

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

**August 22, 2016**

**PLEDGE OF ALLEGIANCE**

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

**ROLL CALL**                         Directors LaMar, Reinhart, Swan, Withers and President Matheis

**NOTICE**

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

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**COMMUNICATIONS TO THE BOARD**

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- 1.    A. Written:
- B. Oral:

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

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

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**PRESENTATION**

**Resolution No. 2016-24**

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3.    **CSUF LEADERSHIP DEVELOPMENT FOR PUBLIC AGENCIES  
PRESENTATION AND RECOGNITION OF DISTRICT GRADUATES**

Ms. Lauren Henderson, Program Developer with the University Extended Education, California State University, Fullerton will provide a presentation about their series entitled "Leadership Development for Public Agencies" and will acknowledge the District's most recent graduates of the program including Dane Johnson, Water Resources Planner; Alex Garcia, Sr. Instrumentation Technician; Owen O'Neil, Automation Supervisor; Jessie Muncy, Sr. Buyer and Sandra Garcia, Customer Service Supervisor.

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**WORKSHOP**

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4. SELECTION OF NEW IRWD LOGO

Recommendation: That the Board select a new IRWD logo.

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**CONSENT CALENDAR**

**Items 4 -10**

5. MINUTES OF REGULAR BOARD MEETINGS

Recommendation: That the minutes of the August 8, 2016 Regular Board Meeting be approved as presented.

6. JULY 2016 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the monthly interest rate SWAP summary for July 2016, and Disclosure Report of Reimbursements to Board members and staff; approve the July 2016 summary of payroll ACH payments in the total amount of \$1,655,417 and approve the July 2016 accounts payable disbursement summary of warrants 368924 through 369496, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$30,511,242.

7. 2016 LEGISLATIVE UPDATE

Recommendation: That the Board adopt an "oppose" position on AB 2087 (Levine).

8. ON-CALL CONSTRUCTION INSPECTION SERVICES VARIANCE

Recommendation: That the Board authorize the General Manager to execute Variance No. 2 with Andersonpenna in the amount of \$981,760 for on-call construction inspection services for two inspectors for a two-year period.

9. REIMBURSEMENT AGREEMENT FOR PLANNING AREA 51, DISTRICT 7 CAPITAL RECYCLED WATER FACILITIES

Recommendation: That the Board authorize the General Manager to execute a reimbursement agreement with Heritage Hills Irvine, LLC for the construction of IRWD's capital recycled water facilities, and authorize the addition of PA 51, District 7 capital recycled water facilities project 7169, in the amount of \$492,800, to the FY 2016-17 Capital Budget.

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**CONSENT CALENDAR (CONTINUED)**

**Items 4 -10**

10. PLANNING AREA 51 HERITAGE FIELDS CAPITAL FACILITIES

Recommendation: That the Board authorize the General Manager to accept Heritage Field's construction contract with FYDAQ in the amount of \$178,980 for the District 1, Magnet and Terrapin Recycled Water Improvements, Projects 6732 and 6595; authorize the General Manager to accept Heritage Field's construction contract with FYDAQ in the amount of \$318,232 for the District 4, Area 2 Benchmark and Perspective and Benchmark from Bosque to 500 feet east of Bosque Improvements, Projects 6552, 6553, 6554, 6304 and 6306; authorize the General Manager to accept Heritage Field's construction contract with FYDAQ in the amount of \$468,062 for the District 4, Area 1 Benchmark from Character to Cadence, Modjeska from Benchmark to Irvine Boulevard, Theme from Cadence to Benchmark and Episode from Benchmark to Frame Improvements, Projects 6683 and 6684, authorize a budget increase for Project 4147 in the amount of \$660,000, from \$541,200 to \$1,201,200, and approve Contract Change Order Nos. 1, 2 and 3 to Projects 4153, 6476 and 4147 in the amounts of \$234,696, \$229,923 and \$674,515 respectively, for the addition of sewer pipeline, extension of domestic water and recycled water pipelines and upsizing recycled water pipelines within Marine Way; Approve Contract Change Order No. 4 to Project 4267, in the amount of \$295,525, for tasks related to upsizing the first phase of the Reach A Sewer; approve Contract Change Order No. 6 to Project 4614, in the amount of \$558,845, for tasks related to upsizing the second phase of the Reach A Sewer; and approve Contract Change Order No. 7 to Project 4614, in the amount of \$791,078.15, for tasks related to upsizing the third phase of the Reach A Sewer.

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**ACTION CALENDAR**

11. ON-CALL CEQA/NEPA AND PERMITTING SERVICES CONSULTANT SELECTIONS

Recommendation: That the Board authorize the General Manager to execute professional service agreements with ESA, LSA Associates, Inc. and Psomas to provide on-call CEQA/NEPA services for not-to-exceed amounts of \$150,000 each and with Harmsworth associates and Glenn Lukos Associates to provide on-call monitoring and permitting services for not-to-exceed amounts of \$120,000 each.

12. CONSULTANT SELECTION FOR THE WATER SMART REPORTS PROGRAM

Recommendation: That the Board authorize the general manager to execute a professional services agreement with Watersmart Software in the amount of \$489,510 to provide water smart reports program services for the next three years.

13. TERMS TO ACQUIRE CAPACITY RIGHTS IN CROSS VALLEY CANAL RETURN PIPELINE

Recommendation: That the Board approve the proposed terms to acquire capacity rights in Rosedale-Rio Bravo Storage District's Cross Valley Canal Return Pipeline in the amount of \$201,000 and authorize staff to work with Rosedale to develop and execute an agreement to purchase the capacity rights in accordance with these terms.

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## OTHER BUSINESS

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

14. A. General Manager's Report
- B. Directors' Comments
- C. CLOSED SESSION CONFERENCE WITH LEGAL COUNSEL RELATIVE TO EXISTING LITIGATION - Government Code Section 54956.9(d)(1) IRWD v. OCWD (Case No.30-2016-00858584-CU-WM-CJC).
- D. Open Session
- E. Adjourn

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

August 22, 2016

Prepared by: B. Beeman

Submitted by: P. Weghorst

Approved by: Paul Cook 

## BOARD WORKSHOP

### SELECTION OF NEW IRWD LOGO

#### SUMMARY:

For over 50 years, the IRWD logo has been recognized as the District's symbol for its high-quality, reliable and cost-effective water, sewer and urban runoff treatment services. Features of the existing logo have become outdated and an opportunity now exists to update the logo in a way that not only acknowledges the District's history, but also reflects its current services and programs. At the Water Resources Policy and Communications Committee meeting in July, Chapman University student interns presented several draft logo concepts for review and input. Staff has incorporated Committee input, refined the student designs and applied the creative expertise of IRWD's graphic artists. At the meeting staff will present, for the Board's consideration, the preferred logo design selected by the Committee as well as several other design concepts. Staff recommends that the Board select an updated IRWD logo design.

#### BACKGROUND:

IRWD's logo has long been used for District-related communications, outreach and education materials. It has come to be viewed by IRWD's customers as a symbol that represents the District's high-quality, reliable and cost-effective water, sewer and urban runoff treatment services, programs, facilities and employees. The logo is also recognized by other water resource organizations, local state and federal governmental agencies, the Administration, legislature and many others.

#### Need for Redesign:

While there have been benefits to IRWD retaining the same logo for over 50 years including ease of recognition, image stability and public perception, the current logo utilizes design features that are outdated. The font style and graphic contained within the logo no longer conform to modern style standards. When printing or displaying the logo in smaller sizes, it can be difficult to view or read text contained within the logo. In addition, the central graphic within the logo shows a water cycle that is obsolete. An opportunity exists to update the logo in a way that not only acknowledges the District's history, but also reflects IRWD's current services and programs.

#### Logo Redesign:

IRWD has implemented a multi-phased approach to redesigning the District's logo. The first phase involved working with Chapman University student interns to formulate the District's vision for a logo that represents the future of IRWD. The Chapman University student interns presented logo design concepts for review and input at the Water Resources Policy and Communications Committee meeting in July. In the second phase of the project, staff has incorporated input from the Committee and applied the creative expertise of IRWD graphic artists to come up with refined logo designs. These refined designs were presented to the

Committee on August 11, 2016 and a preferred design was selected by the Committee for presentation to the Board.

Once the new design is approved by the Board, staff will use a transitional strategy to implement the new logo. This strategy will minimize disruption in business practices and will spread the financial impact of replacing all uses of the existing IRWD logo through time.

FISCAL IMPACTS:

Funding is included in the Fiscal Year 2016-17 Operating Budget for the logo redesign project.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on August 11, 2016.

RECOMMENDATION:

THAT THE BOARD SELECT A NEW IRWD LOGO.

LIST OF EXHIBITS:

None.

August 22, 2016  
Prepared and  
Submitted by: L. Bonkowski  
Approved by: P. Cook

LB

P. Cook

CONSENT CALENDAR

MINUTES OF BOARD MEETING

SUMMARY:

Provided are the minutes of the August 8, 2016 Regular Board Meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE AUGUST 8, 2016 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – August 8, 2016 Minutes

## EXHIBIT "A"

### MINUTES OF REGULAR MEETING – AUGUST 8, 2016

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President Matheis on August 8, 2016 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

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

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Engineering and Water Quality Burton, Executive Director of Finance Clary, Executive Director of Water Policy Weghorst, Executive Director of Operations Shields, Director of Treasury and Risk Management Jacobson, Director of Water Resources Sanchez, Director of Public Affairs Beeman, Director of Human Resources Roney, Assistant Director of Recycling Operations Zepeda, Assistant Director of Maintenance Drake, Legal Counsel Arneson, Special Legal Counsel Asey, Secretary Bonkowski, Principle Engineer Akiyoshi, Ms. Christine Compton, Mr. Barkov Meserlian, Mr. Colton Martin, Ms. Susan Kennedy, Mr. David O'Dell, Mr. Bruce Newell, and Mr. Jim Reed.

WRITTEN AND ORAL COMMUNICATIONS: None.

### CONSENT CALENDAR

On MOTION by Withers, seconded and unanimously carried, CONSENT CALENDAR ITEMS 3 THROUGH 7 WERE APPROVED AS FOLLOWS:

3. 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 and Douglas Reinhart as described.

4. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the July 25, 2016 Regular Board meeting be approved as presented.

5. 2017 MEDICAL INSURANCE COVERAGE RENEWAL

Recommendation: That the Board authorize the continuance of IRWD's health care coverage with CalPERS for calendar year 2017 with changes in employee and District contribution levels as recommended in Table A.

CONSENT CALENDAR (CONTINUED)

6. DENTAL AND VISION INSURANCE COVERAGE FOR CALENDAR YEAR 2017

Recommendation: That the Board authorize the General Manager to extend IRWD's existing contract with ACWA/JPIA for Delta Preferred Option Plan A with child and adult orthodontic coverage for calendar year 2017, and with EyeMed for vision coverage for the fourth year of the rate guarantee for 2017.

7. NOMINATION OF MARY AILEEN MATHEIS AS THE THIRD VICE PRESIDENT OF ISDOC AND AS A MEMBER OF THE ISDOC EXECUTIVE COMMITTEE

Recommendation: That the Board adopt the following resolution by title nominating Mary Aileen Matheis to serve on the Independent Special Districts of Orange County Executive Committee for the 2017-2018 term in the role of Third Vice President.

RESOLUTION NO. 2016-23

RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY,  
CALIFORNIA PLACING IN NOMINATION MARY AILEEN MATHEIS  
AS THE THIRD VICE PRESIDENT OF ISDOC AND MEMBER OF  
THE ISDOC EXECUTIVE COMMITTEE FOR THE 2017-2018 TERM

ACTION CALENDAR

IRVINE LAKE PIPELINE NORTH CONVERSION SANTIAGO HILLS ZONE C+  
RESERVOIR CONSTRUCTION AWARD AND CONSTRUCTION PHASE SERVICES  
CONSULTANT SELECTION

The Irvine Lake Pipeline (ILP) North Conversion Project is part of the District's strategic plan to increase recycled water usage and reduce reliance on imported water supplies by converting a significant portion of the ILP from untreated water to recycled water. As part of the project, a new Santiago Hills Zone C+ 2.4 million gallon buried concrete recycled water reservoir and various improvements at the Rattlesnake Complex and Zone A-C booster pump station are required. On MOTION by Reinhart, seconded and unanimously carried, THE BOARD FOUND THAT THE IRREGULARITY IN THE BID OF PASCAL & LUDWIG CONSTRUCTORS DID NOT AFFECT THE BID AMOUNT OR GIVE THE BIDDER A COMPETITIVE ADVANTAGE OVER THE OTHER BIDDERS AND WAIVED THE IRREGULARITY; AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH PASCAL & LUDWIG CONSTRUCTORS IN THE AMOUNT OF \$9,038,010, AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH KLEINFELDER IN THE AMOUNT OF \$244,470 FOR CONSTRUCTION PHASE SERVICES FOR THE IRVINE LAKE PIPELINE NORTH CONVERSION SANTIAGO HILLS ZONE C+ RESERVOIR, PROJECT 5407.

## ENERGY MANAGEMENT SERVICES AGREEMENT

Director Withers said that due to his firm's past relationship with AMS, he will recuse himself on this item and left the Board room at 5:18 p.m. Using a PowerPoint presentation, Executive Director of Operations Sheilds presented an overview of the Energy Management Services agreements. Mr. Sheilds said the retirement of the San Onofre Nuclear Generating Station (SONGS) has created a gap in local electric power capacity of approximately 2,000 MW. He reviewed the key parties including the California Independent System Operator (CA-ISO) and the CPUC, who are authorized by SCE to procure new incremental capacity through Local Capacity Requirements (LCR) contracts to fill the void left by the closure of SONGS.

Mr. Sheilds said that in 2015, the CPUC approved several LCR contracts proposed by SCE, one of which was to develop 50 MW of behind-the-meter (connected to host customer load) grid-scale energy storage systems using batteries. These energy storage projects sited at qualified host customer facilities involve charging batteries from the grid during off-peak hours (lower cost power) and then discharging them during on-peak times reducing stress on the grid as well as reducing the overall cost of power for IRWD. AMS was awarded 10-year contracts by SCE to develop and operate 50 MW of battery storage systems known as Demand Response Energy Storage (DRES) systems. AMS bears all responsibility for project design, development, permitting, financing, maintenance, operations, and all legal and contractual obligations to SCE. Additionally, AMS will install battery storage systems that will be dedicated only to IRWD's demand management needs separate and distinct from the DRES systems dedicated to SCE.

Mr. Sheilds said that these demand management systems will be partially financed by Self-Generation Incentive Program (SGIP) grant funding. The SGIP is a grant-funding mechanism that provides financial incentives for energy projects including energy storage. The grant funding is essential to the economic viability of the projects dedicated for demand management for IRWD only. These funds are allocated on a first come, first served basis to successful applicants and reserving them as early as possible was an important first step. IRWD and AMS were successful in applying for and conditionally reserving approximately \$11,000,000 of SGIP funds for the proposed IRWD projects.

Mr. Sheilds said that in February 2016, IRWD signed a non-binding Memorandum of Understanding with AMS allowing both parties the time to perform an in-depth due diligence to fully evaluate project development options, finalize site selection, continue the grant funding process, perform legal and financial reviews, and explore tentative contractual arrangements. EcoMotion, a consultant with expertise regarding Energy Storage Systems and Power Purchase Agreement type contracts, was retained by IRWD to assist in this process. He said that as a result, 11 facilities at IRWD were confirmed to be viable for locating energy storage systems and the tentative terms and conditions of the Energy Services Management Agreements were negotiated. These six sites, referred to as the DRES sites, will have battery storage systems with six-hour capacity, four hours dedicated to SCE's DRES needs and two hours dedicated to IRWD only. When these systems are operating as both for DRES and demand management, IRWD receives the coincidental benefits in terms of cost savings. The DRES projects will be covered by their own agreement.

Mr. Sheilds said that the installation and operation of the battery systems will result in cost reduction in both energy and demand charges in IRWD's electrical bills for the 11 selected sites. The systems will also provide the opportunity to avail of new revenue generating opportunities such as participation in the Automated Demand Response program. The projected savings for

the base year period were derived by comparing actual SCE bills to calculated bills for the same accounts and base period assuming the batteries are operational. The result of this analysis was the development of the Minimum Guaranteed Cost Savings (MGCS) for IRWD contained in the Energy Management Service Agreements. The total annual MGCS for the DRES sites is \$525,000, with \$315,000 cost savings guaranteed to IRWD annually and \$210,000 paid annually to AMS in the form of a monthly service fee. The annual MGCS for the demand management sites is \$88,000, with \$66,000 cost savings guaranteed to IRWD annually and \$22,000 paid annually to AMS in the form of a monthly service fee. The MGCS will be reconciled for both contracts with actuals in a “true-up” period in the year following a Term Year (12 consecutive billing periods). Following the true-up analysis, any amount above the MGCS will be shared between IRWD and AMS with 65% going to IRWD. IRWD will be made whole by AMS for any amount under the MGCS after any given true-up year.

Director Reinhart reported that this item was reviewed by the Engineering and Operations Committee on July 19, 2016. Following discussion, on MOTION by Reinhart, seconded and unanimously carried, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE AGREEMENTS WITH HYBRID-ELECTRIC BUILDING TECHNOLOGIES IRVINE 1, LLC, HYBRID-ELECTRIC BUILDING TECHNOLOGIES WEST LOS ANGELES 1, LLC, AND REDWOOD ENERGY STORAGE, LLC TO PROVIDE ENERGY MANAGEMENT SERVICES RELATED TO BATTERY ENERGY STORAGE SYSTEMS HOSTED AT IRWD SITES, AND THE BOARD DETERMINED THE PROJECTS ARE EXEMPT FROM CEQA, APPROVED THE PROJECTS, AUTHORIZED STAFF TO POST AND FILE THE NOTICES OF EXEMPTION IN ORANGE COUNTY, AND AUTHORIZED THE ADDITION OF THE ENERGY STORAGE SYSTEMS, PROJECT 7444, IN THE AMOUNT OF \$222,200 TO THE FY 2016-17 CAPITAL BUDGET.**

#### GENERAL MANAGER’S REPORT

General Manager Cook reported that he, Cheryl Clary, and Rob Jacobson, and the District’s underwriters Goldman Sachs and Merrill Lynch met with representatives from rating agencies Fitch and Standard and Poors (S & P). Mr. Cook said the District requested that the Certificates of Participation be rated, and just received a AAA rating by Fitch. He said he was hopeful that the District would receive word from S & P this evening.

Mr. Cook said that he received a call from Ms. Bettina Boxall from the Los Angeles Times and she had questions relative to the desalination project. He said that he and staff were able to speak with her today on a conference call.

#### DIRECTORS’ COMMENTS

Director LaMar reported that he attended an NWRA Western Water Conference in Sun Valley, Idaho and noted that during the Board meeting, Mr. Bob Johnson announced he will be retiring from this organization.

Director Withers returned to the Board Room at 6:22 p.m. He reported that Mr. Jeff Mosier, NWRI’s Executive Director, had resigned, and that they will be recruiting for a replacement.

Director Swan reported that he attended a Santa Ana Watershed meeting, a Southern California Dialogue meeting, and a WACO meeting.

Director Reinhart said that he attended a MWDOC Board workshop, and a SOCWA Board meeting where a discussion was held relative to voting rights for Moulton Niguel Water District as it is the largest user with only one of nine votes.

Director Matheis commented on the Consent Calendar item relative to her nomination to the ISDOC Board where she said she was asked to seek this position, and accepted. She further said she attended her typical monthly meetings.

Consultant Jim Reed reported on meetings he attended on behalf of the District.

CLOSED SESSION

President Matheis said that the following Closed Session would be held:

CLOSED SESSION CONFERENCE WITH LEGAL COUNSEL RELATIVE TO EXISTING LITIGATION - Government Code Section 54956.9(d)(1) IRWD v. OCWD (Case No.30-2016-00858584-CU-WM-CJC).

OPEN SESSION

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

ADJOURNMENT

There being no further business, President Matheis adjourned the meeting.

APPROVED and SIGNED this 22nd day of August, 2016.

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President, IRVINE RANCH WATER DISTRICT

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Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

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Legal Counsel - Bowie, Arneson, Wiles & Giannone

August 22, 2016

Prepared by: Jennifer Davis/Tanja Fournier

Submitted by: Robert Jacobson/Cheryl Clary

Approved by: Paul Cook 

## CONSENT CALENDAR

### JULY 2016 TREASURY REPORTS

#### SUMMARY:

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

- A. The Investment Summary Report for July 2016. This Investment Summary Report is in conformity with the 2016 Investment Policy and provides sufficient liquidity to meet estimated expenditures during the next six months, as outlined in Exhibit "A".
- B. The Monthly Interest Rate Swap Summary as of July 31, 2016, as outlined in Exhibit "B".
- C. The Summary of Payroll ACH payments in the total amount of \$1,655,417, as outlined in Exhibit "C".
- D. The July 31, 2016 Disbursement Summary of warrants 368924 through 369496, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$30,511,242 as outlined in Exhibit "D".
- E. The Disclosure Report of Reimbursements to Board Members and Staff for July 2016, detailing payments or reimbursements for individual charges of \$100.00 or more per transaction, as outlined in Exhibit "E".

#### FISCAL IMPACTS:

As of July 31, 2016, the book value of the investment portfolio was \$222,225,857, with an 0.84% rate of return and a market value of \$222,352,806. Based on the District's June 30, 2016 quarterly real estate investment rate of return of 13.92%, the weighted average return for the fixed income and real estate investments was 3.99%.

As of July 31, 2016, the total notional amount of the interest rate swap portfolio was \$130 million of fixed payer swaps. Cash accrual in July from all swaps was negative \$574,395.

Payroll ACH payments totaled \$1,655,417, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for July totaled \$30,511,242.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

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

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE TREASURER'S INVESTMENT SUMMARY REPORT, THE MONTHLY INTEREST RATE SWAP SUMMARY FOR JULY 2016, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF; APPROVE THE JULY 2016 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$1,655,417 AND APPROVE THE JULY 2016 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 368924 THROUGH 369496, WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$30,511,242.

LIST OF EXHIBITS:

Exhibit "A" – Investment Summary Report

Exhibit "B" – Monthly Interest Rate Swap Summary

Exhibit "C" – Monthly Payroll ACH Summary

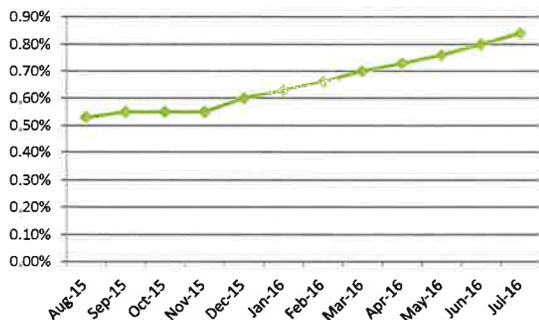
Exhibit "D" – Monthly Summary of District Disbursements

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

# Exhibit "A"

## Irvine Ranch Water District Investment Portfolio Summary July 2016

### Monthly Fixed Income Yield



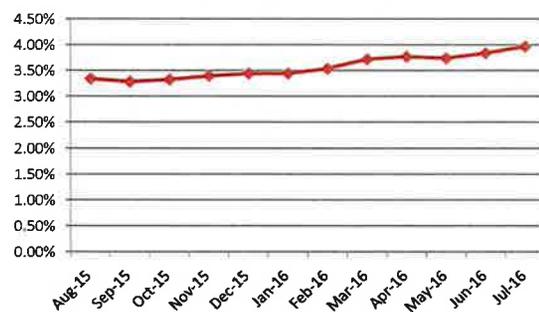
### Portfolio Distribution



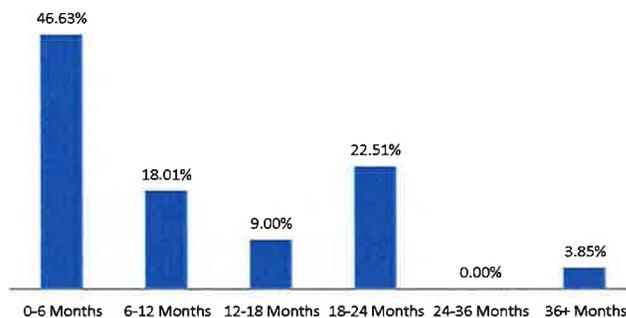
### Investment Summary

Type	PAR	Book Value	Market Value
Agency Note	130,000,000	130,157,618	130,246,950
LAIF	60,000,000	60,000,000	60,037,273
Collateral Deposit	13,547,995	13,547,995	13,547,995
Agency Discount Note	10,000,000	9,958,157	9,958,500
Direct Muni	8,562,088	8,562,088	8,562,088
<b>Grand Total</b>	<b>222,110,082</b>	<b>222,225,857</b>	<b>222,352,806</b>

### Weighted Average Return Including Real Estate Portfolio



### Maturity Distribution



### Top Issuers

Issuer	PAR	% Portfolio
State of California Treasury - LAIF	60,000,000	27.02%
Fed Home Loan Mortgage Corp	49,000,000	22.06%
Fed Home Loan Bank	36,000,000	16.21%
Fed Natl Mortgage Assoc	35,000,000	15.76%
Fed Farm Credit Bank	15,000,000	6.75%
Citi-Group Collateral	8,647,995	3.89%
ETWD	8,560,088	3.85%
Fed Ag Mortgage Corp	5,000,000	2.25%
Merrill Lynch Collateral	4,900,000	2.21%

IRVINE RANCH WATER DISTRICT  
INVESTMENT SUMMARY REPORT

07/31/16

SETTLMT *	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	YTCF	ORIGINAL COST	CARRY VALUE	MARKET VALUE <sup>(1)</sup> 7/31/2016	UNREALIZED <sup>(2)</sup> GAIN/(LOSS)
07/21/16			08/01/16		LAIF	State of California Tsy	\$60,000,000		0.580%		\$60,000,000.00	\$60,000,000.00	60,037,273.32	37,273.32
06/09/15	N/A	N/A	08/25/16	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	10,000,000	2.000%	0.467%		10,184,900.00	10,010,017.16	10,007,000.00	(3,017.16)
10/19/15	N/A	N/A	09/28/16	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	10,000,000	1.250%	0.342%		10,085,280.00	10,014,948.51	10,013,200.00	(1,748.51)
06/15/15	N/A	N/A	10/13/16	NR	FAMCA - Note	Fed Ag Mortgage Corp	5,000,000	0.970%	0.578%		5,025,900.00	5,003,890.33	5,006,000.00	2,109.67
09/21/15	N/A	N/A	12/09/16	Aaa/AA+/AAA	FHLB - Note	Fed Home Loan Bank	5,000,000	1.625%	0.532%		5,066,150.00	5,019,324.72	5,019,050.00	(274.72)
10/08/15	N/A	N/A	01/30/17	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.250%	0.492%		5,049,445.00	5,018,747.90	5,016,450.00	(2,297.90)
09/21/15	N/A	N/A	02/22/17	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.875%	0.570%		5,021,500.00	5,008,475.96	5,008,200.00	(275.96)
06/15/15	N/A	N/A	03/30/17	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.625%	0.727%		4,990,950.00	4,996,665.06	5,000,900.00	4,234.94
06/16/16	N/A	N/A	04/21/17	NR	FNMA - Discount Note	Fed Natl Mortgage Assoc	5,000,000	0.530%	0.539%		4,977,254.15	4,980,640.26	4,980,800.00	159.74
06/16/16	N/A	N/A	04/27/17	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.125%	0.607%		5,022,271.95	5,019,019.54	5,018,200.00	(819.54)
06/16/16	N/A	N/A	05/12/17	NR	FNMA - Discount Note	Fed Natl Mortgage Assoc	5,000,000	0.570%	0.580%		4,973,875.00	4,977,516.67	4,977,700.00	183.33
08/27/15	N/A	N/A	05/30/17	NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.625%	0.642%		4,998,500.00	4,999,294.39	4,996,900.00	(2,394.39)
06/16/16	N/A	N/A	06/30/17	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.800%	0.614%		5,009,614.00	5,008,447.13	5,009,150.00	702.87
11/05/15	N/A	N/A	08/28/17	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.750%	0.800%		4,995,500.00	4,997,335.35	5,001,850.00	4,514.65
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%	0.960%	4,998,500.00	4,999,157.53	5,013,350.00	14,192.47
09/29/15	Continuous after	03/28/16	09/28/17	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.810%	0.815%		4,999,500.00	4,999,710.27	5,000,000.00	289.73
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	4,979,049.66	5,000,000.00	20,950.34
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	3,999,662.44	4,007,080.00	7,417.56
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	5,001,150.00	1,150.00
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	5,015,590.41	5,029,700.00	14,109.59
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	4,996,633.88	4,998,600.00	1,966.12
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	4,995,527.40	4,996,900.00	1,372.60
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	5,009,540.11	5,009,900.00	359.89
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	11,051,303.41	11,088,770.00	37,466.59
06/29/16	One Time	12/29/16	06/29/18	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	10,000,000	1.000%	0.679%		10,016,000.00	10,015,276.71	10,004,600.00	(10,676.71)
05/30/15	N/A	N/A	04/30/36	NR	Direct Muni	ETWD	8,562,088	4.570%	4.570%	4.570%	8,562,087.84	8,562,087.84	8,562,087.84	
<b>SUB-TOTAL</b>							<b>\$208,562,088</b>				<b>\$209,023,567.94</b>	<b>\$208,677,862.63</b>	<b>\$208,804,811.16</b>	<b>\$126,948.53</b>
<b>RESTRICTED CASH (Swap Collateral Deposits)<sup>(3)</sup></b>														
03/01/16					Collateral Deposit	Citi-Group	\$8,647,995		0.400%		\$8,647,994.54	\$8,647,994.54	8,647,994.54	
02/28/16					Collateral Deposit	Merrill Lynch	\$4,900,000		0.400%		\$4,900,000.00	\$4,900,000.00	4,900,000.00	
<b>SUB-TOTAL</b>							<b>\$13,547,995</b>				<b>\$13,547,994.54</b>	<b>\$13,547,994.54</b>	<b>\$13,547,994.54</b>	
<b>TOTAL INVESTMENTS</b>							<b>\$222,110,082</b>				<b>\$222,571,562.48</b>	<b>\$222,225,857.17</b>	<b>\$222,352,805.70</b>	
			June		Petty Cash Ck Balance	Bank of America					3,400.00 (3,554,717.03)			
											<b>\$219,020,245.45</b>			

<sup>(1)</sup> 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.

<sup>(2)</sup> Gain (loss) calculated against carry value using the trading value provided by Bank of New York/or Brokers

<sup>(3)</sup> Real estate rate of return is based on most recent quarter end return

<sup>(4)</sup> Calculation excludes Direct Muni - ETWD

<sup>(5)</sup> Swap Collateral Deposits assumes 6 month maturity, dependent on interest rate changes

Outstanding Variable Rate Debt	\$316,200,000
Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps)	\$186,200,000
Investment Balance:	\$219,020,245
Investment to Variable Rate Debt Ratio:	118%
Portfolio - Average Number of Days To Maturity <sup>(4)</sup>	255

	Investment Portfolio	Real Estate <sup>(5)</sup> Portfolio	Weighted Avg. Return
July	0.84%	13.92%	3.99%
June	0.80%	13.92%	3.84%
Change	0.04%		

IRVINE RANCH WATER DISTRICT  
SUMMARY OF MATURITIES

07/31/16

DATE	TOTAL	%	LAIF	Agency Notes	Agency Discount Notes	Collateral Deposit	Direct Muni
07/16	\$60,000,000	27.01%	\$60,000,000				
08/16	10,000,000	4.50%		10,000,000			
09/16	10,000,000	4.50%		10,000,000			
10/16	5,000,000	2.25%		5,000,000			
11/16							
12/16	18,547,995	8.35%		5,000,000		\$13,547,995	
01/17	5,000,000	2.25%		5,000,000			
02/17	5,000,000	2.25%		5,000,000			
03/17	5,000,000	2.25%		5,000,000			
04/17	10,000,000	4.50%		5,000,000	5,000,000		
05/17	10,000,000	4.50%		5,000,000	5,000,000		
06/17	5,000,000	2.25%		5,000,000			
<b>SUB-TOTAL</b>	<b>\$143,547,995</b>	<b>64.63%</b>	<b>\$60,000,000</b>	<b>\$60,000,000</b>	<b>\$10,000,000</b>	<b>\$13,547,995</b>	
<b>13 Months - 3 YEARS</b>							
07/01/17-09/30/17	15,000,000	6.75%		15,000,000			
10/01/17 - 12/31/2017	5,000,000	2.25%		5,000,000			
01/30/18 - 3/31/2018	14,000,000	6.30%		14,000,000			
04/01/2018-06/30/2018	36,000,000	16.21%		36,000,000			
07/01/2018-09/30/18	-						
	-						
04/30/2036	8,562,088	3.85%					8,562,088
<b>TOTALS</b>	<b>\$222,110,082</b>	<b>100.00%</b>	<b>\$60,000,000</b>	<b>\$130,000,000</b>	<b>\$10,000,000</b>	<b>\$13,547,995</b>	<b>\$8,562,088</b>

% OF PORTFOLIO

27.02%

58.53%

4.50%

6.10%

3.85%

Irvine Ranch Water District  
 Summary of Real Estate  
 6/30/2016

	<u>ACQUISITION DATE</u>	<u>PROPERTY TYPE</u>	<u>OWNERSHIP INTEREST</u>	<u>ORIGINAL COST</u>	<u>RATE OF RETURN QUARTER ENDED Jun-16</u>
Sycamore Canyon	Dec-92	Apartments	Fee Simple	\$ 43,550,810	18.45%
Wood Canyon Villas	Jun-91	Apartments	Limited Partner	\$ 6,000,000	8.60%
ITC (230 Commerce)	Jul-03	Office Building	Fee Simple	\$ 5,739,845	8.64%
Waterworks Business Pk.	Nov-08	Research & Dev.	Fee Simple	\$ 8,630,577	3.56%
Sand Canyon Professional Center	Jul-12	Medical Office	Fee Simple	\$ 8,648,594	8.62%
				<u>\$ 72,569,826</u>	<u>13.92%</u>

**IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT**  
**INVESTMENT ACTIVITY**  
**Jul-16**

**MATURITIES/SALES/CALLS**

**PURCHASES**

DATE	SECURITY TYPE	PAR	YIELD	Settlement Date	Maturity Date	SECURITY TYPE	PAR	YIELD TO MATURITY
7/5/2016	FNMA - Note	\$5,000,000	0.48%					
7/14/2016	FHLB - Note	\$5,000,000	1.00%					
7/27/2016	FHLB - Note	\$5,000,000	0.44%					

**IRVINE RANCH WATER DISTRICT  
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL  
July 31, 2016**

LIBOR Avg %	Prior Mo. 0.44%	Current Mo. 0.45%	12-Mo Avg 0.35%
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Current Fiscal Year Active Swaps								Cash Flow				(Since 6/06)	Mark to Market	
Effective Date	Maturity Date	Years to Maturity	Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Prior Month	Current Month	Fiscal YTD	Cumulative Cash Flow	Current Mark to Market	Notional Difference	
<b>Fixed Payer Swaps - By Effective Date</b>														
6/4/2006	6/4/2019	2.8	ML	\$ 20,000,000	FXP	LIBOR	6.200%	(89,028)	(92,400)	\$ (92,400)	\$ (9,919,576)	\$ 16,750,587	\$ (3,249,413)	
6/4/2006	6/4/2019	2.8	CG	20,000,000	FXP	LIBOR	6.200%	(89,028)	(92,400)	(92,400)	(9,919,576)	16,752,660	(3,247,340)	
6/17/2006	6/17/2019	2.9	CG	30,000,000	FXP	LIBOR	6.140%	(132,643)	(137,213)	(137,213)	(14,715,664)	25,188,222	(4,811,778)	
3/10/2007	3/10/2029	12.6	ML	30,000,000	FXP	LIBOR	5.687%	(121,989)	(126,191)	(126,191)	(13,241,220)	14,185,884	(15,814,116)	
3/10/2007	3/10/2029	12.6	CG	30,000,000	FXP	LIBOR	5.687%	(121,989)	(126,191)	(126,191)	(13,241,220)	14,174,474	(15,825,526)	
<b>Totals/Weighted Avgs</b>		<b>7.4</b>		<b>\$ 130,000,000</b>			<b>5.949%</b>	<b>\$ (554,677)</b>	<b>\$ (574,395)</b>	<b>\$ (574,395)</b>	<b>\$ (61,037,257)</b>	<b>\$ 87,051,827</b>	<b>\$ (42,948,173)</b>	
<b>Total Current Year Active Swaps</b>				<b>\$ 130,000,000</b>				<b>\$ (554,677)</b>	<b>\$ (574,395)</b>	<b>\$ (574,395)</b>	<b>\$ (61,037,257)</b>	<b>\$ 87,051,827</b>	<b>\$ (42,948,173)</b>	

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

Current Fiscal Year - Total Swaps								Cash Flow				Mark to Market	
Prior Month	Current Month	Fiscal YTD	Cumulative Cash Flow	Current Mark to Market	Notional Difference								
<b>\$ (554,677)</b>	<b>\$ (574,395)</b>	<b>\$ (574,395)</b>	<b>\$ (61,037,257)</b>	<b>\$ 87,051,827</b>	<b>\$ (42,948,173)</b>								

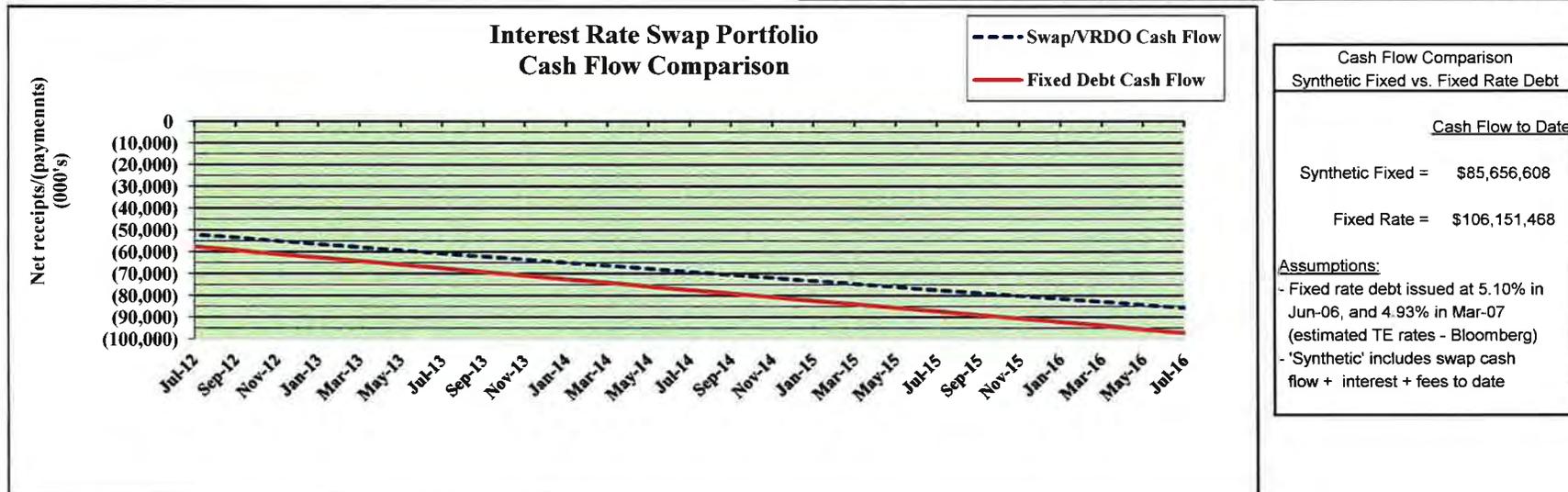


Exhibit "C"

MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS

July  
2016

	AMOUNT	VENDOR	PURPOSE
7/8/2016	811,233.94	BANK OF AMERICA	ACH Payments for Payroll
7/22/2016	844,183.53	BANK OF AMERICA	ACH Payments for Payroll
	<u>\$1,655,417.47</u>		



Exhibit "D"

>

IRWD Ledger

Void Payment Register

Report Date: 05-AUG-2016 14:59

Include Zero Amount Payments: Yes  
 Display Payee Address: No

Page: 1  
 Period From: 01-JUL-16 To: 31-JUL-16  
 Date: Void Date

Bank: Bank of America N.A.

Branch: Los Angeles

Account: Checking AP and RP

Bank Account Currency: USD

Payment Currency: USD ( US Dollar )

Payment Number	Date	Payee Name	Site	Address	Payment Amount	Void Date
Payment Document: IRWD CHECK						
366893	21-APR-16	HONG, SUNGHYUN	PAY		31.24	28-JUL-16
366909	21-APR-16	LAI, LING	PAY		9.99	28-JUL-16
366971	21-APR-16	SHEA/BAKER RANCH ASSOCIATES	LAKE FOREST		71.62	28-JUL-16
367124	28-APR-16	MA, JOAN	PAY		126.24	28-JUL-16
367132	28-APR-16	MURALLES, RUTH	PAY		8.13	28-JUL-16
367309	05-MAY-16	NMG GEOTECHNICAL INC	IRVINE		12,228.20	18-JUL-16
368192	09-JUN-16	SHEA/BAKER RANCH ASSOCIATES	LAKE FOREST		494.25	28-JUL-16
368304	16-JUN-16	D & G SIGNS	ORANGE		9,487.80	05-JUL-16
368803	30-JUN-16	ANDREWS, ERICA	PAY		70.00	05-JUL-16

Payment Document Subtotal 22,527.47

Bank Account Subtotal 22,527.47

Report Count: 9

Report Total 22,527.47

Voids

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

>

IRWD Ledger  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 05-AUG-2016 14:59  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar ) Page: 1  
 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								
368924		05-JUL-16	JCI JONES	CINCINNATI	2,940.00	08-JUL-16	2,940.00	Reconciled
			CHEMICALS INC					
368925		07-JUL-16	Roney, Jenny		205.56	07-JUL-16	205.56	Reconciled
			Lauren					
368926		07-JUL-16	Figueroa, Jorge		925.12	11-JUL-16	925.12	Reconciled
			(Jorge)					
368927		07-JUL-16	Oldewage, Lars D		79.38	11-JUL-16	79.38	Reconciled
			(Lars)					
368928		07-JUL-16	Cortez, Malcolm A		45.36	15-JUL-16	45.36	Reconciled
			(Malcolm)					
368929		07-JUL-16	CANON SOLUTIONS	CHICAGO	4,201.77	11-JUL-16	4,201.77	Reconciled
			AMERICA, INC.					
368930		07-JUL-16	ALEXANDER'S		111,657.13	13-JUL-16	111,657.13	Reconciled
			CONTRACT SERVICES,					
			INC.					
368931		07-JUL-16	ALLIANT INSURANCE		4,724.00	11-JUL-16	4,724.00	Reconciled
			SERVICES, INC					
368932		07-JUL-16	ANTHEM BLUE CROSS		562.26	11-JUL-16	562.26	Reconciled
368933		07-JUL-16	ASSOCIATION OF		33,708.47	15-JUL-16	33,708.47	Reconciled
			CALIFORNIA WATER					
			AGENCIES/JPIA					
368934		07-JUL-16	AT&T		4,079.95	12-JUL-16	4,079.95	Reconciled
368935		07-JUL-16	AUTOZONE PARTS,		171.76	11-JUL-16	171.76	Reconciled
			INC.					
368936		07-JUL-16	BIOMERIEUX INC		336.50	11-JUL-16	336.50	Reconciled
368937		07-JUL-16	CANON FINANCIAL		1,315.44	11-JUL-16	1,315.44	Reconciled
			SERVICES, INC					
368938		07-JUL-16	CANON SOLUTIONS		10,249.85	15-JUL-16	10,249.85	Reconciled
			AMERICA, INC.					
368939		07-JUL-16	CHO DESIGN		6,890.00	13-JUL-16	6,890.00	Reconciled
			ASSOCIATES, INC					
368940		07-JUL-16	COMPONENTS CENTER		289.24	08-JUL-16	289.24	Reconciled
			INC					
368941		07-JUL-16	D & G SIGNS		9,487.80	12-JUL-16	9,487.80	Reconciled
368942		07-JUL-16	DELL MARKETING LP		149.43	13-JUL-16	149.43	Reconciled
368943		07-JUL-16	EAST ORANGE COUNTY		6,014.50	19-JUL-16	6,014.50	Reconciled
			WATER DISTRICT					
368944		07-JUL-16	EI&C ENGINEERING		57,775.00	18-JUL-16	57,775.00	Reconciled
			INC					
368945		07-JUL-16	EMPLOYEE BENEFIT		1,120.00	12-JUL-16	1,120.00	Reconciled
			SPECIALIST, INC					
368946		07-JUL-16	ENVIRONMENTAL		5,629.41	12-JUL-16	5,629.41	Reconciled
			SCIENCE ASSOCIATES					
368947		07-JUL-16	EXECUTIVE LIGHTING		902.58	11-JUL-16	902.58	Reconciled
			& ELECTRIC					
368948		07-JUL-16	FEDEX		396.71	13-JUL-16	396.71	Reconciled

IRWD Ledger  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 05-AUG-2016 14:59  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar ) Page: 2  
 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								
368949		07-JUL-16	FIDELITY SECURITY		6,462.63	12-JUL-16	6,462.63	Reconciled
			LIFE INSURANCE					
			COMPANY					
368950		07-JUL-16	FIRST CHOICE		551.46	12-JUL-16	551.46	Reconciled
			SERVICES					
368951		07-JUL-16	FLEET SOLUTIONS		106.20	11-JUL-16	106.20	Reconciled
			LLC					
368952		07-JUL-16	GRAINGER		411.92	11-JUL-16	411.92	Reconciled
368953		07-JUL-16	HAAKER EQUIPMENT		305,100.00	13-JUL-16	305,100.00	Reconciled
			COMPANY					
368954		07-JUL-16	HACH COMPANY		8,011.16	11-JUL-16	8,011.16	Reconciled
368955		07-JUL-16	HELPMATES STAFFING		997.92	08-JUL-16	997.92	Reconciled
			SERVICES					
368956		07-JUL-16	HILL BROTHERS		11,175.80	13-JUL-16	11,175.80	Reconciled
			CHEMICAL COMPANY					
368957		07-JUL-16	IRVINE PIPE &		406.61	08-JUL-16	406.61	Reconciled
			SUPPLY INC					
368958		07-JUL-16	JOHN MICHAEL COVAS		195.80	25-JUL-16	195.80	Reconciled
368959		07-JUL-16	KENT & AMY		2,829.60	18-JUL-16	2,829.60	Reconciled
			DAHLBERG					
368960		07-JUL-16	KS DIRECT LLC		3,298.32	11-JUL-16	3,298.32	Reconciled
368961		07-JUL-16	MC FADDEN-DALE		4.97	12-JUL-16	4.97	Reconciled
			INDUSTRIAL					
368962		07-JUL-16	MICHAEL GONZALES		1,266.00			Negotiable
368963		07-JUL-16	MUNICIPAL WATER		75.00	08-JUL-16	75.00	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
368964	07-JUL-16		DISTRICT OF ORANGE COUNTY NMG GEOTECHNICAL INC		16,923.60	19-JUL-16	16,923.60	Reconciled
368965	07-JUL-16		OLIN CORPORATION		8,521.45	11-JUL-16	8,521.45	Reconciled
368966	07-JUL-16		ORANGE COUNTY AUTO PARTS CO		423.76	08-JUL-16	423.76	Reconciled
368967	07-JUL-16		ORANGE COUNTY FIRE AUTHORITY		746.00	12-JUL-16	746.00	Reconciled
368968	07-JUL-16		PACIFIC PARTS & CONTROLS INC		10,021.52	13-JUL-16	10,021.52	Reconciled
368969	07-JUL-16		PARKHOUSE TIRE INC		6,372.57	12-JUL-16	6,372.57	Reconciled
368970	07-JUL-16		PAYNE & FEARS LLP		14,179.39	13-JUL-16	14,179.39	Reconciled
368971	07-JUL-16		PIVOT INTERIORS INC		14,943.19	13-JUL-16	14,943.19	Reconciled
368972	07-JUL-16		PROCARE WORK INJURY CENTER		2,043.73	12-JUL-16	2,043.73	Reconciled
368973	07-JUL-16		PRUDENTIAL OVERALL SUPPLY		6,494.58	11-JUL-16	6,494.58	Reconciled
368974	07-JUL-16		RINCON TRUCK CENTER INC.		110.16	08-JUL-16	110.16	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
368975	07-JUL-16		SEALS WEST PACKING CO.		475.60	08-JUL-16	475.60	Reconciled
368976	07-JUL-16		SIMI VALLEY LANDFILL AND RECYCLING CENTER		359.74	12-JUL-16	359.74	Reconciled
368977	07-JUL-16		SITMATIC		592.26	11-JUL-16	592.26	Reconciled
368978	07-JUL-16		SOL CONSTRUCTION, INC.		540.20	14-JUL-16	540.20	Reconciled
368979	07-JUL-16		SOUTHERN CALIFORNIA EDISON COMPANY		213,461.80	08-JUL-16	213,461.80	Reconciled
368980	07-JUL-16		SPARKLETTS		343.20	14-JUL-16	343.20	Reconciled
368981	07-JUL-16		TRUCPARCO		767.98	12-JUL-16	767.98	Reconciled
368982	07-JUL-16		UNITED PARCEL SERVICE INC		100.00	11-JUL-16	100.00	Reconciled
368983	07-JUL-16		USA BLUEBOOK		83.56	12-JUL-16	83.56	Reconciled
368984	07-JUL-16		VERIZON WIRELESS SERVICES LLC		38.01	13-JUL-16	38.01	Reconciled
368985	07-JUL-16		WALTERS WHOLESALE ELECTRIC		2,710.75	13-JUL-16	2,710.75	Reconciled
368986	07-JUL-16		WASTE MANAGEMENT OF ORANGE COUNTY		4,635.78	12-JUL-16	4,635.78	Reconciled
368987	07-JUL-16		WILMINGTON INSTRUMENT COMPANY INC		520.00	11-JUL-16	520.00	Reconciled
368988	07-JUL-16		WIRELESS WATCHDOGS, LLC		492.00	14-JUL-16	492.00	Reconciled
368989	07-JUL-16		PALO VERDE IRRIGATION DISTRICT	PURCHASING	23,140.00	14-JUL-16	23,140.00	Reconciled
368990	11-JUL-16		IRWD EMPLOYEE ASSOCIATION	15600 SC	840.00			Negotiable
368991	11-JUL-16		ORANGE COUNTY SHERIFF'S OFFICE	4601 JAMBOREE	62.50	22-JUL-16	62.50	Reconciled
368992	11-JUL-16		CLEARINGHOUSE	PHOENIX	477.67	18-JUL-16	477.67	Reconciled
368993	11-JUL-16		PERS LONG TERM CARE	PASADENA	920.04	18-JUL-16	920.04	Reconciled
368994	13-JUL-16		JCI JONES CHEMICALS INC	CINCINNATI	9,909.90	21-JUL-16	9,909.90	Reconciled
368995	13-JUL-16		STATE WATER RESOURCES CONTROL BOARD	PO BOX 1888	194,145.30	15-JUL-16	194,145.30	Reconciled
368996	14-JUL-16		Lai, Andre		272.71	15-JUL-16	272.71	Reconciled
368997	14-JUL-16		Willis, Andrew R (Andrew)		105.00	04-AUG-16	105.00	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
368998	14-JUL-16		Mossbarger, Anthony J (Tony)		11.80	14-JUL-16	11.80	Reconciled
368999	14-JUL-16		Bystrom, Brian V (Brian)		97.19	26-JUL-16	97.19	Reconciled
369000	14-JUL-16		Nicholson, Darin		415.00	15-JUL-16	415.00	Reconciled
369001	14-JUL-16		Fike, Ethan O (Ethan)		86.00	18-JUL-16	86.00	Reconciled

369002	14-JUL-16	Kallo, John	86.00	29-JUL-16	86.00	Reconciled
369003	14-JUL-16	Figueroa, Jorge (Jorge)	140.00	18-JUL-16	140.00	Reconciled
369004	14-JUL-16	Pfister, Ken D (Ken)	260.00	18-JUL-16	260.00	Reconciled
369005	14-JUL-16	Bonkowski, Leslie A (Leslie)	213.27	15-JUL-16	213.27	Reconciled
369006	14-JUL-16	Marcacchi, Mark	184.64	15-JUL-16	184.64	Reconciled
369007	14-JUL-16	Nelson, Mark D (Mark)	105.00	15-JUL-16	105.00	Reconciled
369008	14-JUL-16	Hoffman, Michael S (Mike)	164.00			Negotiable
369009	14-JUL-16	Olson, Richard Jr (Richard)	50.00	20-JUL-16	50.00	Reconciled
369010	14-JUL-16	Pisal, Sudhir	43.20			Negotiable
369011	14-JUL-16	Johnson, Susanne	82.00	18-JUL-16	82.00	Reconciled
369012	14-JUL-16	Bonkowski, Thomas J (Thomas)	27.11	15-JUL-16	27.11	Reconciled
369013	14-JUL-16	CITY OF LAKE FOREST	700.66			Negotiable
369014	14-JUL-16	ADS LLC	1,936.50	18-JUL-16	1,936.50	Reconciled
369015	14-JUL-16	AIRGAS, INC.	650.96	18-JUL-16	650.96	Reconciled
369016	14-JUL-16	ALPHA TRAFFIC SERVICES, INC.	1,140.00			Negotiable
369017	14-JUL-16	ALTERMAN, CRAIG	1,536.92	19-JUL-16	1,536.92	Reconciled
369018	14-JUL-16	AMS PAVING	740.22	19-JUL-16	740.22	Reconciled
369019	14-JUL-16	APCO GRAPHICS INC	108.00	18-JUL-16	108.00	Reconciled
369020	14-JUL-16	APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC	1,719.78	18-JUL-16	1,719.78	Reconciled
369021	14-JUL-16	APTEAN, INC.	19,040.70	21-JUL-16	19,040.70	Reconciled
369022	14-JUL-16	ARCADIS U.S., INC.	85,353.28	22-JUL-16	85,353.28	Reconciled
369023	14-JUL-16	ARMORCAST PRODUCTS COMPANY	5,487.49	19-JUL-16	5,487.49	Reconciled
369024	14-JUL-16	ASHFORD, WALT	513.39	18-JUL-16	513.39	Reconciled
369025	14-JUL-16	AT&T	1,079.97	19-JUL-16	1,079.97	Reconciled
369026	14-JUL-16	AT&T	29,324.67	25-JUL-16	29,324.67	Reconciled
369027	14-JUL-16	AUTOZONE PARTS, INC.	102.32	21-JUL-16	102.32	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
369028		14-JUL-16	AUTOZONE PARTS, INC.		54.26	21-JUL-16	54.26	Reconciled
369029		14-JUL-16	AVISTA TECHNOLOGIES, INC		16,967.03	20-JUL-16	16,967.03	Reconciled
369030		14-JUL-16	BACIGALUPO, CINDY		31.52	15-JUL-16	31.52	Reconciled
369031		14-JUL-16	BARZEGAR, TIMOTHY		19.22	19-JUL-16	19.22	Reconciled
369032		14-JUL-16	BEE EMERGENCY RESPONSE TEAM		175.00	18-JUL-16	175.00	Reconciled
369033		14-JUL-16	BIGWIG MONSTER, LLC		39,120.00	19-JUL-16	39,120.00	Reconciled
369034		14-JUL-16	BIOMAGIC INC		16,295.03	19-JUL-16	16,295.03	Reconciled
369035		14-JUL-16	BORCHARD SURVEYING & MAPPING, INC.		3,465.00	21-JUL-16	3,465.00	Reconciled
369036		14-JUL-16	BOYD & ASSOCIATES		4,131.00	18-JUL-16	4,131.00	Reconciled
369037		14-JUL-16	BRENNTAG PACIFIC INC		3,680.00	18-JUL-16	3,680.00	Reconciled
369038		14-JUL-16	BRITHINEE ELECTRIC		6,713.52	18-JUL-16	6,713.52	Reconciled
369039		14-JUL-16	BRUCE NEWELL		1,307.00	19-JUL-16	1,307.00	Reconciled
369040		14-JUL-16	BURLINGTON SAFETY LABORATORY OF CALIFORNIA INC		350.00	18-JUL-16	350.00	Reconciled
369041		14-JUL-16	C WELLS PIPELINE MATERIALS INC		19,953.00	22-JUL-16	19,953.00	Reconciled
369042		14-JUL-16	CALIFORNIA BARRICADE RENTAL, INC.		1,592.50	18-JUL-16	1,592.50	Reconciled
369043		14-JUL-16	CALIFORNIA PACIFIC HOMES		96.33			Negotiable
369044		14-JUL-16	CAMERON, CAREY		77.63	21-JUL-16	77.63	Reconciled
369045		14-JUL-16	CANON SOLUTIONS AMERICA, INC.		2,187.88	18-JUL-16	2,187.88	Reconciled
369046		14-JUL-16	CAROLLO ENGINEERS, INC		41,531.00	21-JUL-16	41,531.00	Reconciled
369047		14-JUL-16	CDW GOVERNMENT LLC		1,443.23	18-JUL-16	1,443.23	Reconciled
369048		14-JUL-16	CHENGWANG, HUICHING		446.67	18-JUL-16	446.67	Reconciled
369049		14-JUL-16	CITY OF IRVINE		1,077.50	18-JUL-16	1,077.50	Reconciled
369050		14-JUL-16	CITY OF LAKE FOREST		1,637.79			Negotiable
369051		14-JUL-16	CIVILSOURCE, INC.		4,360.00	19-JUL-16	4,360.00	Reconciled
369052		14-JUL-16	CLEAN ENERGY		1,261.12	19-JUL-16	1,261.12	Reconciled
369053		14-JUL-16	CORTECH ENGINEERING, A DXP COMPANY		5,420.36	21-JUL-16	5,420.36	Reconciled
369054		14-JUL-16	COUNTY OF ORANGE		3,655.00	20-JUL-16	3,655.00	Reconciled

369055 14-JUL-16 COUNTY OF ORANGE 25,100.78 20-JUL-16 25,100.78 Reconciled  
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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
369056		14-JUL-16	CPI-INTERNATIONAL, INC		669.57	18-JUL-16	669.57	Reconciled
369057		14-JUL-16	CR & R INCORPORATED		122.70	19-JUL-16	122.70	Reconciled
369058		14-JUL-16	DATAZEO, INC.		125.00	18-JUL-16	125.00	Reconciled
369059		14-JUL-16	DEE JASPAR & ASSOCIATES, INC.		35,746.97	25-JUL-16	35,746.97	Reconciled
369060		14-JUL-16	DELL MARKETING LP		45,512.27	21-JUL-16	45,512.27	Reconciled
369061		14-JUL-16	DEX MEDIA INC.		82.25	21-JUL-16	82.25	Reconciled
369062		14-JUL-16	DIAO, JINGGANG		22.59	18-JUL-16	22.59	Reconciled
369063		14-JUL-16	E J MEYER COMPANY		631.31	19-JUL-16	631.31	Reconciled
369064		14-JUL-16	ELECTRICAL RELIABILITY SERVICES INC		4,993.00	18-JUL-16	4,993.00	Reconciled
369065		14-JUL-16	EVANS-HYDRO INC		17,577.01	01-AUG-16	17,577.01	Reconciled
369066		14-JUL-16	EXECUTIVE LIGHTING & ELECTRIC		607.27	19-JUL-16	607.27	Reconciled
369067		14-JUL-16	FEDEX		185.78	20-JUL-16	185.78	Reconciled
369068		14-JUL-16	FEDEX NATIONAL LTL, INC		941.35	20-JUL-16	941.35	Reconciled
369069		14-JUL-16	FERGUSON ENTERPRISES, INC.		680.40	18-JUL-16	680.40	Reconciled
369070		14-JUL-16	FISHER SCIENTIFIC COMPANY LLC		1,876.55	18-JUL-16	1,876.55	Reconciled
369071		14-JUL-16	FLEET SOLUTIONS LLC		4,495.85	19-JUL-16	4,495.85	Reconciled
369072		14-JUL-16	FOX, LYNETTE		131.40	18-JUL-16	131.40	Reconciled
369073		14-JUL-16	FUSCOE ENGINEERING, INC.		6,703.98	15-JUL-16	6,703.98	Reconciled
369074		14-JUL-16	GEI CONSULTANTS INC		2,167.00	18-JUL-16	2,167.00	Reconciled
369075		14-JUL-16	GHD INC.		19,483.40	25-JUL-16	19,483.40	Reconciled
369076		14-JUL-16	GM SAGER CONSTRUCTION CO, INC.		20,540.00	21-JUL-16	20,540.00	Reconciled
369077		14-JUL-16	GRAINGER		2,091.41	18-JUL-16	2,091.41	Reconciled
369078		14-JUL-16	GREGG OHLHAVER		851.04	18-JUL-16	851.04	Reconciled
369079		14-JUL-16	GUZZETTA, LAWRENCE		83.72	18-JUL-16	83.72	Reconciled
369080		14-JUL-16	HAAKER EQUIPMENT COMPANY		223,476.84	20-JUL-16	223,476.84	Reconciled
369081		14-JUL-16	HACH COMPANY		2,342.55	18-JUL-16	2,342.55	Reconciled
369082		14-JUL-16	HAMILTON, KURT		1,205.27	22-JUL-16	1,205.27	Reconciled
369083		14-JUL-16	HARPER & ASSOCIATES ENGINEERING INC		2,812.50	25-JUL-16	2,812.50	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
369084		14-JUL-16	HARVARD COURT APARTMENTS		58.39	19-JUL-16	58.39	Reconciled
369085		14-JUL-16	HELP/SYSTEMS, LLC		2,632.00	18-JUL-16	2,632.00	Reconciled
369086		14-JUL-16	HELPMATES STAFFING SERVICES		14,361.74	19-JUL-16	14,361.74	Reconciled
369087		14-JUL-16	HERITAGE FIELDS EL TORO, LLC		300,531.06	26-JUL-16	300,531.06	Reconciled
369088		14-JUL-16	HILL BROTHERS CHEMICAL COMPANY		3,680.05	18-JUL-16	3,680.05	Reconciled
369089		14-JUL-16	HOME DEPOT USA INC		252.67	21-JUL-16	252.67	Reconciled
369090		14-JUL-16	IBM CORPORATION		46,554.24	21-JUL-16	46,554.24	Reconciled
369091		14-JUL-16	INDUSTRIAL METAL SUPPLY CO		605.45	18-JUL-16	605.45	Reconciled
369092		14-JUL-16	IRVINE PIPE & SUPPLY INC		3,398.51	15-JUL-16	3,398.51	Reconciled
369093		14-JUL-16	JOE RHODES MAINT SERVICE INC		682.17	20-JUL-16	682.17	Reconciled
369094		14-JUL-16	JOHN ROBINSON CONSULTING, INC.		20,619.00	26-JUL-16	20,619.00	Reconciled
369095		14-JUL-16	KAYUGA SOLUTION INC		27,225.00	29-JUL-16	27,225.00	Reconciled
369096		14-JUL-16	KLEINFELDER, INC.		15,313.00	21-JUL-16	15,313.00	Reconciled
369097		14-JUL-16	LA HABRA FENCE COMPANY INC		784.00	18-JUL-16	784.00	Reconciled
369098		14-JUL-16	LAGUNA BEACH COUNTY WATER DISTRICT		4,012.11	19-JUL-16	4,012.11	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
369099		14-JUL-16	LANDCARE HOLDINGS, INC.		55,664.00	20-JUL-16	55,664.00	Reconciled
369100		14-JUL-16	LHNAV, LLC		2,952.53	26-JUL-16	2,952.53	Reconciled
369101		14-JUL-16	LILLESTRAND LEADERSHIP CONSULTING, INC.		774.48	02-AUG-16	774.48	Reconciled
369102		14-JUL-16	MC MASTER CARR SUPPLY CO		1,034.49	18-JUL-16	1,034.49	Reconciled
369103		14-JUL-16	MOBILE MODULAR MANAGEMENT CORPORATION		1,020.60	21-JUL-16	1,020.60	Reconciled
369104		14-JUL-16	MOON, KYUNG HO		642.41	01-AUG-16	642.41	Reconciled
369105		14-JUL-16	NALCO CAL WATER, LLC		240.00	18-JUL-16	240.00	Reconciled
369106		14-JUL-16	NATIONAL WATER RESEARCH INSTITUTE		5,000.00	21-JUL-16	5,000.00	Reconciled
369107		14-JUL-16	NATURES IMAGE INC		144.84	15-JUL-16	144.84	Reconciled
369108		14-JUL-16	NEPTUNE TECHNOLOGY GROUP, INC.		78,624.00	21-JUL-16	78,624.00	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
369109		14-JUL-16	NEXLEVEL INFORMATION TECHNOLOGY, INC.		18,287.50	25-JUL-16	18,287.50	Reconciled
369110		14-JUL-16	NOVELL, INC		57,877.94	20-JUL-16	57,877.94	Reconciled
369111		14-JUL-16	OCEAN BLUE ENVIRONMENTAL SERVICES INC		9,219.60	27-JUL-16	9,219.60	Reconciled
369112		14-JUL-16	OLIN CORPORATION		4,204.25	18-JUL-16	4,204.25	Reconciled
369113		14-JUL-16	ORANGE COUNTY COASTKEEPER INC		2,500.00	27-JUL-16	2,500.00	Reconciled
369114		14-JUL-16	ORANGE COUNTY CURRENT AFFAIRS FORUM		1,000.00			Negotiable
369115		14-JUL-16	ORANGE COUNTY TAXPAYERS ASSOCIATION		1,500.00			Negotiable
369116		14-JUL-16	ORANGE COUNTY TREASURER		3,200.00	15-JUL-16	3,200.00	Reconciled
369117		14-JUL-16	ORDIBEHESHT, POUNEH		97.27	20-JUL-16	97.27	Reconciled
369118		14-JUL-16	OSTS, INC		5,150.00	19-JUL-16	5,150.00	Reconciled
369119		14-JUL-16	PACIFIC COAST BOLT CORP		2,294.10	19-JUL-16	2,294.10	Reconciled
369120		14-JUL-16	PACIFIC GAS AND ELECTRIC COMPANY		22.13	19-JUL-16	22.13	Reconciled
369121		14-JUL-16	PAPER DEPOT DOCUMENT DESTRUCTION LLC		720.00	22-JUL-16	720.00	Reconciled
369122		14-JUL-16	PELLETIER & ASSOCIATES, INC.		1,000.00	15-JUL-16	1,000.00	Reconciled
369123		14-JUL-16	PENHALL COMPANY		1,600.00	15-JUL-16	1,600.00	Reconciled
369124		14-JUL-16	PERKINELMER HEALTH SCIENCES INC		77.48	18-JUL-16	77.48	Reconciled
369125		14-JUL-16	RAINBOW DISPOSAL CO INC		325.21	20-JUL-16	325.21	Reconciled
369126		14-JUL-16	RAM AIR ENGINEERING INC		1,580.00	15-JUL-16	1,580.00	Reconciled
369127		14-JUL-16	REFRIGERATION SUPPLIES DISTRIBUTOR		484.58	18-JUL-16	484.58	Reconciled
369128		14-JUL-16	RELIANCE SAFETY CONSULTANTS, INC.		1,500.00	03-AUG-16	1,500.00	Reconciled
369129		14-JUL-16	RESOLUTE CONTRACTORS, INC		208.89	18-JUL-16	208.89	Reconciled
369130		14-JUL-16	RICH, MELANIE		330.50	19-JUL-16	330.50	Reconciled

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

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
369131		14-JUL-16	RMC WATER AND ENVIRONMENT		7,804.07	19-JUL-16	7,804.07	Reconciled
369132		14-JUL-16	RMS ENGINEERING & DESIGN, INC.		18,973.80	20-JUL-16	18,973.80	Reconciled
369133		14-JUL-16	ROBERT HALF INTERNATIONAL, INC.		6,028.54	18-JUL-16	6,028.54	Reconciled
369134		14-JUL-16	SALCEDO, EDWARD		119.52	28-JUL-16	119.52	Reconciled
369135		14-JUL-16	SANTA ANA BLUE		924.95	20-JUL-16	924.95	Reconciled

