

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

January 22, 2018

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 three minutes per speaker on each subject. Consent Calendar items will be acted upon by one motion, without discussion, unless a request is made for specific items to be removed from the Calendar for separate action.

COMMUNICATIONS TO THE BOARD

1. A. Written:

B. Oral:

2. ITEMS RECEIVED TOO LATE TO BE AGENDIZED

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

PRESENTATIONS

Resolution No. 2018-1

3. RESOLUTION COMMENDING SEAN JOYCE FOR HIS YEARS OF DEDICATED SERVICE TO THE CITY OF IRVINE

Reso. No. 2018-1

Recommendation: Adopt a resolution commending Sean Joyce for his years of dedicated service to the City of Irvine.

4. RESOLUTION COMMENDING MIKE JACK FOR HIS SERVICE TO THE DISTRICT

Reso. No. 2018-2

Recommendation: Adopt a resolution commending Mikel Jack for his dedicated and loyal service to the District.

CONSENT CALENDAR

Items 5 - 19

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

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

6. MINUTES OF REGULAR BOARD MEETINGS

Recommendation: That the minutes of the December 11, 2017 Regular Board Meeting and the December 19, 2017 Adjourned Regular Board Meeting be approved as presented.

7. RATIFICATION OF MEMORANDUM RELATIVE TO THE OFFICERS OF THE BOARD, COMMITTEES AND OTHER ASSIGNMENTS

Recommendation: That the Board ratify the memorandum dated January 22, 2018 entitled Officers of the Board, Committees and Other Assignments; approve attendance for the Meetings and events for the Board's representation for calendar year 2018 as delineated, and adopt resolutions: 1) Rescinding a Resolution and revising the Assignment of Directors to Committees of the Board; 2) rescinding a resolution appointing member and Alternate member to SOCWA; and 3) rescinding a resolution appointing member and alternate member to the SAC.

Reso. No. 2018-
Reso. No. 2018-
Reso. No. 2018-

8. 2018 INDEX TENDER NOTES REMARKETING

Recommendation: That the Board approve the 2018 Index Tender Notes Remarketing Statement, and adopt a resolution approving the statement relating to unscheduled mandatory tenders (Refunding Series 2011-A and Refunding Series 2011A-2)

Reso. No. 2018-

9. PROPOSED 2018 INVESTMENT POLICY

Recommendation: That the Board approve the 2018 Investment Policy and Authorize the Treasurer and Assistant Treasurers to invest and reinvest funds Of the District and of each of its Improvement Districts and to sell and exchange securities.

Reso. No. 2018-

10. ZONE 1 RESERVOIR DESIGN VARIANCE

Recommendation: That the Board authorize the General Manager to execute Variance No. 1, in the amount of \$130,400, with Tetra Tech for additional Engineering Services for the 3.7 Mg Zone 1 Reservoir, Project 06401.

CONSENT CALENDAR – Continued

Items 5-19

11. 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 \$118,077 for Project 06823; approve Contract Change Order No. 5 in the amount of \$106,360 for Project 06018; approve Contract Change Order No. 6 in the amount of \$107,674 for Project 06018; approve Contract Change Order No. 1 in the amount of \$374,922 for Projects 06086 and 06087; and authorize budget increases for Project 06086 in the amount of \$200,000, from \$238,700 to \$438,700, and Project 06018 in the amount of \$200,000, from \$261,600 to \$461,600.

12. PLANNING AREA 39 (LOS OLIVOS) PHASE 2 CAPITAL S IMPROVEMENTS

Recommendation: That the Board authorize a budget increase for Project 03735 in the amount of \$243,400, from \$226,600 to \$470,000; authorize the General Manager to execute a Supplemental Reimbursement Agreement with Irvine Community Development Company (ICDC) for the design and construction of recycled water improvements in Planning Area 39 Phase 2; and authorize the General Manager to accept ICDC's construction contract with Shoffeitt Pipeline, Inc. in the amount of \$270,185 for the Planning Area 39 (Los Olivos) Phase 2 Capital Improvements.

13. 2018 LEGISLATIVE AND REGULATORY UPDATE

Recommendation: Receive and file.

14. REVOCAION OF UNNAMED SPRING WATER RIGHT

Recommendation: That the Board authorize the Board President to sign a Request for Revocation of Water Right Form for Water Right License 4413 and submit it to the State Water Resources Control Board.

15. VARIANCE NO. 6 TO SYNERGY COMPANIES AGREEMENT FOR WATER-ENERGY GRANT-RELATED CUSTOMER PROGRAMS

Recommendation: That the Board authorize the General Manager to execute Variance No. 6 to the Agreement for non-consultant services between IRWD and Synergy Companies in the amount of \$30,000 to be reimbursed through the California Department of Water Resources Water-Energy Grant.

CONSENT CALENDAR (Continued)

Items 5 - 19

16. DECEMBER 2017 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Summary of Fixed and Variable Rate Debt, the Monthly Interest Rate Swap Summary for December 2017, and Disclosure Report of Reimbursements to Board Members and staff; approve the December 2017 Summary of Payroll ACH Payments in the total amount of \$1,789,104 and approve the December 2017 Accounts Payable Disbursement Summary of Warrants 382442 through 383225 Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$18,542,051.

17. EASTWOOD RECYCLED WATER PUMP STATION FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Recommendation: That the Board find on the basis of the whole record before it (including the Initial Study/Mitigated Negative Declaration and the comments received), that there is no substantial evidence that the Eastwood Recycled Water Pump Station will have a significant effect on the environment and that the Mitigated Negative Declaration reflects IRWD's independent judgment and analysis; adopt the proposed Mitigated Negative Declaration for the Eastwood Recycled Water Pump Station and the associated mitigation monitoring and reporting program; approve the project; authorize staff to post and file a Notice of Determination; and submit payment for the California Department of Fish and Wildlife service filing fee.

18. PROPOSED 2018 GOALS AND TARGET ACTIVITIES REPORT

Recommendation: Approve the Goals and Target Activities Report for 2018.

19. DROUGHT RELIEF PROJECT UPDATE AND PROJECT COST ACCEPTANCE

Recommendation: That the Board authorize the General Manager to accept the District's remaining share of the drought relief project construction costs for the Central Intake Pipeline and Cross Valley Canal Turn-in Facility in the amount of \$2,953,243 to be paid to Rosedale-Rio Bravo Water Storage District consistent with the drought relief project cost sharing agreement.

ACTION CALENDAR

20. **PUBLIC OUTREACH CONSULTANT SELECTION FOR THE SYPHON RESERVOIR IMPROVEMENT PROJECT AWARD**

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with Fiona Hutton & Associates to develop and implement a public outreach program for the proposed Syphon Reservoir Improvement Project for a not-to-exceed amount of \$1,029,070.

21. **OWNER'S REPRESENTATIVE CONSULTANT SELECTION FOR THE SYPHON RESERVOIR IMPROVEMENTS**

Recommendation: That the Board approve an expenditure authorization in the amount of \$1,200,000; and authorize the General Manager to execute a Professional Services Agreement with HDR Engineering, in the amount of \$1,551,040, to provide engineering support services as the Owner's Representative for the Syphon Reservoir Improvements, Project 03808.

22. **REHABILITATION OF DYER ROAD WELLFIELD WELLS 2 AND 17 AND LIMITED REDEVELOPMENT OF WELL 52 CONSTRUCTION AWARD**

Recommendation: That The Board authorize the General Manager to execute a construction contract with Best Drilling and Pump, Inc. in the amount of \$967,760 for rehabilitation of Dyer Road Wellfield Wells 2 and 17 and limited redevelopment of Well 52, Projects 10097 And 07090.

23. **PROPOSED REVISIONS TO THE IRWD WATER CONSERVATION POLICY PRINCIPLES**

Recommendation: That the Board approve the Proposed Water Use Efficiency and Conservation Policy Principles Papers to supersede the Water Conservation Policy Principles and Recognition of Local Agency Investments in Water Conservation Policy Principles Papers.

24. **PROPOSED POLICY PRINCIPLES ON ORANGE COUNTY WATER RELIABILITY IMPROVEMENTS**

Recommendation: That the Board approve the revised Policy Principles Paper on the Orange County Water Reliability Improvements.

OTHER BUSINESS

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

25. A. General Manager's Report

B. Directors' Comments

C. Closed Session

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

2) PUBLIC EMPLOYEE PERFORMANCE EVALUATION- Pursuant to Government Code Section 54957(b).
Title: Legal Counsel

D. 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.

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25. A. General Manager's Report


B. Directors' Comments

C. Closed Session

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D. Adjourn.

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January 22, 2018
Prepared and
submitted by: C. Compton
Approved by: Paul A. Cook 

PRESENTATION

RESOLUTION COMMENDING SEAN JOYCE FOR HIS
YEARS OF DEDICATED SERVICE TO THE CITY OF IRVINE

SUMMARY:

City Manager Sean Joyce will be retiring in February following 14 years of dedicated service to the City of Irvine. Staff has prepared a resolution, provided as Exhibit "A", to recognize his service to the community.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2018 –

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
SEAN JOYCE FOR HIS YEARS OF DEDICATED SERVICE
TO THE CITY OF IRVINE

LIST OF EXHIBITS:

Exhibit "A" – Resolution

RESOLUTION NO. 2018-

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
SEAN JOYCE FOR HIS YEARS OF DEDICATED SERVICE TO THE CITY OF IRVINE

WHEREAS, Sean Joyce joined the City of Irvine in July 2004 with more than a decade of experience in city administration and will retire from the City in February 2018; and

WHEREAS, during his tenure as City Manager, he served with distinction and guided and implemented numerous initiatives that benefited Irvine's residents; and

WHEREAS, those contributions included but were not limited to being named the No. 1 major American city in 2017 in terms of fiscal strength; and

WHEREAS, he led the City through the Great Recession and by 2010-2011 guided the City to outperform its budget expectations, prompting the City Council to return \$11 million to its contingency reserve, since expanded to more than 20 percent of the annual budget; and

WHEREAS, Sean Joyce encouraged staff's development of a pension liability pay down plan and has been an ardent steward of the execution of the plan; the plan, which was adopted in June 2013 by the City Council, will achieve an estimated \$33 million in savings while ensuring retirement security for all City employees by paying down the City's unfunded pension liability; and

WHEREAS, under his leadership, the City received numerous accolades reflecting the "Best Run City" practices he implemented; this recognition included national recognition of the City's parks system; and

WHEREAS, Sean Joyce is a more than 30-year resident of the City of Irvine and has not only contributed to the Irvine community through his service as City Manager, but has given back to the community through his service to a variety of organizations; and

WHEREAS, his efforts to enhance the quality of life in the City of Irvine are of tremendous value and are truly appreciated by the people of the City of Irvine; and

NOW, THEREFORE, BE IT RESOLVED, the Board of Directors of the Irvine Ranch Water District wishes to commend and express its sincere appreciation to Sean Joyce for his exemplary leadership and outstanding service to his community during his nearly 14-year tenure with the City of Irvine. On this occasion, the Board extends its best wishes to Sean on his retirement.

SIGNED and APPROVED this 22nd day of January, 2018.

President, IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof

Secretary, IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof

January 22, 2018
Prepared by: K. Lew
Submitted by: K. Burton *(K.L.B.)*
Approved by: Paul A. Cook */P.A.C.*

PRESENTATION

RESOLUTION COMMENDING MIKE JACK
FOR HIS SERVICE TO THE DISTRICT

SUMMARY:

As Mr. Mike Jack has retired from the District following 33 years of dedicated and outstanding service, staff has prepared a resolution (provided as Exhibit "A") to honor him at the Board meeting.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2018 –

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
MIKE JACK FOR HIS DEDICATED AND
LOYAL SERVICE TO THE DISTRICT

LIST OF EXHIBITS:

Exhibit "A" – Resolution

EXHIBIT "A"

RESOLUTION NO. 2018-

**RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
MIKE JACK FOR HIS DEDICATED AND
LOYAL SERVICE TO THE DISTRICT**

WHEREAS, Mike began his career with the Irvine Ranch Water District (District) on March 5, 1984 as a Water Maintenance Worker I; was promoted to Water Maintenance Worker II in August 1986; to Water Maintenance Worker III in February 1987; to Construction Inspector I in July 1989; to Construction Inspector II in January 1991; and then promoted to Construction Inspection Manager in October 2000.

WHEREAS, Mike who is one of the longest tenured employees at the District, has provided the District with 33 years of dedicated, loyal, enthusiastic, and spirited service. He is also known for his ability to inspire, and work well with fellow employees; and

WHEREAS, in Mike's career he achieved several certifications including the California State Water Resources Control Board Grade II Distribution Operator Certificate; California State Water Resources Control Board Grade I Water Treatment Operator Certificate; and American Concrete Institute Grade I Concrete Field Testing Technician Certificate; and

WHEREAS, Mike has contributed tremendous added value input to design, construction, and successful project startups over the years for countless projects throughout the District including development in Foothill Ranch, Portola Hills, Lake Forest, Tustin Legacy, Shady Canyon, Quail Hill, Turtle Ridge, Laguna Altura, Hidden Canyon, Woodbury, Stonegate, Cypress Village, Eastwood, Orchard Hills, Portola Springs, Los Olivos, Spectrum, and the Great Park; and

WHEREAS, Mike served on the District's Technical Specification and Standard Drawings Committees, providing valuable input in the development of District standards based on his extensive construction experience; and

WHEREAS, Mike is recognized for leading the inspection group for 17 years, overseeing construction inspection of all Capital and Development projects and consistently enforcing District standards and ensuring high quality construction; and

WHEREAS, Mike has tirelessly dedicated his life and career to serve the best interests of the District and the community it serves; and

WHEREAS, all employees who know Mike will genuinely miss him; and

NOW, THEREFORE, BE IT RESOLVED, the Board of Directors of the Irvine Ranch Water District commends Mike for his long and loyal service, and his dedication which he has rendered to the District which stands as an example to all employees. On this occasion the Board extends the best wishes for Mike in his retirement.

SIGNED and APPROVED this 22nd day of January 2018.


President, IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof

Secretary, IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof

January 22, 2018

Prepared and

Submitted by: K. Swan

Approved by: P. Cook 

CONSENT CALENDAR

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

SUMMARY:

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

Events/Meetings

Steven LaMar

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| December 6, 2017 | NCC TAC Meeting, Chris Monz, Utah State, Recreational Mgt. Plan |
| January 3-5 | National Water Resources Assoc. 2018 Leadership Forum, Las Vegas |
| January 24 | 2018 Greater Irvine Chamber Business Outlook |
| January 19 | Southern California Water Committee Quarterly Luncheon, Riverside |
| January 25 | ISDOC Quarterly Luncheon, Fountain Valley |
| February 6 | ACC-OC & MWD California WaterFix, Newport Beach |
| February 7-9 | Urban Water Institute 2018 Spring Conference, Palm Springs March |
| February 26 – March 1 | ACWA Annual Washington D.C. Conference, Washington D.C. |
| March 12-13 | Orange County Business Council One Voice, Two Capitols Advocacy Trip, Sacramento |

Mary Aileen Matheis

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|-----------------------|--|
| January 24 | 2018 Greater Irvine Chamber Business Outlook |
| February 2 | OC Forum Gubernatorial Candidate Breakfast Series, Irvine |
| February 6 | ACC-OC & MWD California WaterFix, Newport Beach |
| February 6-9 | Urban Water Institute 2018 Spring Conference, Palm Springs |
| February 26 – March 1 | ACWA Annual Washington D.C. Conference, Washington D.C. |

Douglas Reinhart

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|--------------|--|
| January 19 | Southern California Water Committee Quarterly Luncheon, Riverside |
| January 24 | 2018 Greater Irvine Chamber Business Outlook |
| January 25 | Monthly Discussion of District Activities with the General Manager |
| February 2 | IRWD-MNWD – Water Issues Discussion |
| February 6 | ACC-OC & MWD California WaterFix, Newport Beach |
| February 7-9 | Urban Water Institute 2018 Spring Conference, Palm Springs |

Consent Calendar: Ratify/Approve Board of Directors' Attendance at Meetings and Events
January 22, 2018
Page 2

John Withers

| | |
|-------------------|---|
| December 14, 2017 | Orange County Business Council Holiday Event, Irvine |
| January 19 | Southern California Water Committee Quarterly Luncheon, Riverside |
| January 24 | 2018 Greater Irvine Chamber Business Outlook |
| January 25 | ISDOC Quarterly Luncheon, Fountain Valley |
| February 8 | Orange County Business Council 2018 Annual Installation, Irvine |

Peer Swan

| | |
|-----------------------|--|
| January 17 | Orange County Water Association Monthly Meeting & Luncheon |
| January 24 | 2018 Greater Irvine Chamber Business Outlook |
| January 24-26 | CASA 2018 Winter Conference, Palm Springs |
| February 2 | IRWD-MNWD – Water Issues Discussion |
| February 6 | ACC-OC & MWD California WaterFix, Newport Beach |
| February 6-9 | Urban Water Institute 2018 Spring Conference, Palm Springs |
| February 25 – 28 | CASA Annual Washington D.C. Conference, Washington D.C. |
| February 26 – March 1 | ACWA Annual Washington D.C. Conference, Washington D.C. |
| March 7 | 2018 Kern County Water Summit, Bakersfield |
| March 24 – 27 | WaterReuse California Annual Conference, Monterey |

RECOMMENDATION:

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

LIST OF EXHIBITS:

None.

January 22, 2018

Prepared and

Submitted by: L. Bonkowski

Approved by: P. Cook

CONSENT CALENDAR

MINUTES OF BOARD MEETING

SUMMARY:

Provided are the minutes of the December 11, 2017 Board Meeting and the December 19, 2017 Adjourned Regular Board Meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE DECEMBER 11, 2017 BOARD MEETING AND THE DECEMBER 19, 2017 ADJOURNED REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

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

Exhibit "B" – December 19, 2017 Minutes of Board Meeting

EXHIBIT "A"

MINUTES OF REGULAR MEETING – DECEMBER 11, 2017

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

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

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Engineering and Water Quality Burton, Executive Director of Finance and Administration Clary, Director of Public Affairs Beeman, Public Affairs Manager Fabris, Executive Director of Operations Shields, Director of Human Resources Roney, Director of Treasury and Risk Management Jacobson, Director of Water Operations Zepeda, Director of Maintenance Drake, Director of Water Resources Sanchez, Government Relations Officer Compton, Legal Counsel Smith, Secretary Bonkowski, Principle Engineer Malloy, Principle Engineer Cortez, Principle Engineer Akiyoshi, Mr. Barkov Meserlian, Ms. Eileen Lin, Ms. Amy McNulty, Mr. Dan Burmaster and Mr. Gregorio Estrada.

WRITTEN AND ORAL COMMUNICATIONS: None.

ITEMS TOO LATE TO BE AGENDIZED: None.

CONSENT CALENDAR

Following requests from Directors Swan and Reinhart, item Nos. 4 and 11 were moved to the Action Calendar. There being no further comments, on MOTION by LaMar, seconded and unanimously carried, ITEMS 3, 5 THROUGH 10, AND 12 THROUGH 14 WERE APPROVED AS FOLLOWS:

3. MINUTES OF REGULAR BOARD MEETINGS

Recommendation: That the minutes of the November 27, 2017 Regular Board Meeting be approved as presented.

5. 2017 LEGISLATIVE AND REGULATORY UPDATE

Recommendation: Receive and file.

6. FY 2016-17 COMPREHENSIVE FINANCIAL REPORT

Recommendation: Receive and file the Comprehensive Annual Financial Report subject to nonsubstantive changes.

CONSENT CALENDAR (CONTINUED)

7. MICHELSON WATER RECYCLING PLANT SECURITY FENCING BID REJECTION

Recommendation: That the Board reject all bids received for the Michelson Water Recycling Plant Security Fencing, Projects 07824, 07825 and 07826, and authorize staff to re-bid the project after revising the project documents.

8. RECYCLED WATER RESERVOIRS FILTRATION BUDGET ADDITION

Recommendation: That the Board authorize the addition of Project 10436 in the amount of \$134,200 to the FY 2017-18 Capital Budget for the Recycled Water Reservoir Filtration, Project 10436.

9. PLANNING AREA 6 PORTOLA SPRINGS NEIGHBORHOOD 5B AND 5C CAPITAL IMPROVEMENTS

Recommendation: That the Board authorize the addition of Planning Area 6 Neighborhood 5B and 5C Improvements, Projects 10100 and 10426, to the FY 2017-18 Capital Budget in the amounts of \$640,000 and \$81,000, respectively, for the design and construction of recycled water improvements under an existing Supplemental Reimbursement Agreement with the Irvine Community Development Company for Planning Area 6 (Portola Springs).

10. TUSTIN LEGACY MOFFET AND LEGACY ROAD CAPITAL FACILITIES

Recommendation: That the Board authorize the addition of the Moffett Drive and Legacy Road Capital Domestic Water and Recycled Water Improvements, Projects 10260 and 10261 each in the amount of \$643,000, to the FY 2017-18 Capital Budget; and authorize the General Manager to accept the City of Tustin's construction contract with Sukut Construction, LLC in the amount of \$758,337 for the Moffett Drive and Legacy Road Capital Domestic Water and Recycled Water Improvements, Projects 10260 and 10261.

12. ENTERPRISE ASSET MANAGEMENT SUPPORT SERVICES

Recommendation: That the Board authorize the General Manager to execute a Professional Services Variance with Kayuga Solution for a not-to-exceed cost of \$176,800.

APPROVING DISSOLUTION OF THE IRVINE RANCH WATER DISTRICT IMPROVEMENT CORPORATION

Recommendation: That the Board adopt the following resolution by title:

RESOLUTION NO. 2017-25

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
IRVINE RANCH WATER DISTRICT
APPROVING DISSOLUTION OF IRVINE RANCH WATER DISTRICT
IMPROVEMENT CORPORATION

CONSENT CALENDAR (CONTINUED)

14. NOVEMBER 2017 TREASURY REPORTS

Recommendation: That The Board Receive And File The Treasurer's Investment Summary Report, The Summary Of Fixed And Variable Rate Debt, The Monthly Interest Rate Swap Summary For November 2017, And Disclosure Report Of Reimbursements To Board Members And Staff; Approve The November 2017 Summary Of Payroll Ach Payments In The Total Amount Of \$1,996,983 And Approve The November 2017 Accounts Payable Disbursement Summary Of Warrants 381564 Through 382441 Workers' Compensation Distributions, Wire Transfers, Payroll Withholding Distributions And Voided Checks In The Total Amount Of \$19,270,394.

ACTION CALENDAR

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

Director Swan noted a meeting he was not able to attend and said that tomorrow he was planning to attend a WACO planning meeting. There being no further comments, on MOTION by Swan, seconded and unanimously carried, **THE BOARD RATIFIED/APPROVED THE MEETINGS AND EVENTS FOR STEVEN LAMAR, MARY AILEEN MATHEIS AND PEER SWAN.**

VARIANCE NO. 5 TO SYNERGY COMPANIES AGREEMENT FOR WATER-ENERGY GRANT RELATED CUSTOMER PROGRAMS

Pursuant to Director Reinhart's request to gain a better understanding of this program, Ms. Amy McNulty provided an overview of the grant program. On MOTION by Reinhart, seconded and unanimously carried, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 5 TO THE AGREEMENT FOR NON-CONSULTANT SERVICES BETWEEN IRWD AND SYNERGY COMPANIES IN THE AMOUNT OF \$169,000 TO CONTINUE PROVIDING FUNDING FOR THE ONE-STOP SHOP FOR WATER AND ENERGY EFFICIENCY PROGRAM WHICH WILL BE FULLY REIMBURSED THROUGH THE CALIFORNIA DEPARTMENT OF WATER RESOURCES WATER-ENERGY GRANT.**

TERMINATION OF JOINT SERVICES AT THE CHIQUITA AND LOS ALISOS WATER RECYCLING PLANT

General Manager Cook reported that both IRWD and Santa Margarita Water District (SMWD) currently have underutilized and unneeded capacity ownership in SMWD's Chiquita and IRWD's Los Alisos Water Recycling Plant (LAWRP) for conveyance and treatment of sewage. Mr. Cook said that both agencies are in the process of evaluating options for modernizing their respective sewage treatment plants, and since these modernizations will require capital outlay from each District for the other District's facilities, staff worked cooperatively to determine the best path forward to terminate capacity ownership. He said that a Term Sheet for termination of joint services at these facilities has been developed, and an agreement will be prepared over the next few months.

Executive Director of Engineering and Water Quality Burton reported that Board representatives from IRWD and SMWD met on November 9, 2017 to review the Term Sheet which allows for each District to be relieved of its capacity ownership in the other District's conveyance and treatment facilities at no cost commencing July 1, 2018, provides that SMWD will assume responsibility for IRWD's remaining 0.1 MGD sewage flow from the Portola Hills area, and that SMWD will assume responsibility for 0.1 MGD of IRWD's capacity ownership in Trabuco County Water District's (TCWD) El Toro Sewer System. IRWD's remaining 0.542 million gallons per day (MGD) capacity ownership in TCWD's El Toro Sewer System will remain the responsibility of IRWD until a possible future agreement can be negotiated with TCWD. On MOTION by Matheis, seconded and unanimously carried, **THE BOARD APPROVED THE TERM SHEET SUBJECT TO NON-SUBSTANTIVE CHANGES, AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE AN AGREEMENT BASED ON THE TERM SHEET.**

THREE-YEAR JANITORIAL SERVICES CONTRACT AWARD

Executive Director of Operations Shields reported that a Request for Proposal with an added scope of work to include one new facility, the Baker Water Treatment Plant, was distributed to American Building Maintenance, DMS Facilities Services, Inc., Priority Building Services, and Sunset Property Services. Mr. Shields said that a bid opening was held with the lowest responsive bid received from American Building Maintenance, Inc. He said that this bid represents an increase of \$140,148 over the previous contract due to the additional scope of services and increased labor costs. He further said that American Building Maintenance, Inc. provided several references which received satisfactory responses.

Director LaMar said that this item was reviewed and approved by the Engineering and Operations Committee on December 5, 2017. On MOTION by LaMar, seconded and unanimously carried, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A THREE-YEAR JANITORIAL SERVICES CONTRACT WITH AMERICAN BUILDING MAINTENANCE, INC., IN THE AMOUNT OF \$730,932.71 WITH ITS TERM ENDING DECEMBER 31, 2020.**

MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES CONTRACT CHANGE ORDER NO. 68

General Manager Cook reported that Filanc/Balfour-Beatty (FBB) is constructing the Michelson Water Recycling Plant (MWRP) Biosolids and Energy Recovery Facilities (Biosolids Project). Contract Change Order (CCO) No. 68 includes costs for several mechanical, electrical, instrumentation, and controls items.

Executive Director of Engineering and Water Quality Burton reported that staff negotiated with FBB and agrees to the labor and material costs contained in CCO No. 68 which contains the following items: 1) FOG modifications in the amount of \$83,648.47 – to enhance the FOG receiving, storage, and mixing system operation, piping modifications and additional control features were requested by staff; 2) additional electrical outlets and circuits in the solids handling building in the amount of \$44,054.83 – after review of operational needs, staff determined that additional electrical outlets and circuits are required in several areas in the solids handling building; 3) control panel modifications in the methane digester complex in the amount of \$55,414.03 – after review of the electrical code requirements, it was determined that the three sump pump control panels in the basement of the methane digester complex need to be relocated for proper clearance from an explosive gas environment; and 4) additional electrical,

instrumentation, and controls for the heat dryer system in the amount of \$386,435.86 – during the submittal process, the dryer manufacturer, Andritz, disclosed that over 400 additional points were required for electrical, instrumentation, and controls of the dryer system.

Director LaMar reported that this item was reviewed by the Engineering and Operations Committee on December 5, 2017. Following discussion, on MOTION by LaMar, seconded and unanimously carried, THE BOARD APPROVED CONTRACT CHANGE ORDER NO. 68 IN THE AMOUNT OF \$569,553.19 WITH FILANC/BALFOUR BEATTY FOR SEVERAL MECHANICAL, ELECTRICAL, INSTRUMENTATION, AND CONTROLS ITEMS FOR THE MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES, PROJECT 04286.

SEWER COLLECTIONS SYSTEM INFRASTRUCTURE REHABILITATION SERVICE CONTRACT AWARD

The Sewer General System Modification Project is used to fund repairs required in the sewer system infrastructure. The scope of work for this project includes sewer manhole cleaning, wall preparation, lid and ring replacement, application of liner, and spark testing to ensure the installation is in compliance with the District's Construction Manual.

Executive Director of Operations Shields reported for the last three years, Zebron Corporation has been awarded the contract through a competitive bid process to perform this type of rehabilitation work for the District. Mr. Shields said that staff distributed a Request for Proposal to multiple qualified contractors. He said that bids were received from Zebron Corporation and Sancon Engineering with Zebron as lowest responsive bidder.

On MOTION by LaMar, seconded and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONTRACT AWARD WITH ZEBRON CONTRACTING, INC. IN THE AMOUNT NOT TO EXCEED \$990,000 FOR THE PERIOD JANUARY 1, 2018 THROUGH DECEMBER 31, 2020.

ANNUAL BOARD OF DIRECTORS' FEES

General Manager Cook reported that the Finance and Personnel Committee annually reviews the Board of Directors' compensation and recommends to the Board to either accept or deny a fee increase for the new calendar year. Pursuant to the District's Ordinance No. 1989-1 and enacted under Section 20202 et seq. of the California Water Code, the Board's meeting compensation increases on January 1 of each year; however, said increase may not exceed an amount equal to five percent, and no compensation for more than a total of 10 days in any calendar month. The last Board of Directors' compensation increase was effective in January 2017. The current compensation for the Board of Directors is \$273 per meeting, not to exceed 10 meetings per month. Director Swan recommended delaying action on this item at this time. On MOTION by Swan, seconded and unanimously carried, THE BOARD RECOMMENDED NO ACTION AT THIS TIME WITH AN ITEM TO BE AGENDIZED AT A FUTURE DATE.

ELECTION OF OFFICERS

General Manager Cook reported that the Bylaws of the District provide that the President and Vice President shall be elected by the Board from among its members. The term of office of the

President and Vice President is one year, or until the election and qualification of their successors. On January 9, 2017, Director Reinhart was elected to the office of President and Director Peer Swan was elected to the office of Vice President for calendar year 2017. General Manager Cook acted as temporary Chairman to conduct the election of President. Director LaMar nominated Director Reinhart as President. There being no further nominations, Director LaMar made a motion for nominations to be closed. Director Swan said that his comment did not have any reflection on the current nomination, but that he believed the Board adopted a policy of rotating officers annually.

There being no further comments, on MOTION by LaMar, seconded carried on a roll call vote (4-1), (Matheis, Reinhart, LaMar, and Withers voting aye and Swan noting no), **DOUGLAS REINHART WAS ELECTED PRESIDENT FOR 2018**. Director Withers nominated Director LaMar as Vice President. There being no further nominations, Director Withers made a motion for nominations to be closed. Director Swan said he had the same comments on the previous item. On MOTION by Director Withers, seconded and carried by a roll call vote, **STEVEN LAMAR WAS ELECTED VICE PRESIDENT FOR 2018**.

GENERAL MANAGER'S REPORT

General Manager Cook reported that he communicated with OCWD's General Manager Markus in relation to a pilot program for storage and exchange accounts. He said this pilot program will also be discussed at this Wednesday's Producers meeting with the Producers aligned with IRWD's position.

Mr. Cook noted that Director Matheis will be unavailable for the January 8, 2018 Board meeting, and following a review of the Advance Calendar, determined that this meeting be cancelled due to a lack of items. He said that the next Board meeting will be held on January 22, 2018.

DIRECTORS' COMMENTS

Director Matheis reported on her attendance at an ACWA conference in Anaheim, and said she also attended her regular outside activities.

Director Withers reported on his attendance at an ACWA conference and said he will be attending an NWRI meeting, an OCSD Board meeting and a SAWPA meeting this week.

Director LaMar reported on his attendance at an ACWA conference, a meeting with Mr. Grant Davis from the California Department of Water Resources, and a WACO meeting, and said he will be attending a California Environmental Dialogue meeting relative to long-term issues.

Director Swan reported on his attendance at an ACWA Conference, an ACWA JPIA Committee meeting, a SAWPA reception for two retirees, a Chapman University Economic Forecast event, a meeting at UCI relative to desalination, a Newport Chamber of Commerce meeting, and a WACO meeting.

Director Reinhart reported on his attendance at an ACWA conference, a MWDOC Board workshop, and a SOCWA Board meeting.

ADJOURNMENT

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

APPROVED and SIGNED this 22nd day of January, 2018.

President, IRVINE RANCH WATER DISTRICT

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Alfred Smith, Legal Counsel – Nossaman LLP

EXHIBIT "B"

MINUTES OF ADJOURNED REGULAR MEETING – DECEMBER 19, 2017

The adjourned regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 9:00 a.m. by President Reinhart on December 19, 2017 at the Multi-purpose Room, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Matheis, Withers (arrived at 9:10 a.m.), Reinhart, LaMar and Swan.

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Finance Clary, Executive Director of Water Policy Weghorst, Executive Director of Operations Sheilds, Executive Director of Engineering and Water Quality Burton, Director of Treasury and Risk Management Jacobson, Director of Water Resources Sanchez, Director of Public Affairs Beeman, Director of Administrative Services Mossbarger, Director of Human Resources Roney, Director of Water Operations Roberts, Director of Recycling Operations Zepeda, Director of Maintenance Drake, Secretary Bonkowski, Legal Counsel Smith, and Government Relations Officer Compton.

Written and Oral Communications: None.

Items too late to be agendized: None.

DRAFT IRWD 2018 GOALS AND TARGET ACTIVITIES

General Manager Cook reported that one of the added steps in the enhanced planning process is to conduct an in-depth discussion of how conditions that impact the District and the water industry are changing, and what goals the District should adopt and prioritize in consideration of these changing conditions. Mr. Cook said that the IRWD Management Team met recently to develop some initial thoughts on changing conditions for the Board's consideration. Discussion with the Board and staff were held on the following items: consequences of water use efficiency; increases in legislation and regulation (water, sewer, power, personnel, governance, transparency, natural treatment system, water quality, and financial); increased transparency/customer dialogue; reliance on mobility/technology in daily jobs; cyber security; increase regional approach to solutions; expanding potable reuse applications; mission diversity/expanding expertise; logistics associated with a larger workforce; tighter job market necessitating enhancements to skills/education/expectations; increased need for physical security; labor relations; increased reliance on renewal energy; and tax reform. Director Withers left at 11:26 a.m.

Mr. Cook said that as the planning process took longer than anticipated, the proposed revision to the IRWD policy papers will be deferred to a Committee meeting in January.

ADJOURNMENT

There being no further discussion, President Reinhart adjourned the meeting at 12:13 p.m.

APPROVED and SIGNED this 22nd day of January, 2018.

President, IRVINE RANCH WATER DISTRICT

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Alfred Smith, Legal Counsel – Nossaman LLP

January 22, 2018

Prepared by: L. Bonkowski / C. Compton

Approved by: Paul A. Cook



CONSENT CALENDAR

RATIFICATION OF MEMORANDUM RELATIVE TO THE OFFICERS OF THE BOARD, COMMITTEE APPOINTMENTS AND OTHER ASSIGNMENTS

SUMMARY:

As a result of changes implemented by President Reinhart on Committees and other assignments, the following actions are necessary:

- Ratify the January 22, 2018, Memorandum Relative to Officers of the Board, Committee Appointments and Other Assignments (Memorandum);
- Approve attendance at meetings and events by Director for the 2018 calendar year;
- Adopt a resolution revising the assignment of Directors to Committees of the Board;
- Adopt a resolution Rescinding Resolution No. 2017-7 and appointing the IRWD Commissioner and Alternate Commissioner to the Santiago Aqueduct Commission; and
- Adopt a resolution Rescinding Resolution No. 2015-2 and appointing the IRWD Director and Alternate Directors to the South Orange County Wastewater Authority.

BACKGROUND:

Directors serve on various standing and established ad hoc committees, and serve the District in various other assignments. President Reinhart has reviewed various Committee appointments and other District assignments, and has made changes to the Memorandum, provided as Exhibit "A". The changes from 2017's appointments and assignments are highlighted in red text. Resolutions have also been prepared that revise the assignment of Directors to Committees of the Board (provided as Exhibit "B") and that appoint the IRWD Commissioner and Alternate Commissioner to the Board of the Santiago Aqueduct Commission effective March 1, 2017 (provided as Exhibit "C"). An additional resolution has been prepared to appoint the IRWD Director and Alternate Directors to the South Orange County Wastewater Authority (provided as Exhibit "D").

Approval of Attendance at Meetings and Events:

Pursuant to Resolution 2006-29 (Resolution), adopted on August 28, 2006, approval/ratification of attendance at events and meetings for non-IRWD Board or Committee meetings is required by the Board of Directors for certain meetings and events. For those meetings and events falling under Section (2)(B) of Article II of the Resolution, approval is requested to authorize attendance of the Board Members assigned as the District's representative/lead, and their alternates, as listed in the Memorandum, at meetings and events of the following governmental agencies and external organizations during the 2018 calendar year:

Approved Organizations:

- Association of CA Water Agencies (ACWA)

Approved Organizations, continued:

- ACWA/Joint Powers Insurance Authority
- CalDesal
- CA Association of San. Agencies (CASA)
- CA Council for Environmental and Economic Balance (CCEEB)/ CA Environmental Dialogue (CED) & Water Quality Task Force
- CA Special Districts Association (CSDA)
- El Toro Restoration Advisory Board
- Independent Special Districts of OC (ISDOC)
- Irvine Chamber of Commerce
- Municipal Water District of Orange County
- National Water Research Institute (NWRI)
- Natural Communities Coalition (NCC/NROC)
- Newport Bay Watershed Executive Committee
- Newport Chamber of Commerce
- Orange County Business Council (OCBC)
- Orange County Council of Governments
- Orange County Sanitation District
- Orange County Water District
- Santiago Aqueduct Commission
- South County Chamber of Commerce
- South Orange County Watershed Management Area Executive Committee
- South Orange County Wastewater Authority
- Southern California Water Dialogue Group
- Southern California Water Coalition (SCWC)
- Urban Water Institute (UWI)
- WateReuse Association
- Water Advisory Committee of OC (WACO)
- Water Education Foundation (WEF)

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was not submitted for Committee review.

RECOMMENDATION:

THAT THE BOARD RATIFY THE MEMORANDUM DATED JANUARY 22, 2018 ENTITLED OFFICERS OF THE BOARD, COMMITTEES AND OTHER ASSIGNMENTS; APPROVE ATTENDANCE FOR THE MEETINGS AND EVENTS FOR THE BOARD'S REPRESENTATION FOR CALENDAR YEAR 2018 AS DELINEATED, AND ADOPT THE FOLLOWING RESOLUTIONS BY TITLE:

RESOLUTION NO. 2018-

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT
RESCINDING RESOLUTION NO. 2017-3 AND REVISING THE
ASSIGNMENT OF DIRECTORS TO COMMITTEES OF THE BOARD

RESOLUTION NO. 2018-

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, RESCINDING
RESOLUTION NO. 2017-7 AND APPOINTING
COMMISSIONER AND ALTERNATE COMMISSIONER
TO THE BOARD OF THE SANTIAGO AQUEDUCT COMMISSION

RESOLUTION NO. 2018-

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, RESCINDING
RESOLUTION NO. 2015-2 AND APPOINTING
COMMISSIONER AND ALTERNATE COMMISSIONER
TO THE BOARD OF THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

LIST OF EXHIBITS:

- Exhibit "A" – Memorandum from President Reinhart dated January 22, 2018 entitled Officers of the Board, Committees and Other Assignments
- Exhibit "B" – Proposed Resolution Rescinding Resoltuon 2017-3 and Revising the Assignment of Directors to Committees of the Board
- Exhibit "C" – Proposed Resolution Rescinding Resolution 2017-7 and Appointing Commissioner and Alternate Commssion to the Board of the Santiago Aqueduct Commission
- Exhibit "D" – Proposed Resolution Rescinding Resolution 2015-2 and Appointing Director and Alternate Directors to the Board of the South Orange County Wastewater Authority.

EXHIBIT "A"

MEMORANDUM

DATE: **January 22, 2018**
TO: Board of Directors
FROM: Doug Reinhart, President
SUBJECT: MEMORANDUM RELATIVE TO OFFICERS OF THE BOARD, COMMITTEE APPOINTMENTS, AND OTHER ASSIGNMENTS

District Board of Directors:

- President Doug Reinhart
- Vice President Steve LaMar
- Directors Mary Aileen Matheis, Peer Swan, and John Withers

Officers of the District:

- District Treasurer Rob Jacobson
- Assistant District Treasurers Cheryl Clary, Tanja Fournier
- District Secretary Leslie Bonkowski
- Assistant District Secretaries **Kristine Swan**, Christine Compton,

Standing Committees Appointments*:

- ~~Asset Management~~ ~~Withers, Matheis (Alt. Swan)~~
- Finance and Personnel Swan, **LaMar** (Alt. **Reinhart**)
- Engineering and Operations **Withers, Matheis** (Alt. Reinhart)
- Water Resources Policy and Communications Matheis, LaMar (Alt. Withers)
- Supply Reliability Programs Swan, Reinhart (Alt. Matheis)

Ad Hoc Committees Appointments*:

- California Bay Delta LaMar, Swan
- Board Process / Legal Oversight Reinhart, Matheis
- City of Newport Beach Swan, Matheis
- City of Irvine Matheis, LaMar
- City of Lake Forest Matheis, Reinhart
- City of Orange / OPA Reinhart, Withers
- City of Tustin LaMar, Matheis
- MWD OC Reinhart, LaMar
- Ocean Desalination LaMar, Swan
- Orange County Water District Swan, LaMar
- OCWD / MWD OC Joint Planning Reinhart, Swan
- San Joaquin Marsh Swan, Matheis
- Serrano Water District Swan, Reinhart

* Committee chair name shown first

Governmental Agencies Representation and Assignments:

- Municipal Water District of Orange County Reinhart (District Lead), LaMar (Alternate)
- Natural Communities Coalition (NCC/NROC) LaMar (District Lead), Cook (Alternate)
- Newport Bay Watershed Executive Comm. Swan (Representative), Matheis and Cook (Alternates)
- Orange County Sanitation District (OCSD)** Withers (Director), Reinhart (Alternate),
- Orange County Water District (OCWD) Swan (District Lead), LaMar (Alternate)
- Santiago Aqueduct Commission (SAC)** Matheis (Director) and Withers (Alternate)
- South Orange County Watershed Management Area Executive Committee Matheis (Representative), LaMar (Alternate)
- So OC Wastewater Authority (SOCWA)** Reinhart (Director), Cook (1st Alt.), Burton (2nd Alt.)

External Organization Assignments:

- Association of CA Water Agencies (ACWA) All Board Members
- ACWA/Joint Powers Insurance Authority Swan (District Lead), Matheis (Alternate)
- CalDesal LaMar (District Lead), Reinhart (Alternate)
- CA Association of San. Agencies (CASA) Swan (District Lead), Withers and Sheilds (Alternates)
- CA Council for Environmental and Economic Balance (CCEEB) CED/ WQ Task Force LaMar (District Lead); Compton (Alternate)
- CA Special Districts Association (CSDA) Education Committee Matheis (District Lead)
- El Toro Restoration Advisory Board Matheis (District Lead), Cook (Alternate)
- Independent Special Districts of OC (ISDOC) Matheis (District Lead), Withers (Alternate)
- Irvine Chamber of Commerce Matheis (District Lead), LaMar (Alternate)
- National Water Research Institute (NWRI) Withers (District Lead), Reinhart (Alternate)
- Newport Chamber of Commerce Swan (District Lead), Matheis (Alternate)
- Orange County Business Council (OCBC) LaMar (District Lead), Withers (Alternate)
- Orange County Council of Governments Matheis (District Lead), LaMar (Alternate)
- South County Chamber of Commerce Matheis (District Lead), Reinhart (Alternate)
- Southern California Water Dialogue Group Swan (District Lead), LaMar (Alternate)
- So. California Water Coalition (SCWC) LaMar and Matheis (District Lead)
- Urban Water Institute (UWI) Matheis (Representative), Swan (Alternate)
- WaterReuse Association Reinhart (District Lead), Cook (Alternate)
- Water Advisory Committee of OC (WACO) All Board Members
- Water Education Foundation (WEF) Matheis (District Lead)

IRWD-Associated Organization Officers:

- Bardeen Partners, Inc. Withers, President; Swan, Vice President
LaMar, Matheis, and Reinhart, Members
Jacobson, Treasurer
Clary and Fournier, Assistant Treasurer
L. Bonkowski, Secretary
- ~~IRWD Improvement Corporation~~ ~~Swan, President; Reinhart, Vice President~~
~~(dissolved in Dec 2017)~~ ~~LaMar, Matheis, and Withers Members~~
- ** Notify agency of any change(s)

IRWD-Associated Organization Officers (continued):

- IRWD Water Service Corporation Matheis, President; Reinhart, Vice President
LaMar, Swan, and Withers, Members
Jacobson, Treasurer
Clary and Fournier, Assistant Treasurer
L. Bonkowski, Secretary

- Post-employment Benefits Retirement Swan, Chairman; LaMar, Vice Chair
Trust Board Cook, Member
Jacobson, Treasurer
Clary and Fournier, Assistant Treasurer
L. Bonkowski, Secretary

IRWD-Supported Organization Representation:

- San Joaquin Wildlife Sanctuary, Inc. Swan, President; Matheis, Director
L. Bonkowski, Treasurer, Director
and Secretary

- Shadetree Partnership, Inc. Matheis, President
T. Bonkowski, Director and Treasurer
L. Bonkowski, Director and Secretary
Cook, Director
Swift, Director

NOTE: Officers and directors are appointed by the Shadetree Board of Directors and not IRWD.

Organization/Committee Staff Representation and Support:

- American Water Works Assoc. (AWWA) Cook, Shields
- Association of CA Cities – OC (ACC—OC) Cook, Compton
- Association of CA Water Agencies (ACWA) Cook, Compton
- California Assoc. of Sanitation Agencies Cook, Shields
- CA Council for Environmental and Economic Compton, Sanchez, Lewis
Balance (CCEEB) / WQ Task Force
- California Municipal Utilities Assoc. (CMUA) Cook, Compton
- California Special Districts Assoc. (CSDA) Compton
- California Water Environmental Assoc. Cook, Shields
- Dyer Road Well Field Cook (Representative), Burton (Alternate)
- National Water Research Institute (NWRI) Oldewage
- Newport Bay Watershed Mgmt. Comm. Tettermer (Representative), Cook (Alternate)
- Santiago Aqueduct Commission (SAC) Cook (GM), Burton (Engineer) Clary (Treasurer)
- South Orange County Watershed Tettermer
Mgmt. Area Executive Committee
- WateReuse California Cook, Tettermer, and Compton

EXHIBIT "B"

RESOLUTION NO. 2018-

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, RESCINDING
RESOLUTION NO. 2017-3 AND REVISING THE
ASSIGNMENT OF DIRECTORS TO COMMITTEES
OF THE BOARD

WHEREAS, by adoption of Resolution No. 2017-1 on January 23, 2017, the Board of Directors of Irvine Ranch Water District appointed members of the Board of Directors to serve on Committees of the Board; and

WHEREAS, it is the desire of the President to revise the assignment of Directors to Board Committees. Additionally, the President has the authority to appoint an additional alternate as appropriate to Committees in the absence of the members and alternate.

NOW THEREFORE, BE IT RESOLVED by the Board of Directors of Irvine Ranch Water District as follows:

Section 1. That Resolution No. 2017-3 be and hereby is rescinded.

Section 2. That the following Committee assignments* are hereby made:

Finance and Personnel – Swan, LaMar (Alt. Reinhart)

Engineering and Operations – Withers, Matheis (Alt. Reinhart)

Water Resources Policy and Communications – Matheis, LaMar, (Alt. Withers)

Supply Reliability Programs – Swan, Reinhart (Alt. Matheis)

- Committee Chair name shown first

ADOPTED, SIGNED and APPROVED this 22nd day of January 2018.

President
IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof

Secretary
IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof

APPROVED AS TO FORM:
Alfred Smith
NOSSAMAN LLP
Legal Counsel - IRWD

EXHIBIT "C"

RESOLUTION NO. 2018-

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, RESCINDING
RESOLUTION NO. 2017-7 AND APPOINTING
COMMISSIONER AND APPOINTING ALTERNATE COMMISSIONER
TO THE BOARD OF THE SANTIAGO AQUEDUCT COMMISSION

WHEREAS, Amendment No. 2 to the Santiago Aqueduct Commission (SAC) Joint Powers Agreement provides for a Commission consisting of seven members, one member to be selected by the Irvine Ranch Water District (IRWD);

WHEREAS, IRWD may also designate alternates to serve in the absence of the regular members; and

WHEREAS, the Board of Directors of IRWD wishes to change the appointment of the member and alternates designated by Resolution No. 2017-7 dated March 31, 2017.

NOW, THEREFORE, the Board of Directors of IRWD does hereby resolve, determine and order as follows:

Section 1. That Resolution No. 2017-7 be and hereby is rescinded effective March 1, 2017.

Section 2. That Mary Aileen Matheis, a member of the Board of Director for IRWD, be and the same is hereby appointed Commissioner of the Santiago Aqueduct Commission.

Section 3. That John Withers, a member of the Board of Directors of IRWD, be and the same is hereby appointed Alternate Member of the Santiago Aqueduct Commission.

Section 4: The Secretary of IRWD is hereby directed to forward a certified copy of this resolution to the Santiago Aqueduct Commission.

ADOPTED, SIGNED AND APPROVED this 22nd day of January, 2017.

President, IRVINE RANCH WATER
DISTRICT and of the Board of
Directors thereof

Secretary, IRVINE RANCH WATER
DISTRICT and of the Board of
Directors thereof

APPROVED AS TO FORM:
Legal Counsel - IRWD

Alfred Smith
NOSSAMAN, LLP

EXHIBIT "D"

RESOLUTION NO. 2018-

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT RESCINDING 2015-2
AND APPOINTING MEMBER AND ALTERNATE MEMBERS TO THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
(SOCWA) JPA

WHEREAS, pursuant to Section IV of the Joint Powers Agreement creating the South Orange county Wastewater Authority (SOCWA), the agreement provides for each member Agency to appoint one person to act as Director of its Board; and

WHEREAS, pursuant to Section I of Amendment No. 6 of the Joint Powers Agreement, each member agency may appoint two alternate members, designated a first alternate member and a second alternate member.

NOW, THEREFORE, the Board of Directors of IRWD does hereby resolve, determine and order as follows:

Section 1: That Resolution No. 2015-2 dated January 12, 2015 be rescinded in its entirety.

Section 2: That Douglas J. Reinhart, a Board of Director of the Irvine Ranch Water District, be and the same is hereby appointed member of the SOCWA.

Section 3: That Paul Cook, General Manager of the Irvine Ranch Water District be the first alternate member and Kevin Burton, Executive Director of Engineering and Water Quality of the Irvine Ranch Water District, be and the same are hereby appointed second alternate members of SOCWA.

Section 4: The Secretary of IRWD is hereby directed to forward a certified copy of this resolution to the South Orange County Wastewater Authority.

ADOPTED, SIGNED AND APPROVED this 22nd day of January, 2017.

President/Vice President
IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof

Secretary
IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof


APPROVED AS TO FORM:


Nossaman, LLP
Legal Counsel - IRWD

By _____
Alfred Smith

January 22, 2018

Prepared by: Jennifer Davis/Tanja Fournier 

Submitted by: Rob Jacobson/Cheryl Clary 

Approved by: Paul A. Cook 

CONSENT CALENDAR

2018 INDEX TENDER NOTES REMARKETING

SUMMARY:

The District's Index Tender Note debt issues (2011 A-1 and 2011 A-2), which were originally issued in April 2011, are within their annual remarketing period. Staff, the District's underwriters (Goldman Sachs and Morgan Stanley), and IRWD legal counsel have prepared the required Remarketing Statement. Staff recommends that the Board adopt a resolution approving the Remarketing Statement.

BACKGROUND:

The District currently has \$49,920,000 of Index Tender Notes (ITNs), that are remarketed by Goldman Sachs (2011 A-1) and \$33,280,000 of ITNs that are remarketed by Morgan Stanley (2011 A-2). The ITNs are remarketed annually based on a spread to the SIFMA tax-exempt variable rate index. The last annual interest rate reset for the ITNs was in February 2017 at the SIFMA weekly index with a spread of seven basis points, resulting in an all-in rate for 2017 of 0.91%. The all-in rate includes the net interest rate (the index and spread) and annual remarketing fees of approximately 0.13%. The interest rate spread, if any, to the SIFMA index will be determined on February 6, 2018.

Staff and legal counsel have prepared the Remarketing Statement reflecting the District's most recent financial information, updated disclosure information and other pertinent updates for the 2011 A-1 and 2011 A-2 issues, which is attached for the Board's review as Exhibit "A". Staff recommends that the Board adopt a Resolution approving the updated Remarketing Statement. A copy of the Resolution is attached as Exhibit "B".

FISCAL IMPACTS:

The current outstanding principal amount for the 2011 A-1 and A-2 ITN bond issues is \$83.2 million. The ITNs are priced at a spread to the SIFMA tax-exempt variable rate index. Pricing for the upcoming period is scheduled for February 6, 2018.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on January 16, 2018.

RECOMMENDATION:

THAT THE BOARD APPROVE THE 2018 INDEX TENDER NOTES REMARKETING STATEMENT, AND ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2018-

RESOLUTION OF THE BOARD OF DIRECTORS OF
THE IRVINE RANCH WATER DISTRICT APPROVING
REMARKETING STATEMENT RELATING TO
UNSCHEDULED MANDATORY TENDERS
(REFUNDING SERIES 2011A-1 AND REFUNDING SERIES 2011A-2)

LIST OF EXHIBITS:

Exhibit "A" – Remarketing Statement for Series 2011 A-1 and 2011 A-2

Exhibit "B" – Resolution Approving Remarketing Statement

EXHIBIT "A"

See District Secretary
to obtain a copy of the Remarketing Statement
(which contains over 100 pages)

Exhibit "B"

RESOLUTION NO. 2018-__

RESOLUTION OF THE BOARD OF DIRECTORS OF
THE IRVINE RANCH WATER DISTRICT APPROVING
REMARKETING STATEMENT RELATING TO
UNSCHEDULED MANDATORY TENDERS
(REFUNDING SERIES 2011A-1 AND REFUNDING SERIES 2011A-2)

WHEREAS, the Irvine Ranch Water District ("IRWD") has issued the "Bonds of Irvine Ranch Water District, Refunding Series 2011A-1" (the "Series A-1 Bonds") and "Bonds of Irvine Ranch Water District, Refunding Series 2011A-2" (the "Series A-2 Bonds" and, together with the Series A-1 Bonds, the "Bonds"); and

WHEREAS, in the resolution adopted by this Board of Directors authorizing and providing for the issuance of the Bonds, the Treasurer of the District was authorized, when the Bonds of either or both series shall be in an index tender mode, for all tender periods, to do or cause to be done any and all of the following, if and to the extent required or permitted by the applicable Indenture: to require an unscheduled mandatory tender and establish the date thereof, to rescind an unscheduled mandatory tender, to determine the scheduled mandatory tender date and call protection date for each ensuing tender period, and on behalf of the District in connection with all of the foregoing to give, exercise, make and deliver any notices, directions, elections and requests required or permitted in the applicable Indenture or remarketing agreement to be given, exercised, made or delivered by the District; and

WHEREAS, pursuant to such authority, the Treasurer has determined that an unscheduled mandatory tender shall be effected for each series of the Bonds on or about February 8, 2018 or such other date as may be determined by the Treasurer (the "Unscheduled Mandatory Tenders"); and

WHEREAS, this Board desires to approve the form of the remarketing statement to be used in connection with the remarketing of the respective series of the Bonds upon the purchase thereof pursuant to the Unscheduled Mandatory Tenders.

NOW, THEREFORE, the Board of Directors of IRWD DOES HEREBY RESOLVE, DETERMINE AND ORDER as follows:

Section 1. The remarketing statement relating to the Unscheduled Mandatory Tenders of the respective series of the Bonds, to be dated the date determined by the Treasurer and in substantially the form presented to the Board at this meeting, is hereby approved with such changes thereto as the Treasurer with the concurrence of the President shall approve (such approval and concurrence to be conclusively evidenced by execution and delivery thereof). The Board hereby approves the use of the Remarketing Statement by the remarketing agents for the respective series, including delivery of the Remarketing Statement in electronic form, in connection with the remarketing of the Bonds pursuant to the Unscheduled Mandatory Tenders, and the Board hereby further approves the use by the remarketing agents of any supplements or amendments to the Remarketing Statement, including delivery of any such supplements or amendments in electronic form, which the Treasurer shall determine are necessary so that such Remarketing Statement does not include any untrue statement of a material fact and does not omit to state a material fact

necessary to make the statement therein not misleading. The Treasurer of IRWD is hereby authorized and directed to execute the Remarketing Statement and any amendments or supplements thereto, in the name and on behalf of IRWD and thereupon to cause the Remarketing Statement and any such amendments or supplements to be delivered to the respective remarketing agents.

Section 2. The distribution of the Remarketing Statement, inclusive of the above-authorized changes, is hereby authorized in connection with the remarketing of the Bonds pursuant to the Unscheduled Mandatory Tenders.

Section 3. The President, the Treasurer, the Secretary and each other officer of IRWD, acting singly, be and each of them hereby is authorized and directed to execute and deliver any and all documents and instruments, and to do and cause to be done any and all acts and things necessary or proper for carrying out the transactions contemplated by this resolution.

Section 4. This resolution shall take effect immediately upon its adoption.

ADOPTED, SIGNED AND APPROVED this 22nd day of January, 2018.

President/Vice President
IRVINE RANCH WATER DISTRICT
and of the Board of Directors
thereof

Secretary/Assistant Secretary
IRVINE RANCH WATER DISTRICT
and of the Board of Directors
thereof

APPROVED AS TO FORM:

NOSSAMAN LLP
Alfred Smith
Legal Counsel - IRWD

By _____

January 22, 2018

Prepared by: Jennifer Davis/Tanja Fournier

Submitted by: Rob Jacobson/Cheryl Clary

Approved by: Paul A. Cook

CONSENT CALENDAR

PROPOSED 2018 INVESTMENT POLICY

SUMMARY:

The District is required to adopt an Investment Policy annually to conform with any amendments to the California Government Code governing investment of public funds. During 2017, there were no significant changes to the Code and the proposed policy for 2018 has no significant changes from the previous year. Staff recommends that the Board adopt a resolution approving the proposed policy.

BACKGROUND:

Staff annually submits a Statement of Investment Policy to the Board of Directors for approval. The annual submittal generally incorporates amendments to investment-related Government Code sections, policy objectives, delegation of authority and a detailed schedule of authorized investments. The proposed 2018 Investment Policy and resolution are attached as Exhibits "A" and Exhibit "B", respectively. During 2017, there were no significant amendments to the Government Code section relating to authorized investments for local agencies, and therefore the 2018 proposed policy is generally the same as the 2017 Investment Policy.

As specified in the Government Code, the Board's delegation of authority to the Treasurer and Assistant Treasurer(s) to manage the District's investment program is limited to a one year period, renewable annually. The recommended 2018 Investment Policy includes continuation of this annual delegation of authority to the Treasurer and Assistant Treasurer(s).

Given the conservative nature of the State codes and the Board's additional restrictions, staff believes the authorized investments in the recommended 2018 Investment Policy are sufficiently limited to ensure appropriate investment security while retaining some degree of flexibility to take advantage of changing market opportunities. Additionally, the recommended policy provides authority for the Finance and Personnel Committee to further restrict, but not liberalize, authorized investments. Any liberalization of authorized investments would first require the approval of the Board of Directors.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This activity is categorically exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Sections 15301 and 15302.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on January 16, 2018.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2018-

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
IRVINE RANCH WATER DISTRICT APPROVING INVESTMENT
POLICY AND AUTHORIZING THE TREASURER AND ASSISTANT
TREASURERS TO INVEST AND REINVEST FUNDS OF THE
DISTRICT AND OF EACH OF ITS IMPROVEMENT DISTRICTS
AND TO SELL AND EXCHANGE SECURITIES

LIST OF EXHIBITS:

Exhibit "A" – Proposed 2018 Investment Policy

Exhibit "B" – Resolution approving the 2018 Investment Policy

Exhibit “A”

IRVINE RANCH WATER DISTRICT

PROPOSED 2018 INVESTMENT POLICY

Introduction:

This investment policy is intended to establish a clear understanding of the District’s authorized investment activities for members of the public, the Board of Directors of the Irvine Ranch Water District (the “District”), District management and outside investment professionals.

Policy:

It is the policy of the District to invest its funds in a prudent and professional manner which will provide maximum security of principal while meeting required cash flow demands and conforming to all State statutes governing the investment of public funds, the District’s investment policies, and prudent cash management principles.

Scope:

This investment policy applies to all District funds that are under the direct oversight of the Board of Directors. The investment of any bond proceeds or related funds will also be made in accordance with this investment policy.

Standard of Care:

The Board of Directors and those persons authorized to make investment decisions on behalf of the District are trustees of public funds. The standard of care to be used in all investment transactions shall be the “prudent person” standard and shall be applied in the context of managing the overall portfolio (Government Code Section 53600.3). The “prudent person” standard is:

Investments shall be made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation but for investment, considering the probable safety of their capital as well as the probable income to be derived.

Officers and employees of the District involved in the investment process shall refrain from personal business activities that could conflict with proper execution of the investment program or could impair their ability to make impartial investment decisions. “Designated employees” of the District involved in the investment of District funds, which includes the Treasurer and Assistant Treasurer(s), shall disclose all information at the times and in the manner required by the District’s Conflict of Interest Code.

Objectives:

The primary objectives of the District's investment activities, in priority order, are as follows:

1. **Safety:** Safety of principal is the foremost objective of the investment program. Investments of the District shall be undertaken in a manner that seeks to ensure the preservation of capital in the overall portfolio. Accordingly, diversification by issuer, type, and maturity of securities will be made to avoid or minimize potential losses on individual securities.
2. **Liquidity:** The District's investment portfolio will remain sufficiently liquid to enable the District to meet all operating and capital cash requirements. To the extent required, this liquidity will be maintained through the purchase of securities with active secondary or resale markets and with short-term maturities so as to minimize market risk on the market price of the securities.
3. **Yield:** The District's investment portfolio shall be designed with the objective of attaining the highest rate of return commensurate with the above requirements for the preservation of capital and the maintenance of adequate liquidity.

Delegation of Authority:

In accordance with Government Code Sections 53607 and 53608, the Board of Directors has delegated to the District's Treasurer and Assistant Treasurer(s), acting singly, the authority to manage the District's investment program and to provide for the safekeeping of securities. This delegated authority is effective for the 2018 calendar year (Resolution 2018-XX).

Authorized Investments:

The District is authorized to invest its funds pursuant to the following State codes:

Government Code:

- Section 53600 et seq. - General investments
- Section 16429.1 - Local Agency Investment Fund (LAIF)
- Section 53684 - Orange County Treasury Pool (not currently authorized by the Board of Directors)
- Section 5920 - Public finance contracts

Water Code:

- Section 35912 - Real estate

The Treasurer and Assistant Treasurer(s) are authorized to invest District funds in accordance with these Code sections, subject to certain restrictions imposed by the District's Board of Directors. These authorized investments and restrictions are shown in Exhibit "A".

Whenever practical, a competitive process shall be used for the purchase and sale of securities.

The Board of Directors has approved investing in securities with terms or remaining maturities in excess of five years as part of the District's investment program, but that no such investments are to be made without the concurrence of the Finance and Personnel Committee.

Authorized Financial Institutions:

Only financial institutions designated as "primary dealers" by the Federal Reserve Bank of New York, or other dealers that qualify under Securities and Exchange Commission Rule 15C3-1 (uniform net capital rule), are authorized to provide investment services to the District. The Treasurer may limit the number of dealers authorized to provide such services.

A copy of the District's annual investment policy shall be provided to each institution authorized by the Treasurer to provide services to the District. Prior to providing investment services, such financial institution shall acknowledge in writing that it has received the District's investment policy and that all persons handling the District's account have reviewed the policy.

All authorized financial institutions are required to send the District unaudited quarterly and audited annual financial statements or provide electronic access to the financial statements.

Safekeeping and Custody:

All security transactions entered into by the District shall be conducted on a delivery-versus-payment (DVP) basis. All securities owned by the District shall be delivered to the District by book entry, physical delivery, or a third party custodial agreement. Any third party custodian shall be designated by the Treasurer, and all securities held by such custodian, including book entry and physical securities, shall be held in a manner that clearly establishes the District's right of ownership. The District's custodial agent shall meet the requirements of Government Code Section 53608. The District's deposits with LAIF or any other authorized investment pool shall be evidenced by the standard reporting requirements of LAIF or the investment pool.

Reporting:

The Treasurer shall file a monthly report with the Board of Directors at a public meeting that shows the status of the District's cash and securities, and all related investment transactions that occurred during the month. The status report shall also be filed with the District's General Manager and will include at least the following information:

- Type of investment
- Original cost
- Issuing institution
- Market value, including source
- Par amount
- Maturity date
- Coupon and/or yield

In addition, the status report shall include the portfolio's rate of return for the month, the average weighted life of the portfolio, a statement regarding the portfolio's compliance with the District's investment policy, and a statement regarding the District's ability to meet expenditure requirements over the following six months. (Government Code Sections 53607 and 53646)

The Treasurer shall also file a quarterly report with the Board of Directors at a public meeting with respect to the District's real estate investments and any related transactions which occurred during such quarter. The real estate report will be structured to comply as closely as possible with the information requirements of G.C. Section 53646.

Investment Policy Adoption and Amendments:

The Treasurer shall submit an investment policy at least annually to the Board of Directors at a public meeting (Government Code Section 53646). The policy shall be effective for the calendar year specified. If the Board of Directors does not approve an investment policy for any calendar year, then the investment policy for the previous calendar year shall remain in effect until a new policy is approved.

The District's Finance and Personnel Committee is authorized to make changes in the investment policy from time to time as may be necessary, provided that such changes may only be more restrictive in nature. Any changes that would liberalize the investment policy shall be approved by the Board of Directors before becoming effective. Any changes in the investment policy by the Finance and Personnel Committee shall be reported to the Board of Directors at its next regular meeting.

