Article 6, a Notice of Intent to adopt a Mitigated Negative Declaration was filed with the County of Orange on November 3, 2015. Pursuant to State Guideline § 15073, the Initial Study/Mitigated Negative Declaration (IS/MND) was made available for public review for a period of 30 days from November 4, 2015 through December 3, 2015. The IS/MND was adopted by IRWD Board of Directors at its January 11, 2016 meeting. A Notice of Determination was filed with the Orange County Clerk/Recorder and the CA State Clearinghouse on January 12, 2016.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on September 13, 2017.

RECOMMENDATION:

THAT THE BOARD APPROVE CONTRACT CHANGE ORDER NO. 10 WITH PASCAL & LUDWIG CONSTRUCTORS IN THE AMOUNT OF \$473,623 FOR DESIGN CHANGES ASSOCIATED WITH THE POSTPONEMENT OF THE SANTIAGO HILLS II DEVELOPMENT FOR THE IRVINE LAKE PIPELINE NORTH CONVERSION RESERVOIR, PROJECT 05407.

LIST OF EXHIBITS:

Exhibit “A” – Contract Change Order No. 10
Exhibit “B” – Contract Change Order Summary Log

EXHIBIT "A"

CCDER



Irvine Ranch Water District

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

C.O. No. 10

Final

Project No. 05407

ILP N. Conversion Santiago Hills Zone C+ Reservoir

Project Title

Date: 9/5/2017

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
1. Change Request 21 - Construction of redesign improvements included in Delta 6 that are associated with the Irvine Company's schedule modification for the Santiago Hills II development.	\$ 473,623.00	\$ -	56
Note: With the execution of this contract change order, the revised contract completion date is 02/09/2019.			
TOTAL	\$ 473,623.00	\$ -	56

DAYS ±

1. NET AMOUNT THIS CHANGE ORDER	= \$	473,623.00	56
2. ORIGINAL CONTRACT AMOUNT	= \$	9,038,010.00	690
3. TOTAL PREVIOUS CHANGE ORDER(S)	= \$	1,000,748.00	167
4. TOTAL BEFORE THIS CHANGE ORDER (2+3)	= \$	10,038,758.00	857
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4)	= \$	10,512,381.00	913

We hereby agree to make the above change subject to the terms of this change order for the sum of: _____

Four Hundred Seventy Three Thousand Six Hundred Twenty Three and 0/100 Dollars

9/5/17 Date Pascal & Ludwig Constructors Contractor Scott F. Boyd By:

SIGNATURE	DATE	APPROVAL LEVEL REQUIRED
<u>Jacob Mascher</u> IRWD Engineer or Consulting Engineer	<u>9/5/17</u> Date	Department Director Approval Required <input type="checkbox"/> Executive 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	<u>09/05/17</u> Date	
<u>[Signature]</u> Executive Director of Engineering & Water Quality	<u>9/5/17</u> Date	
General Manager	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 Change 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 Change Order. The time for completing the contract will not be extended unless expressly provided for in this Change Order.

EXHIBIT "B"

**LLP N. Conversion Santiago Hills Zone C+ Reservoir Project
PR 05407
Construction Change Order Summary**

Date: September 5, 2017
Contractor: Pascal & Ludwig
Design Engineer: Kleinfelder

			Contract Amount						Contract Days				Original Completion Date:
Change Order No.	Description	Category	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 Order Days	Cum. Change Order Days	Revised Total Contract Days	7/1/2018
													Original Contract Amount: \$9,038,010.00
1	Approved by Executive Director of Eng and WQ Approved on November 22, 2016 CR-1: Addition of 4-inch water line at Santiago Canyon Reservoir Site CR-2: Removal of fencing along Santiago Canyon Road CR-3: Modifications to the strainer backwash pumps CR-4: Modifications to the fencing plan at the Santiago Canyon Hills Reservoir Site CR-5: Addition of a project sign at the Irvine Company disposal site	B D D C C	\$10,628.00 \$818.00 \$1,491.00 \$7,159.00 \$750.00	\$ 20,846.00	\$ -	\$ 20,846.00	0.23%	\$9,058,856.00	0	0	0	690	7/1/2018
2	Approved by Executive Director of Eng and WQ Approved on March 28, 2017 CR-6: Additional potholing at Rattlesnake Complex CR-7: Addition of mulch at Rattlesnake Complex CR-8: Modification to the stainless steel tapping sleeve CR-10: Addition of Proposition 1 Funding Agreement requirements CR-11: Addition of remote control station on 30-inch ball valve CR-12: Time extension request for weather delays	B C A C D B	\$3,283.00 \$2,065.00 \$12,605.00 \$0.00 \$3,728.00 \$0.00	\$21,681.00	\$ 20,846.00	\$ 42,527.00	0.47%	\$9,080,537.00	48	0	48	738	8/18/2018
3	Approved by Executive Director of Eng and WQ Approved on March 31, 2017 CR-15: Additional time for delay in disposal site availability	B	\$0.00	\$0.00	\$ 42,527.00	\$ 42,527.00	0.47%	\$9,080,537.00	25	48	73	763	9/12/2018
4	Approved by Board Approved on April 24, 2017 CR-9: City of Orange modified work hours CR-13: Additional handling and disposal	C B	\$83,970.00 \$267,044.00	\$351,014.00	\$ 42,527.00	\$ 393,541.00	4.35%	\$9,431,551.00	20	73	93	783	10/2/2018
5	Approved by Executive Director of Eng and WQ Approved on April 19, 2017 CR-15: Modified Shoring for Additional Over Excavation	B	\$65,459.00	\$65,459.00	\$ 393,541.00	\$ 459,000.00	5.08%	\$9,497,010.00	22	93	115	805	10/24/2018
6	Approved by General Manager Approved on May 24, 2017 CR-19: Additional Over-Excavation	B	\$95,380.00	\$95,380.00	\$ 459,000.00	\$ 554,380.00	6.13%	\$9,592,390.00	0	115	115	805	10/24/2018
7	Approved by General Manager Approved on July 13, 2017 CR-20: Slot cutting in front of shoring	B	\$98,526.00	\$98,526.00	\$ 554,380.00	\$ 652,906.00	7.22%	\$9,690,916.00	0	115	115	805	10/24/2018
8	Approved by Board Approved on July 25, 2017 CR-22: Import and Placement of Structural Backfill	B	\$314,692.00	\$314,692.00	\$ 652,906.00	\$ 967,598.00	10.71%	\$10,005,608.00	52	115	167	857	12/15/2018
9	Approved by Executive Director of Eng and WQ Approved on CR-18: Air Gap Support Redesign CR-23: Surge Tank Piping Modifications	D B	\$16,413.00 \$16,737.00	\$33,150.00	\$ 967,598.00	\$ 1,000,748.00	11.07%	\$10,038,758.00	0	167	167	857	12/15/2018
10	Approved by Board Approved on CR-21: Redesign associated with TIC Development Sch. Mod	A	\$473,623.00	\$473,623.00	\$ 1,000,748.00	\$ 1,474,371.00	16.31%	\$10,512,381.00	56	167	223	915	2/9/2019

Category	Total Amount	Contract
A - Owner Directed Change	\$486,228.00	5.38%
B - Differing/Unknown Condition	\$871,749.00	9.65%
C - External Agency, Regulatory, and/or Permit Required Change	\$93,944.00	1.04%
D - Design Oversight	\$22,450.00	0.25%
Total Change Order Amount (A + B + C + D)	\$1,474,371.00	16.31%

September 25, 2017

Prepared by: J. Corey / K. Welch

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

Approved by: Paul A. Cook *PAW*

ACTION CALENDAR

ENVIRONMENTAL COMPLIANCE CONSULTANT SELECTION FOR THE SYPHON RESERVOIR IMPROVEMENT PROJECT

SUMMARY:

The proposed Syphon Reservoir Improvement Project will allow Irvine Ranch Water District to increase its seasonal recycled water storage capacity by approximately 4,100 acre-feet (AF). An Environmental Impact Report (EIR) needs to be prepared for the project consistent with the California Environmental Quality Act (CEQA) and the requirements of the National Environmental Policy Act (NEPA). Staff has evaluated four proposals to prepare the EIR and conducted interviews with the top two firms. Staff recommends the Board authorize the General Manager to execute a Professional Services Agreement with Environmental Science Associates (ESA) in the amount of \$611,226 to prepare an EIR for the proposed Syphon Reservoir Improvement Project.

BACKGROUND:

Syphon Reservoir is located east of Portola Parkway between Bee Canyon Access Road and State Route 133 (SR-133). The existing dam and reservoir was constructed in 1949 and was historically used by the Irvine Company to store agricultural irrigation water. In 2010, IRWD purchased Syphon Reservoir for storing recycled water. In 2012, IRWD completed the "Syphon Reservoir Expansion Feasibility Study" and the "Syphon Reservoir Environmental Regulatory Evaluation" to determine the feasibility of expanding the usable storage capacity of the reservoir. In 2014, IRWD constructed interim facilities to integrate the existing reservoir into IRWD's recycled water system for use as a small, recycled water seasonal storage facility.

Project Overview:

The proposed Syphon Reservoir Improvement Project would allow IRWD to increase its seasonal recycled water storage capacity by approximately 4,100 AF. IRWD proposes to increase the reservoir storage capacity by replacing the existing 59-foot high dam with a new 136-foot high embankment dam. The final usable storage capacity at Syphon Reservoir will be 4,900 AF. The existing onsite strainer and disinfection facilities that were constructed under the interim facilities project would be replaced with larger facilities. Necessary conveyance facilities to integrate the expanded reservoir into IRWD's recycled water system will include a pump station and associated pipeline. The pump station is currently in design as a part of the Eastwood Recycled Water Pump Station Project.

Preparing Project EIR:

An Environmental Impact Report (EIR) needs to be prepared for the proposed project consistent with the California Environmental Quality Act (CEQA). To support IRWD's efforts in securing

federal funding for the project, the EIR also needs to fulfill the requirements of the National Environmental Policy Act (NEPA).

Consultant Selection:

A Request for Proposals for preparing an EIR for the proposed project was issued to four environmental firms: Dudek, ESA, LSA Associates, and Psomas. Staff completed a thorough review and evaluation of each proposal, and conducted interviews with the top two firms. The Environmental Consultation Selection Matrix for the proposed project is shown in Exhibit "A". Staff recommends the selection of ESA to complete the work. The key strengths of ESA's proposal are as follows:

- A project management team with a superior depth of expertise and knowledge of IRWD;
- Outstanding understanding of the key issues associated with the project;
- An informed approach that reflects an understanding of the project, IRWD's expectations and the requirements of CEQA and NEPA;
- A scope of work that reflects the expected level of effort;
- The outstanding qualifications of their project team;
- Appropriate commitments to the project by the Principal in Charge and Project Manager;
- Prior experience with dam construction projects; and
- A superior level of support and collaboration on public outreach efforts.

ESA proposes a 20-month schedule to prepare and certify an EIR for the project. ESA's cost estimate to complete the work is \$611,226. ESA's scope of work, cost estimate and schedule are included as Exhibit "B".

Additional Steps:

In addition to the environmental consultant award, staff has been working with communications firm Katz & Associates on a draft overview plan for third-party outreach support. Staff intends to finalize this plan later this month and then issue a Request for Proposals (RFP) in early fall to several communications firms. Over the past few months, staff has met with engineering firms expressing interest in serving as the Owner's Representative, as well as several firms interested in the detailed design project efforts. Staff is currently drafting the RFP for the Owner's Representative scope of services and is expect to advertise in October.

FISCAL IMPACTS:

The Syphon Reservoir Improvement Project (Project 03808), is included in the FY 2017-18 Capital Budget as a flagged project. On July 7, 2017, the Board approved an Expenditure Authorization in the amount of \$2,500,000 for design, environmental compliance and permitting work associated with the project. The amount of funds reserved for environmental and permitting work is \$1,000,000, which is adequate to fund the work proposed by ESA.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on September 13, 2017.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH ESA TO COMPLETE AN ENVIRONMENTAL IMPACT REPORT FOR THE SYPHON RESERVOIR IMPROVEMENT PROJECT FOR THE NOT-TO-EXCEED AMOUNT OF \$611,226.

LIST OF EXHIBITS:

Exhibit "A" – Environmental Compliance Consultation Selection Matrix for the Syphon Reservoir Improvement Project

Exhibit "B" – ESA's Scope of Work, Schedule and Cost Estimate for Preparing and EIR for the Syphon Reservoir Improvement Project

EXHIBIT "A"

ENVIRONMENTAL CONSULTANT FOR SYPHON RESERVOIR IMPROVEMENT PROJECT

Item	Description	Weights	Dudek	Psomas	ESA	LSA				
A	TECHNICAL APPROACH									
1	Project Understanding	30%	3	4	1	2				
2	Project Approach	30%	2	4	1	3				
3	Scope of Work / Level of Effort	30%	2	4	1	3				
4	Schedule	10%	2	4	1	3				
	Weighted Score (Technical Approach)	80%	2.3	4.0	1.0	2.7				
B	QUALIFICATION AND EXPERIENCE									
1	PIC		Joe Monaco, AICP MA, 28 yrs experience	Kathleen Brady, AICP BS, 39 yrs experience	Tom Barnes BA, 22+ yrs experience	Nicole Dubois MA, 15 yrs experience				
		30%	2	3	1	4				
2	Project manager		Sarah Lozano, AICP MA, 17 yrs experience	Jennifer Marks BS, 17 yrs experience	Jennifer Jacobus, PhD PhD, 15+ yrs experience	Nicole West MS, 16 yrs experience				
		20%	2	3	1	4				
3	Project Team (See Team Evaluations)	30%	2	3	1	4				
4	Firm's Relevance Experience	20%	2	3	1	4				
	Weighted Score (Experience)	40%	2.0	3.0	1.0	4.0				
	COMBINED WEIGHTED SCORE	100%	2.18	3.60	1.00	3.22				
C	SCOPE OF WORK									
TASK			Task Hours	FEE	Task Hours	FEE	Task Hours	FEE		
1	Project Initiation/Mgmt/Initial Study Screening		364	\$68,780	77	\$10,170	310	\$50,531	429	\$66,319
2	Collect & Review Existing Information/RFIs		124	\$22,480	34	\$4,950	44	\$6,776	80	\$11,492
3	Project Schedule		32	\$5,840	10	\$1,750	32	\$4,974	96	\$15,218
4	Technical Studies		154	\$22,130	297	\$36,510	1,120	\$149,792	857	\$119,576
5	Coordination w/Consultants (Design/PR)		108	\$18,360	40	\$5,875	84	\$13,020	140	\$21,089
6	Develop Project Description/Identify Alternatives		150	\$25,210	53	\$7,420	180	\$27,393	158	\$19,699
7	AB52 Tribal Cultural Resources		17	\$2,500	20	\$2,260	58	\$9,228	8	\$1,080
8	Prepare NOP/Initial Study/NOC		160	\$25,480	34	\$3,985	105	\$13,525	18	\$2,292
9	Public Scoping		56	\$10,290	54	\$6,440	132	\$19,202	128	\$17,173
10	Prepare Admin Draft EIR		1,541	\$253,425	455	\$58,040	821	\$116,923	764	\$96,026
11	Prepare Screencheck DEIRs		314	\$47,985	202	\$26,785	284	\$38,779	340	\$42,702
12	Prepare Public Review DEIR/NOA/NOC		177	\$28,815	60	\$8,780	74	\$8,965	236	\$26,513
13	Conduct Public Review Mtg		70	\$11,850	52	\$5,960	84	\$12,244	128	\$17,173
14	Prepare Final EIR/Response to Comments		278	\$46,390	51	\$7,505	216	\$33,229	692	\$90,851
15	Prepare MMRP		16	\$2,310	11	\$1,305	30	\$4,118	52	\$6,787
16	Prepare Findings/Statement of Overriding Concerns/NOD/Finalize EIR		72	\$10,960	73	\$9,225	80	\$10,804	76	\$10,723
	Subtotal Tasks 1 - 16		3,633	\$602,805	1,523	\$196,980	3,654	\$519,302	4,202	\$564,713
D	MISCELLANEOUS									
	Direct Costs/Reimbursables			\$11,850		\$25,200		\$12,535		20,930
	Sub-Consultants (Costs&Fees)			\$20,355				\$41,580		\$25,266
	Total Misc			\$32,205	178	\$59,125		\$70,342		\$46,196
	TOTAL CONSULTANT SERVICES (CEQA +)		3,633	\$635,010	1,701	\$256,085	3,654	\$589,644	4,202	\$610,909
17	NEPA Compliance (Optional)		540	\$89,960	246	\$35,235	120	\$21,582	747	\$108,594
	TOTAL CONSULTING SERVICES (w/ NEPA)		4,173	\$724,970	1,947	\$291,320	3,774	\$611,226	4,949	\$719,503
E	OTHER									
	Multiplier		N/A		N/A		3.40		3.15	
	Sub Consultants		Trames Solutions		Linscott Law & Greenspan		VisionScape, Fehr&Peers		Cornerstone, Ninyo&Moore	
	Exceptions taken to IRWD Std. Contract		None		None		None		None	
	Insurance Provided (General Liability)		Yes		Yes		Yes		Yes	
	Insurance Provided (Professional)		Yes		Yes		Yes		Yes	
	Forced Rankings: (Enter 1, 2, 3 or 4, 1 being best)		2		4		1		3	



Irvine Ranch Water District

Proposal for Environmental Documentation for the Proposed Syphon Reservoir Improvement Project



Work That Matters
08.14.17 | proposal



Irvine Ranch Water District

Proposal for Environmental Documentation for the Proposed Syphon Reservoir Improvement Project

Work That Matters

August 14, 2017

Prepared for:
Irvine Ranch Water District

Fiona M. Sanchez
Director of Water Resources

ESA
626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300
www.esassoc.com

P170348.00



626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300 phone
213.599.4301 fax

www.esassoc.com

August 14, 2017

Fiona M. Sanchez
Director of Water Resources
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92718

Subject: Proposal for Environmental Documentation for the Proposed Syphon Reservoir Improvement Project

Dear Fiona:

Irvine Ranch Water District (IRWD) is embarking on an ambitious project to expand Syphon Reservoir to provide critical operational storage capacity and ensure maximum beneficial use of recycled water as part of IRWD's water supply portfolio. We understand that the Syphon Reservoir Improvement Project is important for the region because it will reduce dependency on imported water, especially during summer months, and maintain operational efficiency at IRWD's water recycling plants. Successful completion of the environmental documentation for this complex opportunity will require a team fully versed in environmental impacts associated with construction of new dams and reservoirs and the intricacies of the Central and Coastal Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). Our ESA Team includes Jennifer Jacobus, PhD as Project Manager, a known and trusted partner to IRWD. Jennifer is supported by Tom Barnes as Project Director and a technical team that includes seasoned biologists with decades of experience working in Orange County and within the NCCP/HCP area. Combined with Jennifer and Tom's experience with projects at Crafton Hills Reservoir and Lake Perris Dam, our ESA Team has the unique expertise required to complete the environmental documentation for the Syphon Reservoir Improvement Project and keep the project on track and on schedule.