369136	14-JUL-16	PRINT SANTA MARGARITA FORD	373.19	19-JUL-16	373.19	Reconciled
369137	14-JUL-16	SCHNEIDER ELECTRIC	2,283.93	18-JUL-16	2,283.93	Reconciled
369138	14-JUL-16	SHAMROCK SUPPLY CO INC	940.58	20-JUL-16	940.58	Reconciled
369139	14-JUL-16	SHERWIN WILLIAMS COMPANY	512.54	18-JUL-16	512.54	Reconciled
369140	14-JUL-16	SIGMA-ALDRICH INC	291.69	19-JUL-16	291.69	Reconciled
369141	14-JUL-16	SOLARWINDS, INC	3,540.00	20-JUL-16	3,540.00	Reconciled
369142	14-JUL-16	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	958.42	21-JUL-16	958.42	Reconciled
369143	14-JUL-16	SOUTH COAST ANSWERING SERVICE	703.29	18-JUL-16	703.29	Reconciled
369144	14-JUL-16	SOUTH ORANGE COUNTY REGIONAL CHAMBERS OF COMMERCE	2,500.00	20-JUL-16	2,500.00	Reconciled
369145	14-JUL-16	SOUTHERN CALIFORNIA EDISON COMPANY	15,584.10	15-JUL-16	15,584.10	Reconciled
369146	14-JUL-16	SOUTHERN CALIFORNIA GRADING	809.05	18-JUL-16	809.05	Reconciled
369147	14-JUL-16	SOUTHERN CALIFORNIA SECURITY CENTERS, INC.	422.82	27-JUL-16	422.82	Reconciled
369148	14-JUL-16	STANDARD REGISTER, INC.	2,197.15	18-JUL-16	2,197.15	Reconciled
369149	14-JUL-16	STANTEC CONSULTING SERVICES INC.	87,392.76	22-JUL-16	87,392.76	Reconciled
369150	14-JUL-16	SUN-STAR ELECTRIC, INC.	25,550.00	22-JUL-16	25,550.00	Reconciled
369151	14-JUL-16	SUSAN A. SIROTA	4,295.00	18-JUL-16	4,295.00	Reconciled
369152	14-JUL-16	THE GAS COMPANY	87.73	18-JUL-16	87.73	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								
369153		14-JUL-16	THOMPSON INDUSTRIAL SUPPLY		79.40	18-JUL-16	79.40	Reconciled
369154		14-JUL-16	THOMPSON INDUSTRIAL SUPPLY		2,795.00	18-JUL-16	2,795.00	Reconciled
369155		14-JUL-16	THYSSENKRUPP ELEVATOR CORPORATION		359.28	18-JUL-16	359.28	Reconciled
369156		14-JUL-16	TROPICAL PLAZA NURSERY INC		1,658.45	18-JUL-16	1,658.45	Reconciled
369157		14-JUL-16	TRUCPARCO		1,102.96	18-JUL-16	1,102.96	Reconciled
369158		14-JUL-16	TYCO INTEGRATED SECURITY, LLC		3,446.02	20-JUL-16	3,446.02	Reconciled
369159		14-JUL-16	URS CORPORATION		10,468.06	25-JUL-16	10,468.06	Reconciled
369160		14-JUL-16	VERIZON WIRELESS SERVICES LLC		1,615.21	20-JUL-16	1,615.21	Reconciled
369161		14-JUL-16	VRIDE INC		11,086.17	22-JUL-16	11,086.17	Reconciled
369162		14-JUL-16	WALTERS WHOLESAL ELECTRIC		9,592.17	19-JUL-16	9,592.17	Reconciled
369163		14-JUL-16	WANG, HAINING		34.71	18-JUL-16	34.71	Reconciled
369164		14-JUL-16	WATER RESEARCH FOUNDATION		5,548.00	19-JUL-16	5,548.00	Reconciled
369165		14-JUL-16	WAXIE'S ENTERPRISES, INC		2,307.38	18-JUL-16	2,307.38	Reconciled
369166		14-JUL-16	WECK LABORATORIES INC		4,490.00	19-JUL-16	4,490.00	Reconciled
369167		14-JUL-16	WESTERN AV		19,649.86	21-JUL-16	19,649.86	Reconciled
369168		14-JUL-16	WORKHORSE DIVING AND SALVAGE		17,976.00	21-JUL-16	17,976.00	Reconciled
369169		14-JUL-16	YP LLC		123.50	18-JUL-16	123.50	Reconciled
369170		14-JUL-16	YSI, INC		45,652.78	22-JUL-16	45,652.78	Reconciled
369171		14-JUL-16	ZEBRON CONTRACTING INC		1,050.00	21-JUL-16	1,050.00	Reconciled
369172		14-JUL-16	REED, JAMES D	PURCHASE_P AY	1,947.00	28-JUL-16	1,947.00	Reconciled
369173		14-JUL-16	EXTTI , INCORPORATED	PURCHASE	5,000.00	22-JUL-16	5,000.00	Reconciled
369174		21-JUL-16	Calderon, Alfonso		80.00			Negotiable
369175		21-JUL-16	Silva, Jose A (Jose)		43.00			Negotiable
369176		21-JUL-16	Stuvick, Lindsey R		2,306.02	25-JUL-16	2,306.02	Reconciled
369177		21-JUL-16	Lao, Richard S		10.00	25-JUL-16	10.00	Reconciled
369178		21-JUL-16	Fournier, Tanja L (Tanja)		106.62	21-JUL-16	106.62	Reconciled
369179		21-JUL-16	AAF INTERNATIONAL		1,045.38	25-JUL-16	1,045.38	Reconciled
369180		21-JUL-16	AIRGAS, INC.		394.03	25-JUL-16	394.03	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

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
369181		21-JUL-16	AKM CONSULTING ENGINEERS, INC.		41,840.00	26-JUL-16	41,840.00	Reconciled
369182		21-JUL-16	ANDERSONPENNA PARTNERS, INC.		18,298.50	26-JUL-16	18,298.50	Reconciled
369183		21-JUL-16	AQUA-METRIC SALES COMPANY		596.03	26-JUL-16	596.03	Reconciled
369184		21-JUL-16	ART RECOVERY TECHNOLOGY, INC.		606.30	26-JUL-16	606.30	Reconciled
369185		21-JUL-16	AT&T		7,496.82	26-JUL-16	7,496.82	Reconciled
369186		21-JUL-16	ATHENS SERVICES		977.25	25-JUL-16	977.25	Reconciled
369187		21-JUL-16	AUTOZONE PARTS, INC.		52.64	27-JUL-16	52.64	Reconciled
369188		21-JUL-16	BATTERIES PLUS AND BATTERIES PLUS BULBS		310.58	01-AUG-16	310.58	Reconciled
369189		21-JUL-16	BAVCO BACKFLOW APPARATUS & VALVE COMPANY		457.32	22-JUL-16	457.32	Reconciled
369190		21-JUL-16	BDC SPECIAL WASTE		207.20	25-JUL-16	207.20	Reconciled
369191		21-JUL-16	BELL TOWER FLORIST & GIFTS		115.55	04-AUG-16	115.55	Reconciled
369192		21-JUL-16	BILCO COMPANY		1,305.96	26-JUL-16	1,305.96	Reconciled
369193		21-JUL-16	BOYD & ASSOCIATES		2,366.00	26-JUL-16	2,366.00	Reconciled
369194		21-JUL-16	BRENNTAG PACIFIC INC		3,680.00	25-JUL-16	3,680.00	Reconciled
369195		21-JUL-16	BROOKFIELD RESIDENTIAL		1,914.41	29-JUL-16	1,914.41	Reconciled
369196		21-JUL-16	BURKE, WILLIAMS & SORENSEN, LLP		5,232.50	25-JUL-16	5,232.50	Reconciled
369197		21-JUL-16	C L OLSON & ASSOCIATES, INC.		1,300.00	25-JUL-16	1,300.00	Reconciled
369198		21-JUL-16	CALIFORNIA BARRICADE RENTAL, INC.		4,740.10	25-JUL-16	4,740.10	Reconciled
369199		21-JUL-16	CANDEE, BROOK		40.28	27-JUL-16	40.28	Reconciled
369200		21-JUL-16	CANON FINANCIAL SERVICES, INC		9,617.97	25-JUL-16	9,617.97	Reconciled
369201		21-JUL-16	CANON SOLUTIONS AMERICA, INC.		56.31	25-JUL-16	56.31	Reconciled
369202		21-JUL-16	CARL WARREN & CO		1,239.34	25-JUL-16	1,239.34	Reconciled
369203		21-JUL-16	CHAVEZ, RACHAEL		16.12			Negotiable
369204		21-JUL-16	CHO, GINA		62.69			Negotiable
369205		21-JUL-16	CITY CIRCUIT BREAKERS		32.40	22-JUL-16	32.40	Reconciled
369206		21-JUL-16	CITY OF IRVINE		2,010.53			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								
369207		21-JUL-16	CITY OF LAKE FOREST		4,064.65			Negotiable
369208		21-JUL-16	CLEARINGHOUSE		477.67	28-JUL-16	477.67	Reconciled
369209		21-JUL-16	CREDENTIAL CHECK CORPORATION		943.25	25-JUL-16	943.25	Reconciled
369210		21-JUL-16	CRUMP & CO, INC.		5,548.92	04-AUG-16	5,548.92	Reconciled
369211		21-JUL-16	CSAC EXCESS INSURANCE AUTHORITY		809,536.00	28-JUL-16	809,536.00	Reconciled
369212		21-JUL-16	CUMMINS PACIFIC, LLC		2,717.07	25-JUL-16	2,717.07	Reconciled
369213		21-JUL-16	DATAZEO, INC.		1,795.00			Negotiable
369214		21-JUL-16	DAVID WILSON'S FORD OF ORANGE		81,311.74	28-JUL-16	81,311.74	Reconciled
369215		21-JUL-16	DELL MARKETING LP		8,152.25	25-JUL-16	8,152.25	Reconciled
369216		21-JUL-16	DEMOREST, CAROL		25.65			Negotiable
369217		21-JUL-16	DIRECTV INC		115.98	27-JUL-16	115.98	Reconciled
369218		21-JUL-16	DIVITA BUILDERS INC		735.07	02-AUG-16	735.07	Reconciled
369219		21-JUL-16	EAGLE PRINT DYNAMICS		8,321.09	25-JUL-16	8,321.09	Reconciled
369220		21-JUL-16	EMPIRE PIPE CLEANING		824.25	25-JUL-16	824.25	Reconciled
369221		21-JUL-16	ENVIRONMENTAL RESOURCE ASSOCIATES		204.21	26-JUL-16	204.21	Reconciled
369222		21-JUL-16	EQUIPMENT DIRECT INC		331.86	25-JUL-16	331.86	Reconciled
369223		21-JUL-16	FARRELL & ASSOCIATES		272.60	27-JUL-16	272.60	Reconciled
369224		21-JUL-16	FEDEX		247.20	26-JUL-16	247.20	Reconciled

369225	21-JUL-16	FISHER SCIENTIFIC COMPANY LLC		3,392.38	25-JUL-16	3,392.38	Reconciled
369226	21-JUL-16	FREEWAY MACHINE & WELDING SHOP		650.00	26-JUL-16	650.00	Reconciled
369227	21-JUL-16	GENTERRA CONSULTANTS INC		1,810.00	22-JUL-16	1,810.00	Reconciled
369228	21-JUL-16	GRAINGER		1,534.54	25-JUL-16	1,534.54	Reconciled
369229	21-JUL-16	H2O INNOVATION USA INC		3,959.65	27-JUL-16	3,959.65	Reconciled
369230	21-JUL-16	HAAKER EQUIPMENT COMPANY		506.06	27-JUL-16	506.06	Reconciled
369231	21-JUL-16	HACH COMPANY		1,571.87	26-JUL-16	1,571.87	Reconciled
369232	21-JUL-16	HDR ENGINEERING INC		39,726.62	28-JUL-16	39,726.62	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 13  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
369233		21-JUL-16	HELPMATES STAFFING SERVICES		9,701.05	22-JUL-16	9,701.05	Reconciled
369234		21-JUL-16	HILL BROTHERS CHEMICAL COMPANY		1,899.80	26-JUL-16	1,899.80	Reconciled
369235		21-JUL-16	HUNSAKER & ASSOCIATES IRVINE		672.00	25-JUL-16	672.00	Reconciled
369236		21-JUL-16	INDUSTRIAL METAL SUPPLY CO		131.45	25-JUL-16	131.45	Reconciled
369237		21-JUL-16	IRVINE COMMUNITY DEVELOPMENT COMPANY LLC		2,420.00	04-AUG-16	2,420.00	Reconciled
369238		21-JUL-16	IRVINE COMMUNITY DEVELOPMENT COMPANY LLC		110,383.08	04-AUG-16	110,383.08	Reconciled
369239		21-JUL-16	IRVINE PIPE & SUPPLY INC		1,952.31	25-JUL-16	1,952.31	Reconciled
369240		21-JUL-16	IRWD EMPLOYEE ASSOCIATION		820.00			Negotiable
369241		21-JUL-16	IRWD-PETTY CASH CUSTODIAN		1,386.18	22-JUL-16	1,386.18	Reconciled
369242		21-JUL-16	JACOBS PROJECT MANAGEMENT CO.		57,760.00	28-JUL-16	57,760.00	Reconciled
369243		21-JUL-16	JBR ENGINEERING INC		643.73	25-JUL-16	643.73	Reconciled
369244		21-JUL-16	KIM, SOONAE		21.87			Negotiable
369245		21-JUL-16	KOLEV, GALINA		144.18			Negotiable
369246		21-JUL-16	LCS TECHNOLOGIES, INC.		4,860.00	25-JUL-16	4,860.00	Reconciled
369247		21-JUL-16	LIU, YIKANG		44.27			Negotiable
369248		21-JUL-16	LU'S LIGHTHOUSE, INC.		1,235.88	25-JUL-16	1,235.88	Reconciled
369249		21-JUL-16	LUBRICATION ENGINEERS, INC.		10,751.35	29-JUL-16	10,751.35	Reconciled
369250		21-JUL-16	MARINA LANDSCAPE MAINTENANCE, INC.		2,370.00	25-JUL-16	2,370.00	Reconciled
369251		21-JUL-16	MARVIN GARDENS LLC		2,593.70	22-JUL-16	2,593.70	Reconciled
369252		21-JUL-16	MC FADDEN-DALE INDUSTRIAL		559.02	26-JUL-16	559.02	Reconciled
369253		21-JUL-16	MC MASTER CARR SUPPLY CO		4,450.22	25-JUL-16	4,450.22	Reconciled
369254		21-JUL-16	NATIONAL READY MIXED CONCRETE CO.		1,186.00			Negotiable
369255		21-JUL-16	NATIONAL SPECIALITY ALLOYS LLC		902.88	25-JUL-16	902.88	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
369256		21-JUL-16	NMG GEOTECHNICAL INC		12,228.20			Negotiable
369257		21-JUL-16	O G SUPPLY		222.01	25-JUL-16	222.01	Reconciled
369258		21-JUL-16	OLIN CORPORATION		18,048.42	27-JUL-16	18,048.42	Reconciled
369259		21-JUL-16	ORANGE COUNTY AUTO PARTS CO		654.75	22-JUL-16	654.75	Reconciled
369260		21-JUL-16	ORANGE COUNTY SHERIFF'S OFFICE		62.50	04-AUG-16	62.50	Reconciled
369261		21-JUL-16	ORANGE COUNTY TREASURER		66.95	22-JUL-16	66.95	Reconciled
369262		21-JUL-16	OUTSOURCE TECHNICAL LLC		36,968.00	26-JUL-16	36,968.00	Reconciled
369263		21-JUL-16	PACRIM ENGINEERING INC.		3,875.00			Negotiable

369264	21-JUL-16	PARKHOUSE TIRE INC	4,022.96	26-JUL-16	4,022.96	Reconciled
369265	21-JUL-16	PAULUS ENGINEERING INC	87,490.25	27-JUL-16	87,490.25	Reconciled
369266	21-JUL-16	PERS LONG TERM CARE	920.04	01-AUG-16	920.04	Reconciled
369267	21-JUL-16	PINNACLE TOWERS LLC	1,332.08	25-JUL-16	1,332.08	Reconciled
369268	21-JUL-16	PRAXAIR DISTRIBUTION INC	1,621.03	27-JUL-16	1,621.03	Reconciled
369269	21-JUL-16	PROCARE WORK INJURY CENTER	85.00	03-AUG-16	85.00	Reconciled
369270	21-JUL-16	PURDUE UNIVERSITY	3,750.00	02-AUG-16	3,750.00	Reconciled
369271	21-JUL-16	R & S SOIL PRODUCTS INC	842.40	26-JUL-16	842.40	Reconciled
369272	21-JUL-16	R&B AUTOMATION, INC.	11,036.44	27-JUL-16	11,036.44	Reconciled
369273	21-JUL-16	RAM AIR ENGINEERING INC	570.00	26-JUL-16	570.00	Reconciled
369274	21-JUL-16	REAL WATER CONSULTANTS INC.	9,954.00	25-JUL-16	9,954.00	Reconciled
369275	21-JUL-16	RINCON TRUCK CENTER INC.	380.45	22-JUL-16	380.45	Reconciled
369276	21-JUL-16	ROBERT HALF INTERNATIONAL, INC.	2,848.13	25-JUL-16	2,848.13	Reconciled
369277	21-JUL-16	SAFETY-KLEEN SYSTEMS, INC	224.75	27-JUL-16	224.75	Reconciled
369278	21-JUL-16	SANTA MARGARITA FORD	614.22	22-JUL-16	614.22	Reconciled
369279	21-JUL-16	SANTA MARGARITA FORD	1,025.49	25-JUL-16	1,025.49	Reconciled
369280	21-JUL-16	SCHEID, PETER	28.39	25-JUL-16	28.39	Reconciled

IRWD Ledger  
 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								
369281		21-JUL-16	SCHNEIDER ELECTRIC		686.18	26-JUL-16	686.18	Reconciled
369282		21-JUL-16	SHALD, SCOTT		140.42	26-JUL-16	140.42	Reconciled
369283		21-JUL-16	SHAMROCK SUPPLY CO INC		1,890.04	25-JUL-16	1,890.04	Reconciled
369284		21-JUL-16	SHERIDAN MAINTENANCE ASSN		1,433.01	27-JUL-16	1,433.01	Reconciled
369285		21-JUL-16	SHIELDS, HARPER & CO.		72.70	25-JUL-16	72.70	Reconciled
369286		21-JUL-16	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT		35.11	04-AUG-16	35.11	Reconciled
369287		21-JUL-16	SOUTH COAST WATER CO.		40.00	27-JUL-16	40.00	Reconciled
369288		21-JUL-16	SOUTHERN CALIFORNIA EDISON COMPANY		269,340.49	22-JUL-16	269,340.49	Reconciled
369289		21-JUL-16	SOUTHERN COUNTIES LUBRICANTS LLC		835.33	25-JUL-16	835.33	Reconciled
369290		21-JUL-16	SPARLING INSTRUMENTS LLC		1,578.72	25-JUL-16	1,578.72	Reconciled
369291		21-JUL-16	STANTEC CONSULTING SERVICES INC.		28,416.00	28-JUL-16	28,416.00	Reconciled
369292		21-JUL-16	STATE INDUSTRIAL PRODUCTS CORPORTION		416.02	25-JUL-16	416.02	Reconciled
369293		21-JUL-16	STRADLING YOCCA CARLSON & RAUTH		820.00	22-JUL-16	820.00	Reconciled
369294		21-JUL-16	SUNSHINE SUPPLY COMPANY, INC.		2,741.04	25-JUL-16	2,741.04	Reconciled
369295		21-JUL-16	T C COMMUNICATIONS, INC		237.64	26-JUL-16	237.64	Reconciled
369296		21-JUL-16	THE GAS COMPANY		2,063.57	25-JUL-16	2,063.57	Reconciled
369297		21-JUL-16	THE NEW HOME COMPANY		421.46			Negotiable
369298		21-JUL-16	THE OAKS HOMEOWNERS ASSN		2,230.54			Negotiable
369299		21-JUL-16	THOMAS HARDER & CO		6,485.00	25-JUL-16	6,485.00	Reconciled
369300		21-JUL-16	TIC-SPECTRUM OFFICE		5,607.77	26-JUL-16	5,607.77	Reconciled
369301		21-JUL-16	TRANSWEST TRUCK CENTER LLC		79,990.20	29-JUL-16	79,990.20	Reconciled
369302		21-JUL-16	TRENCH SHORING COMPANY		303.77	25-JUL-16	303.77	Reconciled
369303		21-JUL-16	TRINH, VALERIE		123.09	26-JUL-16	123.09	Reconciled

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

Payment Register For 01-JUL-16 To 31-JUL-16  
 Account: Checking AP and PR  
 Payment Currency: USD ( US Dollar )  
 Display Supplier Address: No

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Cleared

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
369304		21-JUL-16	TRIPAC MARKETING INC		1,393.89	26-JUL-16	1,393.89	Reconciled
369305		21-JUL-16	TRUCPARCO		1,212.12	03-AUG-16	1,212.12	Reconciled
369306		21-JUL-16	TUSTIN CHAMBER OF COMMERCE		889.00	29-JUL-16	889.00	Reconciled
369307		21-JUL-16	ULINE INC		61.14	27-JUL-16	61.14	Reconciled
369308		21-JUL-16	UNITED WATER WORKS, INC.		112.05	22-JUL-16	112.05	Reconciled
369309		21-JUL-16	VAUGHAN'S INDUSTRIAL REPAIR CO INC		9,839.46	25-JUL-16	9,839.46	Reconciled
369310		21-JUL-16	VCS ENVIRONMENTAL		262.50	27-JUL-16	262.50	Reconciled
369311		21-JUL-16	VWR INTERNATIONAL, LLC		1,181.03	25-JUL-16	1,181.03	Reconciled
369312		21-JUL-16	WALTERS WHOLESALE ELECTRIC		217.92	01-AUG-16	217.92	Reconciled
369313		21-JUL-16	WATERLINE TECHNOLOGIES INC		4,260.00	22-JUL-16	4,260.00	Reconciled
369314		21-JUL-16	WEST COAST SAFETY SUPPLY INC		9,994.21	26-JUL-16	9,994.21	Reconciled
369315		21-JUL-16	WESTERN EXTERMINATOR COMPANY		2,254.00			Negotiable
369316		21-JUL-16	XUAN, MINGXIA		8.78			Negotiable
369317		21-JUL-16	YORKE ENGINEERING LLC		1,720.25	26-JUL-16	1,720.25	Reconciled
369318		27-JUL-16	HACH COMPANY	CHICAGO	16,500.00	01-AUG-16	16,500.00	Reconciled
369319		27-JUL-16	PALO VERDE IRRIGATION DISTRICT	PURCHASING	6,500.48	01-AUG-16	6,500.48	Reconciled
369320		28-JUL-16	Coria, Alejandro (Alex)		250.00	01-AUG-16	250.00	Reconciled
369321		28-JUL-16	Meserlian, Barkev M		75.46			Negotiable
369322		28-JUL-16	Kessler, Christian L (Christian)		115.00	01-AUG-16	115.00	Reconciled
369323		28-JUL-16	Lum, Christopher A (Christopher)		42.31			Negotiable
369324		28-JUL-16	Seraypheap, Evan		91.68			Negotiable
369325		28-JUL-16	Reed, James W (James)		271.00	03-AUG-16	271.00	Reconciled
369326		28-JUL-16	Hankla, Jeremy		394.00	01-AUG-16	394.00	Reconciled
369327		28-JUL-16	Robinson, Mitchell S		169.09			Negotiable
369328		28-JUL-16	Bennett, Ray R (Ray)		34.67	02-AUG-16	34.67	Reconciled
IRWD Ledger Payment Register For 01-JUL-16 To 31-JUL-16 Report Date: 05-AUG-2016 14:59 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	Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
369329		28-JUL-16	LaMar, Steven E		21.30	01-AUG-16	21.30	Reconciled
369330		28-JUL-16	AAF INTERNATIONAL		1,307.17	01-AUG-16	1,307.17	Reconciled
369331		28-JUL-16	ACCURATE MEASUREMENT SYSTEMS INC		2,755.07			Negotiable
369332		28-JUL-16	ADT SECURITY SERVICES INC		412.47			Negotiable
369333		28-JUL-16	AFLAC		349.70	01-AUG-16	349.70	Reconciled
369334		28-JUL-16	AFLAC		7,316.78	03-AUG-16	7,316.78	Reconciled
369335		28-JUL-16	AHMADI, ABBAS		124.52			Negotiable
369336		28-JUL-16	AIR TECHNOLOGY LABORATORIES		289.00			Negotiable
369337		28-JUL-16	AIRGAS, INC.		2,003.64	01-AUG-16	2,003.64	Reconciled
369338		28-JUL-16	ALL STAR GLASS		462.92	01-AUG-16	462.92	Reconciled
369339		28-JUL-16	AMERICAN WATER CHEMICALS, INC.		4,088.93	02-AUG-16	4,088.93	Reconciled
369340		28-JUL-16	ANDERSONPENNA PARTNERS, INC.		16,272.00	04-AUG-16	16,272.00	Reconciled
369341		28-JUL-16	ARCADIS U.S., INC.		9,485.42	01-AUG-16	9,485.42	Reconciled
369342		28-JUL-16	ATHENS SERVICES		9,553.90	02-AUG-16	9,553.90	Reconciled
369343		28-JUL-16	AUTOZONE PARTS, INC.		701.68			Negotiable
369344		28-JUL-16	BARTEL ASSOCIATES, LLC		2,017.50	01-AUG-16	2,017.50	Reconciled
369345		28-JUL-16	BATTERIES PLUS AND BATTERIES PLUS BULBS		122.76	01-AUG-16	122.76	Reconciled
369346		28-JUL-16	BERISHA, DIELA		233.41	04-AUG-16	233.41	Reconciled
369347		28-JUL-16	BIGWIG MONSTER, LLC		2,850.00	01-AUG-16	2,850.00	Reconciled
369348		28-JUL-16	BILL'S SWEEPING SERVICE INC		1,247.50	03-AUG-16	1,247.50	Reconciled
369349		28-JUL-16	BIOENERGY ASSOCIATION OF		1,100.00			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
369350	28-JUL-16		CALIFORNIA BLACK & VEATCH CORPORATION		536,620.39			Negotiable
369351	28-JUL-16		BONDILI, KALYAN		23.70			Negotiable
369352	28-JUL-16		BOWIE, ARNESON, WILES & GIANNONE		29,877.83			Negotiable
369353	28-JUL-16		BOYD & ASSOCIATES		1,422.00	02-AUG-16	1,422.00	Reconciled
369354	28-JUL-16		BRADTL, JO ANN		1,512.71			Negotiable
369355	28-JUL-16		BURKE, WILLIAMS & SORENSEN, LLP		2,234.75	02-AUG-16	2,234.75	Reconciled
369356	28-JUL-16		C WELLS PIPELINE MATERIALS INC		6,859.95	02-AUG-16	6,859.95	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								
369357	28-JUL-16		CALIFORNIA BARRICADE RENTAL, INC.		568.26	02-AUG-16	568.26	Reconciled
369358	28-JUL-16		CANON SOLUTIONS AMERICA, INC.		407.01	01-AUG-16	407.01	Reconciled
369359	28-JUL-16		CAROLLO ENGINEERS, INC		76,777.45			Negotiable
369360	28-JUL-16		CERTIFIED TRANSPORTATION		1,882.29	01-AUG-16	1,882.29	Reconciled
369361	28-JUL-16		CHEM TECH INTERNATIONAL INC		10,982.40			Negotiable
369362	28-JUL-16		CITY OF NEWPORT BEACH		1,125.73	03-AUG-16	1,125.73	Reconciled
369363	28-JUL-16		CITY OF SANTA ANA		97.80	01-AUG-16	97.80	Reconciled
369364	28-JUL-16		CITY OF TUSTIN		440,793.60	04-AUG-16	440,793.60	Reconciled
369365	28-JUL-16		CLA-VAL COMPANY		1,019.22	29-JUL-16	1,019.22	Reconciled
369366	28-JUL-16		COLONIAL LIFE & ACCIDENT INSURANCE CO.		1,139.60	02-AUG-16	1,139.60	Reconciled
369367	28-JUL-16		COMMERCE ENERGY INC		60.68	01-AUG-16	60.68	Reconciled
369368	28-JUL-16		CONTROLLED KEY SYSTEMS INC		140.60	01-AUG-16	140.60	Reconciled
369369	28-JUL-16		CORELOGIC INC		18.00	01-AUG-16	18.00	Reconciled
369370	28-JUL-16		CUMMINS PACIFIC, LLC		1,246.68	01-AUG-16	1,246.68	Reconciled
369371	28-JUL-16		D & H WATER SYSTEMS INC.		42,196.00			Negotiable
369372	28-JUL-16		DATA CLEAN CORPORATION		526.50	03-AUG-16	526.50	Reconciled
369373	28-JUL-16		DELL MARKETING LP		8,446.38	01-AUG-16	8,446.38	Reconciled
369374	28-JUL-16		DIRECTV INC		113.55	03-AUG-16	113.55	Reconciled
369375	28-JUL-16		DISCOUNT COURIER SERVICE		67.47	01-AUG-16	67.47	Reconciled
369376	28-JUL-16		EAGLE PRINT DYNAMICS		2,702.92	01-AUG-16	2,702.92	Reconciled
369377	28-JUL-16		EHS INTERNATIONAL, INC		1,620.00	01-AUG-16	1,620.00	Reconciled
369378	28-JUL-16		EISEL ENTERPRISES INC		4,658.70			Negotiable
369379	28-JUL-16		ELLSWORTH, CHRISTA		122.87	03-AUG-16	122.87	Reconciled
369380	28-JUL-16		ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC.		9,730.00	01-AUG-16	9,730.00	Reconciled

IRWD Ledger Payment Register For 01-JUL-16 To 31-JUL-16 Report Date: 05-AUG-2016 14:59  
 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								
369381	28-JUL-16		ENVIRONMENTAL RESOURCE ASSOCIATES		186.77	03-AUG-16	186.77	Reconciled
369382	28-JUL-16		EXECUTIVE LIGHTING & ELECTRIC		1,031.86	01-AUG-16	1,031.86	Reconciled
369383	28-JUL-16		FARWEST CORROSION CONTROL COMPANY		871.95	01-AUG-16	871.95	Reconciled
369384	28-JUL-16		FEDEX		268.16	03-AUG-16	268.16	Reconciled
369385	28-JUL-16		FIRST CHOICE SERVICES		600.83	02-AUG-16	600.83	Reconciled
369386	28-JUL-16		FISERV		16,982.78	03-AUG-16	16,982.78	Reconciled
369387	28-JUL-16		FISHER SCIENTIFIC COMPANY LLC		3,540.23	01-AUG-16	3,540.23	Reconciled
369388	28-JUL-16		FRINK, DENISE		153.55			Negotiable
369389	28-JUL-16		GOH, WAN TING		4.96			Negotiable
369390	28-JUL-16		GRAINGER		2,148.77	01-AUG-16	2,148.77	Reconciled
369391	28-JUL-16		GRAYBAR ELECTRIC		178.58	01-AUG-16	178.58	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
369392	28-JUL-16		COMPANY					
			GUIRGUIS, HANY		4.26			Negotiable
369393	28-JUL-16		HAAKER EQUIPMENT		165.01	01-AUG-16	165.01	Reconciled
369394	28-JUL-16		COMPANY					
			HABITAT		4,206.00	03-AUG-16	4,206.00	Reconciled
			RESTORATION					
			SCIENCES, INC.					
369395	28-JUL-16		HACH COMPANY		754.94	01-AUG-16	754.94	Reconciled
369396	28-JUL-16		HARDY & HARPER INC		5,191.75	29-JUL-16	5,191.75	Reconciled
369397	28-JUL-16		HARDY & HARPER INC		3,724.40	03-AUG-16	3,724.40	Reconciled
369398	28-JUL-16		HARTFORD LIFE AND		116.18	01-AUG-16	116.18	Reconciled
			ACCIDENT INSURANCE					
			COMPANY					
369399	28-JUL-16		HARTFORD LIFE		26,575.38			Negotiable
			INSURANCE COMPANY					
369400	28-JUL-16		HDR ENGINEERING		6,077.35	01-AUG-16	6,077.35	Reconciled
369401	28-JUL-16		HELPMATES STAFFING		13,883.09	04-AUG-16	13,883.09	Reconciled
			SERVICES					
369402	28-JUL-16		HERITAGE FIELDS EL		1,253,931.55			Negotiable
			TORO, LLC					
369403	28-JUL-16		HILL BROTHERS		14,938.95	04-AUG-16	14,938.95	Reconciled
			CHEMICAL COMPANY					
369404	28-JUL-16		HOME DEPOT USA INC		1,204.87			Negotiable
369405	28-JUL-16		HSU, WILLIAM S		49.14			Negotiable
369406	28-JUL-16		HUANG, JOSEPH		89.44			Negotiable
369407	28-JUL-16		IDEA HALL		6,817.00	01-AUG-16	6,817.00	Reconciled
369408	28-JUL-16		IDEXX		2,469.71	01-AUG-16	2,469.71	Reconciled
			DISTRIBUTION, INC					

IRWD Ledger Payment Register For 01-JUL-16 To 31-JUL-16 Report Date: 05-AUG-2016 14:59  
 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								
369409	28-JUL-16		INTERNATIONAL E-Z		2,698.06	02-AUG-16	2,698.06	Reconciled
			UP, INC.					
369410	28-JUL-16		IRON MOUNTAIN		1,344.33	01-AUG-16	1,344.33	Reconciled
			INFORMATION					
			MANAGEMENT INC					
369411	28-JUL-16		IRVINE PIPE &		1,467.87	29-JUL-16	1,467.87	Reconciled
			SUPPLY INC					
369412	28-JUL-16		KIMBALL MIDWEST		1,508.14	02-AUG-16	1,508.14	Reconciled
369413	28-JUL-16		KLEINFELDER, INC.		9,913.15	02-AUG-16	9,913.15	Reconciled
369414	28-JUL-16		KOELLER NEBEKER		3,180.00	01-AUG-16	3,180.00	Reconciled
			CARLSON & HALUCK,					
			LLP					
369415	28-JUL-16		KONECRANES INC		4,359.25	01-AUG-16	4,359.25	Reconciled
369416	28-JUL-16		LEE, NADIA		35.07	04-AUG-16	35.07	Reconciled
369417	28-JUL-16		LUBRICATION		1,675.57	01-AUG-16	1,675.57	Reconciled
			ENGINEERS, INC.					
369418	28-JUL-16		MARINA LANDSCAPE		838.17	01-AUG-16	838.17	Reconciled
			MAINTENANCE, INC.					
369419	28-JUL-16		MBC APPLIED		1,300.00	01-AUG-16	1,300.00	Reconciled
			ENVIRONMENTAL					
			SCIENCES					
369420	28-JUL-16		MBF CONSULTING,		10,899.06			Negotiable
			INC.					
369421	28-JUL-16		MC FADDEN-DALE		641.18	02-AUG-16	641.18	Reconciled
			INDUSTRIAL					
369422	28-JUL-16		MC MASTER CARR		1,010.11	01-AUG-16	1,010.11	Reconciled
			SUPPLY CO					
369423	28-JUL-16		MICHAEL BAKER		22,531.20			Negotiable
			INTERNATIONAL,					
			INC.					
369424	28-JUL-16		MSC INDUSTRIAL		1,143.91			Negotiable
			SUPPLY CO					
369425	28-JUL-16		MUNICIPAL WATER		162,053.00	04-AUG-16	162,053.00	Reconciled
			DISTRICT OF ORANGE					
			COUNTY					
369426	28-JUL-16		NATIONAL READY		680.60	01-AUG-16	680.60	Reconciled
			MIXED CONCRETE CO.					
369427	28-JUL-16		NEPTUNE TECHNOLOGY		75,686.40			Negotiable
			GROUP, INC.					
369428	28-JUL-16		NINYO & MOORE		4,211.00	01-AUG-16	4,211.00	Reconciled
369429	28-JUL-16		NMG GEOTECHNICAL		12,342.00			Negotiable
			INC					
369430	28-JUL-16		OEN, MEGA INTAN		21.04			Voided
369431	28-JUL-16		OLIN CORPORATION		3,864.99	01-AUG-16	3,864.99	Reconciled
369432	28-JUL-16		OLIN CORPORATION		19,817.62			Negotiable

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 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								

369433	28-JUL-16	ONESOURCE DISTRIBUTORS LLC	1,507.97	01-AUG-16	1,507.97	Reconciled
369434	28-JUL-16	ORANGE COUNTY BUSINESS COUNCIL	5,000.00	04-AUG-16	5,000.00	Reconciled
369435	28-JUL-16	ORANGE COUNTY SANITATION DISTRICT	4,911.53	01-AUG-16	4,911.53	Reconciled
369436	28-JUL-16	ORANGE COUNTY TREASURER	332.19	29-JUL-16	332.19	Reconciled
369437	28-JUL-16	OUTDOOR CONCEPTS LANDSCAPE AND DESIGN, INC.	214.53	02-AUG-16	214.53	Reconciled
369438	28-JUL-16	PARKHOUSE TIRE INC	157.17	02-AUG-16	157.17	Reconciled
369439	28-JUL-16	PAULUS ENGINEERING INC	17,359.18	03-AUG-16	17,359.18	Reconciled
369440	28-JUL-16	PdMA CORPORATION	73,067.60			Negotiable
369441	28-JUL-16	PRAXAIR DISTRIBUTION INC	469.15	03-AUG-16	469.15	Reconciled
369442	28-JUL-16	PRE-PAID LEGAL SERVICES INC	1,578.90	02-AUG-16	1,578.90	Reconciled
369443	28-JUL-16	PRO MOBILE AUTO DETAILING	350.00			Negotiable
369444	28-JUL-16	PROCARE WORK INJURY CENTER	2,180.57			Negotiable
369445	28-JUL-16	PRUDENTIAL OVERALL SUPPLY	5,141.57	02-AUG-16	5,141.57	Reconciled
369446	28-JUL-16	PURDUE UNIVERSITY	3,750.00	02-AUG-16	3,750.00	Reconciled
369447	28-JUL-16	RAM AIR ENGINEERING INC	8,392.85	04-AUG-16	8,392.85	Reconciled
369448	28-JUL-16	REACH EMPLOYEE ASSISTANCE INC	940.80	01-AUG-16	940.80	Reconciled
369449	28-JUL-16	RESPONSE ENVELOPE, INC	2,963.25	04-AUG-16	2,963.25	Reconciled
369450	28-JUL-16	REYES, DANIEL	5.46			Negotiable
369451	28-JUL-16	RINCON TRUCK CENTER INC.	208.73	29-JUL-16	208.73	Reconciled
369452	28-JUL-16	ROBERT HALF INTERNATIONAL, INC.	2,221.54	01-AUG-16	2,221.54	Reconciled
369453	28-JUL-16	RS HUGHES COMPANY, INC.	1,232.27	01-AUG-16	1,232.27	Reconciled
369454	28-JUL-16	RYAN HERCO PRODUCTS CORP	1,662.35	01-AUG-16	1,662.35	Reconciled
369455	28-JUL-16	SAFETY-KLEEN SYSTEMS, INC	1,534.56	02-AUG-16	1,534.56	Reconciled

IRWD Ledger Payment Register For 01-JUL-16 To 31-JUL-16 Report Date: 05-AUG-2016 14:59  
 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								
369456		28-JUL-16	SANTA ANA BLUE PRINT		181.94	04-AUG-16	181.94	Reconciled
369457		28-JUL-16	SANTA ANA WATERSHED PROJECT AUTHORITY		21,107.00	04-AUG-16	21,107.00	Reconciled
369458		28-JUL-16	SANTA MARGARITA FORD		67.47	01-AUG-16	67.47	Reconciled
369459		28-JUL-16	SCHINDLER ELEVATOR CORPORATION		188.97	01-AUG-16	188.97	Reconciled
369460		28-JUL-16	SDC TECHNOLOGIES, INC.		1,249.76			Negotiable
369461		28-JUL-16	SECURTEC DISTRICT PATROL, INC.		1,600.00			Negotiable
369462		28-JUL-16	SHAMROCK SUPPLY CO INC		780.54	01-AUG-16	780.54	Reconciled
369463		28-JUL-16	SHAW PUMP & SUPPLY, INC.		2,687.50	04-AUG-16	2,687.50	Reconciled
369464		28-JUL-16	SHERWIN WILLIAMS COMPANY		904.48	01-AUG-16	904.48	Reconciled
369465		28-JUL-16	SHOETERIA INDUSTRIAL		7,179.39	03-AUG-16	7,179.39	Reconciled
369466		28-JUL-16	SIRIUS COMPUTER SOLUTIONS INC		59,866.46			Negotiable
369467		28-JUL-16	SNAP-ON INCORPORATED		193.31	03-AUG-16	193.31	Reconciled
369468		28-JUL-16	SONOMA APTS		3.82			Negotiable
369469		28-JUL-16	SOUTHERN CALIFORNIA EDISON COMPANY		334.00	01-AUG-16	334.00	Reconciled
369470		28-JUL-16	SOUTHERN CALIFORNIA EDISON COMPANY		25,559.95			Negotiable
369471		28-JUL-16	SOUTHERN CALIFORNIA EDISON COMPANY		149,153.27	29-JUL-16	149,153.27	Reconciled
369472		28-JUL-16	SOUTHERN CALIFORNIA SECURITY CENTERS,		135.00	04-AUG-16	135.00	Reconciled

369473	28-JUL-16	INC.			1,327.39	01-AUG-16	1,327.39	Reconciled
369474	28-JUL-16	SPX CORP			31.00			Negotiable
		STANFORD COURT						
		APARTMENTS						
369475	28-JUL-16	STANTEC CONSULTING			19,321.50			Negotiable
		SERVICES INC.						
369476	28-JUL-16	STATE BOARD OF			844.00			Negotiable
		EQUALIZATION						

IRWD Ledger  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 05-AUG-2016 14:59  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar ) Page: 23  
 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								
369477		28-JUL-16	TESTAMERICA		105.00	01-AUG-16	105.00	Reconciled
			LABORATORIES, INC					
369478		28-JUL-16	THE IRVINE COMPANY		2,058.16	01-AUG-16	2,058.16	Reconciled
			LLC					
369479		28-JUL-16	THOMPSON		923.85	01-AUG-16	923.85	Reconciled
			INDUSTRIAL SUPPLY					
369480		28-JUL-16	TIC-OFFICE		102.80	04-AUG-16	102.80	Reconciled
			PROPERTIES					
369481		28-JUL-16	TRI COUNTY PUMP		6,540.00	02-AUG-16	6,540.00	Reconciled
			COMPANY					
369482		28-JUL-16	TROPICAL PLAZA		8,108.02	01-AUG-16	8,108.02	Reconciled
			NURSERY INC					
369483		28-JUL-16	TRUCPARCO		532.34	03-AUG-16	532.34	Reconciled
369484		28-JUL-16	UNDERGROUND		1,042.50	04-AUG-16	1,042.50	Reconciled
			SERVICE ALERT OF					
			SOUTHERN					
			CALIFORNIA					
369485		28-JUL-16	UNITED SITE		152.31	02-AUG-16	152.31	Reconciled
			SERVICES OF					
			CALIFORNIA INC					
369486		28-JUL-16	UNIVAR USA INC		8,498.96	01-AUG-16	8,498.96	Reconciled
369487		28-JUL-16	US BANK NAT'L		97,260.89			Negotiable
			ASSOCIATION NORTH					
			DAKOTA					
369488		28-JUL-16	VICKI L MCDONALD		1,800.00			Negotiable
			TRUST					
369489		28-JUL-16	VWR INTERNATIONAL,		254.11	01-AUG-16	254.11	Reconciled
			LLC					
369490		28-JUL-16	WALTERS WHOLESALE		2,448.59	03-AUG-16	2,448.59	Reconciled
			ELECTRIC					
369491		28-JUL-16	WATERLINE		5,680.00	29-JUL-16	5,680.00	Reconciled
			TECHNOLOGIES INC					
369492		28-JUL-16	WAXIE'S		1,051.69	01-AUG-16	1,051.69	Reconciled
			ENTERPRISES, INC					
369493		28-JUL-16	WECK LABORATORIES		3,000.00	04-AUG-16	3,000.00	Reconciled
			INC					
369494		28-JUL-16	WOOD, LUKE		138.27			Negotiable
369495		28-JUL-16	WOODRUFF, SPRADLIN		11,571.92			Negotiable
			& SMART APC					
369496		28-JUL-16	YSI, INC		269.66	01-AUG-16	269.66	Reconciled
Payment Document Subtotal:					8,421,884.13		5,954,448.17	

IRWD Ledger  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 05-AUG-2016 14:59  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar ) Page: 24  
 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								
11602		06-JUL-16	YORK INSURANCE	PAY	8,484.74			Negotiable
			SERVICES GROUP INC					
			- CA					
11603		08-JUL-16	EMPLOYEE BENEFIT	PAY	6,854.04			Negotiable
			SPECIALIST, INC					
11604		08-JUL-16	CALPERS	SACRAMENTO	429,890.82			Negotiable
				1				
11605		11-JUL-16	U.S. BANK NATIONALPAY		7,895.16			Negotiable
			ASSOCIATION					
11606		11-JUL-16	SUMITOMO MITSUI	NEW YORK	64,469.91			Negotiable
			BANKING					
11607		11-JUL-16	SUMITOMO MITSUI	NEW YORK	1,516,983.61			Negotiable
			BANKING					
			CORPORATION					
11608		11-JUL-16	BANK OF NEW YORK	NEWARK	35,182.38			Negotiable
			MELLON TRUST					
			COMPANY NA					
11609		11-JUL-16	SUMITOMO MITSUI	NEW YORK	3,864.73			Negotiable
			BANKING					

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
11610		11-JUL-16	CORPORATION U.S. BANK NATIONALPAY ASSOCIATION		18,061.44			Negotiable
11611		11-JUL-16	BANK OF AMERICA	SAN FRANCISCO	15,504.15			Negotiable
11612		11-JUL-16	U.S. BANK NATIONALPAY ASSOCIATION		88,618.76			Negotiable
11613		11-JUL-16	BANK OF AMERICA	SAN FRANCISCO	62,356.34			Negotiable
11614		12-JUL-16	YORK INSURANCE SERVICES GROUP INC - CA	PAY	5,657.55			Negotiable
11615		13-JUL-16	INTERNAL REVENUE SERVICE	FRESNO	182,786.66			Negotiable
11616		13-JUL-16	FRANCHISE TAX BOARD	SACRAMENTO	49,447.40			Negotiable
11617		13-JUL-16	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	10,740.72			Negotiable
11618		13-JUL-16	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	500.77			Negotiable
11619		13-JUL-16	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	3,067.47			Negotiable

IRWD Ledger Payment Register For 01-JUL-16 To 31-JUL-16 Report Date: 05-AUG-2016 14:59  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 25  
 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								
11620		13-JUL-16	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	10,818.75			Negotiable
11621		13-JUL-16	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	DENVER	108,288.16			Negotiable
11622		18-JUL-16	CALPERS	SACRAMENTO	5,450,130.00			Negotiable
11623		19-JUL-16	MUNICIPAL WATER DISTRICT OF ORANGEVALLEY COUNTY	FOUNTAIN	113,513.40			Negotiable
11624		19-JUL-16	MUNICIPAL WATER DISTRICT OF ORANGEVALLEY COUNTY	FOUNTAIN	2,052,167.67			Negotiable
11625		19-JUL-16	CALPERS	SACRAMENTO	89,389.43			Negotiable
11626		20-JUL-16	INTERNAL REVENUE SERVICE	FRESNO	190,071.21			Negotiable
11627		20-JUL-16	FRANCHISE TAX BOARD	SACRAMENTO	51,794.97			Negotiable
11628		20-JUL-16	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	10,989.73			Negotiable
11629		20-JUL-16	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	500.77			Negotiable
11630		20-JUL-16	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	3,067.47			Negotiable
11631		20-JUL-16	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	11,888.66			Negotiable
11632		20-JUL-16	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	DENVER	111,872.50			Negotiable
11633		21-JUL-16	FILANC-BALFOUR BEATTY JV	ACT 4427724347	2,466,925.86			Negotiable
11634		21-JUL-16	FILANC-BALFOUR BEATTY JV	ESR 211084000	274,700.87			Negotiable
11635		26-JUL-16	YORK INSURANCE SERVICES GROUP INC - CA	PAY	15,480.69			Negotiable
11636		26-JUL-16	YORK INSURANCE SERVICES GROUP INC - CA	PAY	11,799.21			Negotiable
11637		27-JUL-16	CALPERS	SACRAMENTO	87,689.09			Negotiable
11638		28-JUL-16	PCL CONSTRUCTION, INC.	ACCT 6971821722	1,262,072.70			Negotiable
11639		28-JUL-16	PCL CONSTRUCTION, INC.	ESR 141511.1	140,230.30			Negotiable

IRWD Ledger Payment Register For 01-JUL-16 To 31-JUL-16 Report Date: 05-AUG-2016 14:59  
 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 Wire								
11640		28-JUL-16	ORANGE COUNTY WATER DISTRICT	F.V.	6,699,129.50			Negotiable

11641	28-JUL-16	CITIGROUP GLOBAL MARKETS INC.	NEW YORK	438,997.46	Negotiable
Payment Document Subtotal:				22,111,885.05	
Bank Account Subtotal :				30,533,769.18	5,954,448.17
Report Count : 613	Report Total:		30,533,769.18	5,954,448.17	

**Disbursements**

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

\$ 30,533,769.18 Disbursements  
 <22,527.47> Voids  
\$ 30,511,241.71 Total Voids and Disbursements

## Exhibit "E"

### IRWD Gov Code 53065.5 Disclosure Report

Payment or Reimbursements for Individual charges of \$100 or more per transaction for services or product received.  
01-JUL-16 to 31-JUL-16

NAME	CHECK NO.	CHECK DATE	TRANSACTION	ITEM DESCRIPTION	EXPENSE JUSTIFICATION
Bonkowski, Leslie	369005	14-Jul-16	120.66	Other(Misc)	Meeting supplies
Coria, Alex	369320	28-Jul-16	164.00	Membership/Certification	CWEA membership renewal
Figueroa, Jorge	369003	14-Jul-16	140.00	Membership/Certification	Wastewater Treatment Plant Operator Grade I certifiicator
Hankla, Jeremy	369326	28-Jul-16	172.00	Membership/Certification	CWEA Collections Systems Grade II and Plant Maintenance Grade I certification
Hoffman, Michael	369008	14-Jul-16	164.00	Membership/Certification	CWEA membership renewal
Kessler, Christian	369322	28-Jul-16	115.00	Other(Misc)	PE liscense renewal
Nelson, Mark	369007	14-Jul-16	105.00	Membership/Certification	Water Distribution Grade IV certification
Nicholson, Darin	369000	14-Jul-16	164.00	Membership/Certification	CWEA membership renewal
Nicholson, Darin	369000	14-Jul-16	170.00	Membership/Certification	Electrical/Instrumentation Grade II certification
Pfister, Ken	369004	14-Jul-16	105.00	Membership/Certification	Water Treatment Operator Grade T5 certification
Pfister, Ken	369004	14-Jul-16	155.00	Membership/Certification	Water Treatment Operator Grade T5 exam
Reed, James W	369325	28-Jul-16	271.00	Membership/Certification	Backflow certification
Willis, Andrew	368997	14-Jul-16	105.00	Membership/Certification	Water Distribution Operator Grade V certifiicator
<b>Total Amount:</b>			<b>\$1,950.66</b>		

August 22, 2016

Prepared and

submitted by: C. Compton *U*

Approved by: Paul Cook */Cook*

## CONSENT CALENDAR

### 2016 LEGISLATIVE UPDATE

#### SUMMARY:

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

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

- *AB 2087 (Levine, D-Santa Rosa)- Regional Conservation Frameworks — “OPPOSE”.*

#### BACKGROUND:

The California State Assembly and Senate returned from summer recess on August 1, 2016. With less than one month left in the 2015-2016 Regular Legislative Session, fiscal committees had until August 12 to meet and report bills to the floor. The last day for each house to pass regular session bills this year is August 31, which is the day the final legislative recess begins. The Governor has until September 30 to sign or veto legislation passed by the Legislature this session. The 2017-2018 Regular Legislative Session will begin December 5, 2016, when newly-elected members are sworn in.

A copy of the 2016 Legislative Matrix is attached as Exhibit “A”. Exhibit “B” is the “2016 Legislative Update: Links to Bill Texts,” which contains links to the bills discussed below, unless a separate exhibit is noted.

#### State Budget Update:

##### *June Revenue Numbers:*

On July 11, 2016, State Controller Betty Yee released her monthly report on the State’s finances. She announced that July revenues came in \$524.4 million or 3.1 percent lower than projections. Despite three straight months of lower revenues, the State took in more revenue than anticipated during Fiscal Year 2015-2016, but fell \$678.8 million short of the estimates contained in the Governor’s May Revision.

With regard to the State’s financial position as of June 30, the Controller stated that:

“California did not have to pursue external borrowing in 2015-16. California did end the fiscal year with \$646.2 million in internal borrowing, which was \$896.2 million less than May Revision expectations. The [S]tate ended the fiscal year without a positive cash balance for the first time since FY 2012-13.”

2016 State Legislation:

*AB 2087 (Levine, D-Santa Rosa) — Regional Conservation Frameworks:*

AB 2087, authored by Assembly Water, Parks and Wildlife Chairman Marc Levine (D-Santa Rosa), would authorize the California Department of Fish and Wildlife (DFW) and other public agencies to develop “regional conservation frameworks.” As stated in the bill, the purpose of a regional conservation framework is “to inform actions that would advance conservation of focal species, habitat, and other natural resources and to provide voluntary guidance for one or more of the following:”

- Identification of wildlife and habitat conservation priorities;
- Investments in ecological resource conservation;
- Infrastructure planning;
- Identification of conservation priorities for land use planning; and
- Identification of priority locations for compensatory mitigation for impacts to species and natural resources.

While the author has stated that regional conservation frameworks are to be non-regulatory and voluntary, the intent behind the bill is to establish a new statewide species and habitat protection program. As of the writing of this report, amendments that would protect landowners, clarifying amendments related to how species and habitat mitigation are to be selected within the frameworks, and changes to make the proposal consistent with the California Endangered Species Act and the California Environmental Quality Act have been rejected. Due to the rejection of these amendments and other reasons, the building industry and large scale solar have opposed the bill.

On August 4, 2016, the Administration released significant revisions it is seeking to the bill. These revisions do not address the concerns raised by opponents and may result in a less clear and legally inconsistent measure. There has also been a suggestion from the Administration that the bill may be limited to state agencies only, leading the opposition to believe that the Administration’s concern is for the high-speed rail and Delta tunnels, as opposed to general areas of the state.

Based on IRWD’s interest in and strong support for regional conservation planning, staff has reviewed the bill in print and the amendments proposed by the Administration. Overall, the bill proposes a vast expansion of authority for the DFW through regional conservation frameworks while stating that it does not expand DFW’s authority. But given existing conservation planning tools such as mitigation and conservation banking and the Natural Communities Conservation Planning (NCCP) Act, any new authority appears to be unnecessary to accomplish the bill’s stated goal of encouraging greater regional conservation planning. Additionally, IRWD staff has identified the follow concerns:

- Lack of Clarity and Definition Related to the Role of Regional Conservation Frameworks- Many provisions in the bill are either inconsistent or poorly defined how regional conservation frameworks will work. For example, the bill does not recognize

that an established NCCP should govern mitigation and development activities within a region if such a plan has been adopted instead of any newly proposed framework;

- Lack of Appropriate Checks and Balances- The proposal also lacks the appropriate checks and balances on the development of regional conservation frameworks including failing to require sufficient opportunities for an appropriate level of public participation in the development of a regional conservation framework, consultation with local agencies, and failing to require that established thresholds for mandatory mitigation be followed. Furthermore, the bill does not provide sufficient checks and balances on DFW because the department is given the authority to both establish and approve its own regional conservation framework without having to gain concurrence from local agencies or property owners; and
- Lack of Sufficient Protections for Public and Private Landowners- There is no provision in the bill that protects landowners if they do not want to have their land included in the framework, and there is no guarantee, if it is included, that property/development rights would not be impacted.

The bill has been and continues to be opposed by the Republicans, but as a majority vote bill with Administration support, is likely to pass unless a strong coalition against it can persuade the author and Administration to limit or hold the bill over until next year. Staff continues to monitor the discussions surrounding AB 2087, and with the concurrence of the Water Resources Policy and Communications Committee has communicated the District's concerns on AB 2087. Given the issues discussed above, staff recommends that the Board adopt an "oppose" position on AB 2087.

*AB 2909 (Levine, D-Santa Rosa) — Water: Transfer or Exchange: Expedited Review:*

On June 21, 2016, Chairman Marc Levine gutted and amended AB 2909. As amended, AB 2909 would require the State Board and the Department of Water Resources to develop and implement an expedited 30-day review process for approval of environmentally beneficial reoccurring water transfers or exchanges.

Upon review of the amendments, staff noted that transfers to facilitate groundwater conjunctive use or storage programs, thereby reducing competition for surface water supplies during droughts and supply interruptions, were not listed as environmentally beneficial transfers qualifying for expedited review. Staff raised this issue with Chairman Levine's staff and asked that they consider an amendment to list these types of transfers in their bill. Given the amendments IRWD had requested, IRWD adopted a "support if amended" position on AB 2909.

Over the summer recess, staff received word from Chairman Levine's office that, due to concerns within the environmental community, AB 2909 would be amended to remove all references to "environmentally beneficial transfers" and would simply require a 30-day expedited review process for reoccurring transfers. As of the writing of this report, the amendments have yet to be inserted into the bill. AB 2909 was held on the Senate Appropriations Suspense File on August 11 and will not move forward this year

*SB 1298 (Hertzberg, D-Van Nuys)— Local Government: Fees and Charges:*

On June 13, 2016, Senator Bob Hertzberg (D-Van Nuys) gutted and amended SB 1298 inserting the Water Foundation's water and sewer rate proposal into the bill. As gutted and amended, SB 1298 would have:

- Defined the proportional cost of service attributable to a parcel so that it includes low income rate subsidization ("life line rates");
- Defined sewer service consistent with the Public Utilities Code; and
- Authorized agencies to charge, in addition to any property-related fee or charge imposed pursuant to Article XIII D of the California Constitution for water service, a separate and distinct conservation and efficiency fee to create price signals to encourage conservation and encourage increased efficiency in the use of water.

On June 27, Senator Hertzberg's staff announced further amendments to SB 1298. The amendments removed all portions of the bill related to lifeline rates and all of the tiered water rate provisions. These amendments retained an authorization to fund stormwater management as a sewer service charge by defining sewer service, and proposed to add a definition of the "proportional cost of service attributable to the parcel" to state law.

IRWD legal counsel and staff identified a number of issues related to the proposed definition of "proportional cost of service attributable to the parcel." As a result, staff and counsel communicated these concerns to the Water Foundation and Senator Hertzberg's staff. Upon hearing from the District and other water agencies, Senator Hertzberg agreed to remove the proposed definition from the bill, and the amendments were placed into the bill on August 11.

IRWD had taken a "concerned" position on SB 1298 and authorized staff to communicate the District's concern over any water rate legislation which is not consistent with the California Constitution, voluntary in nature, or provide sufficient clarity or flexibility to water agencies. As authorized by the Board, staff will continue to work with interested parties on issues related to tiered water rates.

Other State Actions:

*Little Hoover Commission Study of Special Districts:*

The Little Hoover Commission has announced that it will begin a new examination of California special districts. The study will focus on the formation and operations of special districts, and focus on enhancing the performance of special districts within their role as service providers. Many observers believe that the new examination will be a follow-up to the Commission's 2000 report on special districts entitled *Special Districts: Relics of the Past or Resources for the Future?* That study included recommendations to encourage district consolidation, transparency, accountability, and more prudent management of financial reserves. Additionally, the 2000 study recommended limiting special district ability to collect both fees and property taxes.

Staff has been working and will continue to work with the District's association and industry partners to communicate what special districts have accomplished over the last 16 years in the areas of transparency, policy and financial management.

The Commission will hold its first hearing for the new study on August 25 and a second hearing on October 27. Among the special districts to be examined are health care districts and fire districts, though IRWD remains concerned about additional scrutiny of enterprise special districts.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on August 11, 2016.

RECOMMENDATION:

THAT THE BOARD ADOPT AN "OPPOSE" POSITION ON AB 2087 (LEVINE).

LIST OF EXHIBITS:

Exhibit "A" – IRWD Legislative Matrix

Exhibit "B" – 2016 Legislative Update Report: Links to Bill Texts

**EXHIBIT "A"**  
**IRWD 2016 LEGISLATIVE MATRIX**  
**Updated 08/05/2016**

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
<b>AB 12</b> Cooley (D)	State Government: Administrative Regulations: Review		Requires each state agency after a noticed public hearing, to review the agency's regulations, identify any regulations that are duplicative, overlapping, inconsistent, or out of date, to revise those identified regulations, and report to the Legislature and Governor.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
<b>AB 45</b> Mullin (D)	Household Hazardous Waste		Requires the Department of Resources Recycling to adopt model ordinance for a comprehensive program for the collection of household hazardous waste. Authorizes a local jurisdiction proposing to enact an ordinance for the collection and diversion of such waste to adopt a Department model. Requires a determination as to whether a nonprofit organization has been created and funded to make grants to local entities for purposes related to the disposal of such waste.	06/29/2016 - In SENATE Committee on ENVIRONMENTAL QUALITY: Heard, remains in Committee.
<b>AB 259</b> Dababneh (D)	Personal Information Privacy		Requires an agency, if the agency was the source of the breach and the breach compromised a person's social security number, driver's license number, or California identification card number, to offer to provide the person with identity theft prevention and mitigation services at no cost for not less than 12 months.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
<b>AB 291</b> Atkins (D)	Tribal Gaming: Compact Ratification		Ratifies the tribal-state gaming compact entered into between the State and the Barona Band of Mission Indians, executed on a specified date. Provides that, in deference to tribal sovereignty, certain actions are not projects for the purposes of CEQA.	08/03/2016 - From SENATE Committee on ENVIRONMENTAL QUALITY with author's amendments.;08/03/2016 - In SENATE. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL QUALITY.
<b>AB 453</b> Salas (D)	Groundwater: Semitropic Water Storage District		Authorizes, until a groundwater sustainability plan is adopted, a local agency that has adopted a groundwater management plan to impose fees on the extraction of groundwater from a groundwater basin to fund costs of groundwater management and to collect groundwater extraction information, as long as a groundwater management plan adopted before a specified date, is in effect. Authorizes the Semitropic Water Storage District to impose fees and collect groundwater extraction information.	06/15/2016 - In SENATE. Read second time. To third reading.
<b>AB 577</b> Bonilla (D)	Biomethane: Grant Program		Requires the development and implementation of a grant program to award grants for projects that produce biomethane, that build or develop collection and purification technology or infrastructure, or that upgrade or expand existing biomethane facilities. Authorizes moneys in the	09/11/2015 - Re-referred to SENATE Committee on RULES.

**IRWD 2016 LEGISLATIVE MATRIX**  
**Updated 08/05/2016**

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
			Greenhouse Gas Reduction Fund to be used to fund grants awarded under the program.	
<b>AB 590</b> Dahle (R)	Greenhouse Gas Reduction Fund		Provides that moneys in the Greenhouse Gas Reduction Fund account may be made available for expenditure by the State Energy Resources Conservation and Development Commission for maintaining the current level of biomass power generation or geothermal energy generation in the State and revitalizing currently idle facilities in strategically located regions. Establishes requirements for an applicant to receive available funding for a facility's eligible electrical generation.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
<b>AB 615</b> Rendon (D)	Office of Sustainable Water Solutions: Assistance		Amends existing law that establishes the Office of Sustainable Water Solutions to promote permanent and sustainable drinking water and wastewater treatment solutions to ensure the effective and efficient provision of safe, clean, affordable, and reliable drinking water and wastewater treatment services and authorizes the office to provide technical assistance to disadvantaged communities and small drinking water systems and wastewater systems. Specifies the technical assistance that may be provided.	06/18/2015 - To SENATE Committee on ENVIRONMENTAL QUALITY.
<b>AB 647</b> Eggman (D)	Beneficial Use: Storing of Water Underground		Declares that the diversion of water to underground storage constitutes a beneficial use of water if the water so stored is thereafter applied to the beneficial purposes for which the appropriation for storage was made, or if the water is so stored consistent with a sustainable groundwater management plan, statutory authority to conduct groundwater recharge, or a judicial decree and is for specified purposes. Requires applying for a permit or petition for a change. Requires including specified conditions.	06/30/2015 - From SENATE Committee on NATURAL RESOURCES AND WATER with author's amendments.;06/30/2015 - In SENATE. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES AND WATER.
<b>AB 723</b> Chiu (D)	Rental Property: Plumbing Fixtures: Replacement		Requires the lease or rental agreement of a single-family residential real property or any portion of a multifamily residential real property or commercial real property that is entered into, renewed, or amended, be accompanied by a disclosure stating the property owner's responsibility to replace all noncompliant plumbing fixtures with water-conserving plumbing fixtures.	08/04/2016 - Re-referred to SENATE Committee on TRANSPORTATION AND HOUSING.;08/04/2016 - From SENATE Committee on TRANSPORTATION AND HOUSING with author's amendments.;08/04/2016 - In SENATE. Read second time and amended. Re-referred to Committee on TRANS

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<b>AB 935</b> Salas (D)	Water Projects		Requires, upon appropriation by the Legislature, the Department of Water Resources to provide funding for certain projects, provided that certain conditions are met.	09/10/2015 - In SENATE. From third reading. To Inactive File.
<b>AB 937</b> Salas (D)	Groundwater Plan/Assistance; Disadvantaged Communities		Requires the Department of Water Resources to provide technical assistance to disadvantaged communities so that they may participate in groundwater planning, including planning for regional groundwater banking, with any county or other local agency.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
<b>AB 938</b> Rodriguez (D)	Sustainable Groundwater Management Act: Basins		Amends the Sustainable Groundwater Management Act. Authorizes a watermaster or local agency administering an adjudicated basin to elect that the basin be subject to the provisions of the Act. Authorizes a court with jurisdiction over the basin to issue and order to set a hearing to determine if the basin shall be subject to the Act. Requires written notice to the Department of Water Resources that the basin is subject to the Act. Requires the notice to be posted on the Department's Web site.	03/09/2016 - From SENATE Committee on NATURAL RESOURCES AND WATER with author's amendments.;03/09/2016 - In SENATE. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES AND WATER.
<b>AB 954</b> Mathis (R)	Water and Wastewater Loan and Grant Pilot Program		Creates the Water and Wastewater Loan and Grant Program. Require the State Water Resources Control Board to establish a pilot program to provide low-interest loans and grants to local agencies for grants to eligible individual homeowners for purposes relating to drinking water and wastewater treatment. Creates a related fund for use under the program. Transfers a specified amount of funds from the General Fund to the fund.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
<b>AB 1144</b> Rendon (D)	Renewables Portfolio Standard Program: Credits		Provides that renewable energy credits may be used to meet certain portfolio content requirements if the credits are earned by electricity that is generated by an entity that would be excluded from the definition of an electrical corporation by operation of the exclusions for entities employing landfill or digester gas technology that meets certain requirements, including that the electricity is used at a wastewater treatment facility. Prohibits certain marketing claims.	08/17/2015 - From SENATE Committee on APPROPRIATIONS with author's amendments.;08/17/2015 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<b>AB 1173</b> Williams (D)	Water Equipment: Backflow Prevention Devices Testing		Requires, if a local health officer does not maintain a program for certificate of backflow prevention device testers, the testing and maintenance of such device be performed by a person who has received a California-specific certification for such devices from one of the specified entities or a similar certification provider deemed acceptable by the State Water Resources Control Board.	07/14/2015 - In SENATE Committee on ENVIRONMENTAL QUALITY: Not heard.

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<b><u>AB 1201</u></b> Salas (D)	Delta: Predation by Nonnative Species	Support	Requires the State Department of Fish and Wildlife to develop a science-based plan that addresses predation by nonnative species upon species of fish listed pursuant to the State Endangered Species Act that reside all or a portion of their lives in the Sacramento-San Joaquin Delta and that considers predation reduction for all Chinook salmon and other native species not listed pursuant to the Act. Provides for input from the scientific community, water users and fishing communities.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
<b><u>AB 1242</u></b> Gray (D)	Water Quality and Storage		Provides provisions of law requiring a specified increase in statewide water storage capacity, and updating water strategies and implementation plans. Requires the Water Resources Control Board, in formulating policy for water quality control and adopting or approving a water quality control plan for the Sacramento-San Joaquin Delta, to take into consideration any applicable groundwater sustainability plan or alternative and available information on impacts of groundwater use and beneficial uses of water.	09/02/2015 - In SENATE. Read second time. To third reading.;09/02/2015 - Re-referred to SENATE Committee on RULES.
<b><u>AB 1550</u></b> Gomez (D)	Greenhouse Gases: Investment Plan: Communities		Relates to greenhouse gases and investments in communities. Requires the Greenhouse Investment Fund plan to allocate a minimum percentage of the available moneys in the Greenhouse Gas Reduction Fund to projects located within disadvantaged communities and a minimum percentage to projects that benefit low-income households or to projects located within low-income communities.	08/02/2016 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<b><u>AB 1586</u></b> Mathis (R)	Environmental Quality Act: Temperance Flat Reservoir		Prohibits the court, in an action or proceeding alleging a violation of the California Environmental Quality Act, from staying or enjoining the construction or operation of the Temperance Flat Reservoir unless the court makes certain findings.	04/04/2016 - In ASSEMBLY Committee on NATURAL RESOURCES: Failed passage.;04/04/2016 - In ASSEMBLY Committee on NATURAL RESOURCES: Reconsideration granted.
<b><u>AB 1587</u></b> Mathis (R)	Groundwater		Requires, in implementing competitive grants under the Water Quality, Supply, and Infrastructure Improvement Act of 2014, for projects that develop and implement groundwater planning requirements, special consideration be given to those projects that would create groundwater recharge basins in areas of fallow farmland. Appropriates a specified amount of funding from the proceeds of the Act for the purposes of the grant program.	05/27/2016 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<b><u>AB 1588</u></b> Mathis (R)	Water and Wastewater Loan and Grant Program		Requires the State Water Resources Control Board to establish a program to provide funding to counties to award low-interest loans and grants to	08/01/2016 - In SENATE Committee on APPROPRIATIONS: To Suspense File.

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			eligible applicants for specified purposes relating to drinking water and wastewater treatment. Authorizes a county to apply for such funds. Creates the Water and Wastewater Loan and Grant Fund and provides the moneys in this fund are available to the Board to administer and implement the program. Transfers funds from the General Fund to the loan and grant fund.	
<b>AB 1589</b> Mathis (R)	Environmental Quality Act: Exemption:Drought Mitigation		Exempts from the requirements of the California Environmental Quality Act, for the duration of a state of emergency proclaimed by the Governor due to drought conditions, certain projects that are undertaken, carried out, or approved by a public agency to mitigate those drought conditions.	04/04/2016 - In ASSEMBLY Committee on NATURAL RESOURCES: Failed passage.;04/04/2016 - In ASSEMBLY Committee on NATURAL RESOURCES: Reconsideration granted.
<b>AB 1590</b> Mathis (R)	State Water Resources Control Board: Appointments		Requires that additional members be appointed to the State Water Resources Control Board by the Legislature. Requires that vacancies be immediately filled by the appointing power.	03/10/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/10/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE.
<b>AB 1647</b> Waldron (R)	Environmental Quality: Water Storage Facilities		Exempts from the Environmental Quality Act a project to expand the storage capacity of an existing surface water storage facility, or to replace an existing surface water storage facility, that is owned and operated by a public entity if that public entity adopts, by resolution, findings and declarations that the project meets specified criteria.	04/04/2016 - In ASSEMBLY Committee on NATURAL RESOURCES: Not heard.
<b>AB 1649</b> Salas (D)	State Water Policy: Storage: Joint Powers Authorities		Requires the Department of Water Resources to develop a State water policy giving priority to the formation of joint powers authorities to address critical surface water storage needs and to funding of surface water projects. Provides that specified projects will meet statewide goals and provide specified public benefits to the greatest extent.	06/28/2016 - In SENATE Committee on NATURAL RESOURCES AND WATER: Failed passage.;06/28/2016 - In SENATE Committee on NATURAL RESOURCES AND WATER: Reconsideration granted.
<b>AB 1694</b> Lackey (R)	Grant Program for School Drinking Water		Requires the State Water Resources Control Board to establish a grant program for grants to public elementary and secondary schools to improve access to, and the quality of drinking water. Specifies various types of projects for which the grants could be awarded. Provides the priority for such grants. Requires the establishment of grant application procedures. Appropriates funds therefor. Provides such funds would supplement not supplant other state funds apportioned to these local agencies.	03/31/2016 - Re-referred to ASSEMBLY Committees on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS and EDUCATION.