Exhibit "A"
 IRVINE RANCH WATER DISTRICT
 2018 AUTHORIZED INVESTMENTS

| INVESTMENT | MAJOR PROVISIONS (G.C. 53601 OR 53635 except as noted) | ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS |
|--|--|--|
| California State and Local Agency Bonds, Notes and Warrants | Registered State warrants, treasury notes or bonds. Any bonds, notes, warrants or other evidences of indebtedness of any local agency. | Limited to securities approved by the Finance and Personnel Committee. |
| U.S. Treasury and Agency Obligations | U.S. Treasury notes, bonds, bills or certificates of indebtedness or those for which the full faith and credit of the United States are pledged for the payment of principal and interest. Also federal agency or U.S. government sponsored obligations. | No additional restrictions. |
| Registered treasury notes or bonds of California or other 49 United States | Registered treasury notes or bonds of any of the other 49 United States in addition to California, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by a state or by a department, board, agency, or authority of any of the other 49 United States, in addition to California. | Limited to states and/or agencies approved by the Finance and Personnel Committee. |
| Banker's Acceptances | Must be eligible for discount at the Federal Reserve Bank. May not exceed 180 days maturity or 40% of local agency funds. No more than 30% of local agency funds may be invested in banker's acceptances of any one commercial bank. | Limited to domestic and foreign banks approved by the Finance and Personnel Committee. |
| U.S. Dollar Denominated Senior Unsecured Unsubordinated Obligations | Permits United States dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, or Inter-American Development Bank, rated "AA" or its equivalent or better. Limited to 30% of local agency funds. | Limited to securities approved by the Finance and Personnel Committee. |

IRVINE RANCH WATER DISTRICT
2018 AUTHORIZED INVESTMENTS

| INVESTMENT | MAJOR PROVISIONS (G.C. 53601 OR 53635 except as noted) | ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS |
|--|--|--|
| Commercial Paper | Must be of "prime" quality of the highest ranking or of the highest letter and number rating as provided for by a nationally recognized rating service. Issuers must be organized and operating in U.S., have assets exceeding \$500 million and be rated "A" or its equivalent or better. May not exceed 270 days maturity. Limited to 25% of local agency funds. | Limited to corporations approved by the Finance and Personnel Committee. |
| Negotiable Certificates of Deposit | Issued by national or state-chartered banks, savings associations, federal associations, or state or federal credit unions or state-licensed branches of a foreign bank. Specified restrictions on credit unions. Limited to 30% of local agency funds. | Limited to domestic and foreign banks and thrift institutions approved by the Finance and Personnel Committee. |
| Repurchase and Reverse Repurchase Agreements | Repurchase agreements are limited to one year or less and collateral shall be valued at least 102%. Reverse repurchase agreements, including securities lending agreements, are limited to 20% of the base portfolio value and to terms of 92 days or less unless a spread is guaranteed in writing. Securities being sold on reverse must be owned by the agency for at least 30 days. Reverse repurchase agreements may be made with primary dealers of the Federal Reserve Bank of New York, or nationally and state chartered banks with a significant banking relationship with the local agency. | All reverse repurchase agreements must have the prior approval of the Finance and Personnel Committee. All repurchase agreements must be made only with primary dealers of the Federal Reserve Bank of New York, or nationally and state chartered banks with a significant banking relationship with the local agency. |
| Medium Term Corporate Notes | All debt securities issued by U.S. corporations or depository institutions licensed by the U.S. or any state and operating within the U.S. Institutions rated "A" or its equivalent or better. May not exceed five years maturity, or 30% of local agency's funds. | For depository institutions, same as shown under Negotiable Certificates of Deposit. For corporations, limited to those approved by the Finance and Personnel Committee. |

IRVINE RANCH WATER DISTRICT
2018 AUTHORIZED INVESTMENTS

| INVESTMENT | MAJOR PROVISIONS (G.C. 53601 OR 53635 except as noted) | ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS |
|---|--|--|
| Shares of Beneficial Interest | Issued by diversified management companies investing in securities as specified. Companies shall have highest rating assigned by not less than two nationally recognized statistical rating organizations or shall have a registered and experienced investment advisor. Purchase price shall not include any commissions. Limited to 20% of funds of which no more than 10% may be with any one fund. | No additional restrictions. |
| Collateralized Negotiable Securities | Notes, bonds or obligations secured by a valid first priority security interest in specified securities. Collateral to be placed by delivery or book-entry into the custody of a trust company/department not affiliated with the issuer. Security interest perfected in accordance with Uniform Commercial Code or applicable federal regulations. Collateral requirements are the same as required to secure bank deposits made by local agencies. | No investment in collateralized negotiable securities shall be made without the prior approval of the Finance and Personnel Committee. |
| Collateralized Mortgage Obligations and Asset-Backed Securities | Mortgage pass-through security, collateralized mortgage obligation, mortgage-backed or other pay-through bond, equipment lease-backed certificate, consumer receivable pass-through certificate, or consumer receivable-backed bond of a maximum of 5 years maturity. Securities must be issued by an issuer having an "A" or its equivalent or higher rating by a nationally recognized rating service. Securities themselves must have an "AA" rating or its equivalent and may not exceed 20% of surplus funds. | No investment in collateralized mortgage obligations or asset-backed securities shall be made without the prior approval of the Finance and Personnel Committee. |

IRVINE RANCH WATER DISTRICT
2018 AUTHORIZED INVESTMENTS

| INVESTMENT | MAJOR PROVISIONS (G.C. 53601 OR 53635 except as noted) | ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS |
|-------------------------------|--|--|
| Financial Futures and Options | Authorizes the investment in financial futures and financial option contracts in any of the investment categories contained in Government Code Section 53601.1 | No investments in financial futures and financial option contracts are to be made without the prior approval of the Finance and Personnel Committee. |
| Prohibited Investments | A local agency shall not invest any funds in inverse floaters, range notes, and mortgage derived interest-only strips, or any security that could result in zero interest accrual if held to maturity. (Government Code Sections 53601.6 and 53631.5) | No additional restrictions. |
| Local Agency Investment Fund | Permits a local agency to deposit funds with the State Treasurer for the purpose of investment in securities prescribed in Government Code Section 16429.1 et seq. and 16930 | No additional restrictions. |
| Orange County Treasury Pool | Permits a local agency to deposit funds with the County Treasurer for investment in securities prescribed in Government Code Section 53635 or 53684 | No investments are to be made with the Orange County Treasury Pool without the prior approval of the Board of Directors. |
| Inactive Public Deposits | Deposits or contracts with Federal Reserve System banks insured by FDIC, savings associations or federal associations which are home loan bank members or insured by FSLIC, and state or federal credit unions. Specified restrictions on credit unions. | No inactive public deposits are to be made without the prior approval of the Finance and Personnel Committee. |

IRVINE RANCH WATER DISTRICT
2018 AUTHORIZED INVESTMENTS

| INVESTMENT | MAJOR PROVISIONS (G.C. 53601 OR 53635 except as noted) | ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS |
|--------------------------|---|---|
| Public Finance Contracts | Includes interest rate swap agreements, currency swap agreements, forward payment conversion agreements, futures, or index-based agreements to hedge payment, currency, rate, spread or similar exposure. Requires certain determinations by governing body. (Government Code Section 5920 et seq.) | The Board is authorized to approve the general parameters for swap transaction types, maximum notional amount(s) and maximum duration(s). The Finance and Personnel Committee shall structure specific parameters for individual transactions including notional amount, transaction timing, counterparty selection, index to be used and ISDA agreement approval. (Resolution 2003-36) |
| Real Estate Investments | Authorized to invest no more than 30% of the District's Replacement Fund in real estate located in Orange County. (Water Code Section 35912) | Real estate investments shall be made in accordance with existing Board policies (Resolution 1990-30). All real estate investments must be individually approved by the Board of Directors. |

EXHIBIT "B"

RESOLUTION NO. 2018-

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
IRVINE RANCH WATER DISTRICT APPROVING INVESTMENT
POLICY AND AUTHORIZING THE TREASURER AND ASSISTANT
TREASURERS TO INVEST AND REINVEST FUNDS OF THE
DISTRICT AND OF EACH OF ITS IMPROVEMENT DISTRICTS
AND TO SELL AND EXCHANGE SECURITIES

WHEREAS, the Treasurer of the Irvine Ranch Water District is permitted by Section 53646 of the California Government Code to annually render to the Board of Directors a statement of investment policy, which the Board shall consider at a public meeting; and

WHEREAS, in accordance with such requirement, the Treasurer has presented an investment policy to the Board at this meeting; and

WHEREAS, Section 53607 of the California Government Code permits the Board of Directors to delegate to the Treasurer of the District the Board's authority to invest or reinvest funds of the District or sell or exchange securities so purchased, limits the delegation to a one-year period, allows renewal by the Board on an annual basis and establishes a requirement for monthly reporting of the transactions by the Treasurer to the Board; and

WHEREAS, Section 53608 of the California Government Code permits the Board of Directors to delegate to the Treasurer of the District the Board's authority to deposit for safekeeping the bonds, notes, bills, debentures, obligations, certificates of indebtedness, warrants or other evidences of indebtedness in which money of the District is invested; and

WHEREAS, under Section 53635.2 of the California Government Code, funds of the District may be deposited with certain financial institutions; and

WHEREAS, pursuant to Section V, Paragraph 8 of the District's Bylaws, the Board has appointed one or more Assistant Treasurers;

WHEREAS, Resolution No. 2016-26 contains the previous delegation by this Board of the authority to invest or reinvest funds, sell or exchange securities, deposit investments for safekeeping, and deposit funds;

NOW THEREFORE, the Board of Directors of Irvine Ranch Water District DOES HEREBY RESOLVE, DETERMINE and ORDER as follows:

Section 1. The 2018 Investment Policy of the District is approved in the form presented by the Treasurer to this meeting, to be effective January 22, 2018, and remain in effect until it is revoked or is superseded.

Section 2. The authority of the Board of Directors to invest or reinvest funds of the District and its improvement districts or sell or exchange securities so purchased, subject to the requirements of the Investment Policy approved hereby, is hereby delegated to each of the Treasurer and the Assistant Treasurer(s), acting singly. Pursuant to Government Code Section 53607, the Treasurer shall assume full responsibility for those transactions until this delegation is revoked or expires. This delegation shall become effective January 22, 2018, and shall remain in effect until it is revoked or is superseded by a subsequent delegation.

Section 3. The authority of the Board of Directors to deposit for safekeeping the bonds, notes, bills, debentures, obligations, certificates of indebtedness, warrants or other evidences of instruments in which money of the District and its improvement districts is invested, subject to the requirements of the investment policy approved hereby, is hereby delegated to each of the Treasurer and the Assistant Treasurer(s), acting singly. This delegation shall become effective January 22, 2018, and shall remain in effect until it is revoked or is superseded by a subsequent delegation.

ADOPTED, SIGNED AND APPROVED this 22nd day of January, 2018.

President
IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof

Secretary
IRVINE RANCH WATER DISTRICT
and of the Board of Directors thereof

APPROVED AS TO FORM:

NOSSAMAN LLP
Legal Counsel - IRWD

By: _____
Alfred Smith

January 22, 2018

Prepared by: J. McGehee/R. Mori

Submitted by: K. Burton

Approved by: Paul A. Cook



CONSENT CALENDAR

ZONE 1 RESERVOIR DESIGN VARIANCE

SUMMARY:

The design of the proposed 3.7 million gallon (MG) Zone 1 Reservoir is nearing completion. Tetra Tech recently submitted the 90% design submittal and continues to progress toward design completion. During the final design phase, staff requested additional engineering services that were not included in the original scope of work. Staff recommends that the Board authorize the General Manager to execute Variance No. 1 in the amount of \$130,400 with Tetra Tech.

BACKGROUND:

On September 26, 2016, the Board awarded a Professional Services Agreement to Tetra Tech for engineering design services for the reservoir. The proposed reservoir will be sited directly adjacent to the existing 15 MG Zone 1 Reservoir which is located on Sand Canyon Avenue near Elysian. The reservoir, which will be an above ground prestressed concrete tank, will have a maximum volume of 3.7 MG. The design is scheduled for completion in March 2018.

Variance No. 1:

The existing 15 MG reservoir site is screened by a landscaped berm and a perimeter of several mature screening trees. Due to space constraints on the existing site, the proposed reservoir will only be located about 40 feet away from the curb faces on Sand Canyon Avenue and Elysian. As a result, staff directed Tetra Tech to preserve the existing screening berm and trees to the greatest extent possible and to maximize the available space between the proposed reservoir and the adjacent streets. This available space will be utilized for planting of additional trees of varying height and species to screen the proposed reservoir. Due to this effort, the proposed onsite piping was required to be relocated to within Sand Canyon Avenue, which also necessitated the development of traffic control plans and the reconfiguration of the proposed valve vault. Detailed landscaping plans, additional architectural renderings, and an animated drive-by video of the site were also requested and will be used to coordinate the project with both the City of Irvine and the residents adjacent to the reservoir site. Staff also directed Tetra Tech to add the design of a reservoir management system to the project which will ensure that the water quality in the proposed reservoir is maintained at a high level and will also allow staff to operate both reservoirs in parallel, which is the preferred normal mode of operation.

Tetra Tech submitted Variance No. 1, which is attached as Exhibit "A", for additional engineering services including piping alignment revisions and traffic control plans, vault design adjustments, architectural renderings and animated video, landscaping plans, and reservoir management system. Staff reviewed the variance request, finds it to be acceptable, and recommends that the Board authorize the General Manager to execute Variance No. 1, in the amount of \$130,400, with Tetra Tech for the additional engineering services.

FISCAL IMPACTS:

The 3.7 MG Zone 1 Reservoir, Project 06401, is included in the FY 2017-18 Capital Budget. The existing budget is sufficient to fund Variance No. 1.

ENVIRONMENTAL COMPLIANCE:

The project is subject to the California Environmental Quality Act (CEQA). An Initial Study/Mitigated Negative Declaration (IS/MND) is being prepared in conformance with CEQA, California Code of Regulations Title 14, Chapter 3, Article 6, Section 15070.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on January 16, 2018.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 1 IN THE AMOUNT OF \$130,400 WITH TETRA TECH FOR ADDITIONAL ENGINEERING SERVICES FOR THE 3.7 MG ZONE 1 RESERVOIR, PROJECT 06401.

LIST OF EXHIBITS:

Exhibit "A" – Variance No. 1

**IRVINE RANCH WATER DISTRICT
PROFESSIONAL SERVICES VARIANCE**

EXHIBIT "A"

Project Title: 3.7 MG Zone 1 Reservoir Project

Project No.: 06401 (7402)

Date December 7, 2017

Purchase Order No.: 532286

Variance No.: 1

Originator: IRWD ENGINEER/CONSULTANT Other (Explain) _____

Description of Variance (attach any back-up material): The District has requested Tetra Tech to perform several additional items of work which were not included within our original proposal. These include: additional architectural rendering; landscape architectural work; piping within Sand Canyon; traffic control; RMS System Improvements; and structural plans for the valve & overflow/inspection vault. These items are summarized in the attached December 7, 2017 correspondence prepared by Tetra Tech.

Engineering & Management Cost Impact:

| Classification | Manhours | Billing Rate | Labor \$ | Direct Costs | Subcon. \$ | Total \$ |
|---------------------------------------|----------|--------------|-----------|--------------|-------------------|-------------------|
| Senior Project Manager | 16 | \$305 | \$ 4,880 | | | \$ 4,880 |
| Structural/Electrical Project Manager | 23 | \$210 | \$ 4,830 | | | \$ 4,830 |
| Project Engineer | 154 | \$165 | \$ 25,410 | | | \$ 25,410 |
| Design Engineer | 280 | \$115 | \$ 32,200 | | | \$ 32,200 |
| CADD | 308 | \$125 | \$ 38,500 | | | \$ 38,500 |
| Landscape Architect | | | | | \$ 23,040 | \$ 23,040 |
| Direct Costs (reprographics, mileage) | | | | \$ 1,540 | | \$ 1,540 |
| | | | | | Total \$ = | \$ 130,400 |

Schedule Impact:

| Task No. | Task Description | Original Schedule | Schedule Variance | New Schedule |
|----------|-------------------|-------------------|-------------------|--------------|
| | Additional Design | NA | NA | NA |

Required Approval Determination:

| | | |
|--|-------------------|--|
| Total Original Contract | \$ <u>438,000</u> | <input type="checkbox"/> Director: Cumulative total of Variances less than or equal to \$50,000. <input type="checkbox"/> Executive Director: Cumulative total of Variances less than or equal to \$75,000. <input type="checkbox"/> General Manager: Cumulative total of Variances less than or equal to \$100,000. <input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$100,000. |
| Previous Variances \$ | <u>0</u> | |
| This Variance | \$ <u>130,400</u> | |
| Total Sum of Variances | \$ <u>130,400</u> | |
| New Contract Amount | \$ <u>568,400</u> | |
| Percentage of Total Variances to Original Contract | <u>29.77%</u> | |

ENGINEER/CONSULTANT: Tetra Tech, Inc.
Company Name

IRVINE RANCH WATER DISTRICT

[Signature]
Project Engineer/Manager Date 12/7/17

[Signature]
Department Director Date 1/3/18

[Signature]
Engineer's/Consultant's Management Date 12/7/17

General Manager/Board Date _____

IRVINE RANCH WATER DISTRICT

PROFESSIONAL SERVICES VARIANCE REGISTER

| Project Title: <u>3.7 MG Zone 1 Reservoir Project</u> | | | | |
|---|---|-----------|----------|-----------------|
| Project No.: <u>06401 (7402)</u> Project Manager: <u>Richard Mori</u> | | | | |
| Variance No. | Description | Dates | | Variance Amount |
| | | Initiated | Approved | |
| 1 | Additional Work: Rendering; Landscape; Sand Canyon Piping; Traffic Control; RMS Imp. and Structural Design of vaults | 12/07/17 | | \$ 130,400 |
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TETRA TECH

December 7, 2017

Mr. Richard K. Mori, P.E., Principal Engineer – Capital Projects
Irvine Ranch Water District; Engineering Department
15600 Sand Canyon Avenue
Irvine, CA 92618

**Reference: 3.7 MG Zone 1 Reservoir Project,
Project No. 06401, Purchase Order No. 532286
Additional Engineering Design Services – Variance No. 1**

Dear Mr. Mori:

Tetra Tech has been working with the District on the 3.7 MG Zone 1 Reservoir Project since October 2016 in accordance with the Agreement for Professional Services dated September 27th, 2016. Our original approved design budget was \$438,000. In the process of completing our 90% design submittal, Tetra Tech has been requested to perform several items of work which were not included within our original proposal. In addition, several design items included within the current construction plans required more effort and detail than anticipated within our original proposal. The following correspondence is requesting the District to increase our design budget to compensate Tetra Tech for these additional work items summarized below.

ADDITIONAL ENGINEERING DESIGN SERVICES

Item No. 1: Additional Architectural Rendering

Our original proposal included the preparation of preliminary renderings from Elysian (street level and from 2nd story) and from south bound side of Sand Canyon Avenue to assist in the evaluation of visual impacts of the new tank. During the preliminary design, the District requested a total of five (5) renderings: Elysian along the entire block; Elysian traveling westbound; Sand Canyon traveling southbound; Sand Canyon traveling northbound; and Sand Canyon along the entire block. In addition, the District requested Tetra Tech to generate a 3D computer rendering of the proposed improvements. This 3D computer rendering was prepared based on google street view, photos and our proposed site improvement plans. Tetra Tech prepared a fly-by animation computer rendering going northbound on Sand Canyon and turning right unto Elysian. The 3D computer rendering will also include the two tank paint options and the three proposed landscape alternatives.

Tetra Tech requests a budget increase of \$10,000 for the additional architectural rendering work.

Item No. 2: Landscape Architectural Work

The District requested Tetra Tech to include landscape work within our scope of work. Tetra Tech added Kobzeff & Associates to our project team to perform the Conceptual Landscape Concepts and Construction Documents for the landscaping around the new tank at the corner of Sand Canyon and Elysian. The scope of work will consist of a mix of colored conceptual drawings and construction documents which will eventually culminate into a complete bidding document of the chosen alternative to be included within Tetra Tech's construction documents.

The Conceptual Development Phase will include the preparation of three (3) colored landscape alternatives and the corresponding meetings and presentations as needed.

17885 Von Karman Avenue, Suite 500, Irvine, CA 92614-6213
Tel 949.809.5000 Fax 949.809.5010 tetrattech.com

The Construction Documentation Phase will include the following sheets: Tree Demolition Plan and Notes; Planting Plan, Notes and Details; Irrigation Plan Notes and Details; and State AB 1881, Water Conversation Package. In addition, Kobzeff & Associates will provide as-needed support services to Tetra Tech regarding clearances required from planting to the proposed improvements.

Tetra Tech requests a budget increase of \$24,700 for the landscape architect work.

Item No. 3: Revised Piping into Sand Canyon

In order to minimize the construction within the existing berm and the corresponding removal of the existing perimeter trees, the District decided to construct the inlet/outlet and overflow/drain pipeline within the District's access road and within Sand Canyon Avenue. Constructing the pipes into Sand Canyon required the crossing of the existing 48-inch Zone 3 pipeline, 36-inch storm drain and the utilities within the parkway. These vertical conflicts resulted in Tetra Tech having to evaluate several options of the vertical alignment for the overflow and drain pipelines.

The following is a summary of the additional work due to revising the piping into Sand Canyon:

- Conceptual alternatives for the overflow and drain piping including the sump pump;
- Additional plan sheet (separating the drain piping plan from the subdrain piping plan); and
- Additional two profile sheets (due to the vertical conflicts and increase in length of piping).

Tetra Tech is requesting a budget increase of \$12,100 for the revised piping into Sand Canyon.

Item No. 4: Traffic Control Sheets

Due to revising the alignment of the inlet/outlet and overflow/drain piping into Sand Canyon, Tetra Tech will need to prepare traffic control plans for both the potholing activities, and the actual pipeline construction work. In addition, the District requested Tetra Tech to prepare sidewalk closing and detour plans during the concrete tank wrapping construction activities.

The following is a summary of the required traffic control plans:

- 4 sheets for potholing activities;
- 8 sheets for pipeline construction; and
- 2 sheets for sidewalk closure and detour during the tank wrapping construction.

Tetra Tech is requesting a budget increase of \$29,700 for the traffic control sheets.

Item No. 5 RMS System Improvements

Our original proposal included the following scope of work items regarding the existing Reservoir Management System (RMS): Tetra Tech will review record drawings associated with the existing RMS currently serving the 15 MG steel tank and provide recommendations, including building, piping, tanks, and electrical modifications, to add RMS to the second Zone 1 Reservoir (budget of \$2,200); and we included a RMS conduit/piping plan and detail sheet as part of the construction drawings (budget of \$3,500).

During the design process, Tetra Tech performed the following preliminary work:

- Two site visits to the existing RMS building;
- Coordination with the supplier of the existing facilities (two meetings and several e-mail correspondence);

- Research of the existing RMS facilities at Foothill/Portola facilities as well as the PAX system;
- Evaluate options for the different RMS facilities and the water sampling systems.

Tetra Tech is requesting a budget of **\$5,600** for the preliminary RMS work.

Based on this preliminary work, the District decided on the following improvements to the RMS system:

- Replace the two existing mixers within the 15 MG tank and replace with one PAX mixer. The mixer will be placed at the approximate center of the tank and the chemical injection will be through the roof vent.
- Provide a new PAX mixer in the new 3.7 MG tank.
- Remove and replace the PLC within the RMS building.
- Reuse the four existing chemical pumps (two pumps for each chemical). One set of pumps for the 15 MG tank and the other set of pumps will reuse some of the conduits and construct new conduits to the new 3.7 MG tank. The existing chemical tanks will remain.
- The water sample return pump and tank will be reused. A new tee will be added so water can be discharged to the new tank.
- A submersible pump will be installed in each tank to recirculate the water for the chemical analyzer. A tee will connect to this for the sample feed line. Two ball valves will be installed on the pump discharge to create backpressure.
- Additional RMS chemical conduits, power and water sample line will be required to the 3.7 MG Tank.

The District requested that the RMS operation of both reservoirs be included in this plan set so this will be the most current set. This included adding the water sample return pump starter schematic and the P&ID for the sodium hypochlorite, ammonia chiller and chlorine analyzer.

The following is a summary of the additional construction drawings required for this work:

- RMS Building Demolition Plan (Sheet M-103);
- Existing RMS Water Sample Piping Diagram (Sheet M-503);
- RMS Water Sample Piping Diagram (Sheet M-504);
- RMS Building Power and Control Plan (Sheet E-104);
- RMS Building Wall Elevation (Sheet E-105);
- 3.7 MG Reservoir Water Sample Pump Starter Schematic (Sheet E-106);
- Water Sample Return Pump Starter Schematic (Sheet E-107);
- 15 MG Reservoir Water Sample Pump Starter Schematic (Sheet E-108);
- Water Mixer Control Schematic (Sheet E-109);
- Sodium Hypochlorite P&ID (Sheet EI-301);
- Ammonia Chiller System P&ID (Sheet EI-302); and
- Chlorine Analyzer System P&ID (Sheet EI-303);

Tetra Tech is requests a budget increase of **\$30,800** for the additional RMS construction drawings.

Item No. 6: Valve Vault and Overflow/Inspection Vault Structural Plans

Our original proposal did not include the structural design of the valve control vault and the overflow/inspection vault facilities. We had assumed that these facilities would have been a pre-cast vault and not a cast-in-place vault. Due to the final location and size of the vault structures, a pre-cast vault was not a viable option. The following are the additional structural construction drawings that were required to be included within the plan set:

- Valve Control Vault Structural Plan and Section (Sheet S-103);
- Overflow Catch Basin Structural Plan (Sheet S-104);
- Drain Inspection Vault Structural Plan (Sheet S-105);
- Overflow Catch Basin Structural Section (Sheet S-304); and
- Inspection Vault Structural Section (Sheet S-305).

Tetra Tech requests a budget increase of \$17,500 for the additional structural sheets for the vaults.

SUMMARY

Tetra Tech is requesting the District to increase our approved budget to compensate us for the additional engineering services described above and summarized below:


| <i>Item No.</i> | <i>Description of Additional Work</i> | <i>Requested Budget Increase</i> |
|--|--|----------------------------------|
| 1 | Additional Architectural Rendering | \$ 10,000 |
| 2 | Landscape Architectural Work | \$ 24,700 |
| 3 | Revised Piping into Sand Canyon | \$ 12,100 |
| 4 | Traffic Control Sheets | \$ 29,700 |
| 5 | RMS System Improvements | \$ 36,400 |
| 6 | Valve and Overflow/Inspection Vault Structural Plans | \$ 17,500 |
| Total Requested Budget Increase | | \$130,400 |

We have included herewith our person-hour estimate for the Additional Engineering Design Services.

Acceptance by the District of Variance No. 1 will increase our approved budget from \$438,000 to **\$568,400**.

Attached herewith are the Professional Services Variance and Register. If you have any questions, please do not hesitate to give me a call.

Sincerely,


Tom Epperson, P.E.
Project Manager

TLE/te

Attachment(s)

P:\09368-17002\PrjtMgmt\Correspondence\Variance 1 Request

IRVINE RANCH WATER DISTRICT
3.7 MG Zone 1 Reservoir Project
Additional Engineering Design Services - Variance No. 1
Fee Summary

| Task Description | | | | | | | | Fees | | TOTALS |
|---|------------------------|-----------------|------------------|-----------------|------------|----------|-------------|------------------|--------------------------------|------------------|
| | Senior Project Manager | Project Manager | Project Engineer | Design Engineer | CADD | WP | Total Hours | Labor | Sub-Contractors Re-imbursables | |
| Additional Engineering Design Services | | | | | | | | | | |
| 1 Additional Architectural Rendering | 0 | 0 | 16 | 20 | 40 | 0 | 76 | \$9,940 | \$60 | \$10,000 |
| 2 Landscaps Architectural Work | 0 | 0 | 2 | 0 | 8 | 0 | 10 | \$1,330 | \$18,650 | \$19,980 |
| As-needed Support to Tetra Tech | 0 | 0 | 2 | 0 | 0 | 0 | 2 | \$330 | \$4,390 | \$4,720 |
| 3 Revised Piping into Sand Canyon | | | | | | | | | | |
| Conceptual Alternatives | 2 | 0 | 8 | 16 | 8 | 0 | 34 | \$4,770 | \$0 | \$4,770 |
| Additional plan sheet | 1 | 0 | 2 | 6 | 12 | 0 | 21 | \$2,825 | \$40 | \$2,865 |
| Additional profile sheets (2 shts) | 1 | 0 | 4 | 8 | 20 | 0 | 33 | \$4,385 | \$80 | \$4,465 |
| 4 Traffic Control Sheets | | | | | | | | | | |
| Pothole Activities (4 shts) | 0 | 0 | 16 | 32 | 16 | 0 | 64 | \$8,320 | \$160 | \$8,480 |
| Pipeline Construction (8 shts) | 0 | 0 | 32 | 64 | 32 | 0 | 128 | \$16,640 | \$340 | \$16,980 |
| Sidewalk closure/detour (2 shts) | 0 | 0 | 8 | 16 | 8 | 0 | 32 | \$4,160 | \$80 | \$4,240 |
| 5 RMS System Improvements | | | | | | | | | | |
| Additional Preliminary Work | 2 | 4 | 8 | 24 | 0 | 0 | 38 | \$5,530 | \$70 | \$5,600 |
| RMS Building Demolition | 1 | 0 | 2 | 6 | 12 | 0 | 21 | \$2,825 | \$45 | \$2,870 |
| Existing RMS Water Sample Piping | 1 | 0 | 2 | 4 | 8 | 0 | 15 | \$2,095 | \$45 | \$2,140 |
| RMS Water Sample Piping | 1 | 0 | 2 | 6 | 12 | 0 | 21 | \$2,825 | \$45 | \$2,870 |
| RMS Building Power and Control Plan | 0 | 1 | 2 | 6 | 12 | 0 | 21 | \$2,730 | \$45 | \$2,775 |
| RMS Building Wall Elevation | 0 | 1 | 2 | 6 | 12 | 0 | 21 | \$2,730 | \$45 | \$2,775 |
| 3.7 MG Water Sample Pump Starter Sch. | 0 | 1 | 2 | 6 | 8 | 0 | 17 | \$2,230 | \$45 | \$2,275 |
| Water Sample Return Pump Starter Sch. | 0 | 1 | 2 | 6 | 8 | 0 | 17 | \$2,230 | \$45 | \$2,275 |
| 15 MG Water Sample Pump Starter Sch. | 0 | 1 | 2 | 4 | 8 | 0 | 15 | \$2,000 | \$40 | \$2,040 |
| Water Mixer Control Schematic | 0 | 1 | 2 | 6 | 8 | 0 | 17 | \$2,230 | \$40 | \$2,270 |
| Sodium Hypochlorite P&ID | 0 | 1 | 2 | 4 | 8 | 0 | 15 | \$2,000 | \$40 | \$2,040 |
| Ammonia Chiller System P&ID | 0 | 1 | 2 | 4 | 8 | 0 | 15 | \$2,000 | \$40 | \$2,040 |
| Chlorine Analyzer System P&ID | 0 | 1 | 2 | 4 | 8 | 0 | 15 | \$2,000 | \$40 | \$2,040 |
| Specifications | 2 | 0 | 8 | 4 | 0 | 0 | 14 | \$2,390 | \$0 | \$2,390 |
| 6 Valve/Overflow/Inspect Vault Structures | | | | | | | | | | |
| Valve Vault Structural Plan and Section | 1 | 2 | 8 | 8 | 16 | 0 | 35 | \$4,965 | \$40 | \$5,005 |
| Overflow Structural Plan | 1 | 2 | 4 | 6 | 10 | 0 | 23 | \$3,325 | \$40 | \$3,365 |
| Drain Inspection Vault Structural Plan | 1 | 2 | 4 | 6 | 10 | 0 | 23 | \$3,325 | \$40 | \$3,365 |
| Overflow Structural Section | 1 | 2 | 4 | 4 | 8 | 0 | 19 | \$2,845 | \$40 | \$2,885 |
| Inspection Vault Structural Section | 1 | 2 | 4 | 4 | 8 | 0 | 19 | \$2,845 | \$35 | \$2,880 |
| TOTAL | 16 | 23 | 154 | 280 | 308 | 0 | 781 | \$105,820 | \$24,580 | \$130,400 |

January 22, 2018

Prepared by: C. Kessler/K. Lew

Submitted by: K. Burton *(KLB)*

Approved by: Paul A. 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 \$118,077 for the District 4, Area 3, Episode from Frame to Pusan Improvements;
- Approve Contract Change Orders (CCO) No. 5 and 6 to Project 06018 in the amounts of \$106,360 and \$107,674, respectively, for the addition of domestic and recycled water stubs and repairs to failing vault lids within Irvine Boulevard;
- Approve CCO No. 1 to Projects 06086 and 06087 in the amount of \$374,922 for the addition of domestic and recycled water stubs; and
- Authorize budget increases for Project 06086 in the amount of \$200,000, from \$238,700 to \$438,700, and Project 06018 in the amount of \$200,000, from \$261,600 to \$461,600.

BACKGROUND:

Heritage Fields is moving forward with development of Districts 4 and 3 within PA 51. District 4 is bound by Irvine Boulevard to the north, Cadence to the south, Bosque to the west and Chinon Street to the east. District 3 is bound by Barranca Parkway to the north and Alton Parkway to the south. 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 dated September 2016, as 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 4, Area 3 Recycled Water Improvements:

The District 4, Area 3 Recycled Water Improvements consist of installing approximately 1,300 feet of 16-inch diameter recycled water pipeline within Episode between Frame and Pusan. Heritage Fields retained Hunsaker to prepare the 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 \$118,077 as shown in Exhibit "B". In addition, Heritage Fields has received consultant proposals for design, geotechnical observation and testing, archeological and paleontological monitoring, surveying, and construction support services.

Staff has reviewed the consultant proposals and the construction bids and found the amounts to be acceptable. A summary of the District 4, Area 3 Recycled Water Improvement costs is shown below.

| | |
|--|---------------------|
| Design (Hunsaker) | \$ 28,000.00 |
| Construction (FYDAQ) | \$118,077.00 |
| Geotechnical Services (Engeo) | \$ 9,100.00 |
| Construction Engineering/Surveying (Hunsaker) | \$ 11,900.00 |
| Archeo/Paleo Monitoring (LSA) | \$ 4,215.00 |
| <u>Heritage Fields Administration Fee (1%)</u> | <u>\$ 11,807.70</u> |
| Total | \$183,099.70 |

Irvine Boulevard Improvements:

CCO No. 5 includes the installation of a 36-inch by 12-inch cut-in tee, a 16-inch by 12-inch cut-in tee, two 12-inch butterfly valves, approximately 70 feet of 12-inch diameter domestic water pipeline and 70 feet of 12-inch diameter recycled water pipe line for stubs identified in the SAMP but not included in the original construction bid. CCO No. 5, in the amount of \$106,360 and attached as Exhibit "C", is for the equipment, material, and labor to perform the aforementioned modifications. Staff has reviewed CCO No. 5 and found the amount to be acceptable.

CCO No. 6 includes repair modifications to an existing spring assisted vault lid within Irvine Boulevard. The valve vault lid located within traffic lanes of Irvine Boulevard came loose due to traffic vibrations and caused damage to several vehicles. Given the urgent nature of the repairs, IRWD utilized an existing contract to quickly make the repairs. CCO No. 6, in the amount of \$107,674 and attached as Exhibit "D", is for the equipment, material, and labor to perform the aforementioned modifications. Staff has reviewed CCO No. 6 and found the amount to be acceptable.

Marine Way Improvements:

CCO No. 1 includes the installation of a 24-inch by 12-inch cut-in cross, a 16-inch by 8-inch cut-in cross, two 24-inch butterfly valves, two 16-inch butterfly valves, two 12-inch butterfly valves, two 8-inch gate valves, and approximately 200 feet of domestic and recycled water pipeline for stubs identified in the SAMP but not included in the original construction bid. Utility conflicts within the project bounds made installation difficult. The new lines serve both sides of Barranca Parkway and installation required several phases of traffic control. CCO No. 1, in the amount of \$374,922 and attached as Exhibit "E", is for the equipment, material, and labor to perform the aforementioned modifications. Staff has reviewed CCO No. 1 and found the amount to be acceptable.

FISCAL IMPACTS:

Projects 06823 and 06018 are included in the FY 2017-18 Capital Budget and have adequate budget. Projects 06086 and 06087 are included in the FY 2017-18 Capital Budget and will require a budget increase.

| Project No. | Current Budget | Addition <Reduction> | Total Budget |
|-------------|----------------|----------------------|--------------|
| 06086 | \$238,700 | \$200,000 | \$ 438,700 |
| 06087 | \$281,600 | \$200,000 | \$ 481,600 |
| Total | \$520,300 | \$400,000 | \$ 920,300 |

ENVIRONMENTAL COMPLIANCE:

Construction of capital domestic water, sanitary 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 January 16, 2018.

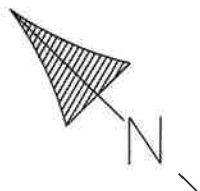
RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO ACCEPT HERITAGE FIELD'S CONSTRUCTION CONTRACT WITH FYDAQ IN THE AMOUNT OF \$118,077 FOR PROJECT 06823; APPROVE CONTRACT CHANGE ORDER NO. 5 IN THE AMOUNT OF \$106,360 FOR PROJECT 06018; APPROVE CONTRACT CHANGE ORDER NO. 6 IN THE AMOUNT OF \$107,674 FOR PROJECT 06018; APPROVE CONTRACT CHANGE ORDER NO. 1 IN THE AMOUNT OF \$374,922 FOR PROJECTS 06086 AND 06087; AND AUTHORIZE BUDGET INCREASES FOR PROJECT 06086 IN THE AMOUNT OF \$200,000, FROM \$238,700 TO \$438,700, AND PROJECT 06018 IN THE AMOUNT OF \$200,000, FROM \$261,600 TO \$461,600.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Bid Summary, District 4, Area 3 Recycled Water Improvements
- Exhibit "C" – CCO No. 5, Irvine Boulevard Improvements
- Exhibit "D" – CCO No. 6, Irvine Boulevard Improvements
- Exhibit "E" – CCO No. 1, Marine Way Improvements

EXHIBIT "A"



not to scale

EXHIBIT "A"
LOCATION MAP

EXHIBIT "B"



Bid Tabulations

Owner: Heritage Fields El Toro, LLC
Planning Area 51 District 4 Area 3
Bid Date: February 11, 2016

IRWD CODE 6628 CAP IMPROVEMENTS

| ITEM NO. | DESCRIPTION | UNIT MEAS | QUAN | ENGINEER ESTIMATE | | FYDAQ <i>Attn: Steve Beyer Tel: 714.447.9760</i> | | KENNEDY <i>Attn: David Chorak Tel: 949.380.8363</i> | | LEATHERWOOD <i>Attn: Bobby Kawai Tel: 714.593.6575</i> | | L&S <i>Attn: Elton Welham Tel: 714.528.3232</i> | | KEC <i>Attn: James Elfring Tel: 951.734.3010</i> | |
|-------------------------------------|---|-----------|-------|---------------------|---------------------|---|---------------------|--|---------------------|---|-----------|--|------------|---|------------|
| | | | | PRICE | AMOUNT | PRICE | AMOUNT | PRICE | AMOUNT | PRICE | AMOUNT | PRICE | AMOUNT | PRICE | AMOUNT |
| 1 | | | | 1 | | | | | | | | | | | |
| 24. | Mobilization, Establish Construction Water (Not to Exceed 2% of Bid), Complete | LS | 1 | 1,500.00 | 1,500.00 | 500.00 | 500.00 | 2,500.00 | 2,500.00 | 2,950.00 | 2,950.00 | 2,800.00 | 2,800.00 | 2,500.00 | 2,500.00 |
| 25. | Performance, Labor and Payment Bond, Complete | LS | 1 | 500.00 | 500.00 | 1,700.00 | 1,700.00 | 2,500.00 | 2,500.00 | 2,250.00 | 2,250.00 | 2,490.00 | 2,490.00 | 3,200.00 | 3,200.00 |
| 26. | Furnish and Install 16" PVC (Purple), C-905, DR 18, including Trenching, Bedding, Backfill, Compaction per IRWD Std. W-17 and All Fittings, Appurtenances, and Thrust Blocks per IRWD Stds. and as Shown on the Plans, Complete | LF | 1,307 | 90.00 | 117,630.00 | 61.00 | 79,727.00 | 73.00 | 95,411.00 | 75.00 | 98,025.00 | 78.00 | 101,946.00 | 100.00 | 130,700.00 |
| 27. | Furnish and Install 16" Butterfly Valve, CL 150, Flg'd. Valve Box per IRWD Std. Dwg. W-22, Including 1 Raise, Complete | EA | 1 | 6,500.00 | 6,500.00 | 5,000.00 | 5,000.00 | 4,000.00 | 4,000.00 | 8,400.00 | 8,400.00 | 7,400.00 | 7,400.00 | 500.00 | 500.00 |
| 28. | Furnish and Install 6" Butterfly Valve, CL 150B, Flg'd. Valve Box per IRWD Std. Dwg. W-22, Including 1 Raise, Complete | EA | 3 | 3,000.00 | 9,000.00 | 2,100.00 | 6,300.00 | 2,240.00 | 6,720.00 | 2,450.00 | 7,350.00 | 2,100.00 | 6,300.00 | 5,000.00 | 15,000.00 |
| 29. | Furnish and Install 4" Blow-Off Assembly, Case 3, per IRWD Std. Dwg. W-14, Not including 4" Gate Valve and Using a 6" Butterfly Valve included Above and per Plans, including 1 Raise, Complete | EA | 1 | 3,500.00 | 3,500.00 | 11,350.00 | 11,350.00 | 9,635.00 | 9,635.00 | 12,400.00 | 12,400.00 | 9,500.00 | 9,500.00 | 9,000.00 | 9,000.00 |
| 30. | Furnish and Install 2" Air-Vac Assembly, Case 3, per IRWD Std. Dwg. W-11, including 1 Raise, Complete | EA | 1 | 3,000.00 | 3,000.00 | 4,800.00 | 4,800.00 | 4,675.00 | 4,675.00 | 4,950.00 | 4,950.00 | 3,800.00 | 3,800.00 | 11,680.00 | 11,680.00 |
| 31. | Remove and Dispose Temporary Flush-Out Assembly and Join Existing 16" PVC Recycled Water Line, Complete | EA | 2 | 3,000.00 | 6,000.00 | 1,500.00 | 3,000.00 | 3,500.00 | 7,000.00 | 3,500.00 | 7,000.00 | 5,000.00 | 10,000.00 | 3,650.00 | 7,300.00 |
| 32. | 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 | 150.00 | 900.00 | 385.00 | 2,310.00 | 500.00 | 3,000.00 | 2,150.00 | 12,900.00 |
| 33. | Pressure Test Pipeline, Complete | LS | 1 | 3,500.00 | 3,500.00 | 3,000.00 | 3,000.00 | 1,000.00 | 1,000.00 | 2,650.00 | 2,650.00 | 4,400.00 | 4,400.00 | 8,500.00 | 8,500.00 |
| SUB-TOTAL, IMPROVEMENTS..... | | | | \$154,130.00 | \$118,077.00 | \$134,341.00 | \$148,285.00 | \$151,636.00 | \$201,280.00 | | | | | | |

EXHIBIT "C"

CHANGE NO.: 5
DATE: 8/4/2016

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.: 20051507 Owner: Heritage Fields El Toro, LLC
Sewer Contractor: Leatherwood Construction, Inc.
Domestic Water
Reclaim Water
Other Design Engineer: Hunsaker & Associates
IRWD Mgr. Kelly Lew

Project Description: Irvine Boulevard IRWD Code 6352

PART A - POTENTIAL CHANGE OF WORK:

Plan Revision Required: YES NO Estimated Cost: \$106,360.00

16" x 12" Tee = RW

Change Initiated By: _____

Work Description: 6352 RW
IRWD Code 6813 A Street 12" domestic water capital PVC C900 DR 15 and 36"x36"x12" cut-in-tee

- 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: [Signature] 10/4/17 IRWD Representative / Date
- 3. Received and Recorded by: _____ Owner Representative / Date

PART B - CHANGE OF WORK VALUE:

\$ \$106,360.00

Detailed Backup Attached [Signature]

- 1. Submitted by: [Signature] 8-11-16 Owner Representative / Date
- 2. Recommended by: _____ IRWD Representative / Date

EXHIBIT "D"

CHANGE NO.: 6
DATE:

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.: 20051507 Owner: Heritage Fields El Toro, LLC
Sewer Contractor: Leatherwood
Domestic Water
Reclaim Water Design Engineer: Hunsaker & Associates
Other IRWD Mgr. Kelly Lew

Project Description: Removal & replacement of the existing 36" BFV vault lid with a non-spring assisted opening vault lid per Rev-E changes to the Irvine Blvd Ph-2 IRWD Capital plans. The vault lid by Olson Precast includes the engineering design by an RCE that was modified twice by IRWD. LCI will need to wall saw the existing vault to lower it to the new street grade, and remove the 12" thick PCC apron around the existing vault lid. Also, LCI will need to install AC base paving around the vault lid to replace the PCC apron. LCI will perform and supply daily traffic control per the watch manual while working restricted hours per the COI. LCI will need to provide a 2" cold plane & AC cap per the COI request. IRWA 6352

PART A - POTENTIAL CHANGE OF WORK:

Plan Revision Required: YES NO Estimated Cost: \$107,674.00

Change Initiated By: _____

Work Description:

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: [Signature] 10/9/12
IRWD Representative / Date
3. Received and Recorded by: _____
Owner Representative / Date

PART B - CHANGE OF WORK VALUE: \$107,674.00
\$ _____

Detailed Backup Attached

1. Submitted by: [Signature]
Owner Representative / Date
2. Recommended by: _____
IRWD Representative / Date

EXHIBIT "E"

CHANGE NO.: 1
DATE: 20351501

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.: 20351501 Owner: Heritage Fields El Toro, LLC
Sewer Contractor: L&S Construction
Domestic Water
Reclaim Water Design Engineer: Hunsaker & Associates
Other IRWD Mgr. Kelly Lew

Project Description: District Marine Way IRWD Capital Facilities IRWD 6379

PART A - POTENTIAL CHANGE OF WORK:

Plan Revision Required: YES NO Estimated Cost: \$374,922.00

Change Initiated By: _____

Work Description:
Plans changes for the "Barranca Crossing" Delta ^X~~A~~ ^B revisions. The IRWD Capital extension of domestic water and recycled water from Marine Way across "Barranca which was caused by changes to Code 6379. IRWD decided to include the water improvements as a revision to the Marine Way plans.

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: [Signature] 10/4/17
IRWD Representative / Date

3. Received and Recorded by: _____
Owner Representative / Date

PART B - CHANGE OF WORK VALUE:

\$ 374,922.00


Detailed Backup Attached

1. Submitted by: [Signature]
Owner Representative / Date

2. Recommended by: _____
IRWD Representative / Date

January 22, 2018

Prepared by: K. Lew

Submitted by: K. Burton 

Approved by: Paul A. Cook 

CONSENT CALENDAR

PLANNING AREA 39 (LOS OLIVOS) PHASE 2 CAPITAL IMPROVEMENTS

SUMMARY:

Irvine Community Development Company (ICDC) is proceeding with Phase 2 of the Planning Area 39 (Los Olivos) development. As part of this development project, ICDC will design and construct IRWD's recycled water capital facilities under a Supplemental Reimbursement Agreement. Staff recommends that the Board:

- Authorize a budget increase for Project 03735 in the amount of \$243,400, from \$226,600 to \$470,000;
- Authorize the General Manager to execute a Supplemental Reimbursement Agreement with ICDC for the Planning Area 39 Phase 2 Capital Improvements; and
- Authorize the General Manager to accept ICDC's construction contract with Shoffeitt Pipeline, Inc. in the amount of \$270,185 for the Planning Area 39 Phase 2 Capital Improvements.

BACKGROUND:

IRWD and ICDC have had a Reimbursement Agreement (RA) for design and construction of IRWD capital facilities in place since May 1997. Under this RA, a Supplemental Reimbursement Agreement (SRA) serves to define the improvements to be designed and constructed within a specific planning area as well as the estimated reimbursable costs.

Staff requests approval of an SRA for the design and construction of Planning Area 39 Phase 2 Capital Improvements. All required IRWD capital improvements are documented in the Planning Area 39 Sub-Area Master Plan Update dated June 2017. The improvements are shown in Exhibit "A" and the SRA is shown as Exhibit "B".

The Phase 2 Capital Improvements include construction of approximately 4,300 feet of 6-inch recycled water pipeline. ICDC selected Michael Baker International, Inc. (MBI) to complete the design plans. ICDC received six bids and the low bidder for the IRWD work was Shoffeitt Pipeline, Inc. with a bid of \$270,185; bids ranged from \$270,185 to \$455,714.96. The Bid Summary is shown as Exhibit "C". ICDC requests IRWD's concurrence of awarding the contract to Shoffeitt. The bid had no irregularities and staff concurs with ICDC's recommendation to award the construction contract to Shoffeitt.

ICDC also recommends MBI, Guida Surveying, and NMG Geotechnical for construction support services and staff concurs with the selections.

A summary of the Phase 2 costs is shown as follows:

| | |
|---------------------------------|--------------|
| Design Engineering (MBI) | \$ 27,162.00 |
| Design Change Order No. 1 (MBI) | \$ 4,000.00 |
| Design Change Order No. 2 (MBI) | \$ 10,200.00 |
| Construction (Shoffeitt) | \$270,185.00 |
| Construction Engineering (MBI) | \$ 23,200.00 |
| Construction Staking (Guida) | \$ 5,050.00 |
| Construction Geotechnical (NMG) | \$ 4,544.00 |
| ICDC Administration Fee (1%) | \$ 2,701.85 |
| Total | \$347,042.85 |

FISCAL IMPACTS:

Project 03735 is included in the FY 2017-18 Capital Budget. Staff requests a budget increase in the amount of \$243,400 as shown in the table below:

| Project No. | Current Budget | Addition <Reduction> | Total Budget |
|-------------|----------------|----------------------|--------------|
| 03735 | \$ 226,600 | \$ 243,400 | \$ 470,000 |

ENVIRONMENTAL COMPLIANCE:

This RA is exempt from 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 which have the potential for causing a significant effect on the environment.

The construction of the capital facilities for Planning Area 39 Phase 2 is subject to the California Environmental Quality Act (CEQA) and in conformance with California Code of Regulations Title 14, Chapter 3, Article 7, an Environmental Impact Report, SCH#2005081099, was certified by the lead agency, the City of Irvine, on June 13, 2006.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on January 16, 2018.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE FOR PROJECT 03735 IN THE AMOUNT OF \$243,400, FROM \$226,600 TO \$470,000; AUTHORIZE THE GENERAL MANAGER TO EXECUTE A SUPPLEMENTAL REIMBURSEMENT AGREEMENT WITH IRVINE COMMUNITY DEVELOPMENT COMPANY (ICDC) FOR THE DESIGN AND CONSTRUCTION OF RECYCLED WATER IMPROVEMENTS IN PLANNING AREA 39 PHASE 2; AND AUTHORIZE THE GENERAL MANAGER TO ACCEPT ICDC'S CONSTRUCTION CONTRACT WITH SHOFFEITT PIPELINE, INC. IN THE AMOUNT OF \$270,185 FOR THE PLANNING AREA 39 (LOS OLIVOS) PHASE 2 CAPITAL IMPROVEMENTS.

LIST OF EXHIBITS:

Exhibit "A" – Location Map

Exhibit "B" – Supplemental Reimbursement Agreement

Exhibit "C" – Bid Summary for PA 39 Phase 2 Capital Improvements

EXHIBIT "A"



**PA 39 SAMP ADDENDUM
NONPOTABLE WATER FACILITIES AND PRESSURE ZONES**

FIGURE 4-2

EXHIBIT "B"

Exhibit "A"
to
Reimbursement Agreement

SUPPLEMENTAL REIMBURSEMENT AGREEMENT

BY AND BETWEEN

IRVINE RANCH WATER DISTRICT

AND

THE IRVINE COMPANY

This SUPPLEMENTAL REIMBURSEMENT AGREEMENT ("Agreement") is entered into as of this ____ day of _____, 20____, 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 ("IRWD"), and The Irvine Company ("TIC"). All capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Reimbursement Agreement.

WHEREAS, IRWD and TIC have previously entered into that certain Reimbursement Agreement dated May 21, 1997 ("Reimbursement Agreement") respecting construction of Capital Facilities; and

WHEREAS, said Reimbursement Agreement made reference to the fact that certain supplemental agreements would be entered into by the parties regarding construction of Capital Facilities and reimbursement therefor consistent with the provisions of said Reimbursement Agreement; and

WHEREAS, the parties now wish to enter this Agreement regarding the construction of Capital Facilities described below, subject to all of the terms of the Reimbursement Agreement, except as provided herein.

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

1. Except as provided herein, the parties hereby incorporate by reference all of the terms and conditions of the Reimbursement Agreement into this Agreement.

2. The name of the Project to which this Agreement pertains is:
Planning Area 39, Los Olivos Phase 2 Capital Facilities

The Project is depicted on Exhibit 1 attached to this Agreement.

3. The Capital Facilities to be constructed pursuant to this Agreement are as follows: [describe type, diameter, approximate linear footage, etc; include any detailed drawing as Exhibit 3 if needed] Approximately 4,300 feet of 6-inch recycled water pipeline. The Capital Facilities **do** / **do not** include any facilities that are a part of the Michelson/ Los Alisos Reclamation Plants Upgrades and Distribution System Expansion Project identified in the Agreement No. 61719 2003 LRP Local Resources Program Agreement, entered into as of June 13, 2005, by and between IRWD and the Metropolitan Water District of Southern California (the "MWD Local Project").

4. The total costs for the Capital Facilities shall include, but not be limited to, the actual costs for construction, surveying, compaction testing, permits, construction bonds, legal fees and an administration fee equal to one percent (1%) of the actual cost of construction (all such actual costs are collectively referred to as the "Costs"). The estimated amount of the Costs is \$400,000.

5. The following special terms apply to the construction of the Capital Facilities under this Agreement and supersede the provisions of the original Reimbursement Agreement referenced above: The "Costs" shall also include consultant design and consultant construction administration assistance.

6. In accordance with Section 10 of the Reimbursement Agreement, TIC is executing concurrently herewith an Assignment Agreement in the form of Exhibit 2, to be effective upon the Effective Date specified in the Assignment Agreement.

7. If the box in Section 3 above has been checked to indicate that any of the Capital Facilities are a part of the MWD Local Project, then TIC shall include the following language in its agreements with any consultant or contractor retained by TIC to work on the Capital Facilities:

"[Contractor / Consultant] agrees at its sole cost and expense to protect, indemnify, defend, and hold harmless Metropolitan Water District of Southern California, Municipal Water District of Orange County, and each of their respective Boards of Directors, officers, representatives, agents and employees from and against any and all claims and liability of any kind (including, but not limited to, any claims or liability for injury or death to any person, damage to property, natural resources or the environment, or water quality problems) that arise out of or relate to any act or omission of [Contractor / Consultant] in the performance of this agreement. Such indemnity shall include all damages and losses related to any claim made, whether or not a court action is filed, and shall include attorney fees, administrative and overhead costs, engineering and consulting fees and all other costs related to or arising out of such claim of liability."

IN WITNESS WHEREOF, the parties have entered this Agreement as of the date set forth above.

IRVINE RANCH WATER DISTRICT

THE IRVINE COMPANY

By: _____
General Manager

By: _____
Title: _____

By: _____
Title: _____

Exhibit "1"
to
Supplemental Reimbursement Agreement

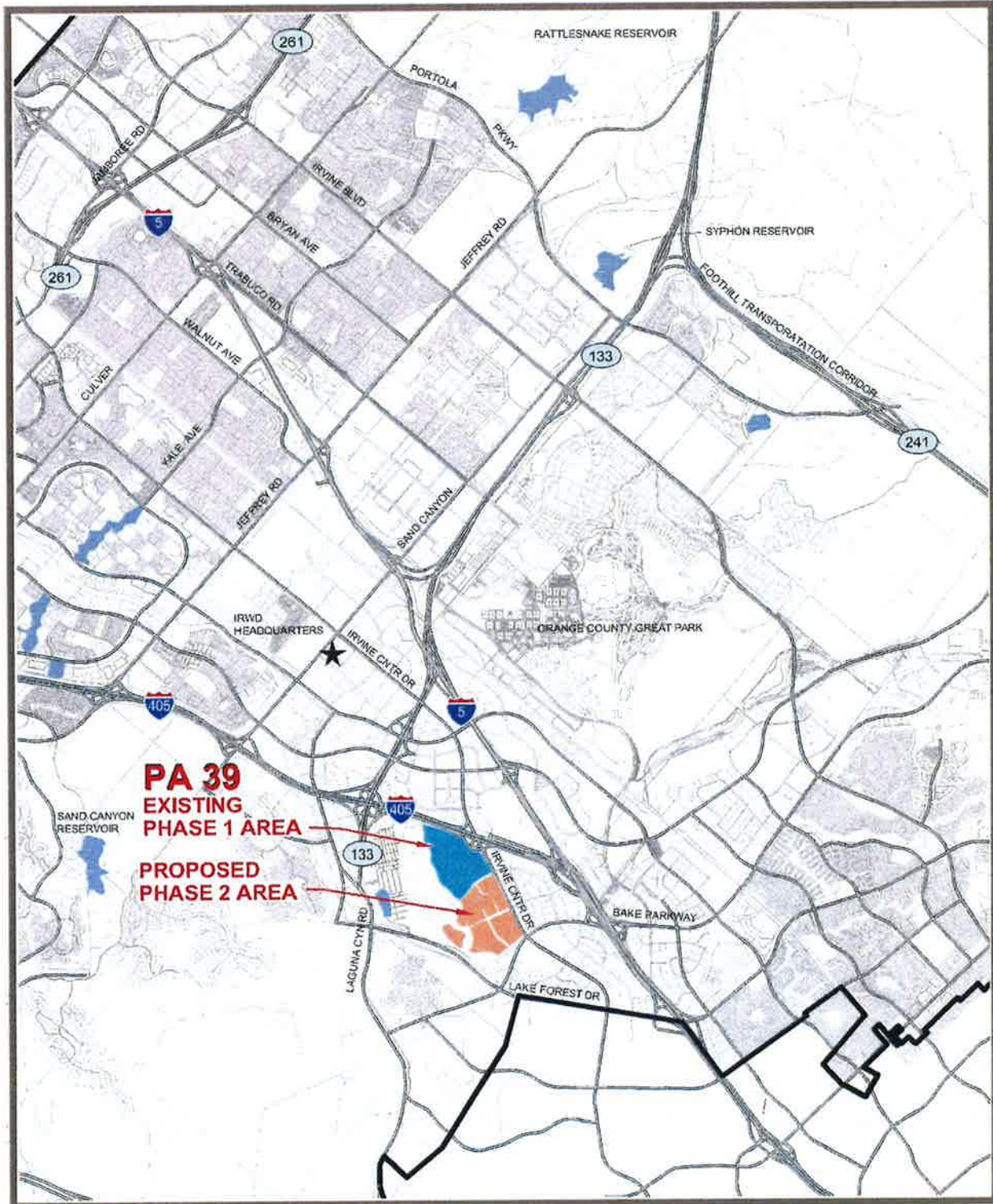


Exhibit "2"
to
Supplemental Reimbursement Agreement

Assignment Agreement

This ASSIGNMENT AGREEMENT is made as of _____, 20____, by and between THE IRVINE COMPANY, a corporation, dba Irvine Industrial Company ("Assignor"), to IRVINE RANCH WATER DISTRICT, a California water district formed and existing pursuant to the California Water District Law of the State of California ("Assignee") based upon the following recitals:

A. Assignor has previously (or will, prior to the Effective Date hereof, have) entered into that certain Construction Contract relating to the Project and Capital Facilities identified in Schedule A hereto (the "Construction Contract").

B. Assignee desires to acquire (I) Assignor's right, title and interest in and to the Capital Facilities constructed under the Construction Contract, and (II) the warranty rights of Assignor as to the Capital Facilities under the Construction Contract, and Assignor desires to assign such rights to Assignee.

NOW, THEREFORE, in consideration of the foregoing, the covenants and agreements contained herein and other valuable consideration, receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. ASSIGNMENT. Effective upon the date specified in Section 2 hereof (the "Effective Date"), Assignor assigns and transfers to Assignee all of Assignor's right, title, claim and interest in and to (a) the Capital Facilities constructed pursuant to the Construction Contract, and (b) the warranties and guarantees of contractor as to the Capital Facilities constructed pursuant to the Construction Contract. This Assignment is made by Assignor pursuant to the provisions of Section 10, entitled "Assignment of Interest", contained in that certain Reimbursement Agreement between Assignor and Assignee dated as of May 21, 1997.

2. EFFECTIVE DATE. The Effective Date shall be the date of the filing of the Notice of Completion for the Construction Contract unless a different date is inserted in the following space: _____

3. TRANSFER OF DOCUMENTATION. On or prior to the Effective Date, Assignor shall provide Assignee with a copy of the Construction Contract.

IN WITNESS WHEREOF, Assignor has executed this Assignment Agreement as of the date first above written.

ASSIGNOR:

THE IRVINE COMPANY, a corporation,
dba Irvine Industrial Company

By: _____

Title: _____

By: _____

Title: _____

Schedule A
to
Assignment Agreement

This Schedule A to Assignment Agreement relates to the assignment of certain matters pursuant to the Supplemental Reimbursement Agreement between Assignor and Assignee dated _____ (“Supplemental Reimbursement Agreement”).

Agreement: Insert name of Project from Section 2 of Supplemental Reimbursement Planning Area 39, Los Olivos Phase 2 Capital Facilities

Insert description of Capital Facilities from Section 3 of Supplemental Reimbursement Agreement: Approximately 4,300 feet of 6-inch recycled water pipeline

Contractor’s Name: _____

License No. _____

Address: _____

Phone #: _____ Fax #: _____

Contact Person: _____

Exhibit "3"
to
Supplemental Reimbursement Agreement



Non-Potable System Facilities

Exhibits to Supplemental Reimbursement Agreement:

Exhibit 1 - Depiction of Project

Exhibit 2 - Assignment Agreement

Exhibit 3 - Description of Capital Facilities (as needed)

January 22, 2018

Prepared and

submitted by: C. Compton 

Approved by: Paul A. Cook 

CONSENT CALENDAR

2018 LEGISLATIVE AND REGULATORY UPDATE

SUMMARY:

This report provides an update on California's 2017-2018 legislative session and IRWD's legislative and regulatory priorities. As legislation and regulations develop, staff will provide updates and recommendations to the Water Resources Policy and Communications Committee and the Board, as appropriate. Staff recommends that the Board receive and file this update.

BACKGROUND:

The 2017-18 Legislature reconvened on January 3, 2018, for the second year of the two-year session. As with the second year of any session, pending legislative business remaining from 2017 will be taken up quickly in order to meet legislative deadlines. The bills remaining at the close of the 2017 legislative year will need to have met the January 12 policy committee deadline if they are still in their house of origin. Other upcoming legislative deadlines of note are:

- January 10: Last day for the Governor to have submitted a budget proposal to the Legislature.
- January 31: Last day for bills introduced in 2017 to be passed out of their house of origin.
- February 16: Last day for bills to be introduced.

A copy of the 2018 Legislative Matrix is attached as Exhibit "A". Exhibit "B" is the 2018 Legislative Update Report Links to Bill and Regulatory Texts, which contains links to the bills and regulations discussed below, unless a separate exhibit is noted.

State Budget Update:

November Revenue Numbers:

On December 11, 2017, State Controller Betty Yee released her monthly report on the State's finances. She announced that the State took in \$8.31 billion during the month of November. This was \$449.8 million higher than the projections contained in the FY 2017-2018 Budget Act.

Additionally, the Controller reported:

"For the first five months of the 2017-18 fiscal year, total revenues of \$40.96 billion are outpacing budget projections by 2.5 percent, with retail sales and use taxes and corporation tax beating expectations.

Sales tax receipts of \$3.30 billion for November were \$538.1 million higher than anticipated in the budget. For the fiscal year, sales tax receipts of \$10.16 billion are \$733.4 million above budget estimates.

Corporation taxes for November came in at negative \$18.9 million as refunds outpaced receipts. That is not unusual, as there also was a negative for corporation taxes last November and the Department of Finance estimated negatives for the month in both years. However, this year's shortfall was better than expected, leading total corporation tax receipts for the month to beat budget estimates by \$89.2 million, or 83 percent. For the fiscal year to date, total corporation tax receipts of \$1.79 billion are \$233.1 million above assumptions in the 2017-18 Budget Act."

The State's outstanding loan balance was \$20.15 billion, which was \$294.4 million less than budget estimates.

Fiscal Year 2018-2019 State Budget:

On January 10, 2018, Governor Brown unveiled his proposed budget for Fiscal Year 2018-2019. The proposed budget includes \$129.8 billion in General Fund revenues and \$131.7 billion in General Fund expenditures. Proposed General Fund expenditures are 4.1 percent higher than the Fiscal Year 2017-2018 enacted budget. The proposed budget also includes the following:

- Fully funding the Proposition 2 Rainy Day Fund;
- Proposed State action on climate change including release of the:
 - Climate Change Adaption Strategy;
 - Sea-Level Rise Guidance which will be a bold methodology for local government to use to access and plan for the risks associated with sea-level rise;
 - California Forest Carbon Plan, a policy vision for increasing the health and resiliency of California's Forests; and
 - 4th Climate Change Assessment;
- Proposed actions on affordable and safe drinking water including enactment of the budget trailer bill to implement the framework and funding structure proposed in SB 623 (Monning, D-Santa Cruz).

2018 State Legislative Update:

"Making Water Conservation a California Way of Life":

Since the beginning of last year, staff has worked with various stakeholders and the Association of California Water Agencies (ACWA) on long-term water use efficiency and drought planning legislation. As reported to the Board, at the end of session there remained two active bills on "Making Water Conservation a California Way of Life"— AB 1668 (Friedman, D-Glendale) and SB 606 (Hertzberg, D-Van Nuys/Skinner, D-Oakland). SB 606 and AB 1668 are two-year bills.

SB 606 is currently located on the Assembly Third Reading File and AB 1668 is in the Senate Rules Committee.

Over the legislation recess, staff continued to meet with various stakeholders and participated in author-sponsored listening sessions on the bills in order to seek amendments requested by the water community that would improve the proposals currently before the Legislature and ensure they can be implemented consistent with the intent of the authors and the Administration. While the specific amendments to be made are not known, staff has received confirmation that some amendments will be forthcoming on SB 606 and AB 1668. Staff will provide an update on the ongoing discussions taking place on the legislation.

Water Tax:

In 2017, Senator Bill Monning authored SB 623. SB 623 would have established the Safe and Affordable Drinking Water Fund in the State Treasury and would have provided that the moneys in the fund be continuously appropriated to the State Water Resources Control Board for grants, loans, contracts, or services to assist those without access to safe and affordable drinking water consistent with a fund implementation plan to be adopted annually by the State Board. On August 21, the bill was amended to include a fee on fertilizer, a fee on milk and a water tax. The water tax included in the bill would require public water agencies to collect a monthly tax for the State based on the largest potable meter size serving their properties at the following rates:

- \$0.95 for meters less than or equal to 1”;
- \$4.00 for meters less than or equal to 2”;
- \$6.00 for meters less than or equal to 4”;
- \$10.00 for meters greater than “4; and
- Customers without a meter would be taxed at a rate of \$0.95.

While the bill was not passed in 2017, it remains a two-year bill that will be considered by the Legislature in 2018. IRWD has continued to engage on SB 623 and will advocate against any water tax inconsistent with the Board-adopted policy on a public good charge/statewide user fee. Additionally, as was the case in 2017, staff will continue to work with ACWA and the District’s other industry partners to oppose a water tax. Given the importance of this issue to IRWD, staff will be available to provide an update on any new developments.

Regional Small System Water Authority Legislation:

In addition to the discussions taking place on a water tax to address water quality issues within disadvantaged communities, the water community has continued to think about other ways to address the challenges facing many communities in the state. The Eastern Municipal Water District (EMWD) has put forth a proposal that would address the management and governance challenges facing water systems within disadvantaged communities. EMWD argues that:

“As of October 9, 2017, there are 325 public water systems, consisting primarily of public water agencies, private non-regulated water companies and mutual water companies in the State of California that are chronically serving contaminated water and are operationally deficient in violation of public health regulations. The majority of those systems are small, serving a population of less than 1,000 people, with deficiencies ranging from natural contaminants, man-made contaminants and failing infrastructure. The systems lack the financial, managerial and technical resources to adequately serve their communities.”

As a result, EMWD proposes to create a new category of water agency— a Small System Water Authority with unique powers to absorb, improve and competently operate currently non-compliant public water systems with either contiguous or non-contiguous boundaries. Small System Water Authorities would consolidate failing small water systems that are voluntarily donated to the authority to provide technical, managerial and financial capabilities to ensure the provision of safe, clean, affordable and accessible water and local governance. Attached as Exhibit “C” is a summary of EMWD’s proposal.

2018 State Regulatory Update:

AB 401 Implementation- Study of Low Income Rate Assistance:

AB 401 (Dodd, 2015) requires the State Board Water Resources Control Board (State Board) to develop and provide the Legislature a plan for a statewide Low-Income Rate Assistance Program (LIRA) by February 1, 2018. As a result, the State Board held a series of public meetings in 2017 seeking input on various scenarios, which would provide low-income rate assistance to up to 34 percent of Californians. The State Board’s effort is based on the following philosophy:

“Californians have a right to safe water. State policy through AB 685 (2012) aims to ensure universal access to water by declaring that “every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.” However, water is becoming more expensive. California’s growing economy and population create continued demand for water. Meanwhile, drought and water leaks tighten available supplies. In addition, pipes and aging infrastructure result in expensive repairs or replacements. These conditions contribute to higher costs. The result is that more low-income households have unaffordable drinking water.” (http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/assistance/)

Originally, State Board staff indicated that AB 401 Implementation Plan was expected to include the following:

- A description of the method for collecting moneys to support and implement the program, with a discussion of any constitutional restrictions on public water agency rate-setting;
- A description of the mechanism for providing funding assistance under the program. This could include direct credits to program participants, reimbursements to water service

providers, a method for verifying income eligibility of low-income ratepayers, clarification of the role of the Public Utilities Commission and water utilities in determining and verifying customer eligibility, and recommendations regarding the structure of the program;

- A description of the method to be used to determine the amount of moneys that may need to be collected from water ratepayers to fund the program; and
- A set of recommendations and best practices that cover cost-savings measures and aim to ensure that water utilities are keeping rates low.

Recently, State Board staff indicated that despite the report being due per statute on February 1, 2018, the report has been delayed indefinitely until the State Board believes it has a more well developed plan to present to the Legislature. State Board staff will continue to hold stakeholder meetings to discuss options for funding a statewide LIRA Program. There has been some indication from State Board staff that the report may shift from recommending a single funding mechanism and LIRA Program format to a report that outlines several different options providing the benefits and drawbacks of each.

California Water Plan- Update 2018:

The Department of Water Resources is currently working on the 2018 update to the California Water Plan. The Californian Water Plan is the State's strategic plan for managing and developing water resources. The 2018 Update seeks to "ever-green" the plan by identifying specific outcomes and metrics to track performance, prioritize near-term State actions and investments, recommend financing methods having more stable revenues, and inform water deliberations and decisions. More specifically, current versions of the 2018 Update focus on the following areas and visions:

- Public Health and Safety Vision – All Californian are protected from health and safety threats and emergencies;
- Health Economic Vision – California has a healthy economy and all Californians have opportunities for economic prosperity;
- Ecosystem Vitality Vision – Ecosystems in the state are thriving; and
- Opportunities for Enriching Experiences Vision – All Californians have opportunities for enriching experiences.

On December 7, 2017, DWR released the next working draft of the 2018 Update. On January 9, 2018, DWR held a webathon to review the working draft and accept comments on it to inform the Public Review Draft, which is expected to be released in February 2018.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on January 15, 2018.

RECOMMENDATION:

RECEIVE AND FILE.