Why ESA?

A Known and Trusted Partner: Jennifer, Tom, and our technical team have worked on numerous IRWD projects, understand your expectations and infrastructure, and will deliver customer service of the highest caliber. ESA has provided environmental compliance services to IRWD since 2005, including California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) documentation; technical surveys and assessments for biological resources, cultural resources, air quality, surface hydrology, and water quality; and mitigation monitoring during project construction. ESA has held an on-call services contract with the District since 2009. We pride ourselves on building relationships with clients such as we have with IRWD, working to understand agency culture and expectations, and partnering with staff to understand their needs. We understand and appreciate IRWD's high standards for quality professional services and have built institutional knowledge of District water and wastewater infrastructure, giving us insight that allows us to provide such services in a cost-efficient manner.

CEQA/NEPA Experts and a Team that Specializes in Water Projects: Jennifer and Tom are leaders in our southern California Water Practice Group, which is unmatched in our exclusive focus on water industry clients like IRWD. We deliver environmental compliance strategies that are legally defensible at a level of effort that is appropriate for every project, and with a holistic vision for how CEQA can serve and benefit project design, operation, and permitting.

Recent and Relevant Experience with CEQA Compliance for Dam and Reservoir Projects: Our Management Team and Technical Team will bring their understanding of critical issues associated with new dams and expanded reservoirs – such as the Lake Perris Dam Retrofit and Crafton Hills Reservoir Enlargement – to ensure environmental issues are not

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August 14, 2017
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overlooked. Key issues we identify in our proposal include biological impacts onsite on deed-restricted lands in the NCCP/HCP; construction-related impacts to traffic, air quality and noise; and visual impacts of a new and higher dam. ESA's Technical Team includes all in-house staff, with the exception of two subconsultants: VisionScape will provide visual simulations of the new dam, and Fehr & Peers will provide a Traffic Study that focuses on project construction.

NCCP/HCP and Agency Consultation Expertise: With the acquisition of PCR in 2015, ESA gained a seasoned team of biologists in our Irvine office with decades of experiences working with Orange County habitats, species, and the NCCP/HCP. Steve Nelson, Scott Holbrook, and Maile Tanaka have extensive understanding of coastal sage scrub habitat and associated species and have put forth a scope of work that is proactive and can support creative solutions for biological mitigation strategies for the Syphon Reservoir site. Our ESA team has relationships with regulatory agencies, such as the NCC, CDFW, USFWS, and Reclamation, and experience consulting early with such agencies to negotiate mitigation strategies.

Proven Customer Service: IRWD will require strict schedule management and regular progress reporting for this Project. Through our working history with IRWD, ESA has repeatedly demonstrated our ability to be flexible to meet the schedules the District requires. As Project Manager, Jennifer will draw on her experienced team to ensure that our work assignments are completed efficiently and on time, keeping the project moving forward. She will be ESA's primary point of contact and responsible for ensuring all correspondence and updates are provided so IRWD staff can keep its and Executive Management team and Board of Directors informed about progress as required.

We appreciate this opportunity to submit our proposal to IRWD for the Syphon Reservoir Improvement Project. Please feel free to contact me or Jennifer Jacobus at 213 599-4300, or tbarnes@esassoc.com, jjacobus@esassoc.com, if you have any questions or need additional information.

Sincerely,



Tom Barnes
Vice President and Director
ESA Water Group



Jennifer Jacobus, PhD
Senior Managing Associate
ESA Water Group



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Scope of Work



Section 1

Scope of Work

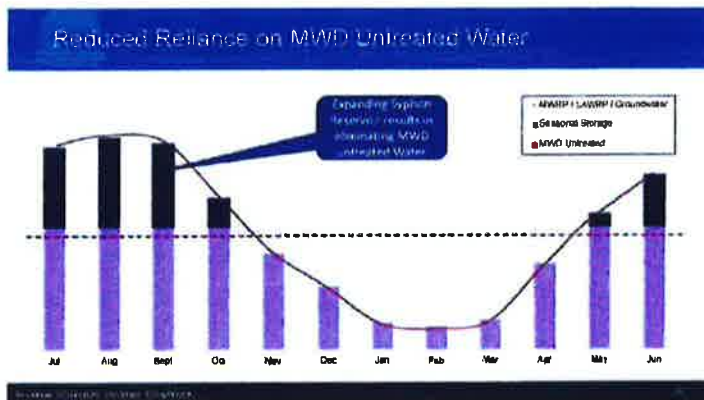


Project Understanding

Syphon Reservoir is an existing recycled water storage reservoir located in Irvine, California. Irvine Ranch Water District (IRWD) acquired Syphon Reservoir in 2010 from the Transportation Corridor Agency (TCA) and implemented the Syphon Reservoir Interim Facilities, which made minor improvements to integrate the reservoir into IRWD's recycled water system. IRWD produces recycled water at its Michelson Water Recycling Plant (WRP) and Los Alisos WRP and provides this water to customers primarily for agricultural and landscape irrigation, as well as industrial processes, toilet flushing and cooling towers. When recycled water production exceeds seasonal demands, recycled water can be stored at Syphon Reservoir, as well as San Joaquin, Rattlesnake, and Sand Canyon Reservoirs.

IRWD is proposing to implement the Syphon Reservoir Improvement Project, which would increase the reservoir storage capacity by replacing the existing 59-foot high Syphon Dam with a new embankment dam that would be up to 136 feet high. By replacing the Dam, the storage capacity at Syphon Reservoir would increase from 535 acre feet (AF) to 4,960 AF. Existing onsite strainer and disinfection facilities would be replaced with larger facilities. The Project would be integrated into IRWD's recycled water system through a new pumping station and offsite pipeline that are already built.

Improvements to Syphon Reservoir would provide seasonal storage to optimize the use of recycled water and meet current and future recycled water demands. Annual recycled water demands, which are dominated by



irrigation uses, fluctuate considerably due to seasonal variations. IRWD's existing recycled water storage reservoirs allow IRWD to store surplus recycled water produced at the WRPs during periods of low demand (winter months) and then use the stored water during periods of high demand (summer months). Currently, once the storage reservoirs are full in winter months, excess recycled water supplies are lost to ocean disposal, and then IRWD must

purchase supplemental imported water from Metropolitan Water District of Southern California (MWD) to meet summer demands. Based on projected demands and supplies, IRWD estimates that it will need an additional 3,200 AF of seasonal storage in 2020 and about 4,500 AF by the year 2030. The Syphon Reservoir Improvement Project would provide the necessary additional storage to allow IRWD to meet its projected seasonal storage needs. The Project would also reduce reliance on MWD imported water during summer months, reduce diversions of sewage to Orange County Sanitation District, and reduce discharges of recycled water to the ocean that could otherwise be used by IRWD customers.

Syphon Reservoir is located within the Central and Coastal Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) and is included as an operating reservoir allowed within the NCCP/HCP Reserve. Implementation of expanded seasonal storage for recycled water purposes was anticipated and identified as a permitted use in the NCCP/HCP. In addition, the Syphon Reservoir property is subject to deed restrictions; TCA as the previous owner committed lands for mitigation of impacts associated with the Eastern Transportation Corridor Project. As a result of the Syphon Reservoir Improvement Project, the water surface elevation would increase from 376 feet above mean sea level (amsl) to 456 feet amsl, expanding the shoreline and inundating up to approximately 78 acres that currently support upland and wetland vegetation communities that are within the NCCP/HCP Reserve area and deed restricted lands (Syphon Reservoir Environmental Regulatory Evaluation, Dudek 2012).

Water levels at Syphon Reservoir would fluctuate seasonally; however, as water is stored in winter when recycled water supply exceeds demand and the reservoir is drawn down in summer when demand exceeds supply. The estimated minimum operating capacity of the reservoir would be about 180 AF to maintain water quality (GEI 2012).

Requested Services

IRWD has requested environmental documentation for the Project, specifically preparation of an environmental impact report (EIR) in accordance with the California Environmental Quality Act (CEQA). IRWD intends to pursue funding for the Project from the U.S. Bureau of Reclamation (Reclamation), and as such, environmental documentation must meet the requirements of the National Environmental Policy Act (NEPA). As stated in the Addendum to the RFP, IRWD requests a CEQA-Plus document that is NEPA-ready.

IRWD has completed an Engineering Feasibility Study for the Project (GEI Consultants 2012). Further preliminary design and engineering work will occur concurrently with preparation of the CEQA/NEPA document. Although a geotechnical assessment was completed to support the Feasibility Study, IRWD expects additional and substantial geotechnical investigation will be required to inform the design of the dam and reservoir.

Approach

Specialized Project Management Team

ESA has been a partner with IRWD, providing environmental compliance services for over 10 years. **ESA's team for this Project will be led by Jennifer Jacobus as designated Project Manager, supported by Tom Barnes as the Project Director.** Jennifer has maintained a long-standing relationship with IRWD staff and has a proven track record of successful CEQA compliance for many IRWD projects, including large controversial projects and those with vocal local community stakeholders, such as the Michelson WRP Phase II and III Expansion Project Supplemental EIR (a.k.a. the Biosolids Project) and the Baker Water Treatment Plant EIR and Addenda. Through these projects, Jennifer has a history of working with IRWD's Public Affairs staff to discuss messaging and prepare public presentation materials. Jennifer also has a history of working with IRWD's Engineering staff as integral and crucial members of project teams. These experiences will serve the Syphon Reservoir Improvement Project, given Jennifer's understanding of IRWD's expectations and style. Jennifer will be the cornerstone of ESA's team as the primary contact, participating in all meetings and providing consistency and reliability in the flow of information between IRWD and ESA's team.

In addition, Jennifer and Tom both have experience completing the CEQA process for similar dam and reservoir projects. Jennifer managed the EIR for the Department of Water Resources' Crafton Hills Reservoir Enlargement Project, which built a new dam in the drainage adjacent to the existing reservoir to enlarge the reservoir. Tom managed the EIR for DWR's Perris Dam Remediation Project, which implemented a seismic remediation of the Lake Perris Dam, requiring lowering of the lake elevation and 2 million cubic yards of soil hauling. Tom led the preparation of the EIR and permit process strategy required for inclusion in Riverside County's Multi-Species Habitat Conservation Plan (MSHCP).

Coordination and Project Development

The Project Team will include IRWD staff (Planning, Public Affairs, Engineering) and separate consultants for program management, design, public outreach, and environmental compliance. As the environmental compliance consultant, ESA will maintain open channels of communication with all Project Team members, focusing on responsiveness, reliability, and transparency. Starting with the kick-off meeting, ESA will work with IRWD to develop a clear expectation for communication protocols among team members to ensure efficient coordination and make sure schedule and progress reports are provided as needed.

The design process for the Project will proceed in parallel with the CEQA/NEPA process. A preliminary design report may not be complete prior to release of the CEQA document. IRWD has indicated there will be an owner's representative and engineering design



consultant that will provide the information ESA needs to develop an adequate Project Description for purposes of CEQA/NEPA. Our starting point will be the dam design options included in the Engineering Feasibility Study (GEI 2012), as well as other options identified by the owner's representative and design consultant team. In addition, the design consultant will provide information about the nature and extent of additional geotechnical investigation required, along with methods and materials. The benefit to tandem design and environmental processes is the opportunity for ESA to provide early feedback regarding environmental constraints that may inform the dam and reservoir design, and potentially avoid schedule delays.

Leveraging Existing Documentation

There is extensive information already available about the project site, design, constructability, and environmental constraints included in the following existing reports:

- > Phase I Environmental Site Assessment (2009)
- > Syphon Reservoir Expansion Engineering Feasibility Study (GEI 2012)
 - Constructability Analysis
 - Geotechnical Data Report
 - Water Quality Study of Expanded Syphon Reservoir
 - Inundation Study
- > Syphon Reservoir Environmental Regulatory Evaluation (Dudek 2012)
- > Syphon Reservoir Interim Facilities IS/MND (Dudek 2013)

ESA will leverage the existing information to the extent feasible in developing the project description and in our environmental impact analyses. These reports will be our first stop for information, upon which we will build through coordination with the greater Project Team and then supplement with additional research and analysis as needed.

CEQA Compliance Options

According to IRWD, additional geotechnical investigation will be required to inform the design of the Syphon Dam and Reservoir. Based on conversations with IRWD staff, we understand that the results of the investigation will determine the feasibility of reusing soils onsite versus the need to import large quantities of materials to construct the dam. IRWD has the option to prepare one CEQA document that simultaneously assesses both the geotechnical investigation and the Project, or two separate documents that separates the geotechnical from the larger dam construction project. There are benefits and risks associated with each approach.

Two Documents: If two documents are prepared, we assume that IRWD would first prepare an Initial Study/Mitigated Negative Declaration (IS/MND) for the geotechnical investigation requiring 9 to 12 months to complete (see schedule below). The IS/MND would require technical studies for Biological Resources and Cultural Resources and early consultation with the NCCP/HCP Natural Communities Coalition, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service to develop appropriate mitigation strategies. According to IRWD, the geotechnical investigation may require lowering the water elevation, construction of temporary access roads, and use of heavy equipment that will substantially disturb the site. The primary benefit associated with this approach is to allow the geotechnical work to proceed as soon as possible to inform the design process. Assuming a 3-month period to secure permits, the geotechnical work could start after 12 to 15 months. The permits required may include but not be limited to a California Fish and Game Code Section 1600

Streambed Alteration Agreement, Clean Water Act Section 404/401 permit; and mitigation plan under the NCCP/HCP.

The spectrum of benefits and risks associated with this approach is summarized in **Table 1-1**. Under this approach, it may take up to 33 months to complete the environmental documentation for the Project (see schedule below). Generally, this approach is not recommended because the extent of site disturbance associated with geotechnical work will likely be similar to the disturbance associated with the dam and reservoir construction. Processing two separate sets of permit applications for the same site disturbance creates redundancy in effort and cost. In addition, this approach introduces a risk for claims of piecemealing the CEQA document

One Document: If one document is prepared, then the Project EIR will evaluate both activities, the geotechnical investigation and dam/reservoir construction. Without the results of the geotechnical investigation, the EIR may need to include a range of options for Project design and construction methods. Since the geotechnical investigation would result in substantial disturbance to a large part of the Syphon Reservoir property, including the area that would be disturbed due to implementation of the Project itself, covering all activities in one CEQA document may avoid the need for two sets of permit applications.

The spectrum of benefits and risks associated with this approach is summarized in **Table 1-2**. Under this approach, the schedule indicates a total of 20 months to complete the environmental documentation for the Project, in accordance with the schedule in the RFP. Given the shorter schedule and the potential to consult with wildlife agencies and develop mitigation strategies once for both activities, **ESA recommends preparing one CEQA document for the Project**, which is in line with IRWD's request in the RFP. However, given the universe of benefits and risks associated with this decision, ESA would welcome the opportunity to discuss the two approaches with IRWD, particularly once a design consultant is engaged, to vet this decision and make adjustments if necessary to best serve the Project schedule and goals. For the purposes of this scope of work, ESA has assumed the one document approach. The scope and cost would need to be modified if the two-document approach is ultimately chosen.