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<b><u>AB 1704</u></b> Dodd (D)	Water Rights: Irrigation: Lake or Streambed Agreements		Allows for a water use registrant to construct a facility to store water for small irrigation use during periods of high streamflow in exchange for the registrant reducing diversions during periods of low streamflow. Authorizes the issuance and renewal of registrations on those streamflow segments if the registration is consistent with applicable streamflow requirements. Relates updated procedures governing the diversion of water and notification of proposed registration.	08/01/2016 - In SENATE Committee on APPROPRIATIONS: To Suspense File.
<b><u>AB 1713</u></b> Eggman (D)	Sacramento-San Joaquin Delta: Peripheral Canal	Oppose	Prohibits the construction of a peripheral canal in the Sacramento-San Joaquin Delta unless expressly authorized by an initiative voted on by the voters of California, and requires the Legislative Analyst's Office to complete a prescribed economic feasibility analysis prior to a vote authorizing the construction of a peripheral canal.	05/27/2016 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<b><u>AB 1738</u></b> McCarty (D)	Building Standards: Dark Graywater		Defines dark graywater as a specified wastewater that comes from kitchen sinks and dishwashers. Requires the Department of Housing and Community Development, at the next triennial building standards rulemaking cycle, to develop and submit for approval building standards for the construction, installation, and alteration of dark graywater systems for indoor and outdoor uses.	06/21/2016 - From SENATE Committee on TRANSPORTATION AND HOUSING: Do pass to Committee on ENVIRONMENTAL SAFETY.
<b><u>AB 1749</u></b> Mathis (R)	Environmental Quality Act: Exemption: Porterville		Amends the California Environmental Quality Act which exempts projects that provide for the expansion of recycled water pipeline and directly related infrastructure within existing rights of way, and directly related groundwater replenishment, if the project does not affect wetlands or sensitive habitat where construction impacts are mitigated and undertaken to mitigate drought conditions for which an emergency was proclaimed. Exempts a water treatment project in the City of Porterville.	08/01/2016 - From SENATE Committee on ENVIRONMENTAL QUALITY with author's amendments.;08/01/2016 - In SENATE. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL QUALITY.
<b><u>AB 1755</u></b> Dodd (D)	Open and Transparent Water Data Act		Enacts the Open and Transparent Water Data Act. Requires the Department of Water Resources to create, operate, and maintain a statewide integrated water data platform that integrates existing water and ecological data information from multiple databases and provide data on completed water transfers and exchanges. Creates a related fund to provide money to specified entities for the improvement of water data or for certain other purposes of the Act.	08/01/2016 - From SENATE Committee on APPROPRIATIONS with author's amendments.;08/01/2016 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.;08/01/2016 - In SENATE Committee on APPROPRIATIONS: To Suspense File.

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<b><u>AB 1773</u></b> Oberholte (R)	Local Government Renewable Energy Program		Amends existing law that authorizes a local governmental entity to receive a bill credit to a designated benefiting account, for electricity exported to the electrical grid by an eligible renewable generating facility. Includes as a local governmental entity for this purpose a joint powers authority.	08/02/2016 - In SENATE. Read second time. To third reading.
<b><u>AB 1815</u></b> Alejo (D)	Global Warming Solutions Act of 2006		Requires the Environmental Protection Agency to establish a comprehensive technical assistance program, upon the appropriation of moneys from the Greenhouse Gas Reduction Fund, for eligible applicants assisting eligible communities. Requires the Agency to provide technical assistance to communities based on a specified priority. Requires the Department of Finance to include in a specified investment plan an allocation to the Agency for the technical assistance program.	05/27/2016 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<b><u>AB 1842</u></b> Levine (D)	Water: Pollution: Fines		Relates to discharge of various pollutants into the waters of the state. Imposes an additional civil penalty for each gallon or pound of material discharged. Requires that the civil penalty be reduced for every gallon or pound of the illegally discharged material that is recovered and properly disposed of by the responsible party. Prohibits a person from being subject to multiple civil penalties for the same act or failure to act. Relates to the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act.	08/02/2016 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<b><u>AB 1866</u></b> Wilk (R)	High-Speed Rail Bond Proceeds: Water Projects		Provides that no further bonds shall be sold for high-speed rail purposes pursuant to the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century, except as specifically provided with respect to an existing appropriation for high-speed rail purposes for early improvement projects. Requires redirection of the unspent proceeds received from outstanding bonds issued for other high-speed rail purposes to fund capital expenditures for water projects.	04/11/2016 - In ASSEMBLY Committee on TRANSPORTATION: Failed passage.;04/11/2016 - In ASSEMBLY Committee on TRANSPORTATION: Reconsideration granted.
<b><u>AB 1871</u></b> Waldron (R)	Coastal Resources: Development: Water Supply Projects		Limits the growth-inducing impacts the Coastal Commission may consider in its review of a coastal development permit for a water supply project.	03/18/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/18/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<b><u>AB 1882</u></b> Williams (D)	Oil and Gas: Groundwater Monitoring		Requires the Division of Oil, Gas, and Geothermal Resources to provide an opportunity and the information necessary for the State Water Resources Control Board and the appropriate regional water quality	05/27/2016 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.

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			control board to review, comment on, and propose additional requirements for Class II underground injection well projects.	
<b><u>AB 1925</u></b> Chang (R)	Desalination: Statewide Goal		Requires the State Department of Water Resources to establish a goal of a specific number of acre-feet of drinking water to be desalinated per year by a specified year and a greater number of acre-feet by a later year, as part of a comprehensive water plan that fully evaluates other, specified options.	05/04/2016 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard.
<b><u>AB 1928</u></b> Campos (D)	Water Efficiency Landscape Irrigation Equipment		Postpones the date by which the Resources Conservation and Development Commission is to adopt the performance standards and labeling requirements for landscape irrigation equipment prohibit the sale of that equipment unless it meets the performance standards and labeling requirements.	08/01/2016 - In SENATE Committee on APPROPRIATIONS: To Suspense File.
<b><u>AB 1986</u></b> Wilk (R)	Water Resources: Permit to Appropriate: Application		Requires, if the State Water Resources Control Board has not rendered a final determination on an application for a permit to appropriate water within a specified time period from the date the application to appropriate water was filed, the Board to issue a notice and provide an opportunity for protests before rendering a final determination.	05/27/2016 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<b><u>AB 1989</u></b> Jones (R)	Water and Greenhouse Gas Emissions Reduction		Requires the State Water Resources Control Board to develop and implement a grant and low-interest loan program for water projects that result in the net reduction of water-related greenhouse gas emissions.	05/27/2016 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<b><u>AB 2022</u></b> Gordon (D)	Advanced Purified Demonstration Water	Support	Authorizes the operator of an advanced purified demonstration water facility to cause the advanced purified demonstration water to be bottled and distributed as samples for educational purposes and to promote water recycling. Prohibits the advanced purified demonstration water in each bottle from exceeding a specified amount. Prohibits the water from being distributed unless it meets or is superior to all federal and state drinking water standards. Requires a recycling program for distributed bottles.	08/03/2016 - In SENATE. Read second time. To third reading.
<b><u>AB 2040</u></b> Melendez (R)	Outdoor Water Efficiency Act of 2016: Tax Credits		Allows, under the Personal Income Tax Law, a credit for a percentage of the amount paid or incurred by a qualified taxpayer for water-efficiency improvements on qualified real property in the State. Limits the cumulative amount for each qualifying property. Requires the amount of the credit to be multiplied. Requires the taxpayer to obtain and retain a	05/27/2016 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.

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			certification of the improvements from the appropriate water agency and to provide a copy of same to the Franchise Tax Board upon request.	
<b><u>AB 2076</u></b> Garcia (D)	Water and Energy Use Efficiency: Breweries		Requires the Department of Water Resources to develop water and energy use efficiency certification guidelines for the production of beer that includes certification seals. Requires the Department of Alcoholic Beverage Control to consult in label design and approval for the use of a seal on a beer bottle. Provides the procedures for the application of certification of a brewery. Requires the submission of a certification fee.	04/11/2016 - Re-referred to ASSEMBLY Committees on WATER, PARKS AND WILDLIFE and GOVERNMENTAL ORGANIZATION.
<b><u>AB 2099</u></b> Stone (D)	Safe Drinking Water Benefit		Requires the State Department of Social Services to convene a workgroup to develop recommendations for delivering a water benefit to supplement that purchase of drinking water for low-income households with inadequate access to safe drinking water. Requires a plan for identification of eligible households and the delivery of the benefit to those households. Requires the submission of a report with the recommendations to specified entities.	08/01/2016 - In SENATE Committee on APPROPRIATIONS: Not heard.
<b><u>AB 2257</u></b> Maienschein (R)	Local Agency Meeting: Agenda: Online Posting		Amends the Ralph M. Brown Act, which enables the legislative body of a local agency to call both regular and special meetings. Requires online meeting agendas of specified legislative bodies to be posted on the agency's Web site homepage accessible through a direct link. Provides the requirements that exempts those legislative bodies from this requirement. Relates to integrated agenda management. Defines terms for these purposes.	08/02/2016 - In SENATE. Read second time. To third reading.
<b><u>AB 2292</u></b> Gordon (D)	Global Warming Solutions Act: Disadvantaged Communities		Requires the State Environmental Protection Agency to update the State Communities Environmental Health Screening Tool that identifies disadvantaged communities regarding the monitoring and regulation of sources of emissions of greenhouse gases, when it comes to investment opportunities in the multiyear investment plan for moneys in the Greenhouse Gas Reduction Fund.	05/27/2016 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<b><u>AB 2304</u></b> Levine (D)	State Water Market Clearinghouse	Seek Amendments	Establishes the State Water Market Clearinghouse within the Natural Resources Agency for making the water transfer and exchange process more transparent and more efficient and to enhance access to voluntary water market transactions. Requires a water market platform on the Clearinghouse's Internet Web site regarding water transfer or exchange.	05/25/2016 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard.

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			Requires convening a related task force, and requires the Clearinghouse to consider and act on the recommendations regarding transfers or exchanges.	
<b>AB 2389</b> Ridley-Thomas S (D)	Special Districts: District-Based Elections		Amends existing law relating to special districts, district-based elections and reapportionment. Authorizes a governing body of a special district, to require, by resolution, the election of the members of its governing body be elected using district-based elections without being required to submit the resolution to the voters for approval. Requires the resolution to include a declaration that the change in the method of election is being made in furtherance of the purposes of the Voting Rights Act of 2001.	06/30/2016 - In SENATE. Read second time. To third reading.
<b>AB 2438</b> Waldron (R)	Environmental Quality Act		Relates to the Environmental Quality Act (CEQA). Exempts from CEQA a project for the construction and installation of a new pipeline or the maintenance, repair, restoration, reconditioning, relocation, replacement, removal, or demolition of an existing pipeline for the distribution of recycled water within a public street, highway, or right-of-way. Requires a public hearing.	06/29/2016 - In SENATE Committee on ENVIRONMENTAL QUALITY: Failed passage.;06/29/2016 - In SENATE Committee on ENVIRONMENTAL QUALITY: Reconsideration granted.
<b>AB 2444</b> Garcia E (D)	Water, Climate, Coastal Protection and Outdoor Access		Enacts the California Parks, Water, Climate, and Coastal Protection and Outdoor Access for All Act of 2016 which would authorize the issuance of bonds in an unspecified amount pursuant to the State General Obligation Bond Law to finance a water, climate, and coastal protection and outdoor access for all program.	08/01/2016 - From SENATE Committee on APPROPRIATIONS with author's amendments.;08/01/2016 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.;08/01/2016 - In SENATE Committee on APPROPRIATIONS: To Suspense File.
<b>AB 2446</b> Gordon (D)	State Water Resources Control Board: Judicial Review		Updates provisions regarding the issuance of a order by the State Water Resources Control Board and an aggrieved party petitioning the superior court for a writ of mandate for review of a decision or order issued by the Board. Provides that a decision or order under the Safe Drinking Water Act by the Board is not subject to court review if no aggrieved party petitions for such writ within a specified time period after a service of a copy of the order or decision issued by the Board.	08/02/2016 - In SENATE. Read second time. To third reading.
<b>AB 2456</b> Cooley (D)	Public Employee Retirement Benefits: Prefunding		Requires the Board of Administration of the Public Employee's Retirement System to develop, establish, and administer the State Employer's Pension Prefunding Trust Program in order to encourage State and local public	03/17/2016 - To ASSEMBLY Committee on PUBLIC EMPLOYEES, RETIREMENT AND SOCIAL SECURITY.;03/17/2016 - From ASSEMBLY Committee on PUBLIC

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			employers that provide a defined benefit pension plan to their employees to effectively manage their pension contributions.	EMPLOYEES, RETIREMENT AND SOCIAL SECURITY with author's amendments.;03/17/2016 - In ASSEMBLY. Read second time and amen
<b>AB 2468</b> Hadley (R)	Public Employees' Retirement System		Authorizes a public agency that has contracted with the Board of Administration of PERS to offer an alternative formula from that required by the California Public Employees Pension Reform Act to be applicable to certain miscellaneous, nonsafety employees, if specified contingencies are satisfied. Requires that such employees who are not new members, that were employed by a public employer that did not contract with PERS until a specified date, be covered by a default benefit formula.	04/12/2016 - From ASSEMBLY Committee on PUBLIC EMPLOYEES, RETIREMENT AND SOCIAL SECURITY with author's amendments.;04/12/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on PUBLIC EMPLOYEES, RETIREMENT AND SOCIAL SECURITY.
<b>AB 2480</b> Bloom (D)	Source Watersheds: Financing		Declares state policy concerning source watersheds. States the importance of maintaining the reliability the State's water supply as climate change advances. Requires the maintenance and repair of certain watersheds to receive financing consideration on the same basis as certain water collection and treatment infrastructure. Specifies that certain activities are limited to specified forest ecosystem restoration and conservation activities.	08/01/2016 - From SENATE Committee on APPROPRIATIONS with author's amendments.;08/01/2016 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.;08/01/2016 - In SENATE Committee on APPROPRIATIONS: To Suspense File.
<b>AB 2488</b> Dababneh (D)	Protected Species: Stickleback: Possession	Support	Permits the Department of Fish and Wildlife to authorize, under the State Endangered Species Act, the take of unarmored threespine stickleback attributable to the periodic dewatering, inspection, maintenance, modification, or repair of the Metropolitan Water District of Southern California's Foothill Feeder water supply facility from Castaic Dam to the Joseph Jensen Treatment Plant in the County of Los Angeles, if certain conditions are satisfied. Requires certain reporting by the District.	08/02/2016 - In SENATE. Read second time. To third reading.
<b>AB 2515</b> Weber (D)	Water Conservation in Landscaping Act		Requires the Department of Water Resources to either update the model water-efficient landscaping ordinance or make a finding that an update to such ordinance at that time is not a useful or effective means to improve the efficiency of landscape water use or the administrative of the ordinance. Requires the Department to submit an update to the Building Standards Commission during the triennial revision process of the State Green Building Standards Code.	08/01/2016 - In SENATE Committee on APPROPRIATIONS: To Suspense File.
<b>AB 2550</b> Patterson (R)	Instream Flow Curtailments and Compensation		Requires the State Water Resources Control Board to financially compensate a person who is unable to divert the full amount of water	03/08/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.

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			authorized under his or her permit or license due to a board-issued instream flow curtailment, and a person who is required to file a statement of diversion and use is unable to divert the same amount of water in the succeeding year due to a board-issued instream flow curtailment.	
<b><u>AB 2551</u></b> Gallagher (R)	Contract Procurement: Surface Storage Projects		Allows a local agency to use the construction manager at-risk, design-build, or design-build operate method of delivery on a surface storage project. Requires such contracts to be awarded on the best value basis or to the lowest responsible bidder. Establishes a procurement process for these contracts. Provides reasons which would prohibit a contracting entity from being prequalified or short-listed.	08/03/2016 - From SENATE Committee on APPROPRIATIONS with author's amendments.;08/03/2016 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<b><u>AB 2555</u></b> Levine (D)	Building Standards: Water Conserving Plumbing Fixtures		Requires the State Building Standards Commission to develop regulations and mandatory building standards for the installation of water conserving plumbing fixtures in existing nonresidential and public buildings, including installation in all nonresidential buildings by a specified date.	06/22/2016 - Withdrawn from SENATE Committee on NATURAL RESOURCES AND WATER.;06/22/2016 - Re-referred to SENATE Committee on RULES.;06/22/2016 - Re-referred to SENATE Committee on TRANSPORTATION AND HOUSING.
<b><u>AB 2578</u></b> Bigelow (R)	Environmental Quality Act: Exemptions: Water Service		Exempts from the requirements of the California Environmental Quality Act, a project within a public street or highway or other public right-of-way for the maintenance, repair, restoration, reconditioning, relocation, replacement, removal or demolition of an existing water distribution pipeline to address water leakage. Exempts activities undertaken by a local agency in response to a drought to acquire water supplies, extend service, or provide water for drinking and sanitation.	03/18/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/18/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<b><u>AB 2583</u></b> Frazier (D)	Sacramento-San Joaquin Delta Reform Act of 2009	Oppose	Relates to the Sacramento-San Joaquin Delta Reform Act of 2009, the Delta Stewardship Council, the Delta Plan and the California Water Fix. Provides that the new Delta water conveyance infrastructure is interdependent parts of a system. Amends the point of diversion to a point on the Sacramento River. Prohibits construction of a new Delta conveyance facility until contracts are signed by contractors who will receive the water that commit them to pay costs and to mitigate facility property taxes.	05/27/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE without further action pursuant to JR 62(a).

**IRWD 2016 LEGISLATIVE MATRIX**  
**Updated 08/05/2016**

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
<b>AB 2594</b> Gordon (D)	Stormwater Resources: Use of Captured Water		Authorizes a public entity that captures stormwater, in accordance with a stormwater resource plan, before the water reaches a natural channel to use the captured water under certain circumstances.	08/01/2016 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<b>AB 2601</b> Eggman (D)	Building Standard: Residential Property: Graywater		Requires the Department of Housing and Community Development to adopt and submit to Building Standards Commission for approval amendments to the building standards adopted pursuant to these provisions that require that all new single-family and duplex residential dwelling units include specified components to allow the separate discharge of graywater for direct irrigation.	03/10/2016 - To ASSEMBLY Committee on HOUSING AND COMMUNITY DEVELOPMENT.
<b>AB 2617</b> Mayes (R)	Water Efficiency Measures		Requires the Department of Water Resources to develop and solicit comments on a proposed report and, to issue a final report that contains recommendations to public entities to help them achieve water-resilient communities and prioritize cost-effective water efficiency measures with low adverse environmental impacts based on local conditions.	06/09/2016 - To SENATE Committee on RULES.
<b>AB 2801</b> Gallagher (R)	Local Government: Fees and Charges: Protest		Requires a local agency to keep written protests securely stored and sealed until a public hearing. Prohibits an agency from requiring such protest to include property identification other than street address unless there is not a street address, and from requiring such protest to be submitted on an agency form. Requires the agency maintain such protests for a minimum time period following the date of the hearing to consider the protests.	06/30/2016 - In SENATE. From Consent Calendar. To third reading.
<b>AB 2835</b> Cooper (D)	Public Employees:Orientation and Informational Programs		Requires public employers regulated by specified Acts to provide newly hired employees a specified public employee orientation. Requires the orientation to be conducted during regular workday at the worksite, and all newly hired employees attend the orientation in person. Requires the scheduling to be agreed upon with the recognized employee organization or exclusive representative. Authorizes a pre-orientation presentation by the organization. Requires providing certain information to the organization.	08/01/2016 - In SENATE Committee on APPROPRIATIONS: To Suspense File.
<b>AB 2890</b> Env Safety & Toxic Material Cmt	Drinking Water and Wastewater Operator Certification		Requires the State Water Resources Control Board to appoint an advisory committee to examine and certify people to operate water treatment plants and water distribution systems, and to review all proposed regulations and make recommendations to the Board. Relates to water treatment operator-in-training. Revises procedures for the suspension or revocation of a valid	06/28/2016 - In SENATE. Read second time. To third reading.

**IRWD 2016 LEGISLATIVE MATRIX**  
**Updated 08/05/2016**

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
			operator license. Authorizes certificate reciprocity. Provides certificate application fraud civil liability. Relates to an advisory committee.	
<b>AB 2909</b> Levine (D)	Water: Transfer or Exchange: Expedited Review	Support If Amended	Requires the Water Resources Board to develop and implement an expedited review process for approval or petitions to temporarily change the point of diversion, place of use, or purpose of use due to a transfer or exchange of water or water rights if the transfer is for a recurring water transfer or an environmentally beneficial transfer. Requires the development of a review process for reoccurring water transfers that utilize facilities of the State Water Project.	08/01/2016 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<b>AB 2910</b> Local Government Cmt	Local Government: Organization: Omnibus Bill		Revises provisions of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 to remove references to a public agency's current service area and instead include references to the public agency's jurisdictional boundaries. Provides a purpose of a local agency formation commission is to encourage government services efficiency. Relates to commission membership. Relates to agency reorganization. Relates to uncollected revenues and taxes upon disincorporation. Relates to hospital districts.	08/04/2016 - In ASSEMBLY. ASSEMBLY concurred in SENATE amendments. To enrollment.
<b>ACA 8</b> Bloom (D)	Local Government Financing: Water Facilities: Voters		Proposes an amendment to the Constitution to create an exception to a limit for a rate imposed by a city, county, city and county, or special district to service bonded indebtedness incurred to fund the construction, reconstruction, rehabilitation, or replacement of wastewater treatment facilities and related infrastructure, potable water producing facilities and related infrastructure, nonpotable water producing facilities and related infrastructure, and stormwater treatment facilities and infrastructure.	06/23/2016 - To ASSEMBLY Committees on LOCAL GOVERNMENT and APPROPRIATIONS.
<b>SB 7</b> Wolk (D)	Housing: Water Meters: Multi-unit Structures		Requires a landlord to make submeter disclosures to a tenant prior to executing a rental agreement. Relates to tenant billing procedures and requirements. Authorizes building standards that require the installation of water submeters in multiunit residential buildings. Provides structure exemptions. Relates to landlord requirements. Relates to the use of meters or submeters in new mixed-use residential and commercial structures as a condition for service. Requires licensed contractors do the installation.	09/08/2015 - In ASSEMBLY. Read third time. Failed to pass ASSEMBLY.;09/08/2015 - In ASSEMBLY. Motion to reconsider.
<b>SB 32</b> Pavley (D)	Global Warming Solutions Act of 2006: Emissions Limit		Requires the State Air Resources Board to approve a specified statewide greenhouse gas emissions limits that are the equivalent to a specified	08/03/2016 - In ASSEMBLY Committee on APPROPRIATIONS: To Suspense File.

**IRWD 2016 LEGISLATIVE MATRIX**  
**Updated 08/05/2016**

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
			percentage below the 1990 level to be achieved by 2030. Requires the Board to prepare and submit to the Joint Legislative Budget Committees and appropriate policy committees a report relating to the greenhouse gas emission reduction achieved towards those limits.	
<b>SB 122</b> Jackson (D)	Environmental Quality Act: Record of Proceedings		Amends the Environmental Quality Act. Relates to a database for the collection, storage, retrieval, and dissemination of environmental documents, notices of exemption, notices of preparation, notices of determination, and notices of completion provided to the office that shall be available online to the public through the internet. Provides for the phase-in of electronic documents. Requires the lead agency to submit to the State Clearinghouse a sufficient number of environmental documents for review.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard.
<b>SB 163</b> Hertzberg (D)	Wastewater Treatment: Recycled Water	Oppose	Declares that it is a waste and unreasonable use of water to discharge treated wastewater from an ocean or bay outfall, or for a water supplier or water replenishment district to not take treated wastewater made available for certain purposes. Requires related regulations. Requires permit holders to submit plans to achieve beneficial reuse of treated wastewater. Requires reuse of a specified percentage of such wastewater. Requires convening an advisory group. Authorizes specified fees.	06/14/2016 - In ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS: Heard, remains in Committee.
<b>SB 223</b> Galgiani (D)	Division of Boating and Waterways: Oversight Committee		Requires the Division of Boating and Waterways to establish an advisory and oversight committee to evaluate and monitor the activities of the Division relating to the management and control or eradication of invasive aquatic plants. Provides the expertise of members of the committee. Requires the committee to meet a specified amount of times per year and to communicate any findings or recommendations to the Division.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<b>SB 248</b> Pavley (D)	Oil and Gas		Provides for an inspection program for all activities regulated pursuant to provisions concerning drilling, operation, maintenance, and abandonment of oil and gas wells and certain tanks and facilities. Requires inspections to be reported and posted, and the recording of information in a well history, including fluid injection, chemical composition, and waste disposal injection. Provides for shutdown. Requires updating related regulations. Requires notification and clearance of chemical injection.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard.

**IRWD 2016 LEGISLATIVE MATRIX**  
**Updated 08/05/2016**

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
<b>SB 286</b> Hertzberg (D)	Electricity: Direct Transactions		Requires the Public Utilities Commission to adopt and implement a schedule that implements a specified phase-in period for expanding direct transactions for individual retail nonresidential end-use customers over a maximum time period, raising the allowable limit of kilowatthours that can be supplied by other electrical corporation's distribution service territory to that corporation's share of the gigawatthours. Requires such customers to be responsible for their share of the costs of specified programs.	03/01/2016 - From ASSEMBLY Committee on APPROPRIATIONS with author's amendments.;03/01/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<b>SB 471</b> Pavley (D)	Water, Energy, Reduction of Greenhouse Gas Emissions		Includes reduction of greenhouse emissions associated with water treatment among the investments that are eligible for funding from the Greenhouse Gas Reduction Fund. Requires the State Water Resources Control Board to establish a grant and loan program for water projects that result in the net reduction of water-related greenhouse gas emissions.	08/27/2015 - In ASSEMBLY. Joint Rule 62(a) suspended.;08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<b>SB 551</b> Wolk (D)	State Water Policy: Water and Energy Efficiency	Seek_Amend	Declares the policy of the state that water use and water treatment shall operate in a manner that is as energy efficient as is feasible and energy use and generation shall operate in a manner that is as water efficient as is feasible. Requires all relevant state agencies to consider this state policy when revising, or establishing policies, regulations, and grant criteria when pertinent to these uses of water and energy.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<b>SB 552</b> Wolk (D)	Public Water Systems: Disadvantaged Communities		Authorizes the state board to order consolidation where a public water system or a state small water system, serving a disadvantaged community, fails to provide an adequate supply of safe drinking water. Limits the authority of the state board to order consolidation or extension of service to provide that authority. Includes a mobilehome park. Relates to funding and public meetings regarding delivery of safe drinking water.	08/03/2016 - In ASSEMBLY Committee on APPROPRIATIONS: To Suspense File.
<b>SB 554</b> Wolk (D)	Delta Levee Maintenance		Relates to the maintenance or improvement of project or nonproject levees in the Sacramento-San Joaquin Delta. Declares legislative intent to reimburse up to a certain percent of costs incurred in any year for the maintenance or improvement of levees in excess of a specified sum per mile of levee and authorizes a specified board to advance funds in an amount that does not exceed a certain percent of the estimated state share to an eligible local agency.	06/29/2016 - In ASSEMBLY Committee on APPROPRIATIONS: To Suspense File.

**IRWD 2016 LEGISLATIVE MATRIX**  
**Updated 08/05/2016**

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
<b>SB 814</b> Hill (D)	Drought: Excessive Water Use: Urban Retail Water Supply	Watch	Prohibits excessive water use during specified time periods. Requires each urban retail water supplier to establish a method to identify and discourage excessive water use. Authorizes the establishment of a rate structure that penalizes such excessive water users. Authorizes an excessive water use ordinance, rule, or tariff condition. Makes a violation thereof an infraction or administrative civil penalty. Authorizes the penalty for a violation to be based on conditions identified by the water supplier.	08/04/2016 - In ASSEMBLY. Read third time. Passed ASSEMBLY. *****To SENATE for concurrence.
<b>SB 885</b> Wolk (D)	Contracts: Design Professionals: Indemnity	Oppose	Specifies, for contracts, that a design professional only the has the duty to defend claims that arise out of, or pertain or relate to, negligence, recklessness, or willful misconduct of the design professional. Prohibits a waiver of these provisions. Updates claims defense procedures. Provides any clause, covenant, or agreement contained in, collateral to, or affecting a contract that requires a design professional to defend claims or lawsuits against other persons or entities is void and unenforceable.	06/16/2016 - From ASSEMBLY Committee on JUDICIARY with author's amendments.;06/16/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on JUDICIARY.
<b>SB 919</b> Hertzberg (D)	Water Supply: Creation or Augmentation of Local Water		Requires the Public Utilities Commission to address the oversupply of renewable energy resources through a tariff or other economic incentive for electricity purchased by customers operating facilities that create or augment local water supplies to reduce the cost of electricity to those facilities.	08/04/2016 - In ASSEMBLY. Read second time. To Consent Calendar.
<b>SB 970</b> Leyva (D)	Greenhouse Gas Reduction Fund: Grants: Recyclables	Support In Concept	Requires the Department of Resources Recycling and Recovery, in awarding a grant for organic composting or anaerobic digestion under the grant program under the Greenhouse Gas Reduction Fund for financial assistance to reduce such gas emissions, to consider the amount of greenhouse gas emission reductions that may result from the project and the amount of organic material that may be diverted from landfills as a result of the project. Permits grants for large-scale regional integrated projects.	08/03/2016 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard.
<b>SB 974</b> Governance and Finance Cmt	Local Government: Omnibus	Support	Amends existing law regarding local government to include storing survey records, military discharge copy fees, notaries public, city financial condition reports, local sinking fund moneys investment, the Subdivision Map Act, local safety land use elements, Fort Ord reuse and redevelopment, sewage services and facilities fees, use of design-build, vehicle license fees, income tax collection. floating home taxation,	08/04/2016 - In ASSEMBLY. Read third time and amended. To third reading.

**IRWD 2016 LEGISLATIVE MATRIX**  
**Updated 08/05/2016**

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
			synthetic grass, business assessments, and liquefied petroleum tax revenues.	
<b>SB 995</b> Pavley (D)	Well Standards		Requires the Department of Water Resources to update well standards for water wells, monitoring wells and cathodic protection wells based on existing knowledge and to submit these standards to the State Water Resources Control Board. Includes abandonment ordinances. Requires the state board to revise the model ordinances upon receipt of the standards.	08/03/2016 - In ASSEMBLY Committee on APPROPRIATIONS: To Suspense File.
<b>SB 1026</b> Nielsen (R)	Lake or Streambed Alteration Agreements		Relates to lake or streambed alteration agreement. Limits the diversions and obstructions governed by alteration agreement requirements to the diversions and obstructions that alter the bed, channel, or bank of a river, stream or lake. Exempts routine maintenance and repair of facilities for instream agricultural diversions.	04/12/2016 - In SENATE Committee on NATURAL RESOURCES AND WATER: Failed passage.
<b>SB 1043</b> Allen (D)	Biogas and Biomethane		Requires the State Air Resources Board to consider and adopt policies to significantly increase the sustainable production and use of biogas. Requires the Board, to ensure the production and use of renewable gas provides direct environmental benefits and identify barriers to the rapid development and use of biogas and potential sources of funding. Revises the definition of biogas and biomethane for pipeline integrity and safety purposes.	05/27/2016 - In SENATE Committee on APPROPRIATIONS: Held in committee.
<b>SB 1173</b> Hertzberg (D)	Plumbing Fixtures: CalConserve Water Use Efficiency		Requires for commercial property the replacement of any noncompliant fixture or fitting in specified additions, alterations, and improvements to such property and the replacement of any noncompliant plumbing fixture or fitting in all such property in accordance with a specified schedule based on floor space. Provides related definitions. Authorizes county offices of education and school district boards to receive moneys from the CalConserve Water Use Efficiency Fund for efficiency projects.	03/30/2016 - From SENATE Committee on TRANSPORTATION AND HOUSING with author's amendments.;03/30/2016 - In SENATE. Read second time and amended. Re-referred to Committee on TRANSPORTATION AND HOUSING.
<b>SB 1213</b> Wieckowski (D)	Renewable Energy: Biosolids: Matching Grants		Requires the Energy Resources Conservation Commission to develop and implement the Biosolids to Clean Energy Grant Program to provide matching funds to local wastewater agencies for biosolids to clean energy capital projects. Appropriates a specified amount of funds annually to the Commission for purposes of the program.	05/27/2016 - In SENATE Committee on APPROPRIATIONS: Held in committee.

**IRWD 2016 LEGISLATIVE MATRIX**  
**Updated 08/05/2016**

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
<b>SB 1233</b> McGuire (D)	Joint Powers Authority: Water Bill Savings Act		Enacts the Water Bill Savings Act. Authorizes a joint powers authority to provide funding for a customer of a local agency or its publicly owned utility to acquire, install, or repair a water efficiency improvement on the customer's property served by the local agency or its publicly owned utility. Requires repayment through an efficiency charge on the customer's water bill. Authorizes the authority to issue bonds to fund the program. Makes technical changes.	08/03/2016 - In ASSEMBLY. Read second time. To third reading.;08/03/2016 - Referred to ASSEMBLY Committee on APPROPRIATIONS.
<b>SB 1260</b> Allen (D)	Stormwater: Municipalities: Online Resource Center		Requires the State Water Resources Control Board to establish an online resource center that addresses measures available for municipalities to comply with municipal stormwater permit requirements. Authorizes the inclusion of certain information.	08/04/2016 - In ASSEMBLY. Read third time. Passed ASSEMBLY. To enrollment.
<b>SB 1262</b> Pavley (D)	Water Supply Planning		Requires a city or county that determines a project is subject to the California Environmental Quality Act to identify any water system whose service area includes the project site and any water system adjacent to the project site. Provides that hauled water is not a source of water for the purposes of an assessment. Revises the definition of sufficient water supply.	08/04/2016 - In ASSEMBLY. Read second time. To third reading.
<b>SB 1263</b> Wieckowski (D)	Public Water System: Permits		Requires a person submitting an application for a permit for a proposed new public water system to first submit a preliminary technical report to the State Water Resources Control Board before initiating construction of any water-related improvement. Directs specified procedures to be followed by the applicant before submitting the application. Provides the bases for denial of such permit by the Board. Prohibits a building permit for residential development when the water is provided using certain methods.	08/04/2016 - In ASSEMBLY. Read second time. To third reading.
<b>SB 1298</b> Hertzberg (D)	Local Government: Fees and Charges	Concerned	Provides for definition of the terms proportional cost of the service attributable to the parcel and sewer services for these purposes.	08/02/2016 - In ASSEMBLY. Read second time. To third reading.
<b>SB 1317</b> Wolk (D)	Groundwater Extraction Permit	Oppose Unless Amend	Requires a city or county overlying a basin designated as a high- or medium- priority basin to establish a process for the issuance of a groundwater extraction permit for the development of a groundwater extraction facility that requires an applicant to demonstrate the extraction from a proposed facility will not contribute to or create an undesirable	06/28/2016 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Not heard.

**IRWD 2016 LEGISLATIVE MATRIX**  
**Updated 08/05/2016**

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
			result. Provides a city or county overlying such basin does not have to have a permit process under specified conditions.	
<b>SB 1318</b> Wolk (D)	Local Government: Drinking Water and Wastewater Service		Amends existing law that regulates to formation, consolidate, and merger of new districts to include annexation of a disadvantaged unincorporated community, a special district's sphere of influence, the review of adequacy and need for water and wastewater services in such communities, and a service review of the municipal services of unincorporated island, fringe, or legacy communities.	06/09/2016 - To ASSEMBLY Committees on LOCAL GOVERNMENT and ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<b>SB 1340</b> Wolk (D)	Water Conservation in Landscaping Act		Requires a local agency to require a permit for the installation of specified automatic irrigation systems, or the expansion of the same specified automatic irrigation system to increase the irrigated area by a specified percentage or more, for a landscape project. Allows the governing body of a local agency to adopt an ordinance prescribing fees for filing an application for the permit, subject to restrictions. Authorizes specified persons to submit the application for a residential landscape system.	08/03/2016 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard.
<b>SB 1383</b> Lara (D)	Short-Lived Climate Pollutants		Requires the State Air Resources Board to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a specified reduction in methane, hydro-fluorocarbon gases, and anthropogenic black carbon below 2013 levels by 2030.	08/03/2016 - In ASSEMBLY Committee on APPROPRIATIONS: To Suspend File.
<b>SB 1415</b> Bates (R)	Environmental Quality Act: Local Water Projects		Amends the Environmental Quality Act which requires a lead agency to call a scoping meeting for transportation-related projects and projects of statewide, regional, or areawide significance to require that lead agency to call a scoping meeting to receive public comments for local projects for stormwater or dry weather runoff capture and reuse, water recycling, or wastewater treatment to improve water quality.	04/21/2016 - Re-referred to SENATE Committee on APPROPRIATIONS.
<b>SB 1425</b> Pavley (D)	Water Energy Nexus Registry		Requires the State Air Resources Board to develop a registry of greenhouse gas emission resulting from the water-energy nexus using the best available data including specified actions of a former registry as they relate to the water-energy nexus. Requires a contract with the Climate Registry to develop and administer the registry.	08/03/2016 - In ASSEMBLY Committee on APPROPRIATIONS: To Suspend File.

**IRWD 2016 LEGISLATIVE MATRIX**  
**Updated 08/05/2016**

<b>Bill No. Author</b>	<b>Title</b>	<b>IRWD Position</b>	<b>Summary/Effects</b>	<b>Status</b>
<b><u>SB 1440</u></b> Cannella (R)	Water Supply and Infrastructure Improvement		Requires a lead agency, in certifying the environmental impact report and in granting approvals for certain water storage projects funded, in whole or in part, by Proposition I, to comply with specified procedures. Authorizes the lead agency to concurrently prepare the record of proceedings for the project. Requires the Judicial Council to adopt a rule of court to establish procedures applicable to actions or proceedings seeking judicial review.	03/10/2016 - To SENATE Committees on ENVIRONMENTAL QUALITY and JUDICIARY.
<b><u>SB 1456</u></b> Galgiani (D)	Safe Drinking Water State Revolving Fund Law		Amends an existing law which establishes the Safe Drinking Water State Revolving Fund. Authorizes certain costs to be funded by loans or other repayable financing, grants, principal forgiveness, or a combination of grants and loans or other financial assistance, regardless of whether a public water system is a community public water system or a not-for-profit noncommunity public water system. Limits the principal forgiveness to capital improvements serving specified severely disadvantaged communities.	08/03/2016 - In ASSEMBLY Committee on APPROPRIATIONS: To Suspense File.
<b><u>HR 2689</u></b> Walters (R)	Eligible Water Resources Projects	Support	Clarifies the scope of eligible water resources projects under the Water Resources Development Act of 1986 and the Water Resources Reform and Development Act of 2014.	06/10/2015 - In HOUSE Committee on TRANSPORTATION & INFRASTRUCTURE: Referred to Subcommittee on WATER RESOURCES AND ENVIRONMENT.
<b><u>HR 4615</u></b> Huffman (D)	Water Department Gross Income Exclusion	Support	Amends the Internal Revenue Code of 1986 to exclude from gross income amounts received from a water department for water conservation efficiency measures and water runoff management improvements.	02/25/2016 - INTRODUCED.;02/25/2016 - To HOUSE Committee on WAYS AND MEANS.
<b><u>S 2533</u></b> Feinstein (D)	Water Supplies for California and Drought Resiliency		Provides short-term water supplies to drought-stricken California, provides for long-term investments in drought resiliency throughout the Western United States.	05/17/2016 - Subcommittee on WATER AND POWER hearings held.
<b><u>S 2848</u></b> Inhofe (R)	Water Conservation and Development		Provides for the conservation and development of water and related resources, authorizes the Secretary of the Army to construct various projects for improvements to rivers and harbors of the United States.	06/20/2016 - From SENATE Committee on ENVIRONMENT AND PUBLIC WORKS: Reported by Senator Inhofe as amended.;06/20/2016 - In SENATE. Placed on SENATE Legislative Calendar under General Orders.

## Exhibit “B”

2016 Legislative Update Report:  
Links to Bill Texts  
(as of August 16, 2016)

Bill Number/Version Date	Link to Bill Text
AB 2087 (Levine), as amended August 1, 2016	<a href="http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB2087">http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB2087</a>
AB 2909 (Levine), as amended on August 1, 2016	<a href="http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB2909">http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB2909</a>
SB 1298 (Hertzberg), as amended August 11, 2016	<a href="http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1298">http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1298</a>

August 22, 2016

Prepared by: M. Jack/K. Lew

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Approved by: Paul Cook *[Signature]*

## CONSENT CALENDAR

### ON-CALL CONSTRUCTION INSPECTION SERVICES VARIANCE

#### SUMMARY:

The current construction inspection workload for capital, development and operational improvement projects continues to exceed a level that can be supported by the District's inspection staff. Staff recommends that the Board authorize the General Manager to execute Variance No. 2 with AndersonPenna in the amount of \$981,760 for two inspectors over a period of two years for on-call construction inspection services.

#### BACKGROUND:

The District's current and upcoming inspection workload for capital, development and operational improvement projects continues to exceed the level that can be supported by the District's staff. The District's construction inspection group consists of five staff inspectors and four on-call consultant inspectors who are currently responsible for the inspection, field coordination, documentation and record drawing preparation of over 360 projects spread across the District. Based on currently active and upcoming construction projects planned by the Irvine Company, FivePoint Communities, Toll Brothers and the City of Tustin, staff anticipates the need for continued consultant field inspection support for a period of up to two years. Upon completion of the current high volume of construction projects, staff anticipates that these inspection services will no longer be required as the workload should return to a level that can be supported by District inspection staff.

In September 2012, the Board awarded a Professional Services Agreement to AndersonPenna, a construction management and inspection services company, in the amount of \$400,000 for on-call field inspection services. In January 2014, the Board authorized Variance No. 1 in the amount of \$1,200,000 to extend its services. AndersonPenna is currently providing two experienced inspectors under its on-call contract that have worked well within the District's inspection group and have demonstrated the ability to inspect and coordinate multiple projects simultaneously. One inspector has been with the District for all four years and the second inspector has been with the District for nearly three years.

Funds for the current agreement with AndersonPenna will be expended by October 2016. Due to the experience, attention to detail and quality work of the current consultant inspectors, staff requests a variance for continued inspection services. AndersonPenna's fully-burdened rate is \$118 per hour for its senior inspectors, which includes a truck and fuel, cell phone and laptop computer. This billing rate has remained the same as the original contract with only modifications to account for prevailing wage increases and the new Department of Industrial Relations requirements. Staff recommends executing Variance No. 2 with AndersonPenna in the amount of \$981,760 for two inspectors for two additional years of on-call field inspection services. Variance No. 2 is shown in Exhibit "A".

FISCAL IMPACTS:

Funding for the construction inspection services will be provided from the various developer and capital projects being constructed as part of each project's budget.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on August 16, 2016.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 2 WITH ANDERSONPENNA IN THE AMOUNT OF \$981,760 FOR ON-CALL CONSTRUCTION INSPECTION SERVICES FOR TWO INSPECTORS FOR A TWO-YEAR PERIOD.

LIST OF EXHIBITS:

Exhibit "A" – AndersonPenna On-Call Inspection Variance No. 2

**IRVINE | EXHIBIT "A" | DISTRICT  
PROFESSIONAL SERVICES VARIANCE**

Project Title: On-call Construction Inspection Services

Project No.: \_\_\_\_\_ Date: 07/27/2016

Purchase Order No.: 510529 Variance No.: 2

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

Description of Variance (*attach any back-up material*):  
IRWD has requested additional inspection services to meet the ongoing need of capital and developer installed improvements.  
The following manhours reflects 2 full time inspectors for 2 years.

**Engineering & Management Cost Impact:**

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
Public Works Inspector	8,320	118.00	981,760	0	0	981,760
<b>Total \$ =</b>						981,760

**Schedule Impact:**

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
1	On-call Inspection	10/12 - 10/16	24 month extension	11/16 - 11/18

**Required Approval Determination:**

Total Original Contract	<u>\$400,000</u>	<input type="checkbox"/> Director: Cumulative total of Variances less than or equal to \$50,000.
Previous Variances	<u>\$1,200,000</u>	<input type="checkbox"/> Executive Director: Cumulative total of Variances less than or equal to \$75,000.
This Variance	<u>\$ 981,760</u>	<input type="checkbox"/> General Manager: Cumulative total of Variances less than or equal to \$100,000.
Total Sum of Variances	<u>\$2,181,760</u>	<input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$100,000.
New Contract Amount	<u>\$2,581,760</u>	
Percentage of Total Variances to Original Contract	<u>645%</u>	

ENGINEER/CONSULTANT: AndersonPenna Partners, Inc. IRVINE RANCH WATER DISTRICT  
 \_\_\_\_\_  
 Company Name  
1 Aug 16 KAL  
 Date Department Director 8/3/16  
8/1/16  
 Date General Manager/Board Date

August 22, 2016  
 Prepared by: C. Kessler/K. Lew  
 Submitted by: K. Burton *RKM*  
 Approved by: Paul Cook *[Signature]*

CONSENT CALENDAR

REIMBURSEMENT AGREEMENT FOR  
 PLANNING AREA 51, DISTRICT 7 CAPITAL RECYCLED WATER FACILITIES

SUMMARY:

Heritage Hills Irvine, LLC, a Delaware limited liability company (Heritage Hills) is beginning development of a portion of District 7 within Planning Area 51 (PA 51). The development includes the construction of streets, storm drains, domestic water, sewer, and recycled water improvements. Staff recommends that the Board authorize the General Manager to execute a Reimbursement Agreement (RA) with Heritage Hills for the construction of IRWD’s capital recycled water facilities, and authorize the addition of PA 51, District 7 Capital Recycled Water Facilities Project 7169, in the amount of \$492,800, to the FY 2016-17 Capital Budget.

BACKGROUND:

Heritage Hills has requested that IRWD enter into a RA for construction of IRWD capital recycled water facilities for the development within PA 51, District 7. PA 51, District 7 is located north of Irvine Boulevard between Pusan and Axis. Heritage Hills is moving forward with backbone recycled water improvements that are shown in the location map provided as Exhibit “A”. The capital facilities consist of approximately 600 feet of 8-inch recycled water pipeline and 4,000 feet of 6-inch recycled water pipeline. The total estimated construction cost for these capital improvements is \$300,000. Heritage Hills began grading in March 2016 and anticipates construction of capital facilities to commence September 2016.

The terms of the Heritage Hills RA are substantially the same as IRWD’s RAs with the Irvine Community Development Company and Heritage Fields El Toro. The proposed RA has been reviewed by IRWD’s legal counsel and is provided as Exhibit “B”. The required IRWD domestic water, sewer, and recycled water capital facilities are documented in the PA 51 Area Sub-Area Master Plan Update that is currently being prepared.

FISCAL IMPACTS:

Staff requests the addition of PA 51, District 7 Recycled Water Improvements Project 7169 to the FY 2016-17 Capital Budget in the amount of \$492,800, as shown in the table below. An Expense Authorization is attached as Exhibit “C”.

Project No.	Current Budget	Addition <Reduction>	Total Budget
7169	\$0	\$492,800	\$492,800

ENVIRONMENTAL COMPLIANCE:

Activities such as executing reimbursement agreements are not subject to the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15061 (b) (3), in that CEQA applies only to projects that have the potential for causing a significant effect on the environment. Construction of capital domestic water, sewer, and recycled water facilities for the Planning Area 51, District 7 Project is subject to CEQA. In conformance with the California Code of Regulations Title 14, Chapter 3, Article 7 a Supplemental Environmental Impact Report was certified by the City of Irvine on April 4, 2012 (2002101020).

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on August 16, 2016.

RECOMMENDATION:

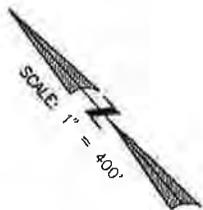
THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A REIMBURSEMENT AGREEMENT WITH HERITAGE HILLS IRVINE, LLC FOR THE CONSTRUCTION OF IRWD'S CAPITAL RECYCLED WATER FACILITIES, AND AUTHORIZE THE ADDITION OF PA 51, DISTRICT 7 CAPITAL RECYCLED WATER FACILITIES PROJECT 7169, IN THE AMOUNT OF \$492,800, TO THE FY 2016-17 CAPITAL BUDGET.

LIST OF EXHIBITS:

- Exhibit "A" – Planning Area 51, District 7 Location Map
- Exhibit "B" – Reimbursement Agreement between IRWD and Heritage Hills for the Construction of Capital Recycled Water Facilities
- Exhibit "C" – Expense Authorization

# EXHIBIT "A"

PLOTTED BY: mornsels DATE: May 18, 2016 TIME: 11:07 AM  
 F:\0373\Engineering\SA\_District 7\SA\_Backbone\Impo\_Capitol\Exhibit\DT-RWCapitalLines.dwg



### LEGEND

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

PREPARED BY:

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

**PLANNING AREA 51, HERITAGE HILLS**  
**DISTRICT 7**  
**CAPITAL RECYCLED WATER**

EXHIBIT A

FIGURE

1

# EXHIBIT "B"

File No. 7169

REIMBURSEMENT AGREEMENT BETWEEN  
IRVINE RANCH WATER DISTRICT  
AND HERITAGE HILLS IRVINE, LLC  
FOR  
PLANNING AREA 51, DISTRICT 7, CAPITAL RECYCLED WATER IMPROVEMENTS

This Agreement is made and entered into as of this \_\_\_\_ day of \_\_\_\_\_, 2016, by and between IRVINE RANCH WATER DISTRICT, a California water district formed and existing pursuant to the California Water District Law of the State of California, hereinafter referred to as "DISTRICT," and Heritage Hills Irvine, LLC, a Delaware limited liability company, hereinafter referred to as "BUILDER."

W I T N E S S E T H:

WHEREAS, BUILDER proposes to construct street and utility improvements within a looped street Axis, beginning and ending on the north side of Irvine Boulevard (the "Project"), within the jurisdictional boundaries of DISTRICT and the City of Irvine; and

WHEREAS, prior to or in conjunction with BUILDER's construction of the Project, IRWD desires to construct, within or adjacent to the street improvements that comprise the Project, the following capital facilities and appurtenances thereto: approximately 4,500 lineal feet (LF) of six inch and eight inch recycled water pipeline, as depicted on Exhibit "A" attached hereto incorporated by reference herein (hereinafter referred to as the "IRWD FACILITIES"); and

WHEREAS, the parties have determined that it would be more expedient for BUILDER to construct the IRWD FACILITIES rather than for DISTRICT to do so; and

WHEREAS, DISTRICT is amenable to the design and construction of the IRWD FACILITIES by BUILDER, at the cost of BUILDER, which cost is to be reimbursed by DISTRICT; and

WHEREAS, except as otherwise provided herein, upon the completion of the IRWD FACILITIES, the IRWD FACILITIES shall become the property of DISTRICT in accordance with the terms and conditions hereinafter set forth.

NOW, THEREFORE, the parties hereto, in consideration of the mutual promises and covenants hereinafter set forth, do agree as follows:

SECTION 1. IRWD FACILITIES. In conjunction with the Project, BUILDER agrees to initiate and diligently pursue to completion the design and construction of the IRWD FACILITIES.

SECTION 2. PLANS. BUILDER agrees that the IRWD FACILITIES shall be completed pursuant to approved project plans and specifications (the "Plans and Specifications") which shall be approved by DISTRICT and used in awarding the construction contract. Prior to commencement of preparation of the Plans and Specifications, BUILDER shall submit its design engineer's proposal for the design of the IRWD FACILITIES to DISTRICT. DISTRICT will have a period of five (5) calendar days from its receipt of such design proposal to review and either indicate its approval or request changes. BUILDER shall cause its design engineer to review and respond to any requested changes. The Plans and Specifications shall be deemed to incorporate the applicable portions of DISTRICT's latest edition of "Construction Manual for the Construction of Water, Sewer, and Recycled Water Facilities" (the "Construction Manual"). The IRWD FACILITIES shall be contracted by BUILDER together with non-reimbursable work to be completed by BUILDER within the Project pursuant to plans prepared by BUILDER's design engineer.

SECTION 3. BIDDING AND AWARD. The parties agree that the construction of the IRWD FACILITIES shall be included in BUILDER's contract(s) awarded for the Project and that the IRWD FACILITIES shall be bid as a separate item or items that can be deleted. During the bidding process, BUILDER shall deliver to IRWD one (1) complete set of the bid documents that include the IRWD FACILITIES, including all related addenda concurrently with the distribution thereof to prospective bidders. Upon opening of bids by BUILDER, BUILDER will submit the bids or a spread sheet summary of the bids to DISTRICT. DISTRICT will have a period of ten (10) calendar days from its receipt of the bid results for review and approval of the IRWD FACILITIES bid item(s) submitted by the bidder identified to DISTRICT by BUILDER as BUILDER's proposed successful bidder. BUILDER agrees that bids received for the construction of the IRWD FACILITIES bid item(s) shall be subject to the approval of

DISTRICT prior to award of the Project construction contract(s) that include the IRWD FACILITIES; and further agrees that in the event DISTRICT does not approve such bids, either party may terminate this Agreement upon twenty-four (24) hours' prior written notice, in which event BUILDER shall have no further obligation to construct the IRWD FACILITIES, and DISTRICT may elect to install the IRWD FACILITIES with its own contractor. If DISTRICT approves of the IRWD FACILITIES bid item(s) of BUILDER's successful bidder, BUILDER agrees to cause the IRWD FACILITIES to be constructed as part of the contract awarded to such bidder. The total estimated construction cost for the IRWD FACILITIES is \$300,000.00 provided, however, the amount to be reimbursed by DISTRICT shall be based on the actual costs of construction. Upon award of the construction contract, BUILDER shall provide DISTRICT with one (1) original copy of the fully executed contract documents and one (1) copy of the bid package relating to the IRWD FACILITIES received from the successful bidder.

SECTION 4. DESIGN REVISIONS AND CHANGE ORDERS. BUILDER agrees that if, during design or construction, BUILDER requests or initiates any revision to the Plans and Specifications that would increase the cost of the IRWD FACILITIES, such additional costs shall be borne by BUILDER, and shall not be reimbursed by DISTRICT, except for such revision(s) and cost(s) that are determined necessary to construct IRWD FACILITIES in accordance with the Construction Manual and could not reasonably have been foreseen at the time bids were received. The cost of any such necessary and unforeseeable revisions, and the cost of any revisions requested or initiated by DISTRICT shall be reimbursed by DISTRICT as provided herein.

BUILDER shall promptly furnish DISTRICT with copies of any proposed change orders to the Project contract within five (5) working days of initiation of changed conditions to such contract, which change orders shall be subject to DISTRICT approval if and to the extent any of the IRWD FACILITIES are affected thereby. DISTRICT will review and respond to proposed change orders affecting the IRWD FACILITIES within five (5) working days of receipt by DISTRICT.

SECTION 5. REIMBURSEMENT. DISTRICT agrees to reimburse BUILDER for the following costs (collectively, the "Costs"): (1) the actual costs of design, construction, permits, bonds, and legal fees (excluding the costs of preparation of this Agreement) incurred by BUILDER for the design and construction of the IRWD FACILITIES, plus (2) an administration fee which shall be equal to one percent (1%) of the actual cost of construction (costs paid directly to BUILDER's contractor for construction, only, excluding any cost for design,

surveying, geotechnical or other work) of the IRWD FACILITIES and which shall be deemed to cover all costs of project administration, including, but not limited to, accounting, inspection, surveying, compaction testing, geotechnical services and engineering. BUILDER shall keep a separate accounting of all Costs incurred by BUILDER in relation to the IRWD FACILITIES.

Within thirty (30) days following receipt from BUILDER of each invoice for DISTRICT's portion of a construction progress payment, accompanied by supporting documentation as may be necessary to show the amounts which represent Costs of IRWD FACILITIES, DISTRICT shall deposit with BUILDER the amount of such invoice. Within sixty (60) days of DISTRICT's acceptance of the IRWD FACILITIES as provided in Section 8, a final accounting of the Costs shall be made by BUILDER and submitted to DISTRICT along with an invoice for the Costs and any supporting documentation necessary to show the amounts which represent Costs of IRWD FACILITIES. Amounts paid pursuant to progress payment invoices shall be subject to adjustment in the final accounting. Within thirty (30) days of said final accounting, DISTRICT agrees to pay to BUILDER the total amount of the Costs less previous progress payments made DISTRICT. If the total of the previously paid progress payments exceeds the Costs, BUILDER shall refund the difference to IRWD within thirty (30) days of BUILDER's submittal of the final accounting.

SECTION 6. LAWS, ORDINANCES, RULES AND REGULATIONS. BUILDER shall require in its contract for the construction of the IRWD FACILITIES that its contractor be fully informed of and comply with all laws, ordinances, rules and regulations, including, but not limited to, all applicable requirements of the California Labor Code, prevailing wage laws, the Construction Manual, and the Rules and Regulations of DISTRICT, in connection with the construction of the IRWD FACILITIES.

SECTION 7. INSPECTION. DISTRICT shall have sole and absolute discretion as to all aspects of design and construction of the IRWD FACILITIES, and DISTRICT shall be entitled to inspect the construction of IRWD FACILITIES as it deems necessary to assure compliance with the Plans and Specifications, including shop drawing review and material inspection thereof. DISTRICT shall have access to all phases of the Project work to be performed by BUILDER for the purpose of such inspection; provided, however, all questions regarding the work being performed will be directed to BUILDER's resident engineer. DISTRICT will promptly notify BUILDER of any portion of the work on the IRWD FACILITIES which appears not to conform to the Plans and Specifications. The determination of DISTRICT as to conformity of the IRWD FACILITIES with the Plans and Specifications shall be made in DISTRICT's sole and absolute discretion. DISTRICT agrees not to unreasonably withhold its

approval as to such conformity of the IRWD FACILITIES with the Plans and Specifications. BUILDER shall require its contractor to construct the IRWD FACILITIES so that the IRWD FACILITIES conform to the Plans and Specifications. BUILDER agrees to assume full responsibility for certifying or obtaining certification of the compaction of backfill material over the IRWD FACILITIES.

SECTION 8. ACCEPTANCE. DISTRICT agrees to accept the IRWD FACILITIES when the IRWD FACILITIES have been completed by BUILDER in accordance with all requirements of the Plans and Specifications, including any change orders approved by DISTRICT as provided in Section 3 hereof. At the time of completion and acceptance of the IRWD FACILITIES, BUILDER agrees to furnish DISTRICT with one (1) copy of the contractor's redlined set of "record" drawings (showing all revisions, manufacturer and type of valves, pipe and fittings as required by DISTRICT) and one (1) copy of the compaction reports and certificate, survey notes and cut sheets.

SECTION 9. OWNERSHIP. It is mutually agreed between the parties hereto that notwithstanding the fact that BUILDER shall accomplish the construction of the IRWD FACILITIES subject to reimbursement, the IRWD FACILITIES to be completed hereunder, together with the necessary franchises, licenses, easements, rights-of-way, and other privileges, shall at all times be subject to the applicable rates, rules and regulations of DISTRICT, as modified or amended from time to time. BUILDER hereby disclaims any interest in the IRWD FACILITIES and does hereby transfer and assign to DISTRICT any and all right, title, and interest it may have in the IRWD FACILITIES. DISTRICT shall own, operate and maintain the IRWD FACILITIES following acceptance thereof.

SECTION 10. GUARANTEES. BUILDER will, pursuant to the requirement(s) of the Plans and Specifications, cause its contractor(s) for the IRWD FACILITIES to guarantee the IRWD FACILITIES against defects in workmanship and materials for a period of one (1) year from the date of acceptance by BUILDER, which acceptance shall be given only after acceptance by DISTRICT as provided in Section 8. It is further agreed that BUILDER shall cause the IRWD FACILITIES to be brought or restored to full compliance with the requirements of the Plans and Specifications, including any test requirements, for any portions of the IRWD FACILITIES which during said one (1) year period are found not to be in conformance with the provisions of the Plans and Specifications. This guarantee is in addition to any and all other warranties, express or implied, from BUILDER's contractors or material manufacturers, with respect to the IRWD FACILITIES. The guarantee and obligations under this section shall in no

way be relieved by DISTRICT's inspection and/or acceptance of the IRWD FACILITIES. This section sets forth the entire guarantee and warranty of BUILDER with respect to the IRWD FACILITIES. The express or implied warranties of other persons with respect to IRWD FACILITIES shall in no way be limited by the guarantee and warranty of BUILDER contained in this section. If requested by DISTRICT, BUILDER agrees to assign to DISTRICT the contractor's guarantee and/or any other guarantees or warranties relating to the IRWD FACILITIES.

**SECTION 11. INDEMNIFICATION.** BUILDER shall indemnify, defend and hold DISTRICT, its officers, agents, employees, and engineers harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen during construction of the IRWD FACILITIES as a result of any work or action performed by BUILDER or on behalf of BUILDER, save and except to the extent such expense, liability or claim is proximately caused in whole or in part by any act, omission, or negligence of DISTRICT, its officers, agents, employees or engineers or by any act or omission for which DISTRICT, its officers, agents, employees or engineers are liable without fault.

DISTRICT shall indemnify, defend and hold BUILDER, its officers, agents, and employees, harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen either (i) as a result of any acts performed by DISTRICT, its officers, agents, or employees, with respect to the IRWD FACILITIES construction; or (ii) following DISTRICT acceptance of the IRWD FACILITIES, with respect to maintenance and operation of the IRWD FACILITIES, save and except to the extent such expense, liability or claim is proximately caused in whole or in part by any negligence of BUILDER, its officers, agents, employees or engineers, or by any act or omission for which BUILDER, its officers, agents, employees or engineers are liable without fault.

**SECTION 12. INSURANCE AND BONDING.** BUILDER shall cause its contractor(s) to provide performance and payment bonds for the construction of the Project including the IRWD FACILITIES and to obtain insurance coverage sufficiently broad to insure the matters set forth in this Agreement and to include DISTRICT, its officers, agents, employees and engineers, as additional insureds on all insurance policies that BUILDER requires its contractor(s) to provide. As evidence of such insurance coverage, BUILDER shall, prior to commencement of construction of the IRWD FACILITIES, provide DISTRICT with certificates of insurance and insurance endorsements from BUILDER's contractor(s) in a form acceptable to DISTRICT.

SECTION 13. TERMINATION. DISTRICT shall have the right to terminate this Agreement at any time, subject to the provisions of this section, by providing five (5) business days' prior written notice to BUILDER, except as noted in Section 3. If at the request or direction of a party other than BUILDER, the construction of the IRWD FACILITIES is not accomplished or completed, DISTRICT shall remain obligated for the actual amount of the Costs incurred by BUILDER to the date of termination.

If BUILDER's Project is canceled or modified so as to eliminate the necessity of the construction of the IRWD FACILITIES, BUILDER shall have the right to terminate this Agreement and thereby terminate its obligation to construct the IRWD FACILITIES, by providing five (5) business days' prior written notice to DISTRICT. In such case, DISTRICT will not be obligated for any design or any other Costs incurred by BUILDER. If IRWD elects to construct the IRWD FACILITIES, DISTRICT may, but shall not be obligated to, acquire the design or other work from BUILDER by separate agreement.

SECTION 14. NOTICE. Any notice or other written instrument required or permitted by this Agreement to be given to either party shall be deemed received when personally served or twenty-four (24) hours after being deposited in the U.S. Mail, postage prepaid, registered or certified and addressed as follows:

DISTRICT: Irvine Ranch Water District  
15600 Sand Canyon Avenue  
P.O. Box 57000  
Irvine, CA 92619-7000  
Attn: General Manager

BUILDER: Heritage Hills Irvine, LLC  
25 Enterprise, Suite 400  
Aliso Viejo, CA 92656  
Attn: James Neil

SECTION 15. SUCCESSORS AND ASSIGNS; INTEGRATION; AMENDMENT.  
This Agreement shall be binding upon and inure to the benefit of the successor and assigns of BUILDER and DISTRICT. This Agreement constitutes the entire Agreement between BUILDER and DISTRICT and supersedes all prior understandings and agreements between the parties with respect to the subjects hereof. This Agreement may be modified only in writing signed by both parties hereto.

SECTION 16. LEGAL FEES. In the event of any declaratory or other legal or equitable action instituted between BUILDER and DISTRICT in connection with this Agreement, the

prevailing party shall be entitled to recover from the losing party all of its costs and expenses, including court costs and reasonable attorneys' fees.

SECTION 17. DEEMED APPROVAL. Any approval required to be given by either party pursuant to this Agreement shall be deemed given if no response to the party's request for such approval is received by the requesting party within fifteen (15) days following the written request for such approval.

SECTION 18. SEVERABILITY. If any term, provision, covenant or condition of this Agreement is held to be invalid, void or other unenforceable, to any extent, by any court of competent jurisdiction, the remainder of this Agreement shall not be affected thereby, and each term provision, covenant or condition of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

SECTION 19. APPLICABLE LAW. This Agreement shall be construed and enforced in accordance with the laws of the State of California.

SECTION 20. WAIVER. The waiver of any provision of this Agreement by either party shall not be deemed to be a waiver of any other provision or of any preceding or subsequent breach hereunder.

IN WITNESS WHEREOF, the parties to the Agreement have executed this Agreement on the date herein above written.

IRVINE RANCH WATER DISTRICT

By \_\_\_\_\_  
Paul Cook, General Manager

Dated \_\_\_\_\_

ATTEST:

By \_\_\_\_\_  
Secretary/Assistant Secretary

Dated \_\_\_\_\_

APPROVED AS TO FORM:

By \_\_\_\_\_  
Legal Counsel, IRWD

Dated \_\_\_\_\_

BUILDER:

Heritage Hills Irvine, LLC,  
A Delaware limited liability company

By Lennar Homes of California  
A California Corporation  
Its Administrative Member  
By \_\_\_\_\_  
Name \_\_\_\_\_  
Title: \_\_\_\_\_

Dated \_\_\_\_\_

ATTEST:

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

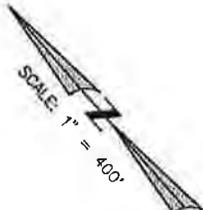
Dated \_\_\_\_\_

APPROVED AS TO FORM:

By \_\_\_\_\_  
Attorney for BUILDER

Dated \_\_\_\_\_

PLOTTED BY: marseis DATE: May 18, 2016 TIME: 11:07 AM F:\0373\Engineering\SA\_District 7\SA\_Backbone1\Imp\_Capital\Exhibit\07-RWCapitalLines.dwg



**LEGEND**

- PROPOSED 8" RECYCLED WATER (ZONE C) - IRWD CODE 8745
- PROPOSED 6" RECYCLED WATER (ZONE C) - IRWD CODE 8745
- - - EXISTING RECYCLED WATER (ZONE C)

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

**PLANNING AREA 51, HERITAGE HILLS**  
**DISTRICT 7**  
**CAPITAL RECYCLED WATER**

FIGURE  
 1

EXHIBIT A

# IRVINE RANCH WATER DISTR EXHIBIT "C"

## Expenditure Authorization

Project Name: PA51 GP DIST 7 Z ST AND A ST 6"8"RWZC  
 EPMS Project No: 30606 EA No: 1  
 Oracle Project No: 7169  
 Project Manager: LEW, KELLY  
 Project Engineer: RIOS, BELISARIO  
 Request Date: August 4, 2016

ID Split: Miscellaneous

### Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
212	99.6	BONDS YET TO BE SOLD**
253	.4	BONDS YET TO BE SOLD**
<b>Total</b>	<b>100.0%</b>	

### Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$492,800
<b>Total EA Requests:</b>	<b>\$492,800</b>
Previously Approved Budget:	\$0
Budget Adjustment Requested this EA:	\$492,800
<b>Updated Budget:</b>	<b>\$492,800</b>
<b>Budget Remaining After This EA</b>	<b>\$0</b>

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	20,000	0	20,000	20,000	0	20,000	3/16	3/17
ENGINEERING DESIGN - OUTSIDE	50,000	0	50,000	50,000	0	50,000	3/16	3/17
DESIGN STAFF FIELD SUPPORT	10,000	0	10,000	10,000	0	10,000	3/16	3/17
ENGINEERING - CA&I IRWD	25,000	0	25,000	25,000	0	25,000	3/16	3/17
ENGINEERING - CA&I OUTSIDE	30,000	0	30,000	30,000	0	30,000	3/16	3/17
CONSTRUCTION FIELD SUPPORT	10,000	0	10,000	10,000	0	10,000	3/16	3/17
CONSTRUCTION	300,000	0	300,000	300,000	0	300,000	3/16	3/17
LEGAL	3,000	0	3,000	3,000	0	3,000	3/16	3/17
Contingency - 10.00% Subtotal	\$44,800	\$0	\$44,800	\$44,800	\$0	\$44,800		
<b>Subtotal (Direct Costs)</b>	<b>\$492,800</b>	<b>\$0</b>	<b>\$492,800</b>	<b>\$492,800</b>	<b>\$0</b>	<b>\$492,800</b>		
Estimated G/A - 185.00% of direct labor*	\$120,300	\$0	\$120,300	\$120,300	\$0	\$120,300		
<b>Total</b>	<b>\$613,100</b>	<b>\$0</b>	<b>\$613,100</b>	<b>\$613,100</b>	<b>\$0</b>	<b>\$613,100</b>		
<b>Direct Labor</b>	<b>\$65,000</b>	<b>\$0</b>	<b>\$65,000</b>	<b>\$65,000</b>	<b>\$0</b>	<b>\$65,000</b>		

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

EA Originator:

*Christina Kessler*

8/3/16

Department Director:

*Rosario L. Buitrago*

8/5/16

Finance:

Board/General Manager:

\*\* IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$626,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

August 22, 2016

Prepared by: C. Kessler/K. Lew

Submitted by: K. Burton *RKM*

Approved by: Paul Cook *[Signature]*

## CONSENT CALENDAR

### PLANNING AREA 51 HERITAGE FIELDS CAPITAL FACILITIES

#### SUMMARY:

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

- Authorize the General Manager to accept Heritage Field's construction contract with FYDAQ in the amount of \$178,980 for the District 1, Magnet and Terrapin Recycled Water Improvements, Projects 6732 and 6595;
- Authorize the General Manager to accept Heritage Field's construction contract with FYDAQ in the amount of \$318,232 for the District 4, Area 2 Benchmark and Perspective and Benchmark from Bosque to 500 feet east of Bosque Improvements, Projects 6552, 6553, 6554, 6304 and 6306;
- Authorize the General Manager to accept Heritage Field's construction contract with FYDAQ in the amount of \$468,062 for the District 4, Area 1 Benchmark from Character to Cadence, Modjeska from Benchmark to Irvine Boulevard, Theme from Cadence to Benchmark and Episode from Benchmark to Frame Improvements, Projects 6683 and 6684;
- Authorize a budget increase for Project 4147 in the amount of \$660,000, from \$541,200 to \$1,201,200, and approve Contract Change Order Nos. 1, 2 and 3 to Projects 4153, 6476 and 4147 in the amounts of \$234,696, \$229,923 and \$674,515 respectively, for the addition of sewer pipeline, extension of domestic water and recycled water pipelines and upsizing recycled water pipelines within Marine Way;
- Approve Contract Change Order No. 4 to Project 4267, in the amount of \$295,525, for tasks related to upsizing the first phase of the Reach A Sewer;
- Approve Contract Change Order No. 6 to Project 4614, in the amount of \$558,845, for tasks related to upsizing the second phase of the Reach A Sewer; and
- Approve Contract Change Order No. 7 to Project 4614, in the amount of \$791,078.15, for tasks related to upsizing the third phase of the Reach A Sewer.