LIST OF EXHIBITS:

Exhibit "A" – IRWD Legislative Matrix

Exhibit "B" – 2018 Legislative Update Report Links to Bill Texts

Exhibit "C" – Eastern Municipal Water District's Regional Small Systems Authority Proposal

EXHIBIT "A"
IRWD 2018 LEGISLATIVE MATRIX
Updated 01/08/2018

| Bill No. Author | Title | IRWD Position | Summary/Effects | Status |
|------------------------------|---|--------------------------|---|--|
| AB 18 Garcia E (D) | Clean Water, Climate, and Coastal Protection Act | | Enacts the California Clean Water, Climate, Coastal Protection and Outdoor Access For All Act, which would authorize the issuance of bonds to finance a clean water, climate, and coastal protection and outdoor access for all program. Provides for the submission of these provisions to the voters at the statewide direct primary election. | 08/31/2017 - In SENATE. Joint Rule 62(a) suspended.;08/31/2017 - From SENATE Committee on NATURAL RESOURCES AND WATER: Do pass to Committee on GOVERNANCE AND FINANCE.;08/31/2017 - From SENATE Committee on GOVERNANCE AND FINANCE: Do pass to Committee on APPROPRIATIONS. |
| AB 52 Cooper (D) | Public Employee: Orientation And Informational Programs | | Requires the public employers regulated by specified acts to provide all employees an orientation and to permit an exclusive representative to participate. | 04/19/2017 - In ASSEMBLY Committee on PUBLIC EMPLOYEES, RETIREMENT AND SOCIAL SECURITY: Not heard. |
| AB 151 Burke (D) | California Global Warming Solutions Act | | Amends the Global Warming Solutions Act. Requires the Air Resources Board to prepare and approve a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions and to update the scoping plan. Requires the state board to report to the Legislature on the need for increased education, career technical education, job training, and workforce development in ensuring that statewide greenhouse gas emissions are reduced by a specified level. | 08/24/2017 - In ASSEMBLY. From third reading. To Inactive File. |
| AB 161 Levine (D) | Department of Finance: Infrastructure Investment | | Authorizes the Department of Finance to identify infrastructure projects in the state for which the department will guarantee a rate of return on investment for an investment made in that infrastructure project by the Public Employees' Retirement System. | 08/21/2017 - In SENATE Committee on APPROPRIATIONS: Not heard. |
| AB 166 Salas (D) | Building Homes and Jobs Act: Recording Fee | | Authorizes a property owner to request a refund based on hardship of a fee if he or she files a claim with the county recorder, in the county in which the fee was collected. Authorizes county recorders to issue a refund of this fee. Requires the county recorder to deduct any amount issued for a refund from the amount to be remitted to | 01/04/2018 - In ASSEMBLY. Ordered returned to SENATE. *****To SENATE. |

IRWD 2018 LEGISLATIVE MATRIX
Updated 01/08/2018

| Bill No. Author | Title | IRWD Position | Summary/Effects | Status |
|-------------------------------|---|--------------------------|---|--|
| | | | the Department of Housing and Community Development and to annually report to the department on the number of hardship refunds granted pursuant to these provisions. | |
| AB 176 Salas (D) | Water Project: Friant-Kern Canal | | Appropriates a specified sum from the General Fund for the Reverse Flow Pump-back Facilities on the Friant-Kern Canal Restoration Project. Makes legislative findings and declarations as to the necessity of a special statute for the Friant-Kern Canal. | 05/26/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. |
| AB 196 Bigelow (R) | Greenhouse Gas Reduction Fund: Water Supply | | Amends the Global Warming Solutions Act, which creates the Greenhouse Gas Reduction Fund and authorizes specified investments, including water use and supply. Authorizes the use of the moneys in the fund for electric pump efficiency, water and wastewater systems, pump and pump motor efficiency improvements, and drinking water transmission and distribution systems' water loss if the investment furthers the regulatory purposes of the act and is consistent with law. | 09/01/2017 - In SENATE Committee on APPROPRIATIONS: Held in committee. |
| AB 241 Dababneh (D) | Personal Information: Privacy: State and Local Breach | | Relates to state and local breaches of privacy. Requires a state or local agency, if it was the source of a computer breach of information, to provide appropriate identity theft prevention and mitigation services at no cost to a person whose personal information, including social security number, driver license or identification card number. | 05/26/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. |
| AB 305 Arambula (D) | School Accountability Report Card: Drinking Water | | Amends the Classroom Instructional Improvement and Accountability Act to require a specified school accountability report card to include an assessment of the drinking water access points at each school site. Requires the State Department of Education to compile the assessments and transmit them to the State Water Resources Control Board. | 02/13/2017 - To ASSEMBLY Committees on EDUCATION and ENVIRONMENTAL SAFETY AND TOXIC MATERIALS. |

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| <u>AB 408</u> Chen (R) | Eminent Domain: Final Offer of Compensation | | Provides that if a court finds, that the offer of the plaintiff was a certain percentage of the compensation awarded in the eminent domain proceeding, then the court would be required to include the defendant's litigation costs in the costs allowed. | 03/20/2017 - From ASSEMBLY Committee on JUDICIARY without further action pursuant to JR 62(a). |
| <u>AB 429</u> Grayson (D) | State Water Policy: Water Rights: Use/Transferability | | Makes nonsubstantive changes to existing law concerning water policy, water use, rights and transferability of those rights. | 02/13/2017 - INTRODUCED. |
| <u>AB 472</u> Frazier (D) | Employer Liability: Small and Micro Business | | Prohibits the state OSHA division from commencing any enforcement action for any nonserious violation, as defined, against any employer where the employer is a small business or microbusiness, as defined. Requires written notification to the employer and providing the employer a certain number of days to correct the violation. Authorizes the division to assess a reasonable fee to cover its costs. | 09/12/2017 - Withdrawn from SENATE Committee on NATURAL RESOURCES AND WATER.;09/12/2017 - Re-referred to SENATE Committee on RULES. |
| <u>AB 554</u> Cunningham (R) | Desalination: Statewide Goal | | Relates to desalination projects and opportunities for state assistance and funding. Establishes a goal to desalinate a specified acre-feet of drinking water per year. | 06/20/2017 - In ASSEMBLY. Coauthors revised. |
| <u>AB 567</u> Quirk-Silva (D) | School Facilities: Drinking Water Fountains | | Requires a school district to ensure that every drinking water fountain at each school under its jurisdiction is equipped with both a water fountain and a spigot, or a combination water fountain and spigot, for filling water bottles. | 03/14/2017 - From ASSEMBLY Committee on EDUCATION with author's amendments.;03/14/2017 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on EDUCATION. |
| <u>AB 577</u> Caballero (D) | Disadvantaged Communities | | Amends existing law which defines a disadvantaged community as a community with an annual median household income that is less than a certain percentage of the statewide annual median household income for various purposes, that include, but are not limited to, the Water Quality, Supply, and Infrastructure Improvement Act of 2014. Expands the definition of disadvantaged community. | 03/09/2017 - From ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS with author's amendments.;03/09/2017 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS. |

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| AB 594 Irwin (D) | Water Supply Planning: Photovoltaic Energy Facility | | Amends existing law which requires a city or county that determines that a project is subject to the California Environmental Quality Act to identify any public water system that may supply water for the project and to request those public water systems to prepare a specified water supply assessment. | 02/27/2017 - To ASSEMBLY Committees on WATER, PARKS AND WILDLIFE and LOCAL GOVERNMENT. |
| AB 664 Steinorth (R) | Political Reform Act: Campaign Expenditure | | Prohibits the payment of financial or material compensation from campaign funds held by a controlled committee of an elected officer or candidate for elective office, in exchange for services rendered, to any vendor that is majority-owned or controlled by any spouse or domestic partner, parent, grandparent, sibling, child, or grandchild of that officer or candidate. | 01/03/2018 - From ASSEMBLY Committee on ELECTIONS AND REDISTRICTING with author's amendments.;01/03/2018 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on ELECTIONS AND REDISTRICTING. |
| AB 672 Jones-Sawyer (D) | Utility Services | | Authorizes a civil action for damages against a person who intentionally and knowingly commits, authorizes, solicits, aids, abets, or attempts, among other things, the diversion of utility services. | 01/04/2018 - From ASSEMBLY Committee on JUDICIARY without further action pursuant to JR 62(a). |
| AB 732 Frazier (D) | Levee Maintenance | | Extends indefinitely the operation of the authorization to advance funds to reimburse local agencies under a program for the maintenance or improvement of project or nonproject levees. Postpones the operation of certain related provisions. | 09/01/2017 - In SENATE Committee on APPROPRIATIONS: Held in committee. |
| AB 791 Frazier (D) | Sacramento-San Joaquin Delta: Conveyance Facility | | Relates to the State Water Project and federal Central Valley Project. Require, before a water contractor enters into a contract to pay for these costs, that the lead agency provide the breakdown of costs for each water contractor entering into a contract and what benefits each contractor will receive based on the proportion it has financed of the proposed conveyance project. | 05/26/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. |
| AB 792 Frazier (D) | Sacramento-San Joaquin Delta: Stewardship Council | | Increases the membership of the council to 13 members, including 11 voting members and 2 nonvoting members, as specified. Imposes new duties upon local officials to appoint new members to the council. Imposes a state-mandated local program. | 01/03/2018 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;01/03/2018 - In |

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| | | | | ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE. |
| AB 793 Frazier (D) | Sacramento-San Joaquin Delta: Financing | | States that the maintenance and repair of the Sacramento-San Joaquin Delta are eligible for the same forms of financing as other water collection and treatment infrastructure and would specify the maintenance and repair activities that are eligible are limited to certain cleanup and abatement-related restoration and conservation activities. | 03/27/2017 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/27/2017 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE. |
| AB 869 Rubio (D) | Sustainable Water Use: Recycled Water | | Requires long-term standards for urban water conservation and water use to include a credit for recycled water. Prohibits an urban retailer water supplier from being required to reduce the amount of recycled water it produces, sells, or distributes for beneficial potable or nonpotable uses during a period when water conservation measures are in effect. | 08/24/2017 - From SENATE Committee on NATURAL RESOURCES AND WATER with author's amendments.;08/24/2017 - In SENATE. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES AND WATER. |
| AB 884 Levine (D) | Dams and Reservoirs: Inspections | | Requires the Department of Water Resources to make annual physical inspections of dams and reservoirs at state expense for the purpose of determining their safety. | 05/26/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. |
| AB 898 Frazier (D) | Property Taxation: Revenue Allocations: Fire District | | Requires the auditor of the County of Contra Costa to allocate certain ad valorem property tax revenues to the East Contra Costa Fire Protection District that would otherwise be allocated to the county's Education Revenue Augmentation Fund. | 04/04/2017 - From ASSEMBLY Committee on LOCAL GOVERNMENT with author's amendments.;04/04/2017 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on LOCAL GOVERNMENT. |
| AB 947 Gallagher (R) | Fish and Wildlife: Streambed Alteration Agreements | | Relates to streambed alteration agreements of the Department of Fish and Wildlife. Defines river and stream for purposes of provisions requiring certain notification. | 05/26/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard. |

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| <u>AB 968</u> Rubio (D) | Retail Water Use: Water Efficiency | | Requires the Urban Stakeholder Committee to submit a report to the Legislature recommending for potential adjustments to water efficiency targets and commercial, industrial, and institutional performance measures. Requires the Department of Water Resources to recommend appropriate water efficiency measures for various segments of the commercial, industrial, and institutional water use sector. requires each urban retail water supplier to develop a water efficiency target. Revises definitions. | 05/26/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. |
| <u>AB 975</u> Friedman (D) | Natural Resources: Wild and Scenic Rivers | | Specifies that certain rivers that possess scenic, recreational, fishery, wildlife, historical, cultural, geological, or other similar values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of the state. | 06/05/2017 - In ASSEMBLY. To Inactive File. |
| <u>AB 1000</u> Friedman (D) | Water Conveyance: Unused Facility Capacity | | Prohibits a transferor of water from using a water conveyance facility that has unused capacity to transfer water from a groundwater basin underlying desert lands that is in the vicinity of specified federal lands or state lands to outside of the groundwater basin unless the State Lands Commission, in consultation with the Department of Fish and Wildlife, finds that the transfer of the water will not adversely affect the natural or cultural resources of those federal and state lands. | 09/01/2017 - In SENATE Committee on APPROPRIATIONS: Held in committee. |
| <u>AB 1030</u> Ting (D) | Energy Storage Systems | | Establishes energy policy goals of the state with respect to energy storage. Requires the Public Utility Commission to undertake specified actions with respect to customer- and load-sited energy storage systems in order to achieve those energy policy goals, including a rebate program dedicated to energy storage that carves out a portion of funding for low-income customers and disadvantaged communities. | 05/24/2017 - From ASSEMBLY Committee on UTILITIES AND ENERGY without further action pursuant to JR 62(a). |
| <u>AB 1041</u> Levine (D) | Bay Area Toll Authority: Conflict of Interest | | Amends existing law relating to the Metropolitan Transportation Commission. Prohibits a representative appointed to the Oversight | 01/03/2018 - From ASSEMBLY Committee on TRANSPORTATION |

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| | | | Committee from being affiliated, in any manner, with the Metropolitan Transportation Commission. | with author's amendments.;01/03/2018 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on TRANSPORTATION. |
| <u>AB 1050</u> Allen T (R) | Endangered Species Act: Delta Smelt | | Requires the Fish and Game Commission to remove the Delta smelt from the endangered species list. | 03/28/2017 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/28/2017 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE. |
| <u>AB 1089</u> Mullin (D) | Local Elective Offices: Contribution Limitations | | Prohibits a person from making to a candidate for local elective office any a contribution totaling more than a certain amount. Authorizes a county, city, special district, or school district to impose a different limitation. | 06/20/2017 - In ASSEMBLY. Coauthors revised. |
| <u>AB 1235</u> Daly (D) | Santa Ana River Conservancy Program | | appropriates a specified sum from the General Fund to the conservancy to be expended for the purposes of the the Santa Ana River Conservancy Program. | 05/26/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. |
| <u>AB 1271</u> Gallagher (R) | Dams and Reservoirs | | Amends the existing law which requires the Department of Water Resources supervise the maintenance and operation of dams and reservoirs as necessary to safeguard life and property. Requires the department to order the owner to take action to remove the resultant danger to life and property. Provides for continuously appropriate the moneys in the fund to the department for the administration of the dam safety program. | 03/21/2017 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/21/2017 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE. |
| <u>AB 1323</u> Weber (D) | Sustainable Water Use and Demand Reduction | | Requires the Department of Water Resources to convene a stakeholder workgroup. Requires the workgroup to develop, evaluate, and recommend proposals for establishing new water use targets for urban water suppliers and report to the Governor and the Legislature. Requires all expenses to be the responsibility of the nonstate agency stakeholders. | 08/21/2017 - In SENATE Committee on APPROPRIATIONS: To Suspense File. |

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| AB 1333 Dababneh (D) | Political Reform Act: Local Government Agency Notices | | Requires every local government agency to prominently post on its Internet Web site a notice of any upcoming election in which voters will vote on a tax measure or proposed bond issuance of the agency. Requires every local government agency that publishes an electronic newsletter to include the notice in the electronic newsletter. | 05/26/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. |
| AB 1342 Flora (R) | Greenhouse Gas Reduction Fund: Appropriations | | Appropriates from the fund to the Department of Forestry and Fire Protection for healthy forest programs that reduce greenhouse gas emissions caused by uncontrolled wildfires. Appropriates from the fund to the Department Resources Recycling and Recovery for in-state organic waste recycling projects that reduce greenhouse gas emissions. | 05/26/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. |
| AB 1369 Gray (D) | Water Quality and Storage | | Requires the Department of Water Resources to increase statewide water storage capacity by a certain percent by a specified year. Provides for the appropriation of moneys from the Greenhouse Gas Reduction Fund. Requires all groundwater basins designated as high- or medium-priority basins by the department that are designated as basins subject to critical conditions of overdraft to be managed under a groundwater sustainability plan. | 03/27/2017 - To ASSEMBLY Committees on WATER, PARKS AND WILDLIFE and NATURAL RESOURCES. |
| AB 1420 Aguiar-Curry (D) | Water Rights: Small Irrigation Use | | Requires State Water Resources Control Board to give priority to adopting general conditions that permit a registrant to store water for small irrigation use during times of high streamflow in exchange for the registrant reducing diversions during periods of low streamflow. Exempts an entity from the requirement to enter into a lake or streambed alteration agreement with the department under specified circumstances. | 09/01/2017 - In SENATE Committee on APPROPRIATIONS: Held in committee. |
| AB 1427 Eggman (D) | Water: Underground Storage | | Revises the declaration to additionally provide that certain uses of storage water while underground constitute beneficial use. Provides that the forfeiture periods of a water right do not apply to water | 05/26/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. |

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| | | | being beneficially used or being held in storage for later beneficial use. | |
| <u>AB 1490</u> Gray (D) | State Water Resources Control Board: School Water | | Requires the State Water Resources Control Board to prepare and submit to the Legislature a report evaluating potential adverse impacts resulting from the implementation of the Bay-Delta Water Quality Control Plan on the quality and supply of drinking water provided to schools in disadvantaged communities, in the state, including a summary describing any measures that may be implemented to address any adverse impacts identified in the report. Relates to school financial assistance. | 05/26/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. |
| <u>AB 1524</u> Brough (R) | Political Reform Act: Mass Mailing Prohibitions | | Amends the Political Reform Act of 1974 which prohibits the sending of a mass mailing by either a candidate or an agency. States violation of the act's provisions is punishable as a misdemeanor. | 03/16/2017 - To ASSEMBLY Committee on ELECTIONS AND REDISTRICTING. |
| <u>AB 1529</u> Thurmond (D) | Cross Connection or Backflow Prevention Inspectors | | Requires valid and current certifications for cross connection inspection or backflow prevention device inspection, testing, and maintenance that meet specified requirements for competency to be considered approved certification tests, until the Water Resources Control Board promulgates specified regulations or by a specified date. Prohibits a water supplier from refusing to recognize certifications tests that meet standards set by regulations of the board. | 09/15/2017 - In SENATE. Read third time. Failed to pass SENATE.;09/15/2017 - In SENATE. Motion to reconsider.;09/15/2017 - In SENATE. Reconsideration granted.;09/15/2017 - In SENATE. From third reading. To Inactive File. |
| <u>AB 1548</u> Fong (R) | Occupational Safety and Health: Penalties | | Expands the application of an existing law which authorizes certain entities to apply for a refund of civil penalties assessed against them if specified conditions are met and which requires moneys in a certain fund to be expended to assist schools in establishing effective occupational injury and illness prevention programs. | 03/16/2017 - To ASSEMBLY Committee on LABOR AND EMPLOYMENT. |
| <u>AB 1605</u> Caballero (D) | Maximum Contaminant Levels: Replacement Water | | Deems a person that causes or permits, or threatens to cause or permit, any waste to be discharged that contributes to the exceedance of the maximum contaminant level for nitrate in | 04/27/2017 - From ASSEMBLY Committee on JUDICIARY with author's amendments.;04/27/2017 - In |

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| | | | drinking water to not have caused pollution or a nuisance or to not be liable for negligence or trespass, if the person or entity takes certain actions relating to replacement water until the maximum contaminant level for nitrate is no longer exceeded. | ASSEMBLY. Read second time and amended. Re-referred to Committee on JUDICIARY. |
| <u>AB 1654</u> Rubio (D) | Water Conservation | | States the intent of the Legislature to enact legislation necessary to help make water conservation a California way of life. | 07/19/2017 - Re-referred to SENATE Committee on RULES. |
| <u>AB 1667</u> Friedman (D) | Water Management Planning | | Requires the State Water Resources Control Board to adopt long-term standards for urban water conservation and water use on or before the specified date. Requires the board to adopt performance measures for commercial, industrial, and institutional water use on or before that date. Require an urban water supplier to calculate a water use target beginning the calendar year after the board adopts long-term standards for urban water conservation and water use. Relates to submission of specified information. | 07/11/2017 - In SENATE Committee on NATURAL RESOURCES AND WATER: Heard, remains in Committee. |
| <u>AB 1668</u> Friedman (D) | Water Management Planning | | Requires the State Water Resources Control Board to adopt long term standards for the efficient use of water and performance measures for certain water uses. Requires the department to conduct necessary studies. Establishes a specified number of gallons as a standard for indoor residential water use effective until a specified date. Requires use of available data to identify small water suppliers and rural communities that may be at risk of drought and water shortage no later than a specific date. | 09/15/2017 - From SENATE Committee on APPROPRIATIONS: Do pass to Committee on RULES. |
| <u>AB 1669</u> Friedman (D) | Urban Water Conservation Standards and Use Reporting | | Requires the State Water Resources Control Board, in consultation with the Department of Water Resources, to adopt long-term standards for urban water conservation and water use by a specified date. Provides for the adoption of interim standards. Requires the board, before adopting an emergency regulation, to provide a certain number of days for the public to review and comment on the regulation and requires the board to hold a public hearing. | 05/26/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. |

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| <u>AB 1673</u> Aguiar-Curry (D) | The California Water Plan | | Makes technical, nonsubstantive changes to existing law which requires the Department of Water Resources to update every five years, the plan for the orderly and coordinated control, protection, conservation, development and use of the water resources of the state. | 02/17/2017 - INTRODUCED. |
| <u>AB 1740</u> Daly (D) | Fire Insurance: Valuation of Loss | | Deletes the provisions regarding the actual cash value of the claim of total loss to the structure and instead requires that the actual cash value of the claim, for either a total or partial loss to the structure or its contents, be the amount it would cost the insured to repair, rebuild, or replace the thing lost or injured less a fair and reasonable deduction for physical depreciation based upon its condition at the time of the injury or the policy limit, whichever is less. | 01/03/2018 - INTRODUCED. |
| <u>AB 1745</u> Ting (D) | Vehicles: Clean Cars 2040 Act | | Requires all new passenger vehicles to be zero emissions vehicles after January 1, 2040. States that zero emissions vehicles cannot produce exhaust emissions of any criteria pollutant or greenhouse gas under any operational mode or condition. Exempts large commercial vehicles (larger than 10,000 pounds) and does not apply to vehicles owned by people moving into California from other states. | 01/03/2018 - INTRODUCED. |
| <u>AB 1748</u> Steinorth (R) | Property Taxation: Base Year Value Transfer | | Requires, subject to specified procedures, the base year value of property that is eligible for the homeowner's exemption of any person, regardless of age or disability, to be transferred to any replacement dwelling, regardless of the value of the replacement property or whether the replacement property is located within the same county. | 01/03/2018 - INTRODUCED. |
| <u>AB 1750</u> McCarty (D) | Elected Officials: Sexual Harassment Settlements | | Expresses the intent of the Legislature to enact legislation that would require an elected official to reimburse a public entity that pays any compromise or settlement of a claim or action involving conduct that constitutes sexual harassment, if an investigation | 01/03/2018 - INTRODUCED. |

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| | | | reveals evidence supporting the claim of sexual harassment against the elected official. | |
| AB 1770 Steinorth (R) | Local Government: Investments | | Revises the maximum 5-year maturity requirement regarding investment in securities by a local agency to instead require that the securities have a maximum remaining security of 5 years or less. Eliminates the requirement that the securities issuer be rated A or its equivalent or better for the issuer's debts as provided by an NRSRO. | 01/04/2018 - INTRODUCED. |
| ACA 20 Steinorth (R) | Property taxation: base year value: transfer | | Allows the base year value of property eligible for the homeowner's exemption of any person aged 55 years or older who is severely disabled to be transferred to any replacement dwelling regardless of its value or whether it is located within the same county. | 01/03/2018 - INTRODUCED. |
| SB 24 Portantino (D) | Political Reform Act of 1974: Economic Interest | | Amends the Political Reform Act which requires certain disclosures to include a statement indicating the fair market value of investments or interests in real property and the aggregate value of income received from each reportable source. Revises the dollar amounts associated with these ranges. | 08/31/2017 - In ASSEMBLY. To Inactive File. |
| SB 49 de Leon (D) | Environmental and Workers' Defense Act | | Relates to the California Environmental, Public Health, and Workers Defense Act of 2017. Relates to clean air, drinking water, discharge of pollutants into the atmosphere and waters, and endangered species. Requires specified agencies to take prescribed actions to maintain and enforce standards pertaining to air, water, and protected species. Prohibits a state agency from amending rules to be less stringent in protection of workers' rights and workers' safety than established by federal law. | 09/12/2017 - From ASSEMBLY Committee on RULES with author's amendments.;09/12/2017 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on RULES. |
| SB 62 Jackson (D) | Affordable Senior Housing Act | | Establishes the Affordable Senior Housing Program for the purpose of guiding and serving as a catalyst for the development of affordable senior housing and supportive care campuses. Requires the director of GO-Biz to undertake various actions in | 09/01/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. |

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| | | | implementing the program, including establishing and implementing a process for identifying and convening public and private stakeholders and assisting participants in identifying locations and funding sources, obtaining permits, and other matters. | |
| SB 72 Mitchell (D) | Budget Act of 2017 | | Makes appropriations for the support of state government for the 2017-18 fiscal year. | 05/26/2017 - From SENATE Committee on BUDGET AND FISCAL REVIEW with author's amendments.;05/26/2017 - In SENATE. Read second time and amended. Re-referred to Committee on BUDGET AND FISCAL REVIEW. |
| SB 146 Wilk (R) | Water Resources: Permit To Appropriate | | Amends an existing law which prohibits the taking or possession of a fully protected fish, except as provided, and designates the unarmored threespine stickleback as a fully protected fish. Prohibits the issuance of a new permit to appropriate water from any river source or stream that has, or is reasonably suspected to have, a population of unarmored threespine stickleback. | 04/25/2017 - In SENATE Committee on NATURAL RESOURCES AND WATER: Not heard. |
| SB 210 Leyva (D) | Heavy Duty Vehicle Inspection and Maintenance Program | | Authorizes the State Air Resources Board to develop and implement a Heavy-Duty Vehicle Inspection and Maintenance Program for nongasoline heavy-duty on road motor vehicles. Authorizes the state board to assess a fee and penalty as part of the program. Creates the Truck Emission Check Fund and the Diesel Emission System Inspection and Smoke Test Account in the fund, with all the moneys deposited in each fund to be available upon appropriation. | 08/28/2017 - In ASSEMBLY. Suspend Assembly Rule 96.;08/28/2017 - Re-referred to ASSEMBLY Committee on RULES. |
| SB 224 Jackson (D) | Personal Rights: Sexual Harassment | | Amends existing law which establishes liability for sexual harassment when the plaintiff proves specified elements and existing law which states that a relationship may exist between a plaintiff and certain persons. Includes an investor, elected official, lobbyist, director, and producer among those listed persons who may be liable to a plaintiff for sexual harassment. | 01/03/2018 - From SENATE Committee on RULES with author's amendments.;01/03/2018 - In SENATE. Read second time and amended. Re-referred to Committee on |

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| | | | | RULES.;01/03/2018 - Re-referred to SENATE Committee on JUDICIARY. |
| SB 423 Cannella (R) | Indemnity: Design Professionals | | Amends an existing law which provides, with respect to certain contracts and amendments to contracts with a public agency for design professional services, that all provisions, clauses, covenants, and agreements contained in, collateral to, or affecting these contracts or amendments that purport to require the professional to defend the agency under an indemnity agreement are unenforceable, except for certain cases. Makes such provisions applicable to all design professional services. | 03/29/2017 - Re-referred to SENATE Committee on JUDICIARY. |
| SB 454 Moorlach (R) | Public Employees' Health Benefits | | Relates to the Public Employees' Medical and Hospital Care Act. Provides that, for state employees who are first employed and become members of the retirement system on or after a specified date, the employer contribution for annuitants shall be limited to a certain percent of the weighted average of the health benefit plan premiums for an active employee enrolled for self-alone. Makes other changes concerning employer contributions and prefunding of retiree health care. | 04/24/2017 - In SENATE Committee on PUBLIC EMPLOYMENT AND RETIREMENT: Failed passage.;04/24/2017 - In SENATE Committee on PUBLIC EMPLOYMENT AND RETIREMENT: Reconsideration granted. |
| SB 473 Hertzberg (D) | California Endangered Species Act | | Amends the California Endangered Species Act which prohibits the taking of an endangered or threatened species. Provides that the accidental take of candidate, threatened, or endangered species resulting from acts that occur on a farm or a ranch in the course of otherwise lawful routine and ongoing agricultural activities is not prohibited by the act. | 09/08/2017 - In ASSEMBLY. To Inactive File. |
| SB 606 Skinner (D) | Water Management Planning | | Requires an urban retail water supplier to calculate an urban water use objective and its actual urban water use by specified dates and requires a report. Imposes civil liability for a violation of an order or regulation issued pursuant to certain provisions. Authorizes the State Water Resources Control Board to issue a regulation or information order requiring a wholesale water supplier, urban retail | 09/13/2017 - Withdrawn from ASSEMBLY Committee on RULES.;09/13/2017 - In ASSEMBLY. Ordered to third reading.;09/13/2017 - In ASSEMBLY. Suspend Assembly Rule 96. |

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|------------------------------|--|--------------------------|---|--|
| | | | water supplier, or distributor of a public water supply to provide a monthly report of certain information. | |
| SB 623 Monning (D) | Water Quality: Safe and Affordable Drinking Water Fund | | Establishes the Safe and Affordable Drinking Water Fund in the State Treasury and would provide that moneys in the fund are continuously appropriated to the state board. requires the state board to expend moneys in the fund for grants, loans, contracts, or services to assist eligible applicants with projects relating to safe and affordable drinking water. | 09/01/2017 - Re-referred to ASSEMBLY Committee on RULES. |
| SB 638 Leyva (D) | Heavy Duty Motor Vehicles | | Requires the State Air Resource Board to adopt regulations that require owners or operators of heavy duty motor vehicles used for commercial purposes to perform regular inspections of their vehicles for compliance with emission standards of the State board. Requires a fleet of these vehicles to comply with the State boards emission standards in order for any vehicle of the fleet to be registered. | 03/02/2017 - To SENATE Committees on TRANSPORTATION AND HOUSING and ENVIRONMENTAL QUALITY. |
| SB 686 Wilk (R) | Public Contracts: Claims Resolution | | Requires a public entity to conduct a meet and confer conference within a specific period for the settlement of disputes. | 03/09/2017 - To SENATE Committee on JUDICIARY. |
| SB 700 Wiener (D) | Energy Storage Initiative | | Requires the Public Utilities Commission and the governing boards of local publicly owned electric utilities to establish an Energy Storage Initiative to provide rebates to customers of electrical corporations for the installation of energy storage systems consistent with certain requirements. Requires the PUC to ensure an orderly transition of the funding for energy storage systems from the self-generation incentive program to the Energy Storage Initiative to minimize disruption. | 07/05/2017 - From ASSEMBLY Committee on UTILITIES AND ENERGY with author's amendments.;07/05/2017 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on UTILITIES AND ENERGY. |
| SB 740 Wiener (D) | Onsite Treated Water | | Requires the State Water Resources Control Board to adopt regulations for a comprehensive risk-based standards for local jurisdictions permitting programs for onsite recycling of water in multifamily residential, commercial, and mixed-use buildings for | 05/25/2017 - In SENATE Committee on APPROPRIATIONS: Held in committee. |

IRWD 2018 LEGISLATIVE MATRIX
Updated 01/08/2018

| Bill No. Author | Title | IRWD Position | Summary/Effects | Status |
|--------------------------------|---------------------------------------|--------------------------|--|--|
| | | | nonpotable use. Requires the regulations to address specified issues and practices relating to the management, monitoring, and treatment of recycled water for nonpotable use. | |
| SB 748 Glazer (D) | Public Contracts | | Amends an existing law which requires a state agency or department to follow specified rules regarding the negotiation of fees and execution of contracts for professional consulting services of a private architectural, engineering, land surveying, environmental, or construction project management firm. Requires certain negotiations to begin within a specified time period. | 03/09/2017 - To SENATE Committee on GOVERNMENTAL ORGANIZATION. |
| SB 771 de Leon (D) | California Environmental Quality Act | | Relates to The California Environmental Quality Act. Establishes a continuing education requirement for employees of public agencies who have primary responsibility to administer the act. | 09/13/2017 - In ASSEMBLY. To Inactive File. |
| SB 778 Hertzberg (D) | Safe Drinking Water Fund | | Requires the State Water Resources Control Board to track and publish on its Internet Web site an analysis of all voluntary and ordered consolidations of water systems that have occurred on or after a certain date. Requires the published information to include the resulting outcomes of the consolidations and whether the consolidations have succeeded or failed in providing an adequate supply of safe drinking water to the communities served by the consolidated water systems. | 09/01/2017 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. |
| SB 780 Wiener (D) | Water Conservation in Landscaping Act | | Requires the Department of Water Resources to establish guidelines for designing landscapes consistent with the watershed approach to landscaping. Requires funding to provide preference for projects that comply with the guidelines. Requires the Department to promote this approach by providing education, and training for persons who plan, develop, or implement landscaping projects. Authorizes the promotion of application of compost to assist with projects that follow these guidelines. | 05/25/2017 - In SENATE Committee on APPROPRIATIONS: Held in committee. |

IRWD 2018 LEGISLATIVE MATRIX
Updated 01/08/2018

| Bill No. Author | Title | IRWD Position | Summary/Effects | Status |
|---|---|--------------------------|---|---|
| <u>SB 831</u> Wieckowski (D) | Land use: accessory dwelling units | | Relates to accessory dwelling units in single-family and multi-family residential zones. Deletes the requirement that the area be zoned to allow single-family and multi-family use. Specifies that if a local agency does not act on an application for an accessory dwelling unit within 120 days, then the application shall be deemed approved. | 01/04/2018 - INTRODUCED. |
| <u>SCA 4</u> Hertzberg (D) | Water Conservation | | Declares the intent of the Legislature to amend the California Constitution to provide a program that would ensure that affordable water is available to all Californians and to ensure that water conservation is given a permanent role in California's future. | 02/16/2017 - To SENATE Committee on RULES. |
| <u>HR 23</u> Valadao (R) | Gaining Responsibility on Water Act | | Amends the Gaining Responsibility on Water Act of 2017, provides drought relief in the State of California. | 07/18/2017 - In SENATE. Read second time.;07/18/2017 - To SENATE Committee on ENERGY AND NATURAL RESOURCES. |
| <u>HR 434</u> Denham (R) | Water Project Financing Program Pilot Project | | Authorizes a pilot project for an innovative water project financing program. | 02/07/2017 - In HOUSE Committee on NATURAL RESOURCES: Referred to Subcommittee on WATER, POWER AND OCEANS. |
| <u>HR 448</u> Huffman (D) | Conservation Subsidies Water Conservation Exclusion | | Amends the Internal Revenue Code of 1986, expands the exclusion for certain conservation subsidies to include subsidies for water conservation or efficiency measures and storm water management measures. | 01/11/2017 - INTRODUCED.;01/11/2017 - To HOUSE Committee on WAYS AND MEANS. |

Exhibit "B"

2018 Legislative Update Report:
Links to Bill & Regulatory Texts
(as of January 8, 2018)

| Bill Number/Version Date | Link to Bill Text |
|---|---|
| AB 1668 (Friedman) as amended | http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB1668 |
| SB 606 (Hertzberg/Skinner), as amended | http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB606 |
| SB 623 (Monning), as amended | http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB623 |
| California Water Plan- 2018 Update Working Draft | http://www.water.ca.gov/waterplan/docs/cwpu2018/sc/dec2017/01_Update2018_Working-Draft_Dec2017.pdf |



Governance and Service Delivery: A Solution to Providing Safe Drinking Water to Communities Served by Chronically Non- compliant Systems

Sacramento Briefings
January 2018

What is the Problem We're Trying to Solve?

Problem and Root Causes

- Approximately 329 systems in the State of California chronically serve contaminated water or cannot provide reliable water service due to unsound infrastructure/operations
- Deficiencies vary: natural contaminants, man-made contaminants, failing infrastructure
- Majority are *very small* systems and small rate bases resulting in inefficient use of rate revenue
- Inability of system owners, managers and operators to implement complex solutions, repair infrastructure, or secure external funding
- Disadvantaged communities – ratepayer affordability



Case Study - Eastern Municipal Water District and County Water Company of Riverside

County Water Company of Riverside

Private Water Company

140 Customers

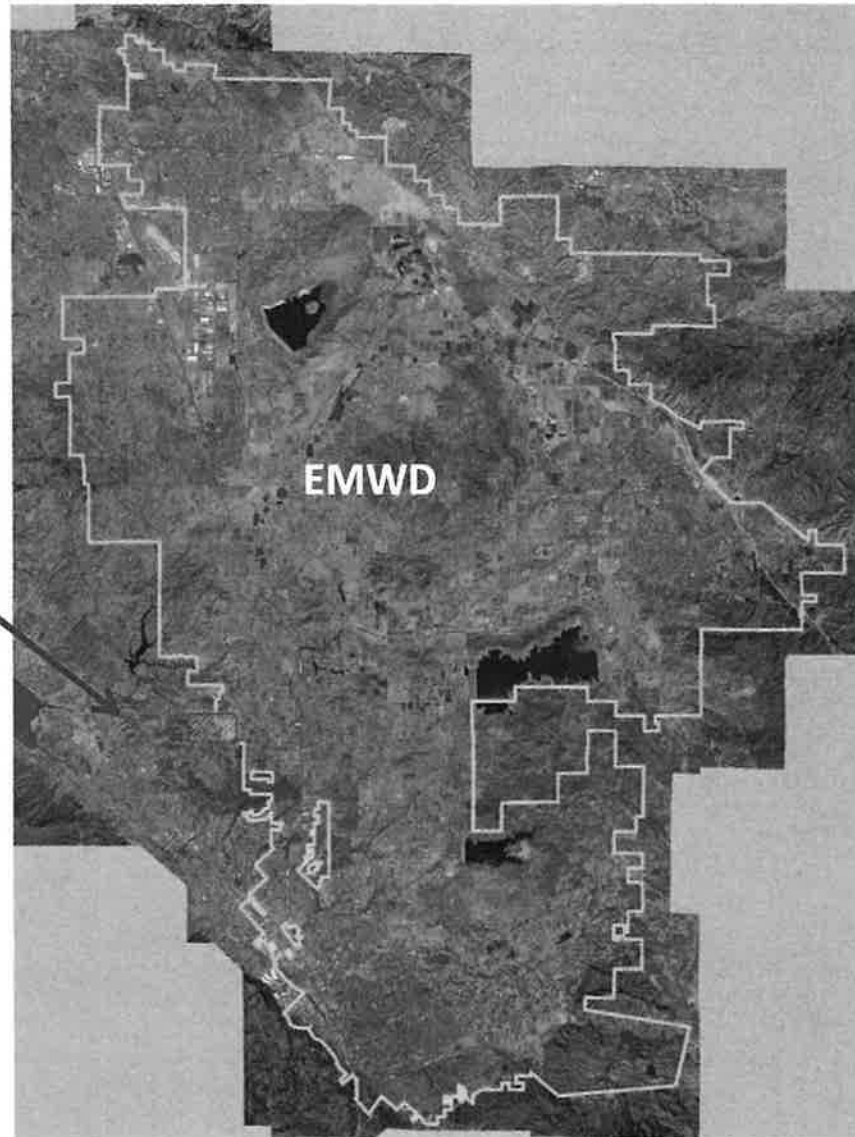
1,032 acres

Two contract employees

Disadvantaged Community

Facilities:

- Substandard 50,000 gallon tank
- Failing, branched distribution system – no isolation capacity
- Inadequate fire flow and only one hydrant
- Single source of supply (well) with frequent outages
- Chronic well water contamination - Notices of Violation
 - Nitrate levels ranging ~ 60 – 75 mg/l (MCL = 45 mg/l)
 - Bacterial contamination



County Water Company (CWC) Dissolution

Solution:

- Two larger public agencies able to consolidate system
- Immediately installed temporary potable water supply line
- CWC stipulated to be put into Receivership
- Assets transferred to public agencies
- Constructed \$5.8 million in system improvements with SWRCB grants
- Passed SB 1130 (Roth) in 2014 to address liability



*Consolidations with Larger Public Agencies
and Investor Owned Utilities can be
Effective Options*

What are the Statistical Dimensions of the Statewide Challenge?

| Non-compliant systems (Population)* | Number of Systems | Percent |
|-------------------------------------|-------------------|---------|
| 10,000 or greater | 12 | 3% |
| 1,000 to 9,999 | 46 | 14% |
| 100 to 999 | 150 | 46% |
| Under 100 | <u>121</u> | 37% |
| Total = | 329 | |

83% of the non-compliant systems serve less than 1,000 people (~ 400 services)

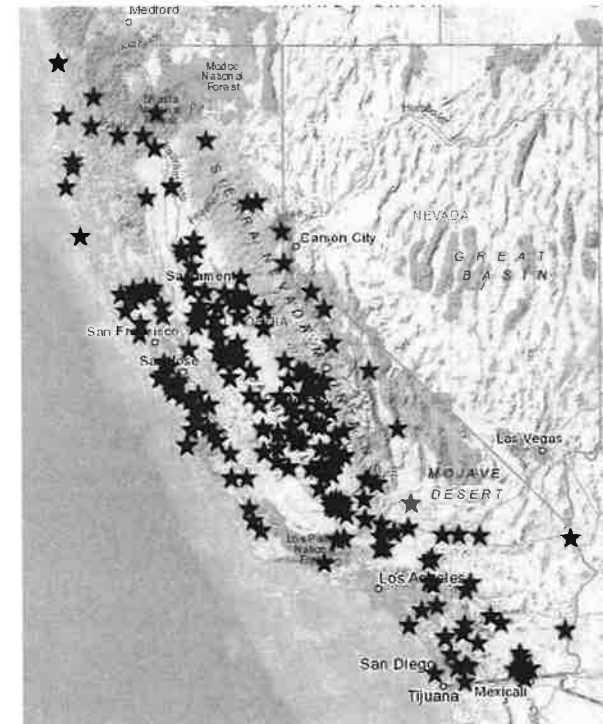
* SWRCB State Drinking Water Data Base, November 20, 2017 database

These non-compliant community water systems cross all sectors including public agencies and schools (~40%) and privately owned or mutual water companies (~60%)

What are the Common Issues and Challenges with These Non-compliant Systems?

- Limited technical, financial and managerial capabilities
- High per-customer administrative overhead
- Small “orphan” systems - geographically dispersed
- Voluntary Consolidation, regionalization and mutual aid can be too complex
 - No logical larger host agency or IOU
- Efficacy of public financial subsidies for ultra-small mutual/private/public systems
 - Disincentive to maintain, invest or consolidate

Water Systems in California with Contaminant Exceedances



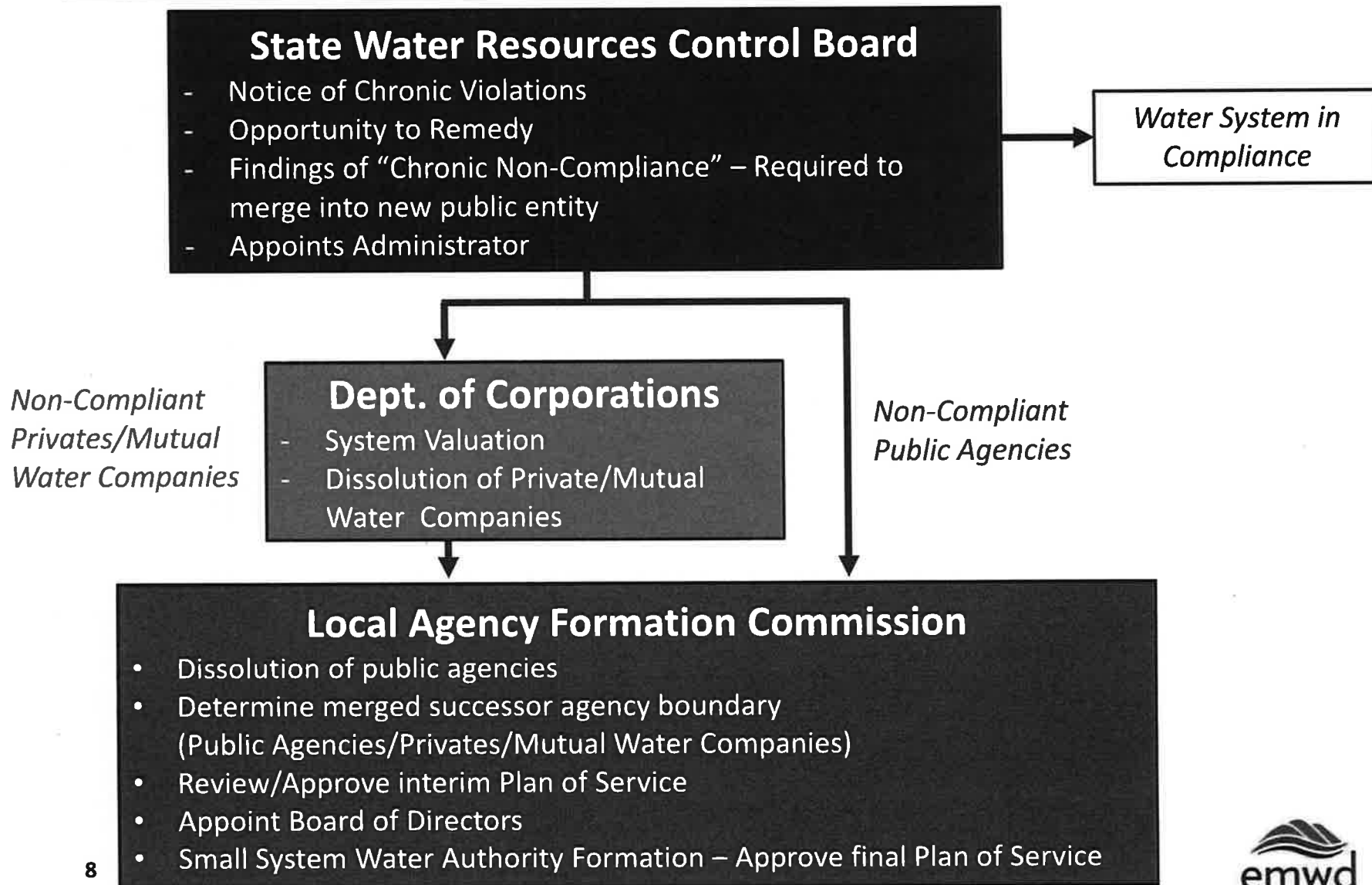
Reforming the service delivery and governance model is prerequisite to defining long-term supplemental funding needs

New Tool: “Small System Water Authority”

- New type of public water entity enabled by legislation:
 - Multiple non-contiguous systems merged under one newly created public entity
 - Entity is independent special district formed at county or sub-county level
 - Representative appointed/elected governance
 - Statutorily provided enhanced internal and external financial capabilities



Small System Water Authority - Formation



Small System Water Authority - Financial Tools and Enhancements

Internal Agency Sources

- Rates and charges with much larger rate base
- Levies and assessments, such as special benefit assessments
- General Obligation (G.O.) taxing authority
- Standby charges
- Tax-exempt Municipal debt supported by State credit guaranty

External Agency Funding

- Preferential/High Priority state grants from Water Bonds
- SRF No/Low-Interest Loans
- SRF Principal Forgiveness grants
- Start-up and Formation Funding:
 - Drinking Water SRF Set-Aside
 - Short-term state Safe Drinking Water Account (Environmental Protection/SWRCB) augmentation
 - LAFCO supplemental budget augmentation (up to 4 years)

Small System Water Authority Post-formation Activities

Post-formation Process

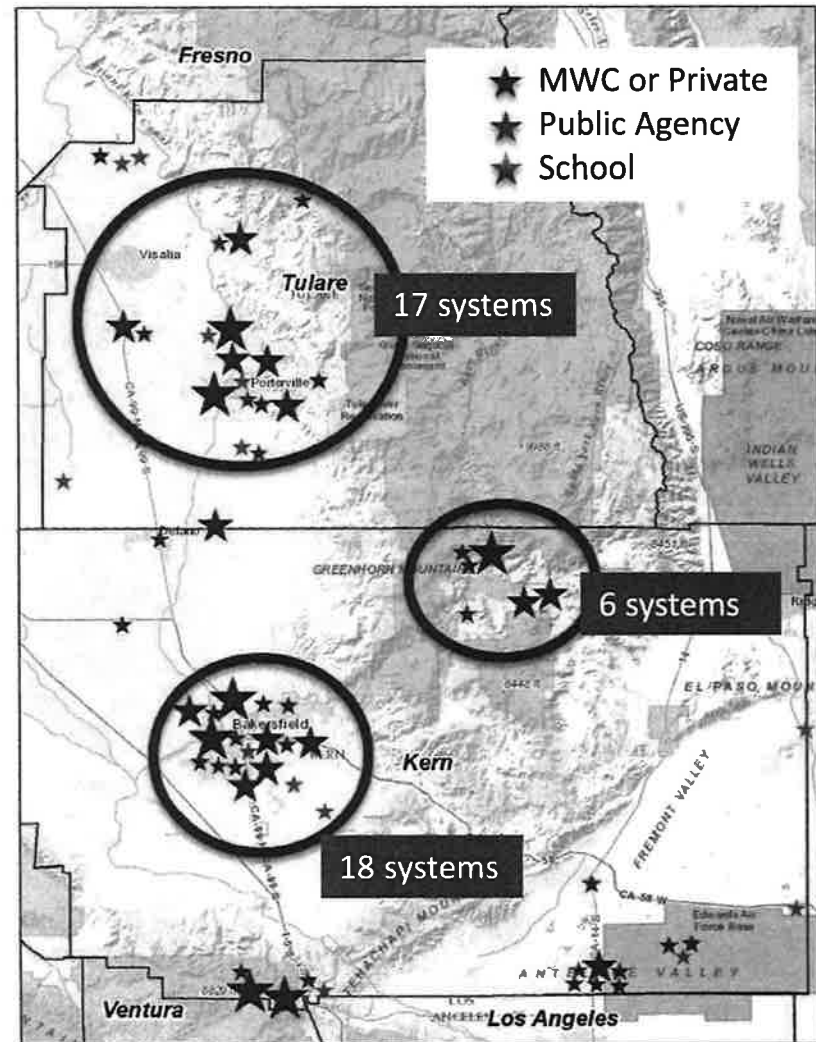
- Implementation of Plan of Service
 - Board elections
- Net value compensation, as appropriate, to former Private/Mutual Owners
- State Board/Treasurer/LAFCO oversees independent review of start-up operations
- Report on fiscal and operational health of new entities submitted to legislature
 - Two years after approval of final Plan of Service and formation
- Recommendations for needed supplemental funding/sources



Small System Water Authority - Summary

- Merger of like entities into viable public water agency
- Participatory public governance
- Substantial reduction in number of small systems
- Merger provides economies of scale – frees-up operating rate revenue
- Establishes staff with technical and managerial expertise
- New internal and external financial resources
- New tool in addition to existing consolidation options

Example Grouping of Non-compliant Systems



Larger stars denote proportionately larger populations of small systems noted as "Out of Compliance" on State Water Board database.



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January 22, 2018

Prepared by: R. Lao / L. Lewis

Submitted by: F. Sanchez / P. Weghorst 

Approved by: Paul A. Cook 

CONSENT CALENDAR

REVOCATION OF UNNAMED SPRING WATER RIGHT

SUMMARY:

IRWD has retained ownership of Water Right License 4413 since 2006 when IRWD consolidated with the Santiago County Water District (SCWD). The small amount of water associated with this right, located in the Cleveland National Forest, has never been used by IRWD. Staff, with the assistance of consultants at Stetson Engineers, has determined that the quality of the source water would require treatment and that the cost of constructing new facilities to measure and make use of the water in compliance with new regulations is not cost effective. Staff recommends that the Board authorize the Board President to sign a Request for Revocation of Water Right form for Water Right License 4413.

BACKGROUND:

IRWD currently retains ownership of Water Right License 4413 which is an unnamed right to the use of water that was transferred to IRWD as part of its consolidation with SCWD in 2006. The water source is a spring located within the Cleveland National Forest, approximately 1,600 feet south of the existing Read Reservoir. Historically, water from the point of diversion had been conveyed through a series of tunnels and pipes and discharged into a percolation area located near the Read Reservoir. Water was then re-diverted via a well into a regulating reservoir that provided service to connections within Silverado Canyon.

Water Right History:

License 4413 was issued in 1956, and has a face value of 28,800 gallons per day (32.3 acre-feet per year) based on a year-round diversion. The maximum use reported by SCWD, in its Reports of Licensee, was 59.6 acre-feet in 1970. In 1971, the State Water Resources Control Board conducted a field inspection that documented the condition and location of the point of diversion. Between 1986 and 1991, there was only intermittent use due to high bacteriological sampling and analysis results. Since 2000, no water use has been reported associated with the right because the water was determined by the State Department of Health Services (now the Division of Drinking Water) to be groundwater under the direct influence of surface water and subject to additional water treatment regulations. SCWD had ceased the use of the diversion and water from the well, and the associated facilities fell into disrepair.

Measurement Requirements:

Senate Bill 88, signed by Governor Brown on June 24, 2015, added new measurement and reporting requirements for a substantial number of water diverters. The measurement requirements apply to all water right holders who divert more than 10 acre-feet of water annually. In January 2016, the State Board adopted an emergency regulation to implement the new law, and the Office of Administrative Law approved the regulatory action in March 2016. The regulation requires that water right holders install metering devices or implement

measurement methods for reporting water diversions by specific deadlines. These measurements are required to maintain ownership of Water Right License 4413.

Water Right Evaluation:

Stetson Engineers was contracted by IRWD to investigate the history and current condition of License 4413. Stetson conducted a site visit on September 14, 2017, to field check and identify whether any facilities exist at the point of diversion. The facilities found at the location were not as described in the 1971 State Board inspection report. A regulating reservoir near the well has been converted into a storage shed and there is no existing connection between the point of diversion at the source and the percolation area. The percolation area is overgrown and there is no longer a functioning point of re-diversion. Stetson Engineers' report on the status of the water right and associated facilities is provided as Exhibit "A". Measurement of any diversions in compliance with State Board regulations would require rehabilitation or replacement of all facilities associated with the water right.

In order to reestablish conveyance from the point of diversion to the discharge area and Read Reservoir, new facilities would be required to traverse a privately-owned parcel. The extracted water would also require treatment prior to introduction to the potable water distribution network. Furthermore, review of the historical reported use over time suggests that the flow of the spring is controlled by local runoff and not reliable. Staff has determined that the costs to convey and treat this water far exceeds other available potable water sources. Therefore, staff recommends that the Board authorize the Board President to sign a Request for Revocation of Water Right form for Water Right License 4413 that is provided as Exhibit "B".

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Pursuant to Section 15378 of the CEQA Guidelines, the revocation of the subject water right is not defined as a project that would result in direct physical change to the environment. The effort is therefore exempt from CEQA.

COMMITTEE STATUS:

This items was reviewed by the Water Resources Policy and Communications Committee on January 15, 2018.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE BOARD PRESIDENT TO SIGN A REQUEST FOR REVOCATION OF WATER RIGHT FORM FOR WATER RIGHT LICENSE 4413 AND SUBMIT IT TO THE STATE WATER RESOURCES CONTROL BOARD.

LIST OF EXHIBITS:

Consent Calendar: Revocation of Unnamed Spring Water Right

January 22, 2018

Page 3

Exhibit "A"—The Status of Water Right Application 5911 (License 4413) on an Unnamed Spring
in Silverado Canyon, Orange County, California Report: Stetson Engineering Inc.

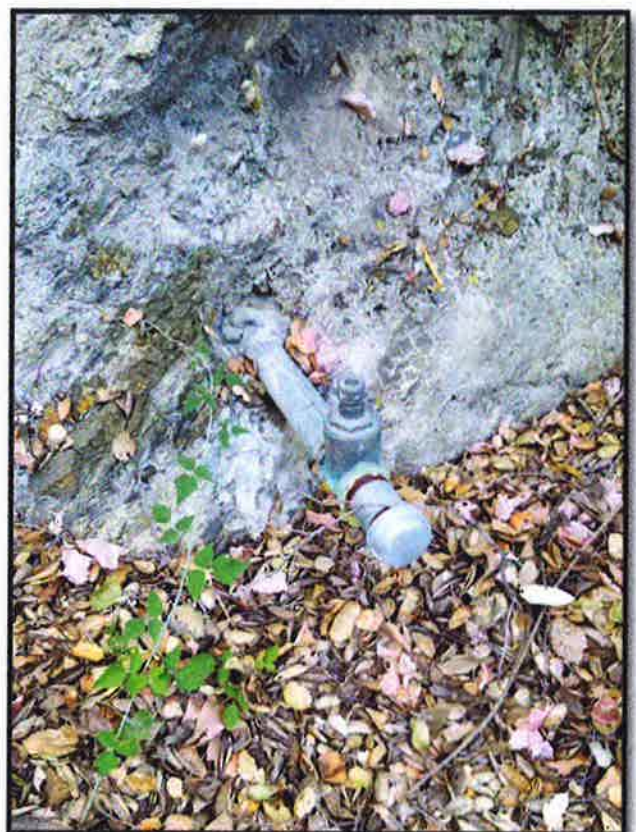
Exhibit "B"—SWRCB Request for Revocation of Water Right Form

Exhibit "A"

THE STATUS OF
WATER RIGHT APPLICATION 5911 (LICENSE 4413)
ON AN UNNAMED SPRING IN SILVERADO CANYON,
ORANGE COUNTY, CALIFORNIA

PREPARED FOR:
THE IRVINE RANCH WATER DISTRICT (IRWD)

OCTOBER 26, 2017



Northern California • Southern California • Arizona • Colorado • Oregon

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| Appendix B – Permit 3408 | |
| Appendix C – 1930 Progress Report by Permittee | |
| Appendix D – Order Granting Extension to 1936 | |
| Appendix E – 1934 Progress Report by Permittee | |
| Appendix F - Ownership Change to Shady Brook Water Company | |
| Appendix G – Orders Granting Extension 1936-1954 | |
| Appendix H – 1950 Memorandum of Field Visit | |
| Appendix I – 1955 Report of Inspection | |
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| Appendix P– Ownership Change to IRWD | |
| Appendix Q – 2016 Revocation Request | |
| Appendix R – SWRCB Revocation Request Response | |
| Appendix S – Point Of Diversion Photos | |

EXECUTIVE SUMMARY

Ownership of water right License 4413 (Application 5911) was transferred to the Irvine Ranch Water District (IRWD) in 2006 as a result of consolidation with the Santiago County Water District (SCWD). Stetson Engineers reviewed the State Water Resources Control Board's (SWRCB) staff files regarding License 4413, and conducted a site visit to document the condition of the Point of Diversion (POD). The water source is a spring area located within Cleveland National Forest, approximately 1,500-1,700 feet south of the existing Read treated water reservoir. Water from the POD had historically been conveyed through a series of tunnels and pipes and discharged into a percolation area located near the Read reservoir. Water was then rediverted via a gallery well into a regulating reservoir that provided service to connections within Silverado Canyon.

License 4413 was issued in 1956, and has a face value of 28,800 gallons per day or 32.3 acre-feet per year (AFY) based on a year-around diversion from Jan 1 to Dec 31. The maximum use reported in the Reports of Licensee was 59.6 acre feet in 1970. A 1971 field inspection was conducted by the SWRCB that documented the condition of and location of the POD. However, since 2000 no use has been reported because the water was determined to be ground water under the direct influence of surface water. Since the treatment facilities did not exist, SCWD ceased rediverting the water from the gallery well, and the works fell into disrepair.

Stetson Engineers conducted a site visit on September 14, 2017 to field check and identify if any waterworks exist at the POD. While the waterworks that were found at the location were not as described in the inspection, it is likely that improvements and/or modifications had been made in the intervening years. The regulating reservoir near the gallery well has since been converted into a storage shed and there is no existing connection between the POD at the source and the percolation area. The percolation area is overgrown, and there no longer exists a functioning point of redirection.

Based on previous reporting when the POD was operated, water would likely be available at the licensed capacity of 32.3 AFY during normal and above normal hydrologic conditions. Existing facilities at the POD include piping into a rock face below the spring area, which was capped off during our field inspection. Abandoned piping that at one time may have conveyed the water to the percolation area was visible downgradient of the POD. Newer irrigation piping, which extends from the POD down the canyon to the Earthroots Field School property line, was connected to a pipe protruding from the rock face at the spring. Therefore, it appears that water remains available from the POD and diversions have been occurring, but that the production capacity is unknown.

In order to reestablish conveyance from the POD to the discharge area and Read reservoir, conveyance facilities would be required to traverse a privately owned parcel which may not have an existing easement, and the extracted water would require treatment prior to introduction to the distribution network. The capital and operating and maintenance costs for these facilities are expected to be high. Stetson Engineers recommends that IRWD consider revocation of the License, transferring the right to the Earthroots Field School, or metering the POD in accordance with the SB88 emergency regulations and allowing exclusive use by Earthroots Field School under an agreement for non-potable use. No attempt was made to contact Earthroots Field School to determine how long water has been used or the amount of annual use.

Regardless of the decision made with respect to disposition of the water right, if IRWD owns the License on January 1, 2018, the water right is subject to the increased measurement and monitoring requirements associated with the SB88 emergency regulation. Compliance reporting is required with the next Report of Licensee, which must be submitted by April 1, 2018.

SUMMARY OF CONTENTS OF SWRCB FILES AND LICENSE TIMELINE

A timeline of events pertaining to the water right is summarized in Figure 1. Application 5911 was accepted by the SWRCB on May 14, 1928 (Appendix A) and Permit 3408 was subsequently issued to Rome Miller on December 20, 1929 (Appendix B). The 1930 Progress Report By Permittee (Appendix C) stated that a small dam had been installed approximately 1,600 feet upstream in the canyon, and pipe had been placed. The Permittee stated that his intention was “to carry the pipe line up [to] the spring and to do further development work on the spring.” Water was to be developed and used to supply cabins that were under development in Silverado Canyon at the time. In 1932, an extension of time to complete the construction and to apply water to complete beneficial use was granted until 1936 (Appendix D).

The 1934 Progress Report By Permittee (Appendix E) was filed by the Shady Brook Water Company, who stated that they had constructed a 65,000 gallon reservoir and were constructing tunnels in the springs to increase the supply of water. The Shady Brook Water Company succeeded Mr. Miller in interest (Appendix F) and continued to develop the water under Permit 3408. Improvement of tunnels to increase water production continued as development proceeded, and extensions were granted for the completion of the work and the application of water to complete beneficial use until 1940, 1944, 1950, and 1954 (Appendix G).

An inspection was conducted on April 17, 1950 (Appendix H), describing the diversion as, “*about the locus of a group of seepage springs within an area about 50’ wide and 200’ long, in the bottom of a steep ravine in the southerly slope of Silverado Canyon. Three springs have*

been developed and three more are to be developed in the near future. The flow of the developed springs is collected through short sections of 1" or 2" pipe, into 200' of three inch pipe that empties into a 70,000 gallon covered concrete reservoir."

FIGURE 1

TIMELINE OF EVENTS FOR WATER RIGHT APPLICATION NO. 005911 (LICENSE NO. 4413)

| Date | Event |
|-------------------|---|
| May 14, 1928 | Division of Water Rights accepts Application No. 5911 to appropriate water; project owner is Mr. Rome Miller |
| December 20, 1929 | Permit No. 3408 issued for Application No. 5911 |
| November 19, 1934 | Ownership is transferred to Shady Brook Water Company based on request in letter |
| 1940s & 1950s | Division of Water Rights grants several time extensions to Shady Brook Water Company |
| April 17, 1950 | Inspection is made; recommended amount for license is 16,000 gpd |
| May 5, 1955 | Inspection is made; recommended amount for license is 28,800 gpd |
| December 17, 1956 | License No. 4413 is granted to Shady Brook Water Company for 28,800 gpd |
| March 30, 1966 | Ownership is transferred to Santiago County Water District |
| June 1, 1971 | Inspection conducted to support modifying license No. 4413 |
| September 3, 1971 | Santiago County Water District files petitions for (1) modify description of point of diversion; (2) add a point of rediversion; and (3) change the place of use |
| November 12, 1971 | Division of Water Rights grants order allowing change in point of diversion and place of use |
| July 2006 | IRWD and SCWD complete consolidation of districts |
| July 15, 2008 | License 4413 is assigned to Irvine Ranch Water District |
| June 29, 2016 | Revocation request is filed with the SWRCB, but not accepted. The SWRCB required a signed revocation request by "someone who can make decisions on behalf of the district." |
| March 29, 2017* | Report of Licensee for 2016 filed with project status indicating "the project has been abandoned and I request revocation of my water right license" |

*eWRIMS database shows two reports of licensee for 2016, one dated 3/29/17 and one 07/06/2017, but they appear to contain identical information.

Another inspection by the SWRCB was conducted on May 5, 1955 (Appendix I), and the project was found to be complete as to construction, and beneficial use had been made of the full production of the source. Licensing was recommended at the maximum production of the spring, which occurred in the summer of 1954 at about 20 gallons per minute (28,800 gallons per day). The diversion system was described as:

“The point of diversion as described is about the center of the cienega area which is about 50 feet wide by 200 feet long. There are three developments in the area; one near the thread of the canyon is a pit 3 feet wide by 4 feet long by 4 feet deep, with a 50-gallon metal drum sunk into the bottom, it is connected into the 3-inch feeder pipe by 6 feet of ¾ inch pipe; the second spring is about 50 feet southwest of the pit and is a bulkheaded tunnel into the toe of the left bank of the canyon and is about 3 feet wide by 3 feet high by 12 feet long, and is connected into the feeder pipe by 50 feet of 2 inch pipe; the third development is 25 feet east of the second point, and it is a bulkheaded tunnel 3 feet wide by 3 feet high by 25 feet long heading into the right bank. The 3-inch feeder pipe heads at the third point; it is a 3 inch steel tubing about 200 feet long, has a fall of about 30 feet, and delivers the water to a 70,000 gallon covered concrete reservoir.”

Following the inspection in 1955, License 4413 was granted to Shady Brook Water Company on October 23, 1956 (Appendix J). Reports of Licensee were filed by the Shady Brook Water Company from 1957-1962. In 1964, the Santiago County Water District acquired the Shady Brook Water Company, along with the right covered by the License. However, ownership of the License was not transferred to the SCWD until 1966 (Appendix K) because Reports of Licensee were submitted every 3 years at that time. The SWRCB changed the ownership in response to the submission of the Report of Licensee for 1963-1965.

The SWRCB conducted another inspection in June 1971 (Appendix L). At the time of the inspection, water was diverted at POD 1¹, brought down to the mouth of the canyon, and allowed to percolate into the ground, where it was rediverted by a gallery well (POD 2) and pumped into the 70,000 gallon concrete reservoir for distribution and beneficial use. The inspector drew a hand sketch that shows a system of 3-inch piping from the source to a percolating area, the gallery well located near Silverado Canyon Road, and the 70,000 gallon storage reservoir that was used as a regulating tank. The pictures are not clear in the copies, but the photos appear to show bulkheaded tunnels and a pipe that drains from a buried pit (POD 1). The photos also show the 70,000 gal reservoir and the point of rediversion (POD 2), as they existed at the time.

Based on the June 1971 inspection, SCWD submitted a petition for correction of the description of the point of diversion (POD 1), a petition for the addition of a point of rediversion (POD 2), and a petition to change the place of use to include the entire service area of the SCWD

¹ POD 1 and POD 2 were first identified in the 1971 Inspection (Appendix L)

(Appendix M). The SWRCB approved the petitions in an Order dated November 12, 1971, and included an updated map of the PODs (Appendix N).

The SWRCB's report of licensee information indicates that use of the license occurred from 1957 through 1985, and from 1992 through 1999, at which time thereafter, use was reported as zero. Use was also reported as zero due to "intermittent high bacteriological samples during the period 1986 through 1991. During the periods that use was reported, total volume taken from the source ranged between 2.58 acre-feet per year (1992) and 59.6 acre-feet per year (1970).

The SWRCB files indicate that Department of Health Services (DHS) designated the supply as "groundwater under the direct influence of surface water" in 2000. Based on this designation, water used from this source would require treatment under the surface water treatment rule. The designation as a surface water source in 2000 would explain why no use was reported between 2000 and 2016. The available Reports of Licensee substantiate that use was discontinued until such time as an adequate treatment facility could be constructed. SCWD reported that the treatment facility was "in the design phase" in 2000. The historical reported use of the license is shown in Appendix O.

In July 2006, the consolidation of IRWD and SCWD was completed. A Report of Licensee for 2004-2006 was not submitted, and it appears that IRWD was not aware of the water right that accompanied the consolidation of the water districts. In response to a returned fee notice in 2008, the SWRCB changed the ownership of the license to IRWD (Appendix P), who has subsequently completed electronic filing of Reports of Licensee through present day.

Mr. Patrick Shields, IRWD Executive Director for Operations, submitted a request for revocation of water right to the SWRCB for License 4413 (Appendix Q) in June 2016. The SWRCB did not act on that request because they felt that Mr. Shields was not able to represent the owners of the water right. In July 2016, the SWRCB stated that they required a signed revocation request from the owners of the IRWD, or from someone who can make decisions on behalf of the district members (Appendix R). The 2016 Report of Licensee, filed in March of 2017, listed the project as abandoned and requested revocation of the water right. License 4413 remains in effect.

SEPTEMBER 14, 2017 SITE VISIT

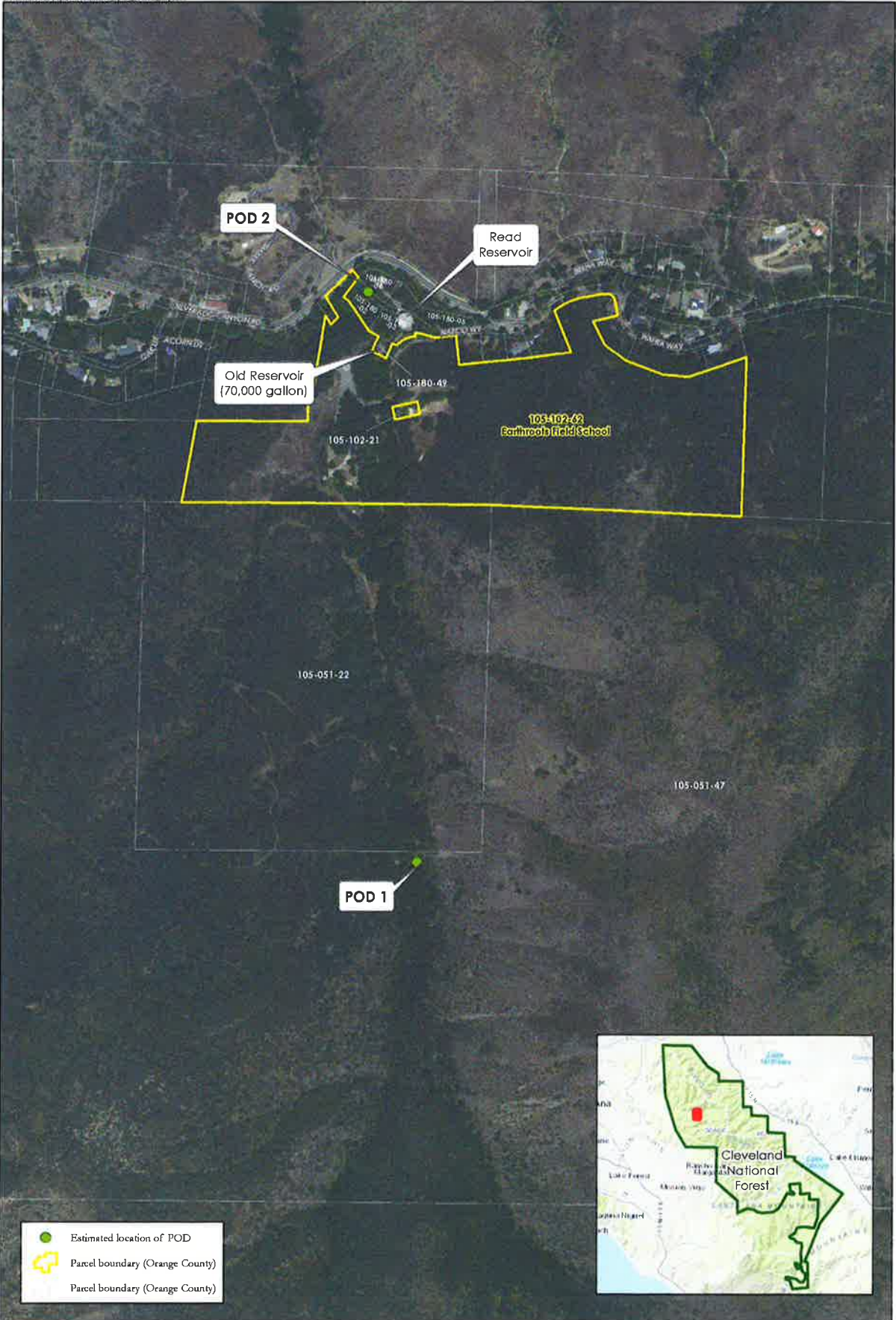
A site visit by Stetson Engineers was conducted on September 14, 2017 to field check and identify if any waterworks exist at the Point of Diversion (POD 1). As shown in Figure 2, the Point of Diversion (POD 1) is located within the boundary of Cleveland National Forest. A visual inspection of POD 2 (rediversion) was not conducted. The 70,000 gallon reservoir was

located, and its approximate location is indicated on Figure 2. A section of the reservoir wall has been removed, and a garage door installed, converting the reservoir into a storage area operated by IRWD in the vicinity of the Read Reservoir. The area immediately surrounding the old reservoir is heavily overgrown and abandoned 3-inch piping was visible.