Table 1-1. Benefits and Risks of Preparing Two Environmental Documents

Benefits	Risks
Geotechnical investigation can be completed sooner.	Segmenting the permitting efforts for the geotechnical investigation and the full Project creates redundant level of effort.
Geotechnical results can inform Project design sooner and provide greater certainty regarding Project feasibility and design.	Potential risk for claims of piecemeal for the CEQA document.
Project EIR could include a refined Project Description that incorporates geotechnical results, reducing the range of options to be evaluated and potential associated impacts and mitigation.	CEQA/NEPA process overall takes 33 months to complete.
Lower risk of having to do a subsequent CEQA document due to changes in the Project after the geotechnical investigation is complete.	Costs may be greater due to longer schedule and two separate documents.

Table 1-2. Benefits and Risks of Preparing One Environmental Document

Benefits	Risks
The CEQA process is completed more quickly in 20 months instead of 33 months.	Project is less defined and therefore greater effort is required to analyze a range of options, which results in a more complex document and potentially greater number of mitigation measures.
Lower costs associated with a shorter schedule and consolidated efforts to consult with resource agencies once and secure permits.	The results of the geotechnical investigation could change the Project Description and, if the change is great enough, require a subsequent CEQA document.
Avoid potential risk for claims of piecemeal for the CEQA document.	The ability to initiate the geotechnical investigation is delayed by about a year.
Combine permitting effort – one consultation and mitigation negotiation with wildlife agencies to cover both geotechnical investigation and Project.	
CEQA document covers the whole of the action which is preferable for Section 106 consultation for impacts to cultural resources	

NEPA Compliance

For funding through the U.S. Bureau of Reclamation, our experience is that CEQA-Plus is sufficient for NEPA compliance. The State Water Resources Control Board has developed CEQA-Plus guidelines as a way to streamline NEPA compliance through the CEQA process. CEQA-Plus documents resemble standard CEQA documents but with additional information to assist with federal government consultations. CEQA-Plus documents typically include robust technical reports for biological resources and cultural resources. Our scope of work assumes a CEQA-Plus EIR will be prepared for the Project.



ESA works with Reclamation early in the CEQA/NEPA process to understand the necessary format and content of the biological and cultural technical reports, which Reclamation uses for its federal agency consultations with the U.S. Fish and Wildlife Service and the Office of Historic Preservation. Our team includes Steve Nelson and Michael Bever, who oversee ESA's teams of biologists and archaeologists, respectively, who regularly prepare technical reports, including Biological Assessments and Phase I Cultural Resources Assessments, for purposes of such consultations. Previously, Jennifer has coordinated with Reclamation on behalf of IRWD to facilitate NEPA compliance for the Strand Ranch and Stockdale Integrated Banking Projects.

Key Issues

Our scope of work will cover all environmental topics required by CEQA, as described further below. However, the following are key issues associated with the Project and drive our approach to successful CEQA compliance. These key issues are also highlighted in **Figure 1-1**.



SOURCE: Google Earth, 2016-10-18 (Aerial); IRWD, 2009

IRWD Syphon Reservoir

Figure 1-1
Key Issues



Biological Resources and NCCP/HCP Consistency

IRWD is a Participating Landowner in the NCCP/HCP. In preparation of this proposal, ESA reviewed the Syphon Reservoir Environmental Regulatory Evaluation (Dudek 2012), which estimates that the Project would seasonally inundate up to approximately 78 acres that currently support upland and wetland vegetation communities that are within the NCCP/HCP Reserve area, as well as deed restricted lands associated with the Syphon Canyon Dam and Reservoir Conveyance Agreement. The vegetation communities include coastal sage scrub and grasslands, freshwater marsh, mulefat scrub, and southern willow scrub. Although the Project is included in the NCCP/HCP, IRWD's NCCP/HCP reserve take allocation is less than 78 acres – e.g., 44.5 acres for coastal sage scrub – and therefore additional mitigation options would be required.

ESA's approach to evaluating impacts to biological resources and developing mitigation strategies for the Project will start with leveraging and building upon the work already done, to the extent possible. Then early consultation with wildlife agencies is recommended to ensure mitigation strategies presented in the EIR will be acceptable for purposes of future permitting and Project implementation. Once the Project is defined by the Project Team, ESA would work with IRWD to develop an approach for early consultation with the Natural Communities Coalition (NCC), which is the managing body for the NCCP/HCP. The main purpose of NCC is to coordinate the land management, monitoring and research within 38,000 acre Reserve System. The NCC Board of Directors includes representatives from the wildlife agencies (e.g., CDFW and USFWS). These consultations would facilitate discussion about impacts, NCCP/HCP take allocations, and mitigation strategies that are forward-looking to ensure the mitigation measures in the EIR are feasible and acceptable to wildlife agencies and will smooth the way for future permitting. In addition, consultation with USFWS and potentially TCA regarding the deed restricted lands will be required to ensure any mitigation strategies are in conformance with the grant deed, or if necessary, to modify the grant deed (Dudek 2012).

Aesthetics and Visual Impacts

Replacing and raising the height of Syphon Dam will alter the visual landscape and views of the Project site from surrounding public vantage points, including the Crean Lutheran Church High School Sports Complex immediately below the dam and the adjacent residential areas and parks. Our approach includes visual simulations of the new dam from surrounding public view points, to inform the assessment of impacts to aesthetics, including visual character of the Project site and scenic vistas. ESA's Team includes VisionScape Imagery, Inc. (VisionScape) as a subconsultant to provide digital imagery and two "before-and-after" simulations of the dam, based on preliminary concepts and footprint to be provided by IRWD.



Construction Impacts and Sensitive Receptors

Implementation of the Project will result in disturbances within and around the site boundaries, including potential onsite road construction, mobilization, staging and operation of heavy equipment, delivery of equipment and materials, offsite disposal of excavated soils. Ground disturbance, equipment operation, truck trips and construction crew commutes all result in air emissions, noise and traffic. The Project site is adjacent to sensitive receptors such as residential areas, schools, and parks that are particularly affected by these temporary effects. Such impacts are important to local communities and may be issues of particular interest to localized stakeholders for this Project. Our approach is to evaluate the worst-case impacts to air quality, greenhouse gas (GHG) emissions, noise and traffic associated with the range of potential design and construction methods for the dam and reservoir. Our scope of work includes stand-alone technical studies for air quality and GHG emissions and traffic impacts. According to the Engineering Feasibility Study (GEI 2012), blasting is not expected for construction of the reservoir; therefore, we propose that a noise technical

1 | Scope of Work

study is not warranted. The technical studies will identify potential mitigation strategies to support the EIR analysis and ensure the adverse effects to the local community are minimized. Mitigation strategies will be flexible and adaptable to the ultimate Project design and construction methods.

Dam Safety

An Inundation Study has already been completed for the dam as part of the Engineering Feasibility Study (GEI 2012). The Inundation Study shows the flood extent and travel time from Syphon Reservoir to the Pacific Ocean at Newport Beach, generally following the Peters Canyon Channel and San Diego Creek floodplains. The land uses directly adjacent and downstream of Syphon Reservoir, which are characterized by recreational facilities, residences, and school facilities, would be flooded within 15 minutes in the event of a dam breach (GEI 2012, Figure 7.2). While the presence of the Syphon Dam and Reservoir is an existing condition and residential neighbors have been informed of the expansion project, public outreach and consistent messaging to the local community will be an important component to successful Project implementation. The Inundation Study will be used as the basis for the analysis in the EIR, but ESA's approach includes diligent coordination with IRWD's Public Affairs Department and public outreach consultant regarding description of the Project, its objectives and benefits, and the potential environmental impacts. Such coordination will be essential during every step of the CEQA process, from preparing scoping materials, to public meeting presentations, to development of impact language, to responding to comments.

Scope of Work

For the purposes of this scope of work, ESA has assumed that one EIR will be the appropriate document required for CEQA and NEPA compliance. The scope and cost would need to be modified if the two-document approach as identified in the Approach is ultimately chosen.

Task 1: Project Initiation/Management and Initial Study Screening

ESA will initiate the Project kick-off as well as manage day-to-day coordination and Project deliverables, as described in detail below.

Draft Initial Study, EIR Outline, Schedule

ESA will prepare a draft Initial Study based on our understanding of the Project as described in the Engineering Feasibility Study and its environmental effects. The Initial Study is not meant to be a comprehensive analysis, but rather a tool to identify critical environmental concerns associated with the Project. The Initial Study will inform the EIR outline, and determine which technical sections need to be discussed in detail in the EIR.

Based on the Project understanding, various components of the EIR and timelines, ESA will prepare an initial schedule for discussion with the Project Team. This initial schedule will be expanded upon under Task 3.

Deliverables:

- > Draft EIR Outline
- > Draft Initial Study
- > Schedule

Project Kick-Off

The Project kick-off will include ESA's presentation of the Draft EIR outline and draft Initial Study at the Project **Kick-off Meeting**. Together, the Project Team will review and discuss the EIR outline, draft Initial Study, as well as Project concepts, responsibilities, initial schedule concepts, and scope of work. The Project Team will discuss the milestone deliverables, as well as determine frequency of regularly scheduled progress meetings/conference calls and progress reports. It should be noted that Project coordination and public meetings are covered under associated tasks within this scope of work. The Project Team will also discuss the Project alternatives as presented in the Engineering Feasibility Study, and IRWD will present the availability of data.

Project Management

ESA understands that IRWD intends the CEQA consultant to act as the Project Manager, ensuring adherence to IRWD's schedule and budget, conducting communication between IRWD and other IRWD consultants (design and public outreach), and ensuring quality control and assurance of deliverables. This will involve weekly communication between IRWD and Project Team members about Project process, schedules, deliverables, and budget. Every two weeks, the ESA Project Manager, Jennifer Jacobus, will prepare a brief Project status report that summarizes upcoming Project activities and recent developments. The status report will also include any relevant schedule updates as defined in Task 3. ESA understands these biweekly updates to be critical for IRWD staff to update management about the process of the Project.

This scope includes 19 coordination meetings with IRWD, which have been included in the respective tasks outlined below. ESA recognizes IRWD's need for the CEQA consultant to strategize meeting agendas and prepare meeting minutes that identify main discussion outcomes and action items from the meetings. While budget for meetings has been included in respective tasks as identified below, budget has been included in this task for meeting agenda and minute preparation.

ESA will manage the scope and budget and internal Project Team coordination. Written monthly progress reports will be submitted with billings that identify target dates for completion of current work tasks, deliverables, and meetings. It is assumed ESA's Project Manager will require 10 hours per month of project management time over the duration of the contract (October 2017 to May 2019; 20 months).

Task 2: Review Existing Information/Submit a Request for Information

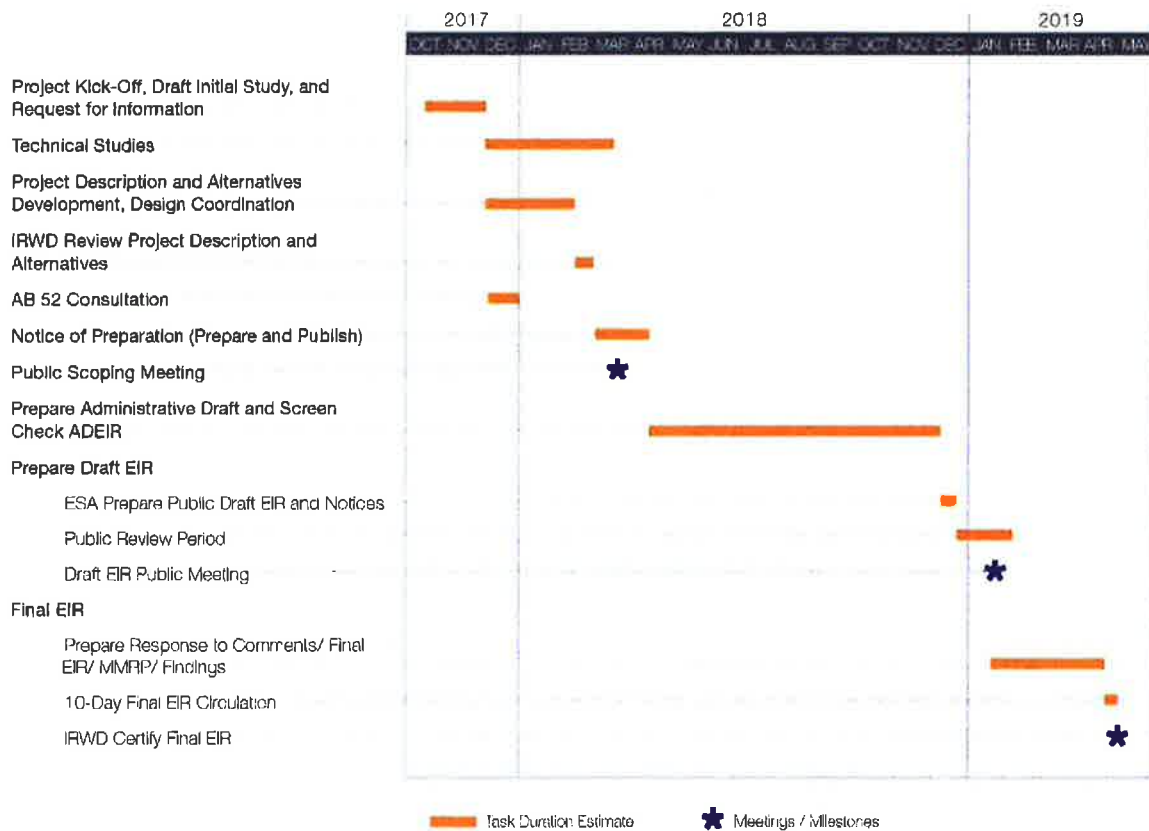
A number of documents have been prepared by IRWD consultants to determine the feasibility and regulatory and environmental constraints of the Project. ESA will review these documents, including the Syphon Reservoir Expansion Engineering Feasibility Study, Syphon Reservoir Environmental Regulatory Evaluation, and the Mitigated Negative Declaration (MND) for the Syphon Reservoir Interim Facilities Project. ESA will prepare a Request for Information (RFI) based on review of existing documentation. The RFI will also include extensive data needs to support the technical reports/studies included in Task 4 below. ESA understands that IRWD will assist in reviewing reports and providing the necessary data to conduct the environmental analysis.

Deliverables:

- > Request for Information

Task 3: Project Schedule

Based on discussions with IRWD and information reviewed under Task 1 and Task 2, ESA will prepare a detailed schedule providing adequate preparation of all phases of environmental documentation and public notices, review of deliverables by IRWD, and coordination with IRWD and its consultants. ESA understands that IRWD wishes to certify the CEQA document by May 2019. Based on the schedule provided by IRWD, ESA assumes the Project will require approximately 20 months between October 2017 and May 2019. ESA will make revisions to the schedule as necessary throughout the duration of the Project to inform the Project Team of the progress and status of the environmental process. Bi-weekly updates will be provided to IRWD as part of the Project status reports. When compiling the schedule, ESA understands that IRWD will require two weeks to review the draft Project Description and three weeks to review each CEQA documentation deliverable. ESA has prepared a draft Project schedule below to demonstrate how the 20 month schedule can be achieved based on main Project milestones provided in the RFP. This schedule is also included in Section 4.



Task 4: Technical Studies

Upon review of available Project-related documents, ESA has determined that the following technical studies and documents will be required to support the CEQA documentation: Visual Simulations of the proposed dam; Air Quality/Greenhouse Gas Technical Report; Biological Resources Technical Report; Cultural Resources Assessment; Noise Study; and Traffic Study. The scope of work for each technical study is described below.

Aesthetics – Visual Simulations

ESA's subconsultant, VisionScape, will prepare two visual simulations to illustrate the impacts of constructing the proposed 136-foot high dam in a "before & after" analysis as it would appear following construction. VisionScape will use photo-realistic 3D modeling, GPS engineered site photography and digital imaging. The visual simulations will be based on preliminary concepts and footprint to be provided by IRWD.

Deliverable:

- > Draft and final visual simulations



Air Quality/Greenhouse Gas Technical Report

ESA will perform air quality and greenhouse gas (GHG) analyses pursuant to the standards and guidelines set forth by the California Air Resources Board (CARB) and the South Coast Air Quality Management District (SCAQMD). The analysis will describe the existing environmental setting and pertinent statutes and regulations at the local, regional, state and federal level.

ESA will also quantify construction and operational air pollutant and GHG emissions using SCAQMD's recommended California Emissions Estimator Model (CalEEMod) or other appropriate methods. Construction emissions will be based on the provided construction schedule, equipment mix, earthmoving operations, and number of construction worker and delivery trips for one scenario associated with the Project design options – either reuse of on-site of soils, or export/import of soils. Operational emissions will be based on estimated vehicle trips based on the Project's traffic study and default trip length assumptions. ESA will include a quantitative analysis of construction and operational emissions. Localized impacts will be evaluated using the SCAQMD Localized Significance Threshold (LST) mass-rate lookup tables. Analysis of localized operational emissions would not include on-site combustion equipment such as gas turbines, large boilers or other industrial equipment requiring an SCAQMD permit. ESA will also include a qualitative evaluation of carbon monoxide hotspots, a brief discussion of long-term operational health risks, odor impacts, and cumulative air quality impacts.