#### BACKGROUND:

Heritage Fields is moving forward with development of District 1 and 4 within PA 51. District 1 is bound by Irvine Boulevard to the north, Marine Way to the south, CA-133 to the west and Bosque to the east. District 4 is bound by Irvine Boulevard to the north, Cadence to the south, Bosque to the west and Chinon Street to the east. The Project Location Map is shown as Exhibit "A". As part of this development, Heritage Fields will design and construct IRWD's domestic water, sewer, and recycled water capital improvements. The required IRWD capital facilities are documented in the PA 51 Sub-Area Master Plan (SAMP) Update that is currently being prepared by Stantec.

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

District 1, Magnet and Terrapin Recycled Water Improvements:

The Magnet and Terrapin Recycled Water Improvements are being constructed under the same construction contract in the combined construction amount of \$178,980.

*District 1, Magnet Recycled Water Improvements:* The District 1, Magnet Recycled Water Improvements consist of installing approximately 2,000 feet of 6-inch diameter recycled water pipeline within Magnet between Ridge Valley and Bosque. Heritage Fields retained Hunsaker to prepare the Magnet Recycled Water Improvement plans and received bids from four contractors. Heritage Fields recommends awarding the construction contract to the lowest bidder, FYDAQ, for a bid amount of \$92,470 as shown in Exhibit “B”. In addition, Heritage Fields has received consultant proposals for geotechnical observation and testing, surveying, and construction support services. Staff has reviewed the consultant proposals and the construction bids and found the amounts to be acceptable. Proposals for design, field archeological and paleontological monitoring were not necessary because those costs were included as a part of the previously approved backbone improvements. A summary of the Magnet Recycled Water Improvement costs is shown below.

Design (Hunsaker)	\$ -0-
Construction (FYDAQ)	\$ 92,470.00
Geotechnical Services (Engeo)	\$ 8,400.00
Construction Engineering/Surveying (Hunsaker)	\$ 15,400.00
Heritage Fields Administration Fee (1%)	<u>\$ 9,247.00</u>
	\$125,517.00

*District 1, Terrapin Recycled Water Improvements:* The District 1, Terrapin Recycled Water Improvements consist of installing approximately 1,500 feet of 6-inch diameter recycled water pipeline within Terrapin from Trabuco Road to Cadence. Heritage Fields retained Hunsaker to prepare the Terrapin Recycled Water Improvement plans and received bids from four contractors. Heritage Fields recommends awarding the construction contract to the lowest bidder, FYDAQ, for a bid amount of \$86,510 as shown in Exhibit “C”. In addition, Heritage Fields has received consultant proposals for geotechnical observation and testing, surveying, and construction support services. Staff has reviewed the consultant proposals and the construction bids and found the amounts to be acceptable. Proposals for design and field archeological and paleontological monitoring were not necessary because those costs were included as a part of the previously approved backbone improvements. A summary of the Terrapin Recycled Water Improvement costs is shown in the following list.

Design (Hunsaker)	\$ -0-
Construction (FYDAQ)	\$ 86,510.00
Geotechnical Services (Engeo)	\$ 8,400.00
Construction Engineering/Surveying (Hunsaker)	\$ 14,500.00
Heritage Fields Administration Fee (1%)	<u>\$ 8,651.00</u>
	\$118,061.00

District 4, Area 2, Benchmark and Perspective and Benchmark from Bosque to 500 feet east of Bosque Improvements:

The Benchmark and Perspective and Benchmark from Bosque to 500 feet east of Bosque Improvements are being constructed under the same construction contract in the combined construction amount of \$318,232.

*District 4, Area 2, Benchmark and Perspective Improvements:* The District 4, Area 2, Benchmark and Perspective Improvements consist of installing approximately 1,300 feet of 12-inch diameter domestic water pipeline and 1,300 feet of 6-inch diameter recycled water pipeline within Benchmark between Perspective and Character, and 650 feet of 16-inch of sanitary sewer pipeline within Perspective between Cultivate and Irvine Boulevard. Heritage Fields retained Hunsaker to prepare the District 4 Benchmark and Perspective Improvement plans and received bids from four contractors. Heritage Fields recommends awarding the construction contract to the lowest bidder, FYDAQ, for a bid amount of \$272,163 as shown in Exhibit “D”. In addition, Heritage Fields has received consultant proposals for geotechnical observation and testing, surveying, construction support services and field archeological and paleontological monitoring. Staff has reviewed the consultant proposals and the construction bids and found the amounts to be acceptable. A summary of the District 4, Area 2, Benchmark and Perspective Improvement costs is shown below.

Design (Hunsaker)	\$ 60,721.65
Construction (FYDAQ)	\$272,163.00
Geotechnical Services (Engeo)	\$ 5,700.00
Construction Engineering/Surveying (Hunsaker)	\$ 25,300.00
Archeo/Paleo Monitoring (LSA)	\$ 4,210.00
Heritage Fields Administration Fee (1%)	<u>\$ 27,216.30</u>
	\$395,310.95

*District 4, Area 2, Benchmark from Bosque to 500 feet east of Bosque Improvements:* The District 4, Benchmark and Perspective Improvements consist of installing approximately 500 feet of 12-inch diameter domestic water pipeline and 500 feet of 6-inch diameter recycled water pipeline within Benchmark between Bosque and 500 feet east of Bosque. Heritage Fields retained Hunsaker to prepare the District 4, Area 2, Benchmark from Bosque to 500 feet east of Bosque Improvement plans and received bids from four contractors. Heritage Fields recommends awarding the construction contract to the lowest bidder, FYDAQ, for a bid amount of \$46,069 as shown in Exhibit “E”. In addition, Heritage Fields has received consultant proposals for geotechnical observation and testing, surveying, construction support services, field archeological and paleontological monitoring. Staff has reviewed the consultant proposals

and the construction bids and found the amounts to be acceptable. A summary of the District 4, Area 2, Benchmark from Bosque to 500 feet east of Bosque Improvement costs is shown below.

Design (Hunsaker)	\$ 10,278.35
Construction (FYDAQ)	\$ 46,069.00
Geotechnical Services (Engeo)	\$ 5,300.00
Construction Engineering/Surveying (Hunsaker)	\$ 12,900.00
Archeo/Paleo Monitoring (LSA)	\$ 3,250.00
Heritage Fields Administration Fee (1%)	<u>\$ 4,606.90</u>
	\$ 82,404.25

District 4, Area 1, Benchmark, Modjeska, Theme and Episode Improvements:

The District 4, Benchmark, Modjeska, Theme and Episode Improvements consist of installing approximately 1,000 feet of 12-inch diameter domestic water pipeline, 3,500 feet of 16-inch diameter recycled water pipeline, 500 feet of 12-inch diameter recycled water pipeline and 650 feet of 6-inch recycled water pipe line within Benchmark between Character and Cadence, Modjeska between Benchmark and Irvine Boulevard, Theme between Cadence and Benchmark and Episode between Benchmark and Frame. Heritage Fields retained Hunsaker to prepare the District 4, Area 1, Benchmark, Modjeska, Theme and Episode Improvement plans and received bids from five contractors. Heritage Fields recommends awarding the construction contract to the lowest bidder, FYDAQ, for a bid amount of \$468,062 as shown in Exhibit “F”. In addition, Heritage Fields has received consultant proposals for geotechnical observation and testing, surveying, construction support services and field archeological and paleontological monitoring. Staff has reviewed the consultant proposals and the construction bids and found the amounts to be acceptable. A summary of the District 4, Area 1, Benchmark, Modjeska, Theme and Episode Improvement costs is shown below.

Design (Hunsaker)	\$ 62,500.00
Construction (FYDAQ)	\$468,062.00
Geotechnical Services (Engeo)	\$ 16,900.00
Construction Engineering/Surveying (Hunsaker)	\$ 28,300.00
Archeo/Paleo Monitoring (LSA)	\$ 8,900.00
Heritage Fields Administration Fee (1%)	<u>\$ 46,806.20</u>
	\$631,468.20

PA 51 SAMP Update:

Stantec is preparing an update to the 2011 PA 51 SAMP (SAMP Update), which analyzes domestic water, sanitary sewer and recycled water demands based on the most current planning information available. While the update is not finalized, calculations from the model have identified several deficiencies related to recently constructed pipelines. Staff is processing several Contract Change Orders (CCO) as a means to expedite the construction process to meet the surrounding development schedules. The cost of each the following CCOs utilizes unit pricing that is consistent with unit pricing in the original bids where the contractor was awarded the project based on lowest bid.

*CCOs for Marine Way from Ridge Valley to 3,000 feet East of Ridge Valley Improvements:* The SAMP Update has identified the need for the addition of sewer within Marine Way (CCO No. 1) and deficiencies in the capacity of the Marine Way Recycled Water System that was constructed in 2014 (CCO No. 3). In addition, Heritage Fields has redesigned the alignment of the proposed street “GP-1” that changes the location where “GP-1” and Marine Way meet and requires the extension of existing domestic water and recycled water pipelines (CCO No. 2). As a result, Heritage Fields has requested three change orders as it relates to the change in scope to Hunsaker and Associate’s design and FYDAQ’s construction contract.

- CCO No. 1, as shown in Exhibit “G”, includes the addition of approximately 800 feet of 20-inch sanitary sewer pipeline, 100 feet of 18-inch sewer pipeline and five manholes. CCO No. 1, in the amount of \$234,696, is for the equipment, material, and labor to perform the aforementioned modifications.
- CCO No. 2, as shown in Exhibit “H”, includes the extension of approximately 1,000 feet of 12-inch domestic water pipeline, 800 feet of 20-inch recycled water pipeline and 200 feet of 16-inch recycled water pipeline. CCO No. 2, in the amount of \$229,923, is for the equipment, material, and labor to perform the aforementioned modifications.
- CCO No. 3, as shown in Exhibit “I”, includes replacing approximately 3,000 feet of 12-inch recycled water pipeline with 24-inch recycled pipeline within Marine Way. CCO No. 2, in the amount of \$674,515, is for the equipment, material, and labor to perform the aforementioned modifications.

*CCOs for the Reach A Sanitary Sewer Upsize:* The SAMP Update also identifies deficiencies in the capacity of the Reach A Sewer that was constructed in 2014. As a result, northern and southern segments of the Reach A Sewer require upsizing. Phase 1 was designed by Hunsaker and Associates and was constructed by Leatherwood while Phases 2 and 3 were designed by Michael Baker International and constructed by FYDAQ. The upsizing of Reach A has resulted in the following contract change orders.

- Reach A Upsize Phase 1 from Trabuco Road to Marine Way CCO No. 4, as shown in Exhibit “J” in the amount of \$295,525, consists of items associated with the design, construction and field services required for removing and upsizing approximately 250 feet of 12-inch sewer to 15-inch sewer and 400 feet of 12-inch sewer to 16-inch sewer.
- Reach A Upsize Phase 2 from Marine Way to Metrolink Railroad Tracks CCO No. 6, as shown in Exhibit “K” in the amount of \$558,845, consists of items associated with the design, construction and field services required for removing and upsizing approximately 860 feet of 12-inch sewer to 15-inch and 18-inch sewer between the intersection of Marine Way and Ridge Valley and the Metrolink railroad tracks. In addition, CCO No. 6 also includes budget necessary to coordinate with Metrolink and the sewer bypass plan that will be used for the phase 1 and phase 2 segments of the project.
- Reach A Upsize Phase 3 from Metrolink Railroad Tracks to Technology Drive CCO No. 7, as shown in Exhibit “L” in the amount of \$791,078.15, consists of items associated with

the design, construction and field services required for removing and upsizing approximately 1,300 feet of 12-inch sewer to 18-inch sewer south of the Metrolink railroad track. In addition, CCO No. 7 also includes the budget necessary for the sewer bypass plan that will be used for phase 3 of the project.

FISCAL IMPACTS:

Projects 6732, 6595, 6552, 6553, 6554, 6304, 6306, 6683, 6684, 4153, 6476, 4267 and 4614 are included in the FY 2016-17 Capital Budget and have adequate budget. Project 4147 is included in the FY 2016-17 Capital Budget and will require a budget increase as shown in the table below. An Expenditure Authorization is attached as Exhibit "M".

Project No.	Current Budget	Addition <Reduction>	Total Budget
4147	\$541,200	\$ 660,000	\$1,201,200

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on August 16, 2016.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO ACCEPT HERITAGE FIELD'S CONSTRUCTION CONTRACT WITH FYDAQ IN THE AMOUNT OF \$178,980 FOR THE DISTRICT 1, MAGNET AND TERRAPIN RECYCLED WATER IMPROVEMENTS, PROJECTS 6732 AND 6595; AUTHORIZE THE GENERAL MANAGER TO ACCEPT HERITAGE FIELD'S CONSTRUCTION CONTRACT WITH FYDAQ IN THE AMOUNT OF \$318,232 FOR THE DISTRICT 4, AREA 2 BENCHMARK AND PERSPECTIVE AND BENCHMARK FROM BOSQUE TO 500 FEET EAST OF BOSQUE IMPROVEMENTS, PROJECTS 6552, 6553, 6554, 6304 AND 6306; AUTHORIZE THE GENERAL MANAGER TO ACCEPT HERITAGE FIELD'S CONSTRUCTION CONTRACT WITH FYDAQ IN THE AMOUNT OF \$468,062 FOR THE DISTRICT 4, AREA 1 BENCHMARK FROM CHARACTER TO CADENCE, MODJESKA FROM BENCHMARK TO IRVINE BOULEVARD, THEME FROM CADENCE TO BENCHMARK AND EPISODE FROM BENCHMARK TO FRAME IMPROVEMENTS, PROJECTS 6683 AND 6684, AUTHORIZE A BUDGET INCREASE FOR PROJECT 4147 IN THE AMOUNT OF \$660,000, FROM \$541,200 TO \$1,201,200, AND APPROVE CONTRACT CHANGE ORDER NOS. 1, 2 AND 3 TO PROJECTS 4153, 6476 AND 4147 IN THE AMOUNTS OF \$234,696, \$229,923 AND \$674,515 RESPECTIVELY, FOR THE ADDITION OF SEWER PIPELINE,

EXTENSION OF DOMESTIC WATER AND RECYCLED WATER PIPELINES AND UPSIZING RECYCLED WATER PIPELINES WITHIN MARINE WAY; APPROVE CONTRACT CHANGE ORDER NO. 4 TO PROJECT 4267, IN THE AMOUNT OF \$295,525, FOR TASKS RELATED TO UPSIZING THE FIRST PHASE OF THE REACH A SEWER; APPROVE CONTRACT CHANGE ORDER NO. 6 TO PROJECT 4614, IN THE AMOUNT OF \$558,845, FOR TASKS RELATED TO UPSIZING THE SECOND PHASE OF THE REACH A SEWER; AND APPROVE CONTRACT CHANGE ORDER NO. 7 TO PROJECT 4614, IN THE AMOUNT OF \$791,078.15, FOR TASKS RELATED TO UPSIZING THE THIRD PHASE OF THE REACH A SEWER.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Bid Summary, District 1, Magnet Recycled Water Improvements
- Exhibit "C" – Bid Summary, District 1, Terrapin Recycled Water Improvements
- Exhibit "D" – Bid Summary, District 4, Benchmark and Perspective Improvements
- Exhibit "E" – Bid Summary, District 4, Benchmark, Bosque to 500 feet east of Bosque Improvements
- Exhibit "F" – Bid Summary, District 4, Benchmark, Modjeska, Theme and Episode Improvements
- Exhibit "G" – CCO No. 1, Marine Way from Ridge Valley to 3,000 feet east of Ridge Valley Improvements
- Exhibit "H" – CCO No. 2, Marine Way from Ridge Valley to 3,000 feet east of Ridge Valley Improvements
- Exhibit "I" – CCO No. 3, Marine Way from Ridge Valley to 3,000 feet east of Ridge Valley Improvements
- Exhibit "J" – CCO No. 4, Reach A Upsize – Phase 1 - From Trabuco Road to Marine Way
- Exhibit "K" – CCO No. 6, Reach A Upsize – Phase 2 – From Marine Way to Metrolink Railroad Tracks
- Exhibit "L" – CCO No. 7, Reach A Upsize – Phase 3 – From Metrolink Railroad Tracks to Technology Drive
- Exhibit "M" – Expenditure Authorization

# EXHIBIT "A"

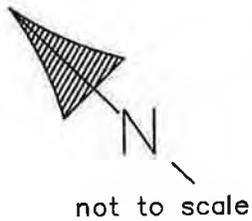
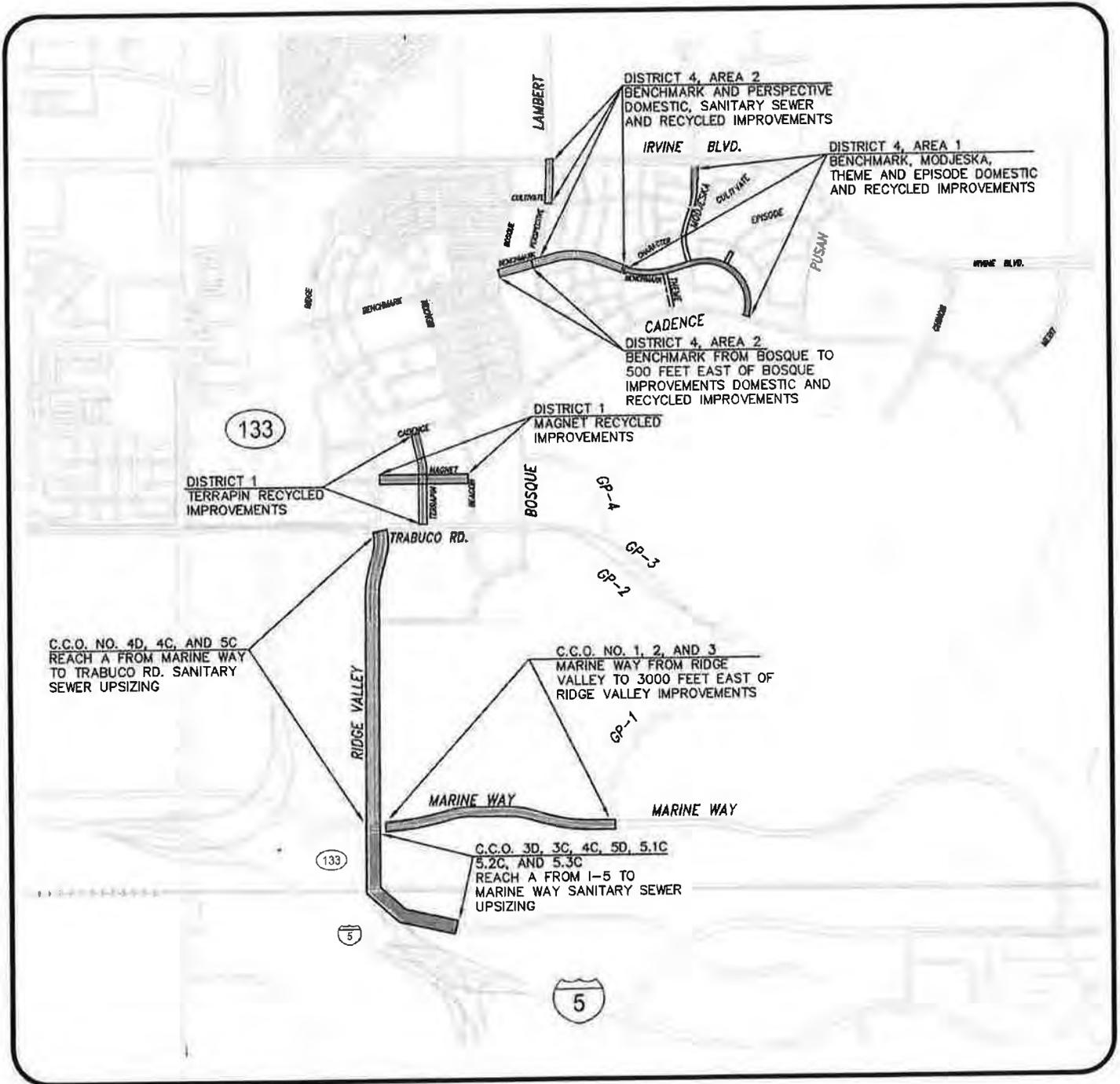


EXHIBIT "A"  
LOCATION MAP

EXHIBIT "B"



Bid Tabulations

**Owner: Heritage Fields El Toro, LLC**

**Project: District 1 Noso Capital Recycled Water Improvements IRWD Code 6587**

**Bid Date: November 16, 2015**

ITEM NO.	DESCRIPTION	UNIT MEAS	QUAN	ENGINEER ESTIMATE		FYDAQ Attn: Steve Bayer Tel: 714 447 9760		L&S Construction Attn: Elton Wehham Tel: 714 528 3232		Kennedy Attn: David Chorak Tel: 649 380 8363		KEC Attn: James Elfring Tel: 951 734 3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
1	IRWD CODE 6587 CAPITAL RECYCLED WATER IMPROVEMENTS												
1	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid) Complete	LS	1	1,500.00	1,500.00	750.00	750.00	1,800.00	1,800.00	2,200.00	2,200.00	2,500.00	2,500.00
2	Performance, Labor & Payment Bond, Complete	LS	1	1,000.00	1,000.00	1,500.00	1,500.00	1,500.00	1,500.00	1,600.00	1,600.00	2,500.00	2,500.00
3	Furnish and Install 6" PVC Purple Pipe, C-900, DR 14, including Trenching, Bedding, Backfill, Compaction, All Fittings, Appurtenances and Thrust Blocks per IRWD Std DWG W-17 and as shown on the plans, Complete	LF	1,924	40.00	76,960.00	30.00	57,720.00	33.00	63,492.00	39.00	75,036.00	75.00	144,300.00
4	Furnish and Install 6" Resilient Wedge Gate Valve, CL 150, Flg'd Valve Box per IRWD Std DWG W-22, including 1 Raise, Complete	EA	2	3,500.00	7,000.00	2,000.00	4,000.00	1,610.00	3,220.00	1,200.00	2,400.00	4,500.00	9,000.00
5	Furnish and Install 1" Air-Vac Assembly, Case 3, per IRWD Std DWG W-11, including 1 Raise, Complete	EA	1	3,500.00	3,500.00	2,700.00	2,700.00	2,900.00	2,900.00	2,800.00	2,800.00	5,800.00	5,800.00
6	Remove Temporary Flush-out and Join Existing 6" PVC Recycled Water Line, Complete	EA	2	2,500.00	5,000.00	1,500.00	3,000.00	2,800.00	5,600.00	5,000.00	10,000.00	1,800.00	3,600.00
7	Remove Temporary Flush-out, 4" PVC RW Line & 4" D1 TExPO Adapter and Join Existing 4" RWGV, Complete	EA	2	3,500.00	7,000.00	1,500.00	3,000.00	2,800.00	5,600.00	5,000.00	10,000.00	1,800.00	3,600.00
8	Remove 6"x6"x4" D1 Tee, Thrust Block, 4" RWGV, a Portion of 4" PVC Line, 4" Flg'd Adapter and Join Ex 4" & 6" C900, DR14, RW Lines, including Protecting Existing 6" RWGV and 2 Existing 6" Flg'd Adapters, then Furnish and Install 6"x6"x6" D1 Cross, Flg'd, w/Thrust Blocks per IRWD Std DWGs W-18 & W-19 including 1 Raise, Complete	EA	1	12,000.00	12,000.00	10,000.00	10,000.00	5,600.00	5,600.00	5,000.00	5,000.00	11,500.00	11,500.00
9	Remove, Dispose & Replace Pavement as Necessary to Make Connection, Complete	LS	1	5,000.00	5,000.00	5,000.00	5,000.00	3,000.00	3,000.00	3,000.00	3,000.00	8,200.00	8,200.00
10	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	EA	4	500.00	2,000.00	450.00	1,800.00	500.00	2,000.00	200.00	800.00	850.00	3,400.00
11	Pressure Test Pipeline, Complete	LS	1	3,500.00	3,500.00	3,000.00	3,000.00	2,200.00	2,200.00	1,000.00	1,000.00	4,000.00	4,000.00
SUB-TOTAL, IMPROVEMENTS					<b>\$124,460.00</b>		<b>\$82,470.00</b>		<b>\$96,962.00</b>		<b>\$113,836.00</b>		<b>\$199,400.00</b>
TOTAL, IMPROVEMENTS					<b>\$124,460.00</b>		<b>\$82,470.00</b>		<b>\$96,962.00</b>		<b>\$113,836.00</b>		<b>\$199,400.00</b>

EXHIBIT "C"



Bid Tabulations

Owner: Heritage Fields El Toro, LLC

Project: District 1 Noso Capital Recycled Water Improvements IRWD Code 6526

Bid Date: November 16, 2015

ITEM NO.	DESCRIPTION	UNIT MEAS	QUAN	ENGINEER ESTIMATE		FYDAQ Attn: Steve Beyer Tel: 714 447 9760		L&S Construction Attn: Elton Welham Tel: 714 529 3232		Kennedy Attn: David Chorak Tel: 949 380 8363		KEC Attn: James Ellring Tel: 851 731 3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
<b>IRWD CODE 6526 CAPITAL RECYCLED WATER IMPROVEMENTS</b>													
1	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1	1,500.00	1,500.00	750.00	750.00	1,700.00	1,700.00	1,900.00	1,900.00	2,500.00	2,500.00
2	Performance, Labor & Payment Bond, Concrete	LS	1	1,000.00	1,000.00	1,500.00	1,500.00	1,500.00	1,500.00	1,480.00	1,480.00	2,500.00	2,500.00
3	Furnish and Install 6" PVC Purple Pipe, C-900, DR 14, including Trenching, Bedding, Backfill, Compaction, All Fittings, Appurtenances and Thrust Blocks per IRWD Std DWG W-17 and as shown on the plans, Complete	LF	1,472	40.00	58,880.00	30.00	44,160.00	35.00	51,520.00	48.00	67,712.00	78.00	114,816.00
4	Furnish and Install 6" Resilient Wedge Gate Valve, Cl. 150, Fig'd Valve Box per IRWD Std DWG W-22, including 1 Raise, Complete	EA	1	4,000.00	4,000.00	2,200.00	2,200.00	1,850.00	1,850.00	2,000.00	2,000.00	4,700.00	4,700.00
5	Furnish and Install 6" Resilient Wedge Gate Valve, Cl. 150, Fig'd Valve Box per IRWD Std DWG W-22, including 1 Raise, Complete	EA	9	3,500.00	31,500.00	2,000.00	18,000.00	1,610.00	14,490.00	1,200.00	10,800.00	3,800.00	34,200.00
6	Furnish and Install Temporary Flush-Out Assembly per IRWD Std DWG W-12, Complete	EA	2	2,500.00	5,000.00	1,500.00	3,000.00	2,400.00	4,800.00	1,300.00	2,600.00	4,800.00	9,600.00
7	Furnish and Install 1" Air-Vac Assembly, Case 3, per IRWD Std DWG W-11, including 1 Raise, Complete	EA	1	3,500.00	3,500.00	2,700.00	2,700.00	2,900.00	2,900.00	2,400.00	2,400.00	5,800.00	5,800.00
8	Remove Temporary Flush-out and Join Existing 6" PVC Recycled Water Line, Complete	EA	1	3,500.00	3,500.00	1,500.00	1,500.00	2,800.00	2,800.00	5,000.00	5,000.00	1,800.00	1,800.00
9	Furnish and Install 5"x8"x6" D1 Cul-in Tee, Fig'd, per IRWD Std DWGs W-16 & W-19, including Coupling Adapter, Serrated Steel Retaining Ring, 8 MI Polyethylene Encasement, and Stainless Steel Tie-Rods, Nuts, Bolts and Washers, Complete	EA	1	12,000.00	12,000.00	10,000.00	10,000.00	7,500.00	7,500.00	7,500.00	7,500.00	9,500.00	9,500.00
10	Remove, Dispose & Replace Pavement as Necessary to Make Connection, Complete	LS	1	5,000.00	5,000.00	5,000.00	5,000.00	3,500.00	3,500.00	2,000.00	2,000.00	10,000.00	10,000.00
11	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	EA	6	500.00	3,000.00	450.00	2,700.00	500.00	3,000.00	200.00	1,200.00	780.00	4,680.00
12	Pressure Test Pipeline, Complete	LS	1	3,000.00	3,000.00	3,000.00	3,000.00	2,200.00	2,200.00	1,000.00	1,000.00	4,000.00	4,000.00
SUB-TOTAL, IMPROVEMENTS.....					\$117,880.00	\$86,510.00	\$91,320.00	\$100,782.00	\$189,396.00				
TOTAL, IMPROVEMENTS.....					\$117,880.00	\$86,510.00	\$91,320.00	\$100,782.00	\$189,396.00				

EXHIBIT "D"

Bid Tabulations



**Owner: Heritage Fields El Toro, LLC**

**Project: District 4 - Area 2 - CAP & MBB Wet Utility Improvements IRWD CODE 6523**

**Bid Date: November 20, 2015**

ITEM NO.	I. IRWD CODE 6523 DOMESTIC WATER IMPROVEMENTS - BENCHMARK FROM PERSPECTIVE TO CHARACTER (CAPITAL)	UNIT MEAS	QUAN	ENGINEER ESTIMATE		FYDAQ Attn: Steve Beyer Tel: 714.447.9760		LEATHERWOOD Attn: Bobby Kawai Tel: 714.593.6575		KEC Attn: James Elfving Tel: 951.734.3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
1.	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1	2,500.00	2,500.00	500.00	500.00	2,500.00	2,500.00	3,000.00	3,000.00
2.	Performance, Labor and Payment Bond, Complete	LS	1	1,500.00	1,500.00	1,100.00	1,100.00	2,000.00	2,000.00	2,500.00	2,500.00
3.	Furnish and Install 12" PVC Pipe, C-900, DR 14, w/Trenching, Bedding & Backfill per IRWD Std W-17 including all fittings, appurtenances and thrust blocks per IRWD Std. W-16 and W-19 and as shown on the plans, Complete	LF	1,318	75.00	98,850.00	43.00	56,674.00	85.00	112,030.00	110.00	144,980.00
4.	Furnish and Install 12" Butterfly Valve, Cl. 150B, Fig'd, w/Thrust Block per IRWD Std. DWG. W-22, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	EA	3	4,500.00	13,500.00	2,925.00	8,775.00	4,000.00	12,000.00	6,927.00	20,781.00
5.	Furnish and Install Temporary Flush-out Assembly per IRWD Std. DWG W-12, including Initial Valve Can Raise, Complete	EA	1	3,000.00	3,000.00	1,500.00	1,500.00	3,100.00	3,100.00	5,175.00	5,175.00
6.	Remove Temporary Flush-out Assembly and join existing 12" PVC Domestic Water Line, Complete	EA	1	2,500.00	2,500.00	1,500.00	1,500.00	3,500.00	3,500.00	2,716.00	2,716.00
7.	Raise Valve Can to Final Grade, Complete	EA	4	500.00	2,000.00	450.00	1,800.00	400.00	1,600.00	1,497.00	5,968.00
8.	Chlorinate & Pressure Test Pipeline including Disposal of Chlorinated Water, Complete	LS	1	4,000.00	4,000.00	3,600.00	3,600.00	4,000.00	4,000.00	8,000.00	8,000.00
<b>SUB-TOTAL, IMPROVEMENTS.....</b>				<b>\$127,850.00</b>		<b>\$75,449.00</b>		<b>\$140,730.00</b>		<b>\$193,140.00</b>	

ITEM NO.	III. IRWD CODE 6523 RECYCLED WATER IMPROVEMENTS - BENCHMARK FROM PERSPECTIVE TO CHARACTER (CAPITAL)	UNIT MEAS	QUAN	ENGINEER ESTIMATE		FYDAQ Attn: Steve Beyer Tel: 714.447.9760		LEATHERWOOD Attn: Bobby Kawai Tel: 714.593.6575		KEC Attn: James Elfving Tel: 951.734.3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
1.	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1	2,500.00	2,500.00	500.00	500.00	1,800.00	1,800.00	1,000.00	1,000.00
2.	Performance, Labor and Payment Bond, Complete	LS	1	1,000.00	1,000.00	700.00	700.00	1,500.00	1,500.00	1,000.00	1,000.00
3.	Furnish and Install 6" PVC Purple Pipe, C900, DR 14, w/Trenching, Bedding & Backfill per IRWD Std W-17 including all fittings, appurtenances and thrust blocks per IRWD Std W-16 and W-19 and as shown on the plans, Complete	LF	1,296	50.00	64,800.00	24.00	31,104.00	80.00	103,680.00	58.00	75,168.00
4.	Furnish and Install 6" Butterfly Valve, Cl. 150B, Fig'd, including Initial Raise, valve box per IRWD Std. W-22, Complete	EA	2	2,000.00	4,000.00	1,685.00	3,370.00	2,500.00	5,000.00	4,419.00	8,838.00
5.	Furnish and Install Temporary Flush-out Assembly per IRWD Std. DWG W-12, including Initial Valve Can Raise, Complete	EA	1	2,500.00	2,500.00	1,500.00	1,500.00	1,500.00	1,500.00	4,418.00	4,418.00
6.	Remove Temporary Flush-Out & Join Existing 6" PVC Recycled Water Line, Complete	EA	1	2,000.00	2,000.00	1,500.00	1,500.00	2,500.00	2,500.00	2,383.00	2,383.00
7.	Raise Valve Can to Final Grade, Complete	EA	3	500.00	1,500.00	450.00	1,350.00	400.00	1,200.00	665.00	1,995.00
8.	Pressure Test Pipeline, Complete	LS	1	2,000.00	2,000.00	3,000.00	3,000.00	3,000.00	3,000.00	5,280.00	5,280.00
<b>SUB-TOTAL, IMPROVEMENTS.....</b>				<b>\$80,300.00</b>		<b>\$43,024.00</b>		<b>\$120,180.00</b>		<b>\$100,082.00</b>	

ITEM NO.	DESCRIPTION	UNIT MEAS	QUAN
<b>V. IRWD CODE 6523 SANITARY SEWER IMPROVEMENTS - PERSPECTIVE FROM CULTIVATE TO IRVINE BOULEVARD (CAPITAL)</b>			
1.	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1
2.	Performance, Labor and Payment Bond, Complete	LS	1
3.	Furnish and Install 16" PVC C905, DR 18, Trenching, Bedding, Backfill & Compaction per IRWD Std. S-6 including Indicator Tape, Complete	LF	634
4.	Core Drill into existing 60" Manhole for connection of proposed 16" PVC Sewer, re-form Manhole base with smooth channel for proposed outlet. See Detail 1 on Plan Sheet 10 and per IRWD Std. S-1,	EA	1
5.	Sawcut, remove and replace AC trench in Irvine Blvd as shown on Plan Sheet 10, Complete	LS	1
6.	Construct 60" DIA. Manhole per IRWD Std. DWG. S-1, including Initial Raise, Complete	EA	2
7.	Construct 48" DIA. Manhole per IRWD Std. DWG. S-1, including Initial Raise, Complete	EA	1
8.	Remove Temporary 6" Terminal Cleanout & Join Existing Sewer Line, Complete	EA	1
9.	Raise 6" Temporary Terminal Cleanout to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	EA	1
10.	Raise Manholes to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	EA	3
11.	Air Test and Video Pipeline Per IRWD Standards & Specifications, Complete	LS	1
12.	Additional Clean & Ball Of Sewer, Complete	LS	1
<b>SUB-TOTAL, IMPROVEMENTS.....</b>			

ENGINEER ESTIMATE		FYDAQ Attn: Steve Beyer Tel: 714.447.9760		LEATHERWOOD Attn: Bobby Kawai Tel: 714.593.6575		KEC Attn: James Elfring Tel: 951.734.3010	
PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
3,000.00	3,000.00	500.00	500.00	2,800.00	2,800.00	3,000.00	3,000.00
2,000.00	2,000.00	2,200.00	2,200.00	2,300.00	2,300.00	2,500.00	2,500.00
175.00	110,950.00	180.00	114,120.00	165.00	104,610.00	143.00	90,662.00
5,000.00	5,000.00	2,500.00	2,500.00	5,000.00	5,000.00	14,371.00	14,371.00
#####	12,500.00	7,500.00	7,500.00	10,000.00	10,000.00	13,308.00	13,308.00
7,500.00	15,000.00	7,050.00	14,100.00	7,700.00	15,400.00	17,356.00	34,712.00
6,500.00	6,500.00	4,320.00	4,320.00	5,000.00	5,000.00	14,301.00	14,301.00
2,500.00	2,500.00	1,500.00	1,500.00	2,500.00	2,500.00	3,104.00	3,104.00
500.00	500.00	450.00	450.00	400.00	400.00	1,996.00	1,996.00
500.00	1,500.00	500.00	1,500.00	600.00	1,800.00	2,218.00	6,654.00
3,000.00	3,000.00	2,500.00	2,500.00	3,500.00	3,500.00	4,219.00	4,219.00
3,000.00	3,000.00	2,500.00	2,500.00	3,000.00	3,000.00	1,331.00	1,331.00
<b>SUB-TOTAL, IMPROVEMENTS.....</b>		<b>\$165,450.00</b>		<b>\$153,690.00</b>		<b>\$156,310.00</b>	

**TOTAL, IMPROVEMENTS.....** **\$373,800.00** **\$272,163.00** **\$417,220.00** **\$483,380.00**

EXHIBIT "E"

Bid Tabulations



Owner: Heritage Fields El Toro, LLC

Project: District 4 - Area 2 - CAP & MBB Wet Utility Improvements IRWD CODE 642E

Bid Date: November 20, 2015

ITEM NO.	IRWD CODE 642E CAPITAL DOMESTIC WATER IMPROVEMENTS	UNIT MEAS	QUAN	ENGINEER ESTIMATE		FYDAG Attn: Steve Beyer Tel: 714 447 9760		KENNEDY Attn: David Chorsk Tel: 949 380 6363		LEATHERWOOD Attn: Bobby Kawa Tel: 714 593 6575		KEC Attn: James Elting Tel: 951 734 3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
1	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1	1,000.00	1,000.00	500.00	500.00	1,050.00	1,050.00	1,100.00	1,100.00	1,000.00	1,000.00
2	Performance, Labor and Payment Bond, Complete	LS	1	1,000.00	1,000.00	400.00	400.00	800.00	800.00	900.00	900.00	1,000.00	1,000.00
3	Furnish and Install 12" PVC Pipe, C-900, DR 14, including Trenching, Bedding, Backfill, Compaction, All Fittings, Appurtenances, and Thrust Blocks per IRWD Std. W-17 and as Shown on the Plans, Complete	LF	451	75.00	33,825.00	45.00	19,293.00	98.00	44,158.00	100.00	45,100.00	135.00	60,885.00
4	Furnish and Install Temporary Flush-out Assembly per IRWD Std. DWG W-12, including 1 Raise, Complete	EA	1	2,000.00	2,000.00	1,500.00	1,500.00	2,200.00	2,200.00	3,100.00	3,100.00	4,500.00	4,500.00
5	Remove Temporary Flush-out Assembly and Join Existing 12" PVC Domestic Water Line, Complete	EA	1	3,500.00	3,500.00	1,500.00	1,500.00	5,000.00	5,000.00	3,500.00	3,500.00	3,500.00	3,500.00
6	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, Complete	LS	1	3,000.00	3,000.00	3,600.00	3,600.00	1,500.00	1,500.00	3,000.00	3,000.00	3,400.00	3,400.00
<b>SUB-TOTAL, IMPROVEMENTS</b>					<b>\$44,325.00</b>		<b>\$26,893.00</b>		<b>\$54,748.00</b>		<b>\$56,700.00</b>		<b>\$76,245.00</b>

ITEM NO.	IRWD CODE 642E CAPITAL RECYCLED WATER IMPROVEMENTS	UNIT MEAS	QUAN	ENGINEER ESTIMATE		FYDAG Attn: Steve Beyer Tel: 714 447 9760		KENNEDY Attn: David Chorsk Tel: 949 380 6363		LEATHERWOOD Attn: Bobby Kawa Tel: 714 593 6575		KEC Attn: James Elting Tel: 951 734 3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
7	Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1	1,000.00	1,000.00	500.00	500.00	750.00	750.00	1,100.00	1,100.00	800.00	800.00
8	Performance, Labor and Payment Bond, Complete	LS	1	1,000.00	1,000.00	300.00	300.00	579.00	579.00	900.00	900.00	600.00	600.00
9	Furnish and Install 8" PVC Purple Pipe, C-900, DR 14, including Trenching, Bedding, Backfill, Compaction, All Fittings, Appurtenances and Thrust Blocks per IRWD Std. DWG W-17 and as shown on the Plans, Complete	LF	474	55.00	26,070.00	24.00	11,376.00	83.00	29,862.00	100.00	47,400.00	65.00	30,732.00
10	Remove Temporary Flush-out Assembly and Join Existing 8" PVC Recycled Water Line, Complete	EA	1	3,500.00	3,500.00	1,500.00	1,500.00	5,000.00	5,000.00	2,500.00	2,500.00	3,000.00	3,000.00
11	Furnish and Install Temporary Flush-out Assembly per IRWD Std. W-12, including 1 Raise, Complete	EA	1	2,500.00	2,500.00	2,500.00	2,500.00	1,000.00	1,000.00	1,500.00	1,500.00	5,500.00	5,500.00
12	Pressure Test Pipeline, Complete	LS	1	3,000.00	3,000.00	3,000.00	3,000.00	2,000.00	2,000.00	2,000.00	2,000.00	3,400.00	3,400.00
<b>SUB-TOTAL, IMPROVEMENTS</b>					<b>\$37,070.00</b>		<b>\$18,176.00</b>		<b>\$39,191.00</b>		<b>\$56,400.00</b>		<b>\$45,532.00</b>
<b>SUB-TOTAL, IMPROVEMENTS</b>					<b>\$81,395.00</b>		<b>\$46,069.00</b>		<b>\$93,939.00</b>		<b>\$112,100.00</b>		<b>\$121,817.00</b>

EXHIBIT "F"

Bid Tabulations



**Owner: Heritage Fields El Toro, LLC**  
**Project: District 14 Area 1 CAP IRWD Code 6546 Wet Utility Improvements**  
**Bid Date: November 23, 2015**

ITEM NO.	IRWD CODE 6546 DOMESTIC WATER IMPROVEMENTS - BENCHMARK FROM CHARACTER TO MODERNA (CAPITAL)	UNIT MEAS	QUAN	ENGINEER ESTIMATE		FYDAG Attn: Steve Beyer Tel: 714 447 5760		L&S Construction Attn: Elton Waham Tel: 714 528 3232		Kennedy Pipeline Attn: David Dornak Tel: 949 380 8362		Leeburwood Construction Attn: Bobby Kawai Tel: 714 593 6575		KEC Engineering Attn: James Ehmg Tel: 951 734 3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
				\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1	Installation, Establish Construction Water (Not to Exceed 2% of Bid). Complete	LS	1	1,000.00	1,000.00	500.00	500.00	2,000.00	2,000.00	2,200.00	2,200.00	2,300.00	2,300.00	2,000.00	2,000.00
2	Performance, Labor and Payment Bond, Complete	LS	1	1,500.00	1,500.00	1,000.00	1,000.00	1,750.00	1,750.00	1,700.00	1,700.00	2,000.00	2,000.00	2,000.00	2,000.00
3	Furnish and install 12" PVC Pipe, C-900, DR 14, w/Trenching, Boring & Backfill per IRWD Std W-17 including all fittings, appurtenances and thrust blocks per IRWD Std W-18 and W-19 and as shown on the plans. Complete	LF	593	80.00	48,000.00	43.00	42,689.00	57.00	56,601.00	80.00	79,440.00	80.00	79,440.00	107.00	106,291.00
4	Furnish and install 12" Butterfly Valve, CI 1508, Flg'd, including Initial Raise, valve box per IRWD Std DW-22 including initial Case, Valve Box per IRWD Std W-22. Complete	EA	6	6,000.00	36,000.00	2,905.00	17,550.00	4,700.00	28,200.00	4,300.00	24,000.00	4,000.00	24,000.00	10,847.00	65,082.00
5	Furnish and install 12" Temporary D.I. Blind Flange, Complete	EA	1	1,000.00	1,000.00	500.00	500.00	2,400.00	2,400.00	850.00	850.00	500.00	500.00	2,148.00	2,148.00
6	Remove Temporary Flush-Out Assembly and Join Existing 12" PVC Domestic Water Line. Complete	EA	1	1,500.00	1,500.00	1,500.00	1,500.00	9,000.00	9,000.00	5,000.00	5,000.00	9,000.00	9,000.00	3,802.00	3,802.00
7	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move. Complete	EA	8	500.00	3,000.00	450.00	3,700.00	400.00	2,400.00	700.00	1,700.00	400.00	2,400.00	1,227.00	7,200.00
8	Chlorinate & Pressure Test Pipeline including Disposal of Chlorinated Water. Complete	LS	1	1,500.00	1,500.00	3,800.00	3,800.00	3,400.00	3,400.00	1,800.00	1,800.00	5,000.00	5,000.00	4,908.00	4,908.00
SUB-TOTAL, IMPROVEMENTS					\$81,150.00		\$70,649.00		\$181,751.00		\$115,190.00		\$119,150.00		\$195,674.00

ITEM NO.	IRWD CODE 6546 RECYCLED WATER IMPROVEMENTS - BENCHMARK FROM CHARACTER TO MODERNA (CAPITAL)	UNIT MEAS	QUAN	ENGINEER ESTIMATE		FYDAG Attn: Steve Beyer Tel: 714 447 5760		L&S Construction Attn: Elton Waham Tel: 714 528 3232		Kennedy Pipeline Attn: David Chork Tel: 949 380 8362		Leeburwood Construction Attn: Bobby Kawai Tel: 714 593 6575		KEC Engineering Attn: James Ehmg Tel: 951 734 3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
				\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
9	Installation, Establish Construction Water (Not to Exceed 2% of Bid). Complete	LS	1	1,000.00	1,000.00	500.00	500.00	2,000.00	2,000.00	3,400.00	3,400.00	7,100.00	7,100.00	3,000.00	3,000.00
10	Performance, Labor and Payment Bond, Complete	LS	1	3,000.00	3,000.00	3,000.00	3,000.00	4,800.00	4,800.00	4,100.00	4,100.00	5,500.00	5,500.00	3,000.00	3,000.00
11	Furnish and install 16" PVC Purple Pipe, C900, DR 18, w/Trenching, Boring & Backfill per IRWD Std W-17 including all fittings, appurtenances and thrust blocks per IRWD Std W-18 and W-19 and as shown on the plans. Complete	LF	1,717	80.00	137,360.00	75.00	128,775.00	74.00	127,058.00	85.00	145,115.00	125.00	214,625.00	81.00	156,247.00
12	Furnish and install 16" Butterfly Valve, CI 1508, Flg'd, including Initial Raise, valve box per IRWD Std W-22. Complete	EA	6	7,000.00	42,000.00	6,000.00	36,000.00	7,100.00	42,600.00	7,000.00	42,000.00	7,500.00	45,000.00	9,025.00	54,150.00
13	Furnish and install 12" Butterfly Valve, CI 1508, Flg'd, including Initial Raise, valve box per IRWD Std W-22. Complete	EA	1	6,000.00	6,000.00	5,000.00	5,000.00	4,500.00	4,500.00	4,000.00	4,000.00	4,000.00	4,000.00	6,062.00	6,062.00
14	Furnish and install 8" PVC Purple Pipe, C900, DR 14, w/Trenching, Boring & Backfill per IRWD Std W-17 including all fittings, appurtenances and thrust blocks per IRWD Std W-18 and W-19 and as shown on the plans. Complete	LF	697	30.00	20,910.00	24.00	15,288.00	30.00	18,110.00	65.00	41,465.00	80.00	50,980.00	56.00	35,672.00
15	Furnish and install 8" Butterfly Valve, CI 1508, Flg'd, including Initial Raise, valve box per IRWD Std W-22. Complete	EA	3	2,000.00	6,000.00	1,685.00	5,055.00	2,000.00	6,000.00	2,000.00	6,000.00	3,200.00	9,600.00	4,062.00	12,186.00
16	Remove Temporary Flush-Out & Join Existing 8" PVC Recycled Water Line. Complete	EA	1	1,500.00	1,500.00	1,500.00	1,500.00	3,400.00	3,400.00	5,000.00	5,000.00	5,000.00	5,000.00	2,094.00	2,094.00
17	Furnish and install 2" Air-Use Assembly, Case 3, per IRWD Std DW-11. Complete	EA	1	4,500.00	4,500.00	4,500.00	4,500.00	5,600.00	5,600.00	2,800.00	2,800.00	5,500.00	5,500.00	10,007.00	10,007.00
18	Remove Temporary Flush-Out & Join Existing 16" PVC Recycled Water Line. Complete	EA	1	2,500.00	2,500.00	2,500.00	2,500.00	5,200.00	5,200.00	5,000.00	5,000.00	5,000.00	5,000.00	3,138.00	3,138.00
19	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move. Complete	EA	8	500.00	3,000.00	450.00	3,700.00	400.00	2,400.00	700.00	2,000.00	400.00	2,000.00	1,227.00	7,200.00
20	Pressure Test Pipeline. Complete	LS	1	3,500.00	3,500.00	3,000.00	3,000.00	4,400.00	4,400.00	1,000.00	1,000.00	4,500.00	4,500.00	1,227.00	1,227.00
SUB-TOTAL, IMPROVEMENTS					\$239,470.00		\$209,616.00		\$223,589.00		\$281,620.00		\$157,335.00		\$279,140.00

ITEM NO.	DESCRIPTION	UNIT MEAS	QUAN	ENGINEER ESTIMATE		FYDAQ Attn: Steve Beyer Tel: 714.447.8760		L&S Construction Attn: Eilon Wehram Tel: 714.528.3232		Kennedy Pipeline Attn: David Chorak Tel: 949.380.8363		Leatherwood Construction Attn: Bobby Kawai Tel: 714.583.6575		KEC Engineering Attn: James Eving Tel: 851.734.3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
21	Modernization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1	500.00	500.00	500.00	500.00	3,000.00	3,000.00	870.00	870.00	1,100.00	1,100.00	400.00	400.00
22	Performance, Labor and Payment Bond, Complete	LS	1	500.00	500.00	500.00	500.00	4,800.00	4,800.00	660.00	660.00	1,000.00	1,000.00	400.00	400.00
23	Furnish and install 12" PVC Purple Pipe, C900, DR 14, w/Trenching, Bedding & Backfill per IRWD S&E W-17 including all fittings, appurtenances and thrust blocks per IRWD S&E W-16 and W-19 and as shown on the plans, Complete	LF	502	65.00	27,610.00	45.00	22,590.00	57.00	28,614.00	75.00	37,650.00	100.00	50,200.00	71.00	35,647.00
24	Remove Temporary Flush-Out & Join Existing 12" PVC Recycled Water Line, Complete	EA	1	1,500.00	1,500.00	1,500.00	1,500.00	5,500.00	5,500.00	5,000.00	5,000.00	3,500.00	3,500.00	2,500.00	2,500.00
25	Pressure Test Pipeline, Complete	LS	1	3,000.00	3,000.00	3,000.00	3,000.00	2,500.00	2,500.00	1,000.00	1,000.00	1,500.00	1,500.00	2,454.00	2,454.00
<b>SUB-TOTAL, IMPROVEMENTS</b>					<b>\$33,110.00</b>		<b>\$28,090.00</b>		<b>\$44,416.00</b>		<b>\$45,180.00</b>		<b>\$67,300.00</b>		<b>\$41,471.00</b>

ITEM NO.	DESCRIPTION	UNIT MEAS	QUAN	ENGINEER ESTIMATE		FYDAQ Attn: Steve Beyer Tel: 714.447.8760		L&S Construction Attn: Eilon Wehram Tel: 714.528.3232		Kennedy Pipeline Attn: David Chorak Tel: 949.380.8363		Leatherwood Construction Attn: Bobby Kawai Tel: 714.583.6575		KEC Engineering Attn: James Eving Tel: 851.734.3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
26	Modernization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1	1,000.00	1,000.00	300.00	300.00	3,000.00	3,000.00	2,900.00	2,900.00	4,400.00	4,400.00	3,000.00	3,000.00
27	Performance, Labor and Payment Bond, Complete	LS	1	2,500.00	2,500.00	2,000.00	2,000.00	4,800.00	4,800.00	2,300.00	2,300.00	3,500.00	3,500.00	2,000.00	2,000.00
28	Furnish and install 18" PVC Purple Pipe, C900, DR 18, w/Trenching, Bedding & Backfill per IRWD S&E W-17 including all fittings, appurtenances and thrust blocks per IRWD S&E W-16 and W-19 and as shown on the plans, Complete	LF	1,421	75.00	107,025.00	75.00	107,025.00	74.00	105,598.00	86.00	122,722.00	125.00	177,675.00	90.00	128,430.00
29	Furnish and install 12" Butterfly Valve, Cl. 1508, Flg'd., including install Base, valve box per IRWD S&E W-22, Complete	EA	2	7,000.00	14,000.00	6,000.00	12,000.00	7,000.00	14,000.00	7,000.00	14,000.00	7,500.00	15,000.00	8,662.00	17,324.00
30	Furnish and install 6" Butterfly Valve, Cl. 1508, Flg'd., including install Base, valve box per IRWD S&E W-22, Complete	EA	3	2,000.00	6,000.00	1,625.00	4,875.00	2,100.00	6,300.00	2,000.00	6,000.00	3,200.00	9,600.00	3,454.00	10,362.00
31	Remove Temporary Flush-Out & Join Existing 18" PVC Recycled Water Line, Complete	EA	1	2,500.00	2,500.00	2,500.00	2,500.00	5,500.00	5,500.00	5,000.00	5,000.00	3,500.00	3,500.00	3,138.00	3,138.00
32	Raise Valve Cans to Final Grade After Improvements are Complete or Requested by Developer including Extra Moves, Complete	EA	8	500.00	4,000.00	450.00	3,600.00	400.00	3,200.00	200.00	1,600.00	400.00	3,200.00	1,840.00	14,720.00
33	Pressure Test Pipeline, Complete	LS	1	3,500.00	3,500.00	3,000.00	3,000.00	4,400.00	4,400.00	1,900.00	1,900.00	4,500.00	4,500.00	4,908.00	4,908.00
<b>SUB-TOTAL, IMPROVEMENTS</b>					<b>\$139,025.00</b>		<b>\$134,330.00</b>		<b>\$145,598.00</b>		<b>\$154,822.00</b>		<b>\$220,875.00</b>		<b>\$177,342.00</b>

ITEM NO.	DESCRIPTION	UNIT MEAS	QUAN	ENGINEER ESTIMATE		FYDAQ Attn: Steve Beyer Tel: 714.447.8760		L&S Construction Attn: Eilon Wehram Tel: 714.528.3232		Kennedy Pipeline Attn: David Chorak Tel: 949.380.8363		Leatherwood Construction Attn: Bobby Kawai Tel: 714.583.6575		KEC Engineering Attn: James Eving Tel: 951.734.3010	
				PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
34	Modernization, Establish Construction Water (Not to Exceed 2% of Bid), Complete	LS	1	500.00	500.00	500.00	500.00	3,000.00	3,000.00	550.00	550.00	1,100.00	1,100.00	350.00	350.00
35	Performance, Labor and Payment Bond, Complete	LS	1	500.00	500.00	500.00	500.00	4,800.00	4,800.00	400.00	400.00	1,000.00	1,000.00	350.00	350.00
36	Furnish and install 18" PVC Purple Pipe, C900, DR 18, w/Trenching, Bedding & Backfill per IRWD S&E W-17 including all fittings, appurtenances and thrust blocks per IRWD S&E W-16 and W-19 and as shown on the plans, Complete	LF	361	65.00	23,685.00	75.00	27,075.00	74.00	16,796.00	85.00	30,675.00	700.00	254,700.00	81.00	29,421.00
37	Furnish and install Temporary Flush-Out Assembly per IRWD S&E DWG. W-12, Complete	EA	1	1,500.00	1,500.00	1,500.00	1,500.00	3,000.00	3,000.00	2,800.00	2,800.00	2,100.00	2,100.00	5,075.00	5,075.00
38	Raise Valve Cans to Final Grade After Improvements are Complete or Requested by Developer including Extra Moves, Complete	EA	1	500.00	500.00	450.00	450.00	400.00	400.00	200.00	200.00	400.00	400.00	1,640.00	1,640.00
39	Pressure Test Pipeline, Complete	LS	1	3,000.00	3,000.00	3,000.00	3,000.00	4,400.00	4,400.00	1,900.00	1,900.00	1,500.00	1,500.00	1,227.00	1,227.00
<b>SUB-TOTAL, IMPROVEMENTS</b>					<b>\$28,695.00</b>		<b>\$25,875.00</b>		<b>\$35,596.00</b>		<b>\$27,825.00</b>		<b>\$59,500.00</b>		<b>\$26,488.00</b>
<b>TOTAL, CW</b>					<b>\$91,150.00</b>		<b>\$70,049.00</b>		<b>\$101,751.00</b>		<b>\$115,190.00</b>		<b>\$119,140.00</b>		<b>\$189,574.00</b>
<b>TOTAL, RW</b>					<b>\$431,200.00</b>		<b>\$386,013.00</b>		<b>\$454,938.00</b>		<b>\$509,447.00</b>		<b>\$695,010.00</b>		<b>\$711,477.00</b>
<b>TOTAL, IMPROVEMENTS</b>					<b>\$522,450.00</b>		<b>\$468,062.00</b>		<b>\$556,689.00</b>		<b>\$624,637.00</b>		<b>\$814,150.00</b>		<b>\$905,051.00</b>

EXHIBIT "G"

CHANGE NO.: 1  
DATE: 12/8/2015

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

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

Contract No.: 20051501 Owner: Heritage Fields El Toro, LLC  
Sewer  Contractor: FYDAQ Companies  
Domestic Water   
Reclaim Water  Design Engineer: Hunsaker & Associates  
Other  IRWD Mgr. Kelly Lew

Project Description: Marine Way IRWD Capital Facilities from Ridge Valley to 3,000' East

PART A - POTENTIAL CHANGE OF WORK:

Plan Revision Required:  YES  NO Estimated Cost: \$234,696.00

Change Initiated By: \_\_\_\_\_

Work Description:  
Plan revisions to IRWD Code 5835 Delta 2, added sewer to the movement of GP-1's new location as the original GP-1 did not have any sewer

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

PART B - CHANGE OF WORK VALUE: \$ 234,696.00

- Detailed Backup Attached
- 1. Submitted by: \_\_\_\_\_  
Owner Representative / Date
  - 2. Recommended by: \_\_\_\_\_  
IRWD Representative / Date

EXHIBIT "H"

CHANGE NO.: 2  
DATE: 20051501

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

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

Contract No.: 20051501 Owner: Heritage Fields El Toro, LLC  
Sewer  Contractor: FYDAQ Companies  
Domestic Water   
Reclaim Water  Design Engineer: Hunsaker & Associates  
Other  IRWD Mgr. Kelly Lew

Project Description: Marine Way IRWD Capital Facilities from Ridge Valley to 3,000' East  
IRWD Code 5835

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

Plan Revision Required:  YES  NO **Estimated Cost:** \$229,923.00

Change Initiated By: \_\_\_\_\_

Work Description:  
Plan revisions to IRWD Code 5835 Delta 2 added Domestic and Recycled Waters with the movement of GP-1's new location.

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

**PART B - CHANGE OF WORK VALUE:** \$ \$229,923.00

- Detailed Backup Attached  
- 1. Submitted by: \_\_\_\_\_  
Owner Representative / Date
- 2. Recommended by: \_\_\_\_\_  
IRWD Representative / Date

EXHIBIT "I"

CHANGE NO.: 3  
DATE: 20051501

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

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

Contract No.: 20051501 Owner: Heritage Fields El Toro, LLC

Sewer   
Domestic Water   
Reclaim Water   
Other   
Contractor: FYDAQ Companies  
Design Engineer: Hunsaker & Associates  
IRWD Mgr. Kelly Lew

Project Description: Marine Way IRWD Capital Facilities from Ridge Valley to 3,000' East

PART A - POTENTIAL CHANGE OF WORK:

Plan Revision Required:  YES  NO Estimated Cost: \$674,515.00

Change Initiated By: \_\_\_\_\_

Work Description:  
Plan revisions to IRWD Code 5835 Delta 3 upsized the reclaimed waterline to 24". Sawcut and demo the previously installed 12" CAP reclaimed water main.

- 1. Submitted by: [Signature] 6/13/16  
Owner Representative / Date
- 2a. In IRWD's opinion the aforementioned work does  does not  qualify as a potential change in work.
- 2b. IRWD comments (required if representative does not concur with the potential change):
- 2c. Reviewed by: \_\_\_\_\_  
IRWD Representative / Date
- 3. Received and Recorded by: \_\_\_\_\_  
Owner Representative / Date

PART B - CHANGE OF WORK VALUE: \$ 674,515.00

- Detailed Backup Attached  [Signature]
- 1. Submitted by: [Signature] 6/13/16  
Owner Representative / Date
- 2. Recommended by: \_\_\_\_\_  
IRWD Representative / Date

EXHIBIT "J"

CHANGE NO.: 4
DATE: 08/03/2016

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

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

Contract No.: See below Owner: Heritage Fields El Toro, LLC

Sewer	<input checked="" type="checkbox"/>	Contractor:	<u>Leatherwood</u>
Domestic Water	<input type="checkbox"/>	Design Engineer:	<u>Hunsaker</u>
Reclaim Water	<input type="checkbox"/>	IRWD Mgr.:	<u>Kelly Lew</u>
Other	<input type="checkbox"/>		

Project Description: Reach A IRWD Capital Sewer Upsize Phase 1 (Marine Way to Trabuco Road)  
 IRWD Code No. 5872.

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

Plan Revision Required:  YES  NO

Civil Design:	\$5,880.00 (14740604 CO No. 4)
Civil Field Eng:	\$13,200.00 (14741434)
Geotech T&O:	\$13,000.00 (14741431)
Leatherwood:	\$263,445.00 (20051402 CO No. 4)
<b>Reach A Phase 1</b>	
<b>Total:</b>	<b>\$295,525.00</b>

Change Initiated By: IRWD

Work Description:  
 Plan revisions to IRWD Code 5872 for Reach A Upsize Phase 1 Construction and Field Services

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

**PART B – CHANGE OF WORK VALUE:** \$ 295,525.00

Detailed Backup Attached  [Signature]

1. Submitted by: \_\_\_\_\_  
 Owner Representative / Date
2. Recommended by: \_\_\_\_\_  
 IRWD Representative / Date

EXHIBIT "K"

CHANGE NO.: 6  
DATE: 08/03/2016

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

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

Contract No.: See below Owner: Heritage Fields El Toro, LLC

Sewer  Contractor: FYDAQ  
Domestic Water   
Reclaim Water   
Other  Design Engineer: Michael Baker  
IRWD Mgr. Kelly Lew

Project Description: Reach A IRWD Capital Sewer Upsize Phase 2 (from Marine Way to OCTA/Metrolink Rail) IRWD Code No. 5780.

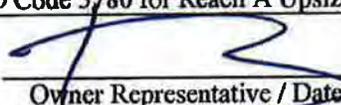
PART A - POTENTIAL CHANGE OF WORK:

Plan Revision Required: X YES NO

Civil Design:	\$12,000.00 (14740379 CO No. 3)
Civil Field Eng:	\$13,300.00 (14741433)
Geotech T&O:	\$13,000.00 (14741431)
FYDAQ:	\$520,545.00 (20051602)
<b>Reach A Phase 2</b>	
<b>Total:</b>	<b>\$558,845.00</b>

Change Initiated By: IRWD

Work Description:  
Plan revisions to IRWD Code 5780 for Reach A Upsize Phase 2 Construction and Field Services

1. Submitted by:  Owner Representative / Date

2a. In IRWD's opinion the aforementioned work does  does not  qualify as a potential change in work.

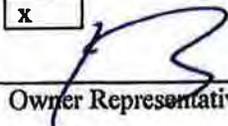
2b. IRWD comments (required if representative does not concur with the potential change):

2c. Reviewed by: IRWD Representative / Date

3. Received and Recorded by: Owner Representative / Date

PART B - CHANGE OF WORK VALUE: \$ 558,845.00

Detailed Backup Attached

1. Submitted by:  Owner Representative / Date

2. Recommended by: IRWD Representative / Date

EXHIBIT "L"

CHANGE NO.: 7  
DATE: 08/03/2016

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

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

Contract No.: See below Owner: Heritage Fields El Toro, LLC  
Sewer  Contractor: FYDAQ  
Domestic Water   
Reclaim Water  Design Engineer: Michael Baker  
Other  IRWD Mgr. Kelly Lew

Project Description: Reach A IRWD Capital Sewer Upsize Phase 3 in Technology (between station 19+76.15 and Station 33+40.81 IRWD Code No. 5780.

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

Plan Revision Required: X YES NO

Civil Design:	\$23,300.00 (14740379 CO No. 4)
Civil Field Eng:	\$13,150.00 (14741433 CO No. 1)
Geotech T&O:	\$37,300.00 (14741431 CO No. 1)
FYDAQ:	\$717,328.15
<b>Reach A Phase 3</b>	
<b>Total:</b>	<b>\$791,078.15</b>

Change Initiated By: IRWD

Work Description:  
Plan revisions to IRWD Code 5780 for Reach A Upsize Phase 3 Construction and Field Services

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

**PART B - CHANGE OF WORK VALUE:** \$ 791,078.15

- Detailed Backup Attached  [Signature]
- 1. Submitted by: \_\_\_\_\_  
Owner Representative / Date
- 2. Recommended by: \_\_\_\_\_  
IRWD Representative / Date

# IRVINE RANCH WATER DISTRICT EXHIBIT "M"

## Expenditure Authorization

Project Name: PA51 MARINE WAY RW ZNB  
 EPMS Project No: 30388 EA No: 3  
 Oracle Project No: 4147  
 Project Manager: LEW, KELLY  
 Project Engineer: KESSLER, CHRISTIAN  
 Request Date: August 5, 2016

ID Split: Miscellaneous

### Improvement District (ID) Allocations

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

### Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$541,200
This Request:	\$660,000
<b>Total EA Requests:</b>	<b>\$1,201,200</b>
Previously Approved Budget:	\$541,200
Budget Adjustment Requested this EA:	\$660,000
<b>Updated Budget:</b>	<b>\$1,201,200</b>
<b>Budget Remaining After This EA</b>	<b>\$0</b>

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	0	20,000	20,000	0	20,000	20,000	11/12	3/14
ENGINEERING DESIGN - OUTSIDE	0	25,000	25,000	0	25,000	25,000	11/12	3/14
DESIGN STAFF FIELD SUPPORT	0	5,000	5,000	0	5,000	5,000	11/12	3/14
ENGINEERING - CA&I IRWD	0	25,000	25,000	0	25,000	25,000	2/15	7/16
ENGINEERING - CA&I OUTSIDE	0	40,000	40,000	0	40,000	40,000	2/15	7/16
CONSTRUCTION FIELD SUPPORT	0	5,000	5,000	0	5,000	5,000	2/15	7/16
CONSTRUCTION	600,000	370,000	970,000	600,000	370,000	970,000	2/15	7/16
LEGAL	0	2,000	2,000	0	2,000	2,000	11/12	7/16
Contingency - 10.00% Subtotal	<b>\$60,000</b>	\$49,200	\$109,200	\$60,000	\$49,200	\$109,200		
<b>Subtotal (Direct Costs)</b>	<b>\$660,000</b>	<b>\$541,200</b>	<b>\$1,201,200</b>	<b>\$660,000</b>	<b>\$541,200</b>	<b>\$1,201,200</b>		
Estimated G/A - 185.00% of direct labor*	\$0	\$101,900	\$101,900	\$0	\$101,900	\$101,900		
<b>Total</b>	<b>\$660,000</b>	<b>\$643,100</b>	<b>\$1,303,100</b>	<b>\$660,000</b>	<b>\$643,100</b>	<b>\$1,303,100</b>		
Direct Labor	\$0	\$55,000	\$55,000	\$0	\$55,000	\$55,000		

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

EA Originator: Christian Kessler KALC 8/5/16  
 Department Director: Kevin J. Buntz 8/6/16  
 Finance: \_\_\_\_\_  
 Board/General Manager: \_\_\_\_\_

\*\* IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$1,330,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

August 22, 2016

Prepared by: J. Corey *JC*

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

Approved by: Paul Cook *PC*

## ACTION CALENDAR

### ON-CALL CEQA/NEPA AND PERMITTING SERVICES CONSULTANT SELECTIONS

#### SUMMARY:

Irvine Ranch Water District (IRWD) uses Professional Service Agreements to secure on-call environmental compliance and permitting services pursuant to the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA) and other regulatory requirements. Staff has solicited and evaluated proposals from six firms to perform future on-call environmental and permitting services. Staff requests that the Board authorize the General Manager to:

- Execute Professional Services Agreements for on-call CEQA/NEPA services with ESA, LSA Associates, Inc. and Psomas for \$150,000 each; and
- Execute Professional Services Agreements for on-call monitoring and permitting services with Harmsworth Associates and Glenn Lukos Associates for \$120,000 each.

#### BACKGROUND:

##### On-Call CEQA/NEPA Services:

IRWD must comply with the requirements of CEQA for all project activities. Where federal government action or funding is involved, compliance with NEPA is required. The use of on-call Professional Services Agreements for CEQA/NEPA work allows staff to quickly address environmental review requirements for projects. The types of tasks performed under on-call CEQA/NEPA Professional Services Agreements include general consultations and the preparation of Negative Declarations, Mitigated Negative Declarations, Environmental Impact Reports, Addendums, Environmental Assessments and Findings of No Significant Impact. Over the last two years, approximately \$355,100 of CEQA/NEPA services were obtained on an on-call basis under agreements with environmental consultants at ESA, Dudek and Bonterra Psomas.

##### On-Call Monitoring and Permitting Services:

The District must also comply with statutes, regulations, policies and programs that provide for permitting to carry out new projects, conduct operations and maintenance activities and to address emergency conditions. The use of on-call Professional Service Agreements for monitoring and permitting services allows IRWD to task consultants with time-sensitive activities. The majority of the tasks performed under on-call monitoring and permitting Professional Services Agreements include biological surveys, preparation of regulatory agency permit applications and jurisdictional delineations. Over the last two years, approximately

\$202,200 of monitoring and permitting services were obtained on an on-call basis under agreements with Harmsworth Associates and VCS Environmental.