During the search for POD 1, no bulkheaded tunnels were found, although some remains located in the ravine floor may have once been a tunnel. There was no water present along the ravine floor at the time of the visit. However, there were many abandoned pipes and pipe segments located in the ravine near the map location of POD 1. Some are old and fit the description of 1-3 inch steel pipe, and some are relatively new and constructed of either PVC or ½ inch irrigation tubing. A “cienega” area was not located, so the conditions in the area appear to have changed significantly from the 1955 inspection report. Located at approximately the map location for POD 1 was a rock face with 2-3 inch galvanized piping protruding from it and capped off (Appendix S). Above the rock face was a flat area with water pooled at the top, indicating the presence of a spring. There was also old, abandoned galvanized and steel piping in the area that indicates the area was once developed to produce water that was conveyed down the ravine. Piping was not located further up the ravine, which led to the conclusion that the area is likely POD 1.

One of the protruding pipes at POD 1 has been tapped into recently with a plastic ball valve connected to ½ inch irrigation tubing that then extends down the ravine, and into parcel 105-102-62, owned by Earthroots Field School (<http://earthrootsfieldschool.org>). No other applications, permits, or licenses exist within this area, as per the eWRIMS water right locator and mapping database. From Silverado Canyon Road, the Earthroots Field School property entrance is adjacent to the IRWD Read Reservoir, and the sign at the entrance is labeled “Big Oak Canyon”. The Earthroots Field School website states that it has recently acquired the parcel, and has a map of the parcel, which lies between POD 1 and the old 70,000 gallon reservoir.

At present, no connection could be verified between POD 1 and POD 2, and no water was visible in the ravine or drainages. There was surface water present in the vicinity of POD1 and also at the old 70,000 gallon reservoir, which may indicate at least some hydraulic connection remains. It is apparent that water can be produced from the remaining works at POD 1, since there is irrigation tubing connected to it, but 20 gpm cannot be produced in its current configuration, based on the capacity of the existing irrigation tubing. Whether an easement exists into the Earthroots Field School could not be determined, as the parcel map was not available on the Orange County Public Works website.



Source: Orange County

**UNNAMED SPRING
APPLICATION 5911, LICENSE 4413**

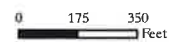


FIGURE 2

MEASUREMENT AND MONITORING REQUIREMENTS

Senate Bill 88 (SB88), signed by Governor Brown on June 24, 2015, adds measurement and reporting requirements for a substantial number of water diverters. The measurement requirements of the regulation apply to all water right holders who divert more than 10 acre-feet of water annually. The annual reporting requirements in the regulation apply to all statement holders, as well as persons authorized to appropriate water under a permit, license, registration or certificate for livestock stockpond use. The SWRCB adopted an emergency regulation to implement the new law at its January 2016 meeting, and the Office of Administrative Law (OAL) approved the regulatory action in March 2016.

The emergency regulation modifies the reporting requirements applicable to all water rights. Annual Reports of Licensee shall be filed electronically by April 1, which is a change from previous years, where reports for all claims of right were due on July 1. Additionally, the emergency regulation requires that diverters who are authorized to divert greater than 10 acre-feet annually install and maintain a measuring device, or employ a measurement method capable of measuring the rate of diversion, rate of collection to storage, the rate of withdrawal or release from storage, and the total volume of water diverted or collected to storage.

License 4413 (Application 5911) authorizes the direct diversion of 28,000 gallons per day (32.3 AFY). Within the regulations, there are different requirements, based on the authorized annual diversions. In this case, the License is greater than 10 AFY, but less than 100 AFY. Table 1 below summarizes the measurement, data recordation, and reporting requirements for diversions between 10 AFY and 99 AFY, using a measurement device installed after January 1, 2016.

A measurement device capable of measuring within 15% accuracy must be installed no later than January 1, 2018, then calibrated every 5 years thereafter (or upon replacement). Data recordings must be taken at least weekly and maintained for 10 years. No later than April 1, 2018, the Report of Licensee must be filed electronically in eWRIMS. The electronic form will require a report of water measuring device, which are a series of additional questions and data entry on the electronic filing that will ultimately create a measurement ID for the device, and certifies that the device has been installed as per the regulations. If a request for revocation has been submitted but not finalized, and no diversions are taking place, a statement in the filing, along with the request for revocation attached should suffice. However, once a determination is made with respect to disposition of the license, this should be confirmed with the SWRCB.

**TABLE 1- SB88 MEASUREMENT REQUIREMENTS FOR DIVERSIONS BETWEEN 10 AND 99 ACRE-
FEET ANNUALLY**

| PROVISION | REQUIREMENT | REFERENCE¹ |
|---|--|------------------------------|
| Deadline for Installation and Certification | Jan 1, 2018 | §932(c)(1) |
| Data Recording Parameters | Date, time, and at least one of the following: total volume, flow rate, or water velocity | §933(b)(1) |
| Frequency | Weekly or more frequent | §933(b)(1)(A) |
| Data Submittal | With Report of Licensee | §933(b)(2)(A) |
| Data Retention | 10 years | §933(b)(3) |
| Required Accuracy | 1. Installed or replaced after Jan 1, 2016: ± 5% (Lab certification) ± 15% (Non-lab certification) ² | §933(d) |
| Initial Certification of Accuracy | 1. Installed or replaced after Jan 1, 2016: a. Lab certification prior to installation b. Non-Lab certification after installation by a qualified individual ³ | §933(e) |
| Calibration | Upon installation, then every 5 years | §933(h) |
| Report of Water Measuring Device⁴ | 1. Initial report with the first water report filed after January 1, 2018. 2. Subsequent reports every 5 years or within 30 days of installation of a new or replacement device 3. Within 30 days of request from the board. | §937(a) |
| Compliance | Civil liability of up to \$500 per day | §938 |

Notes: 1. CA CCR Title 23 Div 3 Ch 2.7

2. Results of field testing shall be documented in a report approved by a “qualified individual”

3. A “qualified individual” for diversions <100 acre-feet annually means: a person trained and experienced in water measurement and reporting. This may include the diverter or the diverter’s agent.

4. Report of Water Measuring Device has been included in the electronic filing of the Report of Licensee, and must be completed at the time of submission.

CONCLUSIONS AND RECOMMENDATIONS

There has been no reported use of the license since 2000, and the source of supply has been classified by DHS (currently Department of Drinking Water) as water under the direct influence of surface water. Based on the reported use of the license over time, there appears to be a correlation between quantity produced and hydrologic condition; suggesting that the flow of the spring is controlled by local runoff and lacks a significant regional source component. Use of the license was greatest during wet hydrologic conditions and least during drier conditions. Any future use of the spring would likely be seasonal based on hydrologic conditions. Statistical hydrological analysis using local rainfall gages in the area would be required to substantiate this observation.

Based on the current status of the diversion and conveyance facilities, historical use records, and classification of the source as surface water, IRWD should consider the following alternatives:

1. Revocation of License 4413
2. Transfer ownership to Earthroots Field School
3. Meter the POD in accordance with SB88 with an agreement for use by Earthroots Field School

Historical water use records that show non-use of the water right since 2000 subjects the right to forfeiture, although an exception may be made for the time required to develop a solution for treatment. Because the source does not appear to be connected to a regional aquifer, water would likely be available on a seasonal basis up to the licensed capacity of 32.3 AFY during normal and above normal hydrologic conditions. We did not investigate the cost to improve the diversion and conveyance facilities, install treatment, or provide a connection to the potable water system. The capital, operating, and maintenance costs for these facilities are expected to be high, due to the seasonal nature of the supply. Transferring the right to the Earthroots Field School is a possibility, considering their existing use of the source. A third option exists to place a meter and data logger on the POD, in accordance with the SB88 emergency regulation, allow diversions to Earthroots Field School to continue with an agreement for non-potable use. Retroactive filings can be made with estimates of diversion amounts for the period of time where the unmetered diversions were occurring. No attempt was made to contact Earthroots Field School to determine how long water has been used or the amount of annual use.

Regardless of the decision made with respect to disposition of the water right, if IRWD owns the License on January 1, 2018, the water right is subject to the increased measurement and monitoring requirements associated with the SB88 emergency regulation. Compliance reporting

is required with the next Report of Licensee, which must be submitted by April 1, 2018. If a request to revoke the License has been filed with the SWRCB, no diversions are taking place, but action has not been taken by the SWRCB, IRWD should state that on the Report of Licensee and attach the revocation documentation to the annual submittal.

January 22, 2018

Prepared by: A. McNulty

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

Approved by: Paul A. Cook *PC*

CONSENT CALENDAR

VARIANCE NO. 6 TO SYNERGY COMPANIES AGREEMENT FOR WATER-ENERGY GRANT-RELATED CUSTOMER PROGRAMS

SUMMARY:

In October 2015, IRWD was awarded a Water-Energy Grant from the California Department of Water Resources (DWR). The grant provided funding for a program that offered customers the opportunity to upgrade their homes with efficient water and energy fixtures. IRWD entered into an agreement with Synergy Companies to install indoor water efficient fixtures for the program. A Memorandum of Understanding (MOU) with Moulton Niguel Water District governed the installation of outdoor water efficient devices through the use of a contractor. The MOU expired on December 31, 2017, eliminating the outdoor portion of the program and leaving \$30,000 in unused grant funding. To fully allocate the remaining DWR funds and to continue providing funding for the indoor portion of program, staff recommends the Board authorize the General Manager to execute Variance No. 6 to the District's agreement with Synergy Companies in the amount of \$30,000. IRWD's expenditures through the Synergy Companies agreement will be reimbursed to IRWD by DWR from grant funds.

BACKGROUND:

In October 2015, DWR awarded a Water-Energy Grant to IRWD in the amount of \$1,932,621 for the development and implementation of a water and energy efficiency device installation program. Upon receiving the grant, IRWD collaborated with Southern California Edison (SCE) and Southern California Gas Company (SoCalGas) to implement a program called the "One-Stop Shop for Water and Energy Efficiency Program" that provided customers with the opportunity to upgrade their homes with efficient energy and water fixtures.

The DWR grant reimbursed IRWD for the cost of installing toilets, showerheads, faucet aerators, and providing landscape assessments and smart irrigation timers to customers. Funding for the energy efficient devices is provided by SCE and SoCalGas. All indoor devices are installed under IRWD's agreement with Synergy Companies. IRWD, SCE and SoCalGas maintain separate contracts with Synergy Companies for the installation of utility-specific devices under the program. Services for the outdoor portion of the program are provided by Valley Soils, Inc. The grant funding was allocated between the two contractors based on the estimated participation rates and the associated costs.

The outdoor installation service provided by Valley Soils has been managed through an MOU with Moulton Niguel Water District that was approved by the IRWD Board in January 2017. The MOU was effective for one year, and ended on December 31, 2017 with a projected remaining balance of \$30,000 in unspent DWR grant funds. Staff is proposing to reallocate the remaining grant funds from the outdoor portion of the program to the indoor portion of the program that is managed by Synergy Companies.

Variations to Synergy Company Agreement:

Funding for the One-Stop Shop Program has been allocated between the indoor and outdoor portions of the program to keep pace with program participation rates and the need to complete the program within a one-year period. The allocation of funds to Synergy Companies for the installation of indoor devices has occurred through the execution of the following variances to the original \$80,000 agreement:

- Variance No. 1 opened the program to single-family customers and included changes to the agreement to accommodate requirements of DWR without increasing costs;
- Variance No. 2 increased the Synergy Companies budget for the indoor program by \$500,000 bringing the total indoor program budget to \$580,000;
- Variance No. 3 clarified water fixture flow rates without modifying the program budget;
- Variance No. 4 increased the indoor program funding by \$950,000 bringing the total indoor program budget to \$1,530,000; and
- Variance No. 5 increased indoor program funding by \$169,000 bringing the total indoor program budget to \$1,699,000.

Variance No. 6 with Synergy Companies has been prepared to reallocate the remaining \$30,000 in DWR grant funds from the outdoor portion of the program to the indoor portion of the program which will bring the total indoor budget to \$1,729,000. Program funding is reimbursable through the DWR Water-Energy Grant. Staff recommends the Board authorize the General Manager to execute Variance No. 6 with Synergy Companies.

FISCAL IMPACTS:

Funding for the One-Stop Shop for Water and Energy Efficiency Program is included in the FY 2017-18 Operating Budget. The District will be reimbursed for Synergy Companies' work through the DWR Water-Energy Grant.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on January 15, 2018.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 6 TO THE AGREEMENT FOR NON-CONSULTANT SERVICES BETWEEN IRWD AND SYNERGY COMPANIES IN THE AMOUNT OF \$30,000, TO BE REIMBURSED

Consent Calendar: Variance No. 6 To Synergy Companies Agreement for Water-Energy Grant-
Related Customer Programs
January 22, 2018
Page 3

THROUGH THE CALIFORNIA DEPARTMENT OF WATER RESOURCES WATER-
ENERGY GRANT.

LIST OF EXHIBITS:

Exhibit "A" – Agreement for Non-Consultant Services Between IRWD and Synergy Companies
Exhibit "B" – Non-Consultant Services Variance No. 6 to the IRWD Agreement with Synergy
Companies

EXHIBIT "A"

AGREEMENT FOR NON-CONSULTANT SERVICES BETWEEN IRVINE RANCH WATER DISTRICT AND SYNERGY COMPANIES

This AGREEMENT FOR NON-CONSULTANT SERVICES ("Agreement") is made and entered into this 10 day of August, 2015 by and between the IRVINE RANCH WATER DISTRICT, a California Water District formed and existing pursuant to the California Water District Law ("District"), and SYNERGY COMPANIES ("Contractor"), who agree as follows:

1. Agreement. The following documents (if applicable) are incorporated into this Agreement by this reference:

Certificate(s) of Insurance, Endorsements and Payment Bond

In the event of conflict between any of the terms and conditions contained in the above-listed documents and any of the terms and conditions contained in this Agreement, the parties agree that the terms and conditions contained in this Agreement will control.

2. Services. Subject to the terms and conditions set forth in this Agreement, Contractor agrees to provide District the services described in the Scope of Services, attached hereto as Exhibit 1 ("Services"). Contractor must, at its sole cost and expense, furnish all equipment that may be required for furnishing the Services. Contractor will not be compensated for services outside the scope of the Services as described in Exhibit 1, and in the Contractor's proposal, unless prior to the commencement of such out of scope services: (a) Contractor notifies District and District agrees that such services are out of scope services; (b) Contractor estimates the additional compensation required for such out of scope services; and (c) District, after notice, approves in writing a variance in the form attached hereto as Exhibit 6, specifying such out of scope services and amount of compensation for performing those out of scope services. District does not have any obligations whatsoever under this Agreement and/or any variance unless and until this Agreement and/or any variance is approved by the District's General Manager or authorized designee. Specific authorization to proceed with the Services shall be granted in writing by District. Contractor shall not proceed with the Services unless authorized. If it is specified in the Scope of Services as described in Exhibit 1 that the Services are to be performed in phases as authorized, Contractor shall not proceed with any phase unless it is separately authorized.

3. Exhibits. The following exhibits are attached to this Agreement and incorporated into this Agreement by this reference:

- ___ Exhibit 1 – Scope of Services
- ___ Exhibit 2 – Fee Schedule (including Schedule of Charges for Services)
- ___ Exhibit 3 – Insurance Requirements
- ___ Exhibit 4 – Public Works Requirements
- ___ Exhibit 5 – Special Provisions
- ___ Exhibit 6 – Non-consultant Services Variance

4. Payment. District must pay Contractor for the Services in the manner specified in Exhibit 2. The payments specified in Exhibit 2 are the only payments to be made to Contractor for the services rendered pursuant to this Agreement unless pursuant to Section 1, above, District approves additional compensation for additional services. Contractor must submit all billings for said services to District in the manner specified in Exhibit 2.

5. No Guarantee of Compensation for On-Call Services. If this Agreement is an agreement for “on-call” Services, District makes no guarantee to Contractor as to the amount of Contractor-provided on-call Services will be requested by the District or the amount of compensation that will be provided Contractor pursuant to this Agreement. Under no circumstances, will Contractor or any of its subcontractors be entitled to or compensated for any direct or indirect loss arising from or relating to District’s failure to authorize performance of services under this Agreement. Such direct and indirect loss includes, but is not limited to, loss of expected profits, business overhead, loss of productivity, and loss of opportunity to work on other projects.

6. Standards of Performance. Contractor must perform all Services required pursuant to this Agreement in the manner and according to the standards currently observed by a competent practitioner of Contractor’s industry in California. Contractor must prepare all deliverables provided to District pursuant to this Agreement in a professional manner and conform to the standards of quality normally observed by a person currently practicing in Contractor’s industry, and must be provided in accordance with any schedule of performance specified in Exhibit 1. Contractor must assign only competent personnel to perform Services. Contractor must also devote such time and effort to the performance of Services as is necessary for the satisfactory and timely performance of Contractor’s obligations under this Agreement. Neither party will be deemed in default of this Agreement, to the extent that party’s performance is prevented or delayed by any cause, present or future, that is beyond the reasonable control of that party.

7. Independent Contractor. It is understood and agreed that Contractor (including Contractor’s employees) is an independent contractor and that no relationship of employer-employee exists between the parties hereto for any purpose whatsoever.

Neither Contractor nor Contractor's assigned personnel shall be entitled to any benefits payable to employees of District. District is not required to make any deductions or withholdings from the compensation payable to Contractor under the provisions of this Agreement. It is further understood and agreed by the parties hereto that Contractor, in the performance of its obligations hereunder, is subject to the control and direction of District as to the designation of tasks to be performed and the results to be accomplished under this Agreement, but not as to the means, methods, or sequence used by Contractor for accomplishing such results. To the extent that Contractor obtains permission to, and does, use District facilities, space, equipment or support services in the performance of this Agreement, this use is at the Contractor's sole discretion based on the Contractor's determination that such use will promote Contractor's efficiency and effectiveness. Except as may be specifically provided elsewhere in this Agreement, the District does not require that Contractor use District facilities, equipment or support services or work in District locations in the performance of this Agreement. If, in the performance of this Agreement, any third persons are employed by Contractor, then Contractor must ensure that such persons are entirely and exclusively under Contractor's direction, supervision, and control.

8. Contractor Not Agent of District. Except as District may specify in writing, Contractor and Contractor's personnel do not have authority, express or implied, to act on behalf of District in any capacity whatsoever as an agent. Contractor and Contractor's personnel do not have the authority, express or implied, to bind District to any obligations whatsoever.

9. Conflicts of Interest. Contractor covenants that neither it, nor any officer or principal of its firm, has or will acquire any interest, directly or indirectly, that would conflict in any manner with the interests of District or that would in any way hinder Contractor's performance of the Services. Contractor further covenants that in the performance of this Agreement, no person having any such interest will be employed by Contractor as an officer, employee, agent or subcontractor, without the written consent of District. Contractor agrees to avoid conflicts of interest or the appearance of any conflicts of interest with the interests of District at all times during the performance of this Agreement.

10. Licenses and Permits. Except for any licenses, permits, or approvals which are expressly provided by the Scope of Services to be obtained by the District, Contractor represents and warrants that Contractor has all licenses, permits, qualifications, and approvals that are legally required for Contractor to provide the Services. Contractor represents and warrants that Contractor will, at its sole cost and expense, keep in effect or obtain at all times during the term of this Agreement any licenses, permits, and

approvals that are legally required for Contractor to provide the Services. Without limiting the generality of the foregoing, if Contractor is an out-of-state corporation, Contractor warrants and represents that it possesses a valid certificate of qualification to transact business in the State of California issued by the California Secretary of State pursuant to Section 2105 of the California Corporations Code.

11. Indemnification. Contractor agrees to defend, hold harmless and indemnify District, its officers and employees, and each and every one of them, from and against any and all actions, damages, costs, liabilities, claims, demands, losses, judgments, penalties, costs and expenses of every type and description, including, but not limited to, any fees and/or costs reasonably attorney fees and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as "Liabilities"), including but not limited to Liabilities arising from personal injury or death, damage to personal, real or intellectual property or the environment, contractual or other economic damages, or regulatory penalties, arising out of or in any way connected with performance of or failure to perform this Agreement by Contractor, any subcontractor or agent, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, whether or not (i) such Liabilities are caused in part by a party indemnified hereunder or (ii) such Liabilities are litigated, settled or reduced to judgment; provided that the foregoing indemnity does not apply to liability for any damage or expense for death or bodily injury to persons or damage to property to the extent arising from the negligence or willful misconduct of District.

12. Insurance Requirements. During the entire term of this Agreement, Contractor must maintain the insurance coverage described in Exhibit 3.

13. Public Works Requirements. If the Services include "public work" subject to the requirements of the California Labor Code or other applicable statutes (generally, any of the following paid for by the District, with a contract amount of \$1,000 or more: construction work (including inspection and land surveying), alteration work, demolition work, installation work, street or other improvement work, repair work, certain refuse hauling for disposal, and maintenance work other than routine or recurring janitorial or custodial work), Contractor shall comply with the requirements set forth in Exhibit 4, to the extent applicable to any of the Services.

14. Non-Discrimination. Contractor represents and warrants that it has and adheres to a policy of equal opportunity non-discrimination, and non-harassment of all persons regardless of race, religion, color, national origin, ancestry, disability, medical condition, marital status, gender, age, veteran status, or sexual orientation. Such policy must be in conformance with applicable State and Federal guidelines including the California

Government Code "Section 12940(h), 12940(i)," and the Federal Equal Opportunity Clause "Section 60-1.4 of Title 41, Part 60 of the Code of Federal Regulations" and must apply to all employment practices including recruitment, candidate selection, training, compensation, promotion, demotion, and recreation. Contractor will designate a specific person responsible for assuring nondiscrimination and non-harassment as provided in the Agreement. That named individual will be responsible for investigating all complaints directed to him/her by District. District will refer complaints in writing, and investigations will be deemed concluded only upon submission of a written investigation report from the Contractor to the District. The scope of such investigations includes not only officers, employees, and agents of the Contractor, but also all subcontractors, subcontractors, material, men, and suppliers of the Contractor. In cases where such investigation results in a finding of discrimination, harassment, or hostile work environment, Contractor must take prompt, effective disciplinary action against the offender. Failure to take appropriate action may be considered a material breach of the Agreement.

15. Compliance with Laws. In the performance of this Agreement, Contractor must at all times comply with all applicable governmental laws, statutes, ordinances, rules, codes, regulations, orders and other requirements. Upon the District's request, Contractor must provide the District with documentation demonstrating Contractor's compliance with such governmental requirements. After reasonable notice and under reasonable conditions, Contractor agrees that the District has the right to inspect and copy any records of Contractor regarding such compliance. Contractor represents and warrants that neither Contractor nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any government department or agency.

16. Term; Suspension; Termination. This Agreement will become effective on the date that it is approved by both parties, set forth on the first page of the Agreement, and continues in effect until both parties have fully performed their respective obligations under this Agreement, unless sooner terminated as provided herein. District must have the right at any time to temporarily suspend Contractor's performance hereunder, in whole or in part, by giving a written notice of suspension to Contractor. If District gives such notice of suspension, Contractor must immediately suspend its activities under this Agreement, as specified in such notice. District may terminate this Agreement at any time by giving at least 10-days prior written notice of termination to Contractor. If District gives such notice of termination, Contractor must immediately cease rendering Services pursuant to this Agreement. If District terminates this Agreement, Contractor must, no later than five days after such notice of termination, deliver to District all Work Product

prepared pursuant to this Agreement. District must pay Contractor the reasonable value of Services rendered by Contractor prior to termination.

17. Confidentiality of District Information. During performance of this Agreement, Contractor may gain access to and use District information regarding personnel, future plans, business affairs, governmental affairs, processes, trade secrets, security of facilities, customer account information, and other sensitive information (hereafter collectively referred to as "District Information"). Contractor agrees to protect all District Information and treat it as strictly confidential, and further agrees not at any time, either directly or indirectly, to divulge, disclose or communicate in any manner any District Information to any third party without the prior written consent of District. A violation by Contractor of this Section is a material violation of this Agreement and must justify legal and/or equitable relief.

18. Ownership of Work Product. Contractor agrees that District has full ownership and control, including ownership of any copyrights, of all information prepared, produced, or provided by Contractor pursuant to this Agreement ("Work Product"). Contractor is not responsible for any unauthorized modification or use of such Work Product for other than its intended purpose by District. Contractor agrees to fully defend, indemnify and hold harmless District, its officers and employees, and each and every one of them, from and against any and all claims, actions, lawsuits or other proceedings alleging that all or any part of the information prepared, produced, or provided by Contractor pursuant to this Agreement infringes upon any third party's trademark, trade name, copyright, patent or other intellectual property rights.

19. California Public Records Act. All proprietary and other information received from Contractor by District, whether received in connection with Contractor's proposal to District or in connection with any Services performed by Contractor, will be disclosed upon receipt of a request for disclosure, pursuant to the California Public Records Act; provided, however, that, if any information is set apart and clearly marked "trade secret" when it is provided to District, District must give notice to Contractor of any request for the disclosure of such information. The Contractor has five (5) days from the date it receives such notice to enter into an agreement with the District, satisfactory to the District Counsel, providing for the defense of, and complete indemnification and reimbursement for all costs (including plaintiff's attorney fees) incurred by District in any legal action to compel the disclosure of such information under the California Public Records Act. The Contractor has sole responsibility for defense of the actual "trade secret" designation of such information. The failure of Contractor to respond to the notice provided by District constitutes a complete waiver by Contractor of any rights regarding

the information designated "trade secret" by Contractor, and such information will be disclosed by District pursuant to the California Public Records Act.

20. Severability. The parties agree that if any portion of this Agreement or the application thereof to any person or circumstance is held invalid or unenforceable, then the remainder of this Agreement will remain effective and is enforceable to the greatest extent permitted by law.

21. Waiver. Neither District acceptance of, or payment for, any Service or Additional Service performed by Contractor, nor any waiver by either party of any default, breach or condition precedent, may be construed as a waiver of any provision of this Agreement, nor as a waiver of any other default, breach or condition precedent or any other right hereunder.

22. Choice of Law and Venue. The parties agree that this Agreement is to be governed, construed and enforced in accordance with the laws of the State of California. The parties also agree that the venue of any litigation arising out of or connected with this Agreement will lie exclusively in the state trial court or Federal District Court located in Orange County in the State of California, and the parties consent to jurisdiction over their persons and over the subject matter of any such litigation in such courts, and consent to service of process issued by such courts.

23. No Assignment. The expertise and experience of Contractor are material considerations for this Agreement. District has a strong interest in the qualifications and capability of the persons and entities who will fulfill the obligations imposed on Contractor under this Agreement. In recognition of this interest, Contractor must not assign any right or obligation pursuant to this Agreement without the written consent of the District. Any attempted or purported assignment without District's written consent is void and of no effect.

24. Survival of Terms. The provisions of Section 5, 7, 8, 9, 10, 11, 15, and 17 through 26, survive termination of this Agreement.

25. Binding Effect. This Agreement is binding on the heirs, executors, administrators, successors and assigns of the parties.

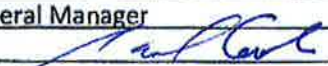
26. Entire Agreement. This document, including all Exhibits, contains the entire agreement between the parties and supersedes whatever oral or written understanding they may have had prior to the execution of this Agreement. No alteration to the terms of this Agreement is valid unless approved in the form of a written variance signed by an authorized representative of Contractor and District.

27. Authority. The person signing this Agreement for Contractor hereby represents and warrants that he/she is fully authorized to sign this Agreement on behalf of Contractor and to bind Contractor to the performance of its obligations hereunder.

EXECUTED AS OF THE DATE FIRST STATED ABOVE.

IRVINE RANCH WATER DISTRICT

Approved as to form:

Name: Paul Cook
Title: General Manager
Signature: 



Contractor:

Name of Firm: Synergy Companies
Federal I.D. No.: 87-0389611
State I.D. No.: C2420016

Type of Business Entity (check one):


- Individual/Sole Proprietor
- Partnership
- Corporation (i.e. either corporate president must sign or two corporate officers)
- Limited Liability Company
- Other (please specify: _____)

Name of Firm's Authorized Representative: Steve Shallenberger

Title: President
Signature: 

(If the firm is a corporation and its president did not sign above, then another corporate officer must sign below)

Name of Firm's Authorized Representative: David Shallenberger

Title: Legal Counsel
Signature: 

**EXHIBIT 1
SCOPE OF SERVICES**

1. Representatives.

a. The District Representative for this Agreement is:

Amy McNulty, Water Efficiency Manager
15600 Sand Canyon Avenue
Irvine, CA 92618
(949) 453-5634
mcnulty@irwd.com

All Contractor questions pertaining to this Agreement must be referred to the District Representative or the District Representative's designee.

b. The Contractor Representative for this Agreement is:

Matthew Clark, Project Director
90 Business Park Drive
Perris, CA 92571
(951) 230-6425
matt.clark@synergycompanies.org

All District questions pertaining to this Agreement must be referred to the Contractor Representative. All correspondence to Contractor must be addressed to the address set forth on page one of this Agreement. Unless otherwise provided in this Agreement, all correspondence to the District must be addressed to the District Representative.

2. Scope of Services.

The scope of services for the Water-Energy Combined Manufactured Homes_Direct Install Program and One-Stop Shop Program_will consist of the direct installation of high efficiency toilets, low-flow showerheads, and kitchen and bathroom faucet aerators within the manufactured homes and single-family homes of Irvine Ranch Water District customers. The program will consist of multiple phases depending on customer participation rates. Each phase will have a not-to-exceed amount of \$80,000. Each phase requires separate authorization by the District to proceed. Any additional phases will be considered sequentially, when the prior phase is completed, and the determination to authorize each such phase will be at the District's sole discretion. The District's authorization to proceed with a subsequent phase will include a Notice to Proceed for such phase.

Manufactured Homes Direct Install Program

The Contractor will engage in the following activities to acquire customer participation: manufactured housing clubhouse presentations, direct outreach and customer

enrollment. Clubhouse presentations consist of collaboration with manufactured housing community managers to promote the event through flyers, newsletters and manufactured housing television channels. The presentation will be given by trained presenters with audiovisual slide show and video to educate the attendees and answer questions courteously and thoughtfully. Attendees are encouraged to enroll in the program throughout the presentation.

After the presentation, marketing associates politely contact community residents through door-to-door and phone outreach. Interested residents are educated by the marketing associate, enrolled electronically on the program and given an appointment date and time with reminder card. Contractor will work with IRWD to develop a customer participation form.

Contractor replaces the existing 1.6 gallon per flush (gpf) or greater toilet with a more water efficient model. The existing toilet is also removed from the site and recycled. The contractor installs a 0.8 gpf toilet including the toilet seat, wax ring, seal and hose. If site conditions prohibit the installation of the 0.8 gpf toilet model, IRWD staff will be contacted to approve the installation of the 1.28 gpf model as an alternative.

Single-Family One-Stop Shop Program

The Contractor will manage the customer intake process via the program web portal developed by IRWD. The Contractor will be responsible for contacting customers who register via the portal to schedule an on-site appointment to determine customer's eligibility for the direct installation of high efficiency toilets, low-flow showerheads, and kitchen and bathroom faucet aerators within the single-family homes. After performing the installation for qualified customers, the Contractor will leave behind outreach materials for rebates and other programs for additional outdoor direct installation measures as determined by IRWD. The Contractor will provide the names and addresses of customers interested in outdoor measures to IRWD.

The Contractor will replace existing 1.6 gpf or greater toilets with a more water efficient model. The existing toilet is also removed from the site and recycled. The contractor installs a 0.8 gpf toilet including the toilet seat, wax ring, seal and hose. If site conditions prohibit the installation of the 0.8 gpf toilet model, IRWD staff will be contacted to approve the installation of the 1.28 gpf model as an alternative. Showerheads and faucet aerators that do not meet current plumbing code requirements will be replaced with low-flow 1.8 gallon per minute (gpm) or higher efficiency model showerheads, kitchen faucet aerators with 1.5 gpm or higher efficiency model, and bathroom faucet aerators with 0.5 gpm or higher efficiency models. The Contractor will remove the existing showerhead and aerators from the site and recycle if able. The contractor performs post installation tests to ensure the new water efficient toilets, kitchen and bath faucet aerators, and showerheads are functioning properly.

Multi-Family One-Stop Shop Program

The Contractor will manage the customer intake process via the program web portal developed by IRWD. The Contractor will be responsible for contacting customers who register via the portal to schedule an on-site appointment to determine customer's eligibility for the direct installation of high efficiency toilets, low-flow showerheads, kitchen and bathroom faucet aerators, and at the Districts direction, high efficiency clothes washers within multi-family properties. After performing the installation for qualified customers, the Contractor will leave behind outreach materials for rebates and other programs for additional IRWD programs.

The Contractor will replace existing 1.6 gpf or greater toilets with a more water efficient model. The existing toilet is also removed from the site and recycled. The contractor installs a 0.8 gpf toilet including the toilet seat, wax ring, seal and hose. If site conditions prohibit the installation of the 0.8 gpf toilet model, IRWD staff will be contacted to approve the installation of the 1.28 gpf model as an alternative. Showerheads and faucet aerators that do not meet current plumbing code requirements will be replaced with low-flow 1.8 gallon per minute (gpm) or higher efficiency model showerheads, kitchen faucet aerators with 1.5 gpm or higher efficiency model, and bathroom faucet aerators with 0.5 gpm or higher efficiency models. The Contractor will remove the existing showerhead and aerators from the site and recycle if able. The contractor performs post installation tests to ensure the new water efficient toilets, kitchen and bath faucet aerators, and showerheads are functioning properly. High efficiency clothes washers will be installed at qualifying sites as determined by IRWD.

Payment

Invoices will be submitted routinely and include information on the customer name, address, old toilet gpf, new toilet gpf, old bath and kitchen faucet aerator gpm, new bath and kitchen faucet aerator gpm, old showerhead gpm, new showerhead gpm, old clothes washer water factor, new clothes washer water factor, quantity of toilets installed, quantity of bath and kitchen faucet aerators installed, quantity of showerheads installed, quantity of clothes washers installed, installation date, customer water account number, and the signed customer participation agreement.

3. Time of Performance.

The time from the onset of program marketing to complete installation varies depending on customer participation. Payments are made for completed installations only.

4. Additional Services. If the District requests Contractor to provide services in addition to those specified above, Contractor shall develop a scope of work detailing the specific tasks to be completed and the estimated costs to complete those tasks. Contractor shall not perform any additional services unless authorized to provide those additional services are specified in a variance to this Agreement signed by both parties.

EXHIBIT 2

FEE SCHEDULE

1. Contractor's Compensation. The parties agree that the total of all fees paid to the Contractor for the performance of all services set forth in Exhibit 1, including normal revisions (hereafter the "Services"), and for all authorized reimbursable expenses, must not exceed the total sum of ~~\$1,699,000~~ \$1,729,000.

2. Billable Rates. Contractor must be paid for the performance of Services on an hourly rate, daily rate, flat fee, lump sum or other basis, as set forth in the Schedule of Charges for Services, attached hereto and incorporated by this reference.

3. Contractor's Reimbursable Expenses. Reimbursable expenses are limited to actual expenditures of Contractor for expenses that are necessary for the proper completion of the Services and are only be payable if specifically authorized in writing in advance by District.

4. Payments to Contractor.

a. Undisputed invoices must be paid by the District within 30 days after receipt of such invoices. Contractor must be responsible for the cost of supplying all documentation necessary to verify the invoiced amounts to the satisfaction of District.

b. All invoices submitted by Contractor must contain the following information:

- i. Date of Invoice Issuance
- ii. Sequential Invoice Number
- iii. Purchase Order Number
- iv. Total Agreement Not-to-Exceed Amount
- v. Amount of this Invoice (Itemize all reimbursable expenses, if any)
- vi. Database with customer address, name, water account number, model and gallons per flush of toilet installed, model and gallons per minute of showerhead installed model and gallons per minute of faucet aerator installed, and the installation date.

c. Billings that do not conform to the format outlined above must be returned to Contractor for correction. District must not be responsible for delays in payment to Contractor resulting from Contractor's failure to comply with the invoice format described below.

d. Requests for payment must be sent to the District Representative.

5. Contractor's Accounting Records. During performance of this Agreement and for a period of three (3) years after completing all Services and Additional Services hereunder, Contractor must maintain all accounting and financial records related to this Agreement, including, but not limited to, records of Contractor's costs for all Services and Additional Services performed under this Agreement and records of Contractor's Reimbursable Expenses, in accordance with generally accepted accounting practices, and must keep and make such records available for inspection and audit by representatives of the District upon reasonable written notice.

SCHEDULE OF CHARGES FOR SERVICES FOR IRVINE RANCH WATER DISTRICT

PRICE PER INSTALLATION

(INCLUDES EQUIPMENT, INSTALLATION, TOILET RECYCLING, TAXES AND ANY ADDITIONAL FEES)

| | COST EACH | MaP SCORE |
|--|--------------------------|------------------|
| Tank-Style High Efficiency Toilet | \$ 487.92 | |
| Make and Model: Niagara Stealth .8 GPF | | 600 |
| Tank-Style High Efficiency Toilet | \$ 437.92 | |
| Make and Model: Western Pottery 1.28 GPF | | 900 |
| Handheld Low-Flow Showerhead | \$ 34.95 | |
| Make and Models: Earth N2945CH or N2945 1.5 GPM | | |
| Evolve EV3030-CP150-SB or EV3040-CP150-SB 1.5 GPM | | |
| Evolve EV3030-CP175-SB or EV3040-CP175-SB 1.75 GPM | | |
| Standard Low-Flow Showerhead | \$ 19.95 | |
| Make and Models: Evolve EV3010-CP150-SB or EV3020-CP150-SB 1.5 GPM | | |
| Evolve EV3010-CP175-SB or EV3020-CP175-SB 1.75 GPM | | |
| Swivel Kitchen Faucet Aerator | \$ 13.95 | |
| Make and Model: Niagara Conservation N3115-P 1.5 GPM | | |
| Standard Kitchen Faucet Aerator | \$ 9.95 | |
| Make and Models: AM Conservation FA014CPB1 1.0 GPM | | |
| AM Conservation FA012CPB1 1.5 GPM | | |
| Bathroom Faucet Aerator | \$ 9.95 | |
| Make and Model: Niagara Conservation N3205N-PC 0.5 GPM | | |
| High Efficiency Clothes Washer | Cost | Water Factor |
| Eligible models (listed below) | Not to exceed \$850 each | ≤ 3.7 |

High Efficiency Clothes Washers Qualified Products List

| BRAND | MODEL | BRAND | MODEL |
|------------|--------------|------------|--------------|
| Amana | NFW5800D*+ | Crosley | CFWH4084G** |
| Electrolux | EFLS517**** | Electrolux | EFLS617**** |
| Electrolux | EFLW317**** | Electrolux | EFLW417**** |
| Electrolux | EIFLS55IIW | Frigidaire | FFFS5115*** |
| Frigidaire | FFFW5000QW | Frigidaire | FFFW5100** |
| Ge | GFW400S*K*** | Ge | GFW450S*K*** |
| Ge | GFW490R*K*** | Ge | GFWH1200H*** |
| Ge | GFWN1100H*** | Ge | GFWN1300J*** |
| Ge | GFWN1600J*** | Ge | GFWR2700H*** |
| Ge | GFWR2705H*** | Ge | GFWR4800F*** |
| Ge | GFWR4805F*** | Ge | GFWS1600H*** |
| Ge | GFWS1605H*** | Ge | GFWS1700H*** |
| Ge | GFWS1705H*** | Ge | GFWS2600F*** |
| Ge | GTW810S*J*** | Ge | GTW860S*J*** |
| Huebsch | YFNE5BJP113+ | Huebsch | YFNE5RSP113+ |
| Huebsch | YTEE5ASP173+ | Huebsch | YTEE5ASP283+ |
| Huebsch | YTGE5ASP093+ | Huebsch | YTGE5ASP113+ |
| Huebsch | ZFNE9BSP113+ | lps | BFNE6BJP113+ |
| lps | BTEE6ASP173+ | lps | BTEE6ASP283+ |
| lps | BTGE6ASP093+ | lps | BTGE6ASP113+ |
| Kenmore | 3142# | Kenmore | 3142#41# |
| Kenmore | 3146# | Kenmore | 3146#41# |
| Kenmore | 3155# | Kenmore | 4100# |
| Kenmore | 4107# | Kenmore | 4107#### |
| Kenmore | 4116# | Kenmore | 4116#### |
| Kenmore | 4126# | Kenmore | 4130# |
| Kenmore | 4138# | Kenmore | 4138#### |
| Kenmore | 4139# | Kenmore | 4148# |
| Kenmore | 4148#### | Kenmore | 4158# |
| Kenmore | 4158#### | Kenmore | 4168# |
| Kenmore | 417.4112 | Kenmore | 4196# |
| Kenmore | 4198# | Kenmore | 4198#### |
| Lg | WM3050C* | Lg | WM3075C* |
| Lg | WM3085C* | Lg | WM3170C* |
| Lg | WM3175C* | Lg | WM3180C* |
| Lg | WM3270C* | Lg | WM3270H*A |
| Lg | WM3275C* | Lg | WM3370H*A |
| Lg | WM3475H*A | Lg | WM3570H*A |
| Lg | WM3575C* | Lg | WM3650H** |
| Lg | WM3670H*A | Lg | WM3770H*A |
| Lg | WM3997H** | Lg | WM4270H*A |
| Lg | WM4370H*A | Lg | WM5000H*A |
| Lg | WM5005H*A | Lg | WM8000H** |
| Lg | WM8100H*A | Lg | WM8500H** |
| Lg | WM9000H*A | Lg | WM9500H*A |
| Lg | WT1150C* | Lg | WT1301C* |
| Lg | WT1501C* | Lg | WT1701C* |

| BRAND | MODEL | BRAND | MODEL |
|----------------|-----------------|-------------|---------------|
| Lg | WT1801H*A | Lg | WT1901C* |
| Lg | WT5270C* | Lg | WT5275C* |
| Lg | WT5480C* | Lg | WT5680H*A |
| Lg | WT7200C* | Lg | WT7500C* |
| Lg | WT7600H*A | Lg | WT7700H*A |
| Lg | WT7710H*A | Lg | WT9000H*A |
| Lg Electronics | WM1832C* | Maytag | MHW3100D**+ |
| Maytag | MHW3500F** | Maytag | MHW3505F** |
| Maytag | MHW4100D**+ | Maytag | MHW4300D**+ |
| Maytag | MHW5100D**+ | Maytag | MHW5400D**+ |
| Maytag | MHW5500F** | Maytag | MHW7100D**+ |
| Maytag | MHW8100D**+ | Maytag | MHW8150E** |
| Maytag | MHW8200F** | Maytag | MVWB955F** |
| Primus | PFNE3BJP113+ | Primus | PFNE3RSP113+ |
| Primus | PTEE3FSP173+ | Primus | PTGE3FSP113+ |
| Samsung | WA50K86**A* | Samsung | WA52J806*A* |
| Samsung | WF42H50**A* | Samsung | WF42H51**A* |
| Samsung | WF42H52**A* | Samsung | WF42H54**A* |
| Samsung | WF42H55**A* | Samsung | WF42H56**A* |
| Samsung | WF42H57**A* | Samsung | WF457A*GS** |
| Samsung | WF45H61**A* | Samsung | WF45H63**A* |
| Samsung | WF45K62**A* | Samsung | WF45K65**A* |
| Samsung | WF45M51**A* | Samsung | WF45M55**A* |
| Samsung | WF50K75**A* | Samsung | WF56H91**A* |
| Samsung | WF56H91**C* | Samsung | WV55M96**A*-L |
| Samsung | WV60M99**A*-L | Speed Queen | AFN50RSP113+ |
| Speed Queen | AFNE8RSP113+ | Speed Queen | AFNE9BSP113+ |
| Speed Queen | AFNE9RSP113+ | Speed Queen | ATEE9AGP173+ |
| Speed Queen | ATEE9ASP283+ | Speed Queen | ATGE9AGP113+ |
| Speed Queen | ATGE9ASP093+ | Speed Queen | LFN50RSP113+ |
| Speed Queen | LFNE5BJP113+ | Speed Queen | LFNE5BSP113+ |
| Speed Queen | LFNE5RSP113+ | Speed Queen | LTE50FSP173+ |
| Speed Queen | LTEA5FSP153**04 | Speed Queen | LTEA5FSP153+ |
| Speed Queen | LTEA5FSP173**04 | Speed Queen | LTEA5FSP173+ |
| Speed Queen | LTEE5ASP153+ | Speed Queen | LTEE5ASP173+ |
| Speed Queen | LTEE5ASP283+ | Speed Queen | LTGA5FSP113+ |
| Speed Queen | LTGE5ASP093+ | Speed Queen | LTGE5ASP113+ |
| Unimac | UFNE5BJP113+ | Unimac | UTEE5ASP173+ |
| Unimac | UTEE5ASP283+ | Unimac | UTGE5ASP113+ |
| Whirlpool | WFW7590FW | Whirlpool | WFL98HEB** |
| Whirlpool | WFW3090G** | Whirlpool | WFW5090G** |
| Whirlpool | WFW61HEB** | Whirlpool | WFW72HED*+ |
| Whirlpool | WFW7540F** | Whirlpool | WFW7590F** |
| Whirlpool | WFW75HEF** | Whirlpool | WFW81HED*+ |
| Whirlpool | WFW8540F** | Whirlpool | WFW85HEF** |
| Whirlpool | WFW8740D*+ | Whirlpool | WFW87HED*+ |
| Whirlpool | WFW90HEF** | Whirlpool | WFW9290F** |
| BRAND | MODEL | BRAND | MODEL |
| Whirlpool | WFW92HEF** | Whirlpool | WFW95HED*+ |
| Whirlpool | WFW97HED*+ | Whirlpool | WTW9500E** |

EXHIBIT 3

INSURANCE REQUIREMENTS

- 1. General.** CONTRACTOR shall not commence or continue to perform any Services unless they, at their own expense, have in full force and effect all required insurance. CONTRACTOR shall not permit any Subcontractor to perform Services on this project until the same insurance requirements have been complied with by such Subcontractor.
- 2. Types of Insurance.** CONTRACTOR shall obtain and maintain for the full period of the Agreement are Worker's compensation insurance, commercial general liability insurance, and business automobile liability insurance.
- 3. Insurer Rating.** Insurers shall have financial and size ratings of at least an "A", VIII in accordance with the most current Best's Key Rating Guide, Property Casualty.
- 4. Evidence of Insurance.** As evidence that specified insurance coverage has been obtained for the period of the Agreement, the CONTRACTOR shall provide, on forms satisfactory to District, including endorsements providing that policies cannot be canceled or reduced except on thirty (30) calendar days written notice by the insurance carrier of cancellation or non-renewal (ten (10) calendar days notice for non-payment of premium). Industry standard forms for "certificate on insurance" from ACORD are accepted, provided that appropriate language regarding notice of non-renewal or cancellation is provided on the form. Contractor shall provide proof that policies of insurance required herein expiring or terminated during the term of this Agreement have been renewed or replaced with other policies providing coverage meeting the requirements hereof. Such proof will be furnished at least fourteen (14) calendar days prior to the expiration of termination of the coverages. No alteration or substitution of said forms will be allowed. Certified copies of insurance policies from the insurance company affording coverage shall be provided by CONTRACTOR upon request.
- 5. Noncompliance.** DISTRICT reserves the right to withhold payments to CONTRACTOR in the event of material noncompliance with insurance requirements.
- 6. Limitation of Contractor liability.** The requirements set forth herein as to the types and limits of insurance coverage to be maintained by the CONTRACTOR and any approval of said insurance by the DISTRICT or its insurance consultant(s) is not intended to and shall not in any manner limit or qualify the liabilities and obligations otherwise assumed by the CONTRACTOR pursuant to the Agreement, including but not limited to the provisions concerning indemnification.
- 7. Worker's Compensation Insurance.** CONTRACTOR shall provide worker's compensation insurance coverage for no less than the statutory limits and employer's liability insurance coverage, with limits not less than those listed in 7.A, for all persons

whom CONTRACTOR employs or may employ in carrying out the Services. This insurance shall be in strict accordance with the requirements of the most current and applicable state worker's compensation insurance laws.

A. Employer's Liability Insurance shall be for not less than:

- \$1,000,000 Each Accident
- \$1,000,000 Each Disease – Policy Limit
- \$1,000,000 Each Disease – Each Employee

B. Notwithstanding the requirements of Section 3, above, DISTRICT will accept Workers Compensation Insurance from the State Compensation Fund (State Fund) that is not rated and that is evidenced on the State Fund's certificate form. Except as provided above with respect to State Fund, all other insurance shall comply with all requirements of this Exhibit.

8. Waiver of right of subrogation. The worker's compensation insurance shall include a waiver of right of subrogation against the DISTRICT, the District Board of Directors, DISTRICT's Representative, the Engineer/Architect, owners of record of all private properties on which entry will be made, and their consultants, and each of their officers, agents, and employees but only while acting in their capacity as such and only in respect to operations of the original named insured, their Subcontractors, agents, officers, and employees in the performance of the Services.

9. Commercial General Liability Insurance. CONTRACTOR shall provide commercial general liability insurance coverage equivalent to Insurance Services Office Form CG 00 01, with limits not less than those specified in 9.A.

A. Commercial General Liability Insurance shall be for not less than:

| | |
|---------------------|---------------------|
| Bodily Injury | Products/Completed |
| Property Damage | Completed |
| Personal Injury | Operations |
| <u>(Occur/Aggr)</u> | <u>(Occur/Aggr)</u> |
| \$1M/\$2M | \$1M/\$2M |

B. Included in such insurance shall be blanket contractual liability coverage and severability of interests (no cross suits exclusion).

C. The commercial general liability insurance shall be primary and non-contributory and include as additional insureds: DISTRICT, the District Board of Directors, DISTRICT's Representative, the State of California, its officers, agents, and employees, the Engineer/Architect, owners of record of all private properties on which entry will be made, and their consultants, and each of their officers, agents, and employees but only while acting in their capacity as such and only in respect to

operations of the original named insured, their Subcontractors, agents, officers, and employees in the performance of the Services and shall be evidenced by ISO CG 20 33 07 04 endorsement form or equivalent.

D. Such insurance shall have a deductible or self insured retention not to exceed \$25,000.

10. Automobile Liability Insurance. CONTRACTOR shall provide business automobile liability insurance coverage equivalent to Insurance Services Office Form CA 00 01, with limits not less than those specified in 10 A. Business automobile liability insurance coverage shall be provided for all owned, non-owned and hired vehicles.

A. Automobile liability insurance shall be for not less than:

\$2,000,000 Bodily injury and property damage each occurrence.

B. The same requirements stated in 9.C shall apply to the automobile liability insurance.

11. CONTRACTOR's Responsibility Not Limited by Insurance. Nothing contained in these insurance requirements is to be construed as limiting the extent of the liability of CONTRACTOR or CONTRACTOR's sureties.

12. Maintaining Insurance. The maintenance of proper insurance in conformity with the Contract Documents is a material element of this Agreement. If at any time during the life of the Agreement, including the guarantee period, or any extension, CONTRACTOR fails to maintain the required insurance in full force and effect, the Services shall be discontinued immediately and all payments due or that become due to CONTRACTOR shall be withheld until notice is received by DISTRICT that the required insurance has been restored to full force and effect and that the premiums have been paid for a period satisfactory to DISTRICT. Failure to maintain or renew coverage or to provide evidence of renewal upon request of DISTRICT may be treated by DISTRICT as a material breach of contract.

EXHIBIT 4

SUPPLEMENTARY CALIFORNIA PUBLIC WORKS REQUIREMENTS

If the Scope of Work includes construction work to be performed during the construction phase or design and preconstruction phases of construction, including, but not limited to, inspection and land surveying work, or work to be performed during the post-construction phases of construction, including, but not limited to, all cleanup work at the jobsite, or any other work that has been determined by the California Director of Industrial Relations to constitute "public work," that portion of the Scope of Work is subject to the following provisions which amend and supplement the contract, or to the extent of any inconsistency supersede and take precedence over the contract.

SECTION 1. Bidding Requirements. The requirements of this Section apply to the public work portion of the Scope of Work if the contract is to be obtained by competitive bidding.

1.01 *Additive and Deductive Bid Items.* (applicable if a bid contains additive or deductive items – Public Contract Code 20103.8)

If a schedule of work items includes bid items or schedule(s) of bid items that may be added to ("Additive Items") or deducted from ("Deductive Items") the bids, the lowest responsible bidder will be determined by adding all Additive Items to, and deducting all Deductive Items from, the total of the base bid, unless another method is provided in the bid documents. IRWD reserves the right to award the Work to the lowest responsible bidder based on any single schedule or combination of schedules of bid items deemed by IRWD, in its sole discretion, to be in IRWD's best interest.

1.02 *Listing of Subcontractors.* (applicable if bids are taken – Public Contract Code 4104)

The name, State of California license number, and location of place of business of each subcontractor who will perform work or labor or render service to the bidder in or about the construction of the Work, or improvements, in an amount in excess of 1/2 of 1 percent (0.5%) of the bidder's total Bid, and the portion of the Work which will be done by each subcontractor shall be set forth in the bid. CONTRACTOR agrees that except to the extent that subcontractors were set forth in its bid, that all work in excess of one-half of one percent shall be performed by CONTRACTOR. It is agreed and acknowledged that should CONTRACTOR fail to conform hereto or with any of the requirements of Section 4100 through and inclusive of Section 4114 of the Public Contract Code, Contractor shall be subject to the requirements and penalties of Section 4106 of the Public Contract Code.

1.03 *Registration.* (applicable if bids are taken – Labor Code 1725.5)

Qualification to bid on this project or to be listed as a subcontractor (if required by Section 1.02), or to engage in the performance of any of the work requires proof of the contractor's or subcontractor's current registration and qualification to perform public work pursuant to Labor Code Section 1725.5. A bid shall not be accepted nor any contract or subcontract entered into without proof of the contractor's or subcontractor's current registration.

1.04 *Non-Collusion Affidavit.* (applicable if bids are taken – Public Contract Code 4104)

SECTION 2. Bonding. This Section applies to the direct contractor awarded a public works contract exceeding \$25,000. This requirement does not apply to a design professional.

2.01 *Payment and Performance Bond.* Before commencing performance of the work, CONTRACTOR shall furnish a payment bond and a faithful performance bond approved by IRWD, each in an amount not less than one hundred (100%) percent of the Contract Price, from a surety company satisfactory to IRWD and who is authorized to transact business in California. CONTRACTOR shall use the bond forms provided by IRWD. A certified copy of power of attorney must be attached to each bond.

SECTION 3. Labor. The requirements of this Section apply to the public work portion of the Scope of Work, if more than \$1,000 (Labor Code 1771).

3.01 *Compliance Monitoring; Registration; Notices.* The project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

Qualification to engage in the performance of any of the work requires that CONTRACTOR and subcontractors maintain their current registration to perform public work pursuant to Labor Code Section 1725.5.

CONTRACTOR shall post on the jobsite all notices as prescribed by law or regulation.

3.02 *Prevailing Wage Requirements.* Under the provisions of the California Labor Code, the Director of the Department of Industrial Relations has determined the prevailing rate of wages for the locality in which the Work is to be performed and IRWD has adopted said prevailing rate of wages. A copy of these prevailing rates is on file at the office of IRWD and shall be made available to any interested party on request. A copy of such prevailing wage rates shall be posted on the jobsite by CONTRACTOR.

CONTRACTOR shall comply with Labor Code Section 1775. In accordance with said Section 1775, CONTRACTOR shall forfeit as a penalty to IRWD, up to two hundred dollars (\$200), as determined by the Labor Commissioner, for each calendar day or

portion of a day for each worker paid less than the stipulated prevailing rates for such work or craft in which such worker is employed for any work done under the contract by them or, except as provided by the Labor Code, by any Subcontractor under them in violation of the provisions of the Labor Code, and in particular, Labor Code Sections 1770 to 1780, inclusive. In addition to said penalty and pursuant to Section 1775, the difference between the stipulated prevailing wage rates and the amount paid to each worker for each calendar day or portion of a day for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by CONTRACTOR.

CONTRACTOR shall forfeit as a penalty to IRWD \$25 for each worker employed in the execution of the Work by CONTRACTOR or any Subcontractor under them for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one (1) calendar day and forty (40) hours in any one calendar week in violation of the provisions of the Labor Code, in particular, Section 1810 to Section 1815 thereof, inclusive, except that work performed by employees of CONTRACTOR in excess of eight (8) hours per day and forty (40) hours during any one (1) week shall be permitted upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one half (1 1/2) times the basic rate of pay as provided in said Section 1815.

3.03 *Payroll Records.* CONTRACTOR and each of their Subcontractors shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by them in connection with the Work. The records shall be in a format prescribed by the Labor Commissioner. The records may consist of printouts of payroll data maintained as computer records, if the printouts are in a format prescribed by the Labor Commissioner and are verified as required under this paragraph. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating that (1) the information contained in the payroll record is true and correct, and (2) CONTRACTOR (or the Subcontractor, as the case may be) has complied with the requirements of Sections 1771, 1811 and 1815 of the Labor Code for any of the work performed by their employees. The payroll records shall be submitted monthly to IRWD and directly to the Labor Commissioner and shall be available for inspection at all reasonable hours at the principal office of CONTRACTOR (or the Subcontractor, as the case may be) to the employee or their authorized representative on request, to the Division of Labor Standards Enforcement on request, and the public, provided that requests by the public must be made through IRWD or the Division of Labor Standards Enforcement in accordance with the requirements of Labor Code Section 1776. Copies shall be provided to the requesting entity within ten (10) days after receipt of a written request. Any copy of a payroll record made available to the public or any public agency by IRWD shall be marked or obliterated to prevent disclosure of individual workers' names, addresses and social security numbers. CONTRACTOR shall inform IRWD of the location address of payroll records of CONTRACTOR and each Subcontractor and notify

IRWD of a change in any such location within five (5) working days. In the event CONTRACTOR or a subcontractor fails to comply with the above-specified 10-day period, CONTRACTOR or the subcontractor shall forfeit as a penalty to IRWD one hundred dollars (\$100) for each calendar day or portion of a day for each worker until strict compliance is effectuated. CONTRACTOR is not subject to a penalty under this paragraph due to the failure of a subcontractor to comply with this paragraph.

3.04 *Apprentices.* (applicable if contract is \$30,000 or more) CONTRACTOR and any Subcontractor under them shall comply with the requirements of Sections 1777.5 and 1777.6 of the Labor Code in the employment of apprentices. Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Department of Industrial Relations. Willful violations of Section 1777.5 will result in forfeiture of one hundred dollars (\$100) for each calendar day of noncompliance, or up to three hundred dollars (\$300) for each calendar day of noncompliance for second and subsequent violations within a three-year period that result in apprenticeship training not being provided as required by the Labor Code, and may also result in debarment sanctions in the case of violations, as determined by the Labor Commissioner pursuant to Section 1777.7. Section 1777.7 also imposes requirements that, if not observed by CONTRACTOR, will result in CONTRACTOR's liability for Subcontractor violations of Section 1777.5.

3.05 *Subcontracting.* CONTRACTOR is prohibited from performing any of the work with a subcontractor who is ineligible to perform such Work pursuant to Section 1777.1 or 1777.7 of the Labor Code. CONTRACTOR agrees that in accordance with Public Contract Code Section 6109, a subcontract with an ineligible subcontractor is void as a matter of law, amounts paid to the subcontractor shall be returned to IRWD, and CONTRACTOR is responsible for paying wages of the subcontractor's employees if the subcontractor is allowed to perform any part of the work.

3.06 *CONTRACTOR'S Certificate Regarding Workers' Compensation* (Labor Code Section 1861): I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this Contract.

SECTION 4. Site Conditions. The requirements of this Section apply to the public work portion of the Scope of Work, subject to the applicability further specified below.

4.01 *Utilities* (applicable if the contract with IRWD is made pursuant to an invitation for bids and includes removal, relocation or protection of main or trunkline utility facilities – Government Code Section 4215)

CONTRACTOR shall be compensated by IRWD for the costs of locating, repairing damage not due to the failure of CONTRACTOR to exercise reasonable care, and removing, relocating, protecting, or temporarily maintaining main or trunk line utility facilities not indicated with reasonable accuracy in the plans and specifications, and for equipment in the project necessarily idled during such work. Alternatively IRWD may change the project grade or alignment to avoid such removal, relocation or protection or make arrangements with the owner of the utility for such work to be done at no cost to CONTRACTOR. No forfeiture due to delay shall be made because of any delays in the completion of the Work due to the failure of IRWD or the owner of a utility to provide for removal or relocation of main or trunk line facilities not indicated in the plans or specifications with reasonable accuracy.

IRWD is not responsible for removal, relocation or temporary maintenance of (i) main or trunk line utilities or other structures which are in the position shown on the plans, or (ii) service connections, and CONTRACTOR shall bear all expenses incidental thereto. Such work shall be done in a manner satisfactory to the owner of the utility or service connection, it being understood that the owner has the option of doing such work with their own forces or permitting the work to be done by CONTRACTOR. It shall be the responsibility of CONTRACTOR to investigate to find out whether or not this cost is required to be borne by the owner of the utility.

4.02 *Excavation Plans for Worker Protection* (applicable if the public work portion is over \$25,000, and involves excavation of any trench five (5) feet or more in depth – Labor Code Section 6705)

CONTRACTOR shall submit to IRWD for acceptance, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of any trench or trenches five (5) feet or more in depth. The plan shall be prepared specifically for the work by a registered civil or structural engineer who is licensed by the State of California. The plan shall be in an original format, not a reproduced copy, and shall include the engineer's original signature and seal. As a part of the plan, a note shall be included stating that the registered civil or structural engineer certifies that the plan complies with the CAL OSHA Construction Safety Orders, or stating that the registered civil or structural engineer certifies that the plan is not less effective than the shoring, bracing, sloping, or other provisions of the safety orders.

All shoring submittals shall include surcharge loads from adjacent embankments, construction loads and spoil bank. The submittal shall indicate the minimum horizontal distance from the top of trench to the edge of all surcharge loads for all cases of shoring and side slopes.

The detailed plan showing the design of shoring, etc., which CONTRACTOR is required to submit to IRWD for acceptance in advance of excavation, will not be accepted if the plan

is based on subsurface conditions which are more favorable than those revealed by the investigations made by IRWD or the Engineer/Architect or their consultants; nor will the plan be accepted if it is based on soils related design criteria that are less restrictive than the criteria set forth in the report on the investigations of subsurface conditions.

Nothing contained in this paragraph shall be construed as relieving CONTRACTOR of the full responsibility for providing shoring, bracing, sloping, or other provisions which are adequate for worker protection.

4.03 *Differing Physical Conditions.* (applicable if the public work portion involves excavation more than four (4) feet in depth – Public Contract Code Section 7104)

CONTRACTOR shall promptly notify IRWD of the following work site conditions (hereinafter called differing physical conditions), in writing, upon their discovery and before they are disturbed: (1) any material that CONTRACTOR believes may be material that is a hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (2) subsurface or latent physical conditions differing from those indicated by information about the site made available to bidders prior to the deadline for submitting bids; (3) unknown physical conditions of any unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character being performed.

IRWD will promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in CONTRACTOR's cost of, or the time required for, performance of any part of the work, shall issue a change order under the procedures described in the Contract.

In the event that a dispute arises between IRWD and CONTRACTOR whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in CONTRACTOR's cost of, or time required for, performance of any part of the work, CONTRACTOR shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all work to be performed under the Contract. CONTRACTOR shall retain any and all rights provided either by the Contract or by law which pertain to the resolution of disputes and protests between the contracting parties.

CONTRACTOR shall not be required to resume work in connection with a condition involving hazardous waste until after IRWD has obtained any required permits related thereto and delivered to CONTRACTOR written notice specifying any special conditions under which such work may be resumed safely.

SECTION 5. Materials. The requirements of this Section apply to the public work portion of the Contract, pursuant to Public Contract Code §3400.

5.01 *Substitutions.* Whenever materials or equipment are specified or described in the Plans or specifications by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, the name shall be deemed to be followed by the words "or approved equivalent" and materials or equipment of other suppliers may be accepted by IRWD if sufficient information is submitted by CONTRACTOR to allow IRWD to determine that the material or equipment proposed is equivalent to that named. Approval of proposed equivalent materials or equipment is at the sole discretion of IRWD. No substitute shall be ordered or installed without IRWD's prior written acceptance.

CONTRACTOR assumes sole responsibility for verifying the proposed substitute items are in accordance with the requirements of the contract documents, and that the dimensions, arrangement, design and construction details and all other features of substitute items are suitable for their intended purpose.

In the event that a substitute item, and said difference was not expressly identified in CONTRACTOR's request for the substitution, or the incorporation of the substitute into the work results in a change(s) to the work or in the function or general design of the project, which was not expressly identified in CONTRACTOR's request for the substitution, IRWD may require the removal and replacement of the substitute at CONTRACTOR's sole expense.

CONTRACTOR may submit data substantiating requests for substitutions of equivalent items at any time after notice of award. Under no circumstances shall CONTRACTOR be entitled to an increase in Contract Time as a result of the submission or review of a substitution request.

SECTION 6. Claims. The requirements of this Section apply to the public work portion of the Contract, pursuant to Public Contract Code §20104.

6.01 *Resolution of Construction Claims.* (applicable to a claim meeting the below-described criteria – Public Contract Code Section 20104)

This Section is intended as a summary of the provisions of Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3 of Division 2 of the Public Contract Code ("Claims Resolution Statute") and is subject to the actual provisions of the Claims Resolution Statute. This Section shall govern the resolution of any claim of \$375,000 or less which may be made by CONTRACTOR.

“Claim” is defined as CONTRACTOR’s demand for (i) a time extension, (ii) money or damages arising from the work, payment for which is not otherwise expressly provided for or CONTRACTOR is not otherwise entitled to, or (iii) an amount disputed by IRWD.

CONTRACTOR shall make all claims in writing and include the necessary substantiating documents. Any claim which is intended to invoke the procedures under the Claims Resolution Statute shall specify that the claim is being made pursuant to the Claims Resolution Statute. All claims by CONTRACTOR must be filed on or before the date of final payment.

IRWD shall respond in writing, within forty-five (45) days of receipt of a claim less than \$50,000 and within sixty (60) days of receipt of a claim over \$50,000 and less than \$375,000, or IRWD may request, in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims IRWD may have against CONTRACTOR. If additional information is thereafter required, it shall be requested and provided upon mutual agreement of IRWD and CONTRACTOR. If IRWD requests additional documentation, IRWD’s written response to the claim shall be submitted to CONTRACTOR, (i) within fifteen (15) days after receipt of the additional documentation for a claim less than \$50,000 and within thirty (30) days after receipt of the additional documentation for a claim over \$50,000 and less than \$375,000, or (ii) within the same time period as used by CONTRACTOR in producing the additional documentation, whichever is greater.

If CONTRACTOR disputes IRWD’s written response, or IRWD fails to respond within the time prescribed, CONTRACTOR may, by giving written notice to IRWD within fifteen (15) days of receipt of IRWD’s response (or within fifteen (15) days of IRWD’s failure to respond), demand an informal conference to meet and confer for settlement of the issues in dispute. Upon such demand, IRWD shall schedule a “meet and confer” conference within thirty (30) days.

If after the “meet and confer” conference, any portion of the claim remains in dispute, CONTRACTOR may file a claim pursuant to Government Code Section 900 et seq. If a court action is thereafter filed to resolve the claim, the court must, within the time specified by law, submit the matter to nonbinding mediation unless waived by mutual stipulation of IRWD and CONTRACTOR. If after the mediation process, the matter remains in dispute, the case must then be submitted to judicial arbitration pursuant to the applicable law.

6.02 *Third Party Claims.* In accordance with Public Contract Code Section 9201, IRWD shall timely notify CONTRACTOR if IRWD receives any third-party claim relating to the Work. IRWD shall be entitled to recover from CONTRACTOR the reasonable costs incurred by IRWD in providing such notification.

SECTION 7. Payment and Retention. The requirements of this Section apply to construction contracts.

7.01 *Progress Payments.*

The following is a summary of the provisions of Article 1.7 of Chapter 1 of Part 3 of Division 2 (commencing with Section 20104.50) of the Public Contract Code, regarding progress payments, and is subject to the actual provisions of that statute. For purposes of this Section, a "progress payment" includes all payments due CONTRACTOR, except that portion of the final payment designated under this Agreement as retention.