Based on the proximity of the Project to pollutant-sensitive land uses (e.g., residences south-west of the Project site) and revised health risk assessment guidance from the Office of Environmental Health Hazard Assessment (OEHHA), ESA recommends that the potential for construction toxic air contaminant (TAC) impacts be assessed with a refined health risk assessment (HRA). The refined HRA will be performed using the AERMOD dispersion model and the CARB Hot Spots Analysis Reporting Program (HARP) model or spreadsheet methodology in accordance with the OEHHA guidance to quantify potential impacts from diesel particulate emitted during construction. The HRA would focus on impacts to nearby residential uses resulting from DPM emitted from construction equipment and trucks. If potentially significant health risk impacts are identified, ESA will develop mitigation measures where feasible to address and reduce the significant impacts.

ESA will analyze GHG emissions of Project construction and operation in accordance with the latest CEQA GHG guidelines. The analysis will estimate GHG emissions attributable to the Project for the following sources: construction, area sources, mobile sources, energy consumption (electricity and natural gas), water consumption, and solid waste generation, consistent with the recommendation by the Governor's Office of Planning and Research (OPR) in its Technical Advisory: CEQA and Climate Change (2008). Construction- and operations-related GHG emissions will be quantified using the most recent version of the CalEEMod computer

model. The Project's GHG emissions may be compared to the goals and recommended actions of the State's Climate Change Scoping Plan and other applicable state regulations.

This scope assumes that details regarding construction of the proposed Project (i.e. schedule, excavation and import/export volumes, construction equipment list and weeks/hours of operations, etc.) will be provided by IRWD.

Deliverables:

- > Draft and final air quality/GHG technical report

Biological Resources Technical Report

1. Conduct Literature Review

ESA will review relevant literature and environmental documentation for the project and related actions, including pertinent regulatory documentation, including but not limited to the following:

- > Syphon Reservoir Environmental Regulatory Evaluation, Preliminary Draft (Dudek 2012)
- > Syphon Reservoir Expansion Engineering Feasibility Study Engineering Summary Report (GEI Consultants, Inc. 2012)
- > Final Syphon Reservoir Interim Facilities Initial Study/Mitigated Negative Declaration (Dudek 2013)
- > County of Orange NCCP/HCP, for the Central & Coastal Subregion and Implementation Agreement
- > Conveyance Agreement / Grant Deed – Syphon Canyon Dam and Reservoir (The Irvine Company 2009)
- > Documentation regarding TCA's mitigation commitments for the Reservoir property



ESA will also review relevant literature regarding sensitive resources that have the potential to occur in the project site and vicinity. The literature review will include an inquiry to the California Natural Diversity Data Base (CNDDB) and California Native Plant Society (CNPS) Online Inventory, for information regarding sensitive species and habitats in the region. Additional information sources may include U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) publications, scientific journal articles, and historic and current

aerial photographs, as appropriate.

2. Conduct Agency /Stakeholder Coordination

Conveyance Agreement/Grant Deed – ESA recommends early coordination with the USFWS, TCA, and other appropriate parties (e.g., the Natural Communities Coalition (NCC), The Irvine Company) to discuss and determine mitigation commitments and potential modifications of the Conveyance Agreement and/or the Grant Deed restrictions over areas affected by the proposed Reservoir Expansion. The preliminary draft environmental regulatory evaluation (2012) notes that “no conservation easement exists on the property; however, restrictions were incorporated into the grant deed to provide for conservation of biological resources.” Moreover, since the Transportation Corridor Agencies (TCA) and USFWS are third party beneficiaries of the grant deed, and as discussed during IRWD's 2011 meeting with the USFWS, it is expected that the grant deed would need to be modified to allow the project to be approved and implemented. Determining the process for

modifying the grant deed, and any replacement mitigation should be prioritized, since this may affect the project's schedule. IRWD will likely need to consult their legal counsel during this process.

NCCP/HCP Minor Amendment – The regulatory evaluation also notes that at the meeting in 2011 with IRWD, a USFWS representative confirmed that a Major Amendment to the NCCP/HCP would not be required for the proposed reservoir expansion. However, a Minor Amendment may be necessary. ESA anticipates that we would participate with IRWD in discussions and coordination with USFWS and with the Natural Communities Coalition (NCC), formerly Nature Reserve of Orange County (NROC), and California Department of Fish and Wildlife (CDFW) regarding the specifics of any minor amendment.

Develop Mitigation Strategy and Coordinate with Agencies/Stakeholders – ESA will also work with IRWD to facilitate discussion and coordination with USFWS and other stakeholders and resource agencies (e.g., NCC, CDFW, TCA, U.S. Army Corps of Engineers [USACE], and Regional Water Quality Control Board [RWQCB]) regarding potential mitigation options for the proposed project. The 2012 Environmental Regulatory Evaluation presented and discussed a range of different mitigation options and associated costs. Prior to initiating discussion with the resource agencies and other stakeholders, ESA would use that information as the starting point for considering mitigation scenarios and identify a one or more preferred options and strategies in coordination with IRWD. Once certain goals have been identified, we would work with IRWD to present and discuss the most appropriate and reasonable mitigation strategies to the agencies and stakeholders.

Confirm Requisite Studies - ESA will prepare a brief outline of the work plan for proposed biological studies and coordinate with the USFWS to confirm that the focused surveys identified in our work plan are both necessary and sufficient for completion of the analysis for both the CEQA-Plus environmental document and other requisite consultations. It is assumed that the focused surveys identified under this scope of work will be required by the USFWS and/or CDFW, because the results of special-status species surveys are not considered valid for more than two years. However, since coastal California gnatcatchers have already been documented on the project site from previous years of focused surveys, it is possible that USFWS could forego more surveys since the species is assumed to be present and occupying the coastal sage scrub habitat. It is our understanding that no protocol surveys for least Bell's vireo (LBV) or Southwestern willow flycatcher have been conducted on the subject property, although LBV have been observed during cowbird trap maintenance. Since the site contains suitable habitat, we would expect USFWS to request protocol surveys for both species, to better understand the numbers of LBV that may occur and to confirm presence/absence for the flycatcher.

Identify Information Needs to Confirm Jurisdictional or Non-Jurisdictional Determination – ESA recommends early coordination with the U.S. Army Corps of Engineers (USACE) and the Environmental Protection Agency (EPA) to obtain a written determination regarding whether the reservoir is subject to federal jurisdiction as “waters of the U.S.”. Notes from an IRWD meeting with a USACE representative in 2011, indicated that there was no formal determination regarding jurisdiction and it was indicated that a potentially lengthy review could be necessary for a final determination. ESA proposes to coordinate with IRWD regarding this issue and then initiate contact with these agencies to formally identify the information that would be needed to assist in their determination. The information obtained would be used to refine the task identified below to prepare a jurisdictional assessment in accordance with USACE and EPA guidelines.

Although not required for the EIR, it will be critical to determine whether the reservoir would be subject to federal jurisdiction because the outcome may substantially affect the requisite environmental analyses and,

potentially, the project schedule if such a determination is not made in the near term and it turns out to be subject to federal regulatory authority as “waters”. If it is, then the project would almost certainly need to complete an application for an Individual Permit which includes a federal environmental review (NEPA) and a potentially cumbersome alternatives analysis in accordance with Section 404(b)(1) of the Clean Water Act.

ESA believes a strong case exists for the reservoir to be determined non-jurisdictional since it does not appear to be an impoundment of jurisdictional waters but could be considered a “wastewater recycling facility constructed on dry land” and as such, not “waters” (see 33 CFR §230.3 (o)(2)(vii)). However, as it is ultimately the federal agency(ies) that make the determination, if the reservoir is considered jurisdictional “waters”, and an Individual Permit will be required, it will be essential to plan for and provide the necessary NEPA review and alternative analyses, sufficient to support the Individual Permit application, as part of this environmental review for efficiency and to avoid project schedule impacts.

3. Update/Refine Jurisdictional Delineation

ESA biologists and regulatory/environmental scientists will perform an updated analysis and assessment of wetlands and “waters of the U.S./State” within the project site potentially subject to the jurisdiction of the USACE, RWQCB, and/or CDFW. Based on information and guidance obtained under item 2, above, the reservoir itself will be considered with regard to federal jurisdiction. If specified by USACE or EPA, a jurisdictional assessment will be prepared for review by these agencies to facilitate their specific determination regarding the reservoir. Otherwise, any potentially jurisdictional areas on site will be delineated in accordance with current guidelines and practices provided by Section 404 of the Clean Water Act (CWA), and in keeping with specific guidance issued by the L.A. District, and also by the CDFW under Section 1600-1607 of the California Fish and Game Code. Wetlands will be delineated using the procedures required by the USACE’s 1987 *Wetland Delineation Manual* and the 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*.

Upon completion of the field work, ESA will prepare a report to document and described the current conditions and extent of potential jurisdictional waters and wetlands within the project site. The findings will include a map illustrating the location, extent, and acreage of all jurisdictional waters (including soil pit locations, if applicable); the field data sheets which include information on soils, vegetation, and hydrology; a brief discussion of the relative quality of each stream or wetland; and, an approximation of duration of surface flow (i.e., ephemeral, intermittent, or perennial).

4. Conduct Biological Studies

Update Vegetation Mapping / General Biological Survey – The general biological survey will focus primarily on characterizing plant communities. Any raptor nests or special status wildlife species occurrences noted during general surveys and mapping efforts will be included in the technical report (see item 5 below). ESA biologists will update and refine the vegetation map that was previously prepared for the project site to reflect current conditions. The study area is assumed to be the property itself plus a buffer of open space extending out to the various roads that surround the property. The study area will be discussed with IRWD and confirmed under item 2 above. Plant community map checking and refinements will be accomplished using current aerial photography and topographic mapping (if available) to accurately delineate each plant community. The field map will be digitized using Geographic Information System (GIS) technology and the resultant baseline mapping used to determine the extent of potential project effects on each plant community.

Conduct Presence/Absence Survey for Coastal California Gnatcatcher - ESA biologists will perform USFWS protocol surveys for the federally-threatened coastal California gnatcatcher (*Polioptila californica californica*). A maximum of six surveys are proposed to be performed during the breeding season within all potentially suitable habitat on the site, each at least one week apart. ESA will notify the USFWS at least 15 working days prior to the anticipated start date of survey work.

A letter report of findings including required information and map data will be submitted to the USFWS within 45 days of completion of protocol surveys. The letter report will include the project site location plotted on U.S. Geological Survey (USGS) 7.5-minute topographic map; plant community map, qualitative description of the habitat, and description of plant composition on and adjacent to the area surveyed; survey methodology including list of all biologists, number of acres of habitat surveyed, and the number and dates of surveys; characterization of land uses surrounding the project site; mapping of precise locations where any coastal California gnatcatcher are detected; a full account of numbers and behavior of any coastal California gnatcatcher detected; and completed field forms showing the locations of coastal California gnatcatcher, if observed, which will be utilized by the CNDDB.

Conduct Presence/Absence Survey for Least Bell's Vireo and Southwestern Willow Flycatcher - ESA biologists will perform standard USFWS protocol surveys to determine presence/absence of the federally- and State-endangered least Bell's vireo (*Vireo bellii pusillus*). Eight surveys of all suitable habitat are proposed to be conducted, each survey at least 10 days apart between April 10 to July 31.

ESA biologists will also perform approved USFWS protocol surveys to determine presence/absence of the federally- and State-endangered southwestern willow flycatcher (*Empidonax traillii extimus*) to coincide with the LBV surveys. Five surveys of all suitable habitat on-site will be conducted as follows, one survey between May 15 and May 31, the second between June 1 and June 24, and the last three between June 25 and July 17. All surveys will be conducted at least five days apart and will begin at dawn and end between 9:00 and 10:00 A.M. depending on the temperature, wind, background noise, and other environmental factors. Survey methods will include the use of "pishing" and tape recordings in order to elicit responses. ESA will notify the USFWS 15 days prior to the anticipated start date of survey work.

A letter report of findings will be submitted to the USFWS and the CDFW within 45 days of completion of surveys. The letter report will include the project site location plotted on USGS 7.5-minute topographic map; plant community map, qualitative description of habitat, and description of plant composition within the area surveyed; survey methodology including list of all biologists, number of acres of habitat surveyed, and the number and dates of surveys; mapping of precise locations of any least Bell's vireo or southwestern willow flycatcher detected; full account of numbers and behavior of any least Bell's vireo detected; full account of numbers and locations of all brown-headed cowbirds detected; and, completed field forms showing the locations of LBV or southwestern willow flycatcher, if observed.

Conduct Presence/Absence Survey for Western Spadefoot Toad - ESA biologists will perform presence/absence surveys for the western spadefoot toad (*Spea hammondi*), a California Species of Special Concern. Since this species is an upland species that requires water for breeding purposes only, surveys will include two diurnal surveys of water margins to search for egg clusters, and two nocturnal surveys during or immediately after rain events to search for individuals detectable by calls or eye-shine and visual identification.

A letter report of findings will be prepared that includes the project site location plotted on USGS 7.5-minute topographic map; plant community map, qualitative description of habitat, and description of plant composition within the area surveyed; survey methodology including list of all biologists, number of acres of habitat surveyed, and the number and dates of surveys; mapping of precise locations of any western spadefoot toad detected; full account of numbers and behavior of any western spadefoot toad detected; and, completed field forms showing the locations of western spadefoot toad, if observed, which will be utilized by the CNDDDB.

Conduct Presence/Absence Survey for Western Pond Turtle - ESA biologists will perform surveys using guidance available from the U.S. Geological Survey (USGS) to determine the presence/absence of the western pond turtle (*Emys marmorata*), a USFWS Sensitive Species and a California Species of Special Concern. Five surveys of suitable habitat will be conducted at approximately weekly intervals between April 20 and July 31, between the hours of 9:00 A.M. and 5:00 P.M., preferably on sunny days. Observations of suitable habitat will take place from several vantage points to provide complete visual coverage of the water body. Aquatic habitat (e.g., open pools or possible basking areas) will be searched with and without binoculars for the presence of basking or underwater pond turtles, first from a distance and then approached slowly and quietly to prevent disturbance to any potential basking turtles. ESA biologists will also listen for the splash of water from unseen turtles entering the water.

A letter report of findings will be prepared that includes the project site location plotted on USGS 7.5-minute topographic map; plant community map, qualitative description of habitat, and description of plant composition within the area surveyed; survey methodology including list of all biologists, number of acres of habitat surveyed, and the number and dates of surveys; mapping of precise locations of any western pond turtle detected; full account of numbers and behavior of any western pond turtle detected; and, completed field forms showing the locations of western pond turtle, if observed, which will be utilized by the CNDDDB.

Conduct Survey for Special-Status Plant Species - ESA biologists will conduct focused surveys to determine the presence/absence of special-status plant species. Particular emphasis will be given to federally- and/or State-listed plant species and those plants identified as special-status by the CNPS and results from previous survey efforts in the area will be reviewed. Surveys will consist of two separate field survey efforts, one in April/May and the other in June/July to include the blooming periods of all potentially present special-status plants. The location of any observed special-status species will be recorded and mapped on an aerial photograph of the project site.

At the completion of the special-status plant surveys, the results will be incorporated into the updated Biological Technical Report (see below), and will include a description of survey methodology and the numbers and locations of any special-status plants observed.

5. Prepare Biological Technical Report

ESA will prepare a technical report which incorporates the findings of the general biological survey and focused surveys, and will include survey dates and methodology, a description of the existing conditions, an assessment of impacts based on the proposed project, and mitigation measures necessary to alleviate any resulting potentially significant impacts. This technical report will be prepared according to accepted scientific and technical standards consistent with requirements of the National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other pertinent reviewing agencies and organizations.

Biological Assessment/NCCP Relevance – This task assumes that the federal resource agencies reviewing the technical report will expect it to serve much the same function as a Biological Assessment prepared for an informal consultation and that it would be adequate for federal agency review and consideration. Therefore, this scope anticipates including a definition of the “Action Area”, consideration and analyses of cumulative effects on listed species, recognition and discussion of the project in the context of the NCCP/HCP, and how the project (inclusive of proposed mitigation) would be addressed in terms of its effects on listed and NCCP-Covered or non-covered species, as well as on the NCCP/HCP as a whole.

This task includes one set of revisions based on receiving one round of combined comments from the project team on the draft technical report, and a second revision based on comments from up to two reviewing federal agencies (Bureau of Reclamation, USFWS).

6. Develop Comprehensive Mitigation Plan

Based on the results of Task 2C, above, ESA will prepare a concise description of the mitigation being proposed for the project. It is anticipated that this description will be prepared in the form of a plan that would be appended to the Biological Technical Report. The plan may be expected to include both a conceptual plan to provide upland and riparian/wetland habitat mitigation on the project site and also to describe the extent and manner whereby off-site mitigation may be provided to compensate for project effects that cannot be adequately mitigated on site. The plan will be prepared in collaboration with IRWD and may involve additional coordination with external parties (e.g., The Irvine Company, NCC, and TCA). Therefore, this scope anticipates the need to conduct several meetings with these parties to consider and refine alternate mitigation options and clarify the preferred mitigation approach. The goal will be to determine which mitigation approach(es) will satisfy the mitigation requirements considering costs and schedule. The draft plan will be submitted to IRWD and the project team for review and would be revised or refined based on a single set of comments.