Future On-Call Requirements:

Based on past utilization and current expectations, staff has estimated future on-call CEQA/NEPA and permitting services needs for the next two years. Staff recommends that Professional Service Agreements be awarded to five separate firms. Three firms are recommended for CEQA/NEPA services under agreements for amounts up to \$150,000 each, and two firms are recommended for perform monitoring and permitting services under agreements for amounts up to \$120,000 each. Under these agreements, staff will issue project specific task orders based on negotiated scopes of work, cost estimates and schedules for projects that have existing budgets.

Consultant Selections:

A Request for Proposal (RFP) for on-call CEQA/NEPA services was distributed to four environmental consulting firms. Within the RFP, the consultants were asked to: 1) demonstrate a solid understanding of CEQA and NEPA, and associated processes; 2) show broad expertise and experience in performing CEQA/NEPA analysis and review work; and 3) demonstrate a history of successful CEQA/NEPA activities on behalf of other clients and a long-standing working relationship with these agencies and their representatives. Proposals for providing on-call CEQA/NEPA consulting services were received from ESA, LSA Associates, Inc. and Psomas. TRC Solutions was solicited but declined to submit.

A separate RFP for on-call monitoring and permitting services was distributed to four environmental consulting firms. The monitoring and permitting RFP asked the consultants to: 1) demonstrate an understanding of the processes of natural resources, wildlife and regulatory requirements and the agencies with jurisdiction over permits and mitigation requirements; 2) commit to responding to requests for service from IRWD in a timely and cost-effective manner; and 3) document their knowledge and experience with endangered species issues and regulations, mitigation monitoring and reporting, IRWD's Natural Treatment System and the Natural Community Conservation Plan (NCCP). Proposals for providing on-call monitoring and permitting services were received from ESA, Glenn Lukos Associates, Harmsworth Associates and Psomas.

Staff reviewed each of the consultants' proposals and recommends that Professional Services Agreements be awarded for CEQA/NEPA services to ESA, LSA Associates, Inc. and Psomas for \$150,000 each. Staff also recommends that Professional Services Agreements for monitoring and permitting services be awarded to Harmsworth Associates and Glenn Lukos Associates for \$120,000 each.

These recommended firms have demonstrated extensive knowledge and experience with CEQA, NEPA, monitoring and permitting requirements and have also committed to staff availability on an on-call basis. Additionally, staff recommendations are based on the excellent qualifications of each firm's project team. A CEQA/NEPA services assessment matrix based on evaluation of the proposals is provided as Exhibit "A" and an assessment

matrix for monitoring and permitting services is provided as Exhibit "B." Pertinent sections of the proposals from the recommended firms of ESA, LSA Associates, Inc., Psomas, Harmsworth Associates and Glenn Lukos Associates are included as Exhibits "C," "D," "E," "F," and "G", respectively.

FISCAL IMPACTS:

No new project budgets are required in executing these Professional Services Agreements. Task orders for specific projects with existing budgets will be issued to the consultants under the terms of the agreements and negotiated scopes of work, costs and schedules.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on August 16, 2016.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE PROFESSIONAL SERVICE AGREEMENTS WITH ESA, LSA ASSOCIATES, INC. AND PSOMAS TO PROVIDE ON-CALL CEQA/NEPA SERVICES FOR NOT-TO-EXCEED AMOUNTS OF \$150,000 EACH AND WITH HARMSWORTH ASSOCIATES AND GLENN LUKOS ASSOCIATES TO PROVIDE ON-CALL MONITORING AND PERMITTING SERVICES FOR NOT-TO-EXCEED AMOUNTS OF \$120,000 EACH.

LIST OF EXHIBITS:

- Exhibit "A" – CEQA/NEPA Services Evaluation Matrix
- Exhibit "B" – Monitoring and Permitting Services Evaluation Matrix
- Exhibit "C" – ESA Proposal for On-Call CEQA/NEPA Services
- Exhibit "D" – LSA Associates, Inc. Proposal for On-Call CEQA/NEPA Services
- Exhibit "E" – Psomas Proposal for On-Call CEQA/NEPA Services
- Exhibit "F" – Harmsworth Associates Proposal for On-Call Monitoring and Permitting Services
- Exhibit "G" – Glenn Lukos Associates Proposal for On-Call Monitoring and Permitting Services

# EXHIBIT "A"

## 2016 - 2018 ON-CALL CEQA / NEPA CONSULTATION SERVICES EVALUATION MATRIX

Item	Description	Weights	LSA	ESA	Psomas
<b>A Demonstration of CEQA/NEPA Skills and Rates</b>					
1	Understanding of IRWD's Needs	20%	2.00	0.75	1.75
2	Demonstration of CEQA Skills and Abilities	20%	2.00	0.75	1.75
3	Demonstration of NEPA Skills and Abilities	20%	2.00	0.75	1.75
4	Provided Staff Rates Consistent with Skills and Abilities Over Range of Staff on Project	20%	2.00	1.25	1.25
5	Demonstrated Ability to Coordinate with Other Consultants / Engineers	10%	2.00	0.75	1.75
6	Demonstrated Experience with MMRP's	10%	2.00	0.75	1.75
	<b>Weighted Score</b>	<b>30%</b>	<b>2.00</b>	<b>0.85</b>	<b>1.65</b>
<b>B DEMONSTRATION OF PROJECT SCOPING, COST ESTIMATING, AND SCHEDULING</b>					
1	Content of Sample Scope of Work	33.33%	2.00	0.75	1.75
2	Content and Approach to Sample Cost Estimating	33.33%	2.00	0.75	1.75
3	Content and Approach to Sample Scheduling	33.33%	2.00	0.75	1.75
	<b>Weighted Score</b>	<b>30%</b>	<b>2.00</b>	<b>0.75</b>	<b>1.75</b>
<b>C QUALIFICATION AND EXPERIENCE</b>					
1	Principal / Director		Nicole Dubois MS, 14 yrs	Tom Barnes BA, 22 yrs	Kathleen Brady AICP, 38 yrs
		20%	2.25	1.25	1.00
2	Project Manager		Nicole Dubois MS, 14 yrs	Jennifer Jacobus Ph.D 12+ yrs exp	Jennifer Marks BS, 17 yrs exp
		30%	2.25	0.75	1.50
3	Project Team	30%	2.00	0.75	1.75
4	Firm's Relevance Experience	20%	2.00	0.75	1.75
	<b>Weighted Score</b>	<b>20%</b>	<b>2.13</b>	<b>0.85</b>	<b>1.53</b>
<b>D REFERENCES</b>					
	Reference Project 1		Rancho Water	Strand Ranch EIR	On-Call IRWD-ILP North
	Score	50%	2.25	0.75	1.50
	Reference Project 2		MNWD Ops Center	Baker WTP	Nohl Cyn Water Tank
	Score	50%	2.00	0.75	1.75
	<b>Weighted Score</b>	<b>20%</b>	<b>2.13</b>	<b>0.75</b>	<b>1.63</b>
	<b>COMBINED WEIGHTED SCORE</b>	<b>100%</b>	<b>2.05</b>	<b>0.80</b>	<b>1.65</b>
<b>E OTHER</b>					
	Multiplier		None	None	None
	Sub Consultants		None	KOA/Ninyo & Moore	None
	Exceptions taken to IRWD Std. Contract		None	None	None
	Insurance (General Liability)		Yes	Yes	Yes
	Insurance (Professional)		Yes	Yes	Yes
	<b>Forced Rankings:(Enter 1, 2, 3 or 4, 1 being best)</b>		<b>3</b>	<b>1</b>	<b>2</b>

**FEES**

Principal

Project Manager

Sub-Consultant

\$195

\$195

n/a

\$265

\$195

n/a

\$230

\$165

n/a

## EXHIBIT "B"

### 2016 - 2018 ON-CALL PERMITTING CONSULTATION SERVICES EVALUATION MATRIX

Item	Description	Weights	ESA	Harmsworth	Glenn Lukos	Psomas
<b>A</b>	<b><u>Demonstration of Permitting Skills and Rates</u></b>					
1	Understanding of IRWD's Needs	10%	1.50	0.50	1.00	2.00
2	Land Use Planning	5%	1.75	0.50	1.00	1.75
3	Regulatory Agency Consultation, Permit Application and Procurement	10%	1.75	0.50	1.00	1.75
4	Wetland Delineation	10%	2.00	0.75	0.75	1.50
5	Biological Survey, Monitoring, Assessment	10%	2.00	0.50	1.00	1.50
6	Threatened & Endangered Species Regulation, Monitoring and Reporting	10%	1.50	0.50	1.00	2.00
7	Mitigation Monitoring and Reporting	5%	2.00	1.00	0.50	1.50
8	Water Quality, Stormwater Monitoring and Reporting	5%	1.50	0.50	1.00	2.00
9	Natural Treatment System (NTS)	10%	2.00	1.00	0.50	1.50
10	Natural Community Conservation Plan/Habitat Conservation Plan (NCCP)	10%	1.50	0.50	1.00	2.00
11	Coordination with other Consultants/Engineers	5%	1.25	0.50	1.25	2.00
12	Staff rates consistent with skills and abilities over range of staff on the project	10%	2.00	0.50	1.00	1.50
	<b>Weighted Score</b>	<b>30%</b>	1.75	0.60	0.91	1.74
<b>B</b>	<b><u>DEMONSTRATION OF PROJECT SCOPING, COST ESTIMATING, AND SCHEDULING</u></b>					
1	Content of Sample Scope of Work	33.33%	0.75	0.75	1.50	2.00
2	Content and Approach to Sample Cost Estimating	33.33%	1.50	0.50	1.00	2.00
3	Content and Approach to Sample Scheduling	33.33%	1.50	1.00	0.50	2.00
	<b>Weighted Score</b>	<b>30%</b>	1.25	0.75	1.00	2.00
<b>C</b>	<b><u>QUALIFICATION AND EXPERIENCE</u></b>					
1	Principal / Director		Beth Jolie Martinez	Rod Harmsworth	Glenn Lukos	Ann Johnson
			MS, 18 yrs exp	Ph.D, 42 yrs exp	MS, 39 yrs exp	BA, 27 yrs exp
		20%	2.00	0.50	1.00	1.50
2	Project Manager		Amir Morales	Paul Galvin	Thienan Pfeiffer	Amber Heredia
			BS, 15 yrs exp	MS, 27 yrs exp	MS, 14 yrs exp	MS, 19 yrs exp
		30%	1.50	0.50	1.50	1.50
3	Project Team	30%	1.75	0.75	0.75	1.75
4	Firm's Relevance Experience	20%	1.50	0.50	1.00	2.00
	<b>Weighted Score</b>	<b>20%</b>	1.68	0.58	1.08	1.68
<b>D</b>	<b><u>REFERENCES</u></b>					
	Reference Project 1		COI-SD Creek Restoration	IRWD-Martin Property Assessment	IRWD-PA39 O&M	SMWD-Chiquita WRP
	Score	50%	1.00	0.33	0.67	1.33
	Reference Project 2		Burbank-RW Expansion MND	IRWD-Baker/SAC Pipeline Cathodic Protection	TIC- Santiago Hills II Development	Temecula-3 Projects
	Score	50%	1.00	0.33	0.67	1.33
	<b>Weighted Score</b>	<b>20%</b>	1.00	0.33	0.67	1.33
	<b>COMBINED WEIGHTED SCORE</b>	<b>100%</b>	<b>1.43</b>	<b>0.59</b>	<b>0.92</b>	<b>1.72</b>

<b>E</b>	<b>OTHER</b>				
	Multiplier		None	None	None
	Sub Consultants		None	None	None
	Exceptions taken to IRWD Std. Contract		None	None	None
	Insurance (General Liability)		Yes	Yes	Yes
	Insurance (Professional)		Yes	Yes	Yes
	<b>Forced Rankings:</b>		<b>3</b>	<b>1</b>	<b>2</b>
					<b>4</b>

**FEES**

Principal	\$210	\$140	\$194	\$205
Project Manager	\$210	\$130	\$143	\$150
Sub-Consultant	n/a	n/a	n/a	n/a

# EXHIBIT "C"

Irvine Ranch Water District

## Proposal for On-Call CEQA and NEPA Consultation

Work That Matters

July 26, 2016

Prepared for:  
Irvine Ranch Water District

Fiona M. Sanchez, Director of Water Resources  
c/o Jo Ann Corey

Engineering Department  
15600 Sand Canyon Avenue  
Irvine, California 92618-7000  
949.453.5300

626 Wilshire Boulevard  
Suite 1100  
Los Angeles, CA 90017  
213.599.4300



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[www.esa390c.com](http://www.esa390c.com)

July 26, 2016

Fiona M. Sanchez  
Director of Water Resources  
Engineering Department of the IRWD Headquarters  
15600 Sand Canyon Avenue  
Irvine, CA 92618

**Subject: Proposal for On-call CEQA and NEPA Consultation**

Dear Ms. Sanchez:

We appreciate the opportunity to submit our qualifications to the Irvine Ranch Water District (IRWD) for on-call CEQA and NEPA services for small or recurring projects. As you know, ESA specializes in CEQA/NEPA compliance and natural resources permitting for water and wastewater infrastructure projects, with considerable experience throughout Southern California. In our response to the District's Request for Proposals (RFP), we have provided a summary of our experience and capabilities to perform the types of services the District may require over the next two years. As described in our attached statement of qualifications, ESA provides IRWD with particular strengths that set us apart:

- **We focus exclusively on environmental regulatory compliance** for water and wastewater clients with a full array of technical expertise requested in the RFP. Our entire firm is focused on environmental problem solving that expedites project implementation.
- **Experienced On-Call Environmental Service Providers.** We have extensive experience providing on-call environmental compliance services to public utilities in Southern California including the Metropolitan Water District of Southern California since 2002, California Department of Water Resources since 2006, IRWD since 2009, and LADWP since 2012. We know what it takes to manage on-call contracts effectively and successfully.
- **We provide exceptional Senior Managers and a deep bench of Technical Experts.** ESA's senior management team lead by Dr. Jennifer Jacobus provides centralized leadership, strategic support, and a commitment to quality. Our job is to understand our clients' objectives and to collaborate with them to overcome challenges. Dr. Jennifer Jacobus will be the primary point of contact and responsible for quality control of all products. She will collaborate with other senior managers including Monica Strauss, our Cultural Resources technical lead, who will manage CEQA compliance for AB52 and other cultural resources tasks.
- **We know IRWD.** As an incumbent, ESA will hit the ground running. We have learned the District's specific style, quality commitments, and cost control expectations, and we have established effective relationships with IRWD project managers. This experience brings real value to the District through strategic approaches to project implementation that minimize costs through careful staffing and scoping based on current real world experience and "institutional knowledge." ESA is committed to this partnership, and will hit the ground running.

In addition to the strengths mentioned above, we are excited to share with the District some important changes at ESA. This year, PCR Services Corporation (PCR) joined forces with ESA, now known as ESA PCR. Together, we provide clients with the expanded depth and breadth of more than 130 technical experts in Southern California, still under the ESA banner. We now have 27 employees working in our expanded Irvine office. This union greatly augments our local capabilities in biological and cultural resources, air quality, health risk, and noise assessment in Orange County.

We have greatly valued our partnership with the District over the past seven years and we appreciate this opportunity to be considered for another term. Should you have any questions about our qualifications or scope of work, please call at your earliest convenience.

Sincerely,

Tom Barnes  
VP, Director, Water Group

Jennifer Jacobus, PhD  
Senior Managing Associate



## Section 1 Introduction and Administrative Details



### Introduction

ESA is a leading planning and environmental consulting firm committed to the principles of responsible development and environmental stewardship. We bring 47 years of integrated experience in all aspects of project planning, regulatory compliance, and environmental analysis and assessment. ESA's mission is to assist clients with advancing sustainability through planning, program development and implementation, and technical analyses that support strategic decision-making. Our professionals regularly engage with public-sector clients to act as a single source for well-reasoned and effective solutions.

The staff selected for this on-call assignment has an extensive portfolio of experience relative to Irvine Ranch Water District's (IRWD or District) environmental compliance needs for small projects. As a foundation of our business, ESA is expert in the development of California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) compliance documents for municipal utilities, particularly Initial Studies, Addenda, Negative Declarations, Mitigated Negative Declarations and Environmental Assessments. ESA also provides a full-range of support services including preparation of stand-alone technical studies and constraints analyses; biological and cultural surveys, permit compliance and construction monitoring.

Our staff is composed of scientists, planners, and engineers encompassing a wide diversity of specialties in the fields of biology, ecology, geology, hydrology, water quality, archaeology, architectural history, ethnology, air quality, greenhouse gases and climate change, noise, traffic management, city planning, and environmental sciences. Our technical staff has recently been augmented with specialists in Orange County through our recent merger with ESA PCR. ESA's team reflects the addition of seasoned ESA PCR staff, many of which have been working in Irvine and throughout Orange County for over 20 years.

### Benefits ESA Brings to IRWD

- **We focus exclusively on environmental regulatory compliance for water and wastewater clients.** ESA Water Group's core business is providing environmental compliance services to water utilities. As demonstrated in this Proposal, the ESA team provides the full array of technical expertise requested in the Request for Proposal (RFP). Our entire firm is focused on environmental problem solving that expedites project implementation. We have provided on-call environmental compliance services for the Metropolitan Water District of Southern California since 2002, California Department of Water Resources since 2006, **IRWD since 2009**, and LADWP since 2012, to name just a few.
- **We provide exceptional Senior Managers and a deep bench of Project Managers.** ESA's senior management team provides centralized leadership, strategic support, and a commitment to quality. The key to effective project implementation is consistent focus from sophisticated and experienced team leaders and project managers. Our job is to understand our clients' objectives and to collaborate with them to overcome challenges.

The services performed for IRWD under this contract will be managed from our Los Angeles Office. **Dr. Jennifer Jacobus**, IRWD Client Manager, will be the primary point of contact and responsible for quality control of all products.

- **As an incumbent, ESA will hit the ground running.** ESA has the response teams, management systems, and working relationships already in place to start new task orders immediately. We have learned the District's specific style, quality commitments, and cost control expectations, and we have established effective relationships with IRWD project managers. This experience brings real value to the District through strategic approaches to project implementation that minimize costs through careful staffing and scoping based on current real world experience and "institutional knowledge."

## ESA's Commitment to IRWD

- **We are committed to quality assurance and quality control.** We understand that our value is tied directly to the quality of our analysis and documentation. As described in **Section 2**, ESA implements a strict QA/QC Plan. Document reviews for substance, style, errors, and completeness are essential for successful projects.
- **We are committed to effective cost controls and pricing efficiency.** We understand from experience that cost controls are a key feature of our scope and fee preparation process. We understand that costs are related to scope of services, staff, and time needed to accomplish the task. We recognize the need to review scopes of work to ensure that they meet the District's objectives as efficiently as possible. We are committed to proactively recommend places where efficiencies can be gained, including staffing and duration of effort, but also assure corners are not cut where the process demands more robust support.
- **We are committed to close communication with IRWD staff.** We understand from experience the necessity of elevating information to management staff expeditiously. Managing risks through unhesitating communication fosters trust in the team. ESA is committed to this partnership.

## Administrative Details

### Sample Contract

ESA has reviewed the copy of IRWD's professional service agreement, attached to the RFP and we have no modifications to the standard terms and conditions.

## Insurance Requirements

If selected to provide the services under this contract, ESA is prepared to furnish IRWD with acceptable evidence showing that the insurance coverage required has been procured. ESA has insurance coverage of \$1 million each for general liability, property damage, worker's compensation, automobile, and professional liability. We will provide proof of insurance through our carrier, Woodruff-Sawyer & Co., upon award of this contract. A copy of our certificate can be found in **Appendix A**.

## Joint Venture and Subcontractors

ESA does not propose to utilize any joint venture during the course of this contract. Typically, ESA's in-house staff has capabilities that are comprehensive and sufficient for completing environmental compliance documents for small projects. However, ESA routinely engages in subcontract arrangements when technical specialties that are beyond our in-house capabilities are required and appropriate for a project. We have worked with many firms in the area, including traffic engineering firms, geotechnical firms, local cultural resources specialists, as well as specialized biological resource personnel. We are open to a variety of teaming arrangements where it suits IRWD and the particular project. ESA has ongoing working relationships with firms such as KOA Corporation for traffic studies and Ninyo & Moore for Phase I Assessments. If such specialized skills are needed, for a particular task, ESA will work with IRWD to identify appropriate subconsultants.

## Conflict of Interest

To the best of our knowledge, ESA does not have existing personal, financial, and/or organization conflicts of interest prohibited by law.

## Section 2 Team, Qualifications, and References

### Team Qualifications

Our ESA Team is made up of a select group of professionals, assembled to provide the IRWD with the most relevant and best combination of expertise. ESA's depth of staff gives us the ability to match the appropriate skills with the tasks at hand. The following key ESA staff would assume primary responsibility for performing the work anticipated for this On-Call Services contract. Resumes providing further detail can be found in **Appendix B**.

### Management Team

ESA is dedicating to IRWD an experienced senior Management Team from our Southern California Water Practice Group. Tom Barnes and Jennifer Jacobus have worked together for 12 years providing CEQA and NEPA compliance and permitting services exclusively to water districts. This senior Management Team will oversee and orchestrate ESA's comprehensive team resources as appropriate for each District task.

#### Tom Barnes | Principal-In-Charge



Tom is the Director of ESA's Southern California Water Practice Group focused on providing environmental planning and management services for water and wastewater utilities in the Southern California region. He has over 22 years of experience in CEQA/NEPA analysis, project management, environmental documentation, permit review and facilitation, and data analysis. A proven project manager specializing in water projects, Tom manages on-call multi-year environmental contracts for Southern California agencies including Metropolitan Water District of Southern California (Metropolitan), Los Angeles Department of Water and Power (DWP), Orange County Sanitation District, and California Department of Water Resources (DWR). Tom served as the Project Director for the Stockdale Integrated Banking Project EIR for IRWD and has acted as Project Director for all IRWD projects described below in **Table 2-2**. In addition, Tom has most recently completed the following projects as Project Director: San Bernardino Valley Municipal Water District Sterling Natural Resources Center EIR; Water Replenishment District of Southern California (WRD) Groundwater Reliability Improvement Program (GRIP) Supplemental Recharge Wells Project Supplemental EIR; and WRD GRIP Administrative Learning Center IS/MND.

**Project Availability:** 5% | **Labor Category:** Senior Director II

**Education:** B.A. English, University of California Berkeley

#### Jennifer Jacobus, PhD | Client/Project Manager



Dr. Jennifer Jacobus is a Senior Manager in ESA's Southern California Water Practice Group. Jennifer is an accomplished CEQA/NEPA project manager with over 12 years of professional experience and a reputation for customer service and client satisfaction. Her focuses exclusively on water and wastewater clients and projects throughout Southern California and currently serves as the Contract Manager for ESA's on-call contracts with IRWD, Inland Empire Utilities Agency (IEUA), and Eastern Municipal Water District (EMWD). Dr. Jacobus has worked for several other on-call clients, including Metropolitan, DWR, and DWP.

As a scientist with foundational training in ecology and resource management, Dr. Jacobus has a keen ability to communicate with ESA Technical Team Leaders and staff to ensure appropriate and relevant analyses across all disciplines. She also has experience working with clients' engineering design teams, to understand project features and operational criteria, and transcribes technical specifications into language that is accessible to the general public for CEQA/NEPA documents. Jennifer has managed a full spectrum of water projects and has recently completed the environmental process for IRWD's Peters Canyon Water Capture and Reuse Project IS/MND; Stockdale Integrated Banking Project EIR (which included coordination with U.S. Bureau of Reclamation), and four Notices of Exemptions

for IRWD's Energy Storage Systems Project. Dr. Jacobus has acted as Project Manager for all IRWD projects described below in **Table 2-2** as well. In addition, she has recently managed and completed WRD's Groundwater Reliability Improvement Program (GRIP) Supplemental Recharge Wells Project Supplemental EIR (which required Tribal coordination under Assembly Bill 52 (AB52)) and DWP's Owens Lake Dust Mitigation Project's EIR Addendum.

**Project Availability:** 30% | **Labor Category:** Managing Associate III

**Education:** Ph.D., Resource Ecology & Management, School of Natural Resources & Environment, University of Michigan; M.A., Geography, Boston University; B.A., Economics, Johns Hopkins University

### Management Team Availability and Schedule

Our project management team of Tom Barnes and Jennifer Jacobus will be based from our Los Angeles office. IRWD's need for on-call services over the next two years and the schedule for on-call projects will drive the team's dedication to tasks as they are identified. Both Tom and Jennifer will commit time as specific tasks warrant. ESA is committed to meeting project schedule deadlines, and we have recent experience with IRWD dedicating the time needed to get the job done on time. ESA completed four NOEs for IRWD's Energy Storage Systems Project within three days as requested by IRWD to meet deadlines for consideration and approval by IRWD's Board of Directors. The sample budget for an IS/MND included in **Appendix C** illustrates the typical relative percentage of time all team members are expected to contribute to each project.

Dr. Jacobus will manage project schedules, including monitoring progress of technical analyses, notifying team members of deadlines ahead of time, organizing conference calls, and managing production staff. Since 2005, Tom and Dr. Jacobus have successfully partnered with IRWD to complete projects such as the Stockdale Integrated Banking Project EIR, Peters Canyon Water Capture and Reuse Project IS/MND, and Peters Canyon Project Construction Mitigation Monitoring for biological and cultural resources, while also completing CEQA/NEPA compliance for small projects as an on-call contract holder since 2009.

### Project Controls and Invoicing

ESA engages in a proactive approach to tracking, reporting and controlling costs so that budgets are managed effectively. The first step in managing project costs is working closely with the client to establish a clear and detailed scope, schedule and budget. The scope of services assures that the project is undertaken with maximum efficiency. ESA Water has maintained a continuity of leadership and team members for its projects. This continuity assures our clients that each project benefits from the efficiencies of a familiar team and receives the budget supervision it deserves. We conscientiously advise our clients when requested to perform services outside the scope of work to protect our clients from cost overruns.

ESA uses the DELTEK electronic time reporting system to monitor and track staff activities for each project and submit monthly invoices in a timely manner. This system allows real-time monitoring of labor costs, which are compiled weekly and are used to measure project performance, percentage of completion and percentage of budget spent. Our invoices include individual staff hours per project and any reimbursable, permitting and filing fees. We include a customized progress report with each monthly invoice, indicating activities performed for active tasks during the invoicing period, expected activities for the next monthly period, and any expected challenges or problems. Under this contract, ESA will provide separate invoices for each project, along with a monthly summary of the overall Purchase Order (PO) status, as requested in the RFP. The PO status summary would track the total PO amount (including any variances), amounts expended to-date including the latest invoices, and amounts committed to-date in accordance with approved project scopes and budgets, and PO amount remaining. Similarly, ESA's individual invoices always include total approved project budget, amount previously expended, amount expended for the current monthly billing period, and budget remaining.

### Quality Control / Quality Assurance

All ESA work products are subject to a stringent Quality Assurance/Quality Control (QA/QC) Program. The Program consists of multiple levels of review, each requiring a sign-off from the manager in charge:

1. Independent Technical Peer Review;

2. Project Manager Assembly and Review of Work Product;
3. Editorial Review of Work Product; and
4. Project Director Review and Approval.

This approach provides for preparation of documents that have received reviews from senior technical leaders for accuracy of content, the overall Project Manager for compliance of task objectives, a technical editor for style and readability, and project Director to ensure documents are legally defensible, technically accurate, and tailored to meet client needs.

## Technical Team

**Table 2-1** provides a summary of the key ESA technical staff proposed for this On-Call Services contract. The following individuals will be available, as needed, depending on the scope of individual projects. We have included a generalized time-available percentage in the Table below, but recognize that the services needed under this contract will be intermittent and varied, requiring periods of 100 percent commitment of key staff until tasks are complete. Our proposed management and technical teams have an extensive history of working together on many CEQA/NEPA projects described later in this section. **Table 2-1** also shows the percentage of time each team member will spend on this contract. Full team resumes can be found in **Appendix B**.

## Staff Availability

The ESA Team understands that the availability of team members working on the IRWD on-call is of importance to the District; therefore, only staff with the requisite availability to commit to the project's scope of services are assigned to this project. The project management team is available and committed for the duration of the project. The work effort for our proposed key staff members will fluctuate as the project moves from one phase to another. Based on the schedule and projected staff hours for implementation of the projects under on-call, we can confidently commit to the availability and participation by the staff members proposed in this submittal. **Table 2-1** lists the overall projected availability of our proposed team members for the duration of the contract performance period.

In addition, ESA understands any substitution or addition of any key personnel must be requested in writing, along with a statement of qualifications, which will be replaced and the amount of time commitment that will be replaced. We understand this request must be approved in writing in advance by Dr. Jacobus, Project Manager.

**Table 2-1: Summary of ESA Technical Team Staff and Qualifications**

Name	Education	Technical Expertise
<b>Steve Nelson</b> <i>Biological Resources</i> <b>Availability: 10%</b>  Labor Category: Senior Director III	M.B.A., California State Polytechnic University, Pomona  M.A., Biology, University of California, Riverside  B.S., Biology, University of California, Riverside	<ul style="list-style-type: none"> <li>• Over 40 years of experience as a biologist providing a wide variety of biological studies, ranging from technical wildlife and vegetation assessments to region-wide conservation planning.</li> <li>• Assists public agencies, private landowners/developers, A/E professionals, and attorneys in regulatory compliance strategies and resource management issue resolution.</li> </ul>
<b>Maile Tanaka</b> <i>Biological Resources</i> <b>Availability: 20%</b>  Labor Category: Senior Associate II	Master of Environmental Science & Management, University of California, Santa Barbara  B.S., Organismic Biology, Ecology & Evolution, University of California, Los Angeles	<ul style="list-style-type: none"> <li>• 10 years of experience surveying for sensitive floral and faunal species, botanical surveys, and jurisdictional delineations in Southern California.</li> <li>• Prepares technical reports and impact analyses to support CEQA/NEPA documents.</li> <li>• Well-versed with the requirements of the Western Riverside County MSHCP and Orange County Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP).</li> </ul>
<b>Monica Strauss, RPA</b> <i>Cultural Resources</i> <b>Availability: 10%</b>	M.A., Archaeology, California State University, Northridge B.A., Anthropology, California	<ul style="list-style-type: none"> <li>• 20 years of experience in cultural resources management for public agencies throughout Southern California, including archaeological</li> </ul>

Name	Education	Technical Expertise
Labor Category: Director III	State University, Northridge	investigations; prehistoric and historic field and research projects; AB52 Native American outreach and Tribal cultural resources; conducting/managing construction <b>monitoring</b> .
<b>Alyssa Bell, PhD</b> <b>Paleontological Resources</b> <b>Availability: 20%</b>  Labor Category: Associate II	Ph.D., Vertebrate Paleontology; University of Southern California M.S., Environmental Microbiology; University of Tennessee B.A. Ecology and Systematics; Cambridge University	<ul style="list-style-type: none"> <li>10 years of experience working with crews from a variety of institutions on field sites in Arizona, California, Montana, New Mexico, and Utah.</li> <li>Supervises fieldwork, authors project reports, and provides scientific and compliance direction and quality control for paleontological projects throughout California.</li> </ul>
<b>Sarah Dietler</b> <b>Archaeological Resources</b> <b>Availability: 20%</b>  Labor Category: Managing Associate II	B.A., Anthropology, San Diego State University	<ul style="list-style-type: none"> <li>19 years of experience directing and participating in cultural and paleontological resources investigations throughout California</li> <li>Manages technical studies including archaeological and paleontological assessments, test excavations, historic structures surveys, Native American contact programs, evaluations of significance for NRHP eligibility, data recovery excavations, fossil salvage, and construction monitoring.</li> <li>Cross-trained paleontological monitor and supervisor, familiar with regulations and guidelines implementing the NHPA, NEPA, and CEQA.</li> </ul>
<b>Ryan Tadoro</b> <b>Transportation</b> <b>Availability: 10%</b>  Labor Category: Director III	B.S., Natural Resources Management, Cal Poly San Luis Obispo	<ul style="list-style-type: none"> <li>Has more than 16 years of experience in the environmental field and has served as a lead planner for numerous projects.</li> <li>Experience ranges from preparing and managing CEQA and NEPA environmental documents, obtaining essential permits and entitlements to coordinating with construction personnel, local governments and regulatory agencies regarding environmental compliance, permitting, and <b>mitigation measures</b>.</li> </ul>
<b>David Pohl, PhD, PE, LEED AP</b> <b>Water Quality</b> <b>Availability: 10%</b>  Labor Category: Director III	Ph.D., Civil Engineering, Drexel University M.S., Civil Engineering (Environmental Geotechnology), Drexel University B.S., Civil Engineering, Lehigh University B.A., Applied Science, Lehigh University	<ul style="list-style-type: none"> <li>Over 30 years of experience in project management and senior technical oversight of water quality and hydrodynamic modeling, total maximum daily load (TMDL) studies and implementation plan development, BMP design and effectiveness studies, dredge material management plans, watershed management, and engineering cost estimates and economic analysis of TMDL implementation and sediment management.</li> <li>Certified Professional <b>Engineer</b> in California.</li> </ul>
<b>Paige Anderson, CESSWI</b> <b>Water Quality</b> <b>Availability: 30%</b>  Labor Category: Associate II	M.S., Ecology, San Diego State University, expected graduation date 2016 B.S., Environmental Science Management and Protection, California Polytechnic University, San Luis Obispo	<ul style="list-style-type: none"> <li>3 years of experience preparing environmental analysis documentation and permits, ensuring environmental compliance at the federal, State, and local level.</li> <li>Certified Erosion, Sediment and Stormwater Inspector (CESSWI).</li> <li>Storm water pollution prevention, development and redevelopment, water supply planning and <b>infrastructure projects</b>.</li> </ul>

Name	Education	Technical Expertise
<b>Eric Schniewind</b> <i>Geology/Hydrology</i> <b>Availability: 10%</b>  Labor Category: Managing Associate II	B.A., Geological Sciences, University of California, Santa Barbara	<ul style="list-style-type: none"> <li>20 years of experience in geotechnical engineering, soil, and groundwater contamination investigations, environmental remediation planning and implementation, and Phase I site assessments.</li> <li>Responsibilities include providing geological, geotechnical, and hydrogeological technical support for CEQA/NEPA documents such as EIRs, EISs, and EAs.</li> </ul>
<b>Michael Burns, CHG, CEG, PG</b> <i>Groundwater/Geology</i> <b>Availability: 10%</b>  Labor Category: Director II	B.S., Geology, San Jose State University	<ul style="list-style-type: none"> <li>Over 30 years of experience in the environmental and geological sciences including CEQA/NEPA assessment and impact analyses.</li> <li>Expert services in planning and permitting, site characterization, Superfund sites, Remedial Investigation/Feasibility Studies, waste management, litigation support, property assessments, development and redevelopment, soil and groundwater remediation, and water rights.</li> </ul>
<b>Sarah Spano</b> <i>CEQA/NEPA</i> <b>Availability: 40%</b>  Labor Category: Senior Associate II	B.A., Anthropology/ Archaeology, New York University ( <i>Magna Cum Laude</i> )	<ul style="list-style-type: none"> <li>5 years of experience conducting CEQA/NEPA preparation and analysis as related to water and wastewater projects.</li> <li>Provides technical evaluations of water projects and their impact on aesthetics, biological resources, public services, and utilities.</li> <li>Background in public and private land conservation.</li> </ul>
<b>Camille Castillo</b> <i>CEQA/NEPA</i> <b>Availability: 50%</b>  Labor Category: Associate II	B.S., Environmental Engineering, University of California, San Diego	<ul style="list-style-type: none"> <li>1 year experience assisting with the preparation of environmental analysis documentation and permits, ensuring compliance at the federal, State, and local level for water, wastewater, and recycled water infrastructure projects.</li> <li>Assists with compliance monitoring including SWPPP and noise monitoring.</li> </ul>
<b>Alan Sako, LEED AP BD+C</b> <i>Air Quality, GHG and Noise</i> <b>Availability: 20%</b>  Labor Category: Managing Associate II	B.S., Atmospheric, Oceanic & Environmental Science, University of California, Los Angeles	<ul style="list-style-type: none"> <li>13 years of experience in preparing and managing air quality and climate change analyses, performing ambient air quality impact analyses and health risk assessments (HRAs) for CEQA and NEPA documents, and providing air quality permitting and compliance support.</li> <li>Cross-trained in acoustical/noise modeling, and preparing hazardous materials business plans (HMBPs), risk management plans (RMPs) for hazardous substances, and offsite consequence analyses (OCAs) for hazardous substances.</li> </ul>

## Project Experience

**Table 2-2** is a sampling of ESA's relevant and similar experience with CEQA/NEPA analysis and documentation for water/wastewater projects, including our recent experience with on-call services contracts. ESA's breadth of project experience provides IRWD with the best combination of regional perspective and local understanding for water supply infrastructure issues.

**Table 2-2: Summary of Relevant Experience**

Relevant Projects	Services Provided
<b>On-Call / As-Needed Contracts</b>	
<p><b>Irvine Ranch Water District (IRWD) General Environmental Services On-Call CEQA/ NEPA.</b> ESA has been providing on-call CEQA/NEPA services since 2009 for IRWD for an array of small projects. The current contract is for 2014 to 2016. ESA has become a trusted advisor to IRWD for environmental compliance issues; our understanding of their agency culture results in high client satisfaction; we understand their need for reliability, responsiveness, and transparency to ensure projects are completed within established budgets and schedules and to meet the expectations of their Board of Directors. Major projects:</p> <ul style="list-style-type: none"> <li>• Energy Storage Systems Project Notices of Exemption (NOEs)</li> <li>• Wells 21 &amp; 22/Well TL-1 Project MND/IS/EA and Addendum No.1</li> <li>• Strand Ranch Integrated Banking Project EIR Addenda</li> <li>• Jackson Ranch Water Allocation Project IS/MND</li> <li>• Baker Water Treatment Plant Project EIR Addenda</li> </ul>	<ul style="list-style-type: none"> <li>• CEQA/NEPA</li> <li>• On-Call Services</li> <li>• Biological and Cultural Surveys</li> <li>• MMRP</li> <li>• Implementation</li> <li>• Construction</li> <li>• Monitoring</li> <li>• Section 106</li> <li>• Compliance</li> <li>• USBOR</li> <li>• Coordination</li> </ul>
<p><b>Metropolitan Water District (MWD) As-Needed Environmental Planning Services.</b> ESA has been providing on-call environmental services to MWD including CEQA compliance, natural resource permitting, and specialized biological and cultural resources surveys. ESA has provided field surveying and mitigation monitoring compliance services, including regular monitoring of construction projects at the Weymouth Filtration Plant. Major projects:</p> <ul style="list-style-type: none"> <li>• Weymouth Filtration Plant Ozonation Facilities and Site Improvements Program FEIR and Addendums 1, 4, and 5</li> <li>• Weymouth Filtration Plant General Construction Monitoring</li> <li>• Jensen Solids Dewatering and Lagoons FEIR and Addenda</li> </ul>	<ul style="list-style-type: none"> <li>• CEQA</li> <li>• Technical Studies</li> <li>• On-Call Services</li> <li>• MMRP</li> <li>• Implementation</li> <li>• Construction</li> <li>• Monitoring</li> <li>• Biological and Cultural Surveys</li> </ul>
<p><b>Eastern Municipal Water District (EMWD) As-Needed Environmental Services.</b> ESA provided the EMWD with as-needed environmental services for a two-year period, from 2013 through 2015. The scope of potential services included CEQA/NEPA documentation; technical studies for biological and cultural resources; air quality and climate change; noise and traffic; aesthetics; and Riverside County MSHCP compliance. Major Project:</p> <ul style="list-style-type: none"> <li>• San Jacinto Valley Enhanced Recharge and Recovery Project EIR</li> </ul>	<ul style="list-style-type: none"> <li>• CEQA/NEPA</li> <li>• On-Call Services</li> <li>• Biological and Cultural Services</li> <li>• USBOR</li> <li>• Coordination</li> </ul>
<p><b>Inland Empire Utilities Agency (IEUA), On-Call Environmental Services.</b> ESA has been providing on-call environmental services for IEUA since 2012, including for CEQA/NEPA compliance documentation; regulatory permitting; and technical services such as biological assessments, jurisdictional delineations, stormwater pollution prevention plans (SWPPPs), cultural resource surveys, and mitigation monitoring. ESA has provided a diversity of services through over 15 task orders initiated under this contract to date, including:</p> <ul style="list-style-type: none"> <li>• Facilities Master Plans PEIR</li> <li>• Turner Basins SWPPP and Implementation</li> <li>• Prado Basin Monitoring Wells Preconstruction surveys</li> <li>• Zone 930 Burrowing Owl (BUOW) Survey</li> <li>• Wineville Jurisdictional Determination</li> </ul>	<ul style="list-style-type: none"> <li>• CEQA/NEPA</li> <li>• On-Call Services</li> <li>• Construction</li> <li>• Monitoring</li> <li>• USACE</li> <li>• Coordination</li> <li>• CWA Section 404</li> <li>• Application</li> <li>• Jurisdictional Determination</li> <li>• Biological Surveys</li> </ul>
<p><b>California Department of Water Resources (DWR) On-Call Environmental Planning Services.</b> As part of an on-call Environmental Planning Services contract with the DWR, ESA is preparing the environmental analyses, documentation, and permits for various projects along the State Water Project and performing construction monitoring. Major projects:</p> <ul style="list-style-type: none"> <li>• East Branch Extension Phase II EIR</li> <li>• Perris Dam Remediation EIR</li> <li>• Crafton Hills Reservoir Enlargement Supplemental EIR</li> </ul>	<ul style="list-style-type: none"> <li>• CEQA</li> <li>• On-Call Services</li> <li>• Construction</li> <li>• Monitoring</li> <li>• USFWS</li> <li>• Consultation</li> </ul>
<p><b>Orange County Sanitation District (OCSD) On-Call CEQA Services.</b> ESA has provided on-call environmental services for OCSD since 2001. The on-call services consist of the preparation of CEQA documents, including addenda, supplemental EIRs, negative declarations, and Notices of Exemption, and performing construction monitoring. Major projects:</p> <ul style="list-style-type: none"> <li>• Santa Ana River Levee Repair IS/MND</li> <li>• P2-92 Sludge Dewatering Subsequent EIR</li> <li>• Newport Force Main Rehabilitation Program EIR</li> </ul>	<ul style="list-style-type: none"> <li>• CEQA</li> <li>• On-Call Services</li> <li>• Biological Surveys</li> <li>• Construction</li> <li>• Monitoring</li> </ul>
<p><b>Los Angeles Department of Water and Power (LADWP) On-Call Environmental Services.</b> ESA is</p>	<ul style="list-style-type: none"> <li>• CEQA</li> </ul>

**Table 2-2: Summary of Relevant Experience**

Relevant Projects	Services Provided
<p>supporting the LADWP by providing a full array of environmental services to the Office of Environmental Planning and Assessment under a three-year on-call services contract. Major Projects:</p> <ul style="list-style-type: none"> <li>◦ Water Pipeline Installation V817 MND</li> <li>◦ City Trunk Line South Project EIR</li> <li>◦ Foothill Trunk Line Unit II EIR</li> <li>◦ Owens Lake Dust Mitigation Project EIR Addendum</li> <li>◦ Owens Lake Master Project EIR</li> </ul>	<ul style="list-style-type: none"> <li>• CEQA</li> <li>• On-Call Services</li> <li>• Technical Studies</li> <li>• Construction</li> <li>• Monitoring</li> <li>• MMRP</li> <li>• Implementation</li> </ul>
<b>Individual Projects</b>	
<p><b>Irvine Ranch Water District, Biosolids Handling and Energy Recovery Facilities Project. Supplemental EIR (SEIR).</b> IRWD is implementing the solids handling facilities at the Michelson Water Recycling Plant (WRP). The project will provide a complete biosolids process, biogas management, and energy generation system for the Michelson and Los Alisos WRPs. The Final SEIR was certified in 2012. ESA provided cultural mitigation construction monitoring services as well.</p>	<ul style="list-style-type: none"> <li>• CEQA</li> <li>• Construction</li> <li>• Monitoring</li> </ul>
<p><b>Irvine Ranch Water District, Baker Water Treatment Plant Project EIR and Addenda.</b> The goal of the Project is to increase water supply reliability in southern Orange County by creating redundancy of treatment system capacity and distribution infrastructure for potable water in the event of facility outages due to routine maintenance or emergencies. The Project is upgrading the existing Baker Filtration Plant in the City of Lake Forest, constructing additional transmission pipelines, and installing a new pump station, all within the Central Subarea of the Orange County Natural Community Conservation Plan. Key issues included noise, aesthetics, and traffic due to residential land uses surrounding the Project site. The Final EIR was successfully certified in 2011.</p>	<ul style="list-style-type: none"> <li>• CEQA</li> <li>• Technical Studies</li> <li>• Cultural Survey and Report</li> <li>• Biological Survey and Report</li> </ul>
<p><b>Irvine Ranch Water District, Stockdale Integrated Banking Project EIR.</b> ESA prepared the EIR for the Stockdale Integrated Banking Project, to be located outside of Bakersfield in western Kern County. IRWD together with Rosedale-Rio Bravo Water Storage District will develop over 500 acres of land with groundwater recharge and extraction facilities. The project will be integrated into Rosedale's existing Conjunctive Use Program and will provide Rosedale with additional recharge and storage capability and operational flexibility. The project will allow IRWD to store water for supply reliability and redundancy. The Final EIR was certified in December 2015.</p>	<ul style="list-style-type: none"> <li>• CEQA</li> <li>• Biological Surveys and Report</li> <li>• Cultural Surveys and Report</li> <li>• Air Emissions Modeling</li> </ul>
<p><b>Water Replenishment District of Southern California (WRD) GRIP Supplemental Recharge Wells Project Supplemental EIR (SEIR).</b> The Final EIR for WRD's GRIP Recycled Water Project was originally certified in June 2015. The GRIP Recycled Water Project will allow WRD to offset the current use of imported water for groundwater replenishment in the Central Basin with approximately 21,000 AFY of recycled water. As a modification the GRIP Project, the Supplemental Recharge Wells Project would construct three injection wells at the GRIP Advanced Water Treatment Facility site to allow recycled water to be recharged during periods when the Montebello Forebay spreading grounds are unavailable. ESA prepared a focused SEIR for the Project and met an aggressive schedule to complete the CEQA process in six months. The Final SEIR was certified in June 2016. ESA management and biologists are also coordinating with California Department of Fish &amp; Wildlife and preparing materials for an Incidental Take Permit related to GRIP Project operations.</p>	<ul style="list-style-type: none"> <li>• CEQA</li> <li>• Air Emissions Modeling</li> <li>• Noise Emissions</li> <li>• Biological and Cultural Services</li> <li>• CDFW</li> <li>• Coordination</li> <li>• ITP Application</li> </ul>
<p><b>WRD GRIP Administrative Learning Center IS/MND.</b> The WRD is constructing an administrative learning center as part of the Advanced Water Treatment Facility (AWTF) under the GRIP Recycled Water Project in the City of Pico Rivera, California. The project would construct a two-story, 26,500 square foot administrative learning center that would connect to the AWTF with a second story bridge, approximately 125 parking spaces, drainage improvements, and a screening wall and amphitheater for events. ESA prepared the IS/MND in six months and the project was approved by WRD in July 2016.</p>	<ul style="list-style-type: none"> <li>• CEQA-Plus</li> <li>• Technical Studies</li> <li>• Air Emissions Modeling</li> <li>• Traffic Study</li> </ul>
<p><b>West Valley Water District, Wellhead Treatment System Project Addendum.</b> As a subconsultant to Carollo Engineers, ESA prepared Addendum No. 1 to the MND for WVWD's Wellhead Treatment System Project. The Project included the construction and operation of a groundwater wellhead treatment system to remove perchlorate, nitrate, trichloroethylene, and volatile organic compounds from two existing drinking water wells located in the city of Rialto. Addendum No. 1 was prepared to verify there would be no new impacts associated with modification of an</p>	<ul style="list-style-type: none"> <li>• CEQA-Plus</li> <li>• Air Emissions Modeling</li> <li>• Biological Resources</li> </ul>

**Table 2-2: Summary of Relevant Experience**

Relevant Projects	Services Provided
additional treatment process to be installed at the existing Wellhead Treatment Facility. ESA provided updated air quality and GHG emissions estimates and biological and cultural database searches in support of the Addendum, given the District's intent to apply for State Revolving Funds through SWRCB. The WVWD Board adopted Addendum No. 1 in May 2016.	
<b>Castaic Lake Water Agency (CLWA) Saugus Formation Replacement Wells and Dry Year Wells Project IS/MND.</b> CLWA is proposing to construct four new wells and associated conveyance pipelines to augment water supply during dry or drought affected periods when imported water supply may be reduced or unavailable. ESA's in-house cultural resources staff completed a Phase I Cultural Resources report. ESA is currently preparing the IS/MND, which is expected to be published in the fall of 2016.	<ul style="list-style-type: none"> <li>• CEQA</li> <li>• Phase I Cultural Resources Report</li> </ul>

## Client References

ESA has gained a reputation for responsive service, technical excellence, and quality work. ESA prides itself on the quality of work performed for all of our clients. Client references are provided in **Table 2-3** below. The projects listed are described further in **Table 2-2** in Section 2. We invite you to contact our references as testament to the high quality professional services that ESA is known for.

**Table 2-3: Client References**

References	ESA Project
<b>Chris Alexander, Senior Environmental Scientist</b> California Department of Water Resources, Department of Engineering P: 916.653.9734	<ul style="list-style-type: none"> <li>• East Branch Extension Phase II EIR</li> <li>• Perris Dam Remediation EIR</li> <li>• Crafton Hills Reservoir Enlargement Supplemental EIR</li> </ul>
<b>Esther Valle Rojas, Senior Water Resources Planner</b> Water Replenishment District of Southern California P: 562.275.4259	<ul style="list-style-type: none"> <li>• GRIP Supplemental Recharge Wells Project Supplemental EIR</li> <li>• Administrative Learning Center IS/MND</li> <li>• Salt &amp; Nutrient Management Plan for Central and West Coast Basin</li> <li>• Groundwater Basins Master Plan Program EIR</li> </ul>
<b>Jayne Joy, Director of Environmental &amp; Regulatory Compliance</b> Eastern Municipal Water District P: 951.928.3777	<ul style="list-style-type: none"> <li>• San Jacinto Valley Enhanced Recharge and Recovery Program EIR</li> </ul>
<b>Julie Van Wagner, Environmental Specialist - Environmental Planning &amp; Assessment</b> Los Angeles Department of Water and Power P: 213.367.5295	<ul style="list-style-type: none"> <li>• Owens Lake Master Project EIR</li> <li>• Addendum to the Great Basin Unified Air Pollution Control District's 2008 Owens Valley PM10 State Implementation Plan</li> <li>• Foothill Trunk Line Unit III EIR</li> <li>• City Trunk Line South IS/MND</li> </ul>



## Section 3 Scope of Work

As requested in the RFP, the following scope of work outlines the tasks necessary to provide IRWD with on-call professional services for CEQA and NEPA analysis and compliance.

### Task 1: CEQA

We understand that IRWD has upcoming small-scale projects that could be implemented over the next two years. IRWD needs a firm that can respond quickly and efficiently to produce cost-effective, high-quality environmental documentation in compliance with CEQA. As already stated, and demonstrated by our qualifications and references described in **Section 2**, ESA's Southern California Water Group specializes in impact assessments for the construction and operation of water infrastructure projects including wells, pipelines, pump stations, storage tanks, and reservoirs. Providing CEQA compliance in the form of Addenda, Negative Declarations, and MNDs for these types of projects is our primary business. ESA provides full-service environmental support that includes in-house capabilities to perform technical studies, such as air emissions models, GHG emissions analysis, noise models, biological surveys and monitoring, cultural resources surveys, monitoring, and consultations, historic architectural assessments, and visual simulations. Our staff biologists, particularly with ESA PCR, have specialized experience working on projects within the **Orange County Natural Community Conservation Plan (NCCP)**. Our sample Scope/Schedule/Budget in **Appendix C** includes a typical scope of work, demonstrating our process for technical analyses and progression of CEQA documents through internal iterations, including Administrative Draft and Screencheck Draft versions prior to preparation of final Public Drafts and subsequent Final documents.

In September 2014, **Assembly Bill 52 (AB52)** was signed by Governor Jerry Brown, adding new requirements for addressing Native American resources through CEQA. AB52 requires lead agencies to consider the effects of projects on tribal cultural resources and to conduct consultation with federally and non-federally recognized Native American Tribes early in the environmental planning process. AB52 applies specifically to projects for which a Notice of Preparation or MND is filed after July 1, 2015. AB52 specifies that a project that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. AB52 requires that prior to determining whether a Negative Declaration, MND, or EIR is prepared for a project, the lead agency must consult with California Native American Tribes who are traditionally and culturally affiliated with the geographic area of the proposed project, and who have requested such consultation in writing. The CEQA/NEPA documents for IRWD's projects will need to include documentation of the consultation with Tribes per AB52. ESA's Southern California Cultural Resources Group will assist the District with implementing this process and will ensure that CEQA/NEPA documents appropriately includes the outcome of the AB52 consultation. This could include preparation of draft AB52 consultation letter for submission to Tribes who have requested consultation with IRWD.

### Task 2: NEPA

In addition to CEQA, we understand that IRWD needs a firm that provides high-quality environmental documentation that also complies with NEPA to satisfy the requirements of potential partner funding entities. ESA regularly produces either joint CEQA/NEPA documents, such as joint MND/EAs, or stand-alone CEQA-Plus or NEPA documents. ESA has recent and relevant experience working with staff at the State Water Resources Control Board, Regional Water Quality Control Board, U.S. Bureau of Reclamation (Bureau), and U.S. Environmental Protection Agency (USEPA), to prepare CEQA-Plus and NEPA documents for projects that either will be located on federal lands or will be receiving federal funding. In particular, Jennifer assisted IRWD with preparation of the Stockdale Integrated Banking Project EIR, which required coordination with the Bureau due to federal funding for the wells on Stockdale West. Jennifer also recently assisted Palmdale Recycled Water Authority with environmental documentation requirements to complete their SRF application for funds to support their Recycled Water Facilities Plan, for which ESA also prepared the IS/MND. In addition, Tom and Jennifer have experience working with the USEPA to prepare EAs and Environmental Information Documents (EIDs) to satisfy USEPA's NEPA requirements for funding mechanisms. We have good working relationships with federal funding sources and understand their specific NEPA compliance requirements. For

example, when the federal nexus is funding, the Bureau typically suggests preparation of a CEQA-Plus document with robust supporting cultural and biological technical studies that meet their requirements for federal cross-cutter consultation, such as State Historic Preservation Office and U.S. Fish and Wildlife Service (USFWS) consultation.

### Task 3: Staff Rates

The hourly rates for all staff and services that might be provided for the projects resulting from this On-Call Services contract are provided in **Section 5**. Charges for time spent on project management, consultation, meetings, field work, data analysis, report preparation and review, travel time, etc, will be made at the Category Rates set forth in Section 5. Rates for non-labor expenses, such as reimbursable expenses and equipment usage are also provided in Section 5. **Table 2-1** provides the labor categories for key staff that correspond to those provided in Section 5.

### Task 4: Project Task Item Estimates

Our typical on-call services contracts require us to prepare scopes of work, cost estimates and schedules for projects as they arise. Level-of-effort estimates are developed by our project management team. Staff are assigned based on project requirements. Each new project will be established under this IRWD On-Call Services master contract and IRWD's Purchase Order. Upon request, ESA will prepare and submit a scope, schedule, and budget to the District for new projects as they arise within one to two days, depending on the nature of the work. Longer timeframes may be required for larger jobs. The costs associated with preparing scope/schedule/budget packages will be ESA's responsibility. With District approval of the scope and fee, ESA will begin work on new projects immediately.

As requested in the RFP, we are providing a sample Scope/Schedule/Budget package for a recent project for which ESA prepared a CEQA document in the form of an IS/MND for WRD. This sample Scope/Schedule/Budget can be found in **Appendix C**. Typically, ESA includes only tasks required to legally fulfill environmental review requirements of CEQA and/or NEPA. Additional recommended tasks are included as line-item options, depending on issues or controversies that have potential to arise during the course of a project or contingencies needed for additional environmental review due to potential funding sources. This is also demonstrated in the sample Scope/Schedule/Budget package, which includes an optional task to fulfill requirements of the California Department of Transportation.

### Task 5: Team Experience

ESA has over 47 years of experience in the environmental consulting business. We have excellent knowledge of the business locally, state-wide and nationally. Please refer to **Section 2** for summaries of the experience, education, and skills of the key staff on the ESA Team proposed for this On-Call Services contract. Additional details about each team member are provided in the resumes attached as **Appendix B**.

### Task 6: Project Coordination

ESA has developed and nurtured a vast network of clients and consultants with which we regularly work and coordinate to accomplish tasks at hand. In accordance with our focus on client satisfaction, ESA will team with other consultants or agencies in order to provide the best technical or regulatory expertise required to meet project objectives and provide services that are in the best interest of our clients. As demonstrated by our project qualifications in Table 2-2, ESA regularly teams up with other planning firms, engineering firms, and specialty firms for geotechnical, transportation services, and groundwater modeling. For example, ESA has successfully teamed in the past with KOA Corporation and Ninyo & Moore on many projects. KOA Corporation is a subconsultant to ESA on the LADWP On-Call Environmental Services contract, and has worked with ESA on the LADWP Foothill Trunk Line III EIR as well as the City Line South IS/MND. Ninyo & Moore is a subconsultant to ESA on the DWR On-Call Environmental Planning Services contract and has provided geotechnical services on the East Branch Extension EIR. In addition, Tom and Jennifer regularly coordinate with groundwater consultants hired by our clients to prepare technical analyses of impacts to groundwater levels and groundwater quality due to groundwater recharge projects. Recently, Tom and Jennifer have worked with Todd Groundwater in preparation of the Supplemental Recharge Wells Project SEIR for WRD and in preparation of the Substitute Environmental Document for the Central Basin and West Coast Basin Salt



and Nutrient Management Plan. Jennifer worked with Tom Harder in preparation of the groundwater impact analysis for the Stockdale Integrated Banking Project EIR. To facilitate coordination of teams comprised of multiple consultants and agencies, ESA utilizes regularly scheduled conference call meetings to maintain focus of analyses, provide a forum for information exchange, and maintain compliance with project schedules.

As an integral part of our project management services we provide senior project strategy consultation with the client management team as well as with regulatory agencies. We provide senior experience in consulting with the USFWS, the US Army Corps of Engineers, the Bureau, the USEPA, the California Department of Fish and Game, the Santa Ana Regional Water Quality Control Board, the South Coast Air Quality Management District, and the local cities and county agencies including Flood Control and the Department of Public Works.

### Task 7: Mitigation Monitoring and Reporting

As part of a typical scope of work for environmental compliance, ESA includes development of the Mitigation Monitoring and Reporting Program (MMRP) as required by CEQA. We understand that IRWD may require assistance implementing the MMRPs for current projects such as the Irvine Lake Pipeline North Project. If requested by IRWD under this On-Call Services contract, ESA will implement the MMRPs associated with projects, including preparation of a reporting program binder designed to track the implementation and completion of each required mitigation measure, management of periodic monitoring activities and required field surveys, and preparation of periodic reports to document ongoing activities and eventual completion of the MMRP. ESA has staff that specialize in construction monitoring in both our Biological Resources & Land Management Group and Cultural Resources Group. ESA Water also has long term experience with Metropolitan Water District of Southern California implementing the MMRPs for various projects as part of an on-call services contract. Examples of our mitigation monitoring experience are included in **Section 2**.

### Task 8: References

As stated in the RFP, in lieu of reference letters, ESA is providing a summary of work completed for IRWD projects and associated IRWD staff members. As listed previously in **Table 2-2**, our ESA Team, in particular our Management Team of Tom and Jennifer have completed the projects listed in the table below, which include work completed under our previous on-call master contracts with IRWD and otherwise under individual project contracts. The following **Table 2-4** identifies the IRWD staff that was previously involved in each project.

**Table 2-4: IRWD Projects and Associated Staff Members**

Project	Staff
Strand Ranch Integrated Banking Project EIR and Addenda	Paul Weghorst, Kellie Welch
Baker Water Treatment Plan Project EIR and Addenda and Cultural Mitigation Monitoring	Paul Weghorst, Christian Kessler, Jo Ann Corey, Richard Mori, Joshi Raghavender
Stockdale Integrated Banking Project EIR	Paul Weghorst, Fiona Sanchez, Kellie Welch, Jo Ann Corey
Peters Canyon Water Capture and Reuse Pipeline Project IS/MND and Construction Mitigation Monitoring	Ray Bennett, Jo Ann Corey, Paul Weghorst, Ian Swift, Joe McGehee
MWRP Biosolids Handling and Energy Recovery Facilities Project SEIR and Cultural Mitigation Monitoring	Paul Weghorst, Christian Kessler, Steve Malloy, Carl Spangenberg, Beth Beeman, Jacob Moeder

## Section 4 Schedule

### Project Schedule

ESA understand the schedule required for CEQA compliance depends on the complexity of the project, the completeness of the project objectives and description, and the level of controversy associated with project components. With clear stakeholder support and a completely developed project description, a Negative Declaration requires approximately four months to prepare, circulate for public review, and certify. An Addendum to an EIR typically can be completed within one month or less. When a project requires intensive technical studies or neighborhood outreach, the schedule can be extended by several months. NEPA documents also can be prepared efficiently depending on the completeness of analysis and complexity of the project. However, federal approval of EAs generally adds at least several months to the CEQA schedule due to the additional agency coordination. For this reason, we typically work with the Bureau to negotiate preparation of a CEQA-Plus document instead of a joint CEQA/NEPA document when Bureau funding is the federal nexus. We have found that after completion of a CEQA-Plus document, the process of coordination with the SWRCB for SRF funding can add several months to the project schedule, depending on the level of effort needed to comply with Section 106 of the National Historic Preservation Act.

After reviewing the proposed schedule and our firm's current and planned workload, we can assure IRWD that the ESA team has the availability and experience to provide on-call services to the District.

### Responsiveness

ESA specialize in on-call services contracts that require a deep bench of technical capabilities to be available at any time. We will get the right person on the job whenever needed. We have demonstrated our responsiveness to IRWD on several occasions as seen thru our project experience with the District.

### Sample Schedule, Scope, and Budget

As requested in the RFP, we are providing a sample Scope/Schedule/Budget package for a recently-completed WRD project for which ESA prepared an IS/MND (see **Appendix C**). The sample schedule shows the steps required to complete the IS/MND for the sample project scope of work. The schedule illustrates approximately a six month timeline for completion of the IS/MND for a project involving construction of an educational center onsite at the GRIP advanced water treatment facility. For this project, ESA met strict deadlines imposed for design-build of the GRIP project.

The sample budget indicates the hours attributed to each task for team members according to personnel Category Rates (in Section 5). The budget for this sample project includes some ESA staff not presented in Section 2, due to the need for highly specialized staff for the technical studies included in the scope of work.



## Section 5 Fee Schedule

Charges will be made at the Category Rates set forth below for time spent on project management, consultation, meetings, field work, report preparation and review, travel time, etc. Time spent on projects in litigation, in depositions and providing expert testimony will be charged at the Category Rate times 1.5. This multiplier times our average raw labor rates for each labor category accounts for overhead and profit and equals our Category Rates.

From time to time, ESA retains outside professional and technical labor on a temporary basis to meet peak workload demands. Such contract labor may be charged at regular Personnel Category Rates.

### Personnel Category Rates

The range of rates shown for each staff category reflects ESA staff qualifications, expertise and experience levels. These rate ranges allow our project managers to assemble the best project teams to meet the unique project requirements and client expectations for each opportunity.

### Environmental Science Associates & Subsidiaries | 2016 Schedule of Fees

Labor Category	Level I	Level II	Level III
Senior Director	250	265	285
Director	200	215	230
Managing Associate	165	180	195
Senior Associate	140	150	160
Associate	100	120	130
Project Technicians	80	95	115

### Expenses

- A. Travel Expenses
  - 1. Transportation
    - a. Company vehicle – IRS mileage reimbursement rate
    - b. Common carrier or car rental – actual multiplied by 1.15
  - 2. Lodging, meals and related travel expenses – direct expenses multiplied by 1.15
- B. Communications Fee  
In-house costs for phone, e-mail, fax, regular postage, walk-up copier, and records retention – project labor charges multiplied by 3%
- C. Printing/Reproduction Rates

Item	Rate/page
8 1/2 x 11 b/w	\$0.05
11 x 17 b/w	\$0.10
8 1/2 x 11 color	\$1.00
11 x 17 color	\$2.00
Covers	\$0.50
Binding	\$1.00
HP Plotter	\$25.00
	\$10.00
Digital Photography	\$20.00 (up to 50 images)



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
1/4/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Woodruff-Sawyer & Co. 50 California Street, Floor 12 San Francisco CA 94111	<b>CONTACT NAME:</b> Jaclyn Grewohl <b>PHONE (A/G. No, Ext):</b> 415-391-2141 <b>E-MAIL ADDRESS:</b> jgrewohl@wsandco.com	<b>FAX (A/G. No):</b> 415-989-9923													
	<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A :Greenwich Insurance Company</td> <td>22322</td> </tr> <tr> <td>INSURER B :XL Specialty Insurance Company</td> <td>37885</td> </tr> <tr> <td>INSURER C :</td> <td></td> </tr> <tr> <td>INSURER D :</td> <td></td> </tr> <tr> <td>INSURER E :</td> <td></td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </tbody> </table>		INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A :Greenwich Insurance Company	22322	INSURER B :XL Specialty Insurance Company	37885	INSURER C :		INSURER D :		INSURER E :		INSURER F :
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INSURER E :															
INSURER F :															

**INSURED** ENVISCI-01  
Environmental Science Associates  
550 Kearny Street, Ste 800  
San Francisco CA 94108

**COVERAGES** CERTIFICATE NUMBER: 362625408 REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Contractual Liab <input checked="" type="checkbox"/> Stop Gap GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input checked="" type="checkbox"/> OTHER: No Deductible		GEC001336713	1/1/2016	1/1/2017	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000 MED EXP (Any one person) \$5,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$ \$
B	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS <input checked="" type="checkbox"/> No Ded.		ACC001336513	1/1/2016	1/1/2017	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$		UEC001336613	1/1/2016	1/1/2017	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$
B	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N/A	WEC001337413	1/1/2016	1/1/2017	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
B	Professional Liability Cov. A. Claims Made Retro Date: 10/1/89 & 9/1/76		PEC001336813	1/1/2016	1/1/2017	Each Occurrence: \$1,000,000 Aggregate: \$2,000,000 Retention: \$100,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
Issued for Evidence of Insurance Purposes Only

<b>CERTIFICATE HOLDER</b>  Sample Certificate c/o Environmental Science Associates 225 Bush St, Ste 1700 San Francisco CA 94104	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
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July 26, 2016

Fiona Sanchez, Director of Water Resources  
Irvine Ranch Water District  
15600 Sand Canyon Avenue  
Irvine, California 92618

Subject: Proposal for On-Call CEQA and NEPA Consultation

Dear Ms. Sanchez:

LSA Associates, Inc. (LSA) is pleased to provide this revised proposal for on-call environmental consulting services for the Irvine Rancho Water District (IRWD) related to compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

LSA is a full-service, multidiscipline environmental planning and project management professional services group with headquarters in Irvine, California (20 Executive Park, Suite 200, Irvine, California 92614), and additional offices located throughout the State. Preparation and review of CEQA documents has been a core service at LSA since the founding of the firm in 1976. Over the past 40 years, LSA has expanded its services to include virtually all environmental planning and permitting services, making the firm a "one-stop" choice for CEQA documentation. Today, the firm employs approximately 200 environmental professionals in nine offices in California, including specialists in CEQA documentation, biological resources, architectural and historic resources, archaeology, paleontology, water quality, air quality, greenhouse gases (GHGs) and global climate change, noise, and transportation. LSA has a successful track record of preparing environmental documents that are technically sound and legally defensible, as well as innovative and solution-oriented. LSA will provide environmental planning expertise to the IRWD that reflects the company's extensive experience with similar projects, including the following:

- Metropolitan Water District
- Moulton Niguel Water District
- Rancho California Water District
- South Coast Water District
- Orange County Water District
- Quail County Water District
- Kern/Tulare Water District
- Cawelo Water District
- West Kern Water District
- Tehachapi-Cummings County Water District

It is important to note that LSA is a 100 percent employee-owned corporation. All LSA employees own stock and are personally vested in the firm's commitment to providing quality service. As a result, clients know they are in the hands of a stable company that will follow through on its commitments.

A hallmark of LSA's approach is to use senior-level staff who remain assigned and committed to a project for the full term of the project. LSA's Principals and staff are trained as planners and environmental analysts, bringing an enhanced set of skills to environmental review. LSA's combined expertise allows the firm to refine projects where possible, develop mitigation measures that address identified impacts when necessary, and identify alternatives that will satisfy CEQA requirements and reduce potential project impacts. Further, LSA is proactive in communication and problem-solving, identifying potential problems as they emerge, considering alternatives and discussing them with clients, and recommending appropriate courses of action. LSA's commitment of senior-level staff, its depth of expertise, and its emphasis on communication between subject experts and lead agencies have earned the company a reputation for providing thorough, credible, and objective reports.

LSA has assembled a team of professionals who are highly qualified to address all of the CEQA tasks necessary to prepare the environmental document(s) for the proposed contract. LSA's Irvine office has over 90 technical staff members, including environmental planners, biologists, archaeologists, and noise and air quality specialists, ready to assist the IRWD with future projects. These staff members are located in LSA's Irvine office and are available to meet at the IRWD offices and facilities.

The LSA Team will be led by Nicole Dubois as Principal in Charge/Project Manager. Ms. Dubois has extensive experience managing environmental projects and conducting CEQA analysis for projects throughout Southern California. She will remain assigned to the contract for its duration .

In summary, LSA offers:

- Recent environmental experience with Water Districts;
- A unique "one-stop" option for the completion of CEQA documentation, including biological resources, architectural and historic resources, archaeology, paleontology, water quality, air quality, GHGs and global climate change, noise, and transportation;
- Commitment of senior-level staff who can provide technical expertise and project management skills to advance the CEQA process; and
- Depth of resources (150 staff in Southern California) to keep project schedules on track.

Thank you in advance for your consideration of this proposal. LSA is eager to establish a collaborative and team-oriented relationship with IRWD. Although every effort has been made to anticipate your needs, LSA welcomes the opportunity to discuss project strategy in further detail. If you have any questions, please contact Nicole Dubois at (949) 553-0666 or Nicole.Dubois@lsa.net.

Sincerely,

**LSA ASSOCIATES, INC.**



Leo Card  
CEQ

Attachment: Proposal



## INTRODUCTION

**LSA Associates, Inc. (LSA)** is pleased to submit this Statement of Qualifications (SOQ)/Proposal to provide on-call environmental consulting services for the Irvine Ranch Water District (IRWD) in accordance with the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act (NEPA).