If IRWD fails to make any progress payment within thirty (30) days after receipt of an undisputed and properly submitted progress payment request from CONTRACTOR, IRWD shall pay interest to CONTRACTOR equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Civil Code of Procedure.

Upon receipt of a progress payment request, IRWD shall (i) review each payment request as soon as practicable after receipt for the purpose of determining that the payment request is a proper payment request, and (ii) return to CONTRACTOR, as soon as practicable but not later than seven (7) days after receipt, any payment request determined not to be a proper payment request suitable for payment. A request returned pursuant to this paragraph shall be accompanied by a document setting forth in writing why the payment request is not proper. The number of days available to IRWD to make a payment without incurring interest shall be reduced by the number of days by which IRWD exceeds the seven (7) day return requirement.

7.02 *Progress Payment Retention.* (Applies if performance retention will apply.) IRWD shall retain five (5) percent of such estimated value as part security for fulfillment of the Contract by CONTRACTOR and shall pay to CONTRACTOR the balance of such estimated value after deducting all previous payments and all sums to be kept or retained under the terms of the Contract. Nothing herein shall require payment of a disputed amount or limit IRWD's ability to withhold an amount in respect of a disputed amount as provided for in Section 7107 of the Public Contract Code. The retention payment shall not be due and payable until the expiration of thirty-five (35) days from the date of IRWD's recording of a notice of completion of the work in the office of the County Recorder.

7.03 *Substitution of Securities for Amounts Withheld.* Pursuant to Section 22300 of the Public Contract Code, CONTRACTOR may substitute securities for any monies withheld by IRWD to ensure performance of the Work. At the request and expense of CONTRACTOR, securities equivalent to the amount withheld shall be deposited with IRWD or with a state or federally chartered bank in California as the escrow agent. Such securities shall be released to CONTRACTOR at the same time as amounts retained would be released upon satisfactory completion of the work, to the extent such

securities have not previously been utilized or are not then being held by IRWD or the escrow agent for purposes as provided in this Contract. Alternately, CONTRACTOR may request, and IRWD shall make, payment of retention earned directly to the escrow agent at the expense of CONTRACTOR.

If the securities are deposited with IRWD, IRWD shall determine their value. IRWD shall also be entitled in their discretion to sell, redeem, or otherwise convert them or portions thereof to cash in order to apply them to any of the purposes set forth in the Contract for which amounts may be withheld from CONTRACTOR and used. CONTRACTOR shall furnish such documents as are deemed necessary by IRWD to enable IRWD to make such sales, redemptions, or conversions. If the securities are deposited with an escrow agent, CONTRACTOR, escrow agent and IRWD shall execute IRWD's form entitled "Escrow Agreement for Security Deposits in Lieu of Retention."

SECTION 8. Miscellaneous. The requirements of this Section apply as specified.

8.01 *Audit.* (applicable if the contract exceeds \$10,000 – Government Code 8546.7)

Pursuant to Government Code Section 8546.7, this contract, and CONTRACTOR and IRWD as the contracting parties, are subject to the examination and audit of the California State Auditor, at the request of IRWD or as part of any audit of IRWD, for a period of three years after the final payment under the contract.

8.02 *Notice of Taxable Possessory Interest.*

The terms of this contract may result in the creation of a possessory interest. If such a possessory interest is vested in CONTRACTOR, CONTRACTOR may be subjected to the payment of property taxes levied on such interest.

8.03 *Antitrust Claims Assignment.* (applicable if contract is awarded by competitive bidding)

In entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, CONTRACTOR or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2, commencing with Section 16700, of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to CONTRACTOR, without further acknowledgment by the parties.

8.04 *License.*

CONTRACTOR shall possess a State of California license for the contracting class(es) applicable to the work.

8.05 *Delays.* (Applies if contract documents specify damages for failure to complete work by applicable contract times.)

No forfeiture due to delay shall be made because of any delays in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of CONTRACTOR (including but not restricted to acts of God or of the public enemy, acts of the government, acts of IRWD, or acts of another contractor in the performance of a contract with IRWD, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather or delays caused by the failure of IRWD, or the owner of a utility to provide for removal or relocation of main or trunk line facilities not indicated in the plans or specifications with reasonable accuracy). Any such delays shall not entitle CONTRACTOR to any additional compensation, and the sole remedy of CONTRACTOR shall be an extension of time obtained in accordance with the contract; the only exception shall be if the delay has been caused solely by acts for which IRWD is responsible and which delay is unreasonable under the circumstances involved, is not within the contemplation of the parties, and continues after CONTRACTOR's notice to IRWD of such acts.

8.06 DRUG-FREE WORKPLACE CERTIFICATION

Certification of Compliance: By signing the Agreement For Non-Consultant Services Between Irvine Ranch Water District and Synergy Companies, dated August 10, 2015 ("Agreement"), Contractor, its contractors or subcontractors hereby certify, under penalty of perjury under the laws of State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Government Code 8350 *et seq.*) and have or will provide a drug-free workplace by taking the following actions:

- a) Publish a statement notifying employees, contractors, and subcontractors that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees, contractors, or subcontractors for violations, as required by Government Code Section 8355(a)(1).
- b) Establish a Drug-Free Awareness Program, as required by Government Code Section 8355(a)(2) to inform employees, contractors, or subcontractors about all of the following:
 - i) The dangers of drug abuse in the workplace,
 - ii) Contractor's policy of maintaining a drug-free workplace,
 - iii) Any available counseling, rehabilitation, and employee assistance programs, and
 - iv) Penalties that may be imposed upon employees, contractors, and subcontractors for drug abuse violations.
- c) Provide, as required by Government Code Sections 8355(a)(3), that every

employee, contractor, and/or subcontractor who works under this Grant Agreement:

- i) Will receive a copy of Contractor's drug-free policy statement, and
- ii) Will agree to abide by terms of Contractor's condition of employment, contract or subcontract.

8.07 Right to Inspection

The State of California shall have the right to inspect the work being performed under this Agreement and any subcontracts at any and all reasonable times during the term of the District's agreement with the State to obtain grant funding for the Services. This right shall extend to any subcontracts entered into pursuant to this Agreement.

EXHIBIT 5

SPECIAL PROVISIONS

(e.g., project schedule, form of customer participation releases and other items not covered elsewhere)

EXHIBIT 6

NON-CONSULTANT SERVICES VARIANCE

Purpose. This procedure shall be used to identify, estimate, and report variances to the scope of work in non-consultant services agreements between IRWD and a contracting engineer or other type of contractor. A variance may be initiated by either IRWD's Project Manager or by the Engineer/Contractor.

Variance. The Variance shall be used to identify all changes to the original scope of work, budget, and schedule for any study, design, or construction phases services.

Engineer/Contractor Initiates Variance. If a Variance is initiated by the Engineer/Contractor, the Engineer/Contractor shall prepare the Variance including the Description of Variance, the Engineering & Management Cost Impact, the Schedule Impact, and the Required Approval Determination sections. The Engineer/Contractor shall then sign the Variance and submit it to the IRWD Project Manager for action.

IRWD Initiates Variance. If a Variance is initiated by IRWD's Project Manager, the IRWD Project Manager shall complete the Description of Variance and fill-in the Total Original Contract amount and Previous Variances amount (if any). The Variance shall then be given to the Engineer/Contractor to complete the Cost Impact, the Schedule Impact, and the Required Approval Determination sections. The Engineer/Contractor shall then sign the Variance and submit it to the IRWD Project Manager for action.

Variance Processing. Once a Variance is signed and submitted by the Engineer/Contractor, the IRWD Project Manager shall:

1. Enter the Variance's details onto a Variance Register for the project,
2. Review, sign, and date the Variance, and
3. Obtain appropriate approvals.

Notice to Proceed. Work covered by a Variance may proceed upon signing by the department Director. A copy of the Variance, signed by the Director, shall be the Engineer's/Contractor's Notice to Proceed with the required work.

Contractual Authorization. Work covered by a Variance which has been signed by the Director may require final approval from the General Manager, Committee, or Board based upon the requirements of the Procurement Policy. These approvals may be obtained after the Engineer/Contractor has been given a copy of the Variance signed by the Director (the Engineer's/Contractor's Notice to Proceed). The IRWD Project Manager shall promptly thereafter prepare a memo to the General Manager, Committee and/or Board agenda items(s) for approvals as required. Once the Variance is properly approved, it modifies the existing Engineer's/Contractor's agreement.

Financial Authorization. An approved Variance may require any of the following:

1. A Capital Budget increase,
2. A new Expenditure Authorization,
3. An extension to an existing Purchase Order, and/or
4. A new Purchase Order.

It is the IRWD Project Manager's responsibility to process the necessary paperwork to grant the required financial authorization

**IRVINE RANCH WATER DISTRICT
NON-CONSULTANT SERVICES VARIANCE**

Project Title: _____ File No.: _____
 _____ Date: _____
 _____ Variance No.: _____
 Project No.: _____ Project No.: _____
 Purchase Order No.: _____

Originator: IRWD ENGINEER/CONTRACTOR Other (Explain) _____

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

Engineering & Management Cost Impact:

| Classification | Manhours | Billing Rate | Labor \$ | Direct Costs | Subcon. \$ | Total \$ |
|-------------------|----------|--------------|----------|--------------|------------|----------|
| | | | | | | |
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| | | | | | | |
| Total \$ = | | | | | | |

Schedule Impact:

| Task No. | Task Description | Original Schedule | Schedule Variance | New Schedule |
|----------|------------------|-------------------|-------------------|--------------|
| | | | | |
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Required Approval Determination:

| | |
|---|---|
| Total Original Contract \$ _____ Previous Variances \$ _____ This Variance \$ _____ Total Sum of Variances \$ _____ New Contract Amount \$ _____ Percentage of Total Variances to Original Contract _____ % | <input type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000. <input type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000. <input type="checkbox"/> Board: Single Variance greater than \$60,000. <input type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher. |
|---|---|

ENGINEER/CONTRACTOR: _____ IRVINE RANCH WATER DISTRICT
 Company Name

Project Engineer/Manager _____ Date Department Director _____ Date
 Engineer's/Contractor's Management _____ Date General Manager/Comm./Board _____ Date

**IRVINE RANCH WATER DISTRICT
NON-CONSULTANT SERVICES VARIANCE REGISTER**

Project Title: _____

Project No.: _____ Project Manager: _____

| Variance No. | Description | Dates | | Variance Amount |
|--------------|-------------|-----------|----------|-----------------|
| | | Initiated | Approved | |
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EXHIBIT "B"

IRVINE RANCH WATER DISTRICT NON-CONSULTANT SERVICES VARIANCE

Project Title: DWR Water-Energy Grant 4600011091 File No.: _____
Water-Energy Combined Customer Programs Date: January 15, 2018
 _____ Variance No.: 6
 Project No.: 6703 (DWR Grant) Project No. _____
 Purchase Order No.: _____
 Originator: IRWD ENGINEER/CONTRACTOR Other (Explain) _____

Description of Variance (*attach any back-up material*): Increase to agreement amount of \$30,000 to reallocate remaining grant funds from the outdoor portion of the program. Funding is provided by a grant from the Department of Water Resources (DWR).

Engineering & Management Cost Impact:

| Classification | Manhours | Billing Rate | Labor \$ | Direct Costs | Subcon. \$ | Total \$ |
|--|----------|--------------|----------|--------------|------------|-----------------|
| Agreement Increase Amount for Program Continuation | | | | \$30,000 | | \$30,000 |
| | | | | | | |
| | | | | | | |
| Total \$ = | | | | | | \$30,000 |

Schedule Impact:

| Task No. | Task Description | Original Schedule | Schedule Variance | New Schedule |
|----------|------------------|-------------------|-------------------|--------------|
| | | | | |

Required Approval Determination:

| | |
|---|---|
| <p>Total Original Contract <u>\$80,000</u></p> <p>Previous Variances <u>\$ 1,619,000</u></p> <p>This Variance <u>\$ 30,000</u></p> <p>Total Sum of Variances <u>\$ 1,649,000</u></p> <p>New Contract Amount <u>\$ 1,729,000</u></p> <p>Percentage of Total Variances to Original Contract <u>2161</u> %</p> | <p><input type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000.</p> <p><input checked="" type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000.</p> <p><input type="checkbox"/> Board: Single Variance greater than \$60,000.</p> <p><input type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher.</p> |
|---|---|

ENGINEER/CONTRACTOR: Synergy Companies
Company Name

IRVINE RANCH WATER DISTRICT

Project Engineer/Manager Date

Department Director Date

Engineer's/Contractor's Management Date

General Manager/Comm./Board Date

**IRVINE RANCH WATER DISTRICT
NON-CONSULTANT SERVICES VARIANCE REGISTER**

Project Title: DWR Water-Energy Grant 4600011091 Water-Energy Combined Customer Programs

Project No.: 6703 Project Manager: Amy McNulty

| Variance No. | Description | Dates | | Variance Amount |
|--------------|---|-----------|----------|--|
| | | Initiated | Approved | |
| 1 | Changes to Exhibit 1 | 10/20/16 | 10/25/16 | \$0; extend eligibility to single-family homes |
| 1 | Changes to Exhibit 2 | 10/20/16 | 10/25/16 | \$0; include pricing for installation and materials of showerheads and aerators |
| 1 | Changes to Exhibit 3, Section 9.C and 10.B | 10/20/16 | 10/25/16 | \$0; extend liability insurance coverage to State and make conforming change to auto liability coverage requirements |
| 1 | Changes to Exhibit 4, Section 8.06 | 10/20/16 | 10/25/16 | \$0; add drug-free workplace certification |
| 1 | Changes to Exhibit 4, Section 8.07 | 10/20/16 | 10/25/16 | \$0; add State right of inspection |
| 2 | Program Expansion to approximately 350 single-family homes | 1/12/17 | 01/23/16 | \$500,000 |
| 3 | Changes to Exhibit 1 | 03/08/17 | 03/08/17 | \$0; extend eligibility to 1.6 or greater gpf toilets |
| 4 | Program Expansion to include additional single-family customers and expand to include multi-family customers. | 07/06/17 | 07/10/17 | \$950,000; |
| 4 | Changes to Exhibit 1 | 07/06/17 | 07/10/17 | \$0; extend eligibility to multi-family homes |
| 4 | Changes to Exhibit 2 | 07/06/17 | 07/10/17 | \$0; addition of high efficiency clothes washers |
| 5 | Changes to Exhibit 2 | 12/05/17 | 12/11/17 | \$169,000; increase to expend remaining grant funds on additional program participants |
| 6 | Changes to Exhibit 2 | 01/15/18 | | \$30,000; increase to reallocate remaining grant funds from outdoor portion of program |

January 22, 2018

Prepared by: J. Davis/T. Fournier

Submitted by: R. Jacobson/C. Clary

Approved by: Paul Cook

CONSENT CALENDAR

DECEMBER 2017 TREASURY REPORTS

SUMMARY:

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

- A. The Investment Summary Report for December 2017. This Investment Summary Report is in conformity with the 2017 Investment Policy and provides sufficient liquidity to meet estimated expenditures during the next six months, as outlined in Exhibit "A".
- B. The Summary of Fixed and Variable Debt as of December 31, 2017, as outlined in Exhibit "B".
- C. The Monthly Interest Rate Swap Summary as of December 31, 2017, as outlined in Exhibit "C".
- D. The December 31, 2017 Disbursement Summary of warrants 382442 through 383225, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$18,542,051 as outlined in Exhibit "D".
- E. The Summary of Payroll ACH payments in the total amount of \$1,789,104, as outlined in Exhibit "E".
- F. The Disclosure Report of Reimbursements to Board Members and Staff for December 2017, detailing payments or reimbursements for individual charges of \$100.00 or more per transaction, as outlined in Exhibit "F".

FISCAL IMPACTS:

As of December 31, 2017, the book value of the investment portfolio was \$395,646,388, with a 1.19% rate of return and a market value of \$393,189,753. Based on the District's December 31, 2017 quarterly real estate investment rate of return of 8.49%, the weighted average return for the fixed income and real estate investments was 3.29%.

As of December 31, 2017, the outstanding principal amount of fixed and variable rate debt was \$684,735,000. The monthly weighted average all-in variable rate was 1.52%. Including the District's weighted average fixed rate bond issues of 3.70% and the previous month's negative cash accruals from fixed payer interest rate swaps, which hedge a portion of the District's variable rate debt, the total average debt rate was 3.65%.

As of December 31, 2017, the total notional amount of the interest rate swap portfolio was \$130 million of fixed payer swaps. Cash accrual in December from all swaps was negative \$480,452.

Payroll ACH payments totaled \$1,789,104, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for December totaled \$18,542,051.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

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

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE TREASURER'S INVESTMENT SUMMARY REPORT, THE SUMMARY OF FIXED AND VARIABLE RATE DEBT, THE MONTHLY INTEREST RATE SWAP SUMMARY FOR DECEMBER 2017, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF; APPROVE THE DECEMBER 2017 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$1,789,104 AND APPROVE THE DECEMBER 2017 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 382442 THROUGH 383225 WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$18,542,051.

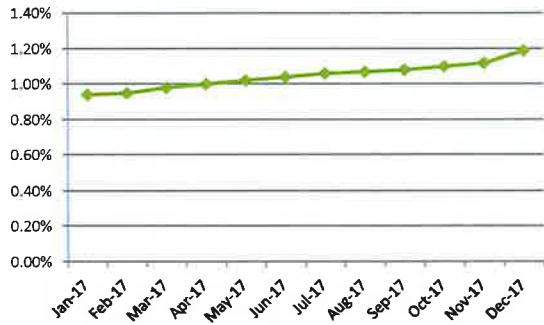
LIST OF EXHIBITS:

- Exhibit "A" – Investment Summary Report
- Exhibit "B" – Summary of Fixed and Variable Debt
- Exhibit "C" – Monthly Interest Rate Swap Summary
- Exhibit "D" – Monthly Summary of District Disbursements
- Exhibit "E" – Monthly Payroll ACH Summary
- Exhibit "F" – Disclosure of Reimbursements to Board Members and Staff

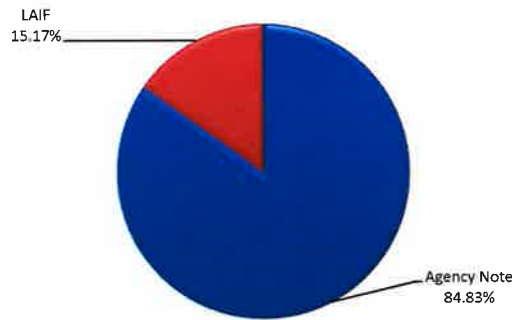
Exhibit "A"

Irvine Ranch Water District
Investment Portfolio Summary
December 2017

Monthly Fixed Income Yield



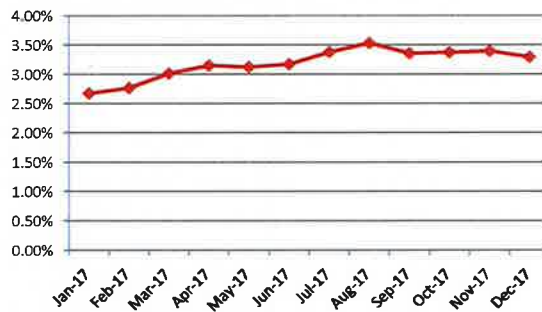
Portfolio Distribution



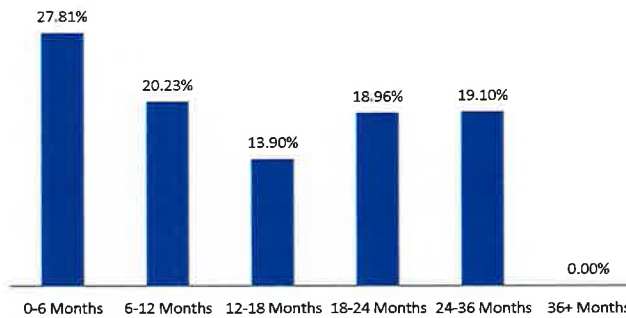
Investment Summary

| Type | PAR | Book Value | Market Value |
|-------------|-------------|-------------|--------------|
| Agency Note | 335,550,000 | 335,646,388 | 333,304,141 |
| LAIF | 60,000,000 | 60,000,000 | 59,885,612 |
| Grand Total | 395,550,000 | 395,646,388 | 393,189,753 |

Weighted Average Return Including Real Estate Portfolio



Maturity Distribution



Top Issuers

| Issuer | PAR | % Portfolio |
|-------------------------------------|-------------|-------------|
| Fed Home Loan Bank | 101,000,000 | 25.54% |
| Fed Home Loan Mortgage Corp | 89,000,000 | 22.50% |
| Fed Natl Mortgage Assoc | 80,550,000 | 20.36% |
| Fed Farm Credit Bank | 65,000,000 | 16.43% |
| State of California Treasury - LAIF | 60,000,000 | 15.17% |
| Grand Total | 395,550,000 | 100% |

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

12/31/17

| SETTLMT | Call Schedule | Initial Call | Maturity Date | Rating | INVESTMENT TYPE | INSTITUTION / ISSUER | PAR Amount | COUPON DISCOUNT | YIELD | ORIGINAL COST | CARRY VALUE | MARKET VALUE ⁽¹⁾ 12/31/2017 | UNREALIZED ⁽²⁾ GAIN/(LOSS) |
|----------|------------------|--------------|---------------|-------------|-----------------|-----------------------------|--------------|-----------------|--------|-----------------|-----------------|---|--|
| 08/23/17 | | | 01/01/18 | | LAIF | State of California Tsy. | \$60,000,000 | | 1.110% | \$60,000,000.00 | \$60,000,000.00 | 59,885,611.74 | (114,388.26) |
| 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 | 3,999,982.69 | 3,998,520.00 | (1,462.69) |
| 03/01/16 | Quarterly | 05/26/16 | 02/26/18 | NR/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 1.050% | 1.050% | 5,000,000.00 | 5,000,000.00 | 4,997,650.00 | (2,350.00) |
| 03/23/16 | N/A | N/A | 03/23/18 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 1.100% | 0.908% | 5,019,000.00 | 5,002,108.22 | 4,996,600.00 | (5,508.22) |
| 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 | 4,999,464.48 | 4,990,800.00 | (8,664.48) |
| 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 | 4,999,075.34 | 4,986,550.00 | (12,525.34) |
| 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 | 5,002,029.81 | 4,986,900.00 | (15,129.81) |
| 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 | 11,011,991.03 | 10,984,490.00 | (27,501.03) |
| 06/29/16 | N/A | N/A | 06/29/18 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 10,000,000 | 1.000% | 0.679% | 10,016,000.00 | 10,003,923.29 | 9,971,000.00 | (32,923.29) |
| 09/01/16 | N/A | N/A | 07/27/18 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 0.750% | 0.928% | 4,983,250.00 | 4,995,003.96 | 4,974,250.00 | (20,753.96) |
| 12/21/16 | N/A | N/A | 08/15/18 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 1.000% | 1.245% | 4,980,000.00 | 4,992,491.69 | 4,978,700.00 | (13,791.69) |
| 09/01/16 | One Time | 02/28/17 | 08/28/18 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 1.000% | 1.000% | 5,000,000.00 | 5,000,000.00 | 4,976,600.00 | (23,400.00) |
| 09/01/16 | NA | NA | 09/14/18 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 1.125% | 0.916% | 5,021,000.00 | 5,007,235.53 | 4,978,850.00 | (28,385.53) |
| 12/28/16 | NA | NA | 09/14/18 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 1.125% | 1.225% | 4,991,500.00 | 4,996,518.40 | 4,978,850.00 | (17,668.40) |
| 10/12/16 | N/A | N/A | 09/27/18 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 10,000,000 | 0.900% | 0.952% | 9,990,000.00 | 9,995,958.04 | 9,945,700.00 | (50,258.04) |
| 10/12/16 | N/A | N/A | 09/28/18 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 0.880% | 0.942% | 4,994,000.00 | 4,997,569.83 | 4,970,600.00 | (26,969.83) |
| 09/01/16 | NA | NA | 10/01/18 | Aaa/AA+/NR | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 1.030% | 0.925% | 5,010,750.00 | 5,003,861.51 | 4,975,750.00 | (28,111.51) |
| 10/12/16 | N/A | N/A | 10/12/18 | Aaa/NR/NR | FFCB - Note | Fed Farm Credit Bank | 10,000,000 | 1.000% | 1.041% | 9,992,000.00 | 9,996,668.49 | 9,944,000.00 | (52,668.49) |
| 10/12/16 | N/A | N/A | 11/27/18 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 10,000,000 | 1.625% | 0.956% | 10,140,360.00 | 10,063,306.70 | 9,984,200.00 | (79,106.70) |
| 12/21/16 | N/A | N/A | 12/05/18 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 1.100% | 1.319% | 4,978,900.00 | 5,037,986.93 | 4,970,850.00 | (67,136.93) |
| 09/01/16 | NA | NA | 12/14/18 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 1.750% | 0.941% | 5,091,300.00 | 5,020,101.90 | 4,994,550.00 | (25,551.90) |
| 12/27/16 | NA | NA | 12/14/18 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 1.750% | 1.320% | 5,041,536.20 | 4,990,011.48 | 4,994,550.00 | 4,538.52 |
| 09/01/16 | One Time | 07/30/18 | 01/30/19 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 0.950% | 1.009% | 4,993,000.00 | 4,996,869.47 | 4,950,950.00 | (45,919.47) |
| 10/26/16 | One Time | 07/30/18 | 01/30/19 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 0.950% | 1.035% | 4,990,500.00 | 4,995,399.52 | 4,950,950.00 | (44,449.52) |
| 10/26/16 | One Time | 07/30/18 | 01/30/19 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 0.950% | 1.040% | 4,990,000.00 | 4,995,157.38 | 4,950,950.00 | (44,207.38) |
| 10/12/16 | Continuous after | 02/12/18 | 02/12/19 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 10,000,000 | 1.050% | 1.093% | 9,990,000.00 | 9,994,994.14 | 9,904,000.00 | (90,994.14) |
| 09/01/16 | NA | NA | 03/08/19 | Aaa/AA+/AAA | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 1.500% | 0.964% | 5,066,500.00 | 5,031,221.68 | 4,979,450.00 | (51,771.68) |
| 10/12/16 | N/A | N/A | 03/29/19 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 1.050% | 1.050% | 4,999,950.00 | 4,999,973.72 | 4,952,050.00 | (47,923.72) |
| 10/12/16 | N/A | N/A | 04/15/19 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 10,000,000 | 1.125% | 0.992% | 10,032,800.00 | 10,017,529.18 | 9,908,500.00 | (109,029.18) |
| 10/31/16 | N/A | N/A | 04/26/19 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 1.050% | 1.060% | 4,998,750.00 | 4,999,337.10 | 4,947,850.00 | (51,487.10) |
| 09/01/16 | One Time | 08/28/17 | 05/28/19 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 1.030% | 1.048% | 4,997,550.00 | 4,998,744.34 | 4,944,950.00 | (53,794.34) |
| 09/01/16 | NA | NA | 06/14/19 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 1.625% | 0.987% | 5,087,400.00 | 5,045,506.50 | 4,980,100.00 | (65,406.50) |
| 10/12/16 | NA | NA | 06/14/19 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 1.625% | 1.103% | 5,068,515.88 | 5,038,579.71 | 4,980,100.00 | (58,479.71) |
| 10/12/16 | NA | NA | 07/19/19 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 0.875% | 1.098% | 4,969,652.90 | 4,982,452.77 | 4,921,800.00 | (60,652.77) |
| 09/01/16 | NA | NA | 07/26/19 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.150% | 1.180% | 4,995,700.00 | 4,997,679.30 | 4,942,700.00 | (54,979.30) |
| 09/01/16 | One Time | 08/28/17 | 08/28/19 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.150% | 1.160% | 4,998,500.00 | 4,999,169.57 | 4,938,650.00 | (60,519.57) |
| 09/01/16 | NA | NA | 08/28/19 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.125% | 1.132% | 4,999,000.00 | 4,999,446.38 | 4,932,900.00 | (66,546.38) |

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

12/31/17

| SETTLMT | Call Schedule | Initial Call | Maturity Date | Rating | INVESTMENT TYPE | INSTITUTION / ISSUER | PAR Amount | COUPON DISCOUNT | YIELD | ORIGINAL COST | CARRY VALUE | MARKET VALUE ⁽¹⁾ 12/31/2017 | UNREALIZED ⁽²⁾ GAIN/(LOSS) |
|--------------------------|------------------|--------------|---------------|-------------|-----------------|-----------------------------|----------------------|-----------------|--------|-------------------------|-------------------------|--|---------------------------------------|
| 09/28/16 | Quarterly | 03/09/17 | 09/09/19 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.125% | 1.142% | 4,997,500.00 | 4,998,565.80 | 4,929,200.00 | (69,365.80) |
| 09/28/16 | Continuous after | 12/27/16 | 09/27/19 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 1.250% | 1.189% | 5,001,500.00 | 5,000,869.29 | 4,936,500.00 | (64,369.29) |
| 10/12/16 | Continuous after | 10/03/17 | 10/03/19 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 10,000,000 | 1.125% | 1.160% | 9,989,780.00 | 9,993,788.95 | 9,855,700.00 | (138,088.95) |
| 10/12/16 | Continuous after | 10/11/17 | 10/11/19 | Aaa/AA+/NR | FFCB - Note | Fed Farm Credit Bank | 10,000,000 | 1.120% | 1.205% | 9,975,000.00 | 9,984,734.92 | 9,847,800.00 | (136,934.92) |
| 11/08/16 | Quarterly | 05/08/17 | 11/08/19 | Aaa/AA+/NR | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.250% | 1.245% | 5,000,750.00 | 5,000,463.01 | 4,924,850.00 | (75,613.01) |
| 11/28/16 | NA | NA | 11/15/19 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 1.375% | 1.440% | 4,990,550.00 | 4,994,034.80 | 4,949,850.00 | (44,184.80) |
| 11/28/16 | Quarterly | 05/25/17 | 11/25/19 | Aaa/AA+/NR | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.400% | 1.503% | 4,985,000.00 | 4,990,480.77 | 4,940,850.00 | (49,630.77) |
| 12/12/16 | NA | NA | 12/12/19 | Aaa/AA+/NR | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 1.450% | 1.440% | 5,001,450.00 | 5,000,939.72 | 4,951,750.00 | (49,189.72) |
| 12/21/16 | NA | NA | 12/19/19 | Aaa/AA+/NR | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 1.500% | 1.621% | 4,982,350.00 | 4,988,421.73 | 4,952,300.00 | (36,121.73) |
| 12/20/17 | NA | NA | 01/17/20 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 1.500% | 1.932% | 4,956,250.00 | 4,956,942.61 | 4,952,700.00 | (4,242.61) |
| 10/16/17 | NA | NA | 02/28/20 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.500% | 1.612% | 4,987,025.00 | 4,988,180.00 | 4,948,100.00 | (40,080.00) |
| 12/20/17 | NA | NA | 03/13/20 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 4.125% | 1.940% | 5,237,200.00 | 5,233,703.19 | 5,230,600.00 | (3,103.19) |
| 10/03/17 | NA | NA | 04/20/20 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 1.375% | 1.630% | 4,968,350.00 | 4,971,412.90 | 4,929,350.00 | (42,062.90) |
| 11/21/17 | Continuous after | 02/20/18 | 05/20/20 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 1.830% | 1.930% | 4,987,500.00 | 4,969,373.82 | 4,976,250.00 | 6,876.18 |
| 11/10/17 | NA | NA | 06/22/20 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.500% | 1.750% | 4,968,000.00 | 4,988,213.50 | 4,940,700.00 | (47,513.50) |
| 12/20/17 | Quarterly | 11/10/16 | 08/10/20 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 1.450% | 2.052% | 4,923,000.00 | 4,923,958.51 | 4,910,800.00 | (13,158.51) |
| 12/12/17 | One Time | 09/28/18 | 09/28/20 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 2.000% | 2.000% | 5,000,000.00 | 5,000,000.00 | 4,990,750.00 | (9,250.00) |
| 10/31/17 | One Time | 10/30/18 | 10/30/20 | Aaa/NR/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,550,000 | 1.850% | 1.850% | 5,550,000.00 | 5,550,000.00 | 5,507,931.00 | (42,069.00) |
| 12/13/17 | Continuous after | 08/23/17 | 11/23/20 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 1.770% | 2.060% | 4,958,750.00 | 4,959,478.39 | 4,946,900.00 | (12,578.39) |
| 12/13/17 | Quarterly | 05/24/18 | 11/24/20 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.900% | 2.023% | 4,982,500.00 | 4,982,808.73 | 4,973,950.00 | (8,858.73) |
| 11/30/17 | NA | NA | 11/24/20 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 1.850% | 1.964% | 4,983,550.00 | 4,984,032.94 | 4,968,350.00 | (15,682.94) |
| 12/20/17 | NA | NA | 12/28/20 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.875% | 2.023% | 4,978,400.00 | 4,978,634.78 | 4,973,100.00 | (5,534.78) |
| TOTAL INVESTMENTS | | | | | | | \$395,550,000 | | | \$395,889,659.98 | \$395,646,388.46 | \$393,189,752.74 | |

Petty Cash
Ck Balance Bank of America

3,400.00
(1,648,170.42)
\$394,244,889.56

⁽¹⁾ LAIF market value is as of the most recent quarter-end as reported by LAIF.
Security market values are determined using Bank of New York ("Trading Prices"), Bloomberg and/or broker dealer pricing.

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

⁽³⁾ Real estate rate of return is based on most recent quarter end return

⁽⁴⁾ Swap Collateral Deposits assumes 6 month maturity, dependent on interest rate changes

| | |
|---|---------------|
| Outstanding Variable Rate Debt | \$284,200,000 |
| Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps) | \$154,200,000 |
| Investment Balance: | \$394,244,890 |
| Investment to Variable Rate Debt Ratio: | 256% |
| Portfolio - Average Number of Days To Maturity ⁽⁴⁾ | 426 |

| | Investment Portfolio | Real Estate ⁽³⁾ Portfolio | Weighted Avg. Return |
|----------|----------------------|--------------------------------------|----------------------|
| December | 1.19% | 8.49% | 3.29% |
| November | 1.12% | 8.79% | 3.40% |
| Change | 0.07% | | -0.11% |

This Investment Summary Report is in conformity with the 2017 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures.

*S - Step up

IRVINE RANCH WATER DISTRICT
SUMMARY OF MATURITIES

12/31/17

| DATE | TOTAL | % | LAIF | Agency Notes | Agency Discount Notes | Collateral Deposit | US Treasury |
|----------------------------|----------------------|----------------|---------------------|----------------------|-----------------------|--------------------|-------------|
| 01/18 | \$64,000,000 | 16.18% | \$60,000,000 | 4,000,000 | | | |
| 02/18 | 5,000,000 | 1.26% | | 5,000,000 | | | |
| 03/18 | 5,000,000 | 1.26% | | 5,000,000 | | | |
| 04/18 | 5,000,000 | 1.26% | | 5,000,000 | | - | |
| 05/18 | 10,000,000 | 2.53% | | 10,000,000 | | | |
| 06/18 | 21,000,000 | 5.31% | | 21,000,000 | | | |
| 07/18 | 5,000,000 | 1.26% | | 5,000,000 | | | |
| 08/18 | 10,000,000 | 2.53% | | 10,000,000 | | | |
| 09/18 | 25,000,000 | 6.32% | | 25,000,000 | | | |
| 10/18 | 15,000,000 | 3.79% | | 15,000,000 | | | |
| 11/18 | 10,000,000 | 2.53% | | 10,000,000 | | | |
| 12/18 | 15,000,000 | 3.79% | | 15,000,000 | | | |
| SUB-TOTAL | \$190,000,000 | 48.03% | \$60,000,000 | \$130,000,000 | | | |
| 13 Months - 3 YEARS | | | | | | | |
| 1/01/19 - 2/28/2019 | 25,000,000 | 6.32% | | 25,000,000 | | | |
| 3/01/19 - 5/31/2019 | 30,000,000 | 7.58% | | 30,000,000 | | | |
| 6/01/19 - 8/31/2019 | 30,000,000 | 7.58% | | 30,000,000 | | | |
| 9/01/2019 - 11/30/19 | 45,000,000 | 11.38% | | 45,000,000 | | | |
| 12/01/19 - 2/28/2020 | 20,000,000 | 5.06% | | 20,000,000 | | | |
| 3/01/2020 - 5/31/2020 | 15,000,000 | 3.79% | | 15,000,000 | | | |
| 6/01/2020 - 8/31/2020 | 10,000,000 | 2.53% | | 10,000,000 | | | |
| 9/01/2020 - 12/31/2020 | 30,550,000 | 7.72% | | 30,550,000 | | | |
| 1/01/2021 - 2/28/2021 | - | | | | | | |
| | - | | | | | | |
| TOTALS | \$395,550,000 | 100.00% | \$60,000,000 | \$335,550,000 | | | |

% OF PORTFOLIO

15.17%

84.83%

Irvine Ranch Water District
 Summary of Real Estate - Income Producing Investments
 12/31/2017

| | ACQUISITION DATE | PROPERTY TYPE | OWNERSHIP INTEREST | ORIGINAL COST | ESTIMATED MARKET VALUE 9/30/2017 | ANNUALIZED RATE OF RETURN QUARTER ENDED 12/31/2017 |
|---|---------------------|------------------|-----------------------|-----------------------|--|---|
| Sycamore Canyon | Dec-92 | Apartments | Fee Simple | \$ 43,550,810 | \$ 147,507,750 | 17.78% |
| Wood Canyon Villas | Jun-91 | Apartments | Limited Partner | \$ 6,000,000 | \$ 28,934,076 | 8.56% |
| ITC (230 Commerce) | Jul-03 | Office Building | Fee Simple | \$ 5,739,845 | \$ 9,571,680 | 5.78% |
| Waterworks Business Pk. | Nov-08 | Research & Dev. | Fee Simple | \$ 8,630,577 | \$ 7,803,000 | 5.41% |
| Sand Canyon Professional Center | Jul-12 | Medical Office | Fee Simple | \$ 8,648,594 | \$ 10,820,160 | 8.88% |
| Total - Income Properties | | | | \$ 72,569,826 | \$ 204,636,666 | 13.54% |
| OTHER REAL ESTATE | | | | | | |
| DESCRIPTION | | | | | | |
| Serrano Summit - Promissory Note | Sep-17 | NA | NA | \$ 81,600,000 | \$ 81,600,000 | 4.00% |
| Total - Income Producing Real Estate Investments | | | | \$ 154,169,826 | \$ 286,236,666 | 8.49% |

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

MATURITIES/SALES/CALLS

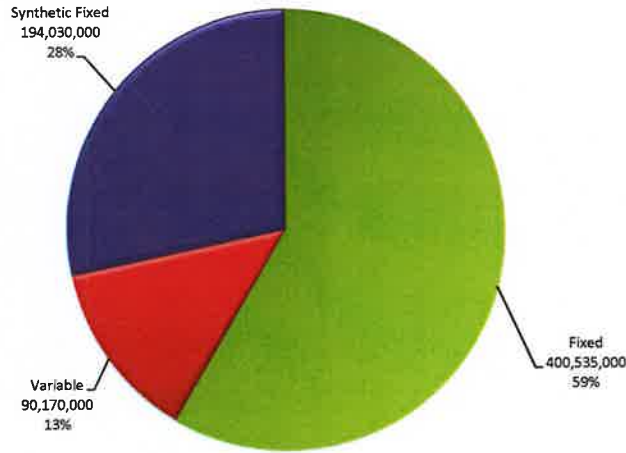
PURCHASES

| DATE | SECURITY TYPE | PAR | YIELD | Settlement Date | Maturity Date | SECURITY TYPE | PAR | YIELD TO MATURITY |
|------------|---------------|-------------|-------|-----------------|---------------|---------------|-------------|-------------------|
| 12/12/2017 | FFCB - NOTE | \$5,000,000 | 1.13% | 12/12/2017 | 9/28/2020 | FNMA - NOTE | \$5,000,000 | 2.00% |
| | | | | 12/13/2017 | 11/23/2020 | FFCB - NOTE | \$5,000,000 | 2.06% |
| | | | | 12/13/2017 | 11/24/2020 | FNMA - NOTE | \$5,000,000 | 2.02% |
| | | | | 12/20/2017 | 1/17/2020 | FHLMC - NOTE | \$5,000,000 | 1.93% |
| | | | | 12/20/2017 | 3/13/2020 | FHLB - NOTE | \$5,000,000 | 1.94% |
| | | | | 12/20/2017 | 8/10/2020 | FHLMC - NOTE | \$5,000,000 | 2.05% |
| | | | | 12/20/2017 | 12/28/2020 | FNMA - Note | \$5,000,000 | 2.02% |

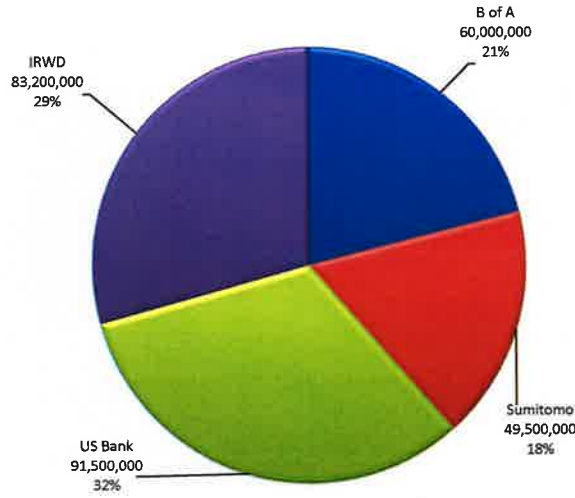
Exhibit "B"

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

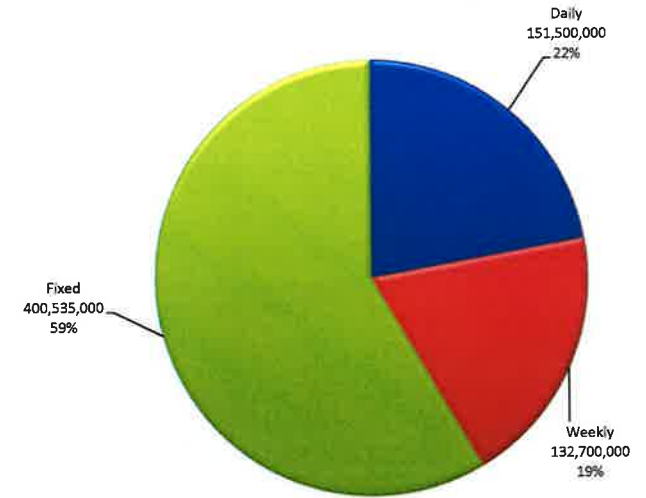
Current Debt Mix By Type



Letters of Credit / Support



Current Debt Rate Reset



Outstanding Par by Series

| Series | Issue Date | Maturity Date | Remaining | | Letter of Credit | Rmkt Agent | Mode | Reset |
|---------------------------------|------------|---------------|----------------------|----------------|------------------|------------|----------|--------|
| | | | Principal | Percent | | | | |
| Series 1993 | 05/19/93 | 04/01/33 | \$31,500,000 | 4.60% | US Bank | BAML | Variable | Daily |
| Series 2008-A Refunding | 04/24/08 | 07/01/35 | \$49,500,000 | 7.23% | Sumitomo | BAML | Variable | Weekly |
| Series 2011-A-1 Refunding | 04/15/11 | 10/01/37 | \$49,920,000 | 7.29% | IRWD | Goldman | Variable | Weekly |
| Series 2011-A-2 Refunding | 04/15/11 | 10/01/37 | \$33,280,000 | 4.86% | IRWD | Morgan | Variable | Weekly |
| Series 2009 - A | 06/04/09 | 10/01/41 | \$60,000,000 | 8.76% | US Bank | US Bank | Variable | Daily |
| Series 2009 - B | 06/04/09 | 10/01/41 | \$60,000,000 | 8.76% | B of A | Goldman | Variable | Daily |
| 2010 Refunding Cops | 02/23/10 | 03/01/20 | \$5,390,000 | 0.79% | N/A | N/A | Fixed | Fixed |
| 2016 COPS | 09/01/16 | 03/01/46 | \$116,745,000 | 17.05% | N/A | N/A | Fixed | Fixed |
| 2010 Build America Taxable Bond | 12/16/10 | 05/01/40 | \$175,000,000 | 25.56% | N/A | N/A | Fixed | Fixed |
| Series 2016 | 10/12/16 | 02/01/46 | \$103,400,000 | 15.10% | N/A | N/A | Fixed | Fixed |
| Total | | | \$684,735,000 | 100.00% | | | | |

IRVINE RANCH WATER DISTRICT
SUMMARY OF FIXED & VARIABLE RATE DEBT

December-17

| |
|--------|
| ITN |
| Daily |
| Weekly |

| GENERAL BOND INFORMATION | | | | | | | LETTER OF CREDIT INFORMATION | | | | | | | TRUSTEE INFORMATION | | | | | | | |
|-------------------------------------|------------|---------------|------------------------|--------------|----------------------|----------------------|---|------------------------------|---------------|-----------|----------|---------|-------------------|----------------------|-----------------|------------------|-----------|-----------|-------------|------------|--|
| VARIABLE RATE ISSUES | Issue Date | Maturity Date | Principal Payment Date | Payment Date | Original Par Amount | Remaining Principal | Letter of Credit | Reimbursement Agreement Date | L/C Exp. Date | MOODY'S | S&P | FITCH | LOC Stated Amount | LOC Fee | Annual LOC Cost | Rmkt Agent | Reset | Rmkt Fees | Annual Cost | Trustee | |
| SERIES 1993 | 05/19/93 | 04/01/33 | APR 1 (2014) | 5th Bus. Day | \$38,300,000 | \$31,500,000 | US BANK | 05/07/15 | 11/07/18 | Aa3/VMIG1 | AA-/A-1+ | N/R | \$31,924,603 | 0.3300% | \$105,351 | BAML | DAILY | 0.10% | \$31,500 | BANK OF NY | |
| SERIES 2008-A Refunding | 04/24/08 | 07/01/35 | JUL 1 | 5th Bus. Day | \$60,215,000 | \$49,500,000 | SUMITOMO | 04/01/11 | 07/21/21 | A1/P-1 | A/A-1 | A/F1 | \$50,232,329 | 0.3150% | \$159,232 | BAML | WED | 0.07% | \$34,650 | BANK OF NY | |
| SERIES 2011-A-1 Refunding | 04/15/11 | 10/01/37 | Oct 1 | 1st Bus. Day | \$60,545,000 | \$49,920,000 | N/A | N/A | N/A | Aa1/VMIG1 | A-1+ | AAA/F1+ | N/A | N/A | N/A | Goldman | WED | 0.13% | \$62,400 | BANK OF NY | |
| SERIES 2011-A-2 Refunding | 04/15/11 | 10/01/37 | Oct 1 | 1st Bus. Day | \$40,370,000 | \$33,280,000 | N/A | N/A | N/A | Aa1/VMIG1 | A-1+ | AAA/F1+ | N/A | N/A | N/A | Morgan S. | WED | 0.13% | \$41,600 | BANK OF NY | |
| SERIES 2009 - A | 06/04/09 | 10/01/41 | Oct 1 | 1st Bus. Day | \$75,000,000 | \$60,000,000 | US BANK | 04/01/11 | 12/22/20 | Aa2/VMIG1 | AA-/A-1+ | AA/F1+ | \$60,670,685 | 0.4100% | \$248,750 | US Bank | DAILY | 0.07% | \$42,000 | US BANK | |
| SERIES 2009 - B | 06/04/09 | 10/01/41 | Oct 1 | 1st Bus. Day | \$75,000,000 | \$60,000,000 | B of A | 04/01/11 | 07/15/19 | A1/VMIG1 | A/A-1 | A1/F1+ | \$60,670,685 | 0.4000% | \$242,683 | Goldman | DAILY | 0.10% | \$60,000 | US BANK | |
| | | | | | \$349,430,000 | \$284,200,000 | SUB-TOTAL VARIABLE RATE DEBT | | | | | | | \$203,498,301 | 0.3711% | \$755,016 | | | | | |
| | | | | | | | | | | | | | | (Wt. Avg) | | | (Wt. Avg) | | | | |
| FIXED RATE ISSUES | | | | | | | | | | | | | | | | | | | | | |
| 2010 REFUNDING COPS | 02/23/10 | 03/01/20 | Mar -1 | MAR/SEPT | \$85,145,000 | \$5,390,000 | N/A | N/A | N/A | Aa1 | AAA | AAA | N/A | N/A | N/A | N/A | N/A | N/A | N/A | BANK OF NY | |
| 2010 GO Build America Taxable Bonds | 12/16/10 | 05/01/40 | MAY (2025) | MAY/NOV | \$175,000,000 | \$175,000,000 | N/A | N/A | N/A | Aa1 | AAA | NR | N/A | N/A | N/A | N/A | N/A | N/A | N/A | US BANK | |
| 2016 COPS | 09/01/16 | 03/01/46 | Mar - 1 | MAR/SEPT | \$116,745,000 | \$116,745,000 | N/A | N/A | N/A | NR | AAA | AAA | N/A | N/A | N/A | N/A | N/A | N/A | N/A | US BANK | |
| SERIES 2016 | 10/12/16 | 02/01/46 | Feb - 1 | FEB/AUG | \$103,400,000 | \$103,400,000 | N/A | N/A | N/A | NR | AAA | AAA | N/A | N/A | N/A | N/A | N/A | N/A | N/A | BANK OF NY | |
| | | | | | \$480,290,000 | \$400,535,000 | SUB-TOTAL FIXED RATE DEBT | | | | | | | | | | | | | | |
| | | | | | \$829,720,000 | \$684,735,000 | TOTAL - FIXED & VARIABLE RATE DEBT | | | | | | | | | | | | | | |

| Remarketing Agents | | | GO VS COP's | | |
|--------------------|--------------------|-----|-------------|--------------------|-----|
| Goldman | 109,920,000 | 39% | GO: | 562,600,000 | 82% |
| Morgan Stanley | 33,280,000 | 12% | COPS: | 122,135,000 | 18% |
| BAML | 81,000,000 | 29% | Total | 684,735,000 | |
| US Bank | 60,000,000 | 21% | | | |
| | 284,200,000 | | | | |

| LOC Banks | | Breakdown Between Variable & Fixed Rate Mode | |
|-----------------|--------------------|--|-------------------------|
| SUMITOMO | 49,500,000 | Daily Issues | 151,500,000 22% |
| BANK OF AMERICA | 60,000,000 | Weekly Issues | 49,500,000 7% |
| US BANK | 91,500,000 | ITN Issues | 83,200,000 12% |
| | 201,000,000 | Sub-Total | 284,200,000 |
| | | Fixed Rate Issues | \$400,535,000 58% |
| | | Sub-Total - Fixed | 400,535,000 |
| | | TOTAL DEBT | |
| | | FIXED & VAR. | 684,735,000 100% |

IRVINE RANCH WATER DISTRICT
SUMMARY OF DEBT RATES
Dec-17

| Rmkt Agent | GOLDMAN | | MORGAN STANLEY | | MERRILL LYNCH | | US BANK |
|---------------------------|--------------|--------------|----------------|--------------|---------------|--------------|--------------|
| Bond Issue | DAILY | WEEKLY | WEEKLY | WEEKLY | DAILY | WEEKLY | DAILY |
| Par Amount | 2009 - B | 2011 A-1 | 2011 A-2 | 2011 A-2 | 1993 | 2008-A | 2009-A |
| Bank | 60,000,000 | 49,920,000 | 33,280,000 | 33,280,000 | 31,500,000 | 49,500,000 | 60,000,000 |
| Reset | BOFA | (SIFMA+7) | (SIFMA+7) | (SIFMA+7) | US BANK | Sumitomo | US BANK |
| | | Wednesday | Wednesday | Wednesday | Wednesday | Wednesday | |
| 12/1/2017 | 0.81% | 1.04% | 1.04% | 1.04% | 0.79% | 0.89% | 0.81% |
| 12/2/2017 | 0.81% | 1.04% | 1.04% | 1.04% | 0.79% | 0.89% | 0.81% |
| 12/3/2017 | 0.81% | 1.04% | 1.04% | 1.04% | 0.79% | 0.89% | 0.81% |
| 12/4/2017 | 0.79% | 1.04% | 1.04% | 1.04% | 0.76% | 0.89% | 0.78% |
| 12/5/2017 | 0.74% | 1.04% | 1.04% | 1.04% | 0.74% | 0.89% | 0.77% |
| 12/6/2017 | 0.73% | 1.04% | 1.04% | 1.04% | 0.74% | 0.89% | 0.73% |
| 12/7/2017 | 0.73% | 1.07% | 1.07% | 1.07% | 0.77% | 0.92% | 0.73% |
| 12/8/2017 | 0.73% | 1.07% | 1.07% | 1.07% | 0.76% | 0.92% | 0.76% |
| 12/9/2017 | 0.73% | 1.07% | 1.07% | 1.07% | 0.76% | 0.92% | 0.76% |
| 12/10/2017 | 0.73% | 1.07% | 1.07% | 1.07% | 0.76% | 0.92% | 0.76% |
| 12/11/2017 | 0.76% | 1.07% | 1.07% | 1.07% | 0.81% | 0.92% | 0.77% |
| 12/12/2017 | 0.78% | 1.07% | 1.07% | 1.07% | 0.83% | 0.92% | 0.81% |
| 12/13/2017 | 0.82% | 1.07% | 1.07% | 1.07% | 0.89% | 0.92% | 0.84% |
| 12/14/2017 | 0.82% | 1.18% | 1.18% | 1.18% | 0.91% | 1.02% | 0.92% |
| 12/15/2017 | 0.92% | 1.18% | 1.18% | 1.18% | 0.96% | 1.02% | 0.94% |
| 12/16/2017 | 0.92% | 1.18% | 1.18% | 1.18% | 0.96% | 1.02% | 0.94% |
| 12/17/2017 | 0.92% | 1.18% | 1.18% | 1.18% | 0.96% | 1.02% | 0.94% |
| 12/18/2017 | 0.97% | 1.18% | 1.18% | 1.18% | 0.96% | 1.02% | 0.96% |
| 12/19/2017 | 0.99% | 1.18% | 1.18% | 1.18% | 0.96% | 1.02% | 0.98% |
| 12/20/2017 | 1.10% | 1.18% | 1.18% | 1.18% | 1.11% | 1.02% | 1.08% |
| 12/21/2017 | 1.40% | 1.47% | 1.47% | 1.47% | 1.31% | 1.47% | 1.35% |
| 12/22/2017 | 1.50% | 1.47% | 1.47% | 1.47% | 1.51% | 1.47% | 1.50% |
| 12/23/2017 | 1.50% | 1.47% | 1.47% | 1.47% | 1.51% | 1.47% | 1.50% |
| 12/24/2017 | 1.50% | 1.47% | 1.47% | 1.47% | 1.51% | 1.47% | 1.50% |
| 12/25/2017 | 1.50% | 1.47% | 1.47% | 1.47% | 1.51% | 1.47% | 1.50% |
| 12/26/2017 | 1.55% | 1.47% | 1.47% | 1.47% | 1.51% | 1.47% | 1.60% |
| 12/27/2017 | 1.55% | 1.47% | 1.47% | 1.47% | 1.51% | 1.47% | 1.60% |
| 12/28/2017 | 1.60% | 1.78% | 1.78% | 1.78% | 1.60% | 1.60% | 1.60% |
| 12/29/2017 | 1.75% | 1.78% | 1.78% | 1.78% | 1.75% | 1.60% | 1.60% |
| 12/30/2017 | 1.75% | 1.78% | 1.78% | 1.78% | 1.75% | 1.60% | 1.60% |
| 12/31/2017 | 1.75% | 1.78% | 1.78% | 1.78% | 1.75% | 1.60% | 1.60% |
| Avg Interest Rates | 1.10% | 1.29% | 1.29% | 1.29% | 1.10% | 1.15% | 1.09% |
| Rmkt Fee | 0.10% | 0.13% | 0.13% | 0.13% | 0.10% | 0.07% | 0.07% |
| LOC Fee | 0.40% | | | | 0.33% | 0.32% | 0.41% |
| All-in Rate | 1.60% | 1.41% | 1.41% | 1.41% | 1.53% | 1.53% | 1.58% |
| Par Amount | | 109,920,000 | 33,280,000 | 33,280,000 | 81,000,000 | | 60,000,000 |

| Interest Rate Mode | Percent of Total Variable Rate Debt | Par Outstanding | Weighted All-In Average Rate | Base Rate Average |
|--|-------------------------------------|-----------------------|------------------------------|-------------------|
| Daily | 53.31% | 151,500,000 | 1.57% | 1.10% |
| Weekly | 46.69% | 132,700,000 | 1.46% | 1.24% |
| Fixed | 100.00% | \$ 284,200,000 | 1.52% | 1.16% |
| COPS 2010 | 1.35% | 5,390,000 | 3.82% | |
| COPS 2016 | 29.15% | 116,745,000 | 2.90% | |
| BABS 2010 | 43.69% | 175,000,000 | 4.46% | (1) |
| SERIES 2016 | 25.82% | 103,400,000 | 3.32% | |
| | 100.00% | \$ 400,535,000 | 3.70% | |
| All-In Debt Rate Including \$130 Million Notional Amount of Swaps | | | | 3.65% |

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

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

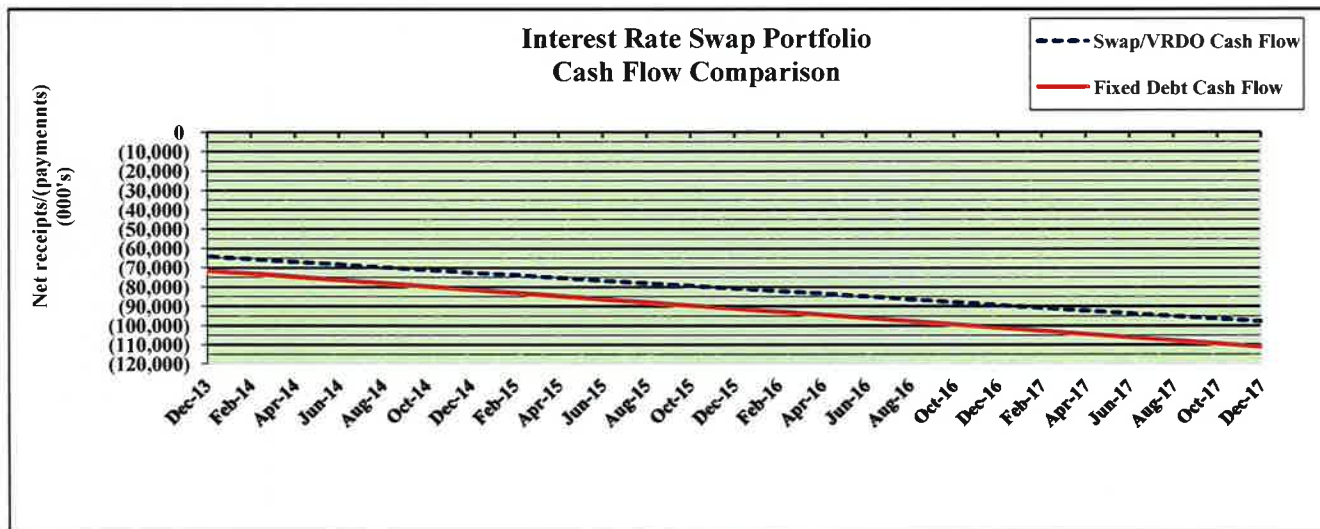
Exhibit "C"

| | | | |
|--------------------|------------------|--------------------|------------------|
| LIBOR Avg % | Prior Mo. | Current Mo. | 12-Mo Avg |
| | 1.29% | 1.49% | 1.11% |

| Current Fiscal Year Active Swaps | | | | | | | | Cash Flow | | | | Mark to Market | |
|--|---------------|-------------------|---------------|-----------------------|------|------------|---------------|---------------------|---------------------|-----------------------|--------------------------------------|------------------------|------------------------|
| Effective Date | Maturity Date | Years to Maturity | Counter Party | Notional Amt | Type | Base Index | Fixed Rate | Prior Month | Current Month | Fiscal YTD | (Since 6/06) Cumulative Cash Flow | Current Mark to Market | Notional Difference |
| Fixed Payer Swaps - By Effective Date | | | | | | | | | | | | | |
| 6/4/2006 | 6/4/2019 | 1.4 | ML | \$ 20,000,000 | FXP | LIBOR | 6.200% | (79,206) | (78,075) | \$ (490,369) | \$ (11,413,662) | \$ 18,786,858 | \$ (1,213,142) |
| 6/4/2006 | 6/4/2019 | 1.4 | CG | 20,000,000 | FXP | LIBOR | 6.200% | (79,206) | (78,075) | (490,369) | (11,413,662) | 18,787,067 | (1,212,933) |
| 6/17/2006 | 6/17/2019 | 1.5 | CG | 30,000,000 | FXP | LIBOR | 6.140% | (117,149) | (115,541) | (725,989) | (16,928,646) | 28,163,505 | (1,836,495) |
| 3/10/2007 | 3/10/2029 | 11.2 | ML | 30,000,000 | FXP | LIBOR | 5.687% | (106,377) | (104,381) | (658,980) | (15,264,787) | 20,146,196 | (9,853,804) |
| 3/10/2007 | 3/10/2029 | 11.2 | CG | 30,000,000 | FXP | LIBOR | 5.687% | (106,377) | (104,381) | (658,980) | (15,264,787) | 20,150,184 | (9,849,816) |
| Totals/Weighted Avgs | | 5.9 | | \$ 130,000,000 | | | 5.949% | \$ (488,316) | \$ (480,452) | \$ (3,024,686) | \$ (70,285,542) | \$ 106,033,810 | \$ (23,966,190) |
| Total Current Year Active Swaps | | | | \$ 130,000,000 | | | | \$ (488,316) | \$ (480,452) | \$ (3,024,686) | \$ (70,285,542) | \$ 106,033,810 | \$ (23,966,190) |

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

| Current Fiscal Year - Total Swaps | | | | | | | | Cash Flow | | | | Mark to Market | |
|-----------------------------------|---------------------|-----------------------|------------------------|------------------------|------------------------|--|--|-----------|--|--|--|----------------|--|
| Prior Month | Current Month | Fiscal YTD | Cumulative Cash Flow | Current Mark to Market | Notional Difference | | | | | | | | |
| \$ (488,316) | \$ (480,452) | \$ (3,024,686) | \$ (70,285,542) | \$ 106,033,810 | \$ (23,966,190) | | | | | | | | |



| | |
|---|---------------|
| Cash Flow Comparison Synthetic Fixed vs. Fixed Rate Debt | |
| <u>Cash Flow to Date</u> | |
| Synthetic Fixed = | \$97,878,778 |
| Fixed Rate = | \$111,129,842 |
| <u>Assumptions:</u> | |
| - Fixed rate debt issued at 5.10% in Jun-06, and 4.93% in Mar-07 (estimated TE rates - Bloomberg) | |
| - 'Synthetic' includes swap cash flow + interest + fees to date | |

Exhibit "D"

IRWD Ledger Upgrade

Void Payment Register

Report Date: 28-DEC-2017 12:10

Include Zero Amount Payments: Yes
 Display Payee Address: No

Period From: 01-DEC-17

Page: 1
 To: 28-DEC-17
 Date: Void Date

Bank: Bank of America N.A.