Deliverables:

- > Draft and final biological resources technical report



Cultural Resources Technical Report

ESA cultural resources staff will conduct a Cultural Resource Assessment of the Project site and associated components. This includes the site for the new dam, expanded reservoir, and proposed wetlands. The purpose of the study will be to identify any archaeological, architectural, or paleontological resources within the Project site or immediate vicinity that could be impacted by the Project. All studies will be conducted in accordance with CEQA, NEPA, and Section 106 of the National Historic Preservation Act (NHPA). Specific tasks will include cultural and paleontological resources records searches and archival research, a Sacred Lands File (SLF) search through the Native American Heritage Commission (NAHC), archaeological and built resources field survey, and reporting. Assistance with Native American coordination and consultation is discussed under *Task 7: Assembly Bill 52 Tribal Cultural Resources*.

As part of the assessment, ESA will also document and evaluate the existing Syphon Dam and associated facilities, which would be demolished as part of the Project. Constructed in 1949, the dam is over 45 years of age and therefore meets the California Office of Historic Preservation’s threshold for consideration as a historical resource. To comply with CEQA and Section 106 of the NHPA, ESA will evaluate the eligibility of the reservoir as a historical resource under CEQA and as a historic property under the NHPA, and assess potential impacts. There

is also potential for indirect impacts, primarily visual, to nearby resources. The Syphon Reservoir is located along the High Line Canal, which was constructed in the 1930s. A “splitter” on the High Line Canal ahead of the Syphon Reservoir diverted water south to the Laguna Reservoir. Approximately ¼-mile north of the Syphon Reservoir is the Rattlesnake Canyon Reservoir, constructed in 1959. The High Line Canal and Rattlesnake Canyon Reservoir, both greater than 45 years of age, could be subject to indirect impacts from the Project. ESA staff will assess the potential for indirect impacts as part of the built environment studies.

Records Searches and Archival Research

ESA cultural resources staff will conduct a records search at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. The purpose of the records search will be to identify previous cultural resources investigations and previously recorded cultural resources within a ½-mile radius of the Project site, including the pipeline. A review of topographic maps and aerial photos will be conducted to identify historic uses of the Project area and to assess the potential for buried archaeological resources. ESA will also collect and analyze pertinent research materials to document the history, construction, and alterations of the Syphon Dam and Reservoir and consider its history in the context of IRWD and the surrounding community. Focused site-specific research may include review of available building permits, engineering drawings (as-built), topographic maps, and historic aerial photographs. Research will be conducted at the Orange County Building and Safety Department, Orange County Assessor’s Office, UCI Library, Irvine Historical Society, Orange County Public Library, IRWD archive, relevant internet sites, and other archives to be identified as applicable.

An IS/MND for Syphon Reservoir Interim Facilities (2013) indicates that, based on bedrock geology, most of the Project area has limited potential for significant paleontological resources but that a small portion has a moderate potential. Given this, a paleontological fossil locality check will be requested from the Natural History Museum of Los Angeles County. In addition, an SLF search will be requested from the NAHC to solicit information on sensitive or undocumented Native American resources in the vicinity of the Project area. This SLF search is separate from IRWD’s AB 52 consultation requirements, described in *Task 7*.

Pedestrian Survey

For purposes of compliance with Section 106 of the NHPA, a preliminary Area of Potential Effects (APE) for direct impacts will be established. The APE will include all components of the Project, including the proposed new dam and associated facilities and the expanded reservoir area; all access roads and staging areas; and any other areas where cultural resources could be subject to impacts. A pedestrian survey of the Project area/APE will be conducted to identify and document archaeological and paleontological resources. For archaeological resources, the survey will follow professional standards, using transects spaced no greater than 15 meters apart. ESA architectural historian will also conduct a site visit to survey and document the existing historic built environment of the Syphon Dam and Reservoir, which will include, minimally, the culverts, spillway, dam, boat dock, landscape features, and the segment of the High Line Canal within the property. ESA staff will also assess the potential for indirect impacts to the High Line Canal and the Rattlesnake Canyon Reservoir. All survey work will be consistent with procedures established by local, state, and federal guidelines for conducting archaeological and historic preservation work.

Cultural resources encountered in the Project area will be recorded on California State Department of Park and Recreation (DPR) 523 site record forms and plotted with sub-meter handheld GPS instruments. Previously recorded resources, as identified through the SCCIC records search, will be relocated and documented on DPR 523 update forms. Given the generally low paleontological sensitivity of the Project site and the high degree of

landscape disturbance, it is expected that no paleontological resources will be identified through surface survey and so a paleontological survey will not be required. However, a cultural resources specialist also trained in paleontological resources will participate in the field survey.

Technical Reporting

The results of the studies will be documented in a single Cultural Resources technical report, prepared to meet CEQA and Section 106 requirements. The report will include a Project Description; regulatory and cultural/historical background contexts; methods and results of the archival research and field studies, including a discussion of the evaluation methods, integrity, and eligibility status of the dam and reservoir; and recommendations for mitigation or any additional studies that might be required. ESA will also prepare and append DPR site record forms to the report, including a DPR Primary Form (DPR523A) and BSO Form (DPR523B) for the dam and reservoir. The report will be used as the basis for the cultural resources section of the ADEIR, following Appendix G of the CEQA Guidelines. ESA will prepare a draft report and a final report incorporating one round of IRWD comments.

This scope of work is based on the following assumptions:

- > The entire Project area will be accessible to the surveyors.
- > The survey area for the new dam, expanded reservoir, wetland area, and related facilities (not including the pipeline and conveyance facilities) will not exceed 100 acres.
- > Archaeological resources survey and documentation will be completed by two surveyors in two days.
- > Built environment survey and documentation will be completed by two staff persons in one day.
- > No more than three cultural resources, including the Syphon Dam itself, will require documentation.
- > A Native American monitor will not be required during the pedestrian survey.
- > The Water District will provide access to historic plans, engineering drawings, photos and other materials to document the construction history of the dam and reservoir.
- > Any follow-on studies that might be required as a result of the assessment, such as archaeological resources evaluation or treatment, would be covered under a separate scope and cost. Only the evaluation of the dam and associated facilities is included in this scope of work.

Deliverables:

- > Draft and final cultural resources technical report



Noise Study

ESA will prepare a Noise Study to evaluate potential noise impacts associated with construction activities and operation of the Project. The scope of services for the noise analysis will include identifying and describing relevant local plans, regulations, ordinances, criteria, and guidelines associated with noise. ESA will characterize the existing noise environment by surveying noise-sensitive land uses, identifying existing noise sources and features affecting noise transference in the Project area, and conducting noise monitoring at one location for 24 hours (one weekday) and at up to three locations for 15 minutes during peak traffic hours to establish ambient noise levels in proximity to potentially affected noise-sensitive land uses. ESA will assess temporary noise levels at nearby noise sensitive uses from Project construction based on the provided construction schedule and equipment usage. ESA will evaluate Project operational noise from Project-related vehicular traffic and outdoor mechanical equipment (e.g., air conditioning units). Vehicular noise impacts will be assessed based on data from the traffic study using computer noise prediction models that

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incorporate the Federal Highway Administration (FHWA) traffic noise model (FHWARD-77-108). In addition, ESA will provide an assessment of vibration impacts associated with use of heavy-duty equipment during construction of the Project. If potentially significant impacts are found, ESA will develop mitigation measures for where feasible. The scope of services for the noise section does not include post construction noise and vibration monitoring and analysis.

This scope assumes that details regarding construction of the proposed Project (i.e. schedule, excavation and import/export volumes, construction equipment list and weeks/hours of operations, etc.) will be provided by IRWD.

Deliverables:

- > Draft and final noise study

Traffic Study

ESA's subconsultant, Fehr & Peers, will complete the Traffic Study for the Project, as explained below.

Information Needs

Fehr & Peers will work with the Project Team to understand the scope of the construction activities generated by the Project. In coordination with ESA, Fehr & Peers will generate a traffic-related RFI that will be submitted to IRWD under Task 2 of this scope of work. The following information will be needed to understand the potential trip generation associated with the construction phase of the Project:

- > Total number of workers accessing the site(s), time of arrival, and parking locations.
- > Delivery information, including number of deliveries, types of vehicles (e.g. what type of trucks will be delivering construction material or hauling material from the site), number and type of vehicles removing material from the site, and estimated time of these activities.
- > Verification of delivery/haul routing to/from the Project.
- > Duration and intensity of construction activities.

In addition to the Project construction information noted above, on-going staffing of the site will be verified through the RFI to better estimate the on-going trip generation. ESA and Fehr & Peers understand that on-going staffing needs are minimal and are not sufficient to warrant evaluation of transportation-related impacts after construction is completed. As such, the traffic assessment will focus on near-term impacts associated with the construction activities of the Project.

Fehr & Peers, under ESA's direction, will summarize the above information and develop preliminary trip generation, trip distribution, and trip assignment estimates, and will document these assumptions in a technical memorandum that will be submitted for review and approval.

Field Work and Existing Conditions

Fehr & Peers will spend one day in the field collecting information for the Project. This will include reviewing all access locations to verify existing roadway cross-sections, verification of appropriate sight distance at access locations, and collection of geometrics at study locations. Fehr & Peers will collect counts at the study locations as noted above, and will utilize the count data to evaluate existing conditions in the study area using methodologies identified per local requirements (e.g. intersection capacity utilization (ICU) for intersections and volume to capacity ratio for roadway segments).

Evaluation of Existing plus Construction Conditions

Fehr & Peers will add construction related traffic to the study facilities to evaluate Existing Plus Project Conditions and conduct level of service assessment to evaluate the operating conditions of the study facilities. If impacts are identified, mitigation measures will be developed to mitigate the impacts. Since impacts are anticipated to be temporary in nature and would occur during the construction phase of the Project, mitigation measures could consist of temporary traffic control, changes to work schedules, or other measure that would mitigate impacts to a less than significant level.

Access locations will also be reviewed to verify that they can accommodate access from the delivery vehicles and that sight distance is appropriate. If there are any geometric deficiencies noted during our field review, Fehr & Peers will provide recommendations to improve those deficiencies. Fehr & Peers will also review the Project's consistency with existing and approved bicycle, pedestrian, and transit facilities in the area, if any, and note the potential for the Project to conflict with those facilities.

Although traffic studies typically require a cumulative assessment for transportation impacts, given the expected low trip generation associated with the operations and maintenance phase of the Project, the Project likely does not have the potential to result in a cumulative impact to the surrounding transportation system. As such, Fehr & Peers scope proposes to only identify impacts associated with the construction phase of the Project and not a complete cumulative assessment.

Documentation & Meetings

Under the direction of ESA, Fehr & Peers will prepare a draft report for review by IRWD, which will undergo one round of revisions from IRWD. Fehr & Peers will also be available to participate in up to four team meetings or public meetings (associated with various phases of CEQA document review included in this scope of work) in conjunction with the Project.

This scope of work is based on the following assumptions. These assumptions and associated fee estimate may need to be expanded or reduced based on trip generation assumptions:

- > Fehr & Peers will evaluate only the Existing Condition and Existing plus Construction Activity Conditions in the assessment.
- > Fehr & Peers will evaluate up to 20 intersections (during the morning (AM) and evening (PM) peak hours) or roadway segments (daily conditions) in the analysis.
- > One day of traffic counts at all study locations is assumed in the fee estimate.

Deliverables:

- > Draft and final noise study

Task 5: Coordination with Design and Public Outreach Consultants

ESA understands that IRWD intends the CEQA consultant to act as the Project Manager, which will involve coordination between IRWD and various consultants throughout the environmental review process. Since the CEQA document will be prepared in parallel to additional design work to support the environmental review process, ESA will coordinate with IRWD, the owner's representative, and design consultant to ensure that the appropriate information is available and obtained in order to complete the Project Description and CEQA analysis. ESA understands a Project Design Report (PDR) will not be prepared for this Project prior to publication

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of the Draft EIR. Information obtained could include site exploration program design and implementation, earthwork quantities, construction equipment to be used and construction methods, location of borrow materials, in addition to other necessary information. This type of information was estimated in the Constructability Analysis provided in the RFP Addendum and can serve as one point of departure for discussing certain information required for the Project Description.

ESA understands that IRWD has a public affairs team, including a public outreach consultant. ESA looks forward to developing a close relationship with the public outreach consultant, and will coordinate outreach efforts seamlessly between the consultant and IRWD.

As part of this task, ESA will also prepare maps, graphics, charts, and descriptions that can be used by IRWD's public outreach staff and consultant to conduct Project-related public outreach efforts. This coordination ensures that visual representation of the Project is consistent among all public outreach materials.

Deliverables:

- > Graphics for use during public outreach efforts

Task 6: Development of Project Description and Identification of Alternatives

Project Description

ESA will develop a Project Description based on information gathered in Tasks 2 and 5. This Project Description will serve as the basis for the CEQA analysis. This task assumes attendance at *two meetings* with IRWD to discuss Project Description components and details. Three rounds of Project Description deliverables are assumed under this task.

Project Alternatives and Workshop

ESA will assist IRWD to identify a reasonable range of Project alternatives, per CEQA Guidelines Section 15126.6. ESA will start with the information contained within the Syphon Reservoir Engineering Feasibility Study to begin development of alternatives. These and additional potential alternatives will be discussed and refined via *one alternative meeting workshop* with IRWD, the Design consultant, and ESA. This scope assumes no more than two alternatives to the Project are chosen to include in the Draft EIR. Alternatives may be included even if they may not be feasible. These alternatives will be used for the environmental analysis.

Deliverables:

- > Draft Project Description
- > Revised draft Project Description
- > Final Project Description
- > Alternatives workshop materials
- > Description of alternatives

Task 7: Assembly Bill 52 Tribal Cultural Resources

Per the RFP, ESA will prepare draft Assembly Bill (AB) 52 consultation letters for IRWD to review. The letters will follow requirements outlined in Section 21080.3.1 of the Public Resources Code. Specifically, the letters, which will serve as an official invitation to consult on the Project, will describe the proposed Project, include a Project location map, list a contact person at IRWD, and cite the 30-day deadline for responses. Following approval by

IRWD, ESA will mail the signed letters on official letterhead (via either FedEx or certified USPS mail) to the three California Native American tribes on IRWD's contact list: the Gabrieleño Band of Mission Indians – Kizh Nation, Juaneno Band of Mission Indians – Acjachemen Nation, and the Torres Martinez Desert Cahuilla Indians. IRWD will be responsible for any additional tribal consultation under AB 52. The consultation efforts will be summarized in the tribal cultural resources section of the EIR, following CEQA Guidelines and in accordance with the confidentiality requirements of AB 52.

Deliverables:

- > Draft AB 52 letters for IRWD review
- > Final letters (three) for delivery to California Native American tribes on IRWD's contact list

Task 8: Notice of Preparation and Notice of Completion

ESA will finalize the Initial Study (Task 1) and prepare the Notice of Preparation (NOP) as required by the State CEQA Guidelines including a brief description of the Project, site map, and summary of potential environmental impacts of the Project. The NOP will also serve as notice of the public scoping meeting (see Task 9 below). ESA will provide IRWD with a Draft NOP for review and comment. ESA will incorporate any comments into a Final NOP to be published for a 30-day public review period. ESA will confer with IRWD to create a mailing list that identifies appropriate stakeholders, including the State Clearinghouse, responsible and trustee agencies, affected property owners and persons requesting notice. ESA will also prepare the Notice of Completion (NOC) for the NOP, which will be delivered to the State Clearinghouse and Orange County Clerk. ESA will distribute the NOP to the entities agreed to on the mailing list. ESA will also publish the NOP in the Orange County Register (one time). ESA will attend **one meeting** with IRWD to review the contents of the NOP and NOC.

Deliverables:

- > Draft and Final NOP
- > Prepare and distribute NOP
- > Prepare and distribute NOC
- > Publish NOP in the Orange County Register

Task 9: Conduct Public Scoping Meeting

Public Scoping Meeting and Material Preparation

ESA will coordinate and organize one public scoping meeting. The purpose of the meeting will be to present information to the public and collect information on environmental issues. ESA will prepare presentation materials (including maps and handouts) in consultation with IRWD and IRWD's public outreach consultant and conduct the presentation. Information regarding the need for the Project, potential environmental impacts, and the CEQA alternatives will be provided by ESA in the presentation at the public scoping meeting. ESA will work with IRWD and its public outreach team on the meeting agenda, schedule and format; all materials will be approved by IRWD prior to presentation at the scoping meeting.

This task includes **two preparation meetings** between ESA and the Project Team, in addition to attendance by ESA staff at the **one public scoping meeting**.

Comment Memorandum

ESA will capture all written and verbal comments made at the public scoping meeting and prepare a Comment Memorandum summarizing significant comments received at the scoping meeting and during the NOP review period. The Comment Memorandum will be used by the Project Team to clarify Project assumptions, the Project Description, alternatives, and the scope of the environmental impact analysis. The Comment Memorandum will be included in the Appendix to the Draft EIR.

Deliverables:

- > Public scoping meeting agenda
- > Draft and final scoping meeting presentation
- > Scoping meeting presentation materials (handouts and maps)
- > Comment Memorandum

Task 10: Prepare an Administrative Draft EIR

ESA will prepare an Administrative Draft EIR (ADEIR) in accordance with State CEQA Guidelines (2017). ESA understands that IRWD included an optional task in the Request for Proposal (RFP) for National Environmental Policy Act (NEPA) compliance based on pursuit of federal grant opportunities from the U.S. Bureau of Reclamation (Reclamation) through Title XVI. ESA has extensive work pursuing Title XVI funding through Reclamation, particularly with the Temecula office. Therefore, ESA has included preparation of a CEQA-Plus document for purposes of NEPA compliance in the scope of work. Additional time for agency coordination and consultation has been included in Task 17 below.