LSA is a diversified environmental, transportation, and community planning firm that evolved from a small consulting firm formed by Larry Seeman in 1976, then called Larry Seeman Associates. The firm was designed to meet the need for environmental evaluation as a result of the passage of CEQA in 1970. From this foundation, the firm's expertise, experience, and services have grown to encompass the many issues related to environmental law. LSA has 40 years of experience helping clients navigate the often complex process of environmental review.

**ENVIRONMENTAL PLANNING** has been the cornerstone of LSA's professional practice since its founding and continues to be one of the firm's key practice areas. LSA's environmental staff includes expert practitioners of CEQA and NEPA. LSA's multidisciplinary project teams are assembled to fit the specific needs of each client and project.

The firm provides support with all aspects of CEQA and NEPA compliance, including preparation of documentation; coordination with affected federal, State, and local agencies; and implementation and monitoring of mitigation during construction and operation of facilities.

LSA's work begins with the collection and analysis of baseline data, which is used to determine the significance of a project's impacts. The firm then proposes mitigation measures to reduce impacts, where possible, to below levels of significance. It also provides recommendations on project design refinements and/or alternatives to avoid or reduce otherwise significant impacts, as well as ensure thorough and accurate documentation (including the use of LSA's Geographic Information Systems [GIS] Division) as required to assist regulators in making informed decisions and protect the project from litigation.

In addition to its capabilities in preparing CEQA documents, LSA staff includes in-house expert professionals in a variety of technical disciplines. By maintaining its technical expertise in house, LSA will provide the IRWD with an integrated, multidisciplinary team that facilitates communication of project information, deliverables, and schedules. These technical disciplines are outlined below.

### **LSA's Services Include:**

- *Preparation of EIRs/EISs, ISs, EAs, IS/NDs, IS/MNDS, FONSIs, and EIR Addendums*
- *Preparation of supporting technical studies (Air Quality, Noise, Traffic, Biological Resources, Cultural and Paleontological Resources, Historic Resources, Visual Resources, Water Quality, and Section 4(f) Evaluations)*
- *Coordination with local, State, and federal resource agencies and management of public participation programs*
- *Issuance of legal notices and incorporation of environmental documents into planning processes*
- *Mitigation Monitoring including water quality monitoring, dust control monitoring, noise monitoring, and archaeological and paleontological monitoring*
- *Implementation of permitting procedures for federal and State resource permits*

- LSA's **NATURAL RESOURCES** staff is known for its expertise in the evaluation, management, and restoration of biological resources. The firm's staff of scientists prepares biological resource inventories, constraints analyses, and impact assessments. Its extensive experience in wetlands analysis, special-status species evaluation, and resource management is respected by both



clients and regulatory agency staff. LSA designs habitat restoration plans and mitigation banks, implements and monitors revegetation programs, and coordinates with multiple agencies on complex biological and wetlands permitting issues. In addition, LSA provides assistance in implementation of permitting procedures for federal and State resource permits including Sections 401 and 404 of the Clean Water Act, Section 1602 of the California Fish and Game Code, and Sections 7 and 10 of the Endangered Species Act.

- The **TRANSPORTATION** staff offers comprehensive planning and engineering services for all aspects of transportation projects. The firm's services include modeling for regional transportation networks, identifying roadway funding and cost-sharing opportunities, and assessing traffic impact and parking conditions.
- In **NOISE AND AIR QUALITY**, LSA offers complete assessment modeling and monitoring of noise and air quality impacts for residential, commercial, and industrial developments; General Plan/Specific Plan studies; and transportation projects. These services include modeling of construction and operational emissions with mobile and stationary sources. LSA also prepares health risk assessment and community risk reduction plans.
- LSA provides a full range of **GLOBAL CLIMATE CHANGE** services that are responsive to evolving State and federal standards, recent case law, and scientific literature. LSA uses quantitative and qualitative methods to evaluate project and program GHG emissions, and works within a multidisciplinary team to craft innovative mitigation measures to reduce effects related to global climate change.
- The **CULTURAL RESOURCES** staff provides field surveys, testing, laboratory services, resource evaluation, and historical assessments. It also develops mitigation measures for cultural resources protection and preservation programs, and coordinates Section 106 clearances for State and federal projects. LSA provides assessments for paleontological resources that include research into the types of sediments and fossils that may be encountered during construction, preconstruction surveys for paleontological resources, and recommendations to mitigate impacts to paleontological resources, if any are present. LSA also provides monitoring during construction, identification and curation of any recovered specimens, and preparation of final mitigation reports that discuss the paleontological findings. LSA is also available to assist with the consultation process for Chapter 532, Statutes of 2014 (i.e., Assembly Bill [AB] 52), if requested.
- LSA provides a variety of **WATER QUALITY** services to assess how present and proposed actions could affect water quality, particularly regarding stormwater management. Services include Storm Water Pollution Prevention Plans (SWPPPs), Sediment and Erosion Control Plans, National Pollutant Discharge Elimination System (NPDES) Permit compliance evaluations, water quality sampling, and water quality analyses for CEQA/NEPA documents.



## PROJECT TEAM QUALIFICATIONS

As an on-call environmental services consultant to more than 70 agencies in California within the last 5 years, LSA recognizes that an on-call assignment requires an "on-call" obligation. The team must **act quickly**; it must be **responsive, knowledgeable**, ready to use its experience for myriad possible requests, and **solution-oriented**. LSA's range of experience has led it to one common denominator when working under an on-call services contract: constant, clear, productive **communication**. If placed on the IRWD's on-call list, LSA will be responsive and efficient, maintaining frequent and purposeful communication with City staff. LSA is committed to providing IRWD with prompt, efficient service and unparalleled expertise.

A hallmark of LSA's approach is to use senior-level staff members who remain assigned and committed to a project for the full term of the project. Before bidding on a project or individual task orders, LSA evaluates its workload and assignments to determine whether it can meet the client's goals. LSA pursues projects only when it can commit the appropriate resources. LSA's reliability is demonstrated by both its successful track record and its commitment of senior-level staff to this project. It is LSA's intention that its staff play a consistent, lead role from start to finish. Key personnel will not be replaced without written authorization from the IRWD.

### **Nicole Dubois**

#### ***Principal in Charge/Project Manager***

Ms. Dubois will serve as the Principal in Charge/Project Manager for all new task orders issued under the on-call contract. Ms. Dubois will be the main point of contact for the IRWD. Project management tasks include regular contact with IRWD staff and the Project Team, contract management, schedule coordination, budget tracking and control, and development of deliverables. Ms. Dubois will be available for consultation on CEQA procedural matters and will attend meetings and public hearings with IRWD staff, as requested.

Ms. Dubois will also be ultimately responsible for quality assurance for all work undertaken and will review all in-house prepared text, tables, and graphics before these materials are presented to IRWD. Ms. Dubois will provide direction to all team members that will ensure internally consistent, coherent documents, and will coordinate the day-to-day activities associated with assigned tasks.

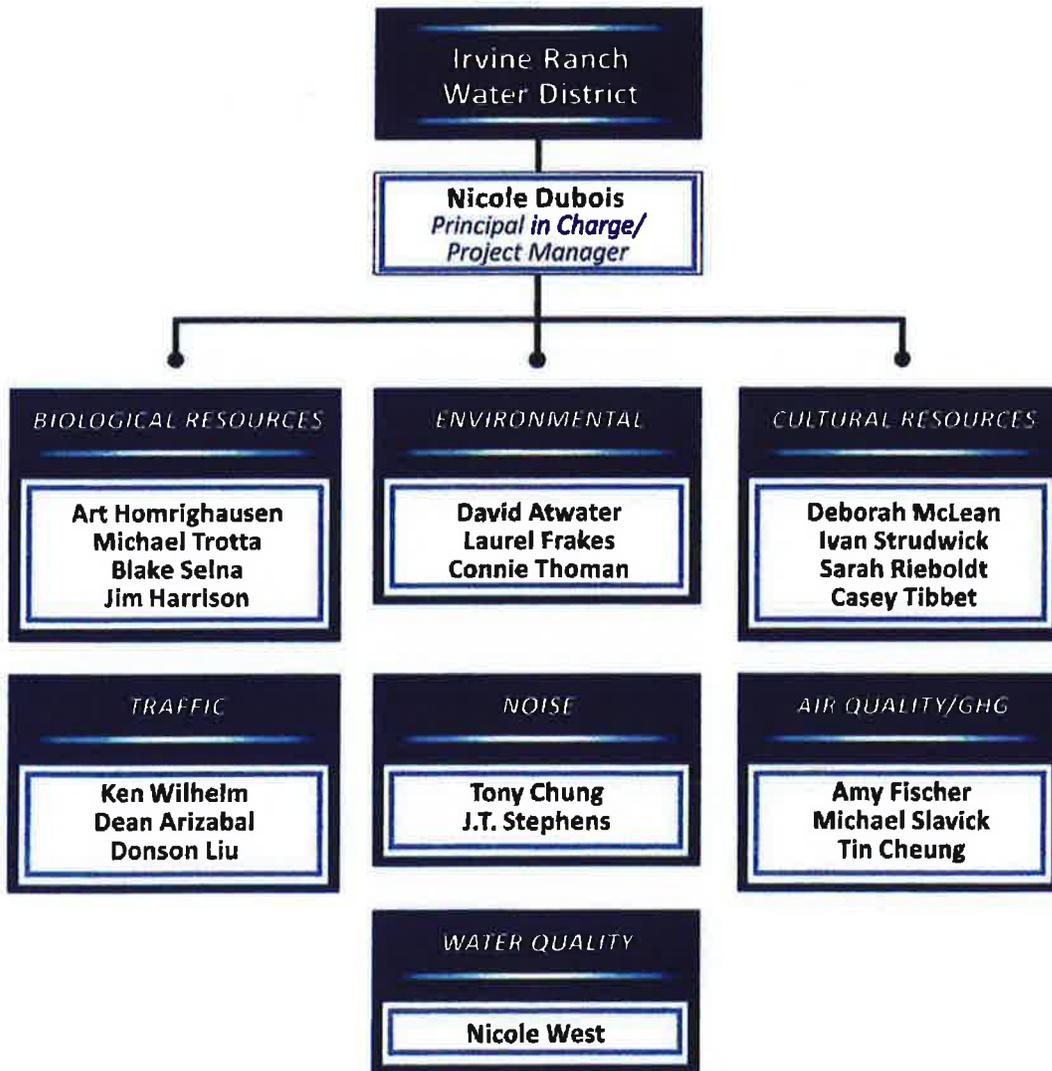
As a Principal at LSA, she has extensive experience in the preparation of environmental documents for a variety of land development, redevelopment, institutional, and capital improvement projects, including Initial Studies (ISs), Mitigated Negative Declarations (MNDs), and Environmental Impact Reports (EIRs). Her primary responsibilities include research, preparation, and management of environmental documents prepared in compliance with both CEQA and NEPA. Ms. Dubois has extensive experience managing large environmental projects and conducting CEQA analysis for projects throughout Southern California. Ms. Dubois is currently working with the Moulton Niguel Water District (MNWD) on the IS/MND for the proposed Operations Center in the City of Laguna Hills and with the Orange County Sanitation District (OCS D) on the EIR for the proposed Administration Building, Site Security, and Entrance Realignment Project.





### ENVIRONMENTAL TASK LEADS AND TECHNICAL STAFF

Ms. Dubois will be assisted by the Environmental Task Leaders and technical staff shown in **Table A, LSA Key Personnel**. The individuals presented in this table and the **Organization Chart, below**, were specifically selected because of their prior work on IRWD projects or projects with similar requirements. While these individuals represent LSA's "core team" for this contract, support staff from within LSA may be brought onto the team as needed. Since LSA maintains a full complement of staff in all environmental and technical disciplines, the company is able to be flexible with staff assignments and to adjust workload priorities to meet IRWD's product and scheduling needs. As stated above, the Project Manager will be assigned for the duration of the contract. Resumes for key personnel are provided in Appendix A.





## WORK HISTORY AND REFERENCES

LSA has provided environmental documents for nearly 130 different private developer clients and has been an on-call environmental services consultant to more than 70 agencies in California within the last 5 years. Presented below are descriptions of representative projects that demonstrate LSA's experience working with public agencies to complete CEQA and NEPA analysis for a variety of public and private projects.

### CALIFORNIA ENVIRONMENTAL QUALITY ACT

#### **Moulton Niguel Water District Operations Center**

**Location:** City of Laguna Hills, California

**Contact:** Matt Collings, (949) 448-4032, mcollings@mnwd.com

LSA is currently preparing an Initial Study/Mitigated Negative Declaration (IS/MND) and related technical reports for the proposed Moulton Niguel Water District (MNWD) Operations Center. MNWD proposes to construct a two-story 45,000-square-foot office building, expanded above ground fuel storage, realignment of the entrance to the facility, a detention/ bioretention basin, and on- and off- site utility improvements including installation of a new 21-inch reinforced concrete pipe (RCP) storm drain in the public right-of-way. In addition to the environmental document, LSA has prepared an archaeological survey report and provided assistance with Native American consultation required by Assembly Bill 52; a paleontological resources report; biological resources report and jurisdictional delineation; traffic impact assessment; air quality and greenhouse gas analysis; and noise analysis. The IS/MND is anticipated to be circulated for public review in fall 2016.

#### **Rancho California Water District Santa Rosa Water Reclamation Facility Rehabilitation Program CEQA-Plus and Categorical Exemption**

**Location:** City of Murrieta, California

**Contact:** Andrew Webster, (951) 296-6900, webstera@ranchowater.com

LSA prepared a Categorical Exemption and CEQA-Plus technical studies in support of the Categorical Exemption. Funding for this project came from the State's Clean Water State Revolving Fund which requires an evaluation against certain federal regulations including Section 7 of the Endangered Species Act, the Migratory Bird Treaty Act, Section 106 of the National Historic Preservation Act, and the Clean Air Act, in addition to CEQA requirements. In addition, a Noise Impact Analysis was prepared to address potential construction-related noise. The project entailed the replacement of components of the existing infrastructure, reconfiguration of piping, and installation of new components within the existing facility footprint. The objectives of the project were to maximize the life of the existing assets, replace obsolete, inefficient, and failing equipment, improve the operational characteristics and quality of the facility processes, operational costs, and increase reliability.

#### **Metropolitan Water District On-Call Environmental Services**

**Location:** Southern California

**Contact:** Deirdre West, (213) 217-6696, dwest@mwdh2o.com

LSA has provided on-call environmental services over several multi-year contracts to the Metropolitan Water District (MWD) in Los Angeles. LSA provided environmental and biological consulting services primarily for the Robert Diemer Water Filtration Plant (Diemer Plant) in Yorba Linda. Tasks have included establishment and long-term monitoring and maintenance oversight of native habitat mitigation sites for projects related to the Settling Basin No. 8 spillway conduit; preparation of landscape plans and



environmental specifications for the Ozone Retrofit Project, consistent with nearby Habitat Conservation Plan components; preparation of a Resident Engineer's Manual for construction activities showing sensitive/restricted habitat areas, and preparation of mitigation measure and permit condition checklists. LSA has conducted noise surveys and monitoring in the vicinity of sensitive avian species and utilized GIS for habitat mapping and analysis. Additional services have included continuation of monitoring and maintenance oversight of the revegetation mitigation sites, preparation of an Addendum to a prior Environmental Impact Report for project modification work, preparation of permit applications for the North Access Road project riparian habitat/waters of the United States impacts, and erosion control evaluation of and recommendations for post-fire areas at the Diemer Plant. The following projects were completed under this on-call contract:

- Diemer North Access Road Project
- Oxidation Retrofit Program and Associated Projects
- Settling Basin No. 8 Spillway Conduit
- Yorba Linda Feeder Bypass Project
- Stephens' Kangaroo Rat Monitoring at Diamond Valley Reservoir Sewer Line
- Carbon Canyon and Telegraph Creeks Railcar Bridge
- Northwest Hills Grading

#### **West Valley Water District Wellhead Treatment System Initial Study / Mitigated Negative Declaration**

**Location:** City of Rialto, California

**Contact:** Thomas J. Crowley, (909) 820-3702, tcrowley@wcwd.org

LSA prepared the Initial Study/Mitigated Negative Declaration (IS/MND) analyzing the environmental impacts associated with a groundwater perchlorate treatment system in which contaminated water from existing wells would be thoroughly treated for drinking water purposes through the use of a biological treatment process for the West Valley Water District. Although there are five full-scale treatment systems that utilize this technology, the proposed Project is the first application of the technology in the United States that utilizes a biological process to treat groundwater for the purpose of a drinking water system. The IS/MND was approved by the District Board in September 2009.

LSA also prepared an Addendum to the original IS/MND. The Addendum provided assessment of potential impacts attributable to air pollution emissions from a change in the project's soil import/export schedule. The original approval analyzed a project that included a balancing of on-site soils, while the amended project included export of approximately 9,000 cubic yards to locations in Arizona and Nevada. Detailed calculations of air pollution emissions were prepared to the satisfaction of South Coast Air Quality Management District staff. Under tight time frames needed to keep the Water District construction contractor's schedule, the Addendum was approved by the District Board in August 2011.



### **IRWD Addendums No. 3 and No. 4 to the Final EIR for the Irvine Desalter Project**

**Location:** City of Irvine, California

**Contact:** Christian Kessler, (949) 453-5441 and Patricia Uematsu, (949) 453-5626

LSA prepared Addendum No. 3 to the Final EIR for the IDP, pursuant to CEQA and the CEQA Guidelines. LSA tiered off of IRWD's Master Plan of Sewers EIR to prepare the appropriate environmental documentation. The Addendum analyzed modifications to the potable system as a result of a relocated site for the Potable Treatment Plant (PTP), additional potable wells, new locations of potable well sites, construction of new and reuse of existing pipelines, new brine line, and other appurtenant changes as they related to those modifications. On September 15, 2004, the Orange County Water District (OCWD) Board approved Addendum No. 3 to the Final Environmental Impact Report (FEIR) to cover these project modifications (Resolution No. 04-9-124).

LSA prepared Addendum No. 4 to the Final EIR for the Irvine Desalter Project (IDP), pursuant to CEQA and the State CEQA Guidelines. The IDP is a joint groundwater quality restoration project by the IRWD and the OCWD, with financial participation by the United States Department of the Navy, to clean up the groundwater in the vicinity of the former Marine Corps Air Station (MCAS) El Toro base. The Addendum addressed the replacement of existing Well 78, including the destruction and replacement of the existing well, wellhead, and vault; pipeline; electrical; instrumentation; and ancillary equipment.

### **Irvine Ranch Water District Previous On-Call Services**

**Location:** IRWD Service Territory

**Contact:** Christian Kessler, (949) 453-5441

LSA was retained by the IRWD to provide on-call biological and environmental services. Work under this contract included the following: biological surveys; monitoring of IRWD construction and maintenance activities to prevent biological impacts and ensure compliance with the Fish and Game Code, the Clean Water Act, and the Endangered Species Act; providing assistance with obtaining necessary approvals under these regulations; and providing assistance with CEQA and NEPA documentation.

Under an on-call contract, LSA was asked to assist IRWD with the design, permitting, and construction of its 104-acre pond enhancement project in the San Joaquin Marsh of Irvine. One of the purposes of the project was to decrease nitrate concentration in tertiary-treated water prior to discharge. Design issues included the maximization of bird habitat and selection of plant species. LSA prepared permit application documents and assisted with permit processing to enable IRWD to obtain a United States Army Corps of Engineers (Corps) Section 404 Permit and California Department of Fish and Wildlife (CDFW) Streambed Alteration Agreement in less time than these agencies normally allot for these processes (i.e., fewer than 4 months for the Section 404 Permit and fewer than 30 days for the Streambed Alteration Agreement). Construction work included monitoring for biological, archaeological, and paleontological resources. Subsequently, LSA was retained under a separate contract with the Irvine Company to prepare a wetland mitigation plan to offset the minor impacts of the pond enhancement project and to create a wetland mitigation bank associated with the pond.

Additional IRWD projects that were initiated under the on-call services arrangement or supplemental sole source contracts included the following:

- Monitoring of emergency repairs on a broken pipeline in Sand Canyon Creek and preparation of a restoration plan to mitigate the damage. LSA also monitored the restoration and is currently conducting the long-term maintenance and performance monitoring.



- Preparing a habitat restoration plan and the subsequent monitoring of its implementation for a slope repair project in Mason Regional Park. The slope, which was damaged by a water line leak, supported coastal sage scrub habitat that was occupied by the threatened California gnatcatcher. Assessment of the damage and development of the plan included coordination with the Orange County Harbors, Beaches, and Parks Department.
- Habitat mapping in the area of a proposed landscape berm for the purpose of determining constraints and permit requirements.
- Monitoring of weed-removal activities throughout San Joaquin Marsh to ensure compliance with the Migratory Bird Treaty Act.
- Assessment of the biological effects of a leak in a pipeline containing tertiary-treated wastewater. The work included interaction with a hydrologist to help determine the likely extent of the zone of saturation caused by the leak. LSA specialists examined field conditions and historical aerial photographs to assess impacts on vegetation types.
- Conducting a 3-year study of habitat and soil conditions in Upper Newport Bay in anticipation of a permitted discharge of tertiary-treated water from the Michelson Treatment Plant on San Diego Creek. LSA's studies included comprehensive vegetation mapping on an annual GPS mapping of the interface between saltmarsh and freshwater marsh vegetation and sampling of soil to determine salt content. Two years of monitoring was originally required to provide baseline information and for a study of the potential effects of the release of tertiary-treated water by the IRWD at the Michelson Treatment Plant on San Diego Creek. Although the discharge permit was suspended, the monitoring study continued for 3 years, providing comprehensive baseline data as well as an indication of ongoing changes in the distribution of vegetation.
- Mitigation compliance monitoring, noise monitoring, special-status species surveys and monitoring, preconstruction nesting bird surveys, and vegetation clearing monitoring at the Michelson Water Reclamation Plant Phase 2 and 3 Capacity Expansion Project.
- CEQA documentation for Santiago Generators and Irvine Desalter projects (detailed above).
- Archaeological/paleontological monitoring at Wells 21 and 22.
- Arborist evaluation in Modjeska Canyon.

## **NATIONAL ENVIRONMENTAL POLICY ACT**

### **Irvine Ranch Water District Santiago Canyon Area Booster Pump Station Permanent Generators Project Initial Study Mitigated Negative Declaration and Environmental Assessment/Findings of No Significant Impact**

**Location:** Modjeska Canyon (unincorporated Orange County), California

**Contact:** Christian Kessler, (949) 453-5441

LSA prepared an IS/MND and Environmental Assessment/Finding of No Significant Impact (EA/FONSI) for the IRWD Booster Pump Stations (BPS) Permanent Generators Project. The project site was located within the Santiago Canyon-Modjeska Canyon area within an unincorporated portion of Orange County. In October 2007, the Santiago Fire burned through IRWD's Santiago Canyon service area threatening homes, businesses, and the District's reservoirs and BPS in the region. During the Santiago Fire, power outages were experienced at several of the pump stations, requiring the installation of portable emergency generators at each site. However, these temporary generators are also susceptible to damage by wildfires and in addition are not permitted for permanent installation. LSA assisted IRWD in obtaining the necessary CEQA/NEPA clearance for permanent replacement of these portable

**LSA**



generators to improve the reliability of the water system during power outages, particularly when the outages are caused by fires in the canyons.

### **City of Hope Replacement Hospital Environmental Assessment/Finding of No Significant Impact**

**Location:** City of Duarte, California

**Contact:** David Wade, (562) 618-7605

LSA prepared an EA/FONSI addressing the environmental effects of the Helford Clinical Research Hospital. Helford Hospital replaced older structures with a state-of-the-art facility that facilitates patient, physician and clinical research interaction. Construction of Helford Hospital was necessary to address damage sustained to structures as a result of the Northridge earthquake, achieve State seismic requirements for acute care facilities, and update the City of Hope's delivery of service.

The EA/FONSI was prepared consistent with the Federal Emergency Management Agency guidelines for implementation of NEPA. As part of the EA/FONSI, coordination with several federal agencies was conducted to address potential effects to biological and cultural (historic) resources. Effects to the local community were also assessed in the EA/FONSI. Potential air quality, noise, and traffic associated with construction activities were evaluated and appropriate minimization measures identified. Air quality, noise, traffic and parking effects were also evaluated. Of particular concern to the local community was the adequacy of parking on campus and the potential for visitors and employees parking on local streets. Additionally, potential visual and shade/shadow effects were evaluated. Due to the height of the structure and proximity to existing residences, a shade/shadow analysis was conducted to assess potential effects on residences to the west of the City of Hope campus.

## **MITIGATION MONITORING AND REPORTING**

### **IRWD Carlson Marsh Regrade**

**Location:** City of Irvine, California

**Contact:** Eric Akiyoshi, (949) 453-5854

LSA assisted the IRWD with the acquisition of the regulatory permits necessary for the Carlson Marsh Regrade project, in which the water circulation in the degraded marsh was restored and exotic plant species were eradicated. Permits included an Individual 404 Permit from the Corps, a Streambed Alteration Agreement from the CDFW, and a Section 401 Certification from the Santa Ana Regional Water Quality Control Board. LSA coordinated a construction monitoring regimen for the vegetation removal and excavation of pilot channels, and a Habitat Mitigation and Monitoring Plan for the restoration of impacted habitat. After 4 years of habitat restoration monitoring and reporting, LSA received resource agency approval documenting that the site met all required performance standards and was released from further maintenance obligations.

### **Rancho California Water District Revegetation**

**Location:** Southern California

**Contact:** Andrew Webster, (951) 296-6900, webstera@ranchowater.com

LSA served as the primary revegetation consultant to Rancho California Water District (RCWD) for several new facilities. LSA prepared construction documents and specifications for implementation of the Valle de Los Caballos Upper and Lower Recharge Basin riparian, El Chimisal Reservoir No. 2, Date Street Reservoir, and Date Street 1670 Transmission Main. LSA also provided recommendations and prepared construction documents and specifications for several native habitat revegetation projects (chaparral and coastal sage scrub) associated with other RCWD facilities. LSA monitored and managed installation,



maintenance, weed control, and progress of several native revegetation projects for RCWD. Monitoring activities included coordination and oversight of plant and seed procurement, scheduling of site preparation and plant/seed installation, frequent site visits during installation to ensure compliance with specifications and provide technical expertise, preparation of field memorandums documenting field activities, frequent site visits following installation to document and provide technical expertise during the maintenance period, and preparation of summary reports for submittal to resource agencies and the RCWD for areas adjacent to RCWD structures and facilities in Murrieta Hills and Temecula. Additionally, LSA prepared recommendations for monitoring performance criteria, maintenance, and remedial planting for upland projects already in the ground. LSA also served as the revegetation specialist expert witness for the RCWD in litigation.

**REFERENCES**

LSA has earned the attention and respect of public and private sector clients for its successful preparation of environmental documentation pursuant to CEQA, and related technical reports. LSA is proud of its clients' satisfaction and of its many repeat clients.

Two letters of reference from clients within the potable, wastewater, and recycled water industry that describe the extent and the quality of LSA's completed work are provided in Appendix C. For convenience, LSA has also provided contact information for key references below. LSA strongly encourages you to contact the people listed below for an objective testimonial of the firm's capabilities. LSA believes that firsthand communication with people who have worked with the company is the most valuable source of insight about its work.

<b>Table B: LSA References</b>	
<p><b>Andrew Webster, Chief Engineer</b>  Rancho California Water District  42135 Winchester Road  Temecula, California 92590  Tel: (951) 296-6900  webstera@ranchowater.com</p>	<p><b>Deidre West, Environmental Project Manager</b>  Metropolitan Water District  700 North Alameda Street  Los Angeles, California 90012-2944  Tel: (213) 304-1613  dwest@mwdh2o.com</p>
<p><b>Mathew Collings, Assistant General Manager</b>  Moulton Niguel Water District  27500 La Paz Road  Laguna Niguel, California 92677  Tel: (949) 448-4032  mcollings@mnwd.com</p>	<p><b>Thomas J. Crowley, Assistant General Manager</b>  West Valley Water District  855 West Baseline Road  Rialto, California 92376  (909) 820-3702  tcrowley@wcwd.org</p>





## ON-CALL PROJECT APPROACH

LSA's mission is to provide services in the environmental disciplines to public and private clients that have the ability and capacity to affect the existing physical environment. Since this assignment is for on-call services to be performed on a task-order basis, a specific work plan cannot be presented at this time. However, this section presents LSA's general approach to this contract and to a range of potential environmental documents. Additionally, a detailed sample Scope of Work, schedule, and budget is provided in Appendix B; this sample Scope of Work assumes a moderately complicated project.

It is essential that there be a clear understanding between IRWD staff and the LSA Team regarding each assignment's goals and objectives. The appropriate lines of communication and reporting will be established to assure that the work progresses on schedule and as planned. LSA's basic management plan for each task order is to provide a well-defined budget, schedule, scope of work, staffing plan, progress reporting, and quality control procedures based on LSA's Quality Control Plan. This work plan will ensure that a proactive approach to project management is provided to client staff. LSA's goal is to function as an extension of IRWD staff throughout the duration of the contract.

At project initiation, it is expected that the LSA Team will meet with key IRWD staff members, refine the Scope of Work, delegate responsibility, and establish key project milestones. LSA will develop protocols for communication within the LSA Team and with IRWD staff. This may include procedures for coordination with responsible agencies. LSA would coordinate the project timeline to ensure a high level of ongoing communication between IRWD and the LSA Team, including attendance of status meetings or calls with IRWD on a regular basis to ensure adequate progress and resolve issues throughout the CEQA process. LSA's overall approach to conducting successful environmental analyses and to preparing environmental documents and regulatory permitting involves organizing both the LSA Team and the project tasks to achieve the following objectives:

- Work in coordination with IRWD staff and consultant team to minimize project environmental impacts to the maximum extent practicable in order to reduce mitigation costs and streamline environmental approvals.
- Provide final environmental clearance and obtain required resource agency permits for all project components.
- Ensure that all procedural steps required by CEQA and IRWD regulations are met in a timely manner and that all applicable guidelines are followed.
- Take a proactive role in resolving issues and pursuing needed information and decisions to facilitate completion of CEQA requirements within the agreed-upon schedule. If issues arise that would jeopardize the schedule, LSA will immediately apprise the IRWD of the problem and diligently develop alternative approaches to maintain the schedule.
- Effectively use email, telephone, and letter correspondence, as well as meetings, as appropriate, to communicate with the IRWD in a timely and thorough manner to ensure efficient coordination and flow of information.
- Provide in-house review of all products by a technical editor and a Principal prior to submittal, as stated in the LSA Quality Control Handbook. LSA's quality control procedures ensure that LSA documents arrive for review in final form, thereby allowing the reviewer to concentrate on issues of substance rather than on editing tasks.



- Incorporate early involvement of and coordination with State and federal regulatory and resource agencies (subject to IRWD approval) to resolve issues and confirm assessment methodologies.
- Maximize use of existing information to limit the need for new or supplemental studies.

## **FEE SCHEDULE**

Budgets prepared for specific task orders will be based on the attached Hourly Billing Rates and In-house Direct Expenses (Appendix D). A summary report and monthly invoice will be submitted to IRWD no later than the 15<sup>th</sup> of every month. The invoice will be consistent with the required IRWD format. Please refer to Attachment B, Sample Scopes of Work, for an example budget for an IS/MND.

## **JOINT VENTURE**

LSA does not propose any type of joint venture or have any intent to propose subcontract arrangements that will be utilized during the course of this project. Additional information related to joint venture and/or proposed subcontractor arrangements is provided in Appendix E.

## **CONFLICT OF INTEREST**

LSA staff does not have any close friends or family members employed, appointed, or otherwise affiliated with IRWD, nor is LSA aware of any organizational conflicts of interests that are prohibited by law.

## **INSURANCE**

LSA maintains insurance coverage consistent with federal and State requirements. A Certificate of Insurance is provided in Appendix F.

## **CONTRACT**

LSA has reviewed IRWD's sample copy of the professional service agreement and has no proposed modifications.



### BILLING RATES FOR KEY PERSONNEL

Staff Name	Title	Billing Rate
Nicole Dubois	Principal	\$195
Laurel Frakes	Senior Environmental Planner	\$135
David Atwater	Senior Environmental Planner	\$125
Connie Thoman	Senior Environmental Planner	\$165
Amy Fischer	Principal, Air Quality	\$170
Michael Slavick	Senior Air Quality Specialist	\$165
Tin Cheung	Senior Air Quality Specialist	\$195
Art Homrighausen	Principal, Biologist	\$230
Michael Trotta	Principal, Biologist	\$230
Blake Selna	Principal, Biologist	\$190
Jim Harrison	Principal, Biologist	\$170
Nicole West	Associate, Water Quality	\$165
Deborah McLean, RPA	Principal, Cultural Resources	\$200
Ivan Strudwick	Associate, Archaeologist	\$145
Sarah Rieboldt, Ph.D.	Senior Paleontologist	\$125
Casey Tibbet	Senior Architectural Historian	\$130
Tony Chung, Ph.D.	Principal, Noise	\$215
J.T. Stephens	Senior Noise Specialist	\$135
Ken Wilhelm	Principal, Traffic	\$215
Dean Arizabal	Associate, Traffic	\$140
Donson Lui	Transportation Engineer	\$125



LSA IN-HOUSE DIRECT EXPENSES  
JUNE 2016

	Unit Cost
Reproduction (8.5 x 11) B/W	\$.07 per page
Reproduction (8.5 x 11) Color	\$.40 per page
Reproduction (11 x 17) B/W	\$.10 per page
Reproduction (11 x 17) Color	\$.75 per page
CD Production	\$5.00 per CD
USB Flash Drive	\$5.00 per drive
Plotting	\$3.75 per sf
Mileage On-Road	\$.54 per mile
Mileage Off-Road	\$.69 per mile
GPS Unit	\$75.00 per day
Total Station Surveying Instrument	\$50.00 per day
Level (Laser or Optical)	\$25.00 per day
Laser Rangefinder	\$25.00 per day
Sound Meter	\$75.00 per day
Sound Meter with Velocity Transducer	\$85.00 per day
Aerial Photo	Cost
Boat Rental	\$125.00 per day
Water Quality Meter	\$25.00 per day



## JOINT VENTURE/SUBCONSULTANT ARRANGEMENTS

LSA does not propose any type of joint venture or have any intent to propose subcontract arrangements that will be utilized during the course of this project.

With a staff of over 200, LSA has the breadth and depth to respond quickly to almost any CEQA topic. Upon receipt of a project-specific request for a work program and cost estimate, LSA will assign specialists from its air quality, biological resources, cultural resources, GIS and Graphics, noise, traffic, and water quality groups as needed.

If LSA does not have the in-house resources to fulfill a particular IRWD need (e.g., Geotechnical, Hazards, etc.), or if the recent experience of another local subcontractor would allow for economies of either time or budget, LSA will engage a subcontractor agreeable to IRWD. The following lists a few of the subconsultants LSA works with for **geotechnical, hazards and hazardous materials, and hydrology and water quality**. LSA has worked with each of the firms listed below and finds these firms to be professional, responsive, and innovative.

### **Fusco Engineering**

16795 Von Karman Avenue  
Irvine, California 92606

**Services:** Civil Engineering, Hydrology/Water Quality

### **CWE Corporation (DBE/MBE/SBE)**

1561 E Orangethorpe Avenue, Suite 240  
Fullerton, California 92831

**Services:** Civil Engineering, Hydrology/Water Quality

### **Ninyo & Moore (DBE)**

475 Goddard, Suite 200  
California, California 92618

**Services:** Geotechnical Engineering,  
Hazards/Hazardous Materials

### **Centec Engineering**

4299 MacArthur Boulevard  
Newport Beach, California 92660

**Services:** Hazards/Hazardous Materials



# EXHIBIT "E"

**PSOMAS**

Balancing the Natural and Built Environment

July 26, 2016

Fiona M. Sanchez  
Director of Water Resources  
Irvine Ranch Water District  
15600 Sand Canyon Avenue  
Irvine, California 92618

Subject: Proposal for On-Call CEQA and NEPA Consultation

Dear Ms. Sanchez:

Thank you for the opportunity to submit this proposal. Psomas understands that the Irvine Ranch Water District (IRWD) is seeking a qualified consultant to provide On-Call California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) Consultation.

Psomas has assembled a team of highly qualified professionals who will provide IRWD with a full spectrum of services to comply with CEQA and NEPA requirements. Psomas will work collaboratively with IRWD to comply with all environmental requirements within established budgets and required timeframes.

The Project Team will be led by Jennifer Marks as Project Manager for this Contract. Ms. Marks is a Senior Project Manager with 17 years of experience managing a variety of project types including water and wastewater infrastructure, development projects, and transportation improvement projects. She has worked with several water districts and local City-owned water departments throughout Orange and Los Angeles counties and is familiar with the unique challenges that water district projects face. Ms. Marks will serve as the day to day contact, ensuring availability for multiple, concurrent IRWD task orders.

Kathleen Brady, AICP will serve as Principal-in-Charge and Quality Assurance (QA)/Quality Control (QC) Manager for this effort. Ms. Brady has 38 years of experience in preparing and overseeing preparation of both CEQA and NEPA documents. Her professional experience has varied from utility and infrastructure projects, transportation projects, infill development, and large planned communities throughout Southern California. Ms. Brady has extensive experience working with the jurisdictions that are within IRWD's service area and has developed positive working relationships with key stakeholders in these local communities.

Ms. Marks and Ms. Brady have worked together for over 17 years (14 of those years at BonTerra Consulting, prior to BonTerra's merger with Psomas). They have structured their project and management teams to provide technical expertise in a streamlined and integrated manner. The team members assigned to this Contract are among the most experienced environmental compliance professionals in Southern California, and all are Psomas staff—the depth of our bench allows us to provide all required services without needing to add subconsultants.

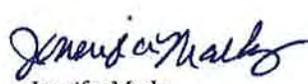
Kathleen Brady, AICP, as Vice President and Principal of Psomas, is authorized to legally bind Psomas in a contract with IRWD. Again, we appreciate the opportunity to submit the enclosed proposal. Please feel free to call us with any questions at 714.751.7373.

Sincerely,

**PSOMAS**



Kathleen Brady, AICP  
Vice President/Principal



Jennifer Marks  
Senior Project Manager

3 Hutton Centre Drive  
Suite 200  
Santa Ana, CA 92707

Tel 714.751.7373  
Fax 714.545.8883  
www.Psomas.com

## INTRODUCTION

### Firm Profile

Dedicated to balancing the natural and built environment, Psomas provides sustainably engineered solutions to public and private clients worldwide. As a full-service consulting firm, we help our clients create value and deliver complex projects.

Markets served include water, transportation, site development, and energy with the following services offered:

- Water and Wastewater Engineering
- Environmental Planning and Resource Management
- Land Planning and Urban Design
- Land Use Entitlements
- Construction Management
- Transportation and Traffic Engineering
- Site Development Engineering
- Structural Engineering
- Geographic Information Systems (GIS) Consulting
- Land Surveying, including Three-Dimensional (3D) Laser Scanning
- Special District Financing
- Civil Engineering

Sustainable practices are incorporated into all of our services. From designing projects that are certified by the Institute for Sustainable Infrastructure (ISI) such as removing pollutants from urban storm water runoff to site design for projects that are certified by Leadership in Energy and Environmental Design (LEED) and our renewable energy practice, Psomas is in the forefront of the sustainable design movement.

The cornerstone of our business approach is to focus on our clients' long-term needs and then guide our strategic growth to meet those needs. Our core strength is our multi-disciplined teams of experts—top-notch staff who produce award-winning projects for our clients through innovation, creativity, and cutting-edge technical expertise.

Founded in 1946, Psomas provides services from offices throughout California, Arizona, and Utah. This contract will be administered out of our Orange County office.

## RESPONSE TO RFP ITEM II. SCOPE OF WORK

### Project Understanding and Approach

In our experience with on-call contracts for public agencies, the environmental documentation requirements for a “typical project” can vary extensively. Psomas’ Environmental Planning team specializes in the preparation of documentation pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) for lead agencies throughout Southern California. While specific CEQA requirements are clear according to the State law and NEPA requirements are defined specifically by each NEPA lead agency, there is some latitude and interpretation that is generally required in determining the level of analysis that is appropriate for a project. Through our years of experience and breadth of project work, Psomas is able to interpret the laws and apply them to a specific project while successfully navigating and adhering to sometimes competing federal, State, and local statutes, codes, ordinances, policies, and procedures. Our knowledge of technical issues, applicable regulations, and entitlement and regulatory processes allows Psomas to provide responsive, practical, and solution-oriented advice to our clients. Additionally, our interaction with Psomas’ engineering practice, which has overseen the development, design, permitting, construction, and operation of hundreds of potable water, recycled water, and wastewater infrastructure projects throughout the southwestern United States, allows us a unique understanding of how to assess the impacts specific to water and wastewater projects.

The Psomas team is capable of not only providing comprehensive CEQA and NEPA documentation services (as noted below in Tasks 1 and 2), but can provide stand-alone technical reports to support project analysis and/or technical reports, including general and focused biological assessments; Aquatic Resources Surveys; construction monitoring for sensitive habitat areas and/or sensitive species located within or adjacent to project areas; Tree Surveys; Habitat Conservation Planning; Wildlife Movement Corridor Studies; Noise Assessments; Air Quality Assessments; Greenhouse Gas Emissions Analyses; Cultural Resource Assessments; water quality management plans; and storm drain, sewer, and water capacity studies. We also coordinate resource agency permitting and procurement as well as Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) compliance.

The task discussions below are representative of the work efforts that would be included in the preparation of environmental documentation as noted in the RFP for CEQA (Negative Declaration [ND]), Mitigated

Negative Declaration [MND], and Addenda) and NEPA (Environmental Assessment [EA] and Finding of No Significant Impacts [FONSI]). A typical Sample Scope of Work for preparation of an MND, supporting technical studies, and CEQA-Plus documentation is provided in Attachment A.

### **TASK 1: California Environmental Quality Act**

Psomas understands the inherent complexities of processing projects through the CEQA process. If a project is not analyzed in a comprehensive manner and if impacts to sensitive land uses and adjacent jurisdictions are not considered, future projects have the potential to present opportunities for legal challenges against the CEQA documentation and supporting technical analyses. Psomas has an excellent track record of preparing thorough CEQA documents that are capable of withstanding legal challenges. All environmental documentation will be prepared in conformance with the criteria, standards, and procedures of CEQA (California Public Resources Code, Sections 21000 et seq.), the State CEQA Guidelines (Title 14, California Code of Regulations, Chapter 3, Sections 15000 et seq.), and Irvine Ranch Water District (IRWD) procedures. However, compliance with CEQA is only one component to ensuring the preparation of a legally adequate document.

Navigating through the CEQA process is a complex endeavor due to new and constantly changing regulations, court rulings, and legislation. While not every project is complicated nor will they all be litigated, Psomas works to ensure that every CEQA document and technical report we prepare reflects all applicable rules, regulations, and appropriate legal interpretations. Due to the changes and updates in regulations, CEQA rulings, and legislation, we routinely revisit our documents that are in preparation to ensure their consistency with all legal and regulatory updates. This process ensures compliance with all pertinent provisions of CEQA as well as a document's legal defensibility, if challenged.

When preparing an environmental document pursuant to CEQA, typical activities performed would include, but are not limited to the tasks listed below.

**Project Initiation/Project Study Sessions:** The project initiation effort will involve coordination between Psomas staff and IRWD staff to define the scope of services required for assigned work requests. Psomas strives to work closely with clients to ensure that project designs are conceived in a manner that minimizes environmental impacts before starting the CEQA process. Projects that are designed to avoid or minimize impacts to sensitive uses and resources can engender a sense of confidence from the community and special interest groups. Psomas will strategize with staff to ensure that all CEQA and regulatory permitting environmental issues are considered

early in the process. Upon reviewing a proposed project description, Psomas will coordinate with the IRWD Project Manager to develop an appropriate Task Order Scope of Work that addresses the proposed project; existing environmental documentation and commitments; the appropriate type of environmental documentation and level of analysis required; and project permitting requirements. Psomas' involvement on projects may continue through participation in regularly scheduled project development team meetings so team members can stay up to date with project development.

Although not required for an ND, MND, or Addendum, Psomas will be available to participate in public meeting efforts. The total timeframe required to complete the environmental documentation process can be significantly affected by the concerns and/or input expressed from local residents, businesses, State and federal agencies, environmental interest groups, and the interested community-at-large. For some projects, workshops, meetings, and/or targeted outreach efforts may be appropriate to provide a forum for meaningful community input and to instill the public with a sense of "partnering" and "ownership" in the process. The assigned Psomas project management team members are professionals that are able to effectively facilitate public meetings and conduct presentations on the environmental process and/or required technical analyses. At the request of IRWD, Psomas will attend and participate in scoping meetings to facilitate the environmental review process. Psomas will also prepare a meeting summary that discusses how each issue will be addressed in the CEQA document.

**Documents/Project Research:** Psomas maintains access to a variety of information sources covering the IRWD service area, including local and regional planning documents, GIS databases, web-accessible databases, previous environmental documents, and reference documents. Psomas team members also have experience and established relationships from working on projects in Orange County specifically including the jurisdictions within the IRWD's service area. If an answer is not immediately available, the project team members are available to consult with peers and other contacts to obtain additional information at the IRWD's direction.

**Administrative Draft Environmental Document:** Psomas has the expertise to support IRWD on a full range of technical evaluations required to support environmental document preparation. Psomas, using the State CEQA Guidelines' environmental checklist, will prepare a draft Initial Study (IS). The analysis will be based on all available technical information, including any background planning documents, previous environmental documentation in the area, and project-specific technical studies. Existing conditions will be described in narrative, numerical, and graphic form, as

appropriate to a particular issue. Potential impacts will be identified on an individual and cumulative basis, as appropriate. Mitigation Programs—including Project Design Features (PDFs), Standard Conditions (SCs), and Mitigation Measures (MMs)—will be proposed to reduce impacts to levels considered less than significant to the extent feasible. Focused and strategic interaction with staff and other project team members will ensure that the environmental documentation and technical reports comprehensively address the potential impacts that might result from project implementation. The IS can be used as a preliminary tool to determine the appropriate level of documentation based on the presence or absence of impacts that cannot be mitigated to less than significant levels. Should it be determined that no potentially significant and unavoidable impacts would occur, Psomas will recommend the preparation of an ND or an MND. After the Administrative Draft IS is completed, it will be submitted for IRWD review. Following receipt of IRWD comments on the IS, Psomas will revise the document and complete the necessary documentation for an ND or MND.

Should the findings in the IS suggest the potential for a significant and unavoidable impact, preparation of an Environmental Impact Report (EIR) will be required. Psomas will present this recommendation along with all supporting documentation to IRWD for consideration. It is understood that a separate call for proposals would likely be issued at this point.

Section 15164 of the State CEQA Guidelines provides for the preparation of an Addendum to a Final EIR if none of the conditions described in Section 15162 calling for the preparation of a Subsequent EIR have occurred. Though the State CEQA Guidelines do not establish a format for an Addendum, for projects where it has been determined that an addendum to a previously approved or certified CEQA document is the appropriate document, Psomas has found that an effective approach is to have the would follow a similar format as previously identified for an IS. The analysis would be based on the environmental checklist from Appendix G of the State CEQA Guidelines. In the case where an addendum is being prepared for a project which is a component of the a larger project that was addressed in a previous Program EIR, a summary of the previous analysis will be provided for each environmental topic and the mitigation program will reiterate applicable PDFs, SCs, and MMs from the original environmental document. Additionally, following the project-specific analysis, an overall statement identifying the proposed project's consistency with the previous analysis will be made. The advantage of an Addendum is the process can be streamlined in that the State CEQA Guidelines does not require additional public review.

**Screencheck Draft and Public Draft Environmental Document:** Once the comments on the Administrative

Draft document from both IRWD and their peer reviewer have been addressed, Psomas will submit a Screencheck Draft document for IRWD review. At this time, Psomas and IRWD staff may decide to meet to review the document. At the meeting, the document can be reviewed and any required changes made during the meeting, streamlining the review of the final “proof check” document during the meeting.

For an ND or MND, Psomas will be responsible for coordinating document reproduction, distribution, and noticing pursuant to CEQA. Consistent with IRWD's direction, document reproduction will be primarily on CD to minimize the number of print copies. We will also provide the environmental document and technical appendices in a web-ready format for IRWD use.

For an Addendum to a previous environmental document, public review is not required; therefore, Psomas will prepare an Addendum for use and approval by IRWD. As noted above, document reproduction will be on CD and the Addendum will be available in a web-ready format format for IRWD use.

**Response to Comments and Final Environmental Document:**

If any public comments are submitted on an ND or MND, Psomas will work with IRWD and the project team to develop appropriate and defensible responses. Topical responses may be used if multiple comments are received on the same issue. The responses to comments document will be revised and finalized upon receipt of IRWD comments. Psomas will prepare a Final MND, which may include the responses to comments document, the Mitigation Monitoring Program (discussed below and under Task 7, Mitigation Monitoring and Reporting), and, if applicable, any revisions or clarifications to the text of the ND or MND.

For an Addendum, public review is not required, and a response to comments document would not be produced. Should any revisions be recommended through the approval process, Psomas will revise the Addendum and submit the Addendum for IRWD use.

**Mitigation Monitoring Program:** Psomas will develop a Mitigation Monitoring Program based in IRWD's preferred format, and will clearly identify all components of the Mitigation Program, responsible parties, and a timeframe for implementation. Implementation of the MMP is further discussed under Task 7, Mitigation Monitoring and Reporting.

**Attendance at Public Hearings:** As discussed previously under Project Initiation/Project Study Sessions, Psomas is able to coordinate public meetings. Psomas team members are skilled at conducting project-related presentations for decision-makers at public workshops and hearings; providing helpful technical responses and clarifications; and providing general support for IRWD

staff. We will be available to attend and participate in any public meetings for consideration of the environmental document.

Noticing Requirements. Psomas will be responsible for all aspects of project noticing, including notice preparation, coordination of newspaper publications, and payment of all applicable filing fees.

## TASK 2: National Environmental Policy Act

Similar to the process identified above for CEQA, Psomas is also experienced in preparing thorough NEPA documents that are capable of withstanding legal challenges for a variety of federal agencies. All environmental documentation will be prepared in conformance with the criteria, standards, and procedures of NEPA (Title 42 United States Code [USC], Sections 4331 et seq.) and specific NEPA Guidance as set forth by individual agencies. CEQA and NEPA are similar in the intent to analyze environmental impacts and in the review process which involves analysis, public involvement, and document preparation. NEPA applies to “proposals for legislation and other major Federal Actions” (42 USC 4332[2][c]). NEPA also applies when an agency exercises authority over a non-federal project with a federal nexus (i.e., federal decisions on approvals, permits, or funding).

Similar to the process identified previously for preparation of an IS and ND or MND pursuant to CEQA, Psomas will prepare an EA leading to a FONSI or Mitigated FONSI pursuant to NEPA. Document preparation will follow the same basic process as the CEQA documentation with (1) preparation of an Administrative Draft EA that will be subject to review by IRWD and its peer reviewer; (2) preparation of a Screencheck Draft document; (3) preparation of a Draft EA for Public Review; and (4) preparation of the final EA/FONSI. However, because the NEPA process will involve a separate lead agency (i.e., the federal agency with oversight on the project), additional review cycles may be required prior to preparation of the Draft EA for Public Review and preparation of the final EA/FONSI. As noted previously, specific document preparation and review requirements vary depending on the federal lead agency. Psomas has experience working with a variety of federal lead agencies and will contact the federal lead agency early in the process to determine the anticipated schedule and to develop a scope of work addressing each key milestone.

Due to the wide availability of financial assistance via a variety of grants associated with water projects, it is acknowledged that IRWD may pursue funding via a federal grant program, such as WaterSMART or other grants available through the Clean Water State Revolving Fund (CWSRF). Because the CWSRF Loan, administered through the State Water Resources Control Board (SWRCB), is partially funded by the U.S. Environmental

Protection Agency (USEPA), any project receiving these funds would be considered a federal action subject to federal regulations in addition to the CEQA. The SWRCB developed CEQA-Plus requirements to streamline environmental documentation and review for projects receiving CWSRF financing. In these cases, preparation of CEQA-Plus documentation would be sufficient to allow federal lead agency compliance with NEPA, and Psomas will prepare an “Environmental Package” pursuant to the CEQA-Plus regulations, including specific analysis related to the Clean Air Act, the State and federal Endangered Species Acts, the Migratory Bird Treaty Act, and the National Historic Preservation Act.

Psomas also has experience preparing NEPA documentation for projects under the jurisdiction of the Federal Highways Administration (FHWA). In these cases, Psomas will coordinate with the local California Department of Transportation (Caltrans) District, as delegated by FHWA, and will prepare documentation specific to Caltrans requirements as set forth in the Standard Environmental Reference.

## TASK 3: Staff Rates

Hourly rates for key staff members are listed below. Order of staff members in the table is the same as the order on the Organizational Chart shown on page 13. Additional field staff for Regulatory, Biological, Habitat Restoration, and Cultural Resources services are available for task orders as-needed, but would not be assigned without prior written approval from IRWD.

STAFF RATES		
Key Personnel	Contract Role/Title	Hourly Billing Rate
Jennifer Marks	Project Manager	\$165.00
Kathleen Brady	Principal-In-Charge, QA/QC Manager	\$230.00
Megan Larum	Assistant Project Manager	\$110.00
Ashley McCoy	Environmental Planner	\$ 85.00
Angela Schnapp	Air Quality Specialist	\$135.00
Will Meade	Noise Specialist	\$115.00
Amber Heredia	Biological Resource Manager	\$165.00
Allison Rudalevige	Senior Biologist / Regulatory Specialist	\$120.00
Lindsay Messatt	Senior Biologist	\$120.00
Jonathan Aguayo	Biologist	\$120.00
Ian Cain	Botanist / Restoration Ecologist	\$110.00
Patrick Maxon	Cultural Resources Manager	\$175.00
David Smith	Senior Archaeologist	\$110.00
Mark Roeder	Senior Paleontologist	\$120.00
Jonathan Zimmer	Senior GIS Analyst	\$115.00
Laura Wrenn	GIS Specialist	\$115.00
Julla Black	Technical Editor	\$ 90.00
Leah Mori	Technical Editor	\$ 90.00
Sheryl Kristal	Lead Word Processor	\$ 85.00

REIMBURSABLE COSTS	
Item	Rate
Mileage	Federal Standard Mileage Rate
Reprographics (Outside)	at cost plus 10%
Reprographics (Inside)	Request Printing fee sheet
Other Out-of-pocket Expenses	at cost plus 10%
Subconsultants	at cost plus 10%
<b>PLOTTING</b>	
Field Maps	\$2.50 per square foot
Display/Oversized/High Quality Graphics	\$10 per square foot
Aerial Maps: Less than 500 acres	\$200
Aerial Maps: 500–1,500 acres	\$350
Aerial Maps: Greater than 1,500 acres	\$500

#### TASK 4: Project Task Item Estimates

The approach Psomas takes on all assignments emphasizes excellence. This is accomplished by committing staff members that have appropriate expertise and by incorporating specific key elements to all of our projects, as discussed below. It is through this approach that we are able to ensure delivery of an outstanding product that reflects the high standards that IRWD holds for itself.

Psomas understands that good communication requires a level of transparency with our clients regarding schedule and budget. In order to present an accurate picture of the project schedule and budget to IRWD on a regular basis, the Psomas management team will actively track each project's progress through our in-house management software, allowing us real time project statistics. With this information, our management team can quickly make the necessary adjustments to reallocate resources and make any necessary reassignments to ensure schedules are met and budgets are not exceeded. Our commitment to schedule and budget has been demonstrated through our past work with IRWD on the recent Irvine Lake Pipeline North Conversion Project as well as through our extensive experience with other clients. Psomas understands that every project is important and is willing to jump in with both feet and do what needs to be done to successfully complete a project; this strategy allows our clients to focus on their work and be successful at what they do.

Following is list of some of our key long-term clients for which we currently or have recently provided As-Needed or On-Call Consultant Services, with the years of service for each client:

- Southern California Edison Company, Eastern Hydro Division (21 years)
- City of Anaheim Planning, Public Works, Public Utilities, and Community Services Departments (14 years)
- City of Los Angeles Bureau of Engineering (13 years)

- Los Angeles County Department of Public Works (LACDPW) (over 18 years). Psomas is and has been providing As-Needed Environmental Services since 1997 under 4 multiple year contracts. Below is a list of our contracts with each LACDPW division.
  - Flood Maintenance Division (18 years)
  - Water Resources Division (7 years)
  - Flood Control District (2 years)
  - Architectural Engineering (9 years)
- University of California, Los Angeles Capital Programs Master Contracts (13 years)
- Southern California Edison On-Call Biological Services (8 years)
- Metropolitan Water District of Southern California (6 years)
- OC Public Works (13 years)
- OC Waste & Recycling (13 years)
- OC Parks (5 years)
- Orange County Transportation Authority Environmental Staff Support Services (4 years)
- California Department of Transportation (Caltrans) District 12 (Orange County) On-Call Environmental Services Contract (3 years)

Under these contracts Psomas has provided scopes of services, estimated costs, and schedules for hundreds of individual projects. Each scope, cost, and schedule is prepared to fulfill our clients' needs by providing cost- and time-efficient services that meet the project objectives without burdening projects with unnecessary or superfluous tasks. A typical sample Scope of Work for the preparation of an MND pursuant to CEQA and additional CEQA-Plus documentation is included as Attachment A.

With 19 professional staff members dedicated to this contract, Psomas will be able to meet the demanding schedules of concurrent assignments. While each of the key staff members will have other company-wide project responsibilities, we ensure that each team member will have adequate availability to meet the assigned project's requirements. We are careful not to commit 100 percent of any staff member's time, thereby ensuring availability of qualified staff to fulfill all tasked and scoped responsibilities.

#### TASK 5: Team Experience

Psomas believes that our approach to fulfilling the required management for future IRWD projects is best met by appointing Jennifer Marks as Project Manager—who will operate as the day-to-day manager and primary contact with IRWD and other team members—and Kathleen Brady, AICP, as Principal-in-Charge. Complete resumes, including years of experience, education,

special knowledge and skills, pertinent permits, and brief descriptions of relevant project experience can be found in Attachment B. Brief biographies are provided for Jennifer Marks, our Project Manager, Kathleen Brady, our Principal-In-Charge and Quality Assurance (QA)/Quality Control (QC) Manager, and four key technical specialists. An organization chart is provided depicting the reporting structure for Psomas' full team.

**Jennifer Marks, Project Manager:** Jennifer Marks is a Senior Project Manager with 17 years of experience in the preparation of environmental documentation and analysis consistent with CEQA and NEPA for water districts; various public utilities; local planning and development departments; and independent developers. In addition, she has served as the Project Manager for As-Needed contracts in the City of Anaheim for the Public Works and Planning Departments. Throughout her career, she has worked directly with a variety of interested and affected parties including the U.S. Army Corps of Engineers (USACE); the U.S. Fish and Wildlife Service (USFWS); the California Department of Fish and Wildlife (CDFW); the California Department of Transportation (Caltrans); the USEPA; the SWRCB; and the U.S. Bureau of Reclamation (BOR). In addition to managing planning, development, and infrastructure projects, she has performed impact analyses for many environmental resource issue areas, including water resources, biology, air quality, noise, traffic, land use, aesthetic resources, geology, historic and cultural resources, and hazards and hazardous materials. Ms. Marks will serve as IRWD's primary contact and will manage preparation of and serve as the technical lead for all environmental documentation. She will coordinate Psomas' wide range of in-house technical staff; oversee and review individual assignments; and ensure the delivery of quality work products on schedule and within cost constraints.

**Kathleen Brady, Principal-In-Charge and QA/QC Manager:** Kathleen Brady, a Vice President and a Principal of Environmental Planning at Psomas, will serve as Principal-in-Charge and QA/QC Manager. She has over 38 years of experience in the environmental and planning field and has focused her career on environmental impact assessments and advanced planning programs. Ms. Brady has been involved in numerous planning and public works projects, including a number of facilities implementation projects for water districts in Southern California. Her role will be to provide Principal oversight to contract management; to provide strategic consultation QA reviews for work products; and to ensure adequate staff is available to meet IRWD's needs.

**Angela Schnapp, Air Quality Specialist:** Angela Schnapp is a Project Manager with 16 years of environmental project experience. She has performed air quality analyses since 2000, hazardous materials site assessments since 2003, and project management

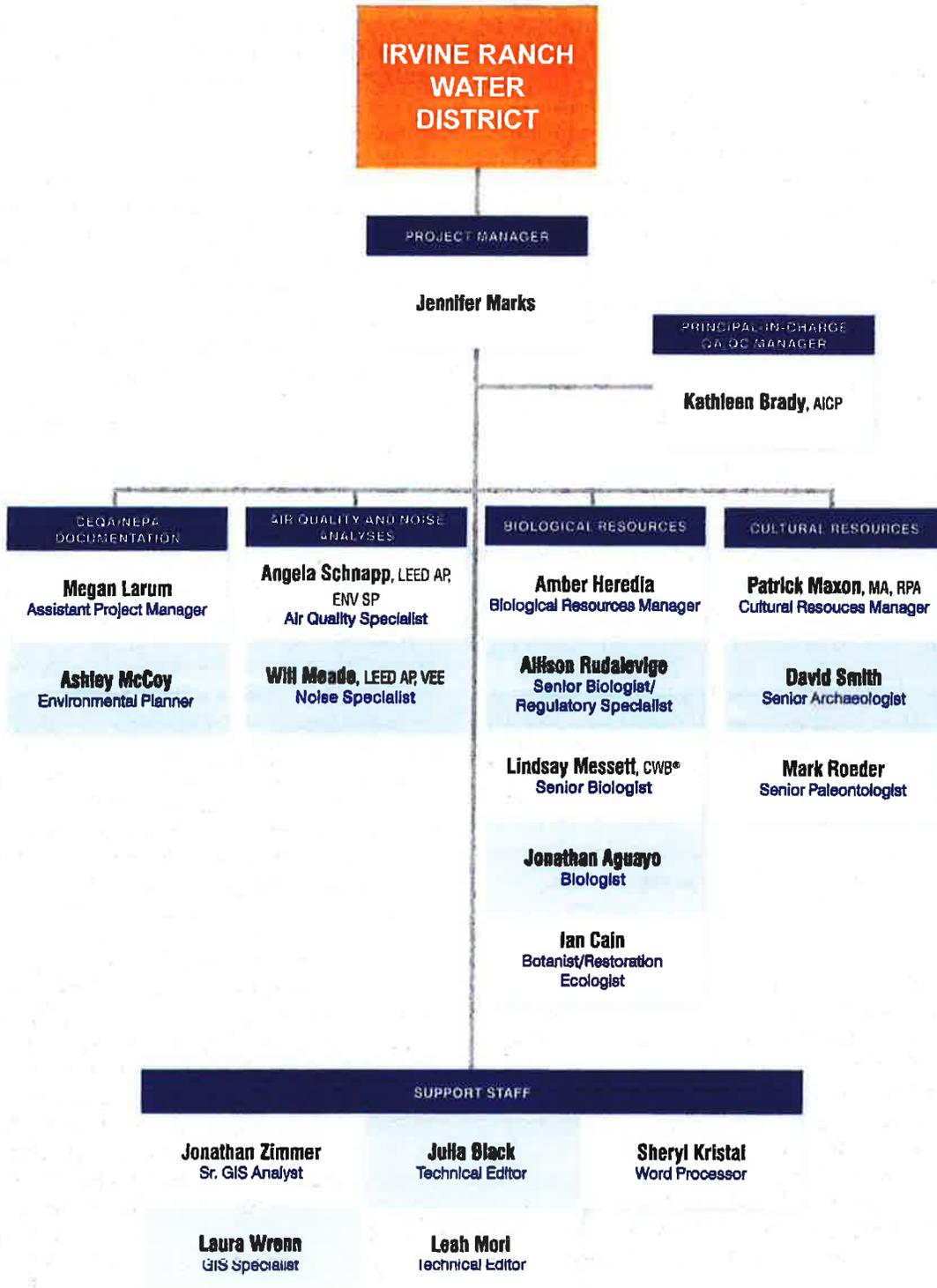
since 2007. She is an experienced CEQA/NEPA project manager and environmental document author. Ms. Schnapp is also a LEED-Accredited Professional (LEED AP) and a certified Envision Sustainability Professional (ENV SP).

**Will Meade, Noise Specialist:** Will Meade has 12 years of extensive experience and has served as a project manager and environmental specialist on a variety of projects, including sound monitoring for concerts in the County of Los Angeles, trail projects in the County of Los Angeles, renewable energy projects in Kern County, and utility projects in Los Angeles, Kern, and San Bernardino Counties. Mr. Meade is also a LEED-Accredited Professional (LEED AP) and a certified Visible Emissions Evaluator (VEE).

**Amber Heredia, Biological Resources Manager:** Amber Heredia is a Senior Project Manager with 19 years of experience in the preparation of Biological Technical Reports to meet the requirements of the Federal and California Endangered Species Acts, NEPA, and the Clean Water Act. As Senior Project Manager, she has managed a variety of project types including transportation, dam/reservoir, flood control, utility, and private development projects. Ms. Heredia has experience preparing Biological Technical Reports; Biological Constraints Reports; Biological Resources Reports, Focused Survey Reports; Biological Assessments; Natural Environment Studies (NESs) and Natural Environment Studies (Minimal Impact [MI]) for Caltrans; Biological Assessments/Biological Evaluations (BA/BE) and Management Indicator Species (MIS) Reports for the U.S. Forest Service; Habitat Assessments; and various documents supporting multiple species habitat conservation plans including the Central-Coastal Natural Communities Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) and the Southern Subregion HCP.

**Patrick Maxon, Cultural Resources Manager:** Patrick Maxon is Psomas' Cultural Resources Manager and has 22 years of experience in all aspects of cultural resources management, including prehistoric and historic archaeology, paleontology, ethnography, and tribal consultation. He has experience in compliance with NEPA, CEQA, the National Historic Preservation Act (NHPA), the Archaeological Resources Protection Act, and the Clean Water Act, among others. Mr. Maxon is a Registered Professional Archaeologist (RPA) who meets the Secretary of Interior's standards for historic preservation programs for archaeology.

# Organization Chart



## Team Availability

The following table estimates the percentage of time each staff member would have available to commit to IRWD-assigned tasks. Psomas is committed to devoting the staff resources necessary in a timely matter to ensure exceptional client service. We are highly qualified in providing On-Call Environmental Services to public agencies and are careful to ensure key staff members are available for the On-Call Contract as needed to fulfill any schedule demands that may arise. As noted in Task 3, additional field staff for Biological and Regulatory Services and Cultural Resources services are available for task orders as-needed and pending IRWD approval.

Key Personnel	Availability	Key Personnel	Availability
Jennifer Marks	75%	Ian Cain	25%
Kathleen Brady	25%	Patrick Maxon	10%
Megan Larum	50%	David Smith	25%
Ashley McCoy	50%	Mark Roeder	25%
Angela Schnapp	25%	Jonathan Zimmer	10%
Will Meade	25%	Laura Wrenn	10%
Amber Heredia	25%	Julia Black	10%
Allison Rudalevige	25%	Leah Mori	10%
Lindsey Messett	25%	Sheryl Kristal	10%
Jonathan Aguayo	25%		

## TASK 6: Project Coordination

Psomas understands that each client is different and that each project is unique with respect to environmental concerns and public interest; as such, we tailor our plans for communication and coordination accordingly. A typical project with IRWD is expected to require regular, weekly communication via email and phone calls to ensure that all project components are progressing. The Psomas team will make a concerted effort to ensure that expectations are clearly defined and met without compromise; that miscommunication and misunderstandings are minimized; and that concerns are addressed at the earliest possible point in the process. As key milestones approach, the frequency of communication is expected to increase to keep the project moving forward.

Psomas has historically assumed the role of both consultant and subconsultant on a variety of projects. Depending on the assigned task, Psomas will assume either a primary project management role and be responsible for the management of a project team or will serve as a member of a larger team and take direction from another party, as directed by IRWD. Due to our extensive experience throughout Southern California, Psomas has positive working relationships with a number of consulting, architectural, and engineering firms and we look forward to the chance to collaborate with peers in these fields.

## TASK 7: Mitigation Monitoring and Reporting

As noted previously under Task 1, Psomas will prepare a Mitigation Monitoring Program (MMP) to identify all components of the Mitigation Program, including mitigation measures, responsible parties, and a timeframe for implementation. Pursuant to Section 15097(a) of the State CEQA Guidelines, “a public agency may delegate reporting or monitoring responsibilities to another public agency or private entity . . .”. Psomas will assume the role of mitigation monitoring and reporting on behalf of IRWD. Psomas will designate a key person to ensure that all mitigation is completed consistent with the intent of the original measure. Depending on the nature of the mitigation requirements, technical specialists may be consulted to ensure the mitigation is implemented correctly. As noted previously, Psomas includes specialists that are capable of conducting necessary monitoring tasks related to the full range of environmental issues, including air quality, biological resources, habitat restoration, cultural resources, hydrology and water quality, noise, and traffic.

As part of this task, Psomas will maintain an ongoing record of monitoring activities. It is understood that the need for and timing of monitoring activities will depend on the nature of the mitigation and may be sporadic in nature. Psomas will ensure that adequate staff members are available for monitoring activities, including unplanned occurrences due to unforeseen circumstances such as a storm event.

## TASK 8: References

Psomas’ Environmental Group is currently providing CEQA/NEPA services to IRWD via an on-call services contract. One of the projects Psomas recently completed for the IRWD pursuant to this contract is an IS/MND and CEQA-Plus documentation for the Irvine Lake Pipeline North Conversion Project. The project involves the conversion of a segment of the ILP from untreated water to recycled water and all associated improvements to the IRWD water distribution system that are required to accommodate this conversion. The proposed project involves improvements and modifications to several IRWD facilities in the cities of Orange and Irvine. Psomas’ point of contact at the IRWD pursuant to this project is Ms. Jo Ann Corey, Engineering Technician III, in the IRWD Engineering Department. A complete description of this project is provided in Attachment C, Relevant Project Descriptions.

Additionally, Psomas has provided letters of recommendation from the City of Anaheim and the Santa Margarita Water District that speak to Psomas’ technical expertise, responsive service, and budget and schedule compliance. These letters are provided in Attachment D, Letters of Reference.

## **ADDITIONAL ITEMS**

### **Joint Venture**

Psomas will not engage in a Joint Venture nor use subconsultants for this On-Call contract. Psomas has the depth of expertise within its current staff to complete any and all work efforts associated with this On-Call contract within the IRWD's budget and schedule requirements.

### **Conflict of Interest**

Psomas has no conflicts of interest that would preclude our capacity to uphold this contract.

### **Contract**

Psomas has reviewed the professional service agreement and has no proposed modifications to the standard terms and conditions.