Branch: Los Angeles

Account: Checking AP and PR

Bank Account Currency: USD

Payment Currency: USD (US Dollar)

| Payment Number | Date | Payee Name | Site | Address | Payment Amount | Void Date |
|------------------------------|-----------|-----------------------------|-----------|---------|----------------|-----------|
| Payment Document: IRWD CHECK | | | | | | |
| 375630 | 15-MAR-17 | MONTBURY HOA | INS CLAIM | | 980.00 | 05-DEC-17 |
| 379204 | 03-AUG-17 | CALIFORNIA PACIFIC HOMES | IRVINE 2 | | 193.67 | 14-DEC-17 |
| 379234 | 03-AUG-17 | FISHER, TOM | PAY | | 42.16 | 14-DEC-17 |
| 379501 | 14-AUG-17 | TACHDJIAN, MATTHEW C | ORANGE | | 17,100.00 | 07-DEC-17 |
| 379510 | 17-AUG-17 | Lee, Sun (Sunny) | HOME | | 8.04 | 19-DEC-17 |
| 379598 | 17-AUG-17 | KATZ, YAEL | PAY | | 11.54 | 14-DEC-17 |
| 379725 | 24-AUG-17 | Lum, Christopher A (Christo | HOME | | 36.59 | 27-DEC-17 |
| 379948 | 30-AUG-17 | BURK, ROBERT | PAY | | 96.67 | 14-DEC-17 |
| 380079 | 30-AUG-17 | YAN, ALYSSA | PAY | | 15.62 | 14-DEC-17 |
| 380082 | 30-AUG-17 | YOU, YOUNG IM | PAY | | 71.32 | 14-DEC-17 |

Payment Document Subtotal 18,555.61

Bank Account Subtotal 18,555.61

Report Total 18,555.61

Voids

Report Count: 10

*** End of Report ***

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 1
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|-------------------------------------|----------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 382442 | | 04-DEC-17 | SOUTHERN CALIFORNIA EDISON COMPANY | PURCHASE | 285.69 | 11-DEC-17 | 285.69 | Reconciled |
| 382443 | | 04-DEC-17 | JCI JONES CHEMICALS INC | TAMPA | 2,960.53 | 11-DEC-17 | 2,960.53 | Reconciled |
| 382444 | | 07-DEC-17 | Barreto, Gustavo (Gus) | | 145.00 | 18-DEC-17 | 145.00 | Reconciled |
| 382445 | | 07-DEC-17 | Bertsch, Frederick J (Jeff) | | 197.94 | | | Negotiable |
| 382446 | | 07-DEC-17 | Borowski, Michael (Mike) | | 49.51 | 13-DEC-17 | 49.51 | Reconciled |
| 382447 | | 07-DEC-17 | Cho, Harry K (Harry) | | 269.00 | 13-DEC-17 | 269.00 | Reconciled |
| 382448 | | 07-DEC-17 | Compton, Christine A | | 14.98 | | | Negotiable |
| 382449 | | 07-DEC-17 | Fournier, Tanja L (Tanja) | | 799.00 | 07-DEC-17 | 799.00 | Reconciled |
| 382450 | | 07-DEC-17 | Johnson, Susanne | | 59.24 | 12-DEC-17 | 59.24 | Reconciled |
| 382451 | | 07-DEC-17 | McCarter, David G (David) | | 140.00 | 11-DEC-17 | 140.00 | Reconciled |
| 382452 | | 07-DEC-17 | Morabito, Chadd | | 170.00 | 11-DEC-17 | 170.00 | Reconciled |
| 382453 | | 07-DEC-17 | Mori, Richard K (Rich) | | 1,660.30 | 08-DEC-17 | 1,660.30 | Reconciled |
| 382454 | | 07-DEC-17 | Nash, Joel | | 51.36 | 12-DEC-17 | 51.36 | Reconciled |
| 382455 | | 07-DEC-17 | Pizanie, Nicholas B | | 107.72 | 12-DEC-17 | 107.72 | Reconciled |
| 382456 | | 07-DEC-17 | Schulze, Richard W (Richard) | | 180.00 | 11-DEC-17 | 180.00 | Reconciled |
| 382457 | | 07-DEC-17 | Valencia, Reynaldo (Rey) | | 125.00 | 18-DEC-17 | 125.00 | Reconciled |
| 382458 | | 07-DEC-17 | Weghorst, Paul A (Paul) | | 9.95 | 07-DEC-17 | 9.95 | Reconciled |
| 382459 | | 07-DEC-17 | 128 CANYON CREEK, LLC | | 849.41 | | | Negotiable |
| 382460 | | 07-DEC-17 | ACCUSOURCE, INC. | | 357.85 | 18-DEC-17 | 357.85 | Reconciled |
| 382461 | | 07-DEC-17 | ACE STAINLESS SUPPLY | | 3,173.24 | 11-DEC-17 | 3,173.24 | Reconciled |
| 382462 | | 07-DEC-17 | ACWA | | 525.00 | 15-DEC-17 | 525.00 | Reconciled |
| 382463 | | 07-DEC-17 | AEGIS ENGINEERING MANAGEMENT, INC. | | 13,035.00 | 13-DEC-17 | 13,035.00 | Reconciled |
| 382464 | | 07-DEC-17 | AIR TECHNOLOGY LABORATORIES | | 503.00 | | | Negotiable |
| 382465 | | 07-DEC-17 | ALEXANDER'S CONTRACT SERVICES, INC. | | 116,006.94 | 13-DEC-17 | 116,006.94 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 2
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 382466 | | 07-DEC-17 | ALL AMERICAN SEWER TOOLS | | 1,124.35 | 15-DEC-17 | 1,124.35 | Reconciled |
| 382467 | | 07-DEC-17 | ALPHA TRAFFIC SERVICES, INC. | | 1,480.00 | 12-DEC-17 | 1,480.00 | Reconciled |
| 382468 | | 07-DEC-17 | AQUA-METRIC SALES COMPANY | | 66,305.80 | 18-DEC-17 | 66,305.80 | Reconciled |
| 382469 | | 07-DEC-17 | ARCHROCK SERVICES, L.P. | | 5,182.52 | 13-DEC-17 | 5,182.52 | Reconciled |
| 382470 | | 07-DEC-17 | ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA | | 33,907.74 | 15-DEC-17 | 33,907.74 | Reconciled |
| 382471 | | 07-DEC-17 | AT&T | | 1,332.78 | 14-DEC-17 | 1,332.78 | Reconciled |
| 382472 | | 07-DEC-17 | AT&T | | 68.11 | 14-DEC-17 | 68.11 | Reconciled |
| 382473 | | 07-DEC-17 | AT&T | | 10.23 | 13-DEC-17 | 10.23 | Reconciled |
| 382474 | | 07-DEC-17 | AUTOZONE PARTS, INC. | | 113.60 | 13-DEC-17 | 113.60 | Reconciled |
| 382475 | | 07-DEC-17 | AXA EQUITABLE LIFE INSURANCE COMPANY | | 9,780.00 | 15-DEC-17 | 9,780.00 | Reconciled |
| 382476 | | 07-DEC-17 | BAKER ELECTRIC, INC | | 1,218.25 | 11-DEC-17 | 1,218.25 | Reconciled |
| 382477 | | 07-DEC-17 | BATTERIES PLUS AND BATTERIES PLUS BULBS | | 2,761.31 | 12-DEC-17 | 2,761.31 | Reconciled |
| 382478 | | 07-DEC-17 | BILL'S SWEEPING SERVICE INC | | 750.00 | 13-DEC-17 | 750.00 | Reconciled |
| 382479 | | 07-DEC-17 | BLAIRS TOWING INC | | 740.00 | 19-DEC-17 | 740.00 | Reconciled |
| 382480 | | 07-DEC-17 | BLOOMBERG FINANCE LP | | 12,735.00 | 18-DEC-17 | 12,735.00 | Reconciled |

| | | | | | | | |
|--------|-----------|--|--|------------|-----------|------------|------------|
| 382481 | 07-DEC-17 | BOEZINGER, WILLIAM | | 104.81 | 15-DEC-17 | 104.81 | Reconciled |
| 382482 | 07-DEC-17 | BRENNTAG PACIFIC INC | | 18,510.05 | 14-DEC-17 | 18,510.05 | Reconciled |
| 382483 | 07-DEC-17 | CALIFORNIA BARRICADE RENTAL, INC. | | 1,330.00 | 11-DEC-17 | 1,330.00 | Reconciled |
| 382484 | 07-DEC-17 | CALIFORNIA SPECIAL DISTRICTS ASSOCIATION | | 6,842.00 | | | Negotiable |
| 382485 | 07-DEC-17 | CAROLLO ENGINEERS, INC | | 12,657.50 | 19-DEC-17 | 12,657.50 | Reconciled |
| 382486 | 07-DEC-17 | CARPENTER, KIM | | 33.06 | 18-DEC-17 | 33.06 | Reconciled |
| 382487 | 07-DEC-17 | CCL CONTRACTING INC. | | 223,037.87 | 14-DEC-17 | 223,037.87 | Reconciled |
| 382488 | 07-DEC-17 | CENTRAL COAST POWER SERVICES, LLC | | 7,195.00 | 14-DEC-17 | 7,195.00 | Reconciled |

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

Payment Register For 01-DEC-17 To 28-DEC-17
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 28-DEC-2017 12:11
 Page: 3

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 382489 | | 07-DEC-17 | CHAIREL CUSTOM HAY, INC. | | 14,023.07 | 14-DEC-17 | 14,023.07 | Reconciled |
| 382490 | | 07-DEC-17 | CHEM TECH INTERNATIONAL INC | | 12,135.20 | | | Negotiable |
| 382491 | | 07-DEC-17 | CHO DESIGN ASSOCIATES, INC | | 5,600.00 | 11-DEC-17 | 5,600.00 | Reconciled |
| 382492 | | 07-DEC-17 | CHUNG, JOHN | | 96.57 | 14-DEC-17 | 96.57 | Reconciled |
| 382493 | | 07-DEC-17 | CITY CIRCUIT BREAKERS | | 534.88 | 12-DEC-17 | 534.88 | Reconciled |
| 382494 | | 07-DEC-17 | CITY OF IRVINE | | 162.00 | 12-DEC-17 | 162.00 | Reconciled |
| 382495 | | 07-DEC-17 | CITY OF TUSTIN | | 254.80 | 11-DEC-17 | 254.80 | Reconciled |
| 382496 | | 07-DEC-17 | COLLIGAN, CRAIG | | 14.98 | 20-DEC-17 | 14.98 | Reconciled |
| 382497 | | 07-DEC-17 | CONSOLIDATED CONTRACTING SERVICES, INC. | | 1,256.52 | 20-DEC-17 | 1,256.52 | Reconciled |
| 382498 | | 07-DEC-17 | CORE & MAIN LP | | 10,146.01 | 14-DEC-17 | 10,146.01 | Reconciled |
| 382499 | | 07-DEC-17 | COX COMMUNICATIONS, INC. | | 255.32 | 11-DEC-17 | 255.32 | Reconciled |
| 382500 | | 07-DEC-17 | CS-AMSCO | | 6,468.90 | 18-DEC-17 | 6,468.90 | Reconciled |
| 382501 | | 07-DEC-17 | CULLIGAN OF SANTA ANA | | 13,037.05 | 14-DEC-17 | 13,037.05 | Reconciled |
| 382502 | | 07-DEC-17 | DELL MARKETING LP | | 18,574.68 | 13-DEC-17 | 18,574.68 | Reconciled |
| 382503 | | 07-DEC-17 | DEMARIA ELECTRIC MOTOR SERVICES, INC. | | 12,556.42 | 15-DEC-17 | 12,556.42 | Reconciled |
| 382504 | | 07-DEC-17 | DINUZZO, MICHELLE | | 302.02 | 13-DEC-17 | 302.02 | Reconciled |
| 382505 | | 07-DEC-17 | DISCOUNT COURIER SERVICE | | 445.68 | 11-DEC-17 | 445.68 | Reconciled |
| 382506 | | 07-DEC-17 | DMS FACILITY SERVICES, INC. | | 18,251.93 | 14-DEC-17 | 18,251.93 | Reconciled |
| 382507 | | 07-DEC-17 | DRA ARCHITECTS, A CALIFORNIA CORPORATION | | 429.12 | 12-DEC-17 | 429.12 | Reconciled |
| 382508 | | 07-DEC-17 | DUDEK | | 8,140.99 | 13-DEC-17 | 8,140.99 | Reconciled |
| 382509 | | 07-DEC-17 | EI&C ENGINEERING INC | | 39,244.83 | 13-DEC-17 | 39,244.83 | Reconciled |
| 382510 | | 07-DEC-17 | EISEL ENTERPRISES INC | | 1,941.57 | 14-DEC-17 | 1,941.57 | Reconciled |
| 382511 | | 07-DEC-17 | ELECTRICAL SYSTEMS ENGINEERING CO | | 8,745.00 | 13-DEC-17 | 8,745.00 | Reconciled |
| 382512 | | 07-DEC-17 | EMPLOYEE BENEFIT SPECIALIST, INC | | 1,290.00 | 12-DEC-17 | 1,290.00 | Reconciled |
| 382513 | | 07-DEC-17 | ENVIRONMENTAL EXPRESS INC | | 469.01 | 15-DEC-17 | 469.01 | Reconciled |

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

Payment Register For 01-DEC-17 To 28-DEC-17
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 28-DEC-2017 12:11
 Page: 4

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|----------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 382514 | | 07-DEC-17 | ENVIRONMENTAL SCIENCE ASSOCIATES | | 5,355.15 | 13-DEC-17 | 5,355.15 | Reconciled |
| 382515 | | 07-DEC-17 | EVANS-HYDRO INC | | 69,317.27 | 20-DEC-17 | 69,317.27 | Reconciled |
| 382516 | | 07-DEC-17 | EXCEL PAVING CO. | | 1,572.17 | | | Negotiable |
| 382517 | | 07-DEC-17 | EXECUTIVE LIGHTING & ELECTRIC | | 9,311.96 | 11-DEC-17 | 9,311.96 | Reconciled |
| 382518 | | 07-DEC-17 | FEDEX | | 490.47 | 13-DEC-17 | 490.47 | Reconciled |
| 382519 | | 07-DEC-17 | FERGUSON ENTERPRISES, INC. | | 1,866.23 | 12-DEC-17 | 1,866.23 | Reconciled |
| 382520 | | 07-DEC-17 | FIDELITY SECURITY LIFE INSURANCE | | 6,801.25 | 12-DEC-17 | 6,801.25 | Reconciled |

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|-----------|------------------------------------|------|----------------|--------------|----------------|------------|
| 382521 | | 07-DEC-17 | COMPANY FIRST CHOICE SERVICES | | 504.03 | 13-DEC-17 | 504.03 | Reconciled |
| 382522 | | 07-DEC-17 | FISHER SCIENTIFIC COMPANY LLC | | 1,185.95 | 11-DEC-17 | 1,185.95 | Reconciled |
| 382523 | | 07-DEC-17 | FRONTIER CALIFORNIA INC. | | 270.94 | 14-DEC-17 | 270.94 | Reconciled |
| 382524 | | 07-DEC-17 | FUSCOE ENGINEERING, INC. | | 640.00 | 11-DEC-17 | 640.00 | Reconciled |
| 382525 | | 07-DEC-17 | GANAHL LUMBER CO. | | 453.49 | 14-DEC-17 | 453.49 | Reconciled |
| 382526 | | 07-DEC-17 | GCI CONSTRUCTION, INC. | | 1,933.75 | | | Negotiable |
| 382527 | | 07-DEC-17 | GEIGER BROS | | 92.90 | 13-DEC-17 | 92.90 | Reconciled |
| 382528 | | 07-DEC-17 | GHD INC. | | 4,798.75 | 12-DEC-17 | 4,798.75 | Reconciled |
| 382529 | | 07-DEC-17 | GRAINGER | | 2,420.67 | 12-DEC-17 | 2,420.67 | Reconciled |
| 382530 | | 07-DEC-17 | GREATER IRVINE CHAMBER OF COMMERCE | | 1,250.00 | | | Negotiable |
| 382531 | | 07-DEC-17 | GREGG DRILLING & TESTING, INC. | | 1,494.67 | 12-DEC-17 | 1,494.67 | Reconciled |
| 382532 | | 07-DEC-17 | HACH COMPANY | | 2,059.35 | 12-DEC-17 | 2,059.35 | Reconciled |
| 382533 | | 07-DEC-17 | HAMADANI, FRANK | | 79.23 | 12-DEC-17 | 79.23 | Reconciled |
| 382534 | | 07-DEC-17 | HARDY & HARPER, INC. | | 17,990.00 | 13-DEC-17 | 17,990.00 | Reconciled |
| 382535 | | 07-DEC-17 | HARKER, COLTON | | 213.14 | 11-DEC-17 | 213.14 | Reconciled |
| 382536 | | 07-DEC-17 | HELP/SYSTEMS, LLC | | 10,050.00 | 13-DEC-17 | 10,050.00 | Reconciled |
| 382537 | | 07-DEC-17 | HELPMATES STAFFING SERVICES | | 15,815.07 | 13-DEC-17 | 15,815.07 | Reconciled |
| 382538 | | 07-DEC-17 | HENRY PRATT COMPANY, LLC | | 40,600.21 | 14-DEC-17 | 40,600.21 | Reconciled |
| 382539 | | 07-DEC-17 | HILL BROTHERS CHEMICAL COMPANY | | 4,286.90 | 12-DEC-17 | 4,286.90 | Reconciled |
| 382540 | | 07-DEC-17 | HILLCREST CONTRACTING, INC. | | 2,959.29 | 18-DEC-17 | 2,959.29 | Reconciled |
| 382541 | | 07-DEC-17 | HOME DEPOT USA INC | | 707.25 | 13-DEC-17 | 707.25 | Reconciled |

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 28-DEC-2017 12:11
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar) Page: 5
 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 | | | | | | | | |
| 382542 | | 07-DEC-17 | HUYNH, KIMBERLY | | 96.14 | 11-DEC-17 | 96.14 | Reconciled |
| 382543 | | 07-DEC-17 | IRVINE PIPE & SUPPLY INC | | 6,979.62 | 11-DEC-17 | 6,979.62 | Reconciled |
| 382544 | | 07-DEC-17 | IRWD-PETTY CASH CUSTODIAN | | 965.28 | 11-DEC-17 | 965.28 | Reconciled |
| 382545 | | 07-DEC-17 | JOHN MICHAEL COVAS | | 191.70 | 14-DEC-17 | 191.70 | Reconciled |
| 382546 | | 07-DEC-17 | JOHNSTONE SUPPLY | | 226.62 | 12-DEC-17 | 226.62 | Reconciled |
| 382547 | | 07-DEC-17 | KAYUGA SOLUTION INC | | 12,540.00 | 19-DEC-17 | 12,540.00 | Reconciled |
| 382548 | | 07-DEC-17 | KIM, JAEHEE | | 72.20 | 18-DEC-17 | 72.20 | Reconciled |
| 382549 | | 07-DEC-17 | KIMBALL MIDWEST | | 2,004.54 | 13-DEC-17 | 2,004.54 | Reconciled |
| 382550 | | 07-DEC-17 | KOH, JOUNGEUN | | 35.71 | | | Negotiable |
| 382551 | | 07-DEC-17 | LA HABRA FENCE COMPANY INC | | 2,252.00 | 19-DEC-17 | 2,252.00 | Reconciled |
| 382552 | | 07-DEC-17 | LANG, ROGER | | 592.86 | 18-DEC-17 | 592.86 | Reconciled |
| 382553 | | 07-DEC-17 | LEADERSHIP TOMORROW | | 1,400.00 | | | Negotiable |
| 382554 | | 07-DEC-17 | LIM, GEORGE | | 39.53 | 20-DEC-17 | 39.53 | Reconciled |
| 382555 | | 07-DEC-17 | LSA ASSOCIATES INC | | 4,886.04 | 11-DEC-17 | 4,886.04 | Reconciled |
| 382556 | | 07-DEC-17 | LUBRICATION ENGINEERS, INC. | | 428.42 | 11-DEC-17 | 428.42 | Reconciled |
| 382557 | | 07-DEC-17 | MAIN ELECTRIC SUPPLY COMPANY LLC | | 78.66 | 13-DEC-17 | 78.66 | Reconciled |
| 382558 | | 07-DEC-17 | MARVEL, SCOTT | | 9.76 | 11-DEC-17 | 9.76 | Reconciled |
| 382559 | | 07-DEC-17 | MC MASTER CARR SUPPLY CO | | 1,622.11 | 11-DEC-17 | 1,622.11 | Reconciled |
| 382560 | | 07-DEC-17 | MCR TECHNOLOGIES INC | | 8,426.28 | 11-DEC-17 | 8,426.28 | Reconciled |
| 382561 | | 07-DEC-17 | MISCOWATER | | 10,758.84 | 15-DEC-17 | 10,758.84 | Reconciled |
| 382562 | | 07-DEC-17 | MOBILE MODULAR MANAGEMENT CORPORATION | | 1,018.24 | 11-DEC-17 | 1,018.24 | Reconciled |
| 382563 | | 07-DEC-17 | MR CRANE INC | | 2,948.40 | 13-DEC-17 | 2,948.40 | Reconciled |
| 382564 | | 07-DEC-17 | MUNICIPAL MAINTENANCE EQUIPMENT INC | | 3,777.18 | 11-DEC-17 | 3,777.18 | Reconciled |
| 382565 | | 07-DEC-17 | NATIONAL READY MIXED CONCRETE CO. | | 3,232.52 | 11-DEC-17 | 3,232.52 | Reconciled |
| 382566 | | 07-DEC-17 | NATURES IMAGE INC | | 385.00 | 11-DEC-17 | 385.00 | Reconciled |
| 382567 | | 07-DEC-17 | NEWPORT WINDOW MAINTENANCE INC | | 2,314.00 | | | Negotiable |
| 382568 | | 07-DEC-17 | NORTHWOOD PLACE APTS | | 1.70 | | | Negotiable |
| 382569 | | 07-DEC-17 | O'HAREN GOVERNMENT RELATIONS | | 6,500.00 | 13-DEC-17 | 6,500.00 | Reconciled |

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 28-DEC-2017 12:11
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar) Page: 6
 Payment Type: All Display Supplier Address: No

| | | | | | | | | |
|--------|-----------|--|-------------------------------------|--|------------|-----------|------------|------------|
| | | | CALIFORNIA SECURITY CENTERS, INC. | | 552.30 | | | Negotiable |
| 382612 | 07-DEC-17 | | STANDARD PACIFIC HOMES | | | | | |
| 382613 | 07-DEC-17 | | STATE BOARD OF EQUALIZATION | | 2,046.00 | 12-DEC-17 | 2,046.00 | Reconciled |
| 382614 | 07-DEC-17 | | STATE WATER RESOURCES CONTROL BOARD | | 762.82 | 13-DEC-17 | 762.82 | Reconciled |
| 382615 | 07-DEC-17 | | STREAKWAVE WIRELESS, INC. | | 1,551.48 | 13-DEC-17 | 1,551.48 | Reconciled |
| 382616 | 07-DEC-17 | | SULLY-MILLER CONTRACTING CO. | | 194,970.87 | 13-DEC-17 | 194,970.87 | Reconciled |

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 28-DEC-2017 12:11
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar) Page: 8
 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 | | | | | | | | |
| 382617 | | 07-DEC-17 | SUN-STAR ELECTRIC, INC. | | 27,589.50 | 15-DEC-17 | 27,589.50 | Reconciled |
| 382618 | | 07-DEC-17 | SYED, FAROOQ | | 190.01 | | | Negotiable |
| 382619 | | 07-DEC-17 | TACHDJIAN, MATTHEW C | | 17,100.00 | 19-DEC-17 | 17,100.00 | Reconciled |
| 382620 | | 07-DEC-17 | TEMEL, GARY | | 749.55 | 12-DEC-17 | 749.55 | Reconciled |
| 382621 | | 07-DEC-17 | TESTAMERICA LABORATORIES, INC | | 209.75 | 12-DEC-17 | 209.75 | Reconciled |
| 382622 | | 07-DEC-17 | THE PARK AT IRVINE SPECTRUM | | 960.91 | | | Negotiable |
| 382623 | | 07-DEC-17 | THOMPSON, SETH | | 32.20 | 11-DEC-17 | 32.20 | Reconciled |
| 382624 | | 07-DEC-17 | THYSSENKRUPP ELEVATOR CORPORATION | | 185.84 | 12-DEC-17 | 185.84 | Reconciled |
| 382625 | | 07-DEC-17 | TIC-IPG-COMMON | | 23.28 | 14-DEC-17 | 23.28 | Reconciled |
| 382626 | | 07-DEC-17 | TIC-RETAIL PROPERTIES | | 412.16 | 14-DEC-17 | 412.16 | Reconciled |
| 382627 | | 07-DEC-17 | TIC-SPECTRUM OFFICE | | 30.07 | 14-DEC-17 | 30.07 | Reconciled |
| 382628 | | 07-DEC-17 | TOTAL RESOURCE MANAGEMENT, INC. | | 12,694.00 | 19-DEC-17 | 12,694.00 | Reconciled |
| 382629 | | 07-DEC-17 | TOTALFUNDS | | 5,123.18 | 15-DEC-17 | 5,123.18 | Reconciled |
| 382630 | | 07-DEC-17 | TRI COUNTY PUMP COMPANY | | 9,720.00 | 12-DEC-17 | 9,720.00 | Reconciled |
| 382631 | | 07-DEC-17 | TRUCPARCO | | 1,831.35 | 19-DEC-17 | 1,831.35 | Reconciled |
| 382632 | | 07-DEC-17 | ULTRA SCIENTIFIC | | 183.40 | 15-DEC-17 | 183.40 | Reconciled |
| 382633 | | 07-DEC-17 | UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA | | 89.43 | 12-DEC-17 | 89.43 | Reconciled |
| 382634 | | 07-DEC-17 | UNITED PARCEL SERVICE INC | | | | | Negotiable |
| 382635 | | 07-DEC-17 | UNITED PARTITION SYSTEMS INC | | 16,317.98 | | | Negotiable |
| 382636 | | 07-DEC-17 | UNITED SITE SERVICES OF CALIFORNIA INC | | 630.35 | 13-DEC-17 | 630.35 | Reconciled |
| 382637 | | 07-DEC-17 | US BANK NAT'L ASSOC N.DAKOTA | | 1,375.00 | 12-DEC-17 | 1,375.00 | Reconciled |
| 382638 | | 07-DEC-17 | USA BLUEBOOK | | 290.53 | 15-DEC-17 | 290.53 | Reconciled |
| 382639 | | 07-DEC-17 | VERIZON WIRELESS SERVICES LLC | | 2,428.26 | 12-DEC-17 | 2,428.26 | Reconciled |
| 382640 | | 07-DEC-17 | VOLBERT, RACHEL | | 24.68 | 12-DEC-17 | 24.68 | Reconciled |
| 382641 | | 07-DEC-17 | VRIDE INC | | 135.08 | 13-DEC-17 | 135.08 | Reconciled |
| 382642 | | 07-DEC-17 | WACO FILTERS CORPORATION | | 3,276.81 | 14-DEC-17 | 3,276.81 | Reconciled |

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 28-DEC-2017 12:11
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar) Page: 9
 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 | | | | | | | | |
| 382643 | | 07-DEC-17 | WALTERS WHOLESALE ELECTRIC | | 954.48 | 12-DEC-17 | 954.48 | Reconciled |
| 382644 | | 07-DEC-17 | WASTE MANAGEMENT OF ORANGE COUNTY | | 5,473.13 | 11-DEC-17 | 5,473.13 | Reconciled |
| 382645 | | 07-DEC-17 | WATEREUSE ASSOCIATION | | 8,025.00 | 12-DEC-17 | 8,025.00 | Reconciled |
| 382646 | | 07-DEC-17 | WATEREUSE ASSOCIATION | | 5,500.00 | 12-DEC-17 | 5,500.00 | Reconciled |
| 382647 | | 07-DEC-17 | WAXIE'S ENTERPRISES, INC | | 1,036.37 | 12-DEC-17 | 1,036.37 | Reconciled |
| 382648 | | 07-DEC-17 | WECK LABORATORIES INC | | 947.00 | 14-DEC-17 | 947.00 | Reconciled |
| 382649 | | 07-DEC-17 | WESTERN | | 5,954.00 | 12-DEC-17 | 5,954.00 | Reconciled |

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|-----------|--|---------------|----------------|--------------|----------------|------------|
| 382650 | | 07-DEC-17 | EXTERMINATOR COMPANY WESTVIEW APARTMENTS | | 594.50 | | | Negotiable |
| 382651 | | 07-DEC-17 | WQTS | | 4,185.00 | | | Negotiable |
| 382652 | | 07-DEC-17 | XU, KUN | | 23.92 | | | Negotiable |
| 382653 | | 07-DEC-17 | YE, PHILIP | | 40.56 | 12-DEC-17 | 40.56 | Reconciled |
| 382654 | | 07-DEC-17 | YU, XINHUA | | 12.52 | | | Negotiable |
| 382655 | | 07-DEC-17 | ZEE MEDICAL SERVICE CO | | 563.87 | 11-DEC-17 | 563.87 | Reconciled |
| 382656 | | 08-DEC-17 | JCI JONES | TAMPA | 5,464.08 | 13-DEC-17 | 5,464.08 | Reconciled |
| 382657 | | 11-DEC-17 | CHEMICALS INC STATE WATER RESOURCES CONTROL BOARD | PO BOX 942879 | 170.39 | 19-DEC-17 | 170.39 | Reconciled |
| 382658 | | 12-DEC-17 | EAST ORANGE COUNTY WATER DISTRICT | ORANGE | 59,262.90 | 14-DEC-17 | 59,262.90 | Reconciled |
| 382659 | | 14-DEC-17 | BRENNTAG PACIFIC INC | LOS ANGELES | 18,687.74 | 20-DEC-17 | 18,687.74 | Reconciled |
| 382660 | | 14-DEC-17 | OLIN CORPORATION | ATLANTA | 3,197.52 | 20-DEC-17 | 3,197.52 | Reconciled |
| 382661 | | 14-DEC-17 | THE FURMAN GROUP, INC. | WASHINGTON | 12,540.00 | | | Negotiable |
| 382662 | | 14-DEC-17 | UNIVAR USA INC | LOS ANGELES | 11,575.80 | 20-DEC-17 | 11,575.80 | Reconciled |
| 382663 | | 14-DEC-17 | Arce, Jesus (Jesse) | | 170.00 | 19-DEC-17 | 170.00 | Reconciled |
| 382664 | | 14-DEC-17 | Bennett, Ray R (Ray) | | 40.00 | 19-DEC-17 | 40.00 | Reconciled |
| 382665 | | 14-DEC-17 | Borowski, Michael (Mike) | | 180.00 | | | Negotiable |
| 382666 | | 14-DEC-17 | Brown, Andrew R (Robert) | | 126.35 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 10
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 382667 | | 14-DEC-17 | Bystrom, Brian V (Brian) | | 1,521.14 | | | Negotiable |
| 382668 | | 14-DEC-17 | Gallegos, Adriel | | 200.00 | 19-DEC-17 | 200.00 | Reconciled |
| 382669 | | 14-DEC-17 | Hartoog, Jeremy | | 180.00 | 18-DEC-17 | 180.00 | Reconciled |
| 382670 | | 14-DEC-17 | Hoffman, Michael S (Mike) | | 521.23 | | | Negotiable |
| 382671 | | 14-DEC-17 | Irey, Craig M (Craig) | | 52.99 | | | Negotiable |
| 382672 | | 14-DEC-17 | Kalinsky, Arseny (Arseny) | | 175.00 | 19-DEC-17 | 175.00 | Reconciled |
| 382673 | | 14-DEC-17 | Kulick, Michael | | 32.31 | 19-DEC-17 | 32.31 | Reconciled |
| 382674 | | 14-DEC-17 | McKinstry, Brian H (Brian) | | 518.31 | 18-DEC-17 | 518.31 | Reconciled |
| 382675 | | 14-DEC-17 | Moeder, Jacob J (Jacob) | | 35.00 | | | Negotiable |
| 382676 | | 14-DEC-17 | Oldewage, Lars D (Lars) | | 124.54 | 18-DEC-17 | 124.54 | Reconciled |
| 382677 | | 14-DEC-17 | Ramos, Martha A (Marta) | | 104.22 | 20-DEC-17 | 104.22 | Reconciled |
| 382678 | | 14-DEC-17 | Reyes, Jennifer Russell | | 299.99 | 19-DEC-17 | 299.99 | Reconciled |
| 382679 | | 14-DEC-17 | Soto, Franklin E (Frank) | | 90.00 | | | Negotiable |
| 382680 | | 14-DEC-17 | Spangenberg, Carl W (Carl) | | 120.00 | | | Negotiable |
| 382681 | | 14-DEC-17 | Valencia, Reynaldo (Rey) | | 1,873.55 | 18-DEC-17 | 1,873.55 | Reconciled |
| 382682 | | 14-DEC-17 | Welch, Kelly A (Kellie) | | 24.13 | 14-DEC-17 | 24.13 | Reconciled |
| 382683 | | 14-DEC-17 | ABC ICEHOUSE, INC. | | 151.59 | 18-DEC-17 | 151.59 | Reconciled |
| 382684 | | 14-DEC-17 | ACCESS TECHNOLOGIES, INC. | | 56.33 | 19-DEC-17 | 56.33 | Reconciled |
| 382685 | | 14-DEC-17 | ADAM'S FALCONRY SERVICE, LLC | | 1,320.00 | 19-DEC-17 | 1,320.00 | Reconciled |
| 382686 | | 14-DEC-17 | AECOM TECHNICAL SERVICES, INC. | | 3,033.16 | 20-DEC-17 | 3,033.16 | Reconciled |
| 382687 | | 14-DEC-17 | AFLAC | | 203.12 | 20-DEC-17 | 203.12 | Reconciled |
| 382688 | | 14-DEC-17 | AFLAC | | 6,975.23 | 20-DEC-17 | 6,975.23 | Reconciled |
| 382689 | | 14-DEC-17 | AIRKINETICS, INC | | 7,440.00 | 18-DEC-17 | 7,440.00 | Reconciled |
| 382690 | | 14-DEC-17 | ALPHA TRAFFIC SERVICES, INC. | | 860.00 | 18-DEC-17 | 860.00 | Reconciled |
| 382691 | | 14-DEC-17 | ANTONIA R. MONZON | | 2,925.00 | 19-DEC-17 | 2,925.00 | Reconciled |
| 382692 | | 14-DEC-17 | APEX ENERGETICS | | 750.00 | 18-DEC-17 | 750.00 | Reconciled |
| 382693 | | 14-DEC-17 | ARC | | 675.71 | 19-DEC-17 | 675.71 | Reconciled |
| 382694 | | 14-DEC-17 | AT&T | | 1,661.41 | 19-DEC-17 | 1,661.41 | Reconciled |
| 382695 | | 14-DEC-17 | AT&T | | 4,617.14 | 19-DEC-17 | 4,617.14 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 11
 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 | | | | | | | | |
| 382696 | | 14-DEC-17 | ATHENS SERVICES | | 10,412.89 | | | Negotiable |
| 382697 | | 14-DEC-17 | BAVCO BACKFLOW APPARATUS & VALVE COMPANY | | 190.00 | 18-DEC-17 | 190.00 | Reconciled |
| 382698 | | 14-DEC-17 | BDC SPECIAL WASTE | | 567.20 | 19-DEC-17 | 567.20 | Reconciled |
| 382699 | | 14-DEC-17 | BIGWIG MONSTER, LLC | | 2,400.00 | 20-DEC-17 | 2,400.00 | Reconciled |
| 382700 | | 14-DEC-17 | BIRENDRA 26111 TRUST | | 79.98 | | | Negotiable |
| 382701 | | 14-DEC-17 | BLAIRS TOWING INC | | 155.00 | | | Negotiable |
| 382702 | | 14-DEC-17 | BORCHARD SURVEYING & MAPPING, INC. | | 4,250.00 | | | Negotiable |
| 382703 | | 14-DEC-17 | BOYD & ASSOCIATES | | 492.00 | 18-DEC-17 | 492.00 | Reconciled |
| 382704 | | 14-DEC-17 | BRITHINEE ELECTRIC | | 4,535.85 | 18-DEC-17 | 4,535.85 | Reconciled |
| 382705 | | 14-DEC-17 | BROOKFIELD HOMES SO, CALIF LLC | | 129.76 | | | Negotiable |
| 382706 | | 14-DEC-17 | C WELLS PIPELINE MATERIALS INC | | 51,870.11 | | | Negotiable |
| 382707 | | 14-DEC-17 | CALIFORNIA BARRICADE RENTAL, INC. | | 5,105.12 | | | Negotiable |
| 382708 | | 14-DEC-17 | CALIFORNIA STATE UNIVERSITY, FULLERTON | | 4,200.00 | | | Negotiable |
| 382709 | | 14-DEC-17 | CANON FINANCIAL SERVICES, INC | | 401.91 | 20-DEC-17 | 401.91 | Reconciled |
| 382710 | | 14-DEC-17 | CANON SOLUTIONS AMERICA, INC. | | 190.59 | 20-DEC-17 | 190.59 | Reconciled |
| 382711 | | 14-DEC-17 | CAPTIVE AUDIENCE MARKETING INC. | | 79.00 | 19-DEC-17 | 79.00 | Reconciled |
| 382712 | | 14-DEC-17 | CAROLLO ENGINEERS, INC | | 45,794.30 | | | Negotiable |
| 382713 | | 14-DEC-17 | CDW GOVERNMENT LLC | | 1,374.73 | | | Negotiable |
| 382714 | | 14-DEC-17 | CENTRAL COAST POWER SERVICES, LLC | | 1,635.00 | | | Negotiable |
| 382715 | | 14-DEC-17 | CHEM TECH INTERNATIONAL INC | | 12,495.92 | | | Negotiable |
| 382716 | | 14-DEC-17 | CHO DESIGN ASSOCIATES, INC | | 13,200.00 | 20-DEC-17 | 13,200.00 | Reconciled |
| 382717 | | 14-DEC-17 | CIVILSOURCE, INC. | | 11,610.00 | | | Negotiable |
| 382718 | | 14-DEC-17 | CLA-VAL COMPANY | | 7,439.46 | 19-DEC-17 | 7,439.46 | Reconciled |
| 382719 | | 14-DEC-17 | CLARIS STRATEGY INC. | | 2,642.50 | 20-DEC-17 | 2,642.50 | Reconciled |
| 382720 | | 14-DEC-17 | CLEAN ENERGY | | 3,929.66 | | | Negotiable |
| 382721 | | 14-DEC-17 | CLEARINGHOUSE | | 477.67 | 20-DEC-17 | 477.67 | Reconciled |
| IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11 | | | | | | | | |
| BANK: Bank of America N.A. | | | Branch : Los Angeles | | Account: Checking AP and PR | | Page: 12 | |
| Bank Account Currency: USD (US Dollar) | | | | | Payment Currency: USD (US Dollar) | | | |
| Payment Type: All | | | | | Display Supplier Address: No | | | |

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 382722 | | 14-DEC-17 | COLONIAL LIFE & ACCIDENT INSURANCE CO. | | 1,089.68 | 20-DEC-17 | 1,089.68 | Reconciled |
| 382723 | | 14-DEC-17 | COMMERCIAL DOOR OF ORANGE COUNTY, INC. | | 785.78 | 19-DEC-17 | 785.78 | Reconciled |
| 382724 | | 14-DEC-17 | CR & R INCORPORATED | | 384.48 | 20-DEC-17 | 384.48 | Reconciled |
| 382725 | | 14-DEC-17 | CUESTA CONSTRUCTION COMPANY | | 1,916.90 | | | Negotiable |
| 382726 | | 14-DEC-17 | CULLIGAN OF SANTA ANA | | 3,008.55 | 20-DEC-17 | 3,008.55 | Reconciled |
| 382727 | | 14-DEC-17 | D & H WATER SYSTEMS INC. | | 4,248.53 | | | Negotiable |
| 382728 | | 14-DEC-17 | D.R. HORTON | | 92.56 | | | Negotiable |
| 382729 | | 14-DEC-17 | DAVIS, VICTORIA | | 85.27 | 20-DEC-17 | 85.27 | Reconciled |
| 382730 | | 14-DEC-17 | DEE JASPAR & ASSOCIATES, INC. | | 2,017.20 | | | Negotiable |
| 382731 | | 14-DEC-17 | DENALI WATER SOLUTIONS LLC | | 4,033.25 | | | Negotiable |
| 382732 | | 14-DEC-17 | DUDEK | | 14,115.00 | | | Negotiable |
| 382733 | | 14-DEC-17 | DUNN, JUSTIN | | 106.57 | | | Negotiable |
| 382734 | | 14-DEC-17 | EBERHARD EQUIPMENT | | 56.59 | 18-DEC-17 | 56.59 | Reconciled |
| 382735 | | 14-DEC-17 | ECO SERVICES LLC | | 5,146.97 | 19-DEC-17 | 5,146.97 | Reconciled |
| 382736 | | 14-DEC-17 | ELECTRONIC RESTORATION SERVICES, INC. | | 41,586.25 | | | Negotiable |
| 382737 | | 14-DEC-17 | ENTERPRISE RIDESHARE | | 12,230.00 | | | Negotiable |
| 382738 | | 14-DEC-17 | EQUIPMENT DIRECT INC | | 336.86 | 19-DEC-17 | 336.86 | Reconciled |
| 382739 | | 14-DEC-17 | ESQUIRE DEPOSITION | | 463.10 | 19-DEC-17 | 463.10 | Reconciled |

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|--------|-----------|---|-----------|-----------|-----------|------------|
| 382740 | 14-DEC-17 | SOLUTIONS, LLC. EXECUTIVE LIGHTING & ELECTRIC | 314.99 | 18-DEC-17 | 314.99 | Reconciled |
| 382741 | 14-DEC-17 | FARWEST CORROSION CONTROL COMPANY | 327.09 | 18-DEC-17 | 327.09 | Reconciled |
| 382742 | 14-DEC-17 | FEDEX | 155.92 | 19-DEC-17 | 155.92 | Reconciled |
| 382743 | 14-DEC-17 | FERGUSON | 10.78 | 18-DEC-17 | 10.78 | Reconciled |
| 382744 | 14-DEC-17 | ENTERPRISES, INC. FISHER SCIENTIFIC COMPANY LLC | 11,681.77 | 20-DEC-17 | 11,681.77 | Reconciled |
| 382745 | 14-DEC-17 | FLEET SOLUTIONS LLC | 4,871.00 | 18-DEC-17 | 4,871.00 | Reconciled |
| 382746 | 14-DEC-17 | FORSYTHE, WENDY | 35.14 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 13
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 382747 | | 14-DEC-17 | FREEWAY MACHINE & WELDING SHOP | | 6,458.54 | 20-DEC-17 | 6,458.54 | Reconciled |
| 382748 | | 14-DEC-17 | FRONTIER CALIFORNIA INC. | | 51.61 | | | Negotiable |
| 382749 | | 14-DEC-17 | GANAHL LUMBER CO. | | 306.19 | 20-DEC-17 | 306.19 | Reconciled |
| 382750 | | 14-DEC-17 | GHD INC. | | 14,039.02 | 20-DEC-17 | 14,039.02 | Reconciled |
| 382751 | | 14-DEC-17 | GIESE, ERIC | | 26.20 | 19-DEC-17 | 26.20 | Reconciled |
| 382752 | | 14-DEC-17 | GLANVILLE, NICOLE | | 44.89 | | | Negotiable |
| 382753 | | 14-DEC-17 | GM SAGER CONSTRUCTION CO, INC. | | 42,312.00 | | | Negotiable |
| 382754 | | 14-DEC-17 | GODA, DEBRA | | 48.94 | | | Negotiable |
| 382755 | | 14-DEC-17 | GRAINGER | | 3,248.15 | 19-DEC-17 | 3,248.15 | Reconciled |
| 382756 | | 14-DEC-17 | GRAYBAR ELECTRIC COMPANY | | 1,685.57 | 18-DEC-17 | 1,685.57 | Reconciled |
| 382757 | | 14-DEC-17 | GRIEGO, RICHARD | | 676.13 | | | Negotiable |
| 382758 | | 14-DEC-17 | HACH COMPANY | | 3,150.82 | 20-DEC-17 | 3,150.82 | Reconciled |
| 382759 | | 14-DEC-17 | HARMSWORTH ASSOCIATES | | 10,512.00 | | | Negotiable |
| 382760 | | 14-DEC-17 | HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY | | 85.70 | 18-DEC-17 | 85.70 | Reconciled |
| 382761 | | 14-DEC-17 | HASHEMIAN, MAHYAR | | 68.53 | | | Negotiable |
| 382762 | | 14-DEC-17 | HDR ENGINEERING INC | | 20,940.26 | | | Negotiable |
| 382763 | | 14-DEC-17 | HELPMATES STAFFING SERVICES | | 20,707.29 | 20-DEC-17 | 20,707.29 | Reconciled |
| 382764 | | 14-DEC-17 | HEMSTREET, SHANNON | | 268.51 | | | Negotiable |
| 382765 | | 14-DEC-17 | HILL BROTHERS CHEMICAL COMPANY | | 3,162.81 | 19-DEC-17 | 3,162.81 | Reconciled |
| 382766 | | 14-DEC-17 | HOME DEPOT USA INC | | 1,384.05 | | | Negotiable |
| 382767 | | 14-DEC-17 | HOSSEINI, BEHNAM | | 29.25 | | | Negotiable |
| 382768 | | 14-DEC-17 | HSTEH, YUKANG | | 43.10 | | | Negotiable |
| 382769 | | 14-DEC-17 | HUBER, KENN | | 181.34 | 20-DEC-17 | 181.34 | Reconciled |
| 382770 | | 14-DEC-17 | IBM CORPORATION | | 4,063.00 | 19-DEC-17 | 4,063.00 | Reconciled |
| 382771 | | 14-DEC-17 | INDUSTRIAL ELECTRIC MACHINERY LLC | | 384.57 | 18-DEC-17 | 384.57 | Reconciled |
| 382772 | | 14-DEC-17 | INDUSTRIAL METAL SUPPLY CO | | 312.49 | 19-DEC-17 | 312.49 | Reconciled |
| 382773 | | 14-DEC-17 | INFINITY RESIDENTIAL | | 30.67 | | | Negotiable |
| 382774 | | 14-DEC-17 | IRVINE PACIFIC | | 49.78 | | | Negotiable |
| 382775 | | 14-DEC-17 | IRVINE PIPE & SUPPLY INC | | 777.32 | 18-DEC-17 | 777.32 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 14
 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 | | | | | | | | |
| 382776 | | 14-DEC-17 | IRWD EMPLOYEE ASSOCIATION | | 1,310.00 | | | Negotiable |
| 382777 | | 14-DEC-17 | JATWANI, ELSA | | 29.99 | | | Negotiable |
| 382778 | | 14-DEC-17 | JOHNSTONE SUPPLY | | 3.39 | 18-DEC-17 | 3.39 | Reconciled |
| 382779 | | 14-DEC-17 | JUNG, JOON | | 40.58 | | | Negotiable |
| 382780 | | 14-DEC-17 | KENNEDY, ANDREW | | 12.04 | | | Negotiable |
| 382781 | | 14-DEC-17 | KENT & AMY DAHLBERG | | 49,795.00 | | | Negotiable |
| 382782 | | 14-DEC-17 | KERTZMAN, MARTA | | 86.13 | | | Negotiable |
| 382783 | | 14-DEC-17 | KLOMBIES, SAMANTHA | | 67.94 | | | Negotiable |
| 382784 | | 14-DEC-17 | KONG, CHEN | | 61.32 | | | Negotiable |
| 382785 | | 14-DEC-17 | KUO, SUSAN | | 98.72 | | | Negotiable |
| 382786 | | 14-DEC-17 | LAGUNA BEACH COUNTY WATER DISTRICT | | 4,412.11 | | | Negotiable |

| | | | | | | | |
|--------|-----------|-----------------------------------|--|-----------|-----------|----------|------------|
| 382787 | 14-DEC-17 | LAU, NICHOLAS | | 77.46 | | | Negotiable |
| 382788 | 14-DEC-17 | LCS TECHNOLOGIES, INC. | | 11,205.00 | | | Negotiable |
| 382789 | 14-DEC-17 | LIGHT COMMUNICATIONS, INC. | | 9,350.20 | 18-DEC-17 | 9,350.20 | Reconciled |
| 382790 | 14-DEC-17 | LITTMAN, MATTHEW | | 37.57 | | | Negotiable |
| 382791 | 14-DEC-17 | LUBRICATION ENGINEERS, INC. | | 1,113.53 | 18-DEC-17 | 1,113.53 | Reconciled |
| 382792 | 14-DEC-17 | MAG'S DONUT AND BAKERY | | 42.80 | | | Negotiable |
| 382793 | 14-DEC-17 | MARTENS, SABINE | | 210.98 | | | Negotiable |
| 382794 | 14-DEC-17 | MARVIN GARDENS LLC | | 270.14 | 18-DEC-17 | 270.14 | Reconciled |
| 382795 | 14-DEC-17 | MATHIS, MICHAEL | | 333.58 | | | Negotiable |
| 382796 | 14-DEC-17 | MC FADDEN-DALE INDUSTRIAL | | 173.13 | 19-DEC-17 | 173.13 | Reconciled |
| 382797 | 14-DEC-17 | MCCARRELL, KATHY | | 102.69 | | | Negotiable |
| 382798 | 14-DEC-17 | MCR TECHNOLOGIES INC | | 862.11 | 20-DEC-17 | 862.11 | Reconciled |
| 382799 | 14-DEC-17 | MICHAEL BAKER INTERNATIONAL, INC. | | 44,675.00 | | | Negotiable |
| 382800 | 14-DEC-17 | MILLER ENVIRONMENTAL | | 1,489.72 | 19-DEC-17 | 1,489.72 | Reconciled |
| 382801 | 14-DEC-17 | MORRISROE, EDWARD | | 212.37 | | | Negotiable |
| 382802 | 14-DEC-17 | MURPHY, KEVIN | | 51.12 | | | Negotiable |
| 382803 | 14-DEC-17 | MUTUAL PROPANE | | 147.61 | 18-DEC-17 | 147.61 | Reconciled |
| 382804 | 14-DEC-17 | NAKASU, KEENAN | | 20.62 | | | Negotiable |
| 382805 | 14-DEC-17 | NATIONAL READY MIXED CONCRETE CO. | | 2,618.96 | 18-DEC-17 | 2,618.96 | Reconciled |
| 382806 | 14-DEC-17 | NEUSTAEDTER, JOEL | | 37.92 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 15
 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 | | | | | | | | |
| 382807 | | 14-DEC-17 | NG, DEREK | | 82.45 | | | Negotiable |
| 382808 | | 14-DEC-17 | NGHIEU, TAMARA | | 27.06 | | | Negotiable |
| 382809 | | 14-DEC-17 | NMG GEOTECHNICAL INC | | 9,536.00 | | | Negotiable |
| 382810 | | 14-DEC-17 | OH, KYOUNG | | 648.69 | | | Negotiable |
| 382811 | | 14-DEC-17 | OLSON, HAGEL & FISHBURN, LLP | | 520.00 | 19-DEC-17 | 520.00 | Reconciled |
| 382812 | | 14-DEC-17 | OMAR DANDASHI | | 3,354.08 | | | Negotiable |
| 382813 | | 14-DEC-17 | ONESOURCE DISTRIBUTORS LLC | | 1,603.45 | 18-DEC-17 | 1,603.45 | Reconciled |
| 382814 | | 14-DEC-17 | ORACLE AMERICA, INC. | | 28,173.06 | | | Negotiable |
| 382815 | | 14-DEC-17 | ORANGE COUNTY SANITATION DISTRICT | | 54,725.38 | 20-DEC-17 | 54,725.38 | Reconciled |
| 382816 | | 14-DEC-17 | ORANGE COUNTY SHERIFF'S OFFICE | | 465.97 | | | Negotiable |
| 382817 | | 14-DEC-17 | ORANGE COUNTY SHERIFF'S OFFICE | | 62.50 | | | Negotiable |
| 382818 | | 14-DEC-17 | OUTSOURCE TECHNICAL LLC | | 9,605.00 | 18-DEC-17 | 9,605.00 | Reconciled |
| 382819 | | 14-DEC-17 | PACIFIC COAST BOLT CORP | | 626.03 | 20-DEC-17 | 626.03 | Reconciled |
| 382820 | | 14-DEC-17 | PACIFIC PARTS & CONTROLS INC | | 3,902.04 | 18-DEC-17 | 3,902.04 | Reconciled |
| 382821 | | 14-DEC-17 | PAN, MENGAN | | 43.43 | 18-DEC-17 | 43.43 | Reconciled |
| 382822 | | 14-DEC-17 | PARKHOUSE TIRE INC | | 1,743.69 | 19-DEC-17 | 1,743.69 | Reconciled |
| 382823 | | 14-DEC-17 | PASCAL & LUDWIG CONSTRUCTORS | | 1,314.50 | 19-DEC-17 | 1,314.50 | Reconciled |
| 382824 | | 14-DEC-17 | PASCAL & LUDWIG CONSTRUCTORS | | 24,975.50 | 20-DEC-17 | 24,975.50 | Reconciled |
| 382825 | | 14-DEC-17 | PAYNE & FEARS LLP | | 4,012.50 | 18-DEC-17 | 4,012.50 | Reconciled |
| 382826 | | 14-DEC-17 | PERS LONG TERM CARE | | 675.35 | 20-DEC-17 | 675.35 | Reconciled |
| 382827 | | 14-DEC-17 | PIVOT INTERIORS INC | | 3,328.35 | 19-DEC-17 | 3,328.35 | Reconciled |
| 382828 | | 14-DEC-17 | PLOTKIN, HOWARD | | 12.77 | 20-DEC-17 | 12.77 | Reconciled |
| 382829 | | 14-DEC-17 | POLLARDWATER.COM | | 79.19 | 19-DEC-17 | 79.19 | Reconciled |
| 382830 | | 14-DEC-17 | FRAXAIR DISTRIBUTION INC | | 853.68 | 20-DEC-17 | 853.68 | Reconciled |
| 382831 | | 14-DEC-17 | PRE-PAID LEGAL SERVICES INC | | 1,344.39 | | | Negotiable |
| 382832 | | 14-DEC-17 | PRIME CONTROLS COMPANY INC | | 937.89 | 19-DEC-17 | 937.89 | Reconciled |
| 382833 | | 14-DEC-17 | PRUDENTIAL OVERALL SUPPLY | | 6,295.55 | 18-DEC-17 | 6,295.55 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 16
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Cleared

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|-----------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 382834 | | 14-DEC-17 | PSOMAS | | 8,299.25 | 18-DEC-17 | 8,299.25 | Reconciled |
| 382835 | | 14-DEC-17 | PURE EFFECT INC | | 5,635.00 | 19-DEC-17 | 5,635.00 | Reconciled |
| 382836 | | 14-DEC-17 | QIU, HONGBAO | | 12.97 | | | Negotiable |
| 382837 | | 14-DEC-17 | QU, CHENXI | | 34.06 | | | Negotiable |
| 382838 | | 14-DEC-17 | R&B AUTOMATION, INC. | | 10,440.59 | | | Negotiable |
| 382839 | | 14-DEC-17 | RAINBOW DISPOSAL CO INC | | 357.36 | | | Negotiable |
| 382840 | | 14-DEC-17 | RAM AIR ENGINEERING INC | | 21,376.47 | 19-DEC-17 | 21,376.47 | Reconciled |
| 382841 | | 14-DEC-17 | RAMAKRISHNAN, DINESH | | 38.08 | | | Negotiable |
| 382842 | | 14-DEC-17 | RED HAWK FIRE & SECURITY (CA) LLC | | 250.00 | 19-DEC-17 | 250.00 | Reconciled |
| 382843 | | 14-DEC-17 | RELIANCE SAFETY CONSULTANTS, INC. | | 8,946.11 | | | Negotiable |
| 382844 | | 14-DEC-17 | RUSSELL, DIANNE | | 18.37 | | | Negotiable |
| 382845 | | 14-DEC-17 | SADAS SADAT RIAZI AND SAMIN SADAT RIAZI | | 14.83 | | | Negotiable |
| 382846 | | 14-DEC-17 | SAEIDI, SAED | | 65.79 | | | Negotiable |
| 382847 | | 14-DEC-17 | SALIM, SURYAN | | 40.38 | 19-DEC-17 | 40.38 | Reconciled |
| 382848 | | 14-DEC-17 | SANTA ANA BLUE PRINT | | 4,389.44 | | | Negotiable |
| 382849 | | 14-DEC-17 | SCOTT, TREVOR | | 110.39 | | | Negotiable |
| 382850 | | 14-DEC-17 | SEAL ANALYTICAL INC | | 410.66 | 20-DEC-17 | 410.66 | Reconciled |
| 382851 | | 14-DEC-17 | SHAMROCK SUPPLY CO INC | | 55.47 | 19-DEC-17 | 55.47 | Reconciled |
| 382852 | | 14-DEC-17 | SHAYEGAN, ALI | | 37.82 | | | Negotiable |
| 382853 | | 14-DEC-17 | SHOETERIA | | 174.54 | | | Negotiable |
| 382854 | | 14-DEC-17 | SNYDER LANGSTON | | 2,568.42 | | | Negotiable |
| 382855 | | 14-DEC-17 | SOFTWAREONE INC | | 122,002.53 | | | Negotiable |
| 382856 | | 14-DEC-17 | SOL CONSTRUCTION INC. | | 2,187.69 | | | Negotiable |
| 382857 | | 14-DEC-17 | SOUTHERN CALIFORNIA EDISON COMPANY | | 27,801.89 | | | Negotiable |
| 382858 | | 14-DEC-17 | SPRINGER, ADAM | | 23.90 | | | Negotiable |
| 382859 | | 14-DEC-17 | SPX CORP | | 1,416.43 | 20-DEC-17 | 1,416.43 | Reconciled |
| 382860 | | 14-DEC-17 | STANDARD PACIFIC HOMES | | 27.46 | | | Negotiable |
| 382861 | | 14-DEC-17 | STANDARD REGISTER, INC. | | 1,299.71 | 20-DEC-17 | 1,299.71 | Reconciled |
| 382862 | | 14-DEC-17 | STANTEC CONSULTING SERVICES INC. | | 17,838.00 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 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 | | | | | | | | |
| 382863 | | 14-DEC-17 | STATE WATER RESOURCES CONTROL BOARD | | 71,976.00 | | | Negotiable |
| 382864 | | 14-DEC-17 | STREAKWAVE WIRELESS, INC. | | 1,012.85 | | | Negotiable |
| 382865 | | 14-DEC-17 | SUKLE ADVERTISING INC. | | 13,141.90 | | | Negotiable |
| 382866 | | 14-DEC-17 | SURF CITY OPTOMETRY | | 225.00 | | | Negotiable |
| 382867 | | 14-DEC-17 | SUSAN A. SIROTA | | 8,590.00 | 19-DEC-17 | 8,590.00 | Reconciled |
| 382868 | | 14-DEC-17 | SYNERGY COMPANIES | | 204,927.84 | | | Negotiable |
| 382869 | | 14-DEC-17 | TEREX SERVICES | | 115.36 | 20-DEC-17 | 115.36 | Reconciled |
| 382870 | | 14-DEC-17 | TETRA TECH, INC | | 70,520.00 | | | Negotiable |
| 382871 | | 14-DEC-17 | THE GAS COMPANY | | 6,327.92 | | | Negotiable |
| 382872 | | 14-DEC-17 | THE IRVINE COMPANY LLC | | 9,679.23 | | | Negotiable |
| 382873 | | 14-DEC-17 | THOMAS HARDER & CO | | 6,681.25 | | | Negotiable |
| 382874 | | 14-DEC-17 | TIC-RETAIL PROPERTIES | | 74.59 | 20-DEC-17 | 74.59 | Reconciled |
| 382875 | | 14-DEC-17 | TOLL BROS., INC. | | 137.19 | | | Negotiable |
| 382876 | | 14-DEC-17 | TOLLIVER, RON | | 1,500.00 | 20-DEC-17 | 1,500.00 | Reconciled |
| 382877 | | 14-DEC-17 | TRAN, CONG | | 45.04 | | | Negotiable |
| 382878 | | 14-DEC-17 | TRI COUNTY PUMP COMPANY | | 29,475.75 | 20-DEC-17 | 29,475.75 | Reconciled |
| 382879 | | 14-DEC-17 | TROPICAL PLAZA NURSERY INC | | 13,223.70 | 20-DEC-17 | 13,223.70 | Reconciled |
| 382880 | | 14-DEC-17 | TRUCPARCO | | 19.74 | | | Negotiable |
| 382881 | | 14-DEC-17 | ULTRA SCIENTIFIC | | 101.35 | | | Negotiable |
| 382882 | | 14-DEC-17 | UNITED PARCEL SERVICE INC | | 538.59 | 18-DEC-17 | 538.59 | Reconciled |
| 382883 | | 14-DEC-17 | UNITED SERVICES AUTOMOBILE ASSOCIATION | | 6,092.65 | 20-DEC-17 | 6,092.65 | Reconciled |
| 382884 | | 14-DEC-17 | USA BLUEBOOK | | 1,361.71 | 20-DEC-17 | 1,361.71 | Reconciled |

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|--------|-----------|------------------------------------|-----------|-----------|----------|------------|
| 382885 | 14-DEC-17 | VAUGHAN'S INDUSTRIAL REPAIR CO INC | 600.00 | 19-DEC-17 | 600.00 | Reconciled |
| 382886 | 14-DEC-17 | VERIZON WIRELESS SERVICES LLC | 699.37 | 19-DEC-17 | 699.37 | Reconciled |
| 382887 | 14-DEC-17 | VERTECH INDUSTRIAL SYSTEMS, LLC | 18,135.97 | | | Negotiable |
| 382888 | 14-DEC-17 | VULCAN MATERIALS COMPANY | 1,398.46 | 18-DEC-17 | 1,398.46 | Reconciled |
| 382889 | 14-DEC-17 | WACO FILTERS CORPORATION | 5,272.72 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 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 | | | | | | | | |
| 382890 | | 14-DEC-17 | WALTERS WHOLESALE ELECTRIC | | 508.35 | 19-DEC-17 | 508.35 | Reconciled |
| 382891 | | 14-DEC-17 | WANG, STEPHEN | | 65.82 | 20-DEC-17 | 65.82 | Reconciled |
| 382892 | | 14-DEC-17 | WANG, ZHONGQUAN | | 47.03 | | | Negotiable |
| 382893 | | 14-DEC-17 | WARE MALCOMB | | 3,508.37 | | | Negotiable |
| 382894 | | 14-DEC-17 | WATERWISE CONSULTING, INC. | | 478.00 | 18-DEC-17 | 478.00 | Reconciled |
| 382895 | | 14-DEC-17 | WAXIE'S ENTERPRISES, INC | | 263.90 | 20-DEC-17 | 263.90 | Reconciled |
| 382896 | | 14-DEC-17 | WEST YOST ASSOCIATES, INC | | 959.38 | 19-DEC-17 | 959.38 | Reconciled |
| 382897 | | 14-DEC-17 | WESTAMERICA COMMUNICATIONS, INC. | | 3,112.30 | 19-DEC-17 | 3,112.30 | Reconciled |
| 382898 | | 14-DEC-17 | WESTERN AV | | 1,321.62 | 18-DEC-17 | 1,321.62 | Reconciled |
| 382899 | | 14-DEC-17 | WESTERN EXTERMINATOR COMPANY | | 17,176.00 | | | Negotiable |
| 382900 | | 14-DEC-17 | WHITMIRE, DONNA | | 36.36 | | | Negotiable |
| 382901 | | 14-DEC-17 | WILLIAM LYON HOMES, INC. | | 44.64 | | | Negotiable |
| 382902 | | 14-DEC-17 | WILSON, MAIJA | | 32.76 | | | Negotiable |
| 382903 | | 14-DEC-17 | WIRELESS WATCHDOGS, LLC | | 812.00 | | | Negotiable |
| 382904 | | 14-DEC-17 | WISER, SHANNA | | 45.19 | | | Negotiable |
| 382905 | | 14-DEC-17 | WU, PEISUN | | 25.01 | | | Negotiable |
| 382906 | | 14-DEC-17 | XU, YANMEI | | 132.46 | | | Negotiable |
| 382907 | | 14-DEC-17 | YP LLC | | 125.00 | | | Negotiable |
| 382908 | | 14-DEC-17 | ZEN, YING | | 35.14 | | | Negotiable |
| 382909 | | 14-DEC-17 | ZHANG, SHUNXIANG | | 29.40 | | | Negotiable |
| 382910 | | 18-DEC-17 | JCI JONES CHEMICALS INC | TAMPA | 3,307.62 | | | Negotiable |
| 382911 | | 19-DEC-17 | AT&T | CAROL STREAM 1 | 173.07 | | | Negotiable |
| 382912 | | 19-DEC-17 | IRWD-PETTY CASH CUSTODIAN | IRVINE | 1,205.92 | 19-DEC-17 | 1,205.92 | Reconciled |
| 382913 | | 20-DEC-17 | ORANGE COUNTY SANITATION DISTRICT | FOUNTAIN VALLEY | 3,768,717.32 | | | Negotiable |
| 382914 | | 20-DEC-17 | Carlos, Alex | | 120.00 | | | Negotiable |
| 382915 | | 20-DEC-17 | Clinton, Bryan R (Bryan) | | 105.00 | | | Negotiable |
| 382916 | | 20-DEC-17 | Figueroa, Jorge (Jorge) | | 170.00 | | | Negotiable |
| 382917 | | 20-DEC-17 | Harlow, Rusty (Rusty) | | 125.00 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 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 | | | | | | | | |
| 382918 | | 20-DEC-17 | Lee, Sun (Sunny) | | 8.04 | | | Negotiable |
| 382919 | | 20-DEC-17 | Lynch, Toni Marie | | 12.84 | | | Negotiable |
| 382920 | | 20-DEC-17 | Nash, Joel | | 55.64 | | | Negotiable |
| 382921 | | 20-DEC-17 | Pascual, Allan | | 106.19 | | | Negotiable |
| 382922 | | 20-DEC-17 | Saini, Mohit | | 155.16 | | | Negotiable |
| 382923 | | 20-DEC-17 | PALO VERDE IRRIGATION DISTRICT | PURCHASING | 107,674.50 | | | Negotiable |
| 382924 | | 20-DEC-17 | ORANGE COUNTY AUTOPAY PARTS CO | | 7.72 | | | Negotiable |
| 382925 | | 20-DEC-17 | AAF INTERNATIONAL | | 1,409.23 | | | Negotiable |
| 382926 | | 20-DEC-17 | ACCESS TECHNOLOGIES, INC. | | 6,776.92 | | | Negotiable |
| 382927 | | 20-DEC-17 | ACE STAINLESS SUPPLY | | 1,081.27 | | | Negotiable |
| 382928 | | 20-DEC-17 | ACI | | 2,106.84 | | | Negotiable |

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|--------|-----------|------------------------------------|------------|------------|
| 382929 | 20-DEC-17 | ACWA | 450.00 | Negotiable |
| 382930 | 20-DEC-17 | ADAM'S FALCONRY SERVICE, LLC | 1,100.00 | Negotiable |
| 382931 | 20-DEC-17 | ADS LLC | 2,160.00 | Negotiable |
| 382932 | 20-DEC-17 | AECOM TECHNICAL SERVICES, INC. | 140,265.33 | Negotiable |
| 382933 | 20-DEC-17 | AEGIS ENGINEERING MANAGEMENT, INC. | 16,985.00 | Negotiable |
| 382934 | 20-DEC-17 | ALPHA TRAFFIC SERVICES, INC. | 1,295.00 | Negotiable |
| 382935 | 20-DEC-17 | ALSTON & BIRD LLP | 145,778.62 | Negotiable |
| 382936 | 20-DEC-17 | AMAZON CAPITAL SERVICES, INC. | 1,951.57 | Negotiable |
| 382937 | 20-DEC-17 | ANDERSON'S NU POWER CO., INC | 16,250.00 | Negotiable |
| 382938 | 20-DEC-17 | ANDERSONPENNA PARTNERS, INC. | 34,399.00 | Negotiable |
| 382939 | 20-DEC-17 | ANDRES, ELAINE | 30.34 | Negotiable |
| 382940 | 20-DEC-17 | APEX LIFE SCIENCES, LLC | 1,330.88 | Negotiable |
| 382941 | 20-DEC-17 | ARCADIS U.S., INC. | 70,843.53 | Negotiable |
| 382942 | 20-DEC-17 | ARDJMAND, NADAR | 47.69 | Negotiable |
| 382943 | 20-DEC-17 | AT&T | 48.99 | Negotiable |
| 382944 | 20-DEC-17 | AT&T | 2,076.52 | Negotiable |
| 382945 | 20-DEC-17 | AT&T | 8,130.48 | Negotiable |
| 382946 | 20-DEC-17 | AUTOZONE PARTS, INC. | 731.05 | Negotiable |
| 382947 | 20-DEC-17 | AVISTA TECHNOLOGIES, INC | 2,500.00 | Negotiable |
| 382948 | 20-DEC-17 | BAILEY, EVERETT | 117.26 | Negotiable |

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

Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 Account: Checking AP and PR Page: 20
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 382949 | | 20-DEC-17 | BAMSHADFARD, KIAN | | 42.82 | | | Negotiable |
| 382950 | | 20-DEC-17 | BATTERIES PLUS AND BATTERIES PLUS BULBS | | 6,324.98 | | | Negotiable |
| 382951 | | 20-DEC-17 | BAVCO BACKFLOW APPARATUS & VALVE COMPANY | | 1,215.08 | | | Negotiable |
| 382952 | | 20-DEC-17 | BEARCOM | | 3,432.91 | | | Negotiable |
| 382953 | | 20-DEC-17 | BERNOR, AMBER | | 32.76 | | | Negotiable |
| 382954 | | 20-DEC-17 | BIOMAGIC INC | | 12,890.41 | | | Negotiable |
| 382955 | | 20-DEC-17 | BLAIRS TOWING INC | | 100.00 | | | Negotiable |
| 382956 | | 20-DEC-17 | BOYD & ASSOCIATES | | 3,261.00 | | | Negotiable |
| 382957 | | 20-DEC-17 | BRENNTAG PACIFIC INC | | 4,811.58 | | | Negotiable |
| 382958 | | 20-DEC-17 | BROOKFIELD RESIDENTIAL | | 79.60 | | | Negotiable |
| 382959 | | 20-DEC-17 | BRUCE NEWELL | | 2,500.00 | | | Negotiable |
| 382960 | | 20-DEC-17 | BURLINGTON SAFETY LABORATORY OF CALIFORNIA INC | | 392.66 | | | Negotiable |
| 382961 | | 20-DEC-17 | BUSH & ASSOCIATES INC | | 3,024.00 | | | Negotiable |
| 382962 | | 20-DEC-17 | C WELLS PIPELINE MATERIALS INC | | 8,955.12 | | | Negotiable |
| 382963 | | 20-DEC-17 | CALIFORNIA BARRICADE RENTAL, INC. | | 10,425.36 | | | Negotiable |
| 382964 | | 20-DEC-17 | CANON FINANCIAL SERVICES, INC | | 8,996.59 | | | Negotiable |
| 382965 | | 20-DEC-17 | CAROLLO ENGINEERS, INC | | 4,065.00 | | | Negotiable |
| 382966 | | 20-DEC-17 | CEDAR CREEK APTS | | 92.53 | | | Negotiable |
| 382967 | | 20-DEC-17 | CHABANI, KJNAN | | 38.57 | | | Negotiable |
| 382968 | | 20-DEC-17 | CHANG, FAN | | 65.86 | | | Negotiable |
| 382969 | | 20-DEC-17 | CHANG, ROGER | | 337.78 | | | Negotiable |
| 382970 | | 20-DEC-17 | CHEM TECH INTERNATIONAL INC | | 45,209.68 | | | Negotiable |
| 382971 | | 20-DEC-17 | CHIN, ANGUS | | 202.59 | | | Negotiable |
| 382972 | | 20-DEC-17 | CHU, YOUNG | | 39.28 | | | Negotiable |
| 382973 | | 20-DEC-17 | CITY OF NEWPORT BEACH | | 1,203.78 | | | Negotiable |
| 382974 | | 20-DEC-17 | CITY OF SANTA ANA | | 399.34 | | | Negotiable |
| 382975 | | 20-DEC-17 | CITY OF TUSTIN | | 653.63 | | | Negotiable |
| 382976 | | 20-DEC-17 | CITY SERVICE CONTRACTING INC | | 671.94 | | | Negotiable |
| 382977 | | 20-DEC-17 | CLA-VAL COMPANY | | 6,619.49 | | | Negotiable |

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

Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 Account: Checking AP and PR Page: 21
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|------|---------------|------|----------------|--------------|----------------|--------|
|----------------|--------------|------|---------------|------|----------------|--------------|----------------|--------|

Payment Document : IRWD CHECK

| Payment Number | Date | Supplier Name | Payment Amount | Status |
|----------------|-----------|---|----------------|------------|
| 382978 | 20-DEC-17 | CONSOLIDATED CONTRACTING SERVICES, INC. | 1,004.85 | Negotiable |
| 382979 | 20-DEC-17 | CONTROLLED MOTION SOLUTIONS, INC | 1,066.59 | Negotiable |
| 382980 | 20-DEC-17 | CORELOGIC INC | 13.66 | Negotiable |
| 382981 | 20-DEC-17 | COUNTY OF ORANGE | 8,971.93 | Negotiable |
| 382982 | 20-DEC-17 | CR & R INCORPORATED | 101.84 | Negotiable |
| 382983 | 20-DEC-17 | CULLIGAN OF SANTA ANA | 2,005.70 | Negotiable |
| 382984 | 20-DEC-17 | CYPRESS VILLAGE MURANO | 435.48 | Negotiable |
| 382985 | 20-DEC-17 | D.R. HORTON | 134.90 | Negotiable |
| 382986 | 20-DEC-17 | DAVIS FARR LLP | 9,040.00 | Negotiable |
| 382987 | 20-DEC-17 | DEE JASPAR & ASSOCIATES, INC. | 7,090.49 | Negotiable |
| 382988 | 20-DEC-17 | DELL MARKETING LP | 1,220.16 | Negotiable |
| 382989 | 20-DEC-17 | DIRECTV INC | 126.23 | Negotiable |
| 382990 | 20-DEC-17 | DISCOUNT COURIER SERVICE | 155.80 | Negotiable |
| 382991 | 20-DEC-17 | DOUGLAS ENVIRONMENTAL GROUP INC | 2,300.00 | Negotiable |
| 382992 | 20-DEC-17 | DUDEK | 22,235.00 | Negotiable |
| 382993 | 20-DEC-17 | DUZMAN, CHERYL | 150.60 | Negotiable |
| 382994 | 20-DEC-17 | ELECTRONIC RESTORATION SERVICES, INC. | 500,884.38 | Negotiable |
| 382995 | 20-DEC-17 | ENVIRONMENTAL EXPRESS INC | 4,129.25 | Negotiable |
| 382996 | 20-DEC-17 | ENVIRONMENTS FOR LEARNING | 29.39 | Negotiable |
| 382997 | 20-DEC-17 | ETZEL, PATRICK | 50.70 | Negotiable |
| 382998 | 20-DEC-17 | FEDEX | 444.35 | Negotiable |
| 382999 | 20-DEC-17 | FIRE EXTINGUISHING SAFETY & SERVICE | 680.23 | Negotiable |
| 383000 | 20-DEC-17 | FISERV | 18,650.82 | Negotiable |
| 383001 | 20-DEC-17 | FISHER SCIENTIFIC COMPANY LLC | 2,175.76 | Negotiable |
| 383002 | 20-DEC-17 | FREEWAY MACHINE & WELDING SHOP | 969.75 | Negotiable |
| 383003 | 20-DEC-17 | FRONTIER CALIFORNIA INC. | 266.06 | Negotiable |
| 383004 | 20-DEC-17 | GARZA INDUSTRIES, INC | 1,292.58 | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 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 | | | | | | | | |
| 383005 | | 20-DEC-17 | GEORGE HILLS COMPANY, INC. | | 1,181.50 | | | Negotiable |
| 383006 | | 20-DEC-17 | GRAINGER | | 2,574.28 | | | Negotiable |
| 383007 | | 20-DEC-17 | GRAY, VALERIE | | 42.56 | | | Negotiable |
| 383008 | | 20-DEC-17 | GRAYBAR ELECTRIC COMPANY | | 456.43 | | | Negotiable |
| 383009 | | 20-DEC-17 | GUIDA SURVEYING INC. | | 5,911.20 | | | Negotiable |
| 383010 | | 20-DEC-17 | HAAKER EQUIPMENT COMPANY | | 312.03 | | | Negotiable |
| 383011 | | 20-DEC-17 | HACH COMPANY | | 10,197.45 | | | Negotiable |
| 383012 | | 20-DEC-17 | HALCYON ELECTRIC INC | | 22,331.45 | | | Negotiable |
| 383013 | | 20-DEC-17 | HALFACRE, LULA | | 46.30 | | | Negotiable |
| 383014 | | 20-DEC-17 | HAN, SEUNG HO | | 63.38 | | | Negotiable |
| 383015 | | 20-DEC-17 | HARRINGTON INDUSTRIAL PLASTICS LLC | | 13,368.48 | | | Negotiable |
| 383016 | | 20-DEC-17 | HARRISON, KATHERINE | | 25.14 | | | Negotiable |
| 383017 | | 20-DEC-17 | HAUGE, JENNIFER | | 59.02 | | | Negotiable |
| 383018 | | 20-DEC-17 | HDR ENGINEERING INC | | 6,222.50 | | | Negotiable |
| 383019 | | 20-DEC-17 | HEADLEE, ROBERT | | 37.58 | | | Negotiable |
| 383020 | | 20-DEC-17 | HELPMATES STAFFING SERVICES | | 10,596.99 | | | Negotiable |
| 383021 | | 20-DEC-17 | HILL BROTHERS CHEMICAL COMPANY | | 18,084.79 | | | Negotiable |
| 383022 | | 20-DEC-17 | HILLEBRECHT, WARREN K | | 323.59 | | | Negotiable |
| 383023 | | 20-DEC-17 | HOME DEPOT USA INC | | 652.41 | | | Negotiable |
| 383024 | | 20-DEC-17 | HUANG, SHAN | | 25.96 | | | Negotiable |
| 383025 | | 20-DEC-17 | HWANG, HYUNG JUN | | 26.60 | | | Negotiable |
| 383026 | | 20-DEC-17 | IRVINE PACIFIC | | 27.46 | | | Negotiable |
| 383027 | | 20-DEC-17 | IRVINE PIPE & | | 3,211.06 | | | Negotiable |

| | | | | |
|--------|-----------|--|----------|------------|
| 383028 | 20-DEC-17 | SUPPLY INC IRVINE PIPELINE COMPANY, INC. | 1,457.32 | Negotiable |
| 383029 | 20-DEC-17 | IRVINE PROPERTY MANAGEMENT | 40.11 | Negotiable |
| 383030 | 20-DEC-17 | JALLALI, CYRUS | 48.06 | Negotiable |
| 383031 | 20-DEC-17 | JIG CONSULTANTS | 1,367.06 | Negotiable |
| 383032 | 20-DEC-17 | JULIUS AGBOR AND RANDY HOFFMAN | 53.99 | Negotiable |
| 383033 | 20-DEC-17 | JUST ENERGY SOLUTIONS INC. | 171.12 | Negotiable |