The Project Description prepared under Task 6 will be included in the ADEIR. The ADEIR will summarize the environmental setting, regulatory framework, potential environmental impacts, and proposed mitigation by resource area. The ADEIR will also reflect comments received during the NOP review period. As required by CEQA, the setting will describe the Project area's existing conditions and the effects of the Project on those baseline conditions. The impact analysis will identify direct, indirect, and cumulative impacts for construction and operation based on established thresholds of significance. The analysis will include all issue areas included in Appendix G and Appendix F (energy) of the CEQA Guidelines, unless otherwise screened out in the Initial Study. Based on preliminary evaluation and the Syphon Reservoir Interim Facilities Project MND prepared in 2012, agricultural and forestry resources and mineral resources will likely be screened out of the ADEIR. Mitigation measures will be identified to avoid or substantially lessen potential environmental effects. The ADEIR will also provide an analysis of CEQA Project alternatives as identified under Task 6. ESA will attend up to **three meetings** with IRWD staff to review CEQA documentation and approach for the ADEIR. It is expected that ESA will communicate any issues and concerns to IRWD in these meetings prior to submitting the ADEIR deliverable. As requested by IRWD, ESA will submit a **complete ADEIR** for review, unless otherwise discussed and approved by IRWD. The following issue areas will be addressed in the ADEIR.

Aesthetics

The ADEIR will summarize the aesthetic and visual impacts associated with construction and operation of the Project. The ADEIR will include a description of existing visual conditions in the Project area and will evaluate whether the proposed Project will substantially degrade the existing visual character of the surrounding area. The ADEIR will evaluate the potential effects to public view corridors that result from raising of the dam and determine whether the proposed Project would substantially alter the character of the site or create substantial

new sources of light and glare. The evaluation will include photographs of the existing environment. ESA's subconsultant, VisionScape, will provide two visual simulations of the proposed Project based on Project design details (Task 4) that will be incorporated into the ADEIR section. Mitigation measures will be identified if necessary to reduce aesthetic impacts.

Air Quality

Based on the technical study prepared in Task 4, ESA will summarize the impacts from emissions of criteria air pollutants and TAC during construction and operation. The ADEIR will also evaluate the Project's consistency with the regional air quality attainment plans. If potentially significant impacts are found, ESA will develop mitigation measures which are feasible, implementable, and verifiable. Mitigation measures will be based on those recommended by the IRWD, SCAQMD, and CARB, as well as other appropriate measures.

Biological Resources

ESA's biologist will incorporate the information provided in the Biological Resources Technical Report (Task 4) into the ADEIR. Potential impacts to sensitive species and habitats will be documented and mitigation strategies will be identified that would minimize the impacts. The analysis will include a comprehensive list of permits required from resource agencies to implement the Project.

Cultural Resources

ESA's cultural resources staff will incorporate the information provided in the Cultural Resources Assessment (Task 4) into the ADEIR. The ADEIR will summarize the results of the records searches, historical research, surveys, and dam evaluation, and assess the sensitivity of the Project site for the presence of unknown resources. The section will also assess the potential of the Project to impact significant cultural resource, and will identify mitigation measures to minimize impacts, as necessary.

Geology and Soils

ESA will review and incorporate available information from the Syphon Reservoir Expansion Engineering Feasibility Study. The ADEIR will include regional and local geologic, seismologic, and geological data pertinent to the proposed Project area, including information from the U.S. Geological Survey and California Geological Survey as well as data from other projects in the area. As described in the Engineering Feasibility Study, the Project site includes two faults, one of which runs directly beneath the existing reservoir and dam. However, neither fault is considered active or potentially active. Additional geotechnical investigation is recommended to confirm the inactivity of the faults and identify the appropriate measures to mitigate any potential impacts associated with groundshaking or seepage from the reservoir. The ADEIR will identify such potential geologic impacts of the Project and will provide mitigation strategies that require geotechnical investigation and recommendations for design criteria that ensure any and all potential hazards associated with geology and soils will be implemented as required by California standards and the Division of Safety of Dams to minimize the effects and protect public safety.

Greenhouse Gas Emissions and Energy

Based on the technical study prepared in Task 4, ESA will summarize the impacts from emissions of GHGs during construction and operation. The ADEIR will also evaluate the Project's consistency with the State's 2030 Scoping Plan. If potentially significant impacts are found, ESA will develop mitigation measures which are feasible, implementable, and verifiable. Mitigation measures will be based on those recommended by the IRWD,

SCAQMD, CARB, and California Association of Air Pollution Control Officers (CAPCOA), as well as other appropriate measures.

In order to assure that energy implications are considered in Project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy. Recent court opinions have held that a Project's energy impacts should be analyzed under Appendix F of the CEQA Guidelines, including transportation energy use and relevant energy-related factors external to a building's envelope. Impacts may include:

- > The Project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the Project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- > The effects of the Project on local and regional energy supplies and on requirements for additional capacity.
- > The effects of the Project on peak and base period demands for electricity and other forms of energy.
- > The degree to which the Project complies with existing energy standards.
- > The effects of the Project on energy resources.
- > The Project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

In accordance with recent court opinions and the requirements of Appendix F of the CEQA Guidelines, ESA proposes to identify relevant information that addresses the energy implications of the proposed Project. ESA will utilize the information from the Project's air quality, GHG, and transportation analyses to quantitatively evaluate construction energy demand (for example, gallons of diesel and gasoline) from construction equipment, haul trucks, vendor trucks, and construction workers. ESA will also quantify the Project's anticipated operational energy needs, including direct consumption of electricity to pump water and fuel needed for maintenance operations.

ESA proposes to assist IRWD in developing appropriate Significance Thresholds. IRWD may consider the following preliminary list:

A project would result in a significant impact if it would:

- a. Conflict with adopted energy conservation plans;
- b. Violate State or federal energy standards;
- c. Cause wasteful, inefficient, and unnecessary consumption of energy during construction, operation, and/or maintenance; or
- d. Result in an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

ESA will summarize the Project's anticipated energy needs and conservation measures. ESA will describe Project commitments, design features, and mitigation measures that would minimize and reduce the Project's consumption of fuel and energy and determine the potential for energy impacts based on the evidence and

determine the significance of the impacts. If potentially significant impacts are found, ESA will recommend additional feasible energy efficiency design features or mitigation measures to reduce impacts.

Hazards and Hazardous Materials

The ADEIR will summarize known contamination sites within the construction areas and will list potentially hazardous materials used and stored during construction and operation of the Project. ESA will use the Phase 1 Environmental Site Assessment (2009) and the Engineering Feasibility Study as a primary source of information regarding existing onsite hazards and hazardous materials, as well as conduct a new database search for Cortese List properties as required by CEQA Guidelines Appendix G. The Phase 1 Environmental Site Assessment revealed no evidence of Recognized Environmental Concerns (REC); historical activities, including the use of the property site for agricultural use, from approximately 1968-2002, may have contributed to residual concentrations of insecticides, pesticides, or herbicides. The ADEIR will disclose these and other chemicals currently used onsite at the Syphon Reservoir disinfection facilities, which may be expanded as a result of the Project. The ADEIR will address potential soil contamination, groundwater contamination, and the potential for asbestos-containing building materials and lead-based paint if there are any structures proposed for demolition. The ADEIR will develop mitigation measures for management of contaminated soils and outline applicable hazardous materials handling and disposal requirements.

Hydrology/Water Quality/Flooding

The ADEIR will identify surface water and groundwater resources within the Project area and will evaluate potential impacts posed by the Project. The ADEIR will address potential flooding impacts to housing developments south and west of the dam as a result of dam improvements. An Inundation Study has already been completed for the dam as part of the Engineering Feasibility Study (GEI 2012). The result of this study will be used to describe the regulatory requirements of the Division of Safety of Dams, the potential flood hazards associated with a dam breach, and the design requirements that will ensure the low probability of a dam breach. The ADEIR will describe storm water runoff control requirements and provide mitigation if necessary to meet construction and operational storm water runoff quality requirements.

Land Use and Planning

ESA will identify and map existing land uses in the Project area. Local General Plans, airport master plans, and habitat conservation plans will be identified and summarized if applicable. The ADEIR will identify the adopted goals and policies that could be affected by replacing the existing 59-foot high dam with a 136-foot high dam. The ADEIR will evaluate consistency of the proposed Project with existing land uses within the Project area and develop mitigation measures to avoid or substantially lessen inconsistencies where feasible.

Noise and Vibration

The ADEIR will evaluate potential short-term construction noise impacts and long-term noise effects associated with implementation of the proposed Project. ESA assumes that no blasting activities will be required as a result of the Project. The ADEIR will summarize the results of the Technical Study from Task 4, evaluating the Project's ability to comply with existing noise standards and policies. Mitigation measures will be developed to ensure that neighboring land uses are not adversely affected by construction noise and vibration.

Population, Housing, and Growth-Inducement

The ADEIR will summarize the Project area's growth projections based on the Southern California Association of Governments (SCAG) projections and General Plan projections and discuss applicable General Plan build-out

assumptions. The ADEIR will address the Project's potential to induce indirect population growth due to expansion of water storage capacity at Syphon Reservoir. The ADEIR will describe the Project's relationship to growth and secondary effects of growth in the region. The ADEIR will evaluate the Project's potential to induce growth in the region and identify mitigation measures as necessary.



Public Services and Utilities

The ADEIR will review the potential effects of the proposed Project on utilities and public services resulting from both construction and operation of the Project. The ADEIR will evaluate landfill capacity to accommodate the Project's solid waste and potential soil disposal needs and compliance with federal, state, and local regulations related to solid waste.

Recreation

The ADEIR will discuss potential impacts to recreational activities within the Project area as a result of dam expansion. The ADEIR will identify thresholds of significance for impacts to recreational facilities and will evaluate the Project's effects based on these thresholds. The ADEIR will identify feasible mitigation measures to reduce the Project's effects to the accessibility of recreation facilities in the area.

Transportation and Traffic

ESA will incorporate the results of the Traffic Study prepared by subconsultant Fehr & Peers into the traffic section. The ADEIR will characterize roadway traits, traffic flow, access, and circulation conditions on affected roadways and at major intersections in the Project area. The ADEIR will assess the potential for construction traffic and operational traffic to affect local roadways. Mitigation measures will be developed to reduce adverse effects to traffic and circulation, as necessary.

Tribal Cultural Resources

ESA's cultural resources staff will assess the potential for impacts to tribal cultural resources in the ADEIR. The section will include the results of the Sacred Land File search through the Native American Heritage Commission, IRWD's outreach efforts to California Native American tribes per AB 552, and the results of Native American consultation, following CEQA Guidelines and in accordance with the confidentiality requirements of AB 52. The section will also assess the potential of the Project to impact tribal cultural resources, and will identify mitigation measures to minimize impacts, as necessary.

CEQA-Plus Analysis

ESA plans on complying with NEPA requirements associated with Title XVI funding through Reclamation by preparing a CEQA-Plus document. The analysis will include all federal cross-cutting regulations for purposes of CEQA-Plus compliance, which may include but may not be limited to: Clean Air Act, Coastal Barriers Resources Act, Coastal Zone Management Act, Endangered Species Act, Farmland Protection Policy Act, Floodplain Management Act, Magnuson-Stevens Fishery Conservation and Management Act, Migratory Bird Treaty Act, National Historic Preservation Act, Protection of Wetlands, Environmental Justice, Safe Drinking Water Act, Sole

Source Aquifer Protection Act, and Wild and Scenic Rivers Act. This section of the ADEIR will include analysis of Environmental Justice.

Cumulative Impacts

ESA will address potential cumulative impacts of implementing the proposed Project in conjunction with past, present, and reasonably foreseeable public and private projects in the immediate Project area. The analysis will include a description of the geographic area in which cumulative impacts could be experienced for each resource area. ESA will evaluate the local General Plan along with contacting relevant agencies (city and county planning and public works departments, as well as CalTrans) to compile a list of major projects planned within or near the area over the next 10-15 years as well as under way or completed in the last five years. Based on experience in this part of Orange County, ESA anticipates future residential/commercial growth in the Foothill Ranch and North Tustin areas. A brief description of the relevant past, present, and proposed future projects occurring in the area that could contribute to cumulative effects will be provided.

Alternatives

Based on the alternatives development and selection conducted under Task 6, ESA will evaluate alternatives to the Project including the No Project Alternative. This scope assumes no more than two alternatives, in addition to the No Project Alternative required by the CEQA Guidelines, are analyzed in the ADEIR. The ADEIR will compare these alternatives to determine if any would substantially meet the Project objectives and reduce significant impacts associated with the proposed Project. As required by CEQA, IRWD will consider any alternatives identified by agencies or others at scoping meetings or in response to the NOP and determine whether they should be included in the ADEIR as feasible or infeasible. IRWD will identify the environmentally superior alternative based on the conclusions of the analysis.

Deliverables:

- > Five hard-copies of the ADEIR
- > All technical appendices submitted on CD/DVD

Task 11: Prepare a Screen Check Draft EIR

ESA will revise the ADEIR per the comments received from IRWD staff. ESA will prepare a first Screen Check DEIR for review by IRWD. ESA will then incorporate comments from IRWD staff and prepare a second Screen Check DEIR. ESA understands that both Screen Check iterations will be complete and coherent documents with all appropriate sections, chapters, and appendices. ESA is prepared to attend **four meetings** with IRWD staff and appropriate consultants to review the Screen Check drafts.

Deliverables:

- > Five hard-copies of the first Screen Check DEIR
- > Five hard-copies of the second Screen Check DEIR
- > All technical appendices submitted on CD/DVD

Task 12: Prepare Public Draft EIR, Notice of Availability, and NOC

After receiving final approval from IRWD of the second Screen Check DEIR, ESA will prepare the Public Draft EIR, Notice of Availability (NOA), and NOC. ESA will compile the mailing list and conduct the mailing and public noticing via the NOA required by CEQA. Anyone who received the NOP or requested to be notified of the Draft EIR will

receive a NOA plus a CD containing the Draft EIR. ESA anticipates this will be up to 100 entities; however as requested in the RFP, for budgeting purposes we have assumed 10 hard copies of the NOA and Public Draft EIR and 10 CDs. ESA will file the NOC and 15 copies of the Public Draft EIR with the State Clearinghouse, and will file the NOA with the Orange County Clerk. The notices will include the date and location of public hearing on the Draft EIR (see Task 13). ESA will publish the NOA one time in the Orange County Register.

Deliverables:

- > 10 hard-copies of the Public Draft EIR and 10 DVDs for IRWD
- > 15 hard-copies of the Public Draft EIR for State Clearinghouse
- > 10 hard-copies of the NOA and Public Draft EIR for interested parties; plus 10 CDs
- > Two hard-copies of the NOC
- > One DVD with PDF files of the Public Draft EIR, NOA, NOC, for IRWD's records

Task 13: Conduct Public Meeting

ESA will organize and arrange **one public meeting** to receive comments on the Draft EIR during the 45-day public review period. ESA will prepare presentation materials, maps, handouts, and an agenda and conduct a presentation to present the results of the environmental analysis. ESA will work with IRWD and the public outreach consultants to prepare meeting materials; all materials will be approved by IRWD in advance of the meeting. ESA will attend **one preparation meeting** with IRWD and its outreach consultant to review the presentation.

ESA will document all verbal and written comments received during the public meeting. ESA will then prepare an itemized list of all comments received at the public meeting and by mail, and will incorporate them into the Final EIR, if applicable.

Deliverables:

- > Public meeting agenda
- > Draft and final public meeting presentation
- > Public meeting presentation materials (handouts, maps, presentation)
- > Itemized list of all comments received

Task 14: Prepare Final EIR and Response to Comments

At the conclusion of the public review period, ESA will work with IRWD to obtain all comments received on the Draft EIR. ESA will provide a detailed review and evaluation of all of the comments received. ESA will develop a strategy for addressing the comments and will present this approach to IRWD and its public outreach consultant. An Administrative Final EIR containing proposed responses to comments to the Draft EIR will be prepared once ESA's approach is agreed with by IRWD staff.

After incorporation of comments on the Administrative Final EIR, ESA will prepare a Screen Check Final EIR for review by IRWD. ESA assumes that comments on the Screen Check Final EIR will be minimal, due to early consultation with IRWD when comments are received.

This task assumes **two meetings** will be held with IRWD to discuss comments received and to develop a strategy for response to comments.

Deliverable:

- > Administrative draft Final EIR or RTC and Draft EIR in electronic format
- > Screen Check Final EIR

Task 15: Prepare a Mitigation Monitoring Reporting Program

In compliance with Public Resources Code Section 21081.6, ESA will prepare a draft Mitigation Monitoring and Reporting Program (MMRP) for review by IRWD. The MMRP describes the required mitigation necessary to avoid or reduce significant impacts, the responsible parties, tasks, and schedule necessary for monitoring mitigation compliance. ESA will attend *one meeting* with IRWD to review the MMRP.