### **Insurance**

Psomas' insurance coverage for both professional liability and general liability meet the requirements stated in the RFP. ACORD certificates demonstrating current coverages are provided as Attachment E to this proposal. Psomas insurance certificate will be presented to IRWD upon contract award.

## **ATTACHMENTS**

**Attachment A: Sample Scope of Work**

**Attachment B: Resumes**

**Attachment C: Relevant Project Descriptions**

**Attachment D: Letters of Reference**

**Attachment E: ACORD Insurance Forms**

# IRWD On-Call Contract to Provide CEQA/NEPA Services, Irvine Lake Pipeline North Conversion Project

Orange County, California

## CLIENT CONTACT

Jo Ann Corey  
Engineering Technician III  
Engineering Department  
Irvine Ranch Water District  
15600 Sand Canyon Avenue  
Irvine, CA 92619  
Tel: 949.453.5326  
Corey@irwd.com

As part of its current on-call contract with the Irvine Ranch Water District (IRWD) to provide California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) services, Psomas is preparing an Initial Study (IS)/Mitigated Negative Declaration (IS/MND) for the Irvine Lake Pipeline (ILP) North Conversion Project. The project would involve the conversion of a segment of the ILP from untreated water to recycled water and all associated improvements to IRWD water distribution system required to accommodate this conversion. The proposed project involves improvements and modifications to several IRWD facilities in the cities of Orange and Irvine. A portion of the ILP from the Baker Raw Water Pump Station (RWPS) near the Peters Canyon Reservoir to the Rattlesnake Reservoir Complex would be converted to a recycled water line. The ILP North Conversion Project includes capacity for both existing and future planned untreated water demands. Project actions would include construction of a 2.4 million gallon recycled water reservoir as a partially buried circular tank and associated inlet and outlet structures; conversion of an existing booster pump station to allow for pumping of recycled water to two separate zones; reconfiguration of the existing water facility to serve as a back-up source of recycled water; and construction of pipelines within existing roadways in the cities of Irvine and Orange.

In addition to preparation of the IS/MND for the project, Psomas prepared the air quality analysis, a biological resources assessment, cultural resources assessments, a greenhouse gas analysis, and a noise assessment pursuant to CEQA requirements. A portion of the project site is located in the Central-Coastal Subregion of the Natural

Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP); the IRWD is a participating jurisdiction and is subject to the terms of the NCCP/HCP Implementation Agreement. Therefore, the Biological Resources Assessment addressed compliance with the Central-Coastal NCCP/HCP.

Additionally, because the project would qualify for grant funding, Psomas coordinated with the U.S. Department of the Interior Bureau of Reclamation to define any additional environmental documentation requirements and completed the additional work pursuant to CEQA-Plus.

## RELEVANCE TO THIS PROJECT

- **Demonstrates experience working with IRWD**
- **Prepared environmental documentation**
- **Secured regulatory permits**
- **Coordinated with federal State, and local jurisdictions**
- **Coordinated NCCP/HCP compliance**
- **Supports Improvements to water delivery and storage Infrastructure**
- **Coordinated with the Bureau of Reclamation**
- **Coordinated with resource agencies**
- **Prepare multiple technical analyses, including Air Quality, Biological Resources, Greenhouse Gas, and Noise**







# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
10/2/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Jealey, Renton & Associates P. O. Box 10550 Santa Ana CA 92711-0550	<b>CONTACT NAME:</b> PHONE (A/C, No, Ext): 714-427-6810 E-MAIL ADDRESS: bgates@insdra.com		FAX (A/C, No): 714-427-6818
	<b>INSURER(S) AFFORDING COVERAGE</b> INSURER A: ACE American Insurance Company		<b>NAIC #</b> 22667
<b>INSURED</b> PSOMAS PSOMAS 555 South Flower Street, Suite 4300 Los Angeles CA 90071	<b>INSURER B:</b> <b>INSURER C:</b> <b>INSURER D:</b> <b>INSURER E:</b> <b>INSURER F:</b>		

**COVERAGES**                      **CERTIFICATE NUMBER: 1840796031**                      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

NSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD   WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	<b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:					EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$
	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE  DED    RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/> N/A				<input type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Professional Liability Claims Made		G23638381007	10/15/2015	10/15/2016	Per Claim \$2,000,000 Annual Aggregate \$2,000,000 Deductible \$100,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

30 Day Notice of Cancellation/10 Day notice for Non-Payment of Prem

### CERTIFICATE HOLDER

### CANCELLATION

DRAFT - FOR PROPOSAL USE ONLY  
\*  
\*\*\*

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

*Karin Phorp*

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EXHIBIT "F"  
**HARMSWORTH ASSOCIATES**  
**Environmental Consultants**

July 25<sup>th</sup>, 2016

Irvine Ranch Water District  
Attn: Ms. Fiona M. Sanchez, Director Water Resources  
15600 Sand Canyon Ave., Box 57,000  
Irvine, CA 92619

Dear Ms. Sanchez:

**Re: Proposal for On-Call Monitoring and Permitting Services**

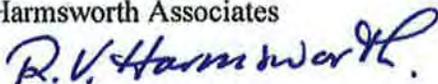
Harmsworth Associates (HWA) has provided general environmental services to private and public organizations since 1984. The firm developed expertise in Orange County in ecologically sensitive areas through its work with the Irvine Company, The Nature Conservancy, the Natural Communities Coalition, and IRWD within the IRWD Service Area. The firm has expertise in ecologically sensitive areas and played a major role in the development of the Central and Coastal sub-region NCCP/HCP. Harmsworth Associates has prepared documents for and conducted CEQA/NEPA compliance, mitigation development and monitoring as well as associated wetland permitting with the USACE, CDFW and RWQCB. The firm has a close working relationship with The Irvine Company, in a number of Planning Areas, undertaking predevelopment biological surveys, mitigation planning and monitoring in IRWD's Service Area.

Recently the firm assisted IRWD with the several important projects including, the Blyth Martin property wetland assessment, Baker 2016 NCCP project, Lake Forest Sports Park waterline, Harding tank restoration, Rattlesnake spillway permitting, construction monitoring and restoration for the Baker SAC 30 NCCP project. In each case HWA responded promptly to conduct the required monitoring/surveys in a timely and cost-effective manner.

Neither Harmsworth Associates nor its personnel have a conflict of interest prohibited by law. The firm has the required insurance and has named IRWD as an additional insured on its certificates of insurance. The IRWD contract is acceptable to Harmsworth Associates.

Thank you for the opportunity to submit the enclosed Scope of Work.  
Yours truly

Harmsworth Associates



Rodney V. Harmsworth, Ph.D.  
President

**ENVIRONMENTAL ASSISTANCE  
FOR  
ON-CALL MONITORING AND PERMITTING SERVICES**

**SCOPE OF WORK**

At the request of the Irvine Ranch Water District (IRWD), Harmsworth Associates will provide the following on-call services:

**Task 1: Land Use Planning**

IRWD plans through its Master Plan, and sub-area Master Plans for its three primary statutory activities, to provide domestic water, reclaimed water and wastewater treatment. These activities are planned to accommodate the County and City development plans. Moreover, the IRWD is required to comply with the many laws, regulations and codes in its capital improvement program.

Harmsworth Associates is familiar with the Planning Areas within IRWD's Service Area and has recently conducted pre-construction biological surveys, construction monitoring or permitting in the following PAs 1, 6, 9 18 and 39, for The Irvine Company's residential developments that will be served by IRWD through its capital improvement program. The firm has access to local planning documents, CEQA, NEPA documents and permits. Moreover, the firm was a part of the NCCP/HCP planning process representing the Metropolitan Water District of Southern California and later assisting both The Irvine Company and IRWD in extensive biological surveys and the preparation of amendments to the NCCP/HCP.

*Harmsworth Associates will assist IRWD with planning its capital projects and maintenance activities by providing advice on the nexus of environmental issues with planning activities to minimize the environmental consequences and cost of its planned actions.*

**Task 2: Regulatory Agency Consultation, Permit Application and Procurement**

Harmsworth Associates is familiar with the preparation and processing of federal, state, and local permits on projects, operations, maintenance and planning activities. Assistance by Harmsworth Associates may involve the preparation and processing of permit applicants and supporting materials with one or more of the regulatory agencies. The firm has provided consultation on both riparian and upland systems.

Harmsworth Associates secured emergency permits for IRWDs Rattlesnake spillway, the ILP washout and the San Joaquin Reservoir Access Road washout. Currently HWA are in the process of obtaining permits for a housing development in Calimesa, Riverside County.

*Harmsworth Associates will assist IRWD with the preparation of permit applications to the resource/wildlife regulatory agencies including:*

- *United States Army Corps of Engineers*
- *Bureau of Land Management*
- *United States Forest Service*
- *California Department of Water Resources*
- *California Regional Water Quality Control Board*
- *California Department of Fish and Wildlife*
- *California Coastal Commission*
- *South Coast Air Quality Management District*

*Harmsworth Associates will provide services to monitor or implement compliance and reporting. Compliance may require monitoring contractor removal of exotic plants, restoration and revegetation monitoring then complete the annual or periodic reporting requirements in permits. Consultant shall provide certification of compliance with permit conditions for IRWD and agency approval. Harmsworth Associates shall develop a schedule of all permit requirements for existing and new permits and their status. Consultant shall bring any violations of permit conditions to the attention of the District.*

### **Task 3: Wetland Delineation**

Harmsworth Associates staff has taken the USACE delineation course and are fully competent to determine the jurisdictional boundaries of the United States Army Corps of Engineers (pursuant to Section 404 of the federal Clean Water Act). They have expertise with the California Fish and Wildlife Code (pursuant to Section 1602) and the California Coastal Commission (pursuant to the California Coastal Act).

Harmsworth Associates has completed many wetland delineations in southern California and Orange County for submission to the USACE, RWQCB and CDFW to obtain permits certifications and agreements. One recent project is for a proposed housing development in the city of Calimesa. Impacts will occur to a perennial creek that supports riparian habitat. HWA conducted the delineation, all biological surveys, and impact analysis. HWA is currently preparing the mitigation options.

Harmsworth Associates recently completed Wetland Delineations, Vegetation Mapping and obtained permits on projects in Moreno Valley, Hidden Canyon and Bridge Street in Riverside County.

*Harmsworth Associates will provide wetland delineation services to IRWD in compliance with the regulatory definitions in force.*

### **Task 4: Biological Survey, Monitoring, Assessment**

Harmsworth Associates has the necessary permits to survey for the listed species in the Service Area including nest monitoring ability for the least Bell's vireo, the southwestern

willow flycatcher and the collection of endangered fairy shrimp etc. The staff is very familiar with the flora and fauna of Orange County having completed some of the most extensive surveys undertaken in the County. The firm was selected to survey the **Orange County Coastal Central NCCP/HCP** project including:

1. Rare Wetland Plants in the Orange County Central/Coastal NCCP Subregion
2. Rare Grassland Plants in the Orange County Central/Coastal NCCP Subregion
3. Quino Checkerspot Butterfly Habitat in Orange County Central/Coastal NCCP Subregion
4. *Arundo donax* in Orange County Central/Coastal NCCP Subregion
5. Native Fish in Orange County Central/Coastal NCCP Subregion
6. Arroyo Southwestern Toad in Orange County Central/Coastal NCCP Subregion
7. Southwestern Pond Turtle in Orange County Central/Coastal NCCP Subregion
8. Grassland Birds in Orange County Central/Coastal NCCP Subregion
9. Tricolored Blackbird in Orange County Central/Coastal NCCP Subregion
10. Raptors in Orange County Central/Coastal NCCP Subregion
11. Least Bell's Vireo and Willow Flycatcher in Orange County Central/Coastal NCCP Sub-region

In addition the firm has undertaken extensive wildlife and plant surveys of the North Ranch Policy Plan Area for The Irvine Company. Currently the firm is undertaking numerous surveys for TIC, IRC, NCC and the TNC of the flora and fauna in IRWD's Service Area.

*Harmsworth Associates will undertake biological surveys, assessments and monitor preconstruction and construction areas as required for the District's projects. Harmsworth Associates will provide field services, written reports, compliance with state and federal protocols and advisement on IRWD's projects. The firm will undertake preliminary and initial assessments, bird nesting surveys, biological monitoring and identification of threatened and endangered species.*

**Task 5: Threatened and Endangered Species Regulation, Monitoring and Reporting**

Harmsworth Associates can survey and prepare documents for endangered and threatened species and recommend strategies to minimize and mitigate potential impacts within the NCCP/HCP agreements. Harmsworth Associates has permits (No. PRT-810768) and MOUs to survey and study endangered species such as the least Bell's vireo, southwestern willow flycatcher, coastal California gnatcatcher, fairy shrimp, pond turtle and other species. The firm's staff attends meetings with the USFWS staff on key issues involving survey protocols for listed species and provides input of a practical nature.

As a consultant representative of Lennar Homes with the Coalition for Habitat Conservation the firm follows the latest developments and legal actions under the ESA. Complex issues such as the "No Surprises Policy", "adverse modification" definition and the ability to mitigate "off-site" impacts to critical habitat are currently under litigation and may impact IRWD's Section 10(a) (1) (B) Endangered Species Permit obtained as a

result of the NCCP/HCP plan in 1996. These and other issues of importance are well known to Harmsworth Associates.

Over the past several seasons HWA staff has assisted TIC comply with the endangered species act relating to least Bell's vireo at PA1. A complex set of mitigation measures required TIC to conduct surveys and nest monitoring for least Bell's vireo in addition to weekly noise monitoring of construction activity during the nesting season for the vireo. Weekly reports were required to be submitted to USFWS, CDFW and the Corps. HWA conducted the surveys, nest monitoring, noise monitoring and submitted the weekly reports.

*Harmsworth Associates will assist IRWD in the review of regulatory issues associated with listed species under the Endangered Species Acts (FESA and CESA) and ascertain the significance of such regulation on IRWD's projects, operations, and planning activities. The firm will provide assistance with specific policy formulation on endangered species covered under the:*

- *Federal Endangered Species Act*
- *California Endangered Species Act*
- *Natural Community Conservation Plan Act*
- *The NCC's policies and IRWD's rights on "take" in the reserve*
- *Migratory Bird Treaty Act*

*The firm will provide assistance with both existing 10(a) permits and new applications as required.*

#### **Task 6: Mitigation Monitoring and Reporting**

Harmsworth Associates has a long history of mitigation monitoring in Orange County. The firm is currently working on a number of projects for the Irvine Company undertaking preconstruction surveys, construction monitoring surveys for conditions compliance, noise monitoring and other requirements for several developments in the service area. The firm is currently assisting IRWD in restoring cactus scrub habitat at the OPA site and is assisting the Natural Communities Coalition (NCC) managing contractors controlling exotic weeds in the NCCP/HCP reserve.

#### **Other projects include:**

- Mitigation monitoring at various sites for IRWD including Lake Forest Zone C, Santiago Creek ILP, Harding Tank and Baker RWPS.
- Mitigation monitoring of native grassland restoration at PA18 for The Irvine Company.
- Surveys and monitoring for least Bell's vireo, southwestern willow flycatcher, and other riparian birds at various riparian habitats in Irvine for The Irvine Company.
- Vegetation and wildlife surveys for The Nature Conservancy, at open space areas of the Irvine Ranch.

- Monitoring vegetation removal under the NCCP guidelines

*Harmsworth Associates will assist IRWD in mitigation monitoring planning, 404, 1602, and 401 permit conditions compliance. Harmsworth Associates shall provide services to monitor or implement compliance and reporting. Compliance may require monitoring contractor removal of exotic plants, restoration and revegetation monitoring then complete the annual or periodic reporting requirements in permits. Consultant shall provide certification of compliance with permit conditions for IRWD and agency approval. Harmsworth Associates shall develop a schedule of all permit requirements for existing and new permits and their status. Consultant shall bring any violations of permit conditions to the attention of the District.*

#### **Task 7: Water Quality Stormwater Monitoring and Reporting**

Harmsworth Associates personnel have a strong background in water resources. Dr. Harmsworth was an analytical chemist prior to specializing in the field of fresh water biology as a limnologist. At Camp Dresser and McKee he was president of the Environmental Sciences Division and responsible for over 200 personnel including 100 water quality chemists. He managed water quality monitoring projects from wastewater treatment plant efficacy analysis (City of Detroit WWTP), sewer and wastewater discharges to lake, river and stream systems. He was responsible for the long-term monitoring of Salt Creek sediment load as a part of the RWQCB conditions. We are familiar with water quality collection procedures and the quality assurance procedures required for water quality collection and analysis.

Harmsworth Associates collected the biological data used by the Corps in preparation of the San Diego Creek SAMP and we are familiar with the workings of this SAMP.

*Harmsworth Associates will provide water quality and sediment quality monitoring for compliance with USACE, RWQCB, and CDFW permit conditions. Also, Harmsworth Associates will provide compliance monitoring with the General Orange County Stormwater Permit.*

#### **Task 8: Natural Treatment System**

Harmsworth Associates conducted invertebrate sampling in the Woodbridge Channel for the NTS project. The aim of the sampling was to document the existing invertebrate fauna of the Woodbridge Channel, particularly the riffle areas. Four locations were selected along the channel for sampling. Standard qualitative and semi-qualitative methods including, sweep netting of vegetation and the water column, sediment grabs, kick-sampling and hand searches, will be used to assess the status of the existing fauna. To the extent possible, sampling techniques were compatible with the methods used by Alex Horne along Peters Canyon Channel. The existing physical condition and vegetation communities at each location were described.

Harmsworth Associates obtained permits for IRWD's inline basins under a sub contract to Tettemer and Associates. The firm has expertise in the areas of water quality, freshwater biology, wetland permits and restoration of wetland systems. The NTS as designed will remove sediment, some nitrogen from nitrification processes in the treatment basins and potentially heavy metals adsorbed onto sediments and selenium to the atmosphere.

Harmsworth Associates have been involved in the design, planting palette and installation of the NTS basins at PA1 and PA39 for The Irvine Company. Harmsworth Associates is familiar with the vegetation management and monitoring required for NTS basins.

*Harmsworth Associates will provide assistance in monitoring water quality, fauna and the growth and types of vegetation in the basins. In addition the firm will provide advice on the management of the basins to optimize the removal of sediments and pollutants.*

**Task 9: Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP)**

Harmsworth Associates was a consultant member of the working group of agencies and landowners that prepared the Orange County NCCP/HCP program for coastal sage scrub including the preparation of the EIR/EIS, Management Plan and the Implementing Agreements. The program plays an important role in the mitigation plans for participating landowner's projects and the operation and maintenance plans of existing and future facilities.

Harmsworth Associates prepared survey documents for the wetland, upland and grassland surveys and biological analysis for the NCCP/HCP Amendment including:

- Rare Wetland Plants in the Orange County Central/Coastal NCCP Subregion
- Rare Grassland Plants in the Orange County Central/Coastal NCCP Subregion
- Quino Checkerspot Butterfly Habitat in O.C. Central/Coastal NCCP Subregion
- *Arundo donax* in Orange County Central/Coastal NCCP Subregion
- Native Fish in Orange County Central/Coastal NCCP Subregion
- Arroyo Southwestern Toad in Orange County Central/Coastal NCCP Subregion
- Southwestern Pond Turtle in Orange County Central/Coastal NCCP Subregion
- Grassland Birds in Orange County Central/Coastal NCCP Subregion
- Tricolored Blackbird in Orange County Central/Coastal NCCP Subregion
- Raptors in Orange County Central/Coastal NCCP Subregion
- Least Bell's Vireo and Willow Flycatcher in Orange County Central/Coastal NCCP Sub-region

Harmsworth Associates has extensive experience working with the Orange County (NCCP/HCP). Projects relating to NCCP/HCP issues have been conducted for the Natural Communities Coalition, The Irvine Company, The Nature Conservancy, Transportation Corridor Agencies and others. Many of these projects have included

conducting biological assessments, focused surveys, assessment of impacts to NCCP resources, construction monitoring and co-ordination with NCC and wildlife agencies.

Harmsworth Associates recently provided NCCP/HCP compliance for IRWD on the Baker SAC 30 site, Lake Forest Zone C pipeline and in progress on the Baker 2016 repairs.

*Harmsworth Associates will provide assistance to IRWD in the planning of its projects that are related to the NCCP/HCP plan. Three main elements, the ESA 10a permit, the Implementing Agreement and the Mitigation Monitoring Program are of importance to IRWD. We will provide assistance for Section 10 relating to the construction minimization methods that must be followed.*

**Task 10: Project Coordination**

Harmsworth Associates has a history of successful coordination with other consultants and agencies; and we can work equally well as a project leader or as a team member. Harmsworth Associates was a consultant member of the working group of agencies and landowners that prepared the Orange County NCCP/HCP, which required significant coordination with other consultants and agencies. Harmsworth Associates successfully obtained permits for IRWD's inline basins under a sub contract to Tettemer and Associates; and regularly work and coordinate with a variety of IRWD managers and staff on IRWD projects.

Harmsworth Associates regularly provide biological data and reports to other consultants preparing the CEQA documents; Harmsworth Associates will work with IRWDs CEQA consultant as requested.

*Harmsworth Associates will coordinate with other consultants and agencies as necessary and will provide project management or act as a subordinate as directed by IRWD.*

**Task 11: Staff Rates**

The rates of the personnel shown in the table would be used on the contract

**CONSULTING FEE SCHEDULE  
JULY 1, 2013 TO JUNE 30, 2017**

Harmsworth Associates understands that the fee schedule is good for the duration of the contract regardless of employee promotions.

<b>Labor Category</b>	<b>Hourly Rates</b>
Principal	\$ 140.00
Vice-principal	\$ 130.00
Sr. Biologist	\$ 100.00
Project Biologist	\$ 80.00
Assistant Biologist	\$ 60.00

**EXPENSES**

Mileage \$ 0.50 /mile

Other direct costs at cost plus 12%

**Task 12: Project Task Item Estimates**

Once requested Harmsworth Associates always provides project scope/cost in a timely manner. Harmsworth Associates is used to working for IRWD, Irvine Company and other clients on call contracts, and is experienced in providing project scopes/costs at short notice. For all projects Harmsworth Associates provides a scope of work, cost estimate, schedule and staff availability; the level of detail depends on the client requirements for individual projects.

On small projects with very quick turn-around times Harmsworth Associates can provide a same-day proposal with staff availability, schedule, cost estimate and scope via email. For example on the Blyth Martin property assessment, the cost for the survey was initially provided via phone, with a follow-up email; the survey, meetings and letter report were completed within 7 days of the initial request.

On more typical small jobs Harmsworth Associates can provide a proposal, cost estimate, staff availability and schedule within a few days. For example, the Baker SAC 30 NCCP project was conducted under budget (see Appendix A).

For more complex projects Harmsworth Associates provides a more detailed proposal including methodology, detailed schedule, cost estimate, scope of work and staff assignments. For example the biological surveys currently being conducted at Pine Nut NL Engineering and Survey (see Appendix A).

**Task 13: Team Experience**

Harmsworth Associates would undertake the majority of the work with its own staff; detailed SOQ attached. However, we have included subcontractors in case additional work outside of the current scope is required.

Primary HWA staff for this project are as follows, although other staff may be utilized as necessary (detailed resumes are attached in Appendix B);

Rod Harmsworth Ph.D. - Dr. Harmsworth has 30 years of experience in all phases of project and personnel management in the environmental sciences field. Dr. Harmsworth was involved in the preparation of the Orange County NCCP/HCP as a representative of the Metropolitan Water District of Southern California.  
Time availability for IRWD contract – 15% of time.

Paul Galvin, M.S. – Designated Project Manager for on-call contract. Mr. Paul Galvin has over 25 years of experience conducting biological surveys, T/E surveys and managing environmental projects. Mr. Galvin is an expert in NCCP/HCP compliance and implementation and 404/1600 permitting.  
Time availability for IRWD contract – 30% of time.

Michelle Balk, M.S.– Ms. Balk has over 10 years experience conducting botanical and biological surveys. Ms. Balk has extensive experience with wetlands/riparian habitats, coastal sage scrub and other habitats, and is an expert in rare plants. Time availability for IRWD contract – 15% of time.

Jacob Aragon - Mr. Aragon has over 5 years of experience in wildlife surveys and construction monitoring. Mr. Aragon has conducted numerous construction monitoring projects and surveys for wildlife and sensitive bird species including the least Bell's vireo (*Vireo bellii pusillus*). Time availability for IRWD contract – 20% of time.

Daniel Cowell - Mr. Cowell has over 5 years of experience in wildlife surveys and construction monitoring. Mr. Cowell has conducted numerous construction monitoring projects and surveys for wildlife and sensitive bird species including the least Bell's vireo (*Vireo bellii pusillus*). Time availability for IRWD contract – 20% of time.

## **Task 14: References**

### **Blythe Martin Property Assessment**

Worked with Kellie Welch and Jo Ann Corey

The Martin property site is located in Blyth, near the Colorado River, Riverside County. IRWD were considering purchasing the property and the Phase I Environmental Site Assessment documented a possible wetland on the site. At very short notice IRWD needed a site visit and determination of the wetland status of the site.

Paul Galvin researched the history of the site from aerial photographs and archive documents and then made a trip to site. The site was assessed and a wetland delineation was conducted. It was determined that no wetlands occur onsite. A letter report was prepared within 7 days of the initial request. In addition Mr. Galvin contacted staff from CDFW and obtained written documentation that no wetlands occur onsite.

The entire work was completed in a timely and cost-effective manner. Mr. Galvin worked effectively with all parties and the quick turn-around allowed IRWD to make an informed purchase decision on the property.

### **Baker SAC 30**

Worked with Jo Ann Corey, Jeff Smyth and David Asman

IRWD asked Harmsworth Associates to obtain NCCP approval for repairs to the Baker pipeline at the SAC-30 location. Once the proposal was approved Harmsworth Associates visited the site, conducted a biological assessment and determined potential impacts to the Reserve. After that Harmsworth Associates prepared a report and obtained NCCP approval from all concerned agencies.

During this process Harmsworth Associates worked closely with IRWD staff ways to minimize environmental impacts without impacting the required O&M activities.

Harmsworth Associates monitored the site during construction work and installation of the onsite mitigation. Currently, Harmsworth Associates is monitoring the performance of the restoration site and reporting to the agencies on an annual basis.

## **SCHEDULE**

Harmsworth Associates is experienced at providing on-call services for several clients and understands how to schedule staff workloads to meet client's requirements for all projects, whether large or small. Harmsworth Associates has a history of staff flexibility and responsiveness. This allows Harmsworth Associates to meet client schedules regardless of staff workloads. Harmsworth Associates demonstrated its ability to meet schedules during past emergencies at several IRWD pipelines, and the quick turn-around on recent projects such as the Blyth and Baker SAC-30 work. Based on our past experience, the firm's current and future workload we anticipate satisfying IRWD's project schedule for this on-call services contract.

## **JOINT VENTURE**

This proposal is not a joint venture

## **CONFLICT OF INTEREST**

Neither Harmsworth Associates nor its personnel have a conflict of interest prohibited by law or in contravention of IRWD policies.

## **INSURANCE**

The firm has the required insurance and has named IRWD as an additional insured on its certificates of insurance. The IRWD contract is acceptable to Harmsworth Associates.

## **CONTRACT**

The proposed contract is acceptable to Harmsworth Associates





**PROPOSAL FOR**  
**IRVINE RANCH WATER DISTRICT**  
**ON-CALL MONITORING AND PERMITTING**  
**SERVICES**

**SUBMITTED TO:**

**IRVINE RANCH WATER DISTRICT HEADQUARTERS**  
**15600 SAND CANYON AVENUE**  
**IRVINE, CALIFORNIA 92618**

**SUBMITTED BY:**

**GLENN LUKOS ASSOCIATES**  
**29 ORCHARD**  
**LAKE FOREST, CALIFORNIA 92630**

**JULY 26, 2016**

# GLENN LUKOS ASSOCIATES

Regulatory Services



July 26, 2016

Fiona Sanchez  
Irvine Ranch Water District  
15600 Sand Canyon Avenue  
Irvine, California 92618

**SUBJECT: Proposal to Provide On-Call Monitoring and Permitting Services**

Dear Ms. Sanchez:

Thank you for the opportunity to submit this proposal to the Irvine Ranch Water District (IRWD) to provide on-call monitoring and permitting services. Glenn Lukos Associates (GLA) is a specialty environmental consulting firm with expertise in a small niche of environmental issues, including "wetland" and other water-related permitting, wetland delineation, habitat restoration design, mitigation implementation, mitigation monitoring, biological surveys, and endangered species coordination. We assist clients through the complex maze of regulations associated with federal and state permits on a routine basis.

Our team consists of permitting and biological experts with unparalleled expertise in Orange County. We have conducted permitting and biological resources work on over 60,000 acres in Orange County and have broad experience with natural lands, including those within and in close proximity to IRWD's Service Area. Our office, which houses all of our staff, is located in Lake Forest, just a short drive to your Service Area. Our experts bring well-rounded experience with all of the sensitive species documented or having potential to occur within your Service Area. We understand the regulatory setting, including the Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), and routinely work with all of the agencies having jurisdiction within your Service Area. We are experts in jurisdictional delineations and sensitive habitats, and have implemented numerous Habitat Mitigation and Monitoring Plans (HMMPs) for native wetland, riparian, and upland habitats throughout Orange County.

We hope to have the opportunity to work with IRWD directly and we appreciate your time in reviewing our proposal. Should you have any questions during your review of our proposal, contact me at (949) 837-0404, Ext. 34 or [tly@wetlandpermitting.com](mailto:tly@wetlandpermitting.com).

Sincerely,

A handwritten signature in blue ink, appearing to read 'Thienan Pfeiffer', written in a cursive style.

Thienan Pfeiffer  
President  
GLENN LUKOS ASSOCIATES, INC.  
29 Orchard  
Lake Forest, CA 92630

## Introduction

Glenn Lukos Associates, Inc. (GLA) was formed in 1989 specifically to assist project proponents through the permitting processes generated by state and federal environmental laws and regulations. In 1997 we expanded our scope of work to include biological resources (biological surveys, focused surveys for state- and federally- listed species, etc.), restoration (mitigation monitoring), and construction monitoring. GLA currently has a staff of 21 professionals and four administrative assistants. We have the largest number of staff (in a single office) of any firm in California (and perhaps the country) dedicated to "wetland" permitting, with most staff also being highly qualified field biologists.

As noted, we specialize in "wetland" and other water-related permitting, wetland delineation, habitat restoration design, mitigation implementation, mitigation monitoring, biological surveys, and endangered species coordination to assist clients through the maze of regulations associated with federal and state permits including:

- Section 404 of the Clean Water Act ("wetland" permitting)
- Section 404(b)(1) of the Clean Water Act (alternatives analysis)
- Porter Cologne Water Quality Control Act
- Section 401 of the Clean Water Act (water quality certification)
- Sections 7 and 10 of the Endangered Species Act (endangered species surveys and consultation)
- National Environmental Policy Act (environmental assessment)
- Section 1602 of the California Fish and Game Code (streambed alteration agreement)
- Sections 2080.1 and 2081 of the California Fish and Game Code (endangered species permitting)
- Section 10 of the Rivers and Harbors Act (navigable waters permitting)
- California Coastal Act (coastal development permits)
- California Environmental Quality Act (biological and delineation sections)
- California Public Resources Code (analysis with respect to fire protection regulations)
- Natural Community Conservation Plans/Habitat Conservation Plans (compliance and consistency)

GLA offers IRWD a team to provide regulatory, biological, and monitoring support as an extension of IRWD's staff. We have formed a team of technically skilled and responsive individuals who have experience working together to deliver these services within Orange County.

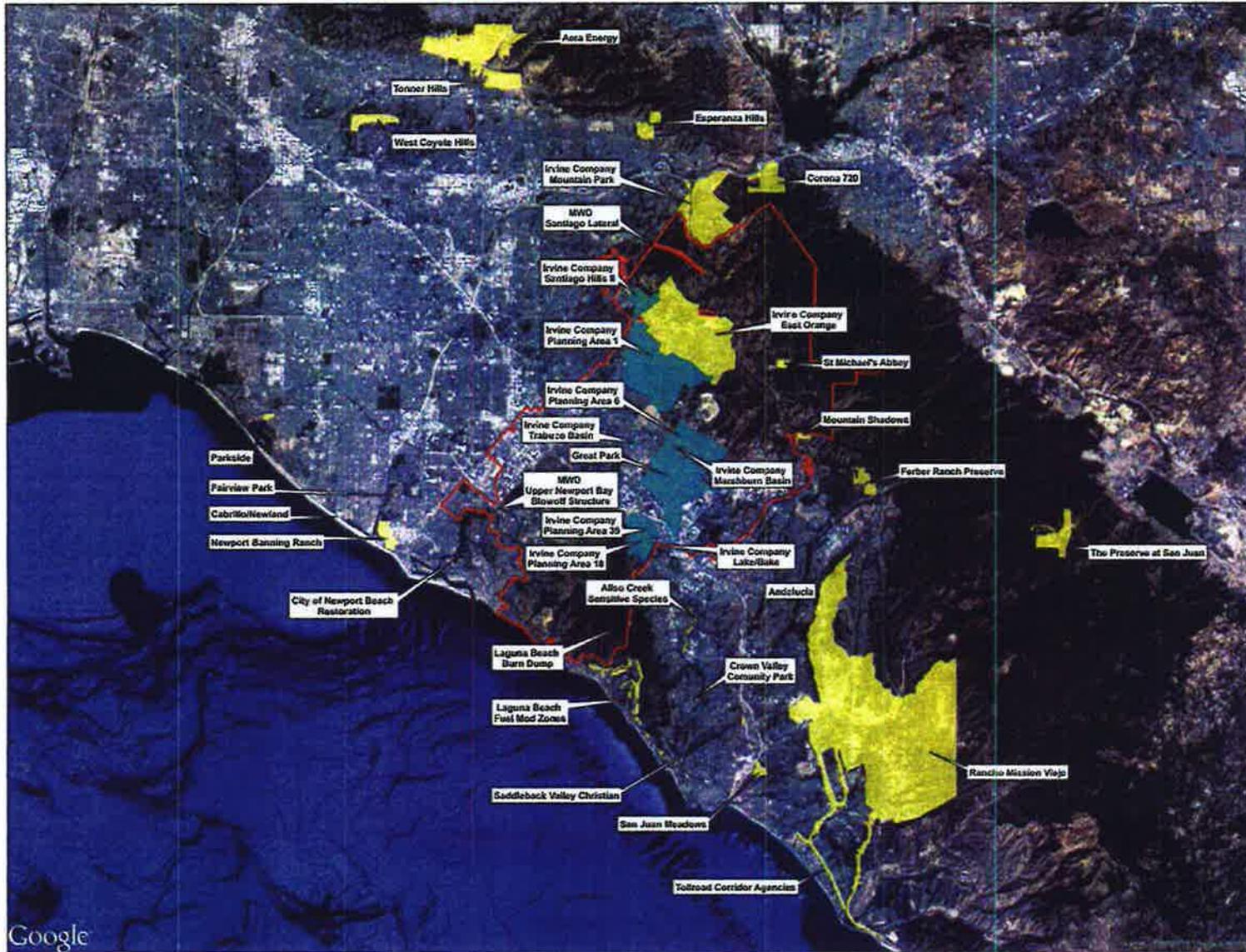
### I. Scope of Work

All scope tasks presented here will be performed on an as-needed basis, as directed by IRWD.

#### Task 1. Land Use Planning

GLA and specifically the proposed project manager, Thienan Pfeiffer, are uniquely familiar with land use planning in IRWD's service area. For over 17 years, GLA has been the sole-sourced regulatory consultant for the Irvine Company and has been involved in all arenas of planning spanning back nearly to the adoption of the NCCP. Our work has included entitlement and regulatory permitting processes of over one dozen planning areas, and establishment of the San Diego Creek Special Area Management Plan (SAMP) framework, to name a few. GLA has navigated planning and permitting processes in all local jurisdictions serviced by the IRWD [please see the attached exhibit depicting select GLA experience within the service area]. One or more of IRWD's natural treatment systems (NTS) or water reservoirs has been sited on nearly every Irvine Company planning area that GLA has been involved in. GLA's extensive

G-4



### Legend

-  Orange County
-  Select GLA Projects
-  Irvine Ranch Water District Boundary
-  Select GLA Projects With IRWD NTS/Reservoir



ON-CALL MONITORING AND  
 PERMITTING SERVICES  
 Select GLA Relevant Experience

**GLENN LUKOS ASSOCIATES**



experience in these capacities would serve IRWD well with any of the District's objectives, whether it is for development, operations, and/or maintenance.

**Task 2. Regulatory Agency Consultation, Permit Application, and Procurement**

Not only has GLA been directly involved in the local entitlement and regulatory permitting of the in-line and off-line NTS facilities for the landowners, GLA has coordinated with the IRWD and regulatory agencies to obtain long-term operations and maintenance (O&M) permits required prior to the transfer of these facilities to IRWD. As stated in the Introduction, GLA specializes in wetland and other water-related permitting and wetland delineations. Our deep understanding of the regulations of each of regulating agencies has resulted in many agency determinations that O&M activities do not require permits. Not only is GLA conversant in regulations enforced by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), State Water Resources Control Board (SWRCB), U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (Corps), Natural Communities Coalition (NCC), and South Coast Air Quality Management District (SCAQMD), our experience in the region also qualifies us as experts in compliance with the NCCP and Coastal Act.

**Task 3. Wetland Delineation**

Over 90% of GLA's professional staff is certified in conducting wetland delineations in the Arid Southwest. GLA continues to maintain its focus on delineating waters and wetlands based on the most current federal, state, and local policies and guidelines, and upholds a reputation for delineating jurisdictional boundaries only to the extent supported by the policies and guidelines. GLA conducted the jurisdictional delineation for approximately 8,000 acres of the 23,000-acre SAMP study area associated with Rancho Mission Viejo's "Ranch Plan" and verified the delineation with the Corps and CDFW. GLA has a complete GIS staff versed and capable of preparing maps to the Corps standard and has a well-documented history of over 25 years of obtaining regulatory agency permits using its own delineations. GLA understands that a successful permitting process begins with a complete, precise, and defensible jurisdictional delineation.

**Task 4. Biological Survey, Monitoring, Assessment**

In the last 27 years, GLA has conducted biological surveys, monitoring, and resource assessments for over 60,000 acres in Orange County; our staff has the right level of expertise for any level of project, whether complex or simple. During this time, GLA staff has performed rare plant and special-status animal assessments and surveys throughout the IRWD boundary (see attached exhibit), including translocation of rare plants and large-scale construction monitoring, on the East Orange Planned Community, Santiago Hills II project, Planning Area 18, Planning Area 39, and Lake/Bake Extension projects, to name a few. Our botanists are experts on the ecology of rare plants throughout Orange County, including threatened and endangered (T&E) species such as thread-leaved brodiaea (*Brodiaea filifolia*) and non-listed species such as many-stemmed dudleya (*Dudleya multicaulis*) and southern tarplant (*Centromadia parryi* ssp. *australis*). We have skilled biologists permitted to conduct protocol focused surveys for T&E animals, including coastal California gnatcatcher (*Polioptila californica californica*; CAGN), least Bell's vireo (*Vireo bellii pusillus*; LBV), southwestern willow flycatcher (*Empidonax traillii extimus*; WIFL), and arroyo toad (*Anaxyrus californicus*); and non-listed species that may cause constraints to projects such as cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), western spadefoot (*Spea hammondi*), western pond turtle (*Emys marmorata*), and special status fish (e.g. arroyo chub [*Gila orcutti*]). We can provide all levels of advisement and reporting that is tailored to the project, whether it is at a preliminary-level to assist project design or at a detailed-level to support environmental documentation (e.g. permitting, California Environmental Quality Act (CEQA)).

**Task 5. Threatened and Endangered Species Regulation, Monitoring, and Reporting**

We are experts in federal and state endangered species act permitting, whether it is pursuant to Section 7 or Section 10 of FESA and/or Section 2081 or Section 2080.1 of CESA, with over 25 years of experience in permitting. We have well-established rapport with USFWS and CDFW and understand the importance of assisting the client through the regulatory process by providing strategies and approaches that work for the client without project delays. In the field, our staff knows what is needed to ensure impacts to T&E species follow permitted allowances even when unanticipated issues arise during construction. Our crew is experienced with working with construction crews and providing on-the-job approaches. This is accomplished using our in depth understanding of the resources and long established relationships with the agencies. GLA has standardized reporting templates that can be modified to ensure IRWD is provided all the necessary written and verbal reporting/documentation.

**Task 6. Mitigation Monitoring and Reporting**

Whether for CEQA, water permitting, or T&E authorizations, we have been performing the full suite of mitigation monitoring and reporting for 27 years, from interpreting and/or implementing measures, or simply taking over ongoing monitoring/reporting. GLA has expertise in restoration and enhancement (long-term and short-term in length) with over 40 projects currently underway ranging from wetland restoration to upland sage scrub creation to rare plant restoration/creation/translocation.

Because we specialize in mitigation compliance, our staff is extremely knowledgeable, cost-effective, and successful in taking the mitigation monitoring from beginning to end (sign-off). We know the Corps reporting requirements and what the wildlife agencies need for compliance documentation. A few projects within the IRWD service area that we are monitoring and reporting on include Planning Area 1 (three active mitigation sites), Planning Area 6 (two long-term management sites), Planning Area 39 (one active mitigation site including long-term management), and Lake/Bake Extension (two active mitigation sites including long-term management).

**Task 7. Water Quality, Storm Water Monitoring, and Reporting**

GLA has experience in obtaining approvals for projects requiring groundwater discharges and stream diversions and complying with water quality measures as conditioned by 401, 404 and 1602 approvals, as well as HCPs. Our team was able to secure expedited permits for groundwater discharge associated with the Rancho Mission Viejo Antonio Parkway Bridge over San Juan Creek and conducted water quality monitoring including qualitative and quantitative assessments of physical and biological conditions downstream of the dewatering discharge, including reporting on pH and turbidity to the Corps, RWQCB, CDFW, and USFWS. Furthermore, GLA staff, Zack West, previously worked at the RWQCB where he conducted water quality sampling.

**Task 8. Natural Treatment System (NTS)**

As stated in Task 1, one or more of IRWD's NTS has been sited on nearly every planning area that GLA has been involved in with the Irvine Company as the landowner. This requires GLA to have a solid understanding of IRWD's NTS Master Plan and NTS Design Guidelines in order to advise the civil engineer on the required plant palette and directly assist with site design, construction, maintenance, and monitoring. Although the NTS Master Plan contains standard Operations & Maintenance (O&M) procedures, GLA has assisted the landowner in preparing specific O&M manuals for the NTS in conformance with IRWD's guidelines, which equates to GLA understanding your needs. As many of the NTS are also sited within County of Orange flood control basins, GLA is also keenly aware of the distinctions between O&M required for NTS versus flood control.

**Task 9. Natural Community Conservation Plan/Habitat Conservation Plan (NCCP)**

The Central/Coastal Orange County Subregion NCCP/HCP governs essentially all of IRWD's service area, and as shown in the attached exhibit, GLA has extensive experience permitting projects within the NCCP/HCP. With each project that is entitled and permitted, GLA has assisted participating landowners (including the Irvine Company, Metropolitan Water District, and Toll Corridor Agencies) with compliance such as construction minimization measures, ensuring take of coastal sage scrub does not exceed the allocated acreage, and consistent coordination with CDFW, USFWS, and NCC for take inside and outside of the Reserve System. GLA is well-read in both the Plan and the Implementing Agreement and understands the roles and responsibilities of the participating landowners, of which IRWD is one of ten.

**Task 10. Project Coordination**

Coordination between consultants involved with a project is essential to the success of the project. GLA is well versed in working for the client and coordinating appropriately and effectively to all parties involved (e.g. resource agencies, other consultants). We also have experience working within project tiers, whether it is directly with the prime or several tiers below. Because of our expertise with permitting and biological resources, it is common for our staff to be contracted to peer review biological technical reports or biological resource sections of CEQA documents. We understand the importance to providing well-received effective input and guidance to other consultants and likewise receiving input from other consultants. Similarly we have worked with other consultants in a subservient role. We have spent over 25 years working with resource agencies and maintaining effective rapport with other consultants, regardless of the hierarchy, because it is in alignment with our professional ethics and because the client and their project come first.

**Task 11. Staff Rates – see item V below.**

**Task 12. Project Task Item Estimates – attached as Appendix A.**

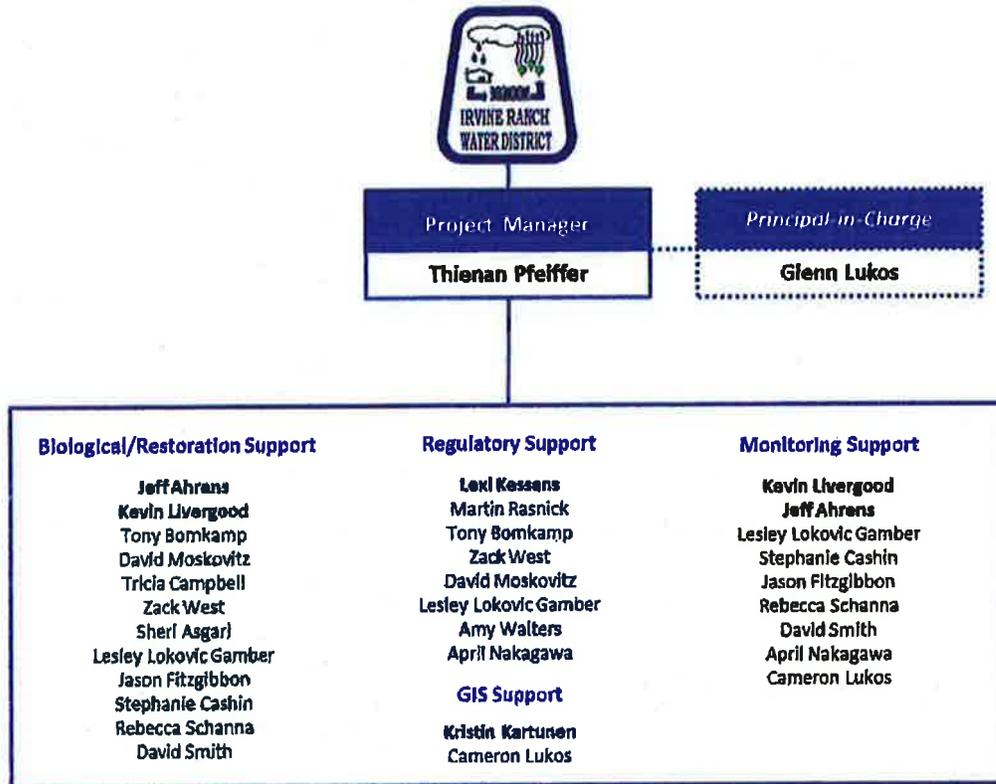
**Task 13. Team Experience – see item II below.**

**Task 14. References – see item III below.**

**II. Team**

The organization chart below addresses our team structure and reporting relationships among project personnel.

### Organizational Chart



Notes: **Bold** indicates key staff

#### Thienan Pfeiffer – Project Manager

*M.S. – Environmental Studies, California State University, 2002*

*B.S. – Environmental Analysis and Design, University of California, Irvine, 2000*

Thienan Pfeiffer is a Regulatory Specialist with over 14 years of experience as project manager on numerous complex development and infrastructure projects in southern California, particularly in Orange County. She brings expertise in Sections 401 and 404 of the Clean Water Act (CWA), Section 10 of the Rivers and Harbors Act, Section 1600 of the California Fish and Game Code, the state and federal Endangered Species Acts (ESAs), CEQA, National Environmental Policy Act (NEPA), jurisdictional delineations, and legal instruments for protection of open space and mitigation sites. Thienan has prepared over 100 permit applications pursuant to these regulations and routinely coordinates with state and federal agencies, including the USFWS, Corps, CDFW, RWQCB, and California Coastal Commission (CCC) to obtain aquatic resource and species permits. In addition to executing over 100 permits, Thienan is conversant in the requirements of long-term management plans, Property Analysis Records (PARs), and endowments. Because of her focus on Orange County projects, Thienan knows the complexities of the Central/Coastal Orange County Subregion NCCP/HCP, ranging in experience with compliance with minimization measures (surveys, reports, notifications, etc.), to seeking conditional coverage for take of least Bell's vireo in an area of lesser long term conservation value, to assisting non-participating landowners with obtaining take authorization outside of the Reserve. In addition, she developed a Regulatory Training course for the County of Orange and Metropolitan Water District

of impacts to CSS and determined that even with the proposed reservoir, the net take of CSS was still below the 2006 take allowance already assumed by the Irvine Company. Therefore, no additional take would be required of either the Irvine Company or IRWD. The addendum to the project, including this reservoir, was approved by the City of Orange on July 12, 2016. Jacob Moeder is the senior engineer at IRWD working on this effort.

We have included an additional reference below for Thienan Pfeiffer, the proposed project manager:

Irvine Company - Dean Kirk, Senior Director of Environmental Permitting  
 550 Newport Center Drive, Newport Beach, California 92660  
 Phone: 949.720.2878/Email: [dkirk@irvinecompany.com](mailto:dkirk@irvinecompany.com)

#### IV. Schedule

GLA will coordinate with IRWD to develop a schedule for each task order. Our key staff availability and depth of staff with expertise in the type of work requested in the RFP will ensure IRWD's schedules are met. An example of a project schedule is included within the attached Sample Scope of Work in Appendix A.

#### V. Fee Schedule

A fee schedule for each member of the project team who may contribute to the individual tasks in the RFP is provided below.

Name	Job Function	Billing Rate
<b>Thienan Pfeiffer</b>	<b>Project Manager</b>	<b>\$142.52</b>
<b>Glenn Lukos</b>	<b>Principal-in-Charge</b>	<b>\$193.51</b>
<b>Lexi Kessans</b>	<b>Regulatory Support</b>	<b>\$134.86</b>
<b>Kristin Kartunen</b>	<b>GIS Support</b>	<b>\$116.88</b>
<b>Kevin Livergood</b>	<b>Biological Support</b>	<b>\$116.88</b>
<b>Jeff Ahrens</b>	<b>Biological Support</b>	<b>\$115.30</b>
Tony Bornkamp	Oversight-QA/QC: Regulatory/Biological Support	\$192.84
Tricia Campbell	Oversight-QA/QC: Biological Support	\$147.73
Martin Rasnick	Regulatory Support	\$138.40
David Moskovitz	Regulatory/Biological Support	\$135.46
Zackry West	Regulatory/Biological Support	\$133.75
Sheri Asgari	Restoration Support	\$126.27
Lelsey Lokovic-Gamber	Regulatory/Restoration/Monitoring Support	\$101.08
Jason Fitzgibbon	Biological/Restoration/Monitoring Support	\$98.08
Stephanie Cashin	Biological/Restoration/Monitoring Support	\$90.14
Rebecca Schanna	Restoration/Monitoring Support	\$84.94
Amy Walters	Regulatory Support	\$80.12
David Smith	Biological/Restoration/Monitoring Support	\$75.00
Cameron Lukos	GIS/Monitoring Support	\$72.93
April Nakagawa	Regulatory/Monitoring Support	\$70.00

***Bold in the table above indicates key staff***

Other Direct Costs	Unit	Cost
Mileage	Mile	\$0.58
Reproduction	Each	At cost
Postage	Each	At cost

**VI. Joint Venture**

No joint ventures and/or subcontract arrangements will be utilized during the course of the project.

**VII. Conflict of Interest**

No personal or organizational conflicts of interest prohibited by law exist.

**VIII. Insurance**

GLA's current insurance meets IRWDs requirements as described in the RFP. A copy of our insurance certificate is attached in Appendix B.

**IX. Contract**

GLA has reviewed the sample copy of IRWD's professional service agreement provided with the RFP and proposes no modifications to the standard terms and conditions.





### ADDITIONAL REMARKS SCHEDULE

AGENCY Redlands, CA - HUB International Insurance Services Inc.		License # 0757778	NAMED INSURED Glenn Lukos Associates, Inc. 29 Orchard Street Lake Forest, CA 92630-8300
POLICY NUMBER SEE PAGE 1			
CARRIER SEE PAGE 1	NAIC CODE SEE P 1	EFFECTIVE DATE: SEE PAGE 1	

**ADDITIONAL REMARKS**

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,  
FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liability Insurance

**Description of Operations/Locations/Vehicles:  
and Pollution Liability.**

"Should the policies be cancelled before the expiration date, Hub International Insurance Services Inc (Hub), independant of any rights which may be afforded within the policies to the certificate holder named below, will provide to such certificate holder notice of such cancellation within thirty (30) days of the cancellation date, except in the event the cancellation is due to non-payment of premium, in which case Hub will provide to such certificate holders notice of such cancellation within ten (10) days of the cancellation date."

August 22, 2016

Prepared by: A. McNulty *B*

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

Approved by: Paul Cook */ [Signature]*

## ACTION CALENDAR

### CONSULTANT SELECTION FOR THE WATER SMART REPORTS PROGRAM

#### SUMMARY:

The Water Smart Reports Program provides customers with personalized water use reports separate from their monthly water bills. The data analytics portion of the program provides staff with program tracking and analysis capabilities. In April 2016, a Request for Proposal (RFP) for continued implementation and enhancement of the program was circulated and two proposals were received. Staff has carefully evaluated the proposals and conducted interviews. Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement with WaterSmart Software to provide program services for a three-year term in the amount of \$489,510.

#### BACKGROUND:

In 2012, IRWD first tested the efficacy of providing its customers with information on their water use separate from what was provided on their bills. This test occurred through the implementation of a pilot program. The information was presented to customers in a visually appealing and easy-to-understand way, coupled with social norming messages about how efficiently they use water. Following is an overview of the 2012 pilot program and the current Water Smart Reports Program. Also provided is an overview of the process used for the selection of a consultant to continue the program for the next three years.

#### 2012 Pilot Study:

In 2012, IRWD entered into a Professional Services Agreement with WaterSmart to implement a Pilot Water Smart Reports Program. The pilot was designed to evaluate the effectiveness of providing customers with supplemental water use information that was separate from what is provided on their water bills. Information about their water use relative to similar customers was also provided. An evaluation of the pilot indicated that over the course of one year, approximately 1,000 participating homes used 2.3% less water than the control group of homes.

#### Current Water Smart Reports Program:

Based on the success of the pilot, a larger scale program involving 15,000 high water use residential customers was implemented in FY 2013-14 with WaterSmart's assistance. Since then, the Program has been expanded and extended through execution of variances to WaterSmart's Professional Services Agreement. Key features of the program are the residential customer reports, online residential and commercial customer portals and data analytics and tracking as described below.

*Customer Reports:*

IRWD's customers currently receive monthly water use reports from WaterSmart. Reports for residential customers provide a context within which a customer's water use is compared with similar households. Inclusion of comparisons with other households informs customers if they are part of the norm in their communities. Customers who are unaware that their water use is excessive compared with others may be motivated to change the way they use water once they have a better understanding of their own water use.

*Customer Portals:*

The online residential customer portal presents customer water usage data in a visually appealing manner. Customers can view historical usage, their performance measured against similar customers and their monthly water budget. The portal provides information on the number of people in the home, the irrigated area and other variance information for residential accounts. At the commercial customer portal, customers can record information on the number of rebates received, the number of full-time employees and the water-using equipment and efficiency benchmarks in use. Commercial customers can also monitor water use trends over time which then can be included with internal company reports. The commercial portal allows multiple logins so that authorized property management or landscape contractors can access water use data and monitor account performance on behalf of the multiple customers they serve.

*Program Tracking and Data Analytics:*

The Water Smart Program data management and customer interface capabilities provide staff with a tool to manage and evaluate the effectiveness of conservation programs. The utility dashboard provides data analytics that enables targeting of conservation programs based on customer attributes which allows staff to maximize the effectiveness of marketing. Staff can also easily survey customers for additional information to refine future program targeting. Monthly messaging varies by customer depending upon each customer profile and water use pattern. Customers can be formed into cohorts for monitoring of program participation or for targeted program marketing.

Consultant Selection Process:

In April 2016, staff circulated an RFP to four consulting firms to provide Water Smart Report Program services for the next three years. Proposals were received from WaterSmart and Smart Utility Systems. After completing a thorough evaluation of the written proposals, conducting interviews with each firm and checking all references provided, staff recommends the selection of WaterSmart to provide the services requested. WaterSmart's approach will provide IRWD the ability to monitor and evaluate conservation program effectiveness, to tailor outreach messaging and to receive the support of a water utility network consisting of other participating water agencies. Key strengths of WaterSmart's proposal are as follows:

- The business and products are entirely focused on water utilities, which results in a superior understanding of the needs of water utilities and offers the added benefit of leveraging features developed for other water utilities;
- The approach incorporates a continuous improvement element where after technical development, ongoing collaboration and continual development will be provided;
- Provides an understanding of social and behavioral sciences which will assist staff in strategically reaching customers with information and messaging that is most likely to resonate with them;
- Training is provided as program changes are made or upon request; and
- Program enhancements offered include text messaging capability, multiple login credentials per account, user defined alert notifications, accessibility from mobile phones, interactive resources with how-to videos, ability to link to resources on IRWD's website, a group messaging feature for targeted customer groups and conservation program marketing and monitoring capability.

Staff has prepared a consultant evaluation and selection matrix which is attached as Exhibit "A". WaterSmart's scope of work, cost estimate and schedule is attached as Exhibit "B".

#### FISCAL IMPACTS:

The cost of WaterSmart Software facilitating the Water Smart Reports Program would be \$163,170 per year for a total \$489,510 for the three-year term. Funds for FY 2016-17 are included in the approved Operating Budget.

#### ENVIRONMENTAL COMPLIANCE:

Not applicable.

#### COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on August 11, 2016.

#### RECOMMENDATION:

**THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH WATERSMART SOFTWARE IN THE AMOUNT OF \$489,510 TO PROVIDE WATER SMART REPORTS PROGRAM SERVICES FOR THE NEXT THREE YEARS.**

#### LIST OF EXHIBITS:

Exhibit "A" – Consultant Selection Matrix  
Exhibit "B" – WaterSmart Software's Scope of Work

EXHIBIT A

Water Smart Reports Program Consultant Selection Matrix

Item	Description	Weights	Smart Utility Systems	WaterSmart Software		
A	<b>TECHNICAL APPROACH</b>	60%	(1 - highest, 2 -lowest)	(1 - highest, 2 lowest)		
1	Adherence to RFP Requirements	10%	1	2		
2	Understanding of required services and project d	25%	2	1		
3	Approach and Methodology	45%	2	1		
4	Schedule	20%	2	1		
	<b>Weighted Score (Technical Approach)</b>		1.90	1.10		
B	<b>QUALIFICATIONS AND EXPERIENCE</b>	40%				
1	Project Manager	30%	2 Thuy -An Nguyen	1 Ora Chaiken		
2	Principal-in-Charge	10%	2 Travis Parker	1 Doug Flanzer		
2	Technical Leads	25%	1 Manoj Singh Atul Someshwar	2 Chad Haynes Drew Bazan Will Holleran		
			Megan Morgan Sabyasachi Swain			
3	Project Team Experience (sub and prime)	25%	2	1		
4	Firm's Relevant Experience (sub and prime)	10%	2	1		
	<b>Weighted Score (Experience)</b>		1.75	1		
	<b>COMBINED WEIGHTED SCORE</b>		1.84	1.16		
	Ranking of Consultants					
C	<b>SCOPE OF WORK</b>					
TASK			ANNUAL TASK HOURS	TASK COST	ANNUAL TASK HOURS	TASK COST
1	Program Design (design & configuration)		215	\$18,792	372	\$6,900
2	Program Implementation (test, deploy, stabilize & manage)		241	\$16,443	516	\$3,413
3	Staff Training		3 sessions	\$4,698	24	\$2,700
4	Program Management		65	\$7,047	372	\$58,050
5	Software License Cost		0	\$197,808	0	\$92,108
6						
7	Additional for each Paper Report including Postage		2500 increments	0.78 each		\$0.68
8	Additional for each Email Report		unlimited	\$0		\$0.12
9						
10						
11						
	SUB-TOTAL SERVICES, FEES (Does Not Include Optional Items)		521	\$171,352	1,284	\$163,170
15	Optional Items		(annual cost for 3 year contract)		(annual cost for 3 year contract)	
	TOTAL SERVICES, FEE		521	\$171,352	1,284	\$163,170
	Does not include optional tasks	Avg \$/hr		\$329		\$127
D	<b>OTHER</b>					
	Miscellaneous Items					
	Multiplier					
	Conflict of Interest		No		No	
	Joint Venture		No		No	
	Scope of Work Exclusions		No		No	
	Exceptions taken to IRWD Std. Contract		No		Yes	
	Insurance (Professional & General Liability)		Yes		Yes	

# EXHIBIT "B"

## IRVINE RANCH WATER DISTRICT CUSTOMER ENGAGEMENT AND ANALYTICS PROGRAM



20 California Street, Suite 200



Office: 415.366.8622  
Cell: 650.207.1173



[watersmart.com](http://watersmart.com)  
[ora@watersmart.com](mailto:ora@watersmart.com)

## **Detailed Scope of Work**

WaterSmart Software offers a full customer engagement and analytics platform including a Customer Portal for all customer accounts, a Mobile Web Portal, a Utility Dashboard to provide Irvine Ranch Water District with analytics and communication tools, alerts and notifications, as well as a host of other customer communication tools. As a software-as-a-service provider, WaterSmart will provide all major program elements to IRWD.

- Program setup, configuration, and initialization, including data collection;
- Hosting of WaterSmart Customer Portal (including Mobile Portal) and Utility Dashboard;
- Provision of alerts and notifications and other customer communications; and
- Program training for District staff and on-going customer service.

An overview of WaterSmart's Program features that will meet the requirements and tasks of the IRWD (RFP) is provided below.

### **TASK 1: PROGRAM DESIGN**

#### ***Design of Customer-facing Web Application, Agency Facing Dashboard, and Customer Water Use Reports***

WaterSmart is experienced and eager to provide a designed Customer-facing Web Application, Agency Facing Dashboard, and Customer Use Reports for Irvine Ranch Water District.

Below, you will find details regarding WaterSmart's Customer Portal (Customer-facing Web Application) and Water Reports (Customer Water Use Reports).

### **CUSTOMER PORTAL (CUSTOMER-FACING WEB APPLICATION)**

The WaterSmart Customer Portal is available to all selected customer and meter types, providing customers with valuable resources to better understand their water use, view and pay their bill, learn ways they can reduce their water consumption, recommendations for ways to reduce water use,

create leak and threshold alerts, and create a water- and money-saving action plan. IRWD will have the opportunity to approve the recommendations and provide WaterSmart with information on available rebates and incentives that should be flagged within relevant water saving recommendations. The WaterSmart Project Manager will assist in customizing this content at the start of the Program (Please refer to Appendix A, Figure 3).

Key features of the Customer Portal include:

- Consumption in Gallons per Day (GPD) from the last reading period compared to a water budget or similar accounts.
- Interactive water-saving recommendation library, customized for each individual customer profile with step-by-step implementation instructions, links and videos.
- Dynamic estimates of savings potential in GPD and dollars per year and information on rebates where available.
- Graphs that provide insights into past usage and seasonal variation.
- Access to grouped accounts, including affiliated HOA accounts as well as commercial accounts with a single owner.
- Ability to sign-up for various usage/leak notifications and alerts via email, automated call or text/SMS – including the only closed loop leak notification system.

The Customer Portal is accessible from any internet-connected device (computer, tablet, smart phone), and as a Mobile application (Appendix A, Figure 6) through our mobile optimized web page. We release regular enhancements to our Customer Portal to ensure that Irvine Ranch Water District's customers will enjoy the most intuitive, easy-to-use, personalized, and actionable customer portal in the world. We plan to continue our industry-leading investments in design and user experience. WaterSmart will host the Customer Portal and will be responsible for all maintenance and security.

Screenshots of the Customer Portal are included in Appendix A, Figure 4 & 5.

### **Alerts and Notifications**

WaterSmart notifies customers of high volume and continuous use leaks and when customers have reached a self-selected consumption threshold. Alerts can be sent through multiple channels -- email, SMS text message, or automated voice call. WaterSmart offers a leak resolution interface that guides customers receiving a leak alert through the most likely sources of the leak, allowing them to resolve the issue without needing to call the utility. Customer actions, such as email opens, clicks, and progress through the leak resolution module are tracked and reported back in the Utility Dashboard—even though the customer has not been forced to sign in. Sign-in is requested after a customer finds and fixes their leak. This is the only closed-loop leak-alerting and resolution system in the market. Please refer to Appendix A, Figure 11.

### **UTILITY DASHBOARD (AGENCY FACING DASHBOARD)**

The Utility Dashboard provides District staff (e.g., members of the District's team) with insights and analytics about their customers' water use (individual and aggregated), allows them to communicate and record interactions with customers, and provides updates and metrics on the WaterSmart program implementation through an easy-to-use interface. The Utility Dashboard provides information on all of the District's customer accounts and meter types, including grouped accounts (e.g., HOAs, commercial property owners with multiple meters). This information can be analyzed in the Dashboard or exported for further analysis to provide insights into consumption trends and customer behavior, which can aid in improved demand forecasting and operations management.

Key features of the Utility Dashboard include:

- Integrated view of all water deliveries to customers including single-family, multi-family, irrigation, commercial, industrial, and municipal/institutional customers.
- Analysis of the tiered rates and accounts that fall within tiers.
- Customer relationship management (CRM) tools including a customer profile page for each account, outbound email templates, and communication tracking tools.
- Data File Transfer process visibility: Ability to easily view the "Last Meter Read Date" and most recent "Data File Upload Date."
- Communications process visibility for optional digital and print communications through the industry's only Mailings Module.
- Customer consumption analysis segmented by geography, consumption (total), GPCD, top changers, top reducers, and other characteristics.
- Utility consumption analysis including compliance tracking.
- Program participation history and tracking.
- Program performance tracking and reporting.
- Geospatial analyses, including geographical mapping of targeted accounts based on key criteria (e.g., usage, meter type).
- Leak reports including leaks identified (AMI and non-AMI), alerts provided, and action taken.

The Utility Dashboard is accessible on a secure basis from any internet-connected device, including PCs, tablets and mobile phones. As part of this proposal, the District will receive an unlimited number of logins to accommodate all staff.

WaterSmart will launch the Customer Portal and Utility Dashboard applications once the recommendations have been finalized and prior to the sending of the first Water Reports.

Screenshots of the Utility Dashboard are included in Appendix A Figure 7 & 8.

#### **Water Reports (Customer Water Use Reports)**

Water Reports are informative, carefully designed reports that help deliver targeted messages from IRWD to customers including messages about water efficiency, social comparisons, the value of water, and rate changes. Water Reports can be sent via mail or email, and may be targeted to certain accounts, sent to randomly selected accounts as part of a randomized control trial, or sent to all of IRWD's customers. Content and design of all materials are subject to change over time, as WaterSmart incorporates new features.

Key elements of the Water Report are:

- A personalized WaterScore every billing period comparing the customer with the median amount of water used by households with the same number of occupants and a similar yard size.
- Customer water use, in gallons per day.
- Data insights to improve understanding of water use (estimated percentage used for indoor vs. outdoor use, a breakdown of indoor use and more).
- Customized, water-saving recommendations that are based on consumption data, use patterns, past participation in conservation programs and more.

- Targeted communications regarding investments, incentives, or other important IRWD messages.

During the initialization phase, WaterSmart will work with IRWD to customize the Water Reports with IRWD's logo and contact information. This makes it clear that the communication is coming from IRWD and ensures engagement and customer satisfaction benefits accrue to IRWD. We will also work with staff to review recommendation language and develop criteria for how recommendations are targeted to customer accounts.

A sample Water Report is provided in Appendix A, Figure 2.

#### **(ADDITIONAL FEATURE) GROUP MESSENGER**

The Group Messenger Module is a new engagement feature that will allow District Staff to communicate by sending alerts and messages to customers or customer groups. This functionality is in beta test, but will be available at the time of this new contract.

A screenshot of the Group Messenger feature is provided in Appendix A, Figure 13.

#### **FUNCTIONAL SPECIFICATIONS:**

##### ***Secure registration and login for each customer account***

WaterSmart provides secure registration and login details for each customer account including AMI and non-AMI accounts, commercial, residential and other accounts.

##### ***Allow for multiple user login credentials per account***

WaterSmart is currently developing the capability for account holders ("Administrative Users") to add additional users ("Child Users") to their account through a new Account Permissions section of the Account Settings page. "Child Users" will share the same profile and portal features as the administrative users; any changes made to the account will populate across all users. All users will

have unique Communication Preferences, and will have the ability to configure alerts and notifications as they see fit. Version one of the feature is scheduled for release by the end of May 2016, and the completed feature (with the ability to handle linked accounts), is scheduled for release in July 2016.

***Provide customers the ability to enter information about home size, irrigated square footage, number of persons in home, livestock, and other information useful in comparing water usage of similar properties***

WaterSmart provides the ability to enter profile information in two ways: 1) The customer can enter this information directly in the Customer Portal, via the "Update Profile" section; and 2) IRWD staff can also update this information, via the Profile area of each individual customer's page in the Utility Dashboard.

***Ability to estimate water use and billing balance based on last read on file and current read that will be provided by customer***

WaterSmart is able to provide customers with their last bill amount and water use. This information is shown in the new "Bill" tab on the Customer Portal. Note: This information will only be visible if the utility sends to WaterSmart billed amount data in their consumption files. As such, this information is not currently present in the IRWD Customer Portal. Billing information is also available on the Utility Dashboard.

***Available in multiple languages***

WaterSmart has provided for other utilities items including dual-language welcome letters for all meter classes and Water Report messages in multiple languages, with content provided by District Staff. In addition, Group Messenger messages can be written in multiple languages. We would encourage additional research and planning in this area to identify and tag those customers who are

non-English speakers versus those where English is not the primary language spoken, but where English content is acceptable.

***Customize an effective two-way communication compatible with mobile devices including, but not limited to, smart phones and tablets using IOS and Android operating systems***

WaterSmart believes that providing utilities with options to correspond with their customers is imperative. WaterSmart is currently working on functions that will allow the utility to provide alerts to their customers using the Customer Portal. For additional ways to communicate with customers, please refer to the Group Messenger option.

***Provide alerts for workshops, water waste, leak alerts, etc. with customer option to manage or unsubscribe***

WaterSmart notifies customers of high volume and continuous use leaks and when customers have reached a self-selected consumption threshold. Alerts can be sent through multiple channels -- email, SMS text message, or automated voice call. Customers have the option to manage their notifications, and unsubscribe to this feature. The new group messenger functionality (Appendix A, Figure 11) can be used to provide alerts on other items including workshops.

***Ability to send customer alerts marked by severity of over-use and provide customers with the capability to respond back to alerts***

WaterSmart currently is soliciting feedback on leak alerts for customers who have monthly billing data and not interval data. We welcome your feedback on whether you would like to extend the alerting process to those customers. In addition to these alerts, which are sent at the time the meter read is received, WaterSmart also incorporates high-volume usage alerts in the Water Reports.