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

Payment Register For 01-DEC-17 To 28-DEC-17
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 28-DEC-2017 12:11
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| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 383034 | | 20-DEC-17 | KAM, WILLIAM | | 75.99 | | | Negotiable |
| 383035 | | 20-DEC-17 | KIM, PAUL | | 63.36 | | | Negotiable |
| 383036 | | 20-DEC-17 | KIM, SANG | | 57.63 | | | Negotiable |
| 383037 | | 20-DEC-17 | KIM, YOUNG HWAN | | 54.88 | | | Negotiable |
| 383038 | | 20-DEC-17 | KITCHEN, PEGGY | | 131.00 | | | Negotiable |
| 383039 | | 20-DEC-17 | KLEINFELDER, INC. | | 10,745.75 | | | Negotiable |
| 383040 | | 20-DEC-17 | KPRS CONSTRUCTION SERVICES, INC | | 1,530.28 | | | Negotiable |
| 383041 | | 20-DEC-17 | KUBE ENGINEERING | | 2,305.86 | | | Negotiable |
| 383042 | | 20-DEC-17 | LANDCARE HOLDINGS, INC. | | 125.00 | | | Negotiable |
| 383043 | | 20-DEC-17 | LAU, HILARY | | 15.54 | | | Negotiable |
| 383044 | | 20-DEC-17 | LEE, TED | | 50.72 | | | Negotiable |
| 383045 | | 20-DEC-17 | LI, MIN | | 36.72 | | | Negotiable |
| 383046 | | 20-DEC-17 | LIANG, HONG | | 71.00 | | | Negotiable |
| 383047 | | 20-DEC-17 | LIEBERT CASSIDY WHITMORE | | 3,370.00 | | | Negotiable |
| 383048 | | 20-DEC-17 | LILLESTRAND LEADERSHIP CONSULTING, INC. | | 775.10 | | | Negotiable |
| 383049 | | 20-DEC-17 | LIU, PING | | 43.33 | | | Negotiable |
| 383050 | | 20-DEC-17 | LLOYD, KEVIN | | 62.82 | | | Negotiable |
| 383051 | | 20-DEC-17 | LUGO, RAMON | | 31.26 | | | Negotiable |
| 383052 | | 20-DEC-17 | LUSARDI CONSTRUCTION, CO. | | 1,041.39 | | | Negotiable |
| 383053 | | 20-DEC-17 | MARR, JENNIFER | | 48.66 | | | Negotiable |
| 383054 | | 20-DEC-17 | MARVIN GARDENS LLC | | 2,593.70 | | | Negotiable |
| 383055 | | 20-DEC-17 | MBF CONSULTING, INC. | | 8,970.00 | | | Negotiable |
| 383056 | | 20-DEC-17 | MC FADDEN-DALE INDUSTRIAL | | 226.33 | | | Negotiable |
| 383057 | | 20-DEC-17 | MC MASTER CARR SUPPLY CO | | 1,421.00 | | | Negotiable |
| 383058 | | 20-DEC-17 | MEAGHER REALTY | | 33.65 | | | Negotiable |
| 383059 | | 20-DEC-17 | MESA GENERAL ENGINEERING, INC. | | 1,634.85 | | | Negotiable |
| 383060 | | 20-DEC-17 | MISMARI, NURI | | 44.52 | | | Negotiable |
| 383061 | | 20-DEC-17 | MOORE, THOMAS | | 16.41 | | | Negotiable |
| 383062 | | 20-DEC-17 | NATIONAL READY MIXED CONCRETE CO. | | 1,168.13 | | | Negotiable |
| 383063 | | 20-DEC-17 | NGO, THI | | 129.40 | | | Negotiable |
| 383064 | | 20-DEC-17 | NGUYEN, DARLENE | | 27.12 | | | Negotiable |
| 383065 | | 20-DEC-17 | NOIA, JEFF | | 800.00 | | | Negotiable |
| 383066 | | 20-DEC-17 | NORTHWOOD PLACE APTS | | 30.36 | | | Negotiable |
| 383067 | | 20-DEC-17 | NOSSAMAN LLP | | 255,451.21 | | | Negotiable |

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

Payment Register For 01-DEC-17 To 28-DEC-17
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 28-DEC-2017 12:11
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| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 383068 | | 20-DEC-17 | OCPC AN RR DONNELLEY COMPANY | | 4,103.12 | | | Negotiable |
| 383069 | | 20-DEC-17 | OH CHOI, JOO LEE | | 69.24 | | | Negotiable |
| 383070 | | 20-DEC-17 | OLIN CORPORATION | | 16,143.41 | | | Negotiable |
| 383071 | | 20-DEC-17 | OMEGA INDUSTRIAL SUPPLY, INC. | | 222.08 | | | Negotiable |
| 383072 | | 20-DEC-17 | ONESOURCE DISTRIBUTORS LLC | | 654.37 | | | Negotiable |
| 383073 | | 20-DEC-17 | ORANGE COUNTY AUTO PARTS CO | | 741.34 | | | Negotiable |
| 383074 | | 20-DEC-17 | ORANGE COUNTY SANITATION DISTRICT | | 33,315.98 | | | Negotiable |
| 383075 | | 20-DEC-17 | ORANGE COUNTY TREASURER | | 821.33 | | | Negotiable |
| 383076 | | 20-DEC-17 | OSBORN, AMY | | 13.26 | | | Negotiable |

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|-----------|--------------------------------|------|----------------|--------------|----------------|------------|
| 383077 | | 20-DEC-17 | CORONATO OSTS, INC | | 3,550.00 | | | Negotiable |
| 383078 | | 20-DEC-17 | PACIFIC PARTS & CONTROLS INC | | 6,674.30 | | | Negotiable |
| 383079 | | 20-DEC-17 | PAKRAY, BIJAN | | 75.78 | | | Negotiable |
| 383080 | | 20-DEC-17 | PALO VERDE IRRIGATION DISTRICT | | 5,885.00 | | | Negotiable |
| 383081 | | 20-DEC-17 | PARK, DON S | | 19.43 | | | Negotiable |
| 383082 | | 20-DEC-17 | PARKHOUSE TIRE INC | | 3,497.93 | | | Negotiable |
| 383083 | | 20-DEC-17 | PASCUA, ELENITA | | 19.38 | | | Negotiable |
| 383084 | | 20-DEC-17 | PHAN, NATASHA | | 36.51 | | | Negotiable |
| 383085 | | 20-DEC-17 | PINNACLE CUSTOM HOMES, INC. | | 972.34 | | | Negotiable |
| 383086 | | 20-DEC-17 | PIVOT INTERIORS INC | | 4,706.52 | | | Negotiable |
| 383087 | | 20-DEC-17 | PMC ENGINEERING LLC. | | 8,498.82 | | | Negotiable |
| 383088 | | 20-DEC-17 | POLLARDWATER.COM | | 195.60 | | | Negotiable |
| 383089 | | 20-DEC-17 | PRAXAIR DISTRIBUTION INC | | 496.76 | | | Negotiable |
| 383090 | | 20-DEC-17 | PRUFTECHNIK INC | | 1,667.00 | | | Negotiable |
| 383091 | | 20-DEC-17 | PSOMAS | | 2,355.35 | | | Negotiable |
| 383092 | | 20-DEC-17 | PUTTA, RAVIKANTH | | 162.57 | | | Negotiable |
| 383093 | | 20-DEC-17 | RAM AIR ENGINEERING INC | | 2,505.00 | | | Negotiable |
| 383094 | | 20-DEC-17 | RANCHO ALISAL APTS | | 79.42 | | | Negotiable |
| 383095 | | 20-DEC-17 | REAL WATER CONSULTANTS INC. | | 12,936.25 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 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 CHECK | | | | | | | | |
| 383096 | | 20-DEC-17 | RINCON TRUCK CENTER INC. | | 561.07 | | | Negotiable |
| 383097 | | 20-DEC-17 | ROUND TABLE FINANCIAL, INC. | | 87.70 | | | Negotiable |
| 383098 | | 20-DEC-17 | ROXY, MOHAMED | | 55.21 | | | Negotiable |
| 383099 | | 20-DEC-17 | ROYAL WHOLESALE ELECTRIC | | 441.69 | | | Negotiable |
| 383100 | | 20-DEC-17 | SAN MARCO APARTMENTS | | 65.51 | | | Negotiable |
| 383101 | | 20-DEC-17 | SCAP | | 140.00 | | | Negotiable |
| 383102 | | 20-DEC-17 | SHEA HOMES, LIMITED PARTNERSHIP | | 143.55 | | | Negotiable |
| 383103 | | 20-DEC-17 | SHEIKH, FAUZIA | | 33.21 | | | Negotiable |
| 383104 | | 20-DEC-17 | SIGNATURE CONTROL SYSTEMS INC | | 56.21 | | | Negotiable |
| 383105 | | 20-DEC-17 | SKORUZ TECHNOLOGIES INC | | 16,956.00 | | | Negotiable |
| 383106 | | 20-DEC-17 | SOL CONSTRUCTION, INC. | | 1,329.52 | | | Negotiable |
| 383107 | | 20-DEC-17 | SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT | | 1,262.30 | | | Negotiable |
| 383108 | | 20-DEC-17 | SOUTH COAST WATER DISTRICT | | 5,969.31 | | | Negotiable |
| 383109 | | 20-DEC-17 | SOUTHERN CALIFORNIA EDISON COMPANY | | 21.88 | | | Negotiable |
| 383110 | | 20-DEC-17 | SOUTHERN CALIFORNIA EDISON COMPANY | | 461,833.11 | | | Negotiable |
| 383111 | | 20-DEC-17 | SPARKLETTS | | 571.20 | | | Negotiable |
| 383112 | | 20-DEC-17 | STANFORD COURT APARTMENTS | | 397.01 | | | Negotiable |
| 383113 | | 20-DEC-17 | STANTEC CONSULTING SERVICES INC. | | 6,016.00 | | | Negotiable |
| 383114 | | 20-DEC-17 | STATE WATER RESOURCES CONTROL BOARD | | 134,203.00 | | | Negotiable |
| 383115 | | 20-DEC-17 | STETSON ENGINEERS INC. | | 7,170.00 | | | Negotiable |
| 383116 | | 20-DEC-17 | STREAKWAVE WIRELESS, INC. | | 1,364.06 | | | Negotiable |
| 383117 | | 20-DEC-17 | SUKLE ADVERTISING INC. | | 97,000.00 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 26
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|------|---------------|------|----------------|--------------|----------------|--------|
| Payment Document : IRWD CHECK | | | | | | | | |

| | | | | |
|--------|-----------|--------------------------|----------|------------|
| 383170 | 21-DEC-17 | CLEARINGHOUSE | 477.67 | Negotiable |
| 383171 | 21-DEC-17 | COX COMMUNICATIONS, INC. | 3,250.01 | Negotiable |
| 383172 | 21-DEC-17 | DEJULIA, MICHAEL | 48.59 | Negotiable |
| 383173 | 21-DEC-17 | DEOLDEN, JAMES | 461.56 | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 BANK: Bank of America N.A. Branch: Los Angeles Account: Checking AP and PR Page: 28
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 383174 | | 21-DEC-17 | DISCOVERY SCIENCE CENTER OF ORANGE COUNTY | | 5,378.64 | | | Negotiable |
| 383175 | | 21-DEC-17 | ECO SERVICES LLC | | 10,154.52 | | | Negotiable |
| 383176 | | 21-DEC-17 | ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC. | | 9,071.25 | | | Negotiable |
| 383177 | | 21-DEC-17 | FARRELL & ASSOCIATES | | 240.68 | | | Negotiable |
| 383178 | | 21-DEC-17 | FISERV | | 558.90 | | | Negotiable |
| 383179 | | 21-DEC-17 | FRONTIER CALIFORNIA INC. | | 211.13 | | | Negotiable |
| 383180 | | 21-DEC-17 | GALLEY, JONNELL | | 33.40 | | | Negotiable |
| 383181 | | 21-DEC-17 | GALLERY PROPERTY MANAGEMENT | | 25.00 | | | Negotiable |
| 383182 | | 21-DEC-17 | HALFHILL, MATTHEW | | 56.94 | | | Negotiable |
| 383183 | | 21-DEC-17 | HEGWER, ELLEN R | | 56.43 | | | Negotiable |
| 383184 | | 21-DEC-17 | HELPMATES STAFFING SERVICES | | 6,206.70 | | | Negotiable |
| 383185 | | 21-DEC-17 | HERNANDEZ, CHRISTOPHER | | 61.42 | | | Negotiable |
| 383186 | | 21-DEC-17 | IRVINE PACIFIC ASSOCIATION | | 32.62 | | | Negotiable |
| 383187 | | 21-DEC-17 | IRWD EMPLOYEE ASSOCIATION | | 1,325.00 | | | Negotiable |
| 383188 | | 21-DEC-17 | KEEGAN, EITHNE | | 49.69 | | | Negotiable |
| 383189 | | 21-DEC-17 | KENISON, TRACY | | 23.35 | | | Negotiable |
| 383190 | | 21-DEC-17 | KIM, YOUNG | | 93.91 | | | Negotiable |
| 383191 | | 21-DEC-17 | KIMBALL MIDWEST | | 4,338.90 | | | Negotiable |
| 383192 | | 21-DEC-17 | KING, DON | | 16.12 | | | Negotiable |
| 383193 | | 21-DEC-17 | KPMG LLP | | 10,000.00 | | | Negotiable |
| 383194 | | 21-DEC-17 | KUO, RAYMOND | | 18.01 | | | Negotiable |
| 383195 | | 21-DEC-17 | KWAI, TIFFANY | | 424.78 | | | Negotiable |
| 383196 | | 21-DEC-17 | LAI, SHIUAN WEI | | 52.35 | | | Negotiable |
| 383197 | | 21-DEC-17 | LANDCARE HOLDINGS, INC. | | 2,500.00 | | | Negotiable |
| 383198 | | 21-DEC-17 | LEE, CHENGHSIEN | | 42.42 | | | Negotiable |
| 383199 | | 21-DEC-17 | LINKEDIN CORPORATION | | 6,131.25 | | | Negotiable |
| 383200 | | 21-DEC-17 | MAHAFFEY, JUSTIN | | 39.69 | | | Negotiable |
| 383201 | | 21-DEC-17 | MOHAMMADI, BARBARA | | 51.02 | | | Negotiable |
| 383202 | | 21-DEC-17 | MORSE, BRENDA | | 41.99 | | | Negotiable |
| 383203 | | 21-DEC-17 | MOULTON NIGUEL WATER DISTRICT | | 24,372.50 | | | Negotiable |
| 383204 | | 21-DEC-17 | NATIONAL CENTER FOR CIVIC INNOVATION INC | | 35,000.00 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 BANK: Bank of America N.A. Branch: Los Angeles Account: Checking AP and PR Page: 29
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 383205 | | 21-DEC-17 | NGUYEN, DUYN | | 53.45 | | | Negotiable |
| 383206 | | 21-DEC-17 | NINYO & MOORE | | 11,081.75 | | | Negotiable |
| 383207 | | 21-DEC-17 | NMG GEOTECHNICAL INC | | 2,715.00 | | | Negotiable |
| 383208 | | 21-DEC-17 | OLIN CORPORATION | | 3,197.77 | | | Negotiable |
| 383209 | | 21-DEC-17 | ORANGE COUNTY SHERIFF'S OFFICE | | 528.47 | | | Negotiable |
| 383210 | | 21-DEC-17 | PACIFIC CITY PROPERTIES | | 54.84 | | | Negotiable |
| 383211 | | 21-DEC-17 | PACIFIC TECHNICAL EQUIPMENT AND ENGINEERING, INC. | | 202.50 | | | Negotiable |
| 383212 | | 21-DEC-17 | PERS LONG TERM CARE | | 675.35 | | | Negotiable |
| 383213 | | 21-DEC-17 | RAFTELIS FINANCIAL CONSULTANTS INC. | | 1,305.00 | | | Negotiable |
| 383214 | | 21-DEC-17 | RANCHO SAN JOAQUIN | | 1,102.12 | | | Negotiable |
| 383215 | | 21-DEC-17 | RAZZANO, JOHN | | 28.27 | | | Negotiable |
| 383216 | | 21-DEC-17 | REIDELER, KELLY | | 105.75 | | | Negotiable |
| 383217 | | 21-DEC-17 | RESPONSE ENVELOPE, INC | | 2,995.46 | | | Negotiable |

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|--------|-----------|--|-----|----------|------------|
| 383218 | 21-DEC-17 | SOUTH COAST WATER CO. | | 75.00 | Negotiable |
| 383219 | 21-DEC-17 | STANDARD PACIFIC HOMES | | 50.78 | Negotiable |
| 383220 | 21-DEC-17 | TAYLOR MORRISON | | 67.92 | Negotiable |
| 383221 | 21-DEC-17 | THE NEW HOME COMPANY SOUTHERN CALIFORNIA LLC | | 86.81 | Negotiable |
| 383222 | 21-DEC-17 | TROPICAL PLAZA NURSERY INC | | 1,326.00 | Negotiable |
| 383223 | 21-DEC-17 | YOON, JEONGHEE | | 216.51 | Negotiable |
| 383224 | 21-DEC-17 | ZEE MEDICAL SERVICE CO | | 813.94 | Negotiable |
| 383225 | 22-DEC-17 | TROPICAL PLAZA NURSERY INC | PAY | 9,467.80 | Negotiable |

Payment Document Subtotal: 12,343,808.14 3,259,093.51

Payment Document : IRWD Wire

| | | | | | |
|-------|-----------|--|-----|----------|------------|
| 12360 | 04-DEC-17 | JAIYEN, RUDEEPORN | PAY | 11.08 | Negotiable |
| 12361 | 05-DEC-17 | YORK INSURANCE SERVICES GROUP INC - CA | PAY | 6,918.11 | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 30
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|------------------------------|--------------|-----------|---|-----------------|----------------|--------------|----------------|------------|
| Payment Document : IRWD Wire | | | | | | | | |
| 12362 | | 06-DEC-17 | BANK OF AMERICA MERRILL LYNCH | CHICAGO | 19,656.65 | | | Negotiable |
| 12363 | | 08-DEC-17 | EMPLOYEE BENEFIT SPECIALIST, INC | PAY | 11,990.35 | | | Negotiable |
| 12364 | | 08-DEC-17 | FILANC-BALFOUR BEATTY JV | ACT 4427724347 | 1,225,529.56 | | | Negotiable |
| 12365 | | 08-DEC-17 | FILANC-BALFOUR BEATTY JV | ESR 211084000 | 18,541.59 | | | Negotiable |
| 12366 | | 08-DEC-17 | U.S. BANK NATIONALST. ASSOCIATION | LOUIS | 20,531.10 | | | Negotiable |
| 12367 | | 08-DEC-17 | SUMITOMO MITSUI BANKING CORPORATION | NEW YORK | 34,826.30 | | | Negotiable |
| 12368 | | 08-DEC-17 | BANK OF NEW YORK MELLON TRUST COMPANY NA | NEWARK | 68,771.07 | | | Negotiable |
| 12369 | | 11-DEC-17 | U.S. BANK NATIONALST. ASSOCIATION | LOUIS | 39,172.68 | | | Negotiable |
| 12370 | | 11-DEC-17 | BANK OF AMERICA | SAN FRANCISCO | 38,811.01 | | | Negotiable |
| 12371 | | 12-DEC-17 | YORK INSURANCE SERVICES GROUP INC - CA | PAY | 5,675.30 | | | Negotiable |
| 12372 | | 13-DEC-17 | INTERNAL REVENUE SERVICE | FRESNO | 205,944.21 | | | Negotiable |
| 12373 | | 13-DEC-17 | FRANCHISE TAX BOARD | SACRAMENTO | 57,421.68 | | | Negotiable |
| 12374 | | 13-DEC-17 | EMPLOYMENT DEVELOPMENT DEPARTMENT | W SACRAMENTO | 7,707.19 | | | Negotiable |
| 12375 | | 13-DEC-17 | ORDONEZ, CYNTHIA MARIE | DESERT HOT SPR | 230.77 | | | Negotiable |
| 12376 | | 13-DEC-17 | CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES | SACRAMENTO | 1,811.53 | | | Negotiable |
| 12377 | | 13-DEC-17 | EMPLOYEE BENEFIT SPECIALIST, INC | PAY | 11,455.57 | | | Negotiable |
| 12378 | | 13-DEC-17 | GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY | DENVER | 124,204.13 | | | Negotiable |
| 12379 | | 18-DEC-17 | U.S. BANK NATIONALST. ASSOCIATION | LOUIS | 7,967.22 | | | Negotiable |
| 12380 | | 18-DEC-17 | EMPLOYMENT DEVELOPMENT DEPARTMENT | WEST SACRAMENTO | 11,303.58 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-17 To 28-DEC-17 Report Date: 28-DEC-2017 12:11
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 31
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|------------------------------|--------------|-----------|---------------|--------------|----------------|--------------|----------------|------------|
| Payment Document : IRWD Wire | | | | | | | | |
| 12381 | | 18-DEC-17 | CALPERS | SACRAMENTO 1 | 468,167.00 | | | Negotiable |

Exhibit "E"

MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS

December
2017

| | AMOUNT | VENDOR | PURPOSE |
|------------|------------------------------|-----------------|--------------------------|
| 12/8/2017 | 898,919.76 | BANK OF AMERICA | ACH Payments for Payroll |
| 12/22/2017 | 890,183.89 | BANK OF AMERICA | ACH Payments for Payroll |
| | <u><u>\$1,789,103.65</u></u> | | |

Exhibit "F"

IRWD Gov Code 53065.5 Disclosure Report

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

01-DEC-17 to 31-DEC-17

| NAME | CHECK NO. | CHECK | AMOUNT | ITEM DESCRIPTION | EXPENSE JUSTIFICATION |
|----------------------|-----------|-----------|-------------------|-----------------------|---|
| Arce, Jesse | 382663 | 14-Dec-17 | 170.00 | Certification Renewal | SWRCB Wastewater Treatment Plant Operator In Training - OIT 1 |
| Bertsch, Jeff | 383164 | 21-Dec-17 | 432.54 | Other(Misc) | Annual staff appreciation meetings |
| Borowski, Michael | 382665 | 14-Dec-17 | 180.00 | Membership Renewal | CWEA membership renewal |
| Cho, Harry | 382447 | 7-Dec-17 | 269.00 | Membership Renewal | AWWA membership renewal |
| Clinton, Bryan | 382915 | 20-Dec-17 | 105.00 | Certification Renewal | SWRCB Water Distribution Operator Grade V |
| Figueroa, Jorge | 382916 | 20-Dec-17 | 170.00 | Certification Renewal | SWRCB Wastewater Treatment Plant Operator In Training - OIT 1 |
| Fournier, Tanja | 382449 | 7-Dec-17 | 199.00 | Membership Renewal | Morningstar membership renewal |
| Fournier, Tanja | 382449 | 7-Dec-17 | 600.00 | Membership Renewal | NAGDA membership renewal |
| Gallegos, Adriel | 382668 | 14-Dec-17 | 200.00 | Other(Misc) | Safety shoe allowance |
| Hartoog, Jeremy | 382669 | 14-Dec-17 | 180.00 | Membership Renewal | CWEA membership renewal |
| Kalinsky, Arseny | 382672 | 14-Dec-17 | 175.00 | Membership Renewal | AMTA membership renewal |
| McCarter, David | 382451 | 7-Dec-17 | 140.00 | Certification Renewal | SWRCB Water Distribution Operator Grade IV |
| McKinstry, Brian | 382674 | 14-Dec-17 | 499.75 | Membership Renewal | DO Forms Inc. |
| Moeder, Jacob | 383165 | 21-Dec-17 | 300.00 | Membership Renewal | ASCE membership renewal |
| Morabito, Chadd | 382452 | 7-Dec-17 | 170.00 | Certification Renewal | SWRCB Wastewater Treatment Plant Operator In Training - OIT 1 |
| Mori, Richard | 382453 | 7-Dec-17 | 256.73 | Other(Misc) | Annual IRWD Holiday Breakfast |
| Mori, Richard | 382453 | 7-Dec-17 | 520.53 | Other(Misc) | Annual IRWD Holiday Breakfast |
| Mori, Richard | 382453 | 7-Dec-17 | 789.21 | Other(Misc) | Annual IRWD Holiday Breakfast |
| Oldewage, Lars | 382676 | 14-Dec-17 | 124.54 | Other(Misc) | Safety shoe allowance |
| Pizanie, Nicholas B | 382455 | 7-Dec-17 | 107.72 | Other(Misc) | Wireless device protection reimbursement |
| Reyes, Jennifer | 382678 | 14-Dec-17 | 299.99 | Certification Renewal | SWRCB Water Treatment Operator Grade II |
| Saini, Mohit | 382922 | 20-Dec-17 | 119.82 | Other(Misc) | New employee welcome lunch meeting |
| Schulze, Richard | 382456 | 7-Dec-17 | 180.00 | Membership Renewal | CWEA membership renewal |
| Spangenberg, Carl | 382680 | 14-Dec-17 | 120.00 | Certification Renewal | SWRCB Water Treatment certification renewal |
| Total Amount: | | | \$6,308.83 | | |

January 22, 2018

Prepared by: J. Corey

Submitted by: F. Sanchez/P. Weghorst

Approved by: Paul Cook

CONSENT CALENDAR

EASTWOOD RECYCLED WATER PUMP STATION FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

SUMMARY:

A Final Initial Study/Mitigated Negative Declaration (Final IS/MND) for the proposed Eastwood Recycled Water Pump Station Project (Project) has been prepared. The project would involve the construction of a recycled water pump station located on the northwest corner of Jeffrey Road and Irvine Boulevard in Irvine. The pump station would ultimately house 14 pumps within one building and would also include the installation of three surge tanks slightly below grade with a roof structure. The Project would provide operational flexibility in meeting increased recycled water demands in IRWD's Zone B and Zone C recycled water systems. Staff recommends that the Board adopt the Final IS/MND and the associated Mitigation Monitoring and Reporting Program for the Project. Staff also recommends that the Board approve the Project, authorize staff to file a Notice of Determination and submit payment for the California Department of Fish and Wildlife Service filing fee.

BACKGROUND:

Over the past several years, IRWD's recycled water distribution system has undergone significant changes to meet increased demands, especially in the Zone B and Zone C pressure zones located north of the I-5 freeway. In order to maximize the use of recycled water generated by the Michelson Water Recycling Plant and to accommodate these increased demands, IRWD proposes to construct the Eastwood Recycled Water Pump Station, which will serve multiple pressure zones. The pump station will be located on the northwest corner of the intersection of Jeffrey Road and Irvine Boulevard in the City of Irvine as shown on project location map provided as Exhibit "A".

The Project will be implemented in two phases. The first phase would be constructed within the next two years. The second Phase would be constructed within the next five to ten years. An overview of the Project is described below.

Eastwood Recycled Water Pump Station Project:

The Project would include construction of a single level, above-grade recycled water pump station building with a total square footage of approximately 6,800 square feet. As a part of the first phase of construction, a total of eight booster pumps would be installed in the building; three booster pumps (2 duty and 1 standby) for the Zone A to Zone B area and five booster pumps (4 duty and 1 standby) for the Zone A to Zone C area. All of the pumps would be sized to meet both the current and ultimate demands. As a part of the second phase of the Project, a total of six booster pumps would be installed in the pump station; two booster pumps for the Syphon Reservoir to Zone C area and four booster pumps for the Zone A to Syphon Reservoir area.

Three surge tanks would be required for the proposed project for the Zone A, Zone B and Zone C systems. The surge tanks would be located in a recessed concrete structure on the eastern edge of the site. The surge tank area would have a roof structure with masonry sidewalls to aid in screening the surge tanks and auxiliary mechanical equipment from the adjacent residential developments, which are currently under construction.

As a part of the project, a 24-inch bypass pipeline would be installed parallel with the Zone A to Syphon Reservoir pumps at the pump station. Additionally, a 30-inch Zone C discharge pipeline and a 20-inch Zone B discharge pipeline would be constructed from the existing 54-inch Irvine Lake Pipeline (ILP) underlying Irvine Boulevard to the southern edge of the pump station. These pipelines would then connect to the pump station, resulting in a direct connection to the ILP. The proposed project also includes a drainage collection system, electrical service, security lighting and site access gates.

Environmental Review:

A Draft Initial Study/Mitigated Negative Declaration (Draft IS/MND) for the project was prepared by environmental consultants at LSA. On October 24, 2017, the Draft IS/MND was circulated for a 30-day public review period pursuant to the California Environmental Quality Act (CEQA). Three letters providing comments on the Draft IS/MND were received during the public review period that concluded on November 22, 2017. The agencies that provided comments were the Native American Heritage Commission, the City of Irvine and the Orange County Public Works Department. IRWD reviewed all comments received and worked with LSA in preparing responses to comments to include in the Final IS/MND, along with making necessary minor corrections and additions to the document. These additions include a Mitigation Monitoring and Reporting Program. The resulting Final IS/MND is attached as Exhibit "B".

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This project is subject to CEQA and in conformance with California Code of Regulations Title 14, Chapter 3, Article 6. A Notice of Intent to adopt a Mitigated Negative Declaration was filed with the County of Orange on October 24, 2017. Pursuant to State Guideline § 15073, the IS/MND was made available for public review for a period of 30 days from October 24, 2017, through November 22, 2017.

COMMITTEE STATUS:

Environmental compliance items are typically not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD FIND ON THE BASIS OF THE WHOLE RECORD BEFORE IT (INCLUDING THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION AND THE COMMENTS RECEIVED), THAT THERE IS NO SUBSTANTIAL EVIDENCE THAT THE EASTWOOD RECYCLED WATER PUMP STATION PROJECT WILL HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AND THAT THE MITIGATED NEGATIVE DECLARATION REFLECTS IRWD'S INDEPENDENT JUDGMENT AND ANALYSIS; ADOPT THE PROPOSED MITIGATED NEGATIVE DECLARATION FOR THE EASTWOOD RECYCLED WATER PUMP STATION AND THE ASSOCIATED MITIGATION MONITORING AND REPORTING PROGRAM; APPROVE THE PROJECT; AUTHORIZE STAFF TO POST AND FILE A NOTICE OF DETERMINATION; AND SUBMIT PAYMENT FOR THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE SERVICE FILING FEE.

LIST OF EXHIBITS:

- Exhibit "A" – Eastwood Recycled Water Pump Station Project Location Map
- Exhibit "B" – Eastwood Recycled Water Pump Station Final Initial Study/Mitigated Negative Declaration

Exhibit "A"

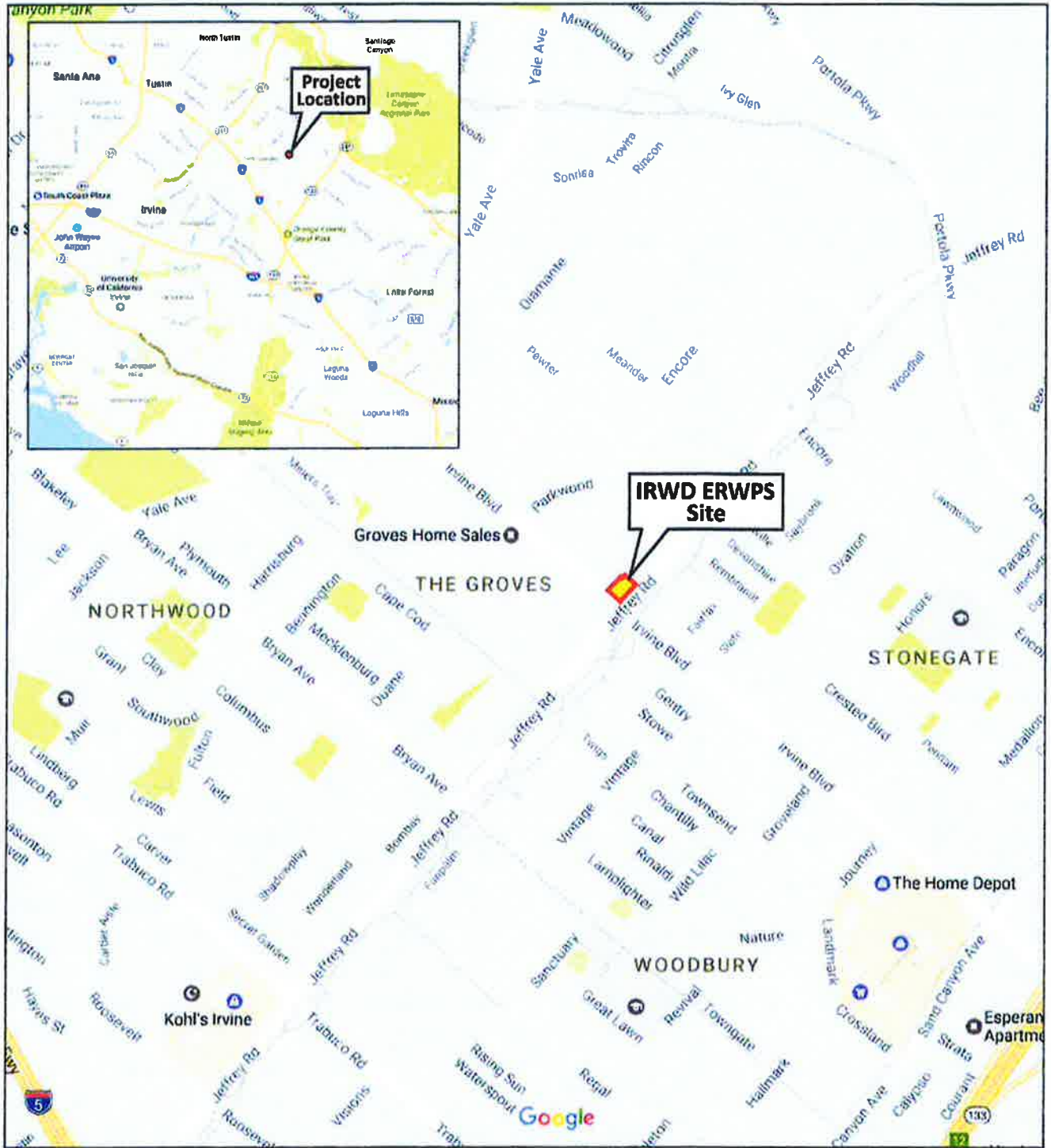


FIGURE 2.1

LSA

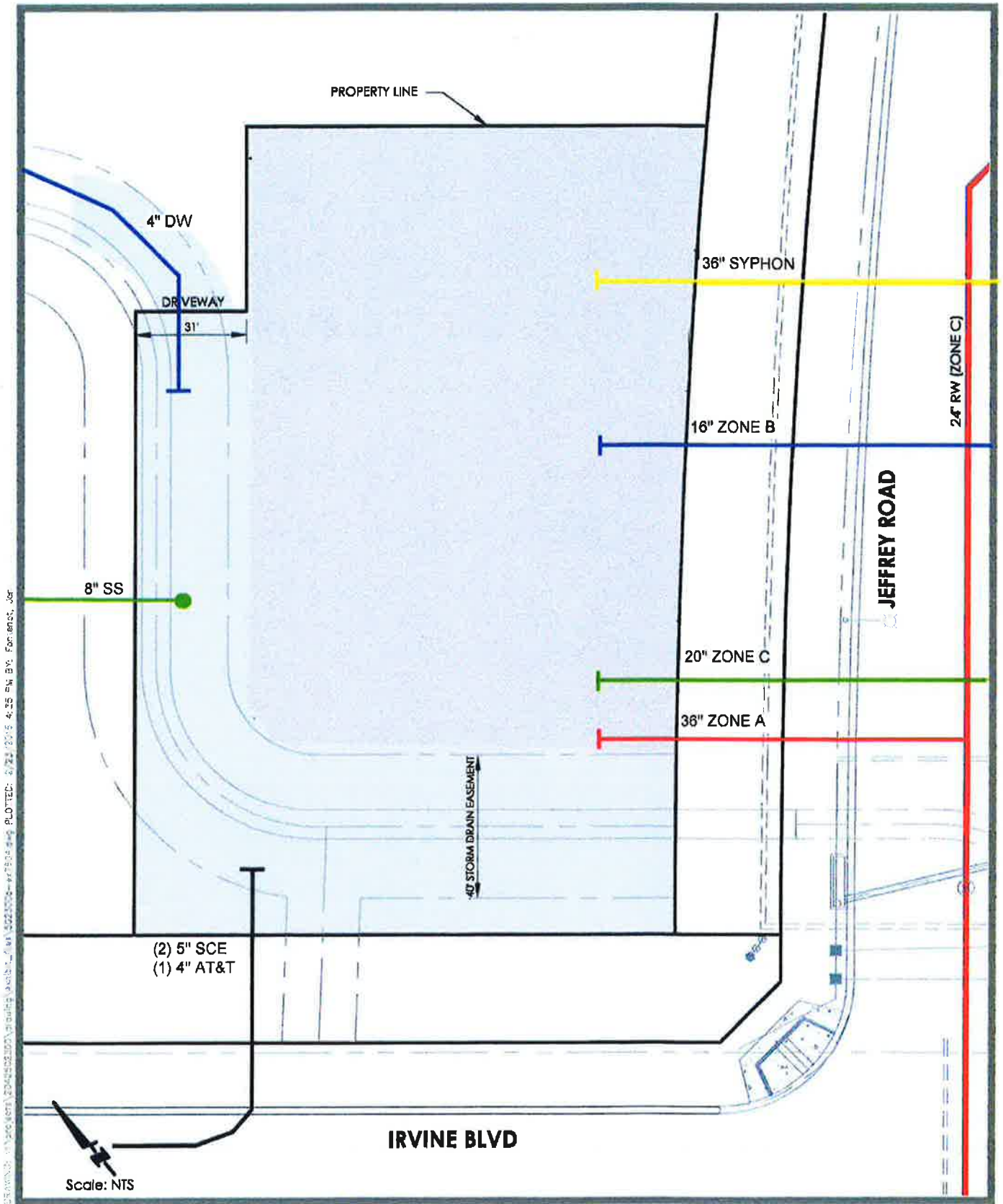


0 1000 2000
FEET

SOURCE: Google Maps, 2017

I:\RW1601.01\G\Proj_Location.cdr (8/17/2017)

Eastwood Recycled Water Pump Station
Project Location



-Multi Zone Pump Station Location Map



PREPARED FOR THE:
**IRVINE RANCH
 WATER DISTRICT**

EXHIBIT "B"

**INITIAL STUDY/MITIGATED NEGATIVE
DECLARATION**

EASTWOOD RECYCLED WATER PUMP STATION PROJECT

**A COPY OF THE DOCUMENT MAY BE
OBTAINED FROM THE
DISTRICT SECRETARY**

(document is over 250 pages)

January 22, 2018

Prepared by: IRWD Management Team

Approved by: Paul A. Cook 

CONSENT CALENDAR

IRWD 2018 GOALS AND TARGET ACTIVITIES

SUMMARY:

Staff is presenting for the Board's approval the IRWD 2018 Goals and Target Activities, as discussed and finalized at the Strategic Planning Workshop on December 19, 2017. This document proposes 16 goals for IRWD to accomplish within the next five years, along with numerous Target Activities associated with accomplishing these goals. Staff recommends that this document be received and filed.

BACKGROUND:

In anticipation of the coming calendar year, the District develops and adopts its strategic planning documents. These documents are utilized by staff to prioritize and deploy District resources, as well as to keep the Board apprised as to the progress made on each Target Activity. The process utilized to develop these strategic planning documents has been critical to IRWD realizing its Strategic Objectives year after year.

At the Board's Strategic Planning Workshop on December 19, 2017, a final draft of the Goals and Target Activities for 2018 were reviewed by the Board. At this meeting the Board provided comments, edits, and additions to the proposed list. These changes were incorporated into the final version of the IRWD 2018 Goals and Target Activities, which is attached as Exhibit "A". Staff recommends that the Board receive and file this document.

FISCAL IMPACTS:

Not applicable

COMMITTEE REVIEW:

None

RECOMMENDATION:

Receive and file.

List of Exhibits:

Exhibit "A" – 2018 IRWD Goals and Target Activities Report

EXHIBIT “A”

Strategic Planning 2018 IRWD Goals and Target Activities List

Updated: January 22, 2018

GM = General Managers Office
ENG = Engineering and Water Quality
OPS = Operations

POL = Water Policy
A&F = Administration and Finance
HR = Human Resources

| Goals and Target Activities | Target Completion Date | Lead |
|--|------------------------|------|
| <i>1. Optimize and protect local water supply utilization</i> | | |
| a. Update near-term recommendations from 2014 Groundwater Work Plan | June 2018 | ENG |
| b. Complete preliminary and final design of sloped outlet pipe to replace the Irvine Lake Outlet Tower | Dec. 2019 | ENG |
| c. Coordinate / collaborate with OCWD on South Basin Clean-up Project | Dec. 2018 | POL |
| d. Investigate opportunities for brine recovery for potable uses | Feb. 2018 | ENG |
| e. Work with OCWD on Green Acres Project water supply opportunities | June 2018 | POL |
| <i>2. Evaluate and invest in projects and programs that will enhance future long-term water supply reliability</i> | | |
| a. Implement agreements with MWD and MWDOC that will provide water supply reliability from high priority water rights during periods of drought and supply interruptions | Dec. 2019 | POL |
| b. Advocate methods for filling the Orange County Groundwater Basin, including development of concepts to promote conjunctive use | Sept. 2018 | POL |
| c. Advocate for regional potable reuse projects including Metropolitan’s Carson Regional PR Project | Dec. 2018 | GM |
| d. To secure Title XVI funding for the Syphon Reservoir Improvement Project, advocate to include the project on the Bureau of Reclamation’s Report to Congress | Mar. 2018 | GM |
| e. Pursue Prop 1 Water Storage Investment Program grant from the California Water Commission for the Kern Fan Groundwater Storage Project | Dec. 2018 | POL |

| | | |
|---|------------|------------|
| 3. Develop water banking recharge, storage, and extraction capacity for IRWD and water banking partners, and store water as it becomes available | | |
| a. Execute long-term unbalanced exchange agreements for Stockdale | June 2018 | POL |
| b. Execute long-term exchange agreements to maximize benefits of non-SWP water | Mar. 2018 | POL |
| c. Drought Relief Project recovery and conveyance facilities | Feb. 2018 | POL |
| d. Identify and secure additional land as needed for recharge and recovery facilities | Dec. 2018 | POL |
| e. Identify and procure additional supplies of water for banking purposes | Dec. 2018 | POL |
| f. Integrate IRWD's Strand Ranch and Stockdale West properties into the Kern Fan Groundwater Sustainability Agency (GSA) | April 2018 | POL |
| g. Implement initial steps associated with the Kern Fan Groundwater Storage Project, including formation of a JPA with Rosedale, securing land purchase options, etc. | Oct. 2018 | POL |
| | | |
| 4. Develop water recycling facilities and applications for optimal benefit | | |
| a. Complete construction of Irvine Lake Pipeline No. Conversion | Feb. 2019 | ENG |
| b. Convert UCI Cooling Towers and other projects to recycled water for minimum potable water savings of 250 AF per year | May 2018 | POL |
| c. Include IRWD's recycled water demands in OCWD's total water demand calculations | June 2018 | POL |
| d. Update IRWD Sewage Conveyance / Treatment Master Plan, including consideration of IBC flows | Oct. 2019 | ENG |
| e. Update the Salt Management Plan to assess impacts of seawater desalination on water recycling and other issues | June 2018 | POL |
| f. Perform CEQA, alternatives analysis and preliminary design for the Syphon Reservoir Improvement Project | Dec. 2019 | POL ENG |
| g. Complete preliminary design for diverting SGU discharge into the sewer system and coordinate with Department of the Navy for modification of the El Toro MCAS Record of Decision | Dec. 2018 | ENG |
| h. Evaluate treatment of recycled water from seasonal storage reservoirs | July 2018 | ENG |
| i. Evaluate reliability of recycled water distribution system for commercial, industrial, and institutional customers | Sept. 2018 | POL |
| j. Determine costs and benefits associated with procuring approximately 700 AF of recycled water storage in Santa Margarita Water District's Upper Oso Reservoir | May 2018 | ENG |
| k. Develop IRWD Potable Reuse Conceptual Study to explore opportunities for aquifer and surface water augmentation / storage | Oct. 2018 | ENG |
| | | |

| | | |
|--|-----------|-----|
| 5. Maximize resource recovery from fully functional biosolids and other resource recovery facilities | | |
| a. Biosolids Class A Facilities operational and commissioned | May 2019 | ENG |
| b. Secure agreements with multiple outlets for biosolids pellets. | Dec 2018 | OPS |
| c. Develop partnerships with others to utilize surplus capacity | Dec. 2018 | OPS |
| d. Develop and implement plan to introduce FOG to the IRWD Biosolids Facilities | Dec. 2019 | OPS |
| e. Develop plan to introduce foodwaste to the IRWD Biosolids Facilities | Dec. 2018 | OPS |
| | | |
| 6. Improve energy service reliability, manage demands, and control costs | | |
| a. Coordinate the construction and commissioning of energy storage installations with Advanced Microgrid Solutions | Dec. 2018 | ENG |
| b. Collaborate on the development of micro-grid technologies through a partnership with UCI | Dec. 2018 | OPS |
| c. Analyze financial feasibility of photovoltaic installation and energy storage at the Baker WTP | Mar. 2018 | POL |
| d. Evaluate opportunities to install photovoltaic generation at the MWRP | June 2018 | POL |
| e. Finalize contract to outsource operation and maintenance of biogas treatment and micro-turbine systems | June 2018 | OPS |
| f. Complete design and installation of compressed natural gas fueling station at the Michelson Operations Center | Aug. 2018 | OPS |
| | | |
| 7. Maximize watershed protection | | |
| a. Work with the County and others, permit and implement the Selenium TMDL offset trading program | Dec. 2018 | OPS |
| b. Develop project(s) with the cities of Newport Beach and Irvine to capture and treat urban runoff flows downstream from the San Joaquin Marsh utilizing funding from Measure M | Dec. 2018 | OPS |
| c. Identify other projects and partners to qualify for Measure M funding | June 2018 | POL |
| d. Evaluate customer FOG and Pre-treatment programs including assessment of implementation, billing and program requirements | Mar. 2018 | POL |
| e. Obtain regulatory approvals for Local Limits Study | June 2018 | POL |
| f. Continue to work with OC Flood to ensure appropriate capacity in San Diego Creek | Dec. 2018 | GM |
| g. Identify and begin implementing alternatives for diverting recycled water under emergency conditions | June 2018 | POL |
| h. Perfect IRWD's water right(s) in San Diego Creek to ensure continued protection of water quality in the Newport Bay | June 2018 | POL |
| i. Identify and implement treatment process at MWRP to reduce nutrients in treated recycled water process, specifically nitrogen and phosphorous levels | May 2018 | OPS |
| | | |

| | | |
|--|------------|-----|
| 8. Ensure financial and rate stability | | |
| a. Evaluate development and/or sale opportunities at IRWD properties | Dec. 2018 | A&F |
| b. Complete development and leasing on remaining Sand Canyon campus and other facilities | Dec. 2018 | A&F |
| c. Update Facility List for the Replacement Planning Model | Feb. 2018 | ENG |
| d. Document outstanding deed, access and other contractual restrictions related to real property | Dec. 2018 | A&F |
| e. Update Cost of Service Study for the IRWD sewer system that includes the Biosolids Project operating expenses | Dec. 2019 | A&F |
| f. Integrate retail pricing triggers and customer allocation changes stipulated in IRWD's Water Shortage Contingency Plan into the IRWD Rates & Charges | June 2018 | POL |
| 9. Identify, assess and implement new technologies and systems to improve operating efficiency | | |
| a. Add IRWD facilities, laboratory, and fleet assets to the Enterprise Asset Management system; start linear asset implementation | Dec. 2018 | OPS |
| b. Implement findings of IT-related existing/new technology opportunity assessment while maintaining District security | Dec. 2018 | A&F |
| c. Establish a plan for addressing cybersecurity awareness, education and prevention at IRWD | Dec. 2018 | A&F |
| d. Assess availability of data systems under certain service outage scenarios and implement program to strengthen systems | Dec. 2018 | A&F |
| 10. Enhance customer communications | | |
| a. Enhance customer communication through an improved customer web access portal | Dec. 2020 | A&F |
| b. Develop and implement Phase 2 of the Water Use Efficiency Outreach Program based on findings of the 2017 program | May 2019 | POL |
| c. Implement redesigned customer bill to improve customers' understanding of IRWD rate structure; explain IRWD rate structure to customers through direct communications | June 2018 | A&F |
| d. Develop and implement a Water Quality Outreach Program | Sept. 2018 | POL |
| e. Design and implement the Syphon Reservoir Improvement Project Outreach Program from EIR through Design Phase | Aug. 2020 | POL |
| 11. Maximize water use efficiency in the community | | |
| a. Update Water Shortage Contingency Plan based on new State regulations | April 2018 | POL |
| b. Conduct a study to assess the potential for additional water use efficiency in IRWD's service area | Dec. 2018 | POL |
| c. Evaluate remote meter monitoring program opportunities | Jan. 2018 | POL |
| d. Implement automated methodology for quantifying irrigated areas and meter locations by linking aerial image data to meter and parcel data | June 2018 | POL |

| | | |
|---|-----------|-----------|
| <i>12. Recruit, develop and retain a highly skilled, motivated, and educated work force</i> | | |
| a. Work with Employee Development Task Force to develop and implement a staff mentoring program | June 2018 | HR |
| b. Develop employee cross training and job rotation guidelines | Feb. 2018 | HR |
| c. Assess the experience and training of IRWD employees to ensure a continued supply of highly-skilled labor, and develop programs to close any gaps identified | Dec. 2018 | HR |
| d. Plan and conduct triennial Benchmark Salary Survey ensure District salaries remain competitive to market rates | Oct. 2018 | HR |
| e. Negotiate a new labor agreement with represented personnel | July 2018 | HR |
| f. Conduct District-wide values-based management training program | Dec. 2018 | GM |
| <i>13. Guide and lead local, state and federal policies and legislation</i> | | |
| a. Engage productively in legislative discussions regarding the development of a long-term water use efficiency framework for California and related legislation | June 2018 | GM POL |
| b. Engage productively with stakeholders, industry associations, and state agencies to effectively implement any long-term water use efficiency legislation enacted | Dec. 2019 | GM POL |
| c. Advocate for legislation that protects local investments in water recycling and extraordinary supplies, and protects IRWD's ability to access those supplies, without penalty, during times of drought or shortage | Aug. 2018 | GM POL |
| d. Oppose any statewide tax on water that is inconsistent with the Board's adopted policy on a statewide public goods charge | Dec. 2018 | GM |
| e. Engage in discussions surrounding water and wastewater rates in order to protect the District's ability to design and use a water budget-based tiered rate structure, including discussions related to Low Income Rate Assistance programs and Proposition 218 reforms consistent with Board direction | Oct. 2018 | GM |
| <i>14. Engage and shape policies and regulations put forth by local, state and federal agencies</i> | | |
| a. Provide input to the Department of Water Resources on revisions to the Model Water Efficient Landscape Ordinance (MWELO) | Mar. 2018 | POL |
| b. Provide input to the State Water Resources Control Board on revisions to the Recycled Water Policy | Dec. 2018 | GM POL |
| c. Seek regulatory changes promoting recycled water use in decorative lakes | Dec. 2018 | GM POL |
| d. Promote a "fit for purpose" approach to regulation of recycled water for both potable and non-potable uses | Dec. 2018 | GM |

| | | |
|---|------------|-----------|
| 15. Increase collaboration with other agencies and entities through leadership and innovation | | |
| a. Advocate for IRWD's Desalination Policy Principles | Dec. 2018 | POL |
| b. Evaluate and promote opportunities for shared services such as third party billing for UC Irvine and Tustin | June 2018 | A&F |
| c. Support enhanced engagement and leadership roles within ACWA, WaterReuse, CASA, and other District associations | Dec. 2018 | GM |
| d. Evaluate opportunities for reliability sharing including Irvine Lake and the Baker Water Treatment Plant | Dec. 2018 | ENG |
| e. Evaluate opportunities to update South County Emergency Interconnect Agreement | June 2018 | POL |
| f. Work with other agencies to maximize Orange County benefits from IRWM processes, including capture of urban runoff by OCSD for use in GWRS | June 2018 | GM POL |
| g. Coordinate with the County of Orange and OCWD in identifying locations for potential cost effective recharge of recycled and storm water | Dec. 2018 | POL |
| h. Participate in the water efficiency Data Collaborative program | Dec. 2018 | POL |
| i. Work with OCSD to identify mutually beneficial opportunities for use of IRWD sewer flows | Dec. 2018 | OPS |
| j. Complete the annexation process to bring sewer flows from Lake Forest into OCSD Revenue Area 14 (RA-14) | June 2019 | ENG |
| k. Finalize agreements for a pilot program through which other Orange County water agencies can participate in IRWD's water banking program | June 2018 | POL |
| | | |
| 16. Implement opportunities that enhance safety, security, and emergency preparedness throughout the District | | |
| a. Install security improvements at the MWRP | Oct. 2018 | HR |
| b. Design improvements to eliminate the use of chlorine gas at Preliminary Disinfection Facility | Oct. 2018 | ENG |
| c. Update District Emergency Operations Plan, including training for certain high-risk scenarios | April 2018 | HR |
| d. Develop Safety Training Management System | Dec. 2018 | HR |
| e. Assess IRWD's ability to continue operation of key facilities during short- and long-term power outage scenarios | Dec. 2018 | OPS |
| | | |

January 22, 2018

Prepared by: K. Welch/R. Bennett

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

Approved by: Paul A. Cook *PA Cook*

CONSENT CALENDAR

DROUGHT RELIEF PROJECT UPDATE AND COST ACCEPTANCE

SUMMARY:

The Drought Relief Project (DRP) is being jointly developed by Rosedale-Rio Bravo Water Storage District, Castaic Lake Water Agency (CLWA) and IRWD through the terms of a cost sharing agreement executed in 2015. IRWD and CLWA will each share equally in the capacities of six wells, the Central Intake Pipeline, a Cross Valley Canal (CVC) turn-in facility and associated conveyance facilities. The construction of the Central Intake Pipeline and the six wells were completed in 2017. Construction of the CVC turn-in facility and equipping of the six wells is ongoing. Staff recommends that the Board authorize the General Manager to accept the District's remaining share of the DRP construction costs for the Central Intake Pipeline and the CVC turn-in facility in the amount of \$2,953,243 to be paid to Rosedale consistent with the Drought Relief Project Cost Sharing Agreement.

BACKGROUND:

The DRP includes the design and construction of 11 wells and associated conveyance facilities within the Rosedale service area that will provide additional groundwater recovery and conveyance capacities to IRWD, CLWA and Rosedale. A Project map is attached as Exhibit "A".

IRWD and CLWA will share equally in the recovery capacity of six of the DRP wells. Five of the six wells were constructed in the Superior Wellfield and one was located at the Matuk site. IRWD and CLWA will also share equally in 70 cubic feet per second (cfs) of capacity in the Central Intake Pipeline and the new CVC turn-in structure. In addition, IRWD and CLWA hold a second priority to the use of each other's unused capacity. Rosedale's DRP facilities include three wells and pipelines at the West Well Field, two wells and pipelines on its Stockdale East property, a 183 cfs diversion from the CVC and a pumping station. The pumping station is capable of reversing the flow in the Central Intake Pipeline to convey flow to the Stockdale East ponds or to the Goose Lake Slough.

Cost Sharing Agreement:

On February 9, 2015, the Board approved entering into the Drought Relief Project Cost Sharing Agreement with CLWA and Rosedale. This agreement provides for the sharing of costs and the distribution of benefits associated with the design, construction, and operation of new groundwater recovery and conveyance facilities associated with the DRP. The Board approved Amendment No. 1 to the Agreement on May 21, 2015. The agreement and amendment are attached as Exhibit "B".

Rosedale is responsible for managing the design and construction of the Project facilities under the terms of the agreement. Rosedale invoices IRWD and CLWA with supporting documentation for the actual costs for each agency's portion of the project.

Project Status:

Construction of the Central Intake Pipeline and the six IRWD/CLWA wells were completed in 2017. The construction of the CVC turn-in and equipping of the six wells are expected to be completed in March 2018 and August 2018, respectively. Construction of all DRP facilities is scheduled to be completed in October 2018.

Project Budget:

Rosedale's estimated total cost of the DRP is shown on Exhibit "C" as \$29,570,371. Rosedale has managed the DRP design and construction contracts carefully and generally within budget. IRWD's estimated share in the cost of the project is also shown on Exhibit "C" as \$9,872,500. The Board has approved a total budget for IRWD's portion of the DRP in the amount of \$9,872,500 for Project 6023. This budget was established through three Board authorizations in 2015 that totaled \$6,641,200 and a FY 2016-17 approved Capital Budget increase of \$3,231,300. Funds associated with the FY 2016-17 increase have not yet been approved for expenditure through the Cost Sharing Agreement.

Cost Acceptance:

The Central Intake Pipeline was recently completed and the CVC turn-in structure is near completion; both of these facilities are within budget. Staff recommends the Board authorize the General Manager to accept the District's remaining share of the DRP construction costs for the Central Intake Pipeline and CVC turn-in facility in the amount of \$2,953,243 to be paid to Rosedale consistent with the Drought Relief Project Cost Sharing Agreement provided in Exhibit "B".

FISCAL IMPACTS:

Project 6023 is included in the FY 2017-18 Capital Budget in the amount of \$9,872,500, which was established through three Board authorizations in 2015 that totaled \$6,641,200 and an FY 2016-17 approved Capital Budget increase of \$3,231,300.

ENVIRONMENTAL COMPLIANCE:

Both the Drought Relief and Stockdale West Recovery Projects are 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 a lead agency, filed a Notice of Determination with the County of Kern on December 8, 2015, and with the California State Clearinghouse on December 9, 2015, for the Stockdale Integrated Banking Project Final Environmental Impact Report (EIR). 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, for the Stockdale Integrated Banking Project Final EIR. The construction and operation of six IRWD and CLWA wells of the Project was included in the Rosedale Master EIR and the Strand Ranch Integrated Banking Project EIR. The construction and operation of the remaining Project facilities including the Central Intake Pipeline and the CVC turn-in facilities were included in the Stockdale Integrated Banking Project EIR.

COMMITTEE STATUS:

This item was reviewed by the Supply Reliability Programs Committee on January 18, 2018.

RECOMMENDATION:

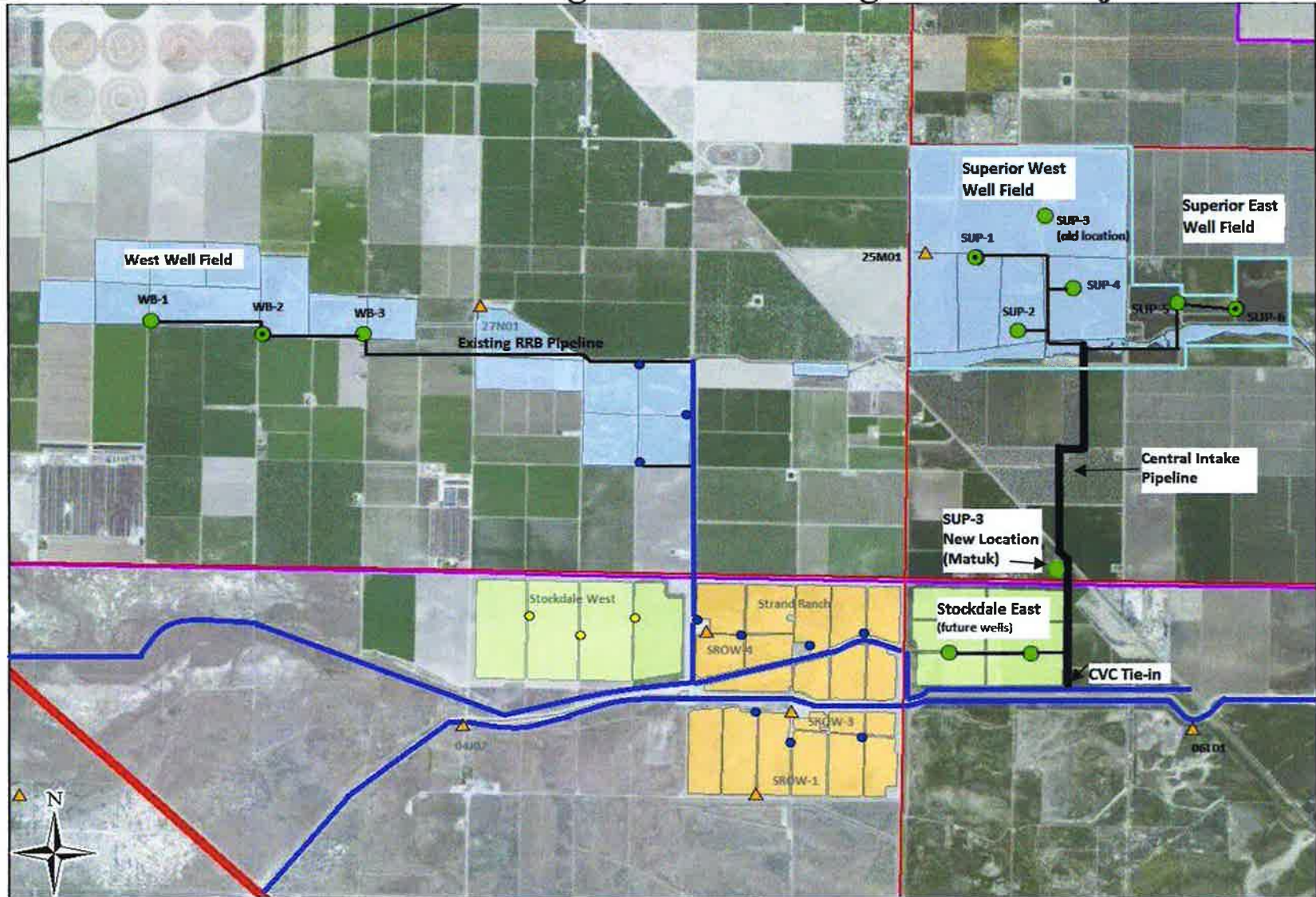
THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO ACCEPT THE DISTRICT'S REMAINING SHARE OF THE DROUGHT RELIEF PROJECT CONSTRUCTION COSTS FOR THE CENTRAL INTAKE PIPELINE AND CROSS VALLEY CANAL TURN-IN FACILITY IN THE AMOUNT OF \$2,953,243 TO BE PAID TO ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT CONSISTENT WITH THE DROUGHT RELIEF PROJECT COST SHARING AGREEMENT.

LIST OF EXHIBITS:

Exhibit "A" – Project Map: Rosedale Rio Bravo Water Storage District – Drought Relief Project
Exhibit "B" – Drought Relief Project Cost Sharing Agreement
Exhibit "C" – Drought Relief Project Budget and IRWD Cost Share

EXHIBIT "A"

Rosedale-Rio Bravo Water Storage District- Drought Relief Project



0 0.25 0.5 1 Miles

NAD 83 State Plane Zone 5

EXHIBIT "B"

DROUGHT RELIEF PROJECT COST SHARING AGREEMENT

THIS COST SHARING AGREEMENT ("Agreement") is made as of March 9, 2015 ("Effective Date"), by and among the Rosedale-Rio Bravo Water Storage District, a California water storage district ("Rosedale"); Castaic Lake Water Agency, a special act public agency ("Castaic"); and, Irvine Ranch Water District, a California water district ("Irvine") (each sometimes individually referred to as a "Party" and collectively as the "Parties").

RECITALS

The following recitals are a substantive portion of this Agreement:

- A. Rosedale is considering construction of a project referred to as the Drought Relief Project ("Project") which includes the construction of eleven (11) groundwater recovery wells ("Wells") and related facilities, the anticipated locations of which are generally shown on the attached Exhibit A; and
- B. Castaic and Rosedale entered into "Agreement Rosedale-Rio Bravo Water Storage District and Castaic Lake Water Agency for a Water Banking and Exchange Program", dated November 15, 2005 ("Castaic Agreement") which provides Castaic with certain rights relating to the construction of seven (7) Wells and related facilities; and
- C. Irvine and Rosedale entered into "Agreement for a Water Banking and Exchange Program", dated January 13, 2009 ("Irvine Agreement") which provides Irvine with certain rights relating to the construction of up to three (3) Wells within Rosedale; and
- D. The Parties desire to coordinate the construction of the Project Wells and associated facilities, with each of Castaic and Irvine to receive, in satisfaction of its above-described right to have three (3) Wells constructed, a first-priority access right to half of the combined total developed recovery capacity of the six (6) Wells comprising the Superior East and Superior West Wellfields, depicted in Exhibit A, together with a first priority right to the below-described capacity in the Central Intake Pipeline and Central Intake Pipeline connection to the canal commonly referred to as the "Cross Valley Canal" ("CVC"), consistent with the terms of the Castaic and Irvine Agreement(s), except as provided for herein; and
- E. Castaic retains its rights under the Castaic Agreement relating to the construction of up to four (4) other Wells and related facilities; provided, however, that it is not intended by Castaic that the exercise of such rights will include any of the eleven (11) Wells to be constructed as part of the Project; and
- F. The Parties estimate that the total cost of the Project will not exceed \$27,500,000 (Estimated Project Cost). A portion of the cost is anticipated to be funded with proceeds of grants; each Party intends to apply the proceeds of any grant funding it receives to its own share of the cost; and

- G. The parties desire to share the costs relating to the Project, as more specifically set forth in this Agreement; and
- H. The operation and maintenance of the Project facilities shall be consistent with and as provided for in the Castaic Agreement and with respect to Irvine, the Irvine Agreement. Notwithstanding such, the Parties may choose to jointly operate the Project Facilities for the benefit of all of the Parties upon terms and conditions, including appropriate cost sharing provisions, agreed to by the Parties.

NOW, THEREFORE, in consideration of the recitals, covenants, terms and conditions of this Agreement, all of which are incorporated into the following Agreement as if set forth fully therein, the parties agree:

AGREEMENT

1. Feasibility

Feasibility Report. Prior to undertaking the activities described in Section 2, Rosedale has caused the preparation of a Feasibility Report including, among other things, a 30% plan, project costs estimate, and design-basis report to evaluate the feasibility of the Project and establish design criteria for the Project components, and establish the Estimated Project Cost. This Feasibility Report effort shall be considered a design costs and Each Party shall bear their share as described in Exhibit B. Rosedale has retained the consultant(s) necessary to prepare the plans, project cost estimate, and design-basis report in accordance with applicable law and Rosedale's own procedures. The Parties have evaluated the plans to date, project cost estimate, and design-basis report and are committed to proceeding with the Project in accordance with this agreement.

2. Project Components.

- a. Project Management. The Project shall include six (6) Wells to be constructed for Castaic and Irvine in the Superior East and Superior West Well Fields, and up to five (5) Wells to be constructed for Rosedale in the Western and Stockdale East Well Fields, as depicted in Exhibit A. Castaic and Irvine shall each have a first priority right to the use of fifty percent (50%) of the aggregate combined capacity of the six (6) Superior Wells and connecting recovery pipelines and appurtenant facilities. The bid price from the selected contractor for the Central Intake/Alternative No. 6 (48" RCP) as shown on Exhibit C, shall be the basis for Castaic and Irvine funding obligations in the Central Intake Pipeline, described in Exhibit B. Subject to mutual agreement of the Parties, an additional bid alternative, not shown on Exhibit C, may be included and substituted for Alternative 6 as the basis of Castaic and Irvine funding obligations in the Central Intake Pipeline. The additional bid alternative shall be equivalent in capacity to Alternative 6 identified in Exhibit C. Castaic and Irvine shall have, in equal shares, a first priority use of the return capacity associated with Alternative No. 6 or the alternative substituted for Alternative 6 as the Castaic/Irvine funding obligation basis. Rosedale may increase the capacity of the Central Intake Pipeline, through selection of one of the other alternatives provided in Exhibit C and shall pay, on an incremental basis, any increase in the cost

over the cost of Alternative No. 6 or the alternative substituted for Alternative 6 as the Castaic/Irvine funding obligation basis. Rosedale shall have a first priority use of any increase in capacity over the return capacity associated with Alternative No. 6 or the alternative substituted for Alternative 6 as the Castaic/Irvine funding obligation basis.