Deliverable:

- > MMRP in electronic format

Task 16: Finalize EIR, Prepare Findings, Statement of Overriding Considerations, Notice of Determination

After IRWD has reviewed the Final EIR, ESA will incorporate the necessary revisions into the document and will mail a copy to each entity that commented.

ESA will prepare draft Findings of Fact and a Statement of Overriding Considerations (SOC) (if necessary) for review by the IRWD's Boards of Directors. ESA will incorporate IRWD's comments and will prepare the final Findings. ESA will also attend one (1) Board of Directors EIR *certification hearing*. ESA will prepare and file the Notice of Determination (NOD) with the Orange County Clerk and the State Clearinghouse following certification by IRWD. The 2017 CEQA filing fees for California Department of Fish and Wildlife and the Orange County Clerk are included as part of this task, and ESA assumes the 2019 increases will be minimal and covered under the budget presented with this scope of work.

Deliverables:

- > Final EIR mailed to each entity that commented on Draft EIR (up to 10 copies)
- > Notice of Determination
- > Statement of Overriding Considerations (if necessary)
- > File Final EIR and NOD with the County of Orange and the State Clearinghouse
- > Check for County filing fee and CDFW filing fee

Task 17: NEPA Compliance**Technical Reports and Consultation**

According to past experience with Reclamation, submittal of a CEQA-Plus document with technical studies for biological and cultural resources impacts would be sufficient in meeting all of the Reclamation requirements for federal consultations with U.S. Fish and Wildlife Service and State Historic Preservation Office. As such, the stand-alone Biological Resources Technical Report included in Task 4 can be used by Reclamation to conduct consultations with federal agencies per funding requirements. In addition, the Cultural Resources Technical Report prepared under Task 4 will be amended to delineate the Area of Potential Effect (APE) in accordance with the requirements for Section 106 of the National Historic Preservation Act, per NEPA requirements.

1 | Scope of Work

ESA will assist IRWD with coordination of Section 106 compliance through Reclamation. This task includes time for general coordination with the Bureau archaeologist and attendance at up to two conference calls with Reclamation. This scope assumes one meeting between ESA and IRWD to coordinate the NEPA and federal consultation efforts, and up to two consultation meetings with agencies.



Schedule and Budget



Section 4

Schedule and Budget

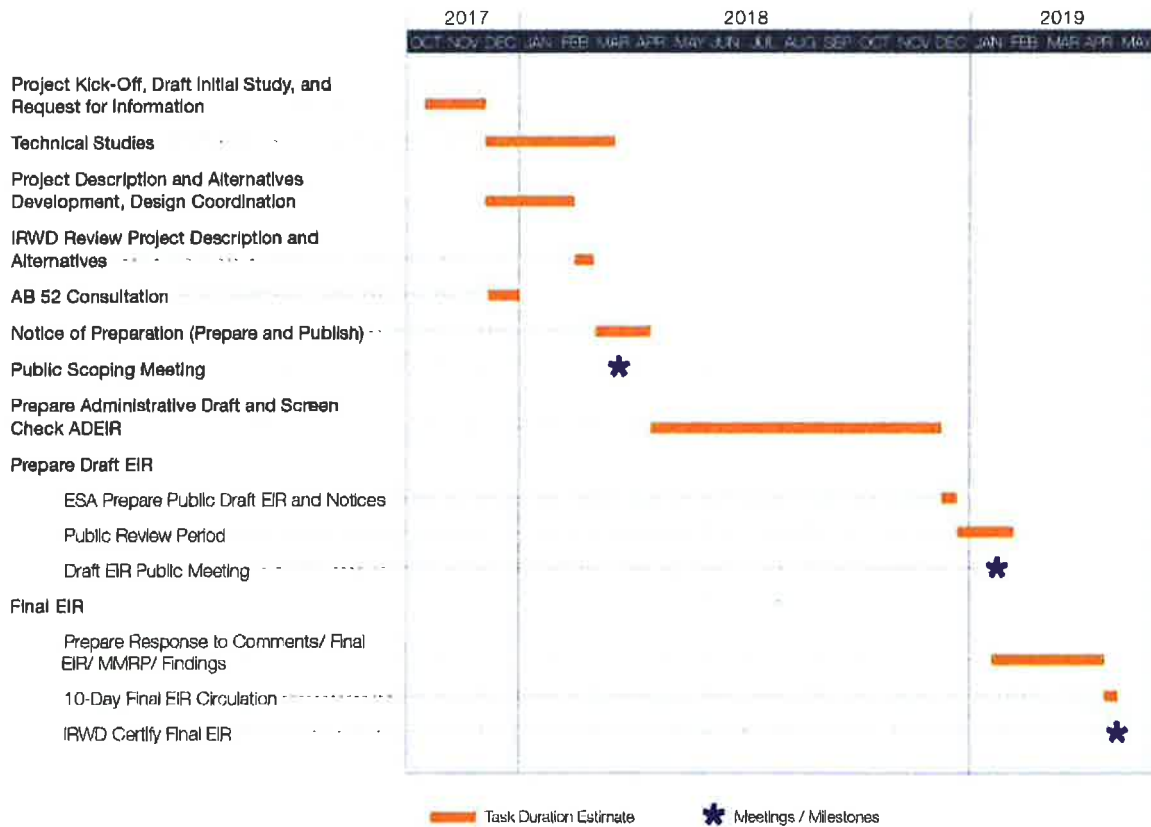


Schedule

Based on the RFP, IRWD requests a 20-month schedule for preparation of an EIR for the Project. As mentioned in **Section 1, Approach**, ESA recommends preparation of one CEQA-Plus document that covers both geotechnical investigation and construction/operation of the proposed dam and reservoir. ESA has prepared a draft Project schedule below to demonstrate how the 20-month schedule can be achieved for one CEQA-Plus document based on main Project milestones provided in the RFP. This schedule is also included in **Section 1, Scope of Work**. This schedule leads to certification of the EIR in May 2019.

As part of the initial start-up tasks and project kick-off, ESA will prepare a more detailed schedule providing adequate preparation of all phases of environmental documentation and public notices, review of deliverables by IRWD, and coordination with IRWD and its consultants. ESA will make revisions to the schedule as necessary throughout the duration of the Project to inform the Project Team of the progress and status of the environmental process.

4 | Schedule and Budget



Budget

Per IRWD's request, our budget spreadsheet is attached to this proposal in a separately sealed envelope.

Task #	Task Name/Description	Employee Names												Subtotal	Project	Budget	Variance	Total	Final	Final																																																																																																																																																																																				
		John Doe	Jane Smith	Bob Johnson	Alice Brown	Charlie White	David Green	Eve Black	Frank Blue	Grace Red	Henry Yellow	Ivy Purple	Jack Orange																																																																																																																																																																																											
1.0	Initial Construction	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000

ESB Labor Costs	\$ 110,943.11
ESB Non Labor Expenses	\$ 12,582.89
ESB Total Labor Expenses	\$ 123,526.00
ESB Non Labor Expenses	\$ 12,582.89
ESB Total Labor Expenses	\$ 136,108.89
ESB Total Labor Expenses	\$ 136,108.89

PROJECT TOTAL \$ 611,226.00

Attachment A
Cost Proposal: ESA Non-Labor Expenses Summary

Reimbursable Expenses

Project Supplies (including CDFW CEQA Filing Fees)	\$	3,553
Printing/Reproduction	\$	1,100
Document and Map Reproductions (CD + Digital Photo)	\$	100
Postage and Deliveries	\$	1,040
Mileage	\$	2,930
Vehicle Rental	\$	-
Lodging	\$	-
Airfare	\$	-
Other Travel Related	\$	-
Newspaper Ads	\$	1,600
Records Search	\$	1,615
-	\$	-
Subtotal Reimbursable Expenses	\$	11,938
5% Fee on Reimbursable Expenses	\$	597
Total Reimbursable Expenses	\$	12,535

September 25, 2017

Prepared by: Tony Mossbarger

Submitted by: Cheryl Clary

Approved by: Paul Cook

ACTION CALENDAR

BUSINESS INTELLIGENCE CLOUD DISASTER RECOVERY IMPLEMENTATION AND REPORTING CONTRACT AWARD

SUMMARY:

The District's Oracle Financial Software Upgrade and Project Management implementation (Financial Upgrade Project), completed in March 2017, included a backup Cloud Disaster Recovery (DR) environment for continuing operations in the event of a system failure. A separate backup Business Intelligence (BI) Cloud DR environment is also needed to support ongoing financial reporting in the event of a system failure.

In addition, the Financial Upgrade Project included minimal new reports. Post implementation, staff has identified the need for additional BI reports and training on those reports. Staff recommends that the Board:

- Authorize the addition of Project 10345 for \$155,000 and Project 10347 for \$155,000 to the FY 2017-18 Capital Budget; and
- Authorize the General Manager to execute a Professional Services Agreement with DiLytics in the amount of \$241,000 for the Business Intelligence Cloud Disaster Recovery Implementation and Additional BI Reports.

BACKGROUND:

In March 2017, the District completed the Financial Upgrade Project, which included the creation of a Cloud DR environment for continuing operations in the event of a system failure. The District uses Oracle BI applications software to provide timely financial reporting to support ongoing operations. Staff has determined that in addition to the Oracle Financial and Project Management Cloud DR environment, a separate BI Cloud DR environment is needed. A cloud solution is more secure in the event of a system failure or natural disaster as the previous DR environment was located at the Operations Center. As discussed above, staff is proposing to move the upgraded environment to the cloud.

In order to maximize the benefits from the Financial Upgrade Project, staff has identified additional opportunities for reporting that are not part of standard Oracle reports. DiLytics met with staff from Finance, Engineering, Human Resources, Information Services, Operations, and Purchasing to gain a better understanding of the additional reporting requirements. The requested reports are identified in the DiLytics proposal and is attached as "Exhibit A".

Consultant Selection:

The District upgraded its Oracle BI software in August 2015, as Oracle support for that version had expired and required an upgrade to a newer version. A Request for Proposal was issued to five consultants with experience performing Oracle BI software upgrades. At that time, DiLytics

was selected and awarded a professional services contract to perform the 2015 Oracle BI software upgrade. DiLytics successfully completed the upgrade project on time and within budget. DiLytics worked with all levels of staff in a professional manner and developed good working relationships. DiLytics exhibited their excellent knowledge and experience with the Oracle BI software and is very familiar with the District's BI reporting environment.

DiLytics has an excellent understanding of the BI Cloud DR Implementation and Reporting project; a well-seasoned and experienced project team; submitted an optimal project schedule; and is the most capable of assisting the District with the project. Staff recommends awarding a Professional Service Agreement to DiLytics in the amount of \$241,000.

FISCAL IMPACTS:

Projects 10345 and 10347 are not included in the FY 2017-18 Capital Budget. Staff requests the addition of Projects 10345 and 10347 to the FY 2017-18 Capital Budget as shown in the table below. Funding for projects will be provided by the Replacement Fund (Improvement Districts 1100 and 2100) respectively:

Project No.	Current Budget	Addition <Reduction>	Total Budget
10345	\$-0-	\$155,000	\$155,000
10347	\$-0-	\$155,000	\$155,000
Total	\$-0-	\$310,000	\$310,000

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on September 19, 2017.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION OF PROJECTS 10345 FOR \$155,000 AND 10347 FOR \$155,000 TO THE FY 2017-18 CAPITAL BUDGET AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH DILYTICS, INC. IN THE AMOUNT OF \$241,000.

LIST OF EXHIBITS:

Exhibit "A" – DiLytics Statement of Work and Fee Proposal

Exhibit "A"

**Statement of Work
Oracle Business Intelligence
At IRWD**

September 2017

DiLytics, Inc.

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Revision History

Change Record

Date	Author	Version	Change Reference
19-May-2017	DiLytics, Inc.	1.0	Initial Creation by DiLytics
24-May-2017	DiLytics, Inc.	2.0	DiLytics internal review and feedback
21-June-2017	DiLytics, Inc.	3.0	Reduced scope based on IRWD inputs
28-August-2017	DiLytics, Inc.	4.0	Revised scope to include additional departments and their requirements

Reviewers

Approvers

Confidentiality Agreement

This document contains information that is proprietary and confidential to DiLytics, Inc. (“**DiLytics**”) and Irvine Ranch Water District (“**IRWD**”) which shall not be disclosed outside DiLytics and IRWD and shall not be transmitted or duplicated, used in whole or in part for any purpose other than its intended purpose. Any use or disclosure in whole or in part of this information without express written permission of DiLytics and IRWD is prohibited.

Any other company and product names mentioned in the document are used for identification purpose only and may be trademarks of respective owners.

1. General

This Statement of Work (“**SOW**”) is entered into by Irvine Ranch Water District (“**IRWD**”) and DiLytics, Inc. (“**Contractor**” or “**DiLytics**”) (Each herein referred to as “**Party**” and collectively as “**Parties**”), pursuant to the terms of the Master Services Agreement (“**Agreement**”) dated <<Month XX, Year>>. Except to the extent expressly provided otherwise in this SOW, all the terms of the Agreement are incorporated by reference into this SOW. In the event of any inconsistent or contradictory terms between the Agreement and the SOW, the terms of Agreement will control and supersede such inconsistent or contradictory terms included in the SOW. Any terms used specifically in the SOW and not otherwise defined in the agreement will be defined in the SOW.

2. Background

- IRWD leverages Oracle EBS as its ERP for Financials, Costing, Procurement, Projects, Inventory and Human Resources
- District uses Oracle Customer Care & Billing (CC&B) for Water Utility operations
- District leverages Oracle BI Apps for analytics on Oracle EBS Financials, Procurement, Projects and Human Resource modules
- District uses Oracle Utilities Analytics for insight on CC&B data
- Currently District’s primary and Disaster Recovery (DR) data centers are located very close to each other
- District recently subscribed to Oracle Infrastructure cloud for installing the Disaster Recovery (DR) instances of applications and servers
- In this Statement of Work (SOW), DiLytics is specifying the scope, timeline and estimate for
 - Installation of Oracle BI Apps DR instance in Oracle Cloud Infrastructure
 - Provide Training on Oracle BI Apps to business users
 - Create new Reports and Dashboards for Engineering, Purchasing, Inventory, General Ledger, Payables, Payroll, HR, Budgeting
 - Resolve data issues
 - Make performance improvements

3. SOW Scope & Approach

This SOW to implement BI Phase2 in IRWD includes the following scope:

3.1 Install Oracle BI Apps DR instance

- Install OBIEE
- Install Data Warehouse
- Install ODI
- Install Oracle BI Apps (OBIA)
- Migrate OBIA code from Production to DR Instance
 - Migrate DW
 - Migrate RPD
 - Migrate Web Catalog
 - Migrate ETL
 - Migrate Domain Configurations
- Load data into OBIA DR Instance
- Verify OBIA DR instance
 - Verify Data Load
 - Verify Reports and Dashboards

- Verify OBIA Production instance accessing and updating OBIA DR RPD and web catalog
- Verify seamless transition to DR instance when Production OBIA goes down

3.2 Training on Oracle BI Apps

- Conduct separate training sessions for each department on functionality specific to their department (For example, Finance team training on General Ledger, Payables, Payroll)
- Follow up one on one discussions to answer additional questions and provide online help
- Provide Training Documentation

3.3 Reports and Dashboards

3.3.1 Engineering

- Develop Capital Budgeting Reports
- Develop Project Budget Expenditure (Including field called Budget Type Code)
- Create Snapshot of Project Budget Expenditure based on user input date (Write-back table) for snapshot
- Create Pivot Classifications for Project Budget Expenditure report
- Redesign Labor/Payroll Charges based on PO Spend and Non-PO Spend
- Redesign Project Summary Report
 - New Fields Required
 - Project start date incorrect
- Tune performance for drill-down reports from Project Summary Report
 - Project Manager/Engineer summary
 - POs, Invoices, Labor/Payroll
- Provide documentation (Semi-technical) on EBS to BI mapping

3.3.2 Purchasing

- Develop Invoice by Supplier Report
 - Provide visibility into AP (Accounts Payable)
 - Ability to view PO balance at the end of fiscal year

3.3.3 Inventory

- Develop Report to view Usage for items in past six months
 - Current method is View Material transactions --> Import all transactions and then pivot tables to organize. Do not include return to Stock or receipt. Sort by week or month.
- Develop Monthly Report: Misc Inventory transactions - Issues to GL
 - Current report: IRWD Miscellaneous Txn Report from EBS. Manually match correct ID with Process.