***Ability to send group messaging for outages, shut off notices, main line breaks, routine maintenance***

The Group Messenger feature will conveniently allow District staff to send alerts and messages to customers or customer groups, notifying them of important information IRWD needs to convey (Appendix A, Figure 13).

***Ability to send alerts via text, landline, email, post card, or U.S. postal mail based on the customers' preference settings***

Customers have the ability to sign-up for various usage/leak notifications and alerts via mail (Water Report), email, automated call or text/SMS – including the only closed loop leak notification system. Automated call or text/SMS provides a more rapid way to send alerts and notifications to customers.

***Capable of two-way communication allowing customers to contact IRWD, register for events, request on-site assistance, etc.***

WaterSmart proposes optional customer outreach through the use of Customer Letters and Water Reports. This option has been proven to drive those who are not digitally engaged to become so while providing independently proven increases in customer satisfaction and water use efficiency. Once digitally engaged, customers have the option to contact the District with questions, register for events, sign-up for information the District is providing, and much more through the Customer Portal. Please see Appendix A, Figures 1 & 2.

***Provide working links to IRWD sites to be decided in coordination with IRWD staff.***

***All web applications and customer report correspondence shall be branded***

WaterSmart personalizes the sites with logo, contact information, promoted rebate programs, events, and links and will work directly with the District regarding their branding.

Technical Specifications:

***Provide a license for the IRWD to use the Consultant's customizable web-based software which promotes, tracks, and reports water use and water- efficiency measures and includes a web portal for customers and IRWD***

As part of WaterSmart's Software as a Service (SaaS) platform, employees and customers of IRWD may during the term of the Agreement access and use WaterSmart's SaaS services including print and electronic Water Reports, Customer Portal, Utility Dashboard, and other deliverables provided to Utility by WaterSmart.

***Specify the data requirements, data format, tools, methodology and technology utilized to securely transfer data to and from Consultant's site and provide a secure channel to transfer necessary data on accounts, including but not limited to: residence information; consumption history; current consumption; interval data; rebate program participation***

WaterSmart enacts standard controls, policies, and procedures to ensure the security of each utility's data and customer provided information, including but not limited to choosing a reputable cloud-server vendor with appropriate physical security of server infrastructure, secure public-private key-based login to all WaterSmart server infrastructure, password authentication on all Web site interaction, and audit logging. WaterSmart will provide each utility with a private, password-protected FTP destination for regular delivery of the data. This secure FTP site will be hosted on WaterSmart's server infrastructure.

#### Data Transfer Protocols

WaterSmart will provide IRWD with a private, password-protected FTP destination for regular delivery of the data. This secure FTP site will be hosted on WaterSmart's server infrastructure. IRWD agrees to send data only through this secure channel and not through any other method.

Account Information:

- Account Number
- Account Type
- Account Sequence Number
- Property APN, where available
- Meter Size
- Customer Mobile Number, where available
- Service Address
- Billing Address
- Customer Name
- Customer Email, where available

Consumption History:

WaterSmart will request, for at least the last two years but ideally for five to ten years in the past, such fields as, but not limited to:

- Account Number
- Account Sequence Number
- Meter I.D. (serial number)
- Current Meter Read Date
- Previous Meter Read Date
- Days in Billing Cycle
- Consumption
- Bill and water allocation details as mutually agreed

Current Consumption:

WaterSmart will also work with IRWD to set up a regular transfer of meter reads from IRWD to WaterSmart through a secure channel. This will be the same file format as the Consumption History file above. The frequency of the meter data transfer will determine how frequently Water Reports are shipped. Water Reports will be delivered on a monthly basis to align with IRWD's billing cycle.

WaterSmart will request, for accounts with interval data:

- Account Number
- Timestamp

- Time zone
- Consumption
- Additional details as mutually agreed

Rebate Program Participation File:

Optionally, IRWD may provide data on rebate program participants, and those receiving citations or notifications. This file may be sent at the same frequency as the Current Consumption data, or less frequently, and should include: account number, program name, participation date, and additional details as mutually agreed upon.

***Outline any additional costs or process changes if IRWD implements a new data management system after the program set-up and initialization***

Should IRWD implement new data management systems after the first initialization process, which require WaterSmart to re-onboard new file structures or map historical identifiers (e.g. customers, accounts, premises, service points), WaterSmart will assess an additional one-time fee not to exceed \$10,000 upon receipt of first test files from the new system. This fee will be assessed on a time and materials basis and will cover any labor costs to re-initialize the system.

***Produce web portal compatible with current versions of major web browsers (Internet Explorer, Edge, Chrome, Safari, Firefox and Opera)***

WaterSmart supports these browsers. For IRWD's reference, here is the current distribution of browser use by IRWD Customer Portal users: Safari 50.95%, Chrome 32.55%, Internet Explorer 6.35%, Firefox 5.83%, Edge 2.03%, Safari (in-app), 1.11%, Mozilla Compatible Agent, 0.59%, Android Browser 0.52%, and Opera 0.07%

***Specify the platform and programming language used to develop the web portal***

WaterSmart uses a LAMP stack (Linux Apache MySQL w/ PHP, Python, and JavaScript).

***Provide site compatibility for mobile devices including but not limited to smart phones and tablets using iOS and Android operating systems.***

WaterSmart provides full capabilities on any desktop or mobile device—regardless of brand or operating system.

***Describe hours and method of customer service technical support, particularly for the web-based application.***

WaterSmart will notify of any customer service technical support requests and resolution.

WaterSmart will provide service and support regarding technical questions about WaterSmart's Customer Portal and Utility Dashboard Web applications and Water Reports between the hours of 9 a.m. and 5 p.m. PST on Monday through Friday, excluding federal holidays. Additionally, WaterSmart hosts a Support Site, accessible 24/7. The Support Site features online support for self help through product guides, videos, product updates and all product documentation.

**Hosting, Maintenance, and Security:**

***Provide a secure hosting site, approved by IRWD.***

WaterSmart's servers are deployed in the secure Rackspace Cloud. Physical security includes state-of-the-art building access controls, video surveillance and 24x7 onsite security. Rackspace's facilities and security procedures are regularly subject to independent 3rd party reviews and certifications including but not limited to ISO27002 and SOC1/2/3.

***Maintenance of the licensed web-based software, including customer support, and include the maintenance protocol***

WaterSmart is on a continuous release cycle with minor updates and improvements to the product released on a daily or weekly basis. These releases do not interrupt the flow of work or use of products for Utility partners or end users. Many of these updates are minor and will not impact the daily work or use of the product. For larger releases or any changes in the product that may impact or provide added functionality Utility programs or end users WaterSmart communicates in advance with Utility project managers the nature and impact of the releases.

WaterSmart performs scheduled maintenance on a limited basis, typically no more frequently than twice a year. Utility partners are notified two weeks in advance of any planned maintenance, and any loss of functionality is brief and limited to off hours (typically 10pm-11pm PT on a weekend).

Ongoing system maintenance and support is included with the WaterSmart contract, and as a part of the program. Routine system upgrades are included with no additional charge.

***Provide a description of security and privacy controls for all personally identifiable information provided to selected consultant in service of project, including procedures for data protection, cyber security and security breaches.***

WaterSmart takes its security and privacy responsibilities very seriously. WaterSmart will not share personally identifiable customer information or customer-specific water use information with any third party. Data transferred to WaterSmart from IRWD will be stored in a database dedicated to the Utility and its WaterSmart project. The data will not be comingled with the data provided by any other entity. WaterSmart does not transfer data offshore for any purpose, including design, testing, development, or delivery.

Additional information on our Customer Confidentiality and Data Security policies are below:

- Data Encryption – Data is transferred between the District and WaterSmart via SSH over FTP using an individually assigned revocable SSH public-private key pair. No passwords can be used to connect to any WaterSmart server. Data is processed and stored in a network-isolated database. The data is not encrypted in-place during database storage. When database backups or ingest-file backups leave the isolated network, they are encrypted for in-place using PGP.

- Secure Socket Layer Communications – WaterSmart’s web interface operates only over HTTPS. In adherence with OWASP principles we allow only TLS connections.
- Complex User ID and Password Authentication – We support username + password authentication. User passwords are individually selected and hashed as consistent with password best management policies.
- Secure Virtual Private Network Tunnels – WaterSmart will ensure that only approved users are granted appropriate access to our systems. To this end, all systems that face an external network are secured according to best practices including but not limited to: a minimum of open network ports, ssh-key based server access (no passwords), revocable SSL client-certificates for webservice access, etc. All access to servers is logged and automated agents are enabled to report suspicious logins. A 3rd party validation and penetration test will be used to confirm our defenses against external vulnerabilities.
- Security Logging, Auditing and Network Traffic Monitoring – WaterSmart will not transfer customer data across our system boundaries in an unencrypted fashion. Inbound, we facilitate SSL encryption for all of our Utility data feeds. Print home water reports are transferred to our print vendor using SSH-key based authentication and encryption. Electronic home water reports are sent through our mail-server vendor using TLS encryption. All end-user access to our web site occurs via SSL using TLS 1.0+ protocols.
- Secure Communications – Our company carefully reviews all cloud service provider partners for their security. We only select vendors with high standards regarding security, privacy, and disaster preparation. We select best-in-class vendors with multiple 3<sup>rd</sup> party verifications; for example, RackSpace for servers and networking, and SendGrid for email delivery. The verifications and certifications of our vendors are publicly available for inspection.

- Third Party Security Assessment – WaterSmart has had third party security assessments of our system. Pivot Point Security conducted an application vulnerability assessment and penetration test of the WaterSmart web application to provide assurance that the information technology resources integral to delivering services to our clients was secured in a manner consistent with our security objectives and that information technology risks were mitigated to an acceptable level. Pivot Point determined that WaterSmart’s web application was secured in a manner fully consistent with prevailing good practice. The Attestation letter is provided in Appendix A. Additional information and full results of this assessment are available upon request but were not included here due to considerations of length.
- Backup and Disaster Recovery – WaterSmart creates daily backups of data and regularly validates the documented restore and failover procedures. Customer data is kept in primary database, backup repository, and secondary backup repository. Backups are performed locally within the hosted SSH-key protected environment, then encrypted using PGP privacy, and pushed securely over SSL to RackSpace’s CloudFile storage system. An additional copy of the encrypted backup is pushed to Amazon Web Services S3 storage system for redundancy. No data is stored on the Consultant’s premises. Daily backups are stored for 30 days. After 30 days, weekly backups are stored for several months. Monthly backups are stored for one year. There is no cost to the Utility for this service; the backups are used only for disaster recovery and site-failover.
- Security Breach Notification – WaterSmart works diligently to minimize the possibility of a security breach. However, in the event that one does occur, we have a 5-step incident management program. After an incident identification, (1) incidents are assigned an incident manager responsible for responding to the incident in a timely manner and proactively communicating incident status to all relevant internal and external parties. (2) Incidents are documented via the incident management form and permanently filed in

our incident repository. (3) We identify and execute corrective actions. (4) We perform a root cause analysis. (5) We feed back lessons learned to the planning function team. Throughout the incident process, we maintain open lines of communication with our customers.

- Cyber Security - WaterSmart's strategy includes strict network controls and adherence to the OWASP Top Ten 2013 web application security principles. WaterSmart has obtained a 3<sup>rd</sup> party assessment of our compliance with these security principles; this attestation is available at any time during this proposal process.

***The water use reports and web portal shall present and maintain confidentiality of information such as customer specific water use data, account information, and other identifiable customer characteristics***

All data, documents and other information received from IRWD by WaterSmart Software are deemed confidential and shall not be disclosed without IRWD's prior written consent.

## **TASK 2: PROGRAM IMPLEMENTATION**

### ***Outreach Material and Online Customer Survey***

In addition to alerts and use of the Customer Portal, WaterSmart can develop and send out outreach and engagement material to IRWD customers. WaterSmart will send a Customer Letter to targeted customers at the start of the program. The Customer Letter, like all outgoing communications, will be branded for IRWD with the District's logo and contact information. The Letter informs residents about the program and what they can expect to receive, and includes a link to an online Customer Insight Survey. This survey collects important water usage and demographic information about each account, which allows WaterSmart to further personalize the customer experience.

WaterSmart's Customer Letters provide customers with their water-use information and instructions on how end-users can take advantage of the many benefits of the Customer Portal. WaterSmart can also send out targeted, personalized and actionable print or electronic communications on specific topics, including information on water quality, rate changes, and other topics of interest to the District's customers.

***Transfer of meter reads and various data***

WaterSmart will work with IRWD to securely transfer a dataset that includes residence information, consumption history and current consumption. We will provide a comprehensive list of data needs at the outset of the program. WaterSmart will also work with IRWD to set up a regular transfer of meter reads from the utilities to WaterSmart through a secure channel. The frequency of meter data transfer will determine the timing of shipments of Water Reports.

***Dissemination of Water Reports***

Each enrolled household will be eligible to receive a Water Report in each of the cycles of reports per term, as specified by IRWD. Some accounts may receive fewer Water Reports due to a missed or incorrect reads, or a closing or opening of a new account with the Utility. As noted by IRWD, WaterSmart will disseminate reports once per month, giving the District the option to change the frequency if necessary.

Each cycle of reports can be sent in one or more shipment, with each shipment going to a subset of households. WaterSmart will ship Water Reports based on the schedule that the Utility transfers billing data to WaterSmart. For utilities that provide account-billing data to WaterSmart on a rolling basis (with billing data for a subset of accounts transferred each day or each week), WaterSmart will send out shipments for each cycle on a weekly basis. For utilities that provide

account-billing data to WaterSmart once per billing period, WaterSmart will send each cycle of Water Reports in a single shipment.

The schedule of these shipments is given below:

**Table 1: Schedule of HWR Shipments**

<b>Utility Transfers Billing Data to WaterSmart:</b>	<b>WaterSmart Sends Shipments of each HWR cycle:</b>
<b>Daily</b>	<b>Weekly</b>
<b>Weekly</b>	<b>Weekly</b>
<b>Monthly</b>	<b>Monthly</b>
<b>Bi-Monthly</b>	<b>Bi-Monthly</b>

**Reports:**

*Water use consumption should be displayed in billing units and gallons*

WaterSmart displays customer water use, in gallons per day. This information will be displayed as a key element of the Water Report. Billing units (CCF in the case of IRWD) also are displayed in the Water Reports and on the portal.

*Water use comparisons to customer allocations, consumption levels, peer group, water use history, or other parameter as defined by IRWD*

WaterSmart will create cohort groups of similar residences in order to maximize the relevance of water use comparisons and potential water savings. Cohort groups may include the following variables:

- Number of occupants per home (based on user-generated information and real-estate based estimates);

- Irrigable area (e.g. small, medium, large, etc.) to be determined based on home size and lot size information contained in real estate data obtained by WaterSmart, or optionally, provided by Utility if it already possesses such information
- Residence location (e.g. city, zip code, etc.) for utilities which span large areas

***Include social norming tools and messaging***

WaterSmart uses behavioral science to influence how people think about, and use water.

WaterSmart has discovered that the most effective approach to drive persistent behavior change is the use of descriptive norms. By comparing water consumption patterns to similar households, people become more efficient to adjust to what is perceived as normal. Using descriptive norms may cause individuals who consume less water than the norm to start using more. Injunctive norms counteract this effect by showing efficient homes that they are doing a great job, and should keep up the good work.

***Future water use projections/goals based on past water use or other parameters as defined by IRWD***

Water Reports messages and the portal currently display water use goals based on a comparison to 2013 usage. Annual water use projections based on year-to-date use also are available.

***Information, multimedia content, and links to water use efficiency programs and rebates, and other outreach programs***

IRWD will have the opportunity at the start of the program to provide WaterSmart with information on available rebates and incentives that should be flagged within relevant water saving recommendations.

***Personalized water savings recommendations based on the customer's household profile and consumption history***

WaterSmart is able to provide water-saving recommendations that are based on consumption data, use patterns, past participation in conservation programs and more through the Customer Portal, Mobile Portal, and Water Reports. These recommendations include information on available rebates for a given action, and show how much water and money can be saved by taking an action based on the customer's water use and their utility's rates (Appendix A, Figure 10).

***Weather overlay to display evapotranspiration data, temperature and rainfall from local weather stations visible as graphs***

WaterSmart currently ingests evapotranspiration data, temperature and rainfall from local weather stations, but does not display that information to end-users. The data will be primarily used to generate weather alerts (expected release Q4 2016), but could also be displayed to end users on hourly consumption (AMI) graphs. There are no immediate plans to overlay this data on monthly use graphs.

WaterSmart understands that this information may help the customers understand if their water use is appropriate given seasonal conditions. Given that the customers' allocations provide the extra step of interpreting this data and translating it into a volume of efficient water use, we suggest that a better tool might be to use the Group Messenger functionality or targeted messages in the Water Reports.

For example, we could highlight Group Messenger recipients based on whether they were over their IRWD allocations in the most recent billing period; or we could target Water Report recipients who had been over their allocation in the same period last year. Messages could indicate that the customer had exceeded their location because they had exceeded the efficient water use needed for their property, based on temperature, rainfall and overall evapotranspiration data. In addition, for the 8% to 10% of commercial customers (449/5802 in the latest period) who

exceed their allocations, messaging could be tailored to their use cases, where exceeding the allocation might not be tied to weather, but to business conditions or structural changes which occurred after the base allocation was assigned.

***Contain graphs to visually communicate usage patterns and habits***

Visually appealing graphs allow customers to view their usage patterns and habits in the Customer Portal (Appendix A, Figure 5).

***Provide customers with the option to receive reports by mail or email***

WaterSmart can send out targeted, personalized and actionable print or electronic communications, based on the customers preference.

***Ability for customers to export data***

Currently, customers have the capability to download data from the Customer Portal.

***Emailed reports must be in a mobile friendly format***

WaterSmart Water Reports are available to customers through a mobile and web interface.

***Top over allocation water usage consumers per billing period and other reports***

IRWD staff have the option to review reports in the Utility Dashboard.

***Capability to produce field reports***

All of WaterSmart's reports from the Utility Dashboard are accessible through tablets and mobile phones and can be used while in the field to produce field reports.

***Information on the web portal shall be updated and available to customers as soon as data is provided by IRWD***

WaterSmart will update information as soon as it is provided by IRWD. Customers will then have immediate access to the information.

***All reports shall include input from IRWD and meet IRWD's approval***

The Project Manager will work with IRWD to coordinate all elements and content customization of the report, meeting the approval from IRWD (Appendix A, Figure 3).

**Analytics:**

***Ability for IRWD to easily export data into excel or as a csv file***

Reports from the Utility Dashboard can be downloaded for analysis in an Excel CSV file

***Ability to create customer groups based on multiple user profile and account attributes (age of home, number of people in the home, and prior program participation).***

WaterSmart has access to the above-mentioned data and uses it to target specific messages and recommendations in the Water Reports. In addition, the new Group Messenger feature allows the utility to send a targeted message to a group of individuals who, for example, previously participated in a rebate program. At present, multiple attributes such as those listed above cannot be used to target Group Messenger messages. We look forward to developing the functionality further, based on feedback from IRWD and other utility partners.

***Ability to view every customer's web application and account***

IRWD staff using the Utility Dashboard can view any customer's profile page and their Customer Portal as the customer would see it (Appendix A, Figure 9).

***Ability to identify when customer makes changes to their profile***

IRWD staff will have the ability to view customer updates to their customer profile either through the Customer Portal or through one-click surveys, which are tracked and visible to District staff through the Utility Dashboard.

***Per site analysis (number of employees, residents, etc.)***

WaterSmart is currently able to retrieve this information through the Utility Dashboard, and will collect information from the surveys to build upon the current file.

***Tracking of customer requests and inquiries***

All customer communications including inbound calls and emails can be tracked in the Utility Dashboard.

***Program analytics with recommendations for program participation improvement***

WaterSmart is able to provide information regarding findings and recommendations as a part of the client services annual report.

***Customer survey quarterly and provide recommendations based on customer response***

WaterSmart provides recommendations on ways to conserve through the Customer Portal and Mobile Portal. These recommendations include information on available rebates for a given action, and show how much water and money can be saved by taking an action based on the customer's water use and their utility's rates. The Portal contains a Customer Profile that gathers baseline information on the customer's fixtures and habits. In addition, WaterSmart offers email "one-click" surveys to gather information on other questions of interest to the Utility.

***Routine summary of program statistics***

WaterSmart's Utility Dashboard engagement reports show statistics on customer use of the Customer Portal, engagement with other messages, and participation or interest in recommendation actions.

***Ability to quantify alerts sent and type of alerts sent***

This information is currently available through WaterSmart's Utility Dashboard alerts report.

***Ability to track active accounts, non-active accounts, registered users, non-reporting meters, negative reads, and active with zero water use***

WaterSmart can currently provide all of the above stated requests. More specifically, WaterSmart has toggles for active and non-active accounts in Dashboard Reports, can ingest and display negative reads and accounts that report zero water use (but are not deemed Inactive or disconnected). In addition, we are developing capabilities to identify missed meter reads by billing cycle or reading route.

***Ability to provide summary of statistics, which can include graphs to track non-revenue water, aggregate demand site sales and calculate non-revenue water trends***

WaterSmart currently tracks consumption numbers, rather than production volumes. Non-revenue water (as apparent loss) can be addressed by using the Suspect Meter Reads report to locate faulty meters.

***Interactive map displaying residences***

WaterSmart's Utility Dashboard provides several maps, each displaying residences (Appendix A, Figure 12).

***Interactive map module with meters and data collection points***

WaterSmart does not currently offer data collection points.

***Ability to add identifiers to meter locations on interactive map module***

WaterSmart's Utility Dashboard allows the user to view specific neighborhood/meters, or click on the individual account, which brings them to that account's profile page.

WaterSmart will import meter badge id values provided by IRWD and have these meter identifiers be searchable via the search bar in the Utility Analytics Dashboard. The resulting Customer Details will display service address and property location on a map. Each meter badge id will be associated with the customer account number.

***Interactive geographical display of rebate participation with the ability to track program participation with filtering capability***

WaterSmart is currently able to aggregate this data in terms of consumption.

***Provide an interactive map-based element in web portal with analytical functionality***

WaterSmart's Utility Dashboard provides several interactive maps (Appendix A, Figure 12).

**TASK 3: STAFF TRAINING**

***WaterSmart Software's commitment to training IRWD staff***

WaterSmart will assign a dedicated Project Manager to work with IRWD staff throughout the project. The Project Manager will oversee all elements of initialization and customization and be the primary contact for all questions throughout the program.

After all initial customer data has been received and program content is finalized, the WaterSmart Project Manager will conduct an on-site training session or training sessions for IRWD employees. The training will be held prior to sending Customer Letters so that staff is ready to respond to incoming calls. WaterSmart recommends IRWD include all staff who will handle inquiries about the program and staff who will be using the analytic tools. Sessions are generally 90 minutes in length for employees who need an in-depth knowledge of the tools and customer-facing materials, and WaterSmart is happy to provide multiple training sessions to accommodate the schedules of IRWD staff. In addition, WaterSmart typically provides additional in-person training

sessions once a year during the continuation of the project to refresh current employees with the program and train new employees.

WaterSmart can alternatively offer a “train-the-trainer” model training in which WaterSmart staff train IRWD staff to conduct ongoing training for their IRWD colleagues throughout the year.

WaterSmart has successfully used this approach with other large water utilities.

To further assist in answering any questions throughout the program, WaterSmart offers a Utility Dashboard feature that allows IRWD staff to communicate and engage actively with the entire Client Services team, for a more high-level response of customer and product support in-app and through email. IRWD staff can use the Intercom feature to ask questions, provide feedback and receive response from members of the WaterSmart team.

#### **TASK 4: PROGRAM MANAGEMENT**

##### ***WaterSmart Software’s program management commitment to IRWD***

WaterSmart is committed to IRWD’s success – through this program, and in all your goals. We pride ourselves on our timely, effective, and friendly support throughout the process. We regularly meet with customers to tune the software configuration, set goals, track progress, and measure results. Customer success is the most important measure for us.

WaterSmart will assign a dedicated Project Manager to work with IRWD staff over the course of the relationship. The Project Manager will oversee all elements of initialization and customization and be the primary contact for all questions throughout the program, and ensure that the program is in adherence with the allotted budget. The Project Manager will work with IRWD to set-up an initial project kick off meeting, and then will coordinate all elements of data transfer and content customization and approvals. After all initial customer data has been received and the Customer Portal configuration is finalized, the WaterSmart Project Manager will conduct in

person training sessions for IRWD employees. After program launch the WaterSmart Program Manager will hold regular check-ins, gathering feedback and answering any questions, and ensure success throughout. In addition, the Program Manager will provide several more formal presentations for key IRWD staff, including a review of information collected in the Customer Survey, initial results, and final results of the pilot project.

WaterSmart services include telephone and email support, as well as periodic in-person meetings. To further assist in answering any questions, WaterSmart offers a Utility Dashboard communication service powered by Intercom that allows District Staff to communicate and engage actively with the entire Client Services team in real-time, for a more high-level response of customer and product support. District Staff can use the Intercom feature to ask questions and provide feedback, and can expect to receive a real-time response from members of the WaterSmart team.

Nothing is more important to us than the success and satisfaction of our customers. Our Client Services team is known for their efficient, effective, and friendly service, and we do everything we can to make sure the project meets the unique needs of each utility customer.

#### **PROGRAM QUALITY ASSURANCE**

Measurement and verification is a core element of the WaterSmart program, allowing us to quantitatively assess the impact of the program independent of other factors at the Utility or regional level that may impact consumption and customer satisfaction.

WaterSmart reports changes in consumption for the experimental group versus a randomized control group selected from the population of eligible residential Water Report recipient households. The treatment group receives Water Reports and has access to the Customer Portal, while the control group (typically 2,500 –5,000 customers) does not. After three Water Reports have been sent,

WaterSmart will prepare an efficiency study that details the change in water usage over time for the treatment versus control group, and load those results into the utility dashboard. This is performed with a Fixed-Effects regression model using the consumption data for each household in the experimental and control groups. Discrete period savings coefficients are output from the model for every month in the evaluation period. Savings are then applied on a monthly basis using the control group mean GPD for the post-period, and the percentages savings for that period. Results are visible in percentage terms and Acre Feet on a monthly basis at both the discrete and cumulative levels for the entire recipient group. The efficiency study report will include percentage savings, GPD savings, and Acre Foot savings at the program level for each month after the first complete Water Report cycle.

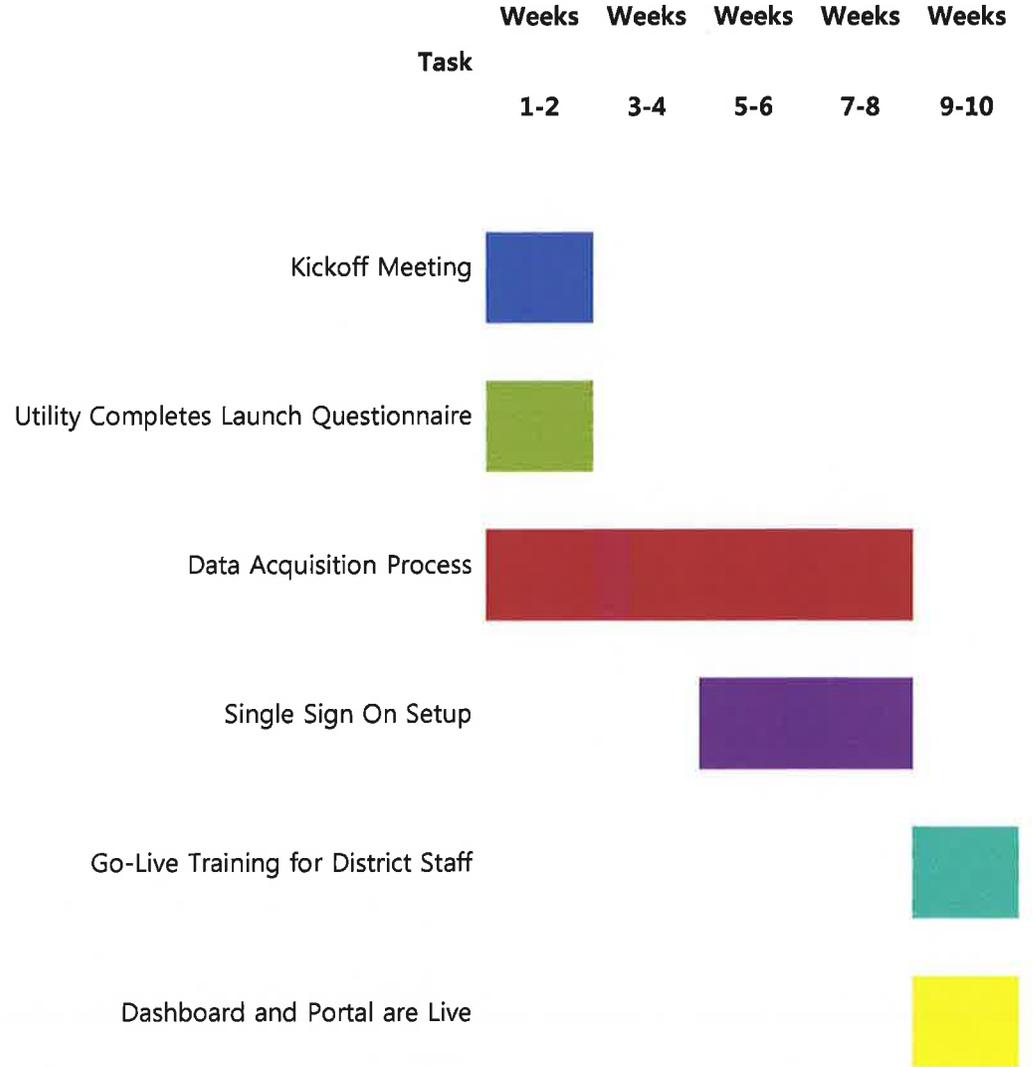
WaterSmart would be pleased to work with IRWD and a third party on the verification of the results of the program. In addition to providing all necessary information to the third party verifier of IRWD's choice, WaterSmart would be happy to recommend possible third party verifiers or help prepare materials to apply for outside funding to cover the costs of the third party verification study.

# SCHEDULE

WaterSmart Software has established consistent ability to complete tasks within the allotted time frame. WaterSmart has carefully considered our planned workload and has no concerns about being able to serve IRWD in an efficient and effective manner during the timeline specified. Below is the proposed schedule to initialize and launch the program.

## LAUNCH SCHEDULE

### UTILITY DASHBOARD, CUSTOMER PORTAL, ALERTS AND NOTIFICATIONS



## BUDGET

WaterSmart is pleased to offer the following pricing options to IRWD, based on our understanding of District engagement needs. We invite the District to engage with WaterSmart to further refine the selected option, to balance IRWD's outreach goals with financial preferences. As this is primarily a Software-as-a-Service solution, the budget is provided as an annual program fee rather than an hourly fee.

All options include the core WaterSmart Platform: Utility Dashboard and Portal, mobile access, My Use Notifications and Group Messenger, optional leak alerts and on-site training. Note that the core Platform includes access for all 110,000 IRWD customers, across all meter classes.

Option 1 matches the number of participants who were enrolled in 2014-2015, and includes the robust set of functionality available in today's WaterSmart platform. This option includes:

- Monthly Home Water Reports pushed out automatically to 12,000 targeted single-family residential accounts
- A Customer Letter welcoming the subset of households that are new to the program
- Additional monthly Home Water Reports emailed to all other single-family residential customers who choose to opt-in, up to a total of 77,000 additional reports per month, for a grand total of up to 89,000 monthly reports.

Option 2 matches the number of participants who were enrolled in 2015-2016, and includes the robust set of functionality available in today's WaterSmart platform. This option includes:

- Monthly Home Water Reports pushed out automatically to 23,000 targeted single-family residential accounts
- A Customer Letter welcoming households that are new to the program.

- Configurable commercial account survey.
- Additional monthly Home Water Reports emailed to all other single-family residential customers who choose to opt-in, up to a total of 66,000 additional reports per month, for a grand total of up to 89,000 monthly reports.

The Program Design for Option 3 incorporates elements of prior IRWD/WaterSmart programs as well as elements which have been helpful in meeting the goals of other utility partners. This option includes:

- A one-time, personalized Customer Letter welcoming all IRWD accounts, inviting them to take advantage of portal functionality and notifications.
- Monthly Home Water Reports pushed out automatically to 7,970 single-family residential accounts which have been over their allocation by at least 5 CCF for at least 3 of the last twelve months.
- Monthly Water Reports pushed out automatically to 4,750 non-single-family residential accounts which have been over their allocation by more than an average of 30% for at least 3 of the last twelve months.
- Monthly Water Reports pushed out automatically to accounts which are new to the District, for the first six months. Accounts will be enrolled on a rolling basis. Water Report content may feature online bill pay pointers, IRWD program notifications, home maintenance information, irrigation guidance and other information helpful for first-time District residents/ account holders. This is estimated to be 12,300 accounts per year.
- Configurable commercial account survey.
- Additional monthly Water Reports emailed to all other IRWD customers who choose to opt-in, up to a total of 84,980 additional monthly reports, for a grand total of up to 110,000 monthly reports.

Prices are valid for 60 days after proposal is issued.

Based on the needs of your program, we propose the following multi-year pricing.

Option 1	Cost
Year 1: Program fee	\$93,700
Year 2: Program fee	\$86,900
Optional Years 3-5: Program fee per year	\$86,900
<b>3-Year Contract Price, per year:</b>	<b>\$78,210</b>

Option 2	Cost
Year 1: Program fee	\$181,400
Year 2: Program fee	\$168,800
Optional Years 3-5: Program fee per year	\$168,800
<b>3-Year Contract Price, per year:</b>	<b>\$151,920</b>

Option 3	Cost
Year 1: Program fee	\$234,100
Year 2: Program fee	\$154,900
Optional Years 3-5: Program fee per year	\$154,900
<b>3-Year Contract Price, per year:</b>	<b>\$163,170</b>

**WATER REPORT UNIT PRICING:**

If additional quantities of print or email water reports or other communications are desired, please use this unit pricing to adjust the options above – for the number of reports which are automatically pushed out each month, regardless of whether the household has opted in:

Print reports: \$0.68 per report

Email reports: \$0.12 per report

Please note that unit pricing, just like the price of water, incorporates the infrastructure required to develop the report and its content, in addition to the material and postage cost.



TOTAL PROJECT BUDGET, OPTION 3

**Option 3 Description:**

All options include the core WaterSmart Platform: Utility Dashboard and Portal, mobile access, My Use Notifications and Group Messenger, optional leak alerts and on-site training. Note that the core Platform includes access for all 110,000 IRWD customers, across all meter classes.

The Program Design for Option 3 incorporates elements of prior IRWD/WaterSmart programs as well as elements which have been helpful in meeting the goals of other utility partners. This option includes:

- A one-time, personalized Customer Letter welcoming all IRWD accounts, inviting them to take advantage of portal functionality and notifications.
- Monthly Home Water Reports pushed out automatically to 7,970 single-family residential accounts which have been over their allocation by at least 5 CCF for at least 3 of the last twelve months.
- Monthly Water Reports pushed out automatically to 4,750 non-single-family residential accounts which have been over their allocation by more than an average of 30% for at least 3 of the last twelve months.
- Monthly Water Reports pushed out automatically to accounts which are new to the District, for the first six months. Accounts will be enrolled on a rolling basis. Water Report content may feature online bill pay pointers, IRWD program notifications, home maintenance information, irrigation guidance and other information helpful for first-time District residents/ account holders. This is estimated to be 12,300 accounts per year.
- Configurable commercial account survey.
- Additional monthly Water Reports emailed to all other IRWD customers who choose to opt-in, up to a total of 84,980 additional monthly reports, for a grand total of up to 110,000 monthly reports.

**Total Cost**

Year 1 Program fee	\$234,100
Year 2 Program fee	\$154,900
Optional Years 3-5 Program fee per year	\$154,900
3-Year Contract Price, per year	\$163,170

TASK	Year 1	Year 2	3-Year Contract, Per Year Price, Years 1-3 10% Discount
1. Program Design (design & configuration, annual refresh)	\$14,700.00	\$4,150.00	\$6,900.00
2. Program Implementation (test, deploy, stabilize & manage)	\$5,375.00	\$3,000.00	\$3,412.50
3. Staff Training	\$3,000.00	\$3,000.00	\$2,700.00
4. Program Management	\$64,500.00	\$64,500.00	\$58,050.00
5. Remaining* Software License Cost / Annual Program Fee. Includes all pushed print and email communications in the quantities specified in Option 3	\$146,525.00	\$80,250.00	\$92,107.50
<b>TOTAL of ABOVE</b>	<b>\$234,100</b>	<b>\$154,900</b>	<b>\$163,170</b>
6. <i>Additional for SMS Text</i>	n/a	n/a	n/a
7. <i>Additional for each Paper Report including Postage</i>	\$0.68 per report	\$0.68 per report	\$0.68 per report
8. <i>Additional for each Email Report</i>	\$0.12 per report	\$0.12 per report	\$0.12 per report

\* Note: The costs per tasks are provided at the request of IRWD. Please note that WaterSmart does not sell these services separately – all of the above are included within the annual program fee. The three-year contract price amortizes these expenses evenly over three years, although the Program Design and Implementation tasks are more intensive in Year 1.

Roles	Hours per Month	Task	Value Added	Hourly Rate
Client Services Project Manager	20	Task 1: Program Design	Initial project setup (reviewing and optimizing program design based on current customer data.	\$125
Client Services Project Manager	20	Task 2. Program Implementation	Initial project setup (annual configuration changes and contractual work)	\$125
Client Services Project Manager	2	Task 3: Staff Training	Initial training for new staff, on site, as well as annual onsite refresh training. Ongoing training on specific new product features as deployed, tailored to IRWD use cases.	\$125
Client Services Project Manager	15	Task 4. Program Management	Ongoing monthly project management to ensure ongoing success of project: Includes meeting preparation and follow up; Content tailoring and targeting; Analysis and Evaluation and Iteration within Scope of Work. Recommendations based on best practices and current learnings. Water Report generation and ongoing content modification.	\$125
Other Client Services Staff	3	Task 2. Program Implementation	Initial Quality Assurance, for launch to new customer sets	\$125
Other Client Services Staff	3	Task 4. Program Management	Ongoing: Customer Support, additional quality assurance as needed	\$125
Engineering staff	10	Task 1: Program Design	Initial project setup (annual refresh / program design modifications)	\$250
Engineering staff	10	Task 2. Program Implementation	Initial project setup (annual refresh / program design modifications)	\$250
Engineering staff	10	Task 4. Program Management	Ongoing data enhancements, data analysis, utility-specific questions	\$250
Data Science	7	Task 1: Program Design	Initial Review of recipient groups, design for measurable outcomes	\$250

Roles	Hours per Month	Task	Value Added	Hourly Rate
			and to achieve success metrics	
Data Science	2	Task 4. Program Management	Ongoing measurement of outcomes	\$250
Sales	10	Task 2. Program Implementation	Initial Contractual work	n/c
Product Management	4	Task 1: Program Design	Ongoing Product development and enhancement, incorporating IRWD feedback	\$150
Operations Team	1	Task 4. Program Management	Ongoing billing/administrative costs	\$125

**WATER REPORT UNIT PRICING:**

If additional quantities of print or email water reports or other communications are desired, please use this unit pricing to adjust the options above – for the number of reports which are automatically pushed out each month, regardless of whether the household has opted in: Print reports: \$0.68 per report  
 Email reports: \$0.12 per report

# APPENDIX A: WATERSMART SCREENSHOTS

Figure 1: Sample Customer Letter



WaterInsight Program  
15600 Sand Canyon Ave  
Irvine, CA 92618

SERVICE ADDRESS: [REDACTED]  
ACCOUNT NUMBER: [REDACTED]

TAKE THE SURVEY  
[irwd.waterinsight.com/survey](http://irwd.waterinsight.com/survey)

949.453.5581 | [aws@irwd.com](mailto:aws@irwd.com)



<RecipientID>irwd-1</RecipientID>

Dear Geoff,

The Irvine Ranch Water District is excited to introduce you to the WaterInsight Program. This free service is part of our commitment to provide you with the best tools to manage your water use and your bill. I encourage you to get started today by completing the water-use survey.

Sincerely,

Fiona Sanchez  
Director of Water Resources

## TAKE THE SURVEY

[irwd.waterinsight.com/survey](http://irwd.waterinsight.com/survey)

We estimate that your household includes

**5+ people**

Please complete the survey above to ensure your Home Water Report provides accurate comparisons and recommendations.

Finish by August 20 for a chance to win two \$50 gift cards—one for you and one for a friend.\*

\*Sponsored by our survey vendor.

## WHAT YOU'LL GET

You'll receive monthly Home Water Reports and access to the WaterInsight Web Portal.

- How you compare** See how your water use compares to similar homes.
- Ways to save** Get personalized, step-by-step actions.
- News and events** Stay up to date.

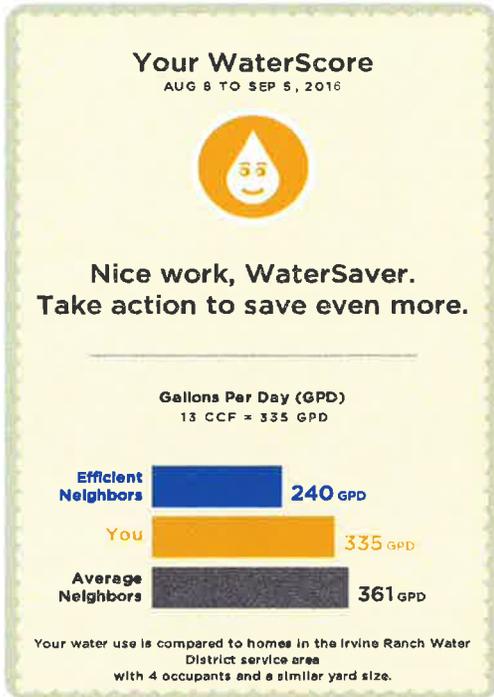


Figure 2: Sample Water Report (Residential)



WaterInsight Program  
15600 Sand Canyon Ave  
Irvine, CA 92618

949.453.5581    aws@irwd.com



## YOUR HOME WATER REPORT

THIS IS AN INFORMATIONAL REPORT AND NOT A BILL.

SERVICE ADDRESS: \_\_\_\_\_  
ACCOUNT NUMBER: \_\_\_\_\_

SIGN UP TO GET THIS REPORT VIA EMAIL:  
[irwd.waterinsight.com](mailto:irwd.waterinsight.com)

<ReclplantID>irwd-1</ReclplantID>

**Don't miss out!**  
**This may be your last mailed report.**

Join more than 10,000 of your IRWD neighbors and start getting your Home Water Reports via email. Choose to sign up today.

[irwd.waterinsight.com](http://irwd.waterinsight.com)

**Rightscape — as easy as 1, 2, 3**



1. The Right Plants
2. The Right Schedule
3. The Right Equipment

Rightscape makes water efficiency easy. Follow these steps to improve your outdoor water use.  
<http://irwd.com/rightscape>

## Water-saving actions just for you

Selected based on your household characteristics, yard size, and historical water use.

[Log on to update your profile\\*](#)

Potential annual savings if you:



## Log On

Take the guesswork out of saving water. See:

- Where you're using the most
- All actions relevant to you
- Step-by-step tips and rebates

[irwd.waterinsight.com](http://irwd.waterinsight.com)

Registration Code: \_\_\_\_\_  
Zip Code: 92603

A **free** service offered by your water utility and powered by WaterSmart Software®

\* UPDATES TO THE WATERINSIGHT WEBSITE WILL IMPROVE THIS REPORT, BUT WILL NOT AFFECT YOUR IRWD ALLOCATION.

Figure 3: Customized Areas in Water Reports setup during initialization

**Settings supplied by utility**

1. Utility logo
2. Utility address
3. Utility phone
4. Utility email, 25 char max
5. Program URL, 30 char max
6. Native units
7. Social media links

**Defaults can be updated by request, within the space limitations of the report**

- A. Program name
- B. 2 Registration keys

FROM: City Water  
SUBJECT: Water - Your Water Report

Water Report for  
**123 University Ave**  
This is an informational report and not a bill.  
BILL TO: PHONE: 415.306.6522 ON 07.2014  
ACCOUNT: 123073724-01

**1 City Water**

**5 Your Water Use**

**417** gallons per day  
**6**

Compare Your Past Use to the utility trend

**ii Your use compared to last year**  
You are using 20% less water than you did in the same lead-in period last year.

**iii Where is your water from?**  
1 Local groundwater

**Water-saving recommendations**  
Based on your property characteristics and historical water use. Log on to track your progress.

**Harvest rainwater**  
Install a rainwater catchment system and use the resulting water for irrigation.

**Use your hose efficiently**  
Don't water if it's hotter than 70°F, use a timer and keep water off of pavement.

**3 Contact us**  
415.306.6522  
cityofwatermart@watermart.com  
5 cityofwatermart.com

**7 Follow us**

**1 City Water**

**A** Watermart Program  
123 Main Street  
Anytown, USA

**2**

**3** 415.555.6555 **4** cityofwater.com

**5**

**6**

**WATER REPORT FOR CAFE PARISIAN**  
**123 UNIVERSITY AVE**

THIS IS AN INFORMATIONAL REPORT AND NOT A BILL.  
ACCOUNT NUMBER: 123073724-01

**GO PAPERLESS. SEE ALL INFO & PRODUCTS AT:**  
cityofwatermart.com

**Cafe Parisian**  
123 University Ave  
Anytown, USA

**Upgrades really work!**  
"I was skeptical about the new dishwasher, but I saw savings on my very next water bill. Even though we did 10K more business that month!"  
-Lisa P., restaurant owner.

**Relative use for August**  
Your use compared to other local restaurants.

**Water-saving recommendations**  
Selected based on your property characteristics and historical water use. Log on to track your progress.

**Log On**  
Track your water use at micro and macro levels, and access:  
- Seasonal trends  
- Downloadable history  
- Efficient products for purchase

**Potential annual savings if you:**

<b>Upgrade dishwasher</b>	<b>Replace pre-rinse spray valves</b>
240 GALLONS PER DAY	180 GALLONS PER DAY
\$342 IN SAVINGS PER YEAR	\$292 IN SAVINGS PER YEAR

**5** cityofwatermart.com  
**6** ACCOUNT: 123073724-01  
Zip Code: 00000

A free service offered by your water utility and powered by WaterSmart Software®

Figure 4: Customer Portal Home Page

**City Water** WaterSmart Program

Welcome, April  
My Account -  
Profile 41% complete. [Update](#)

Home Track Usage Real-Time Ways To Save My Actions

### Compare Your Use: April - June

Category	Usage (GPD)
You	477
Average Neighbors	167
Efficient Neighbors	114

Compared to homes with [similar water needs](#)  
[See more analysis >>](#)

### Recommended Water Saving Actions

Action	Water Saved (GPD)	Cost Savings (Year)
Choose low water-use plants	116	\$431/year
Water at Dawn or Dusk	24	\$90/year
Install Faucet Aerators	24	\$90/year

[See more actions >>](#)

Figure 5: Customer Portal Track Usage Page

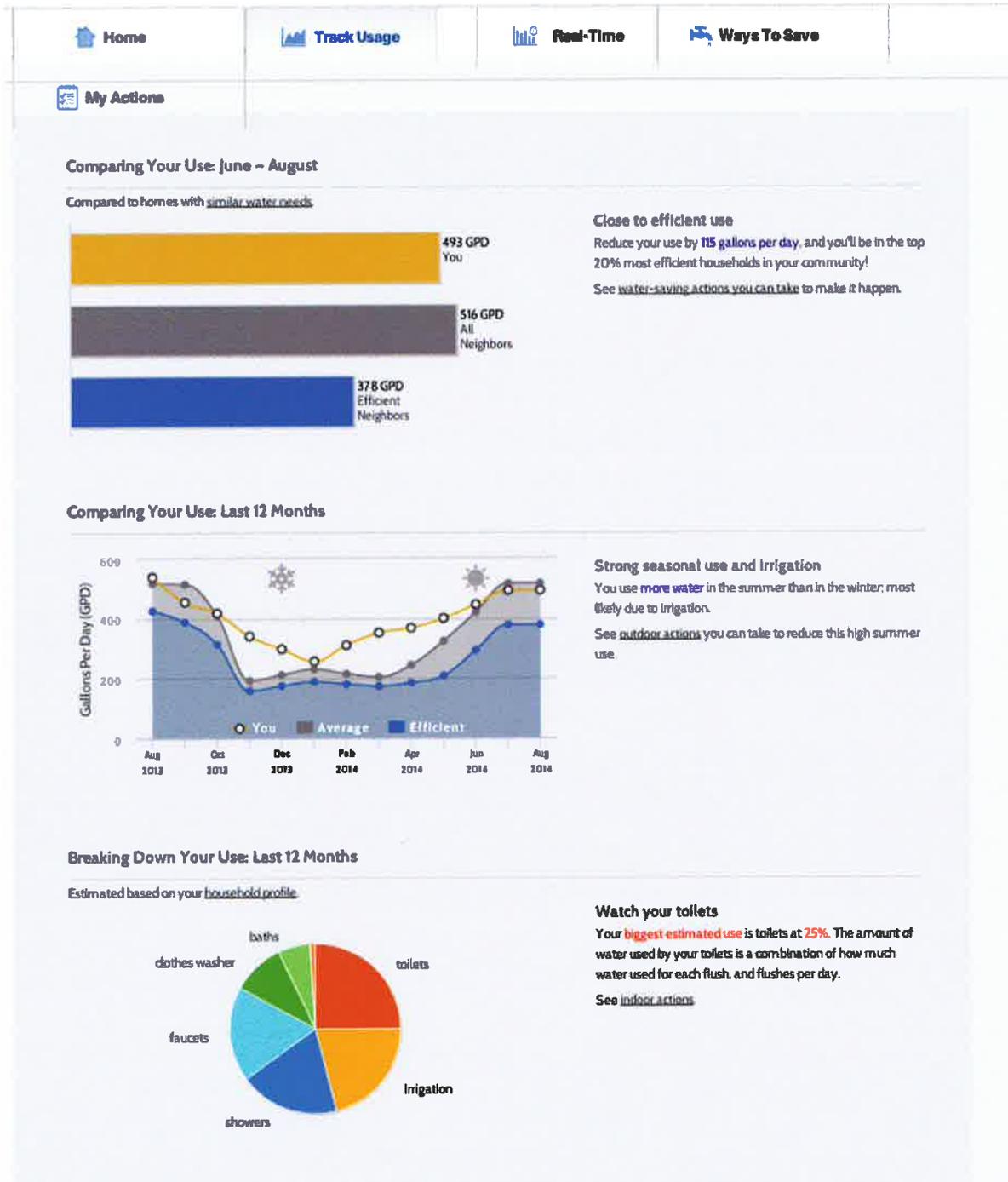


Figure 6: Customer Portal Mobile Web Application



Figure 7: Utility Dashboard Home Page

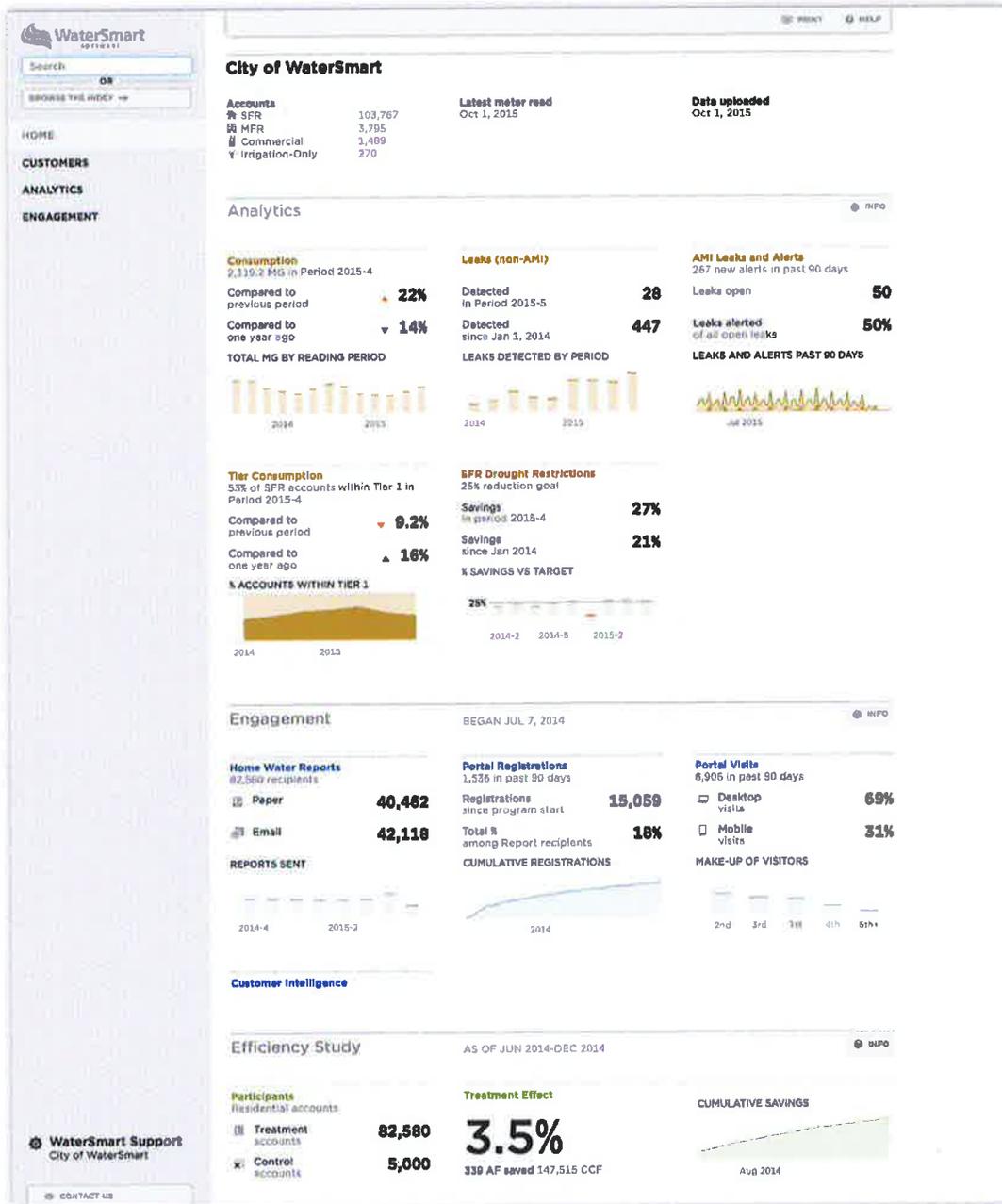


Figure 8: Utility Dashboard Report

Top SFR Consumers by Irrigable Area 100 results

The accounts consuming the most per square foot of irrigable area.

READING PERIOD: 2016-2  
 INCLUDE:  Suspect Data  Inactive Accounts

ACCOUNT	CCF	GPD	IRRIGABLE AREA	OPD PER SQUARE FOOT	LOT SIZE	POOL	MORE COLUMNS
Michael Kogut 6823 Priscile St 205793360207	27	336	100	3.37	2,500	No	
Shanna Schaeffers 1973 Johan Ave 309212367805	26	324	100	3.24	859	No	
Sherly Refsell 5691 Curtis Ln 303594821600	18	217	80	2.71	728	No	
Joseph Loukas 5889 Thora Ave 602313606905	41	511	200	2.56	1,045	No	
Camellia Vandermerk 7278 Birdie St 602077573603	18	224	100	2.24	1,714	No	
Nona Bonsal 4161 Danilo Ct 602398644204	55	663	300	2.21	3,500	No	
Walter Messman 5348 Jessie St 90559443602	35	436	200	2.18	975	No	
Jonah Pawluch 7104 Helena Ln	18	217	100	2.17	672	No	

Figure 9: Utility Dashboard Customer Profile Page

**April Showers**  
906910329601

5404 Daisey Ave  
WaterSmart, CA 99999



- SFR
- Subscribed to email Home Water Reports
- Subscribed to email Leak Alerts

Profile Highlights

SEE PROFILE

- Registered 3 months ago  
demo@watersmart.com
- This customer is compared to homes that have:
- 1 occupant
- 2,000 to 4,000 sq. ft. yard
- Inland
- Watering Days  
Tue, Thu, Sat
- Irrigator

Feb 13-Apr 15 (2015-2)

SEE REPORT

**277** GPD  
23 CCF Tier 2

15% this period last year  
19% last period



**Leak Alert Continuous** June 04 Started 7 GPH Rate 2,480 GAL Volume June 11 Alert sent by email Dismissed Response

Figure 10: Customized Ways to Conserve



Figure 11: Leak Alert



Figure 12: Interactive Map of Accounts

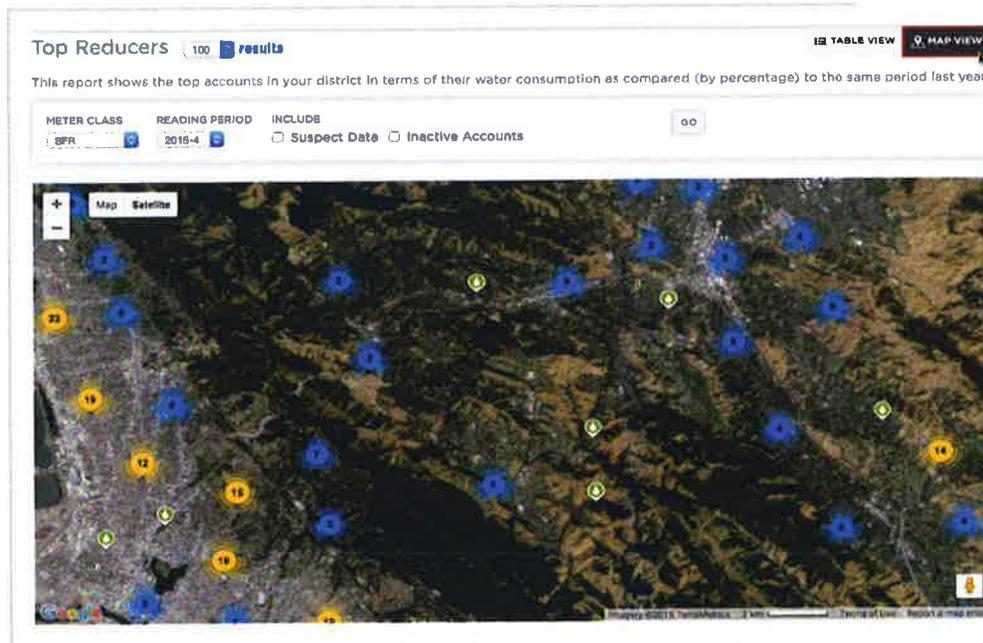
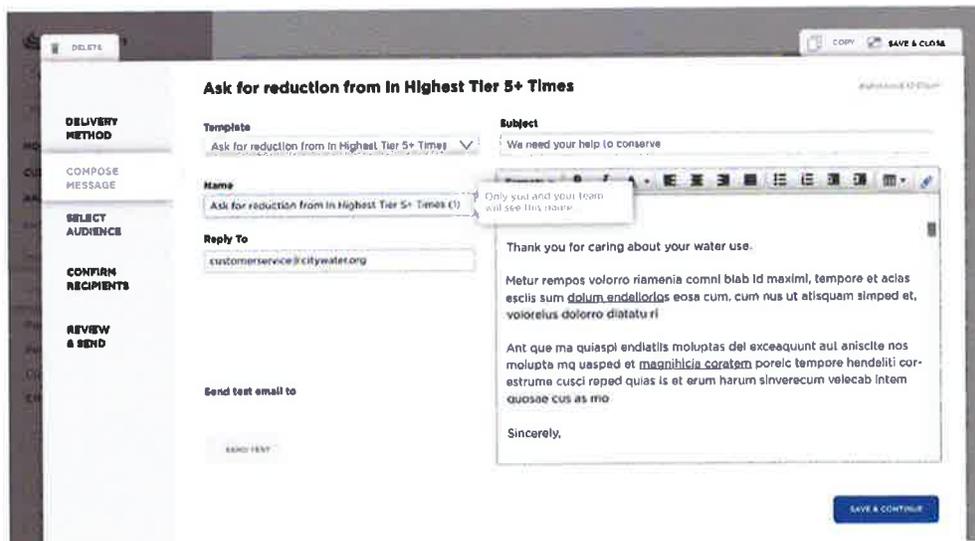


Figure 13: Group Messenger



## APPENDIX B: SUMMARY ALLOCATION DATA

### OVER ALLOCATION USAGE, BY METER CLASS

The following table was created using data from the WaterSmart Utility Dashboard, including the Consumption Module and the Allocations Module. Data is based on annual meter reading data through May 2016 and includes the latest adjustments to screen out inactive accounts.

<https://admin-irwd.watersmart.com/index.php/dashboard/DashboardAnalytics/consumption>

Meter Class	Total Accts	Annual Use (2015)	Annual Use Over Allocation	Accounts Over Alloc. 1x+	Accounts Over Alloc. 3x+	Accounts Over 3x+ and Over 5CCF+	20% of Accounts
<b>TOTAL</b>	<b>106,511</b>	<b>69K AF</b>	<b>4.4K AF</b>	<b>48,846</b>	<b>29,205</b>	<b>11,380</b>	<b>21,301</b>
SFR	90,311	22K AF	2.3K AF	41,331	24,882	7,655	18,062
Commercial	5,783	12K AF	0.5K AF	1,804	780	640	1,157
Irrig. (NP)	5,273	21K AF	0.7K AF	2,533	1,184	1,134	1,055
MFR	2,996	6K AF	0.6K AF	1,831	1,441	1,153	599
Irrig. (P)	1,799	4K AF	0.4K AF	1,221	857	745	360
Municipal	272	2K AF	0.03K AF	100	45	38	54
Commercial (NP)	71	0.3K AF	0.01K AF	25	16	15	14
Other	4	0K AF	-	1	-	-	-
Fire Sprinkler	2	0K AF	-	-	-	-	-

August 22, 2016

Prepared by: K. Welch

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

Approved by: Paul Cook *PC*

## ACTION CALENDAR

### TERMS TO ACQUIRE CAPACITY RIGHTS IN CROSS VALLEY CANAL RETURN PIPELINE

#### SUMMARY:

The Rosedale-Rio Bravo Water Storage District and IRWD are jointly developing the Stockdale Integrated Water Banking Project. The project includes construction of water banking recovery facilities on IRWD's Stockdale West property including a connection to Rosedale's Cross Valley Canal (CVC) Return Pipeline. Rosedale has concurred with IRWD pursuing capacity ownership in the pipeline in-lieu of paying use charges. Staff recommends that the Board approve the proposed terms to acquire capacity rights in Rosedale's CVC Return Pipeline in the amount of \$201,000 and authorize staff to work with Rosedale to develop and execute an agreement to purchase the in accordance with these terms.

#### BACKGROUND:

In 2010, IRWD purchased the Stockdale West property, located west of the Strand Ranch, for the purpose of expanding IRWD's water banking capacities. In 2015, Rosedale certified and IRWD approved the Stockdale Integrated Banking Project Final Environmental Impact Report (EIR). The EIR provides for IRWD's Stockdale West and Rosedale's Stockdale East properties to be developed to allow both agencies to utilize available storage in the Kern River Fan Area through the construction and operation of recharge and recovery facilities. The project will integrate the developed capacities and facilities into Rosedale's Conjunctive Use Program and will provide dry year water supply reliability for IRWD's customers.

#### Conveying Water to CVC:

In 2015, IRWD began the design of the Stockdale West Recovery Facilities. During the design process, it was determined that the preferred alternative for conveying water from the Stockdale West wells to the CVC was to connect to Rosedale's existing CVC Return Pipeline which has excess capacity. The CVC Return Pipeline is a 48-inch reinforced concrete pipe which Rosedale constructed to convey water to the CVC from its Enns wellfield and its proposed West Drought Relief Project wellfield. With a permitted capacity of 80 cubic feet per second (cfs) and design capacity of greater than 100 cfs, the Return Pipeline is sufficiently sized to accommodate flows from the three additional Stockdale West wells. The final design of IRWD's Stockdale West Turn-in Facility is shown in Exhibit "A".

Prior to construction of the CVC Return Pipeline, Rosedale offered IRWD the opportunity to pay for capacity in the facility for conveying water to the CVC from the Stockdale West wells. At that time, IRWD was considering utilizing Rosedale's adjacent Intake Channel for conveying water to the CVC. Subsequent hydraulic analysis showed that this alternative was constraining, and that tying into Rosedale's CVC Return Pipeline provided the most operational flexibility and effective cost.

Construction Schedule:

In March 2016, the Board authorized a construction contract with W. M. Lyles Company to construct the recovery facilities on Stockdale West including:

- Drilling and equipping of three wells;
- Constructing pipelines from the wells;
- Constructing a turn-out structure from the CVC; and
- Connecting the pipelines from the wells to Rosedale's CVC Return Pipeline.

Construction of the facilities began in April 2016. Construction of the connection to the CVC Return Pipeline is scheduled to begin in early September 2016.

Required License Agreement:

A license agreement for IRWD to connect into and use Rosedale's Return Pipeline is required. As consideration for the use of the CVC Return Pipeline, Rosedale proposed a *Use of Facility Fee* of \$8.93 per acre-feet (AF) for water that is delivered from IRWD's Stockdale West project to and through the CVC Return Pipeline. In lieu of an ongoing per AF use fee, staff has proposed that IRWD acquire capacity rights for its proportionate use of the CVC Return Pipeline. Rosedale has concurred with the approach.

In order to avoid a delay in construction, Rosedale has agreed to proceed with a license agreement for connection to and use of the Return Pipeline without an associated *Use of Facility Fee*. A separate agreement will be developed and executed for IRWD to acquire capacity rights in the facility through payment of a proportional share of Rosedale's costs of the CVC Return Pipeline. The license agreement is subject to IRWD and Rosedale entering into a separate agreement for IRWD's payment for reserved capacity.

Cost of Capacity:

Rosedale's stated engineering and construction costs associated with the CVC Return Pipeline was approximately \$603,000. With IRWD's three Stockdale West wells connected to the CVC Return Pipeline, there will be a total of nine wells discharging to the CVC through the facility. Staff proposes that IRWD acquire rights to one-third of the 80 cfs permitted capacity (27 cfs) and one-third of the unpermitted design capacity for one-third of Rosedale's capital costs, or \$201,000.

For comparison purposes, staff asked engineers at Dee Jaspar & Associates to provide a cost estimate to construct a stand-alone turn-in facility dedicated to IRWD's three Stockdale West wells. The stand-alone turn-in facility was estimated to cost between \$180,000 and \$350,000 depending on the design. Constructing a stand-alone turn-in would cause significant delay in construction of the project. Staff believes that the \$201,000 cost for one-third of the capacity in the CVC Return Pipeline is reasonable and that the capacity purchase should be pursued.

Terms to Acquire Capacity Rights:

Staff has prepared draft terms to acquire capacity rights in Rosedale’s CVC Return Pipeline as shown in Exhibit “B”. The terms include IRWD receiving first priority rights to one-third of the permitted and unpermitted capacity in the CVC Return Pipeline for its conveyance of water from Stockdale West recovery wells and future approved IRWD projects. These draft terms have been reviewed with Rosedale staff. Staff recommends that the Committee approve the draft terms and authorize staff to work with Rosedale and respective legal counsels to prepare an agreement to facilitate the capacity purchase.

FISCAL IMPACTS:

Project 3766 which includes the construction of the Stockdale West Recovery Facilities is included in the FY 2016-17 Capital Budget. Sufficient funds exist to acquire capacity rights in Rosedale’s Return Pipeline in the amount of \$201,000.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA). In compliance with CEQA, the California Public Resources Code Section 21000 et. seq., and per the California CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3, Rosedale as lead agency, filed a Notice of Determination with the County of Kern on December 8, 2015, and with the CA State Clearinghouse on December 9, 2015 for the Stockdale Integrated Banking Project Final Environmental Impact Report. IRWD, as a Responsible Agency, filed a Notice of Determination with the County of Orange on December 14, 2015, with the California State Clearinghouse on December 15, 2015, and with the County of Kern on December 21, 2015.

COMMITTEE STATUS:

This item was reviewed on August 18, 2016 with the Supply Reliability Programs Committee.

RECOMMENDATION:

**THAT THE BOARD APPROVE THE PROPOSED TERMS TO ACQUIRE CAPACITY RIGHTS IN ROSEDALE-RIO BRAVO STORAGE DISTRICT’S CROSS VALLEY CANAL RETURN PIPELINE IN THE AMOUNT OF \$201,000 AND AUTHORIZE STAFF TO WORK WITH ROSEDALE TO DEVELOP AND EXECUTE AN AGREEMENT TO PURCHASE THE CAPACITY RIGHTS IN ACCORDANCE WITH THESE TERMS.**

LIST OF EXHIBITS:

- Exhibit “A” – Stockdale West Turn-in Final Design
- Exhibit “B” – Proposed Terms to Acquire Capacity Rights in Rosedale’s Cross Valley Canal Facility



## EXHIBIT “B”

Draft  
Terms for Agreement Between  
Irvine Ranch Water District and  
Rosedale-Rio Bravo Water Storage Water District for  
Capacity Purchase in CVC Return Pipeline Facility  
August 15, 2015

- Description:** Irvine Ranch Water District (IRWD) and Rosedale-Rio Bravo Water Storage Water District (Rosedale) seek to enter into an agreement to provide for the payment by IRWD of a proportional share of Rosedale’s capital cost of design and construction of its Cross Valley Canal Return Pipeline Facility (Return Pipeline) attributable to the capacity in the Return Pipeline that will be allocated to IRWD for use with IRWD’s wells on its Stockdale West property and future approved IRWD projects.
- Term:** The term of the agreement shall run concurrently with the term of the agreement between IRWD and Rosedale titled – *Agreement – Rosedale-Rio Bravo Water Storage District and Irvine Ranch Water District for a Water Banking, Recovery and Exchange Program (Stockdale West and Stockdale East Properties)*, and any mutually agreeable extensions, with an effective date of February 4, 2016 (Water Banking Agreement).
- Agreement for Capacity Purchase:** IRWD’s payment for a proportionate share of Rosedale’s capital costs of the Return Pipeline and its first priority rights to use in the Return Pipeline will be established by separate capacity purchase agreement, amendment to the Water Banking Agreement or other form to be determined by IRWD and Rosedale
- Payment:** As payment for a proportional share of Rosedale’s capital cost of the Return Pipeline, IRWD shall pay to Rosedale one-third of Rosedale’s capital cost in the amount \$201,000.
- Priority and Rights of Use:** As consideration for payment of a proportional share of the Return Pipeline, IRWD shall receive first priority to the use of one-third of the Return Pipeline permitted capacity (27 cfs) and one-third of the unpermitted capacity for IRWD’s use in conveying water from IRWD’s Stockdale West return facilities and future approved IRWD projects.