Except as set forth herein, Rosedale shall manage the design, engineering, bidding and construction of the Project. Rosedale shall be the lead agency for purposes of compliance with the California Environmental Quality Act (CEQA) for the Project, shall prepare the necessary environmental documents for the Project and shall undertake to obtain all governmental and non-governmental reviews and approvals, licenses and permits that are, or may be, required and necessary for the Project, and will enter into contracts with others to obtain all services necessary to construct the Project. Rosedale and its agents and contractors shall comply with all applicable federal, state or local codes, laws and regulations which relate to or affect the Project, and shall comply with all of the commitments and conditions set forth in the environmental documentation. Rosedale shall construct the Project in accordance with the plans and specifications previously reviewed by Castaic and Irvine. Rosedale's General Manager, Irvine's General Manager, and Castaic's General Manager, or their respective designated representatives, (each separately a "Project Representative") shall be authorized to implement this Agreement on behalf of the Parties. Whenever a reference is made herein to an action or approval to be undertaken by a Party, the Project Representative is authorized to act on behalf of such Party unless specifically provided otherwise or the context requires otherwise. Rosedale shall keep Castaic's and Irvine's Project Representatives apprised of the progress of the work by periodic status reports to the Project Representatives (either orally or in writing) at appropriate phases of the Project. If requested by Castaic or Irvine, a monthly meeting shall be held, at the Rosedale office or another mutually agreed upon location, to review, evaluate and discuss the progress of or other aspects of the Project.

b. Property Interests.

- (i) Well Sites. Rosedale owns in fee simple all of the sites for the five (5) Wells to be constructed for Rosedale. Rosedale owns in fee simple five (5) of the sites for the six (6) Wells to be constructed for Castaic and Irvine; Rosedale is pursuing the acquisition of the sixth site, anticipated to be at no cost. In the event a fee simple interest in the sixth site cannot be acquired by Rosedale, Rosedale will review with Castaic and Irvine the terms of the easement, license or other property interest to be acquired, and the Parties will meet and confer to determine the terms necessary and adequate for operation of the Well in the manner contemplated to carry out the purposes of the Project. In the event the site cannot be acquired at no cost, the Parties will meet and confer to evaluate site acquisition options and alternative sites. However, in that event, Irvine or Castaic may, at its sole election, but shall have no obligation to, determine that it will acquire a site for the Well.
- (ii) Property Other Than Well Sites. Except as provided in paragraph 2.b.(i), above, Rosedale shall acquire all lands, easements, rights of way and any other property interest that is required for construction of the Project. The costs of land, easement and right-of-way acquisition, other than the sites for the Project's eleven (11) Wells, shall be shared by the Parties as set forth in Exhibit B; provided, however, that the shares shall be adjusted as indicated in Exhibit B, with a credit to Rosedale if necessary, in the event Rosedale does not exercise its option to oversize the Central Intake Pipeline on an incremental cost basis. If cost overruns are experienced over the amount budgeted for land,

easement and right-of-way acquisition in the Project Budget (defined below), the Parties shall meet and confer to revise the proposed acquisitions or the Project Budget or take other action.

- c. **Project Design.** Rosedale shall cause the preparation of the plans and technical specifications for the Project work ("**Plans**"), which may include alternatives for bidding purposes. The Plans shall be prepared with input from Irvine and Castaic. Rosedale shall be responsible for retaining all consultants necessary to prepare the Plans ("**Design Consultants**") in accordance with applicable law and Rosedale's own procedures. Rosedale shall distribute 90% complete Plans, including as part of said Plans a refinement and updating of the Estimated Project Cost set forth in the Feasibility Report as well as a detailed Project budget ("**Project Budget**"), to Castaic and Irvine when received by Rosedale from its Design Consultant. If Castaic or Irvine desires any changes to the 90% Plans, it shall notify Rosedale within twenty-one (21) days of receipt of the 90% Plans, after which the Parties shall work together diligently to resolve the request promptly. In the event Rosedale does not receive any comments on the 90% Plans within twenty-one days after delivery of the same, Castaic and Irvine shall be deemed to approve of the 90% Plans. Rosedale shall distribute the final Plans to Castaic and Irvine at least thirty (30) days prior to advertising a request for bids. The Estimated Project Cost as set forth in the Feasibility report shall be updated and refined in accordance with the final Plans. If Castaic or Irvine desires any changes to the final Plans, it shall notify Rosedale within seven (7) days of receipt of the final Plans, after which the parties shall work together diligently to resolve the request promptly. In the event Rosedale does not receive any comments on the final Plans within seven days after delivery of the same, Castaic and Irvine shall be deemed to approve of the final Plans and the Project will be advertised for bid as described in the final Plans. Rosedale shall cause the final Plans and bid documents to incorporate alternatives to permit Castaic's and Irvine's election of Project features that can be accommodated in the Project at Castaic's and Irvine's reasonable request if submitted in the 90% Plan review, for reliability or other purposes. Rosedale's incorporation of Castaic and/or Irvine alternatives shall require Rosedale's approval if they are deemed to increase Rosedale's share of the costs. The Parties shall meet and confer to determine whether and how the Castaic and/or Irvine alternatives can be modified and constructed without increasing Rosedale's share of costs. Notwithstanding the foregoing, the Parties acknowledge that the design of the well drilling component of the Project has already been completed, reviewed and approved by the Parties.

d. **Project Bidding and Construction.**

- (i) **General.** Rosedale shall advertise one or more contracts for construction of the Project for formal bids per applicable sections of the California Public Contracts Code. For those portions of the Project for which Rosedale receives bids, Rosedale shall, upon opening and analyzing bids, promptly provide Castaic and Irvine with the name(s), address(es), copies of the bid and supporting documents and other pertinent information relating to the bidder to which Rosedale intends to award the Contract, bid alternatives selected, or Rosedale's decision to reject all bids and rebid the Project with the same scope

and capacity (in which event the process called for under this paragraph shall be repeated). Rosedale shall provide an explanation to Castaic and Irvine in the event that any bidder selected did not provide the lowest bid for the work. If Castaic or Irvine does not approve of Rosedale's selected contractor, it shall notify Rosedale within five (5) working days after receipt of the contractor's information from Rosedale, unless the parties agree in writing that a specific longer period of review time is necessary. In the event that Rosedale does not receive comments from Irvine or Castaic within the specified time, Castaic and Irvine shall be deemed to agree to Rosedale's recommendation. If the Parties do not agree on a proposed contractor, the Parties will work diligently and in good faith to resolve the matter. If the Parties are unable to resolve the matter within five (5) working days after the date of Castaic or Irvine's response to Rosedale's recommendation and such disputed action must be made to prevent delay, Rosedale may execute a contract with its preferred contractor and the Parties will follow the dispute resolution procedure set forth in Section 4 below, entitled "Resolution of Disputes." Rosedale shall produce and require that all contractors adhere to a construction schedule, with exceptions for delays as may be approved through the Project Changes as described in section 2.e. To the extent applicable, Rosedale will comply with all public contracting laws. If Castaic is awarded an Integrated Regional Water Management Grant for its share of the Project costs, Rosedale will, at Castaic's sole cost and expense, implement a Labor Compliance Plan for the project consistent with the California Department of Industrial Relations requirements.

- (ii) Well Drilling/Pipeline/Central Intake Contracts. Rosedale shall notify Castaic and Irvine in writing within five (5) days following Rosedale's determination, after the opening of bids for all contracts, whether it will make an award or whether it will reject all bids in order to permit rebidding at the same scope and capacity pursuant to paragraph (i) ("Bid Opening Notice"); in no case shall the Bid Opening Notice occur more than thirty (30) days after the opening of bids. Notwithstanding the foregoing, the Parties acknowledge that the Well drilling contract has already been advertised for bid. The Parties waive any deviation of the Well drilling contract from the design and bidding procedures specified herein. The Parties further acknowledge that the Well drilling contract employs a "blind-bid" procedure under which the Parties are required to select alternatives for the purpose of ranking the bidders within seven (7) days of the first bid opening; the Parties agree to select the desired alternatives within said time period or a longer time period if agreed to by the parties and authorized by a valid addendum to the contract documents in advance of the bid opening.
- (iii) Termination of Project. Within thirty (30) days following the giving of each Bid Opening Notice (each, a "Determination Date"), any Party may elect to terminate all or a portion of its interests in the Project and this Agreement, by delivery of a written notice to the other Parties during said thirty (30) day period, specifying the portion of its interest in the Project to be terminated and

the portion, if any, it is retaining, each portion to be stated as a percentage share adjustments to the Project shares. If another Party wishes to acquire any or all of the terminating Party's terminated interests, the Party shall so advise the other Parties during the twenty-one (21) day period following the Determination Date, specifying the amount the acquiring Party wishes to acquire. If two non-terminating Parties give such notice and in the aggregate the amount of the interests they wish to acquire exceeds the amount being terminated, the amount being terminated shall be allocated between them or the Project scope shall be expanded, in either case as the interested Parties may mutually agree. If there are unwanted terminated interests in the Project, the Parties shall proceed as follows: if optional terminations of interest in the Project timely exercised under this Section reduce the Project scope, the remaining Parties may proceed with a reduced Project scope as they mutually agree. If optional terminations of interest in the Project timely exercised under this Section reduce the Project scope such that the Parties do not wish to proceed with it as conceptually described in the Plans, then the Parties shall meet and confer to decide whether to amend or terminate this Agreement to reflect such decision; provided, however, the Parties shall remain responsible for their respective shares of the costs of preparation of the Feasibility Report and Plans irrespective of their decision, and a Party terminating or partially terminating its interests shall, in any event, remain obligated for the share of costs allocable to the terminated interests through the applicable Determination Date, but shall be relieved of its obligations with respect to the terminated share of all subsequently incurred costs. If after a bid opening the Project is reduced in size and redesigned to delete terminated interests, then anything to the contrary herein notwithstanding, no further Determination Date(s) shall be deemed to occur.

- (iv) Notwithstanding anything to the contrary in this Agreement, if a Party chooses to terminate all or a portion of its interest in the Project pursuant to this Section 2(d), the decision to terminate all or a portion of its interest in the Project shall not in any way affect, or reduce, the rights of the terminating party to construct wells and related facilities pursuant to any other agreement with Rosedale. For example, if Castaic decided to terminate all of its interest in the Project pursuant to this Section 2(d), Castaic would still have the right to construct seven (7) wells pursuant to the Castaic Agreement and such termination would not impact such right.
- (v) Equipping of the six (6) Wells to be constructed for Castaic and Irvine shall be addressed under a separate cost share agreement amongst the parties or an amendment to this Agreement.

e. Project Changes.

- (i) Contractor Changes/Claims. Rosedale shall promptly submit to Castaic and Irvine staff for prior review, except in emergency circumstances, each contractor request for a change order, and each contractor notice of a potential

claim for additional compensation related to or increasing Castaic or Irvine's cost for their respective portions of the Project, including a copy of the supporting documents for the change or claim and Rosedale's recommendation, if any, to approve, reject or negotiate the request for a material change or notice of claim. Each Party's decision to approve, reject or negotiate a request shall be weighted according to its share(s) of the affected Project component(s) as set forth in Exhibit B. Rosedale shall have the authority to act without Irvine or Castaic approval upon changes or notices of claims that are not material. Castaic and/or Irvine, as applicable, shall respond to contractor material changes or claims within seven (7) working days after receipt of such proposed change order or notice of potential claims and supporting documents, unless the affected Parties agree in writing that a specific longer period of review time is necessary. In the event that Rosedale does not receive comments from Irvine or Castaic within the specified time, Castaic and Irvine shall be deemed to agree to Rosedale's recommendation for action on the material change order or claim. If the Parties do not agree on the proposed action on the request for material change order or claim, the Parties will work diligently and in good faith to resolve the matter. If the Parties are unable to resolve the matter within five (5) working days after the date of Castaic or Irvine's response to Rosedale's recommendation for action and such disputed action must be made to prevent delay, Rosedale may take its preferred course in such disputed action and the Parties will follow the dispute resolution procedure set forth in Section 4 below, entitled "Resolution of Disputes," as to the allocation of material extra costs or cost reduction for any such actions.

- (ii) Proposed Changes. In the event that a Party proposes any modification or desire the construction of an alternative which has the potential to increase the cost of any component of the Project, Rosedale agrees to review the proposed modification or desired alternative and implement if it concurs with the proposed modification. All increased costs associated with said proposed modifications or the selection of alternatives shall be borne proportionately in accordance with the percentage shares set forth in Exhibit B unless the Parties mutually agree otherwise.
- (iii) Materiality. For purposes of this Section 1.e., a change, claim or modification shall be deemed "material," if it would either individually exceed \$100,000, or cumulatively with any previously approved changes, claims or modifications, respectively, cause the total Costs to exceed 15% of the contract price, or would cause the schedule to be delayed by more than ninety (90) days.

f. Project Records.

- (i) Rosedale shall maintain all documents related to the Project, including all daily logs, inspector notes, testing, and correspondence. Upon Castaic or Irvine's reasonable request, Rosedale shall allow the requesting party to

review and copy such Project documents. In addition, Rosedale will obtain and supply "As Built" drawings of the Project improvements to Castaic and Irvine at the conclusion of the Project.

g. Invoicing.

- (i) Rosedale shall provide Castaic and Irvine monthly reports and invoices for the actual cost of all services necessary for the construction of the Project, accompanied by supporting documentation as may be necessary to show the amounts which represent costs of the Project. As soon as possible after the completion and acceptance by Rosedale of the Project, Rosedale shall prepare a final reconciliation and detailed accounting report and deliver to Castaic and Irvine a statement, accompanied by supporting documentation, setting forth the total actual cost of all services necessary for the Project, which shall include the actual dollar-amount of the costs of design/administration, permitting, easement acquisition, and construction (including contract change orders and payment of claims related to such work as approved or resolved pursuant to this Agreement) (excluding the costs of preparation of this Agreement) (the "Costs").

h. Responses.

- (i) If Rosedale receives comments from Castaic or Irvine pursuant to paragraph c, d or e(i) of this Section or notification of disputed amounts pursuant to Section 3c, prior to invoking dispute resolution (if applicable), Rosedale shall provide substantive responses to any comments or disputes that Rosedale does not intend to accept or if Rosedale does not intend to modify its proposed action in accordance with the comment.

3. **Castaic and Irvine Obligations.**

- a. Castaic and Irvine shall reimburse Rosedale for the Costs in proportion to the percentages shown on Exhibit B hereto and only for those items, and no other, shown in Exhibit B.
- b. Within thirty (30) days of execution of this agreement, Castaic and Irvine shall each make payment to Rosedale of \$1,000,000 each in order to establish a project cash flow account. If design or other preliminary Project costs incurred by Rosedale have been advanced by Castaic or Irvine on a voluntary basis prior to the effective date of this Agreement, such Party shall receive a credit for the advanced amount against its Project cash flow payment. After such funds have been exhausted, Castaic and Irvine shall, within forty-five (45) days of receiving each invoice and detailed accounting report, deliver to Rosedale payment for their respective portions of the Costs, less any amounts previously paid pursuant to the monthly invoices. If the Costs previously paid pursuant to the monthly invoices exceed the Costs as reflected in the invoice and detailed accounting report and statement, Rosedale shall refund the respective shares of the difference to Castaic and Irvine within sixty (60) days of completing the final

reconciliation and detailed accounting report.

- c. If Castaic or Irvine disputes the dollar amount of the Cost of any item invoiced by Rosedale, Castaic or Irvine, as appropriate, shall provide written notice of the dispute, with an explanation of the basis for the dispute no later than twenty-one (21) calendar days after receipt of the disputed invoice. Castaic or Irvine's failure to provide timely written notice to Rosedale challenging or disputing the Cost of any item shall be deemed an approval of all undisputed portions or items on the invoice.
- d. If Castaic or Irvine timely provides Rosedale with a written notice of dispute, they shall timely pay Rosedale all undisputed amounts owed to Rosedale. Castaic, Irvine and Rosedale shall negotiate in good faith in an effort to resolve any such disputes. If the parties are unable to resolve such disputes within thirty (30) calendar days after the date Rosedale receives a notice of dispute, the Parties shall submit the matter to dispute resolution as described in Section 4 of this Agreement.

4. Resolution of Disputes.

In the event disputes should arise under this Agreement, the Parties agree to the following procedures:

- a. **First Level.** At least one individual from each of the involved (two or three) Parties will meet, in person, and attempt to resolve the dispute. If a third party is involved in the dispute, the Parties will make diligent good faith efforts to include that third party in the dispute resolution process set forth in this section. For Rosedale, the first level person shall be Dan Bartel or his designee. For Castaic, the first level person shall be Dirk Marks or his designee. For Irvine, the first level person shall be Irvine's Executive Director of Water Policy or his/her designee.
- b. **Second Level.** Each involved Party will designate two individuals to whom matters not resolved at the first level shall be referred. Such individuals shall have sufficient authority to resolve the dispute, such as a General Manager or members of the parties' respective Boards of Directors.
- c. **Urgent Matters.** For any matter designated by the initiating Party as "urgent," the other Parties first level person shall make their first response within twenty-four (24) hours, or within such other period as the first level persons may agree. Unless a matter is designated "urgent" by the initiating Party, the other Party's first level person shall respond within five (5) working days, or within such other period as the first level persons may agree.
- d. **Mediation.** If the meeting(s) at the second level do not resolve the dispute, the Parties agree to mediate the matter with a mutually selected mediator, with the mediator's fees to be split equally between or among the Parties to the dispute (unless the mediator finds one or more Parties acted in bad faith and otherwise allocates the fees among the

Parties).

- e. Remedies Under Law. If neither the meetings nor the mediation results in a resolution to the dispute, the Parties will have the right to exercise any of their remedies available under law.

5. Miscellaneous Provisions.

- a. CVC Shutdown. The Parties acknowledge that at least one shut down of the CVC will be required for the installation of any tie-in facility connecting the Project to said canal. The Parties shall manage their respective water supplies to accommodate any shut-down(s) of the CVC that are reasonably necessary to construct the Project and will mutually work together to approve a shutdown schedule.
- b. Notices. All notices and other communications under this Agreement shall be in writing and shall be deemed to have been duly given on the date of delivery, (i) if delivered personally to the party to whom notice is given, or (ii) if delivered by email to the email addresses listed below. Notices and other communications sent by mail shall be deemed delivered 48 hours after deposit in the U.S. Mail with first-class postage thereon fully prepaid. Notices and other communications shall be directed to the parties at the addresses shown below. A party may change its person designated to receive notice, its facsimile number, or its address from time to time by giving notice to the other party in accordance with the procedures set forth in this Section.

If to Rosedale: Dan Bartel, Assistant Manager/Engineer
 P.O. Box 20820
 Bakersfield, CA 93390
 Email: dbartel@rrbwsd.com

If to Castaic: Dan Masnada, General Manager
 27234 Bouquet Canyon Road
 Santa Clarita, California 91350
 Email: dmasnada@clwa.org

If to Irvine: Paul Cook, General Manager
 15600 Sand Canyon Ave.
 P.O. Box 57000
 Irvine, CA 92619-7000
 Email: COOK@irwd.com

- c. Non-Liability of Officials. No member, official, employee or agent of any Party shall be personally liable to any other Party, or any successor in interest, in the event of any default or breach by a Party in the obligation under the terms of this agreement.

d. Indemnification and Insurance.

- (i) Government Code Section 895.4. It is understood and agreed that pursuant to Government Code Section 895.4, each of the Parties hereto shall fully indemnify, defend and hold the other Parties, and their respective officers, employees and agents, harmless from any damage or liability imposed for injury (as defined by Government Code Section 810.8) occurring by reason of the acts or omissions of the indemnifying Party, its officers, employees or agents, under or in connection with any work, authority or jurisdiction delegated to such Party under this Agreement. No Party, nor any officer, employee or agent thereof shall be responsible for any damage or liability occurring by reason of the acts or omissions of the other Party hereto, their officers, employees or agents, under or in connection with any work, authority or jurisdiction delegated to such other Parties under this Agreement.
- (ii) The parties agree that the construction and operation of the Project shall comply with the California Environmental Quality Act ("CEQA"). To this end, the construction and operation of the Project facilities have either (1) been adequately analyzed by previously-adopted CEQA documents, which were not challenged, or (2) will be adequately analyzed in an Environmental Impact Report being prepared by Rosedale and Irvine (Stockdale Integrated EIR) with assistance from consultants. In the event any of the Parties are named in an action alleging a violation of CEQA related to the Project or the facilities constructed thereunder, the named party shall provide notice to the other Parties within seven (7) days after receiving notice of the action. In the event the action challenges CEQA compliance pursuant to a previously-adopted CEQA document, all costs of such litigation (e.g., filing fees, administrative record costs, potential attorneys' fees and costs awarded to petitioners, etc. (collectively "litigation costs")) shall be borne by the benefitting Party or Parties whose Project is reliant upon the challenged previously-adopted CEQA document. In the event the action challenges CEQA compliance pursuant to the Environmental Impact Report referenced above, the litigation costs shall be borne by the benefitting Party or Parties whose Project is reliant upon the challenged EIR. In the event of any CEQA action related to the Project, the parties shall each be responsible for the costs of their counsel of choice unless agreed to otherwise.
- (iii) Rosedale shall require and ensure that the Design Consultants, the Contractor, and all subcontractors of those persons and entities shall name each Party as an additional insured and that the Project Design Consultants', Contractors', and all subcontractors' indemnify, defend, hold harmless and insure obligations under all applicable agreements with Rosedale that benefit the Parties in the same manner and to the same extent as Rosedale; Rosedale shall maintain in full force and effect appropriate public liability and property

damage insurance and shall add the names of the Parties, their officers, agents and employees to such policies as additional insureds.

- (iv) Rosedale shall assume the defense of, indemnify and hold harmless the other Parties and each of their officers, employees and agents from and against any and all actions, damages, liability or claims for death, injury, loss, damage or expense to persons or property arising from or related to, or claimed to have arisen from or be related to, the improper or negligent acts or omissions of Rosedale in the design, permitting, construction, construction-related mitigation, replacement, use, operation, maintenance, and/or repair, of the Project, or that result from Rosedale's breach of its obligations under the Agreement, except to the extent such actions, damages, claims, losses, expenses or liabilities have arisen from or relate to the improper or negligent acts or omissions of the indemnified Party, or result from such Party's breach of its obligation under the Agreement.
 - (v) Each of the Parties other than Rosedale shall assume the defense of, indemnify and hold harmless the other Parties and each of their officers, employees and agents from and against any and all actions, damages, liability or claims for death, injury, loss, damage or expense to persons or property arising from or related to, or claimed to have arisen from or be related to, the improper or negligent acts or omissions of, or that result from the breach of this Agreement by, such Party in connection with its participation in the Project, except to the extent such actions, damages, claims, losses, expenses or liabilities have arisen from the improper or negligent acts or omissions of, or result from the breach of this Agreement by, the indemnified Party.
 - (vi) If judgment is entered against all the Parties by a court of competent jurisdiction because of the concurrent active negligence or improper acts of one or more Parties, the Parties agree that liability will be apportioned as determined by the court. No Party shall request a jury apportionment.
- e. Negotiated Terms. The Parties agree that the terms and conditions of this Agreement are the result of negotiations among the Parties and that this Agreement shall not be construed in favor of or against any Party by reason of the extent to which any Party or its professionals participated in the preparation of this Agreement.
 - f. No Third Party Beneficiaries. No person or entity other than Rosedale, Castaic and Irvine or their permitted successors and assigns shall have any right of action under this Agreement.
 - g. Relationship Among the Parties. This Agreement does not create any partnership or agency among the Parties or between any of Parties.
 - h. Entire Agreement; Amendments. This Agreement constitutes the entire and integrated Agreement of the Parties and supersedes all prior negotiations,

representations, or agreements, either written or oral, with respect to the matters addressed in this Agreement. This Agreement may be amended only by written instrument executed by all Parties.

- i. **Waiver.** The waiver by any Party of any right with respect to a default or any other matter arising under this Agreement shall not constitute or be construed as constituting a waiver with respect to any other default or matter.
- j. **Counterparts.** This Agreement may be signed in counterparts. When each Party has signed and delivered at least one such counterpart, each counterpart shall be deemed an original and, when taken together with other signed counterparts, shall constitute one agreement which shall be binding upon and effective as to all Parties.
- k. **Term.** The term of this Agreement shall end 180 days following the acceptance of the Project work by Rosedale.
- l. **Survival.** The obligations regarding: document retention and obligations of Castaic and Irvine to pay Rosedale for approved, agreed upon and invoiced Costs; indemnification; and dispute resolution shall survive the suspension and/or termination of the Agreement, as applicable, and shall remain in effect until terminated or modified in writing by mutual agreement of all Parties or the applicable statute of limitations is reached, whichever occurs first.
- m. **Captions.** The captions used herein are for convenience only and are not a part of this Agreement and do not in any way limit or amplify the terms and provisions hereof.

[SIGNATURES ON THE NEXT PAGE]

IN WITNESS WHEREOF, this Agreement has been executed and is effective as of the date first written above:

ROSEDALE

By: [Signature]

Its: General Manager

CASTAIC

By: [Signature]

Its: GENERAL MANAGER

IBM

IRVINE

By: [Signature]

Its: General Manager

Approved
as to form

gca

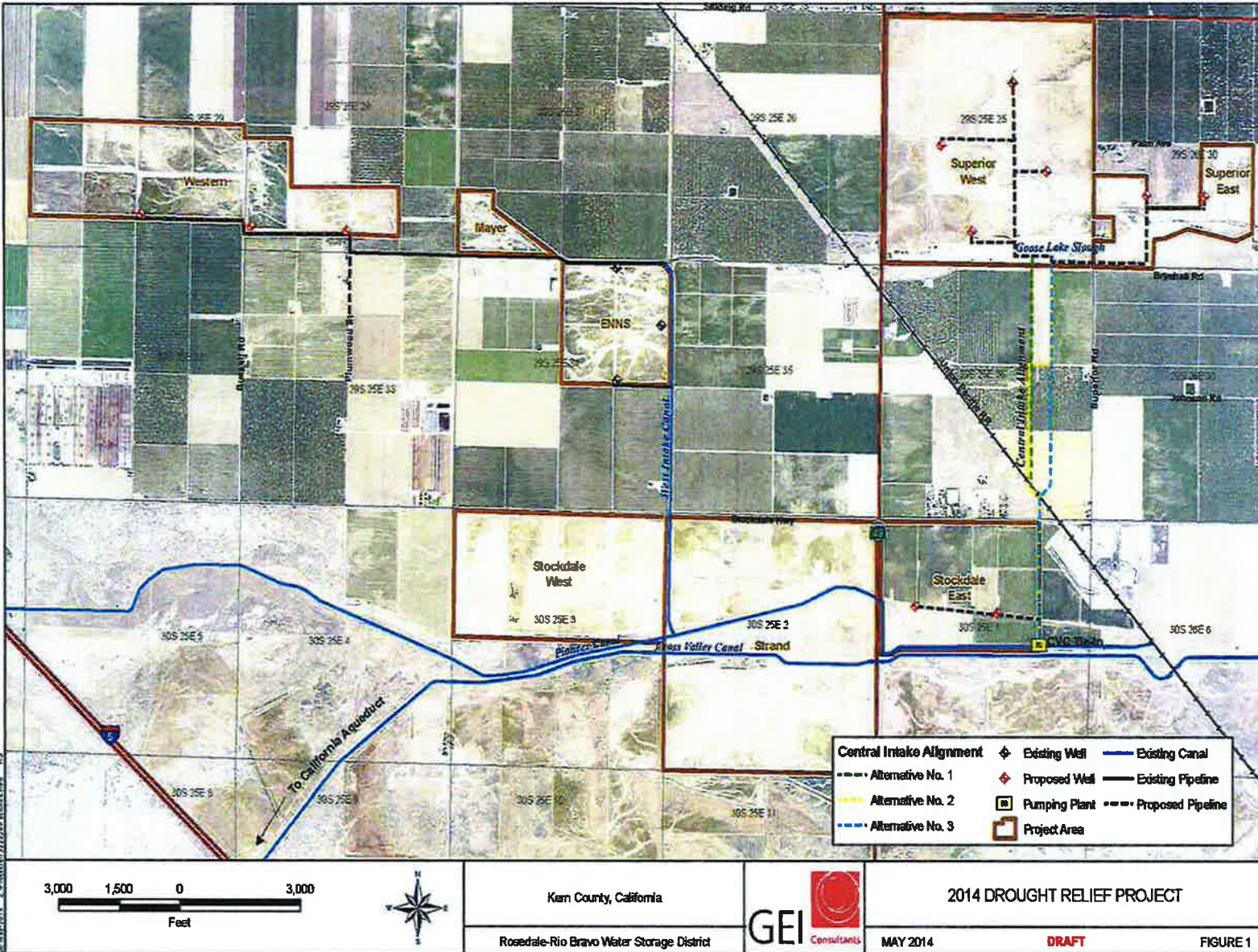


EXHIBIT B – ALLOCATION OF COSTS

All actual Construction costs of the Project shall be allocated to Rosedale (“RRB”), Castaic (“CLWA”) and Irvine (“IRWD”) as follows:

- | | |
|---|-----------------------------|
| 1. Western Well Field – (3) wells and pipelines | 100% RRB |
| 2. Superior East Well Field (2) wells and pipelines | 50% IRWD, 50% CLWA |
| 3. Superior West Well Field (4) wells and pipelines | 50% IRWD, 50% CLWA |
| 4. Central Intake Pipeline ¹ | 50% IRWD, 50% CLWA |
| 5. Pumping Plant | 100% RRB |
| 6. CVC Tie-in | 50% RRB, 25% IRWD, 25% CLWA |
| 7. Stockdale East Well Field (2) wells | 100% IRWD ² |
| 8. Stockdale East Well Field pipelines | 100% RRB |

All actual Design, Project Management, Administration, Permitting and Inspection costs of the Project shall be allocated to the parties as follows:

33 1/3% RRB, 33 1/3% CLWA, 33 1/3% IRWD

Except as provided below, all actual Property and Easement Acquisition costs of the Project shall be allocated to the parties as follows:

33 1/3% RRB, 33 1/3% CLWA, 33 1/3% IRWD

provided, however, if RRB does not select and construct the Central Intake Pipeline to a capacity in excess of the recovery capacity design minimum selected by CLWA and IRWD, such allocation shall be adjusted to the parties as follows:

10% RRB, 45% CLWA, 45% IRWD

All actual Property and Easement Acquisition costs and permitting costs of the Project associated with the Western Well Field (3) wells and pipelines and the Pumping Plant, as such are described in this Exhibit B, shall be allocated to the parties as follows:

100% RRB

All costs associated with implementation of a Labor Compliance Program required for an award of an Integrated Regional Water Management Grant in favor of Castaic shall be allocated 100% to CLWA.

¹Should RRB increase the capacity of the Central Intake Pipeline pursuant to Section 2.a. of this Agreement, RRB will pay for associated increased construction costs on an incremental basis. In such event, the bid price from the selected contractor bid will serve as the basis for the incremental cost calculation, and the Parties % allocations will be adjusted accordingly.

²Up to \$1,500,000 for item 7, per separate agreement between RRB and IRWD.

EXHIBIT C - CENTRAL INTAKE ALTERNATIVES

Summary

Printed on 8/20/2014

| ROSEDALE RIO-BRAVO WATER STORAGE DISTRICT | | | | | |
|---|---|-----------------|----------------|----------------|--------------------|
| CENTRAL INTAKE PROJECT - WEST OPTION | | | | | |
| PRELIMINARY COST ESTIMATE SUMMARY | | | | | |
| | | Capacity in cfs | | | |
| | | North Recharge | South Recovery | South Recharge | |
| 1 | <u>Canal Option (with Poly-Liner)</u> | | | | \$4,296,029 |
| | Price per cfs @ | 150 | 150 | 150 | \$28,640 |
| 2 | <u>Pipeline Option - 72" RCP</u> | | | | \$6,905,428 |
| | Price per cfs @ | 170 | 140 | 105 | \$34,738 |
| 3 | <u>Pipeline Option - 66" RCP</u> | | | | \$5,576,794 |
| | Price per cfs @ | 135 | 120 | 80 | \$41,310 |
| 4 | <u>Pipeline Option - 60" RCP</u> | | | | \$5,119,082 |
| | Price per cfs @ | 105 | 95 | 60 | \$48,753 |
| 5 | <u>Pipeline Option - 54" RCP</u> | | | | \$4,323,907 |
| | Price per cfs @ | 80 | 80 | 50 | \$54,049 |
| 6 | <u>Pipeline Option - 48" RCP</u> | | | | \$4,088,660 |
| | Price per cfs @ | 60 | 60 | 35 | \$68,144 |
| 7 | <u>Pipeline Option - 60" Ribbed Poly Pipe (ADS)</u> | | | | \$3,759,336 |
| | Price per cfs @ | 130 | 100 | 80 | \$26,918 |
| 8 | <u>Pipeline Option - 63" Solid Wall HDPE</u> | | | | \$5,071,266 |
| | Price per cfs @ | 130 | 100 | 80 | \$39,010 |
| 9 | <u>Pipeline Option - 55" Solid Wall HDPE</u> | | | | \$4,672,770 |
| | Price per cfs @ | 90 | 75 | 60 | \$51,920 |
| 10 | <u>Pipeline Option - 48" Solid Wall HDPE</u> | | | | \$4,378,544 |
| | Price per cfs @ | 50 | 55 | 30 | \$87,571 |

**AMENDMENT NO. 1
TO
DROUGHT RELIEF PROJECT
COST SHARING AGREEMENT**

THIS AMENDMENT NO. 1 TO COST SHARING AGREEMENT ("Amendment") is made as of June 12, 2015 ("Effective Date"), by and among the Rosedale-Rio Bravo Water Storage District, a California water storage district ("Rosedale"); Castaic Lake Water Agency, a special act public agency ("Castaic"); and Irvine Ranch Water District, a California water district ("Irvine") (each sometimes individually referred to as a "Party" and collectively as the "Parties").

RECITALS

The following recitals are a substantive portion of this Amendment:

- A. The Parties entered into the Drought Relief Project Cost Sharing Agreement (the "Original Agreement") as of March 9, 2015, to provide for coordination of the construction of the Project Wells and associated facilities and the sharing of the costs relating to the Project. All capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings ascribed to them in the Original Agreement.
- B. Section 2.d(v) of the Original Agreement provides that equipping of the six (6) Wells to be constructed for Castaic and Irvine (the "Superior East and West Wells") shall be addressed under a separate cost share agreement or an amendment to the Original Agreement.
- C. The Parties desire to augment the provisions of the Original Agreement to provide for the equipping of the Superior East and West Wells.

AMENDMENT

NOW, THEREFORE, in consideration of the recitals, covenants, terms and conditions of this Amendment, all of which are incorporated into the following Amendment as if set forth fully therein, the Parties agree to amend the Original Agreement as follows:

1. **Contracts For Equipping Wells.**

- a. The equipping of the Superior East and West Wells shall be carried out by the Parties in accordance with the requirements and provisions of the Original Agreement, with the modifications set forth herein. All of the recitals, covenants, terms and conditions of the Original Agreement, other than those expressly limited in their application to the Central Intake Pipeline or the Project Well drilling, shall apply to and govern the equipping of the Superior East and West Wells, except as modified herein.

- b. To facilitate Rosedale's preparation of the Plans and technical specifications for the equipping of the Superior East and West Wells, Castaic and Irvine shall identify revisions necessary to make the bid documents and contract documents that were prepared for the Project Well drilling contract suitable for use by Rosedale in the contract for equipping the Superior East and West Wells.
- c. To prepare the bid documents and contract documents for the equipping of the Superior East and West Wells, Rosedale shall use the Project Well drilling bid documents and contract documents, and shall incorporate therein the revisions identified by Castaic and Irvine as provided in paragraph b, above, and delete therefrom the provisions applicable only to Well drilling.
- d. The contract for the equipping of the Superior East and West Wells shall be separate from the contract(s) prepared by Rosedale for the equipping of the other Project Wells.
- e. In addition to the services that Rosedale shall provide or cause to be provided pursuant to Section 2 of the Original Agreement, Castaic and/or Irvine may, but shall not be obligated to, provide supplemental consulting services, at no cost to Rosedale, relating to the work under the contract for equipping the Superior East and West Wells.

2. **Cost Sharing.**

- a. All actual construction and design costs for the equipping of the Superior East and West Wells shall be allocated in accordance with Exhibit B to the Original Agreement, line items 2 and 3 (50% Irvine and 50% Castaic). The costs of actual project management, administrations, permitting and inspection costs for the equipping of the Superior East and West Wells shall be allocated in accordance with Exhibit B to the Original Agreement, line item specifying the allocation for project management, administration, permitting and inspection costs (33 1/3% Rosedale, 33 1/3% Irvine and 33 1/3% Castaic).

3. **Miscellaneous Provisions.**

- a. Counterparts. This Amendment may be signed in counterparts. When each Party has signed and delivered at least one such counterpart, each counterpart shall be deemed an original and, when taken together with other signed counterparts, shall constitute one agreement which shall be binding upon and effective as to all Parties.
- b. Captions. The captions used herein are for convenience only and are not a part of this Amendment and do not in any way limit or amplify the terms and provisions hereof.

[SIGNATURES ON NEXT PAGE]

IN WITNESS WHEREOF, this Amendment has been executed and is effective as of the date first written above:

ROSEDALE

By: D-BW

Its: Asst GM

CASTAIC

F
BGM

By: [Signature]

Its: GENERAL MANAGER

Approved
to be
filed
JCA

IRVINE

By: [Signature]

Its: General Manager

EXHIBIT “C”

Drought Relief Project Budget and IRWD Cost Share

| Facilities | Project Budget | IRWD’s Estimated Cost Share |
|---|---------------------|-----------------------------|
| Superior Wellfield | \$9,120,755 | \$4,482,017 |
| Central Intake Pipeline | \$5,269,322 | \$2,648,259 |
| CVC Turn-in Facility | \$1,219,935 | \$ 304,984 |
| Rosedale’s Stockdale East wells | \$2,332,917 | Separate project* |
| Rosedale’s Pumping Plant Phases 1 & 2 | \$3,434,803 | \$0 |
| Rosedale’s Stockdale East Basins | \$1,547,006 | \$0 |
| Rosedale’s West Wellfield | \$3,487,613 | \$0 |
| Construction Management/Administration | \$1,215,820 | \$ 696,005 |
| Right of Way/Easements, design, engineering, environmental, permits | \$1,942,200 | \$871,733 |
| Subtotal | \$29,570,371 | \$9,002,999 |
| Packer testing Superior wells | \$0 | \$ 61,880 |
| IRWD staff, legal, inspection, wellhead design | \$0 | \$ 531,715 |
| Contingency | \$0 | \$ 275,907 |
| Total Cost | \$29,570,371 | \$9,872,500 |

*Per the IRWD Rosedale Stockdale Integrated Banking Project Operating Agreement, IRWD shall pay a maximum of \$1,500,000 towards Rosedale’s Stockdale East wells in exchange for 50,000 AF of storage capacity in Rosedale’s Conjunctive Use Program. Included in the FY 2017-18 Capital Budget, Project 5499.

January 22, 2018

Prepared by: Beth Beeman

Submitted by: Paul Weghorst *PW*

Approved by: Paul A. Cook *PA Cook*

ACTION CALENDAR

PUBLIC OUTREACH CONSULTANT SELECTION FOR THE SYPHON RESERVOIR IMPROVEMENT PROJECT

SUMMARY:

On September 25, 2017, the Board approved the preparation of an Environmental Impact Report (EIR) for the proposed Syphon Reservoir Improvement Project. In parallel with the development of the EIR, a comprehensive community outreach program will be developed and implemented. The outreach program will share information about the proposed project with interested stakeholders, present technical information to target audiences, proactively contact community business leaders and interest groups, and solicit and address comments and questions from stakeholders. After completing a comprehensive consultant evaluation process, staff recommends that the Board retain Fiona Hutton and Associates (FHA) to develop and implement a public outreach program for the Syphon Reservoir Improvement Project for an amount not-to-exceed \$1,029,070.

BACKGROUND:

A critical element to the successful development of the Syphon Reservoir Improvement Project is an effective public outreach program. This program must facilitate multiple opportunities to communicate project-related impacts and to receive input from the community and stakeholders. Translating technical information into messages for use with the community and stakeholders improves the ability to communicate a clear understanding of a project's features, impacts, and benefits. To support the public outreach process for the Syphon Reservoir Improvement Project, staff proposes to develop and implement a comprehensive community outreach program using consultant services.

Community Outreach Consultant Selection:

To prepare for the community outreach efforts associated with the Syphon Reservoir Improvement Project, an RFQ for outreach services was issued on October 11, 2017, to five public outreach firms: Alliance Outreach, Fiona Hutton & Associates (FHA), Idea Hall, Katz & Associates and Westbound Communications. Based on a review of the RFQ response packages, interviews were conducted with the top three firms. The information obtained from the interviews in combination with content of the Statements of Qualifications submitted by the three firms was evaluated and used to prepare the consultant selection matrix that is provided as Exhibit "A".

Staff recommends the selection of FHA for the development and implementation of a community outreach program for the proposed project. Key strengths of FHA are as follows:

- A project management team that is skilled in developing compelling outreach campaigns dealing with CEQA processes, community impacts and stakeholder engagement;

- Skill at breaking down complicated issues to simple but effective messages that can be shared across multiple platforms to inform target audiences;
- Understanding of California water issues; and
- Experience working with key water-related clients such as the Association of California Water Agencies, Los Angeles County Department of Public Works, California Department of Water Resources, the Metropolitan Water District of Southern California, Southern California Public Power Authority, California State Water Contractors, and others.

For this project, FHA has also partnered with Brenda Deeley, a seasoned public outreach professional who has an in-depth understanding of Irvine and Orange County and over 20 years of experience leading public outreach programs for high-profile public projects. Ms. Deeley’s experience includes 15 years with Porter Novelli where she led public information campaigns for San Diego International Airport and Hoag Hospital in Irvine. She was also the senior public relations consultant for the public outreach program for Orange County Water District’s Groundwater Replenishment System Project.

Scope of Work for the Community Outreach Consultant:

In close coordination with IRWD, FHA will develop and implement a comprehensive community outreach program as described in the scope of work provided in Exhibit “B”. The scope of work includes four phases designed to align with the preparation of the EIR. The following table provides the total not-to-exceed costs for the four phases that will be billed by FHA on a time-and-material basis:

**Proposed Syphon Reservoir Improvement Project
 Communications and Outreach Budget**

| | | |
|--|-------------------------------|--------------------|
| Discovery and Planning | February – September 2018 | \$243,335 |
| Notice of Preparation and Scoping Meetings | October 1 – November 2018 | \$99,900 |
| Draft EIR Preparation, Release and Public Comment Period | December 2018 – August 2019 | \$596,110 |
| Final EIR Report Outreach and Public Hearing Phase | September 2019 – October 2019 | \$89,725 |
| Total | | \$1,029,070 |

Exhibit “C” provides additional background information for FHA.

FISCAL IMPACTS:

The Syphon Reservoir Improvement Project (Project 03808) is included in the FY 2017-18 Capital Budget. The cost of the proposed Syphon Reservoir Improvement Project community outreach program is included in the funding for this project.

ENVIRONMENTAL COMPLIANCE:

None.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on January 15, 2018.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH FIONA HUTTON & ASSOCIATES TO DEVELOP AND IMPLEMENT A PUBLIC OUTREACH PROGRAM FOR THE PROPOSED SYPHON RESERVOIR IMPROVEMENT PROJECT FOR A NOT-TO-EXCEED AMOUNT OF \$1,029,070.

LIST OF EXHIBITS:

- Exhibit "A" – Public Outreach Consultant Selection Matrix for the Syphon Reservoir Improvement Project
- Exhibit "B" – FHA Scope of Work, Schedule and Cost Estimate for the Outreach Program for the Syphon Reservoir Improvement Project
- Exhibit "C" – Background information on FHA

EXHIBIT "A"

| Syphon Reservoir Improvement Project Public Outreach Services RFQ Evaluation Matrix | | | | |
|--|----------------|--|----------------------------------|-------------------------------------|
| Experience/Knowledge | Weights | Fiona Hutton & Associates | Katz & Associates | Westbound Communications |
| Overall Team/Local Team | 20% | 1 | 3 | 2 |
| Construction/EIR Outreach Experience | 15% | 2 | 1 | 3 |
| Local Area Knowledge | 20% | 1 | 3 | 2 |
| RFQ Application Impression | 15% | 1 | 2 | 3 |
| Knowledge/Understanding of IRWD | 15% | 2 | 1 | 3 |
| Water/Government Agency Experience | 15% | 2 | 1 | 3 |
| Score | 100% | 1.45 | 1.95 | 2.6 |
| Ranking | | 1 | 2 | 3 |

EXHIBIT "B"

December 11, 2017

TO: Beth Beeman
Director of Public Affairs, IRWD

FROM: Fiona Hutton
President, Fiona Hutton & Associates

RE: Syphon Reservoir Improvement Project Public Outreach Services –
Scope & Budget

Fiona Hutton & Associates

Fiona Hutton & Associates (FHA) is an independent, woman-owned, full-service public affairs and communications agency based in Southern California. For the purposes of this project, we have partnered with public outreach strategist Brenda Deeley, a 20-year Irvine resident and Irvine Ranch Water District (IRWD) customer.

FHA combines unparalleled experience in California water policies and projects with a deep understanding of the playing field and players that are central to success in Orange County. FHA's unique background makes us an ideal partner to lead outreach around IRWD's planned reservoir improvement project. Brenda Deeley also brings many years of strategic communications and outreach experience for complex water and infrastructure projects.

The FHA team offers IRWD:

- Irvine/Orange County expertise and relationships
- Unparalleled experience in water and infrastructure
- Boots on the ground philosophy and presence
- Experienced CEQA process navigators
- Integrated communications program architects
- Crisis and reputation management expertise

Overview

FHA recognizes the intricacies of advancing a significant improvement and expansion of the Syphon Reservoir in a residential area with nearby schools and potential community impacts – compounded with heightened concerns and sensitivities after the Oroville Dam incident and continuing public scrutiny. The FHA team understands the success of the project will require tailored communications and public outreach to neighbors, local stakeholders and regional opinion leaders as the project progresses.

EXHIBIT "B"

Phased Scope, Budget and Tentative Timeline

FHA envisions a four-phase public outreach program based on the current project timeline:

1. Discovery and Planning (February – September 2018)
2. Notice of Preparation and Scoping Meetings (October – November 2018)
3. Draft Environmental Impact Report Preparation, Release and Public Comment Period (December 2018 – August 2019)
4. Final Environmental Impact Report Outreach and Public Hearing (September – October 2019)

Throughout all phases of the public outreach, the FHA team will keep its pulse on the community and work to minimize misinformation, take a proactive position to educate stakeholders on the benefits of the project and maintain IRWD's strong reputation within the community. Deliverables in each of the phases below are designed to be transparent with clear expectations for the FHA scope of work.

FHA has aimed to capture most tasks in the proposed scope of work, though ultimately the scope will be refined when the communications and outreach strategy is finalized and the plan is developed based on findings from the research.

With a deep bench of public agency and municipal clients, our agency is committed to being good stewards of public resources and will strive to be cost-effective and efficient. We will tap existing IRWD resources where available and appropriate.

SCOPE OF WORK

1. Discovery and Planning Phase

A significant amount of prep work that will set the course for the public outreach program is front-loaded in the Discovery and Planning phase.

STRATEGIC COUNSEL

We will begin our engagement with a one-day immersion meeting with key IRWD/project team members and stakeholders to align on the goals, challenges and primary objectives for the public outreach effort. This meeting will help define our approach for our research effort, which is essential to informing the public outreach strategy and communications plan. FHA will collaborate with FM3 on primary research (focus groups, stakeholder interviews/ascertainments and potential survey) to learn what information about the need and benefits of the project resonates with residents/customers and deepens their understanding of it. The audit and research will inform the development of our key messages that will be developed out of this process.

EXHIBIT "B"

OUTREACH

FHA will lead a stakeholder mapping session with staff to help narrow in on our target outreach audiences. FHA also will begin our stakeholder outreach effort by reaching out to a small group of key stakeholders that we want to engage prior to the release of the NOP and scoping meeting.

CREATIVE CONTENT

FHA will develop collateral materials (e.g., fact sheets, web content) that will be needed for the scoping meetings. The materials will be consistent with our messaging and cover key issues such as dam safety, supply needs and project benefits.

MEDIA RELATIONS

As part of our outreach planning process, FHA will develop a year-long editorial/content calendar to ensure that the cadence of our communication and outreach efforts align with key project milestones, local events and public engagement opportunities.

FHA will prepare materials for media outreach will be prepared (e.g., press release, talking points, FAQs) and in preparation for public presentations and media briefings, the project team will participate in a full-day media and speakers training session led by FHA.

| ACTIVITY | BUDGET |
|---|--------------------------------------|
| STRATEGIC COUNSEL <ul style="list-style-type: none">• Project Management & Strategy• Immersion Meeting & Background Research• Qualitative Research• Quantitative Research• Communications Plan Development• Message Development• Tough Q&A• Monthly Activity Report | Fees: \$133,925 |
| OUTREACH <ul style="list-style-type: none">• Stakeholder Mapping/Audience Identification• Stakeholder Database• Build Outreach Calendar• Targeted Stakeholder Outreach | Fees: \$61,060 |
| CREATIVE/COLLATERAL <ul style="list-style-type: none">• Fact Sheet (5) - Dam Safety, Project Need & Benefits, etc.• Web Content | Fees: \$22,625 Expenses: \$10,000 |

EXHIBIT "B"

| | |
|---|------------------|
| MEDIA RELATIONS <ul style="list-style-type: none"> • Develop Media List • Talking Points • Media Training (One Session) • Editorial Calendar • Syphon Scoping Press Release | Fees: \$15,725 |
| TOTAL FOR DISCOVERY/PLANNING PHASE | \$243,335 |

2. Notice of Preparation and Scoping Meetings Phase

During this phase, the FHA team will expand our stakeholder outreach and support/staff two public scoping meetings. Activities will include staffing for one-on-one stakeholder briefings, creation of a speakers' bureau to ensure face-to-face communication with homeowners' associations, community and business organizations, schools and other groups. FHA will also initiate and finalize development of collateral materials (e.g., multimedia presentation, social media content, updating frequently asked questions and a direct mail piece). Materials will be translated into Korean, Chinese, Farsi and Spanish, as needed.

| ACTIVITY | BUDGET |
|---|--------------------------------------|
| STRATEGIC COUNSEL <ul style="list-style-type: none"> • Project Management & Strategy • Monthly Activity Report • Scoping Meetings (Strategy & Attendance - Two Meetings) | Fees: \$41,500 |
| OUTREACH <ul style="list-style-type: none"> • Stakeholder Outreach • Outreach Calendar Updates | Fees: \$13,450 |
| CREATIVE/COLLATERAL <ul style="list-style-type: none"> • Frequently Asked Questions • Multimedia Presentation • Social Content • Informational direct-mail • Translations (Korean, Chinese, Spanish, Farsi) | Fees: \$24,500 Expenses: \$11,750 |
| MEDIA RELATIONS <ul style="list-style-type: none"> • Media Outreach • Op-Ed or Bylined Article (One) • Media Monitoring | Fees: \$8,700 |
| TOTAL FOR NOP/SCOPING PHASE | \$99,900 |

EXHIBIT "B"

3. Draft Environmental Impact Report Preparation, Release and Public Comment Period Phase

Post-scoping hearing, during the preparation of the Draft EIR, FHA is planning a robust education and outreach program including both online/offline content and efforts (social content, direct mail, dedicated webpage, video series, speakers' bureau) to continue to educate stakeholders about the benefits of the project and answer questions.

STRATEGIC COUNSEL

Additional services in this phase include: maintain outreach calendar, update stakeholder database, monthly activity reports, ongoing strategic counsel and project management.

OUTREACH

Sustained public outreach will be underway during this phase to inform project neighbors, customers and other stakeholders about the planned project and to encourage participation during DEIR public comment period. A speakers' bureau program will ensure face-to-face communication with scheduled presentations to homeowners' associations, community and business organizations, schools and other groups.

CREATIVE CONTENT

Collateral materials, website and social media content will be updated to incorporate findings from the environmental review. FHA will produce a series of three short videos to educate and engage with stakeholders on the project.

PAID MEDIA

Videos and other content will be distributed and amplified through a targeted paid social and traditional media advertising program that will be launched during this phase. Additionally, traditional offline ads will be placed in local publications to ensure all target audiences receive key information.

MEDIA RELATIONS

In addition to the preparation of a press release relating to the release of the DEIR and comment period, FHA will conduct outreach to media and will coordinate with other influencers to amplify communications in a cost-effective manner and reach a broader audience.

EXHIBIT "B"

| ACTIVITY | BUDGET |
|--|--------------------------------------|
| STRATEGIC COUNSEL <ul style="list-style-type: none"> • Project Management & Strategy • Monthly Activity Report | Fees: \$143,050 |
| OUTREACH <ul style="list-style-type: none"> • Stakeholder Outreach • Outreach Calendar Updates • Public Meeting Staffing/Attendance (Two Meetings) | Fees: \$134,925 |
| CREATIVE/COLLATERAL <ul style="list-style-type: none"> • Fact Sheet - DEIR • Frequently Asked Questions Update • Multimedia Presentation - Update • Hearing Posters/Collateral • Social Content • Video Series (3 Videos) • Web Content - Update • Translation (Korean, Chinese, Spanish, Farsi) • Informational Direct Mail | Fees: \$99,675 Expenses: \$71,000 |
| PAID MEDIA ADVERTISING <ul style="list-style-type: none"> • Digital • Print (2) | Fees: \$37,750 Expenses: \$32,000 |
| MEDIA RELATIONS <ul style="list-style-type: none"> • Media Strategy • Media Briefings • Press Release (5) • Talking Points • Op-Eds or Bylined Articles (4) • Media Training (One Session) • Media Monitoring | Fees: \$77,710 |
| TOTAL FOR DRAFT EIR PREP RELEASE/COMMENT PERIOD | \$596,110 |

EXHIBIT "B"

4. Final Environmental Impact Report Outreach and Public Hearing Phase

The last phase of public outreach is tied to the Final EIR and leads up to the public hearing when the IRWD Board will consider adoption of the FEIR.

Collateral materials, website and social content will be updated to reflect the FEIR. Media and influencer outreach will be conducted to share the final document and address community questions.

| ACTIVITY | BUDGET |
|---|--------------------------------------|
| STRATEGIC COUNSEL <ul style="list-style-type: none"> • Project Management & Strategy • Monthly Activity Report | Fees: \$21,250 |
| OUTREACH <ul style="list-style-type: none"> • Stakeholder Outreach | Fees: \$13,500 |
| CREATIVE/COLLATERAL <ul style="list-style-type: none"> • Fact sheet - Update • Frequently Asked Questions - Update • Multimedia Presentation - Update Social Content • Web Content - Update • Informational Direct-Mail | Fees: \$35,250 Expenses: \$10,000 |
| MEDIA RELATIONS <ul style="list-style-type: none"> • Media Strategy • Media Monitoring | Fees: \$9,725 |
| TOTAL FOR PHASE 4 | \$89,725 |

PROJECT BUDGET

| <u>PHASE</u> | <u>Budget</u> |
|--------------------------------------|--------------------|
| Discovery and Planning | \$243,335 |
| NOP and Scoping | \$99,900 |
| Draft EIR Release and Comment Period | \$596,110 |
| Final EIR Release | \$89,725 |
| Total | \$1,029,070 |

FionaHutton&Associates
KNOWN. LIKED. TRUSTED.

Exhibit "C"




Irvine Ranch
WATER DISTRICT

RFQ RESPONSE
SYPHON RESERVOIR IMPROVEMENT PROJECT
PUBLIC OUTREACH SERVICES

OCTOBER 2017



Introduction

October 23, 2017

Ms. Beth Beeman
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

Dear Beth,

Thank you for the opportunity to present Fiona Hutton & Associates' expertise in communications and public affairs and our qualifications for approaching your public outreach objectives regarding the Proposed Syphon Reservoir Improvement Project. We're excited at the prospect of rolling up our sleeves and doing what we do best: mobilizing a solid team that is uniquely qualified to execute a robust and fully-integrated communications campaign to reach your target audiences skillfully and quickly.

We certainly recognize the intricacies of advancing a significant improvement and expansion of the Syphon Reservoir in a residential area with nearby schools and potential community impacts – compounded with heightened concerns and sensitivities after the Oroville Dam incident and continuing public scrutiny. Our team understands the success of the project will require tailored communications and public outreach to neighbors, local stakeholders and regional opinion leaders as the project progresses.

And, we understand that IRWD is looking for “fresh and innovative” ideas for communicating with the public – new concepts and diverse platforms. Our team will need to define a strong narrative for the project and the water district, develop compelling creative and content, utilize digital and social channels, and implement a targeted outreach program that reaches Irvine's diverse communities.

It's also crucial to build a team that understands the intricacies of water in California, the technical aspects of this construction project and the CEQA process itself. With decades of experience in water policy and public agency clients, FHA knows the key players and understands the complex challenges that surround large-scale infrastructure projects. In addition to our experience in natural resources, FHA has partnered with communications strategist Brenda Deeley, who has an in-depth understanding of Irvine and Orange County and brings 20 years of experience leading public outreach programs for high-profile public projects.

Together, we are prepared to work as a partner with you, developing a nimble and integrated public outreach campaign that will guide the district through the reservoir improvement process while protecting and enhancing IRWD's regional reputation.

We look forward to the opportunity to collaborating with you and your team. Thank you.

Sincerely,


Fiona Hutton
President



Why FHA?

FHA combines unparalleled experience in California water policies and projects with a deep understanding of the playing field and players that are central to success in Orange County. Our unique background makes us an ideal partner to lead outreach around IRWD's planned reservoir improvement project. Here's what we bring to the table:

- **Southern California and Orange County Expertise and Relationships** - FHA has mounted advocacy and outreach campaigns in Southern California for 16 years, building extensive relationships with key stakeholders and developing a keen understanding of regional issues and nuances, making us the ideal team to understand and effectively communicate with IRWD's target audiences.
- **Unparalleled Experience in Water and Infrastructure Projects** - FHA is one of the state's premier water policy agencies, boasting decades of experience on issues including controversial multi-billion dollar infrastructure development, complex water quality regulatory matters and hyper-local supply projects.
- **Boots on the Ground Philosophy and Presence** - We understand the need for face time during the crucial planning and rollout of public outreach campaigns and have a dedicated team member living in Irvine and working from Orange County available and deployable for IRWD's planned and unplanned needs.
- **Proven Stakeholder Mobilization** - We come with an extensive network of stakeholders and opinion leaders in Southern California and Orange County and a proven track record of mobilizing target audiences around major infrastructure projects, building the support and air cover you need to move from project approval to opening day.
- **Experienced CEQA Process Navigators** - FHA's clients are regularly moving through the complex CEQA process and our team is experienced and ready to help you navigate unexpected roadblocks and mid-process communications needs from scoping hearings through final approval of environmental documents.
- **Integrated Communications Programs** - FHA is a full-service public affairs firm capable of mounting an integrated communications program incorporating creative, content, digital/social channels, media relations and outreach, all under one roof to ensure message consistency and efficiency.
- **Crisis and Reputation Management Expertise** - Working on some of the state's most controversial issues, FHA has a keen understanding of your needs should crisis situations arise and a proven ability to protect and restore your reputation throughout the process.
- **Experts at Becoming Experts** - We come with a strong bench of senior professionals who are skilled at distilling complex and technical processes down into easily digestible narratives that move your target audiences.



About FHA

Fiona Hutton & Associates, incorporated in 2001, is an independent, women-owned, full-service public affairs and communications agency based in Southern California.

FHA's client portfolio includes a diverse group of interests and industries, all engaged on high-profile and often controversial issues - water, environment/natural resources, coastal development, health care, energy, manufacturing, land use, transportation and local government.



FHA is a team of experts who become entrenched in your project, parachuting in with messaging, creative, digital planning, content development, earned media, community outreach and coalition building expertise. We have the know-how to craft compelling campaigns for the most complicated of issues dealing with CEQA hurdles, community impacts, stakeholder engagement and project processes, among others. No firm compares to FHA when it comes to breaking down complicated issues to simple, but effective, messages that can be shared across multiple platforms to influence key stakeholders and inform target audiences.

Our driving philosophy is to promote strong ideas and strategies, to be relentless in our implementation, to drive for the highest quality product and ultimately to win for our clients. Our team of experts is nimble and versatile, accustomed to meeting tight deadlines and dedicated to thorough front-end planning with our clients - ensuring the highest quality product is delivered on time and on budget.



FIONA HUTTON PRESIDENT

As president of Fiona Hutton & Associates, Fiona leads a team of top-level communications strategists, who specialize in the areas of water, environmental, natural resources, infrastructure, local government and energy.

Fiona has designed and implemented successful advocacy and outreach campaigns for public agencies throughout California, including ACWA, Southern California Water Committee, Los Angeles County Department of Public Works, California Department of Water Resources, MWD of Southern California, Southern California Public Power Authority, Los Angeles County Metropolitan Transportation Authority, and many others.

- High-Level Political Strategy
- CEPA/NEPA Expertise
- Effective Message Development
- Issues and Reputation Management
- Strong Statewide & Regional Stakeholder Connections

ANN NEWTON SENIOR VICE PRESIDENT

For more than 10 years, Ann Newton has been designing smart, effective communications strategies for a broad spectrum of public agency, trade association, nonprofit and political clients. She combines her extensive knowledge of the California's water policies and politics with the ability to navigate the local regulatory and political environment to produce and execute effective communications, media relations and advocacy campaigns.

Ann has successfully managed public outreach programs for the State Water Contractors, Southern California Water Committee, Desert Water Agency, and Santa Ynez Water Conservation District.

- Proven Ability to Implement Integrated Communications Programs
- Coalition Building and Stakeholder Outreach
- Wide Network of Local, Regional and Statewide Opinion Leaders
- Extensive Water and Infrastructure Expertise
- CEQA/NEPA Expertise; Hearing and Public Comment Protocols



BRENDA DEELEY SENIOR COUNSELOR

Brenda Deeley brings 20 years of experience leading strategic public outreach programs for complex and potentially controversial public projects. Brenda's experience communicating to Irvine residents includes community relations during the renovation and grand-opening of Hoag Hospital Irvine and public relations for Pavilion Park, the first of the Great Park Neighborhoods.

During Brenda's 15-year tenure with Porter Novelli, she led public information campaigns for San Diego International Airport. Projects Brenda spearheaded include public outreach for the Airport Master Plan Environmental Impact Report and construction outreach for a \$900 million terminal expansion and \$326 million Rental Car Center.

Brenda was also the senior PR consultant for the Orange County Water District and Orange County Sanitation District's Groundwater Replenishment System public outreach program.

Her work on behalf of Orange County Water District, Hoag Hospital Irvine and San Diego International Airport has earned her regional and national recognition, including the public relations industry's highest honor - the Silver Anvil.

- Deep Knowledge of Orange County Politics and Players
- Extensive Experience Managing Outreach for Local Water and Infrastructure Projects
- Irvine Resident with Finger on the Pulse of Local Issues

DANIEL SIMONS SENIOR VICE PRESIDENT

Daniel Simons is FHA's creative and digital guru. Daniel brings more than 13 years of experience to the firm and has designed and led successful creative and digital public affairs campaigns at the national, regional and local levels. He spent more than 10 years managing outreach campaigns for high-profile infrastructure projects in California, utilizing social media channels and new media tactics to move the ball forward for his clients and secure support for controversial developments throughout the state.

Daniel is dedicated to helping our clients navigate the evolving communications and public affairs landscape, leveraging both traditional and digital strategies, tools and technologies associated with modern political campaigns, and developing content and creative that breaks through the noise to reach, educate and motivate the target audiences.

- Digital and Social Media Expert and Native
- Creative Content Creator
- Experienced Practitioner Able to Solve Highly Controversial Issues
- Large-Scale Infrastructure Projects



DAGNY AKEYSON ACCOUNT SUPERVISOR

Dagny Akeyson is FHA's media maven, with an insider's view of Southern California's politics and players. Dagny grew up in Orange County and remains a SoCal native, providing her unique insights into the communities and leaders that drive the region. Clients have included Santa Margarita Water District, Moulton Niguel Water District, Jurupa Community Services District, City of Mission Viejo, Mammoth Lakes Water Conservation District and others.

Her keen understanding of the local media landscape, combined with in-depth knowledge of local and regional issues, offers clients the ability to stay ahead of the news cycle and communicate with target audiences through the right publications at the right time. Dagny is a proven spokesperson, able to deliver your message through the media in a way that engenders support with local communities and helps to put out fires in times of crisis.

- Seasoned Leader of Earned Media Outreach
- Strong Writing Skills
- Clear Understanding of Public Agencies; Regional Planning and Local Government
- Deep Knowledge of Orange County Issues and Players
- Proven Spokesperson and Trusted Local Media Confidant

MACKENZIE MENIA SENIOR ACCOUNT EXECUTIVE

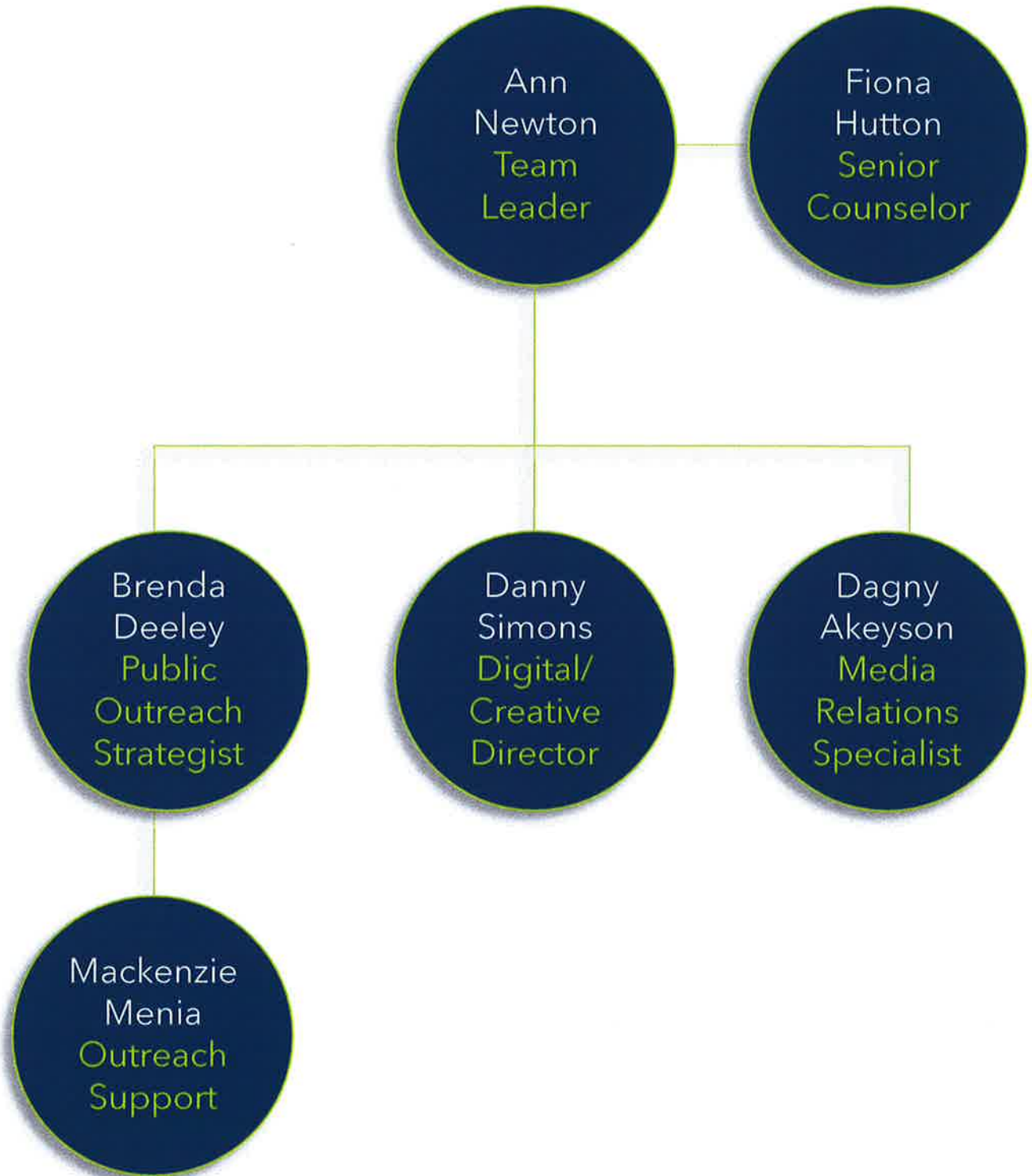
Mackenzie Menia thoroughly and flawlessly implements strategic communications plans, stakeholder engagement and public information programs. Her professional and educational background – a blend of politics, public affairs and corporate public relations, all based in Southern California – equips her to fully execute on your communication needs.

Mackenzie is adept at driving stakeholder outreach and engagement, identifying key players, producing materials that drive dialogues, managing stakeholder activation and serving as the point person during multi-pronged engagement campaigns. She dives into each communication issue or challenge, quickly becoming a subject matter expert, and assists in outreach to audiences and stakeholders using a variety of methods and channels.

- Team Coordinator
- Ability to Drive Action among Key Audiences
- Holds the Reins on Outreach Campaigns
- Experienced Mobilizer of Stakeholders and Communities



Team Organization





Case Study: SCWC – WaterNext Campaign

CHALLENGE