3.3.4 General Ledger

- Address the issue of data not showing up in BI after incremental data load is completed
- Fix the issue of junk (decode statements) values in Account and account segment
 - Not able to do range search for any segment in GL
- Resolve Performance issue with 'Financials - GL detail transactions' Subject area
- Clean up duplicate in subject area

- there is one folder called GL Account and another folder called GL segment4 - ACCOUNT
- Address columns showing up code values rather than the exact name
 - Journal category
- Fix the issue of columns getting merged when exporting into excel 2007
- Account document source is 'AP' then provide Vendor invoice number, PO amount, check number just like in project module
 - Combine 'Financials- GL detail transactions' and Financial - AP Transactions. Check number cannot be brought over with Account number
- Account document source is 'Payroll' then need Employee Name, Employee Number, Hours, rate
- Account document source is 'Inventory' then need item, item desc
- Account document source is 'Receivables' Customer Name, Receipts (if there is one)

3.3.5 Payables

- Address the issue of Wrong Results from AP Invoices table - Membership GL Account- 586002
- Fix the issue of Some of the results from BI is incorrect
 - Amount against Account
- Resolve data issue in Financial - Asset Balance Table
 - Under Asset, under Asset Key Detail and under Asset Key Group

3.3.6 Payroll

- Provide visibility into Hours by process - Employee Name, Number, Hours and Process
 - Getting information from Project Inquiry screen - Need that in BI
- Create OTL - Request for who charge to which process
 - Operations request-- By Manager
- Create Vacation and Sick Hours by Employee by each pay period
 - Current Report might be wrong
- Develop new Report for Vacation accrual balance report
 - Runs Quarterly in BI
- Provide ability to select Earning Elements (Uniform, Performance Recognition)
 - Payroll and Advanced benefits Subject Area: element report is not user friendly - Element by pay period, GI fiscal period, GI fiscal number. Deductions are there - CS Earnings by Pay Period Report (in catalog under shared folder). Regular salary does not have sum amount

3.3.7 Human Resource (HR)

- Provide visibility into Employee census data with DOH DOB Adjusted service date
 - Rate of pay missing
 - New Hires do not show
 - August run shows only July data
- Develop Report to show current life events that are open or pending
 - Need to run before open enrollment
- Resolve data issues
 - New Hires missing from all reports
 - Workforce Salary Facts - Some missing Salaries

3.3.8 Budgeting

- Fix data issue on Report does not bring correct results for performance ratings
 - Subject Area - Human Resources - Compensation
- Provide the ability to filter by Payment Type
 - HR Payroll & Benefits CS- Employee Compensation for Workers Comp
- Fix Performance Issue in Operating Expense Budget (Adopted)
 - Under Financial Managers - Operating Expnse Budget(Adopted) - Around 200 records but takes longer than usual to retrieve data
- Resolve Out of box - Element Register report (It does not work)

3.3.9 Common in General

- Fix data issues
- Address Performance bottlenecks
- All OOTB reports should run without any error
- Validate data in the Reports
- Assist users to perform UAT and get sign off
- Migrate to Production
- Training and Documentation

Note: Most of the above scope has been taken from the Requirements table below.

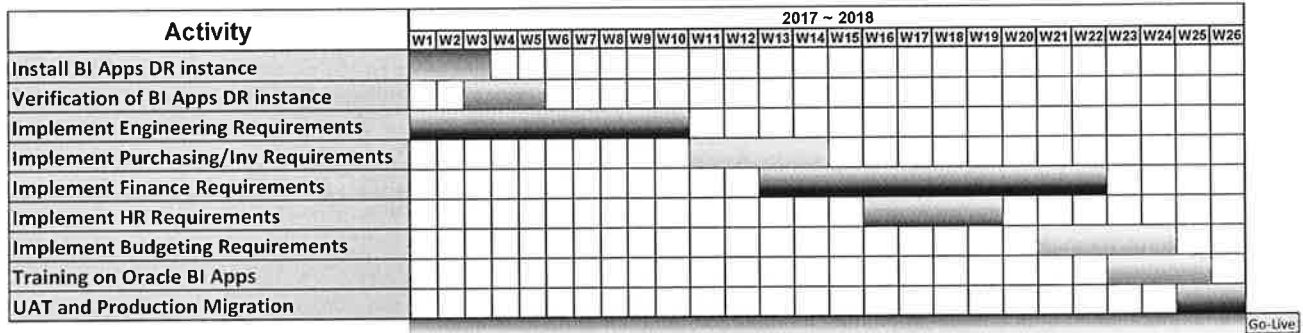
	Purchasing:	Comments
1	Invoice by Supplier	New Reporting need to have certain kind of access for AP. How much fiscal year balance left for a PO
Inventory:		
1	Usage for items in past six months.	Current method is View Material transactions --> Import all transactions and then pivot tables to organize. Do not include return to Stock or receipt . Sort by week or month
2	Monthly Report: Misc Inventory transactions - Issues to GL	Current report: IRWD Miscellaneous Txn Report from EBS. Manually match correct ID with Process
General Ledger:		
1	Concern where lines don't come over even if load is successful	Incorrect data
2	Table Issue - Please enter Account and account segment has junk(decode statements) in it	Not able to do range search for any segment in GL
3	Performance issue with Subject area called 'Finacials - GL detail transactions'	
4	Duplicate items like there is one folder called GL Account and another folder called GL segment4 - ACCOUNT	
5	Certain Columns like Journal category shows up code rather than the exact name	Not able to export into Excel.Cast('Account' as INT)

6	Export into excel 2007. for certain exports, columns get merged	
	Link to other modules from GL:	Comments
8.1	Account document source is 'AP' then provide Vendor invoice number, PO amount, check number just like in project module	For example: Subject Area - Combine 'Financials- GL detail transactions' and Financial - AP Transactions. Check number can not be brought over with Account number
8.2	Account document source is 'Payroll' then need Employee Name, Employee Number, Hours, rate	
8.3	Account document source is 'Inventory' then need item, item desc	
8.4	Account document source is 'Receivables' Customer Name, Receipts(if there is one)	
	Payables:	Comments
1	Wrong Results from Ap Invoices table - Membership GL Account- 586002	
2	Some of the results from BI is incorrect - Amount against Account	
3	Financial - Asset Balance Table Under Asset, under Asset Key Detail and under Asset Key Group	
	Payroll:	Comments
1	Hours by process - Employee Name, Number, Hours and Process	Getting information from Project Inquiry screen - Need that in BI
2	OTL - Request for who charge to which process	OPERations request-- By Manager
3	Vacation and Sick Hours by Employee by each pay period.	Current Report might be wrong
4	Need new Report: Vacation accrual balance report	Runs Quarterly in BI
5	Earning Elements(Uniform, Performance Recognition) not there to select	Payroll and Advanced benefits Subject Area: Element report is not user friendly - Element by pay period, GI fiscal period, GI fiscal number. Deductions are there - CS Earnings by Pay Period Report(in catalog under shared folder). Regular salary does not have sum amount
	HR:	Comments
1	Employee census data with DOH DOB Adjusted service date	Rate of pay missing. New Hires does not show. Today's run shows only July data
2	Verify current life events that are open or	Need to run before open enrollment

	pending	
3	New Hires missing from all reports	
4	Workforce Salary Facts - Some missing Salaries	
	Budgeting	Comments
1	Subject Area - Human Resources - Compensation	Report does not bring correct results for performance ratings
2	HR Payroll & Benefits CS- Employee Compensation for Workers Comp	Cannot filter by Payment Type
3	Under Financial Managers - Operating Expnse Budget(Adopted) - Around 200 records but takes longer than usual to retrieve data	Performance Issue
4	Human Capital Management	Out of box - Element Register report does not work
	Training:	Comments
1	Help in training - Not fully utilizing Dashboard reports -	
2	Does not know how to create simple reports	
3	Training by Department - Finance, HR, Engineering, Purchasing, Operations	
4	Guide where everything is	
	Example from Purchasing - Lack of training. These reports can be built/modified very easily	
1	New Report - PO by status	Status Parameter not available E.g. Pos that are on hold.Current EBS Report: Purchase Summary Report by category - Pos on Hold are found.There is Issue with sequence of fields.
2	Pos by category	Manually sorted by dollar.
	Other:	Comments
1	Overall BI Performance is slow.	
2	Export to excel shows 2003 or 2007+ only. Why??	

4. High Level Project Timeline*

This SOW is estimated to be twenty six weeks work for implementation of the above included scope.



* The above timeline represents business weeks, excluding holidays and shutdowns

5. Deliverables

As part of this SOW, DiLytics will complete the following Deliverables:

Activity	Deliverable	Ownership
A. Install Oracle BI Apps DR instance in Oracle Infrastructure cloud	1. OBIA DR instance working as expected with verified Reports, Dashboards and Data	DiLytics team IRWD Business users for UAT IRWD IT team
B. Implement Engineering Requirements	2. Delivery of Scope and Requirements documented in this SOW under Engineering	DiLytics team IRWD Business users
C. Implement Purchasing and Inventory Requirements	3. Delivery of Scope and Requirements documented in this SOW under Purchasing and Inventory	DiLytics team IRWD Business users
D. Implement Finance Requirements	4. Delivery of Scope and Requirements documented in this SOW under Finance	DiLytics team IRWD Business users

Activity	Deliverable	Ownership
E. Implement HR Requirements	5. Delivery of Scope and Requirements documented in this SOW under Human Resource	DiLytics team IRWD Business users
F. Implement Budgeting Requirements	6. Delivery of Scope and Requirements documented in this SOW under Budgeting	DiLytics team IRWD Business users
G. Provide Training on Oracle BI Apps to business users	7. Trained business users	DiLytics team
H. Conduct UAT and obtain sign off	8. Data warehouse extensions	
I. Migrate to Production	9. RPD metadata extension 10. New Reports and Dashboards 11. Signed off new Reports in Production	IRWD Business users

Deliverables shall be deemed accepted by IRWD according to the following process:

IRWD will provide feedback on Deliverables by giving DiLytics written notice of the feedback within fifteen (15) business days of receipt of the Deliverables (the "Notice"). Upon receipt of the Notice, DiLytics shall make commercially reasonable efforts to make the Deliverables to address IRWD feedback. In the event, IRWD does not issue a Notice to DiLytics on the submitted Deliverables within fifteen (15) business days, the Deliverables will be deemed Accepted by IRWD.

6. Resource Requirements

As part of this SOW, DiLytics estimates the following resource commitments as requirements from both DiLytics and IRWD staff:

Activity	DiLytics Resource	IRWD Staff
A. Install Oracle BI Apps DR instance in Oracle Infrastructure cloud	<ul style="list-style-type: none"> Oracle BI Architect/PM Senior OBIEE Administrator Senior ODI Administrator 	<ul style="list-style-type: none"> Business Users IT Team
B. Implement Engineering Requirements	<ul style="list-style-type: none"> Oracle BI Architect/PM Lead ETL Developers Senior BI Developers 	<ul style="list-style-type: none"> Engineering team
C. Implement Purchasing and Inventory Requirements	<ul style="list-style-type: none"> Oracle BI Architect/PM Lead ETL Developers Senior BI Developers 	<ul style="list-style-type: none"> Purchasing team

Activity	DiLytics Resource	IRWD Staff
D. Implement Finance Requirements	<ul style="list-style-type: none"> • Oracle BI Architect/PM • Lead ETL Developers • Senior BI Developers 	<ul style="list-style-type: none"> • Finance team
E. Implement HR Requirements	<ul style="list-style-type: none"> • Oracle BI Architect/PM • Lead ETL Developers • Senior BI Developers 	<ul style="list-style-type: none"> • HR team
F. Implement Budgeting Requirements	<ul style="list-style-type: none"> • Oracle BI Architect/PM • Lead ETL Developers • Senior BI Developers 	<ul style="list-style-type: none"> • Business Users
G. Provide Training on Oracle BI Apps to business users	<ul style="list-style-type: none"> • Oracle BI Architect/PM 	<ul style="list-style-type: none"> • Business Users
H. Conduct UAT and obtain sign off	<ul style="list-style-type: none"> • Lead ETL Developers 	<ul style="list-style-type: none"> • IT Team
I. Migrate to Production	<ul style="list-style-type: none"> • Senior BI Developers 	

7. SOW Terms and Conditions

- Both Parties agree not to directly or indirectly employ or engage as an independent contractor any staff resource of the other Party who has performed Services during the term of this SOW and for a period of one (1) year thereafter without the prior written consent of the other Party.

8. Assumptions

- IRWD team will provide all available documentation on the current BI implementation.
- IRWD business users will provide inputs on their requirements for new Reports and Dashboards in this BI implementation.
- IRWD IT team will provide clarifications on our questions regarding this implementation.
- IRWD Staff will be available to provide their inputs, feedback and signoff in a timely manner.
- IRWD will provide all required hardware, software, space and remote access to systems to perform this SOW.
- IRWD will provide DiLytics with any IT Standards, Guidelines, Policies and Compliance requirements to be followed.

9. Service Delivery Location

- DiLytics team will complete the Deliverables related to this SOW in a combination of onsite and remote activities.
- To the extent this SOW permits services to be performed outside the United States, DiLytics will leverage its local affiliates in respective regions to perform such work.

10. Implementation Fee

This SOW will be executed on a fixed fee basis over duration of 26 weeks. The fixed fee for this SOW shall not exceed USD \$240,680 without IRWD’s prior written consent (the “Fees”). DiLytics will invoice IRWD based on the invoicing schedule provided below:

Scope	Fixed fee*
A. Install Oracle BI Apps DR instance in Oracle Infrastructure cloud	\$38,600
B. Implement Engineering Requirements	\$46,300
C. Implement Purchasing and Inventory Requirements	\$19,100
D. Implement Finance Requirements	\$47,800
E. Implement HR Requirements	\$18,200
F. Implement Budgeting Requirements	\$19,800
G. Provide Training on Oracle BI Apps to business users H. Conduct UAT and obtain sign off I. Migrate to Production	\$16,400
Contingency (Including T&E)	\$21,880
Total	\$240,680

*The fixed fee is based on the scope defined in this SOW and a total of 26 weeks effort estimate, contingent upon timely participation and feedback from IRWD’s IT and Business teams. Any extension of the actual timeline resulting from delays in timely response from IRWD’s IT and Business teams would warrant change order in addition to the fixed fee.

- All Invoices will be submitted in USD currency
- IRWD will make payments towards DiLytics’ invoices on a payment term basis of Net 30
- All other terms and conditions regarding payments, rates and fees will be subject to the provisions of the Agreement;
- Any material changes to the scope of this SOW, such as additional deliverables or resources will increase the implementation fee;
- Any additional scope will require additional fee based on the size of scope.

11. Post Go-Live Support

Post go-live support is available as an option, as follows:

Production Support Options	Contract Duration	Fixed Fee Per Month#	Total Fee*
6 month Post Go-Live Support	6 month	\$5,000 (Fixed)	\$30,000 (Fixed)
1 Year Post Go-Live Support	12 months	\$4,000 (Fixed)	\$48,000 (Fixed)

Represents the minimum fixed fee per month

* Effort over 20 hours per month will be billed additionally at \$125 per hour of additional effort over 20 hours.

12. Approvals

Accepted by:

Irvine Ranch Water District

By: _____

Name:

Title:

Date: _____

Accepted by:

DiLytics, Inc.

By: _____

Name:

Title:

Date: _____

September 25, 2017

Submitted by: P. Weghorst

Approved by: Paul A. Cook

PW
PC

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 October 26, 2015. These revisions take into consideration progress that has occurred in establishing and expanding IRWD's water banking programs, a reduced and uncertain need for imported water in the future and the potential for providing water supply reliability assistance to other retail water supply agencies in Orange County. Staff recommends that the Board approve the Water Banking, Transfers and Wheeling Policy Position Paper.

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 October 26, 2015. 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, the execution of approved pilot and long-term water supply programs involving unbalanced exchanges, and the execution of an agreement with Rosedale-Rio Bravo Water Storage District for the construction and operation of wells in Rosedale's service area that will assist both agencies to achieve groundwater recovery objectives. The paper also contemplated incorporating a third project site into the Stockdale Project and changes associated with the Administration's interest in establishing a water market for the State of California that would streamline water transfers and exchanges.

Updates to Policy Position Paper:

Since October 2015, numerous changes have occurred that require updating of IRWD's Water Banking, Transfers and Wheeling Policy Position Paper. One major change is that Rosedale and IRWD have certified and approved an Environmental Impact Report for the Stockdale Project that has facilitated the construction and equipping of additional recovery wells and related conveyance facilities. IRWD has also entered into a long-term one-for-one exchange agreement

with Dudley Ridge Water District that will make water available for delivery into IRWD's service area.

Recently, IRWD and Rosedale submitted a grant application to the California Water Commission for the planning, design and construction of water conveyance and banking facilities at the third project site contemplated for the Stockdale Project as well as at other suitable sites. In addition, IRWD has completed an update to its Water Supply Master Plan that indicates a reduced and uncertain demand for imported water in the year 2035. This change in demand for imported water has allowed IRWD to enter into discussions with the Municipal Water District of Orange County to initiate a program to share reliability from IRWD's water banking projects with other water supply retail agencies. IRWD has also completed a Water Supply Reliability Evaluation that affirms the importance of IRWD's water banking programs to meet district demands during future dry periods. These changes have all resulted in the need to update the policy position paper.

The updated Water Banking, Transfers and Wheeling Policy Position Paper is attached as Exhibit "A". The position paper with changes identified from the October 15, 2015 version of the document is attached as Exhibit "B".

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

None.

COMMITTEE STATUS:

This item was reviewed by the Supply Reliability Programs Committee on September 21, 2017.

RECOMMENDATION:

THAT THE BOARD APPROVE THE DISTRICT'S WATER BANKING, TRANSFERS AND WHEELING POLICY POSITION PAPER.

LIST OF EXHIBITS:

Exhibit "A" – Updated Policy Paper: Water Banking, Transfers and Wheeling – under separate cover (copies available at the Board meeting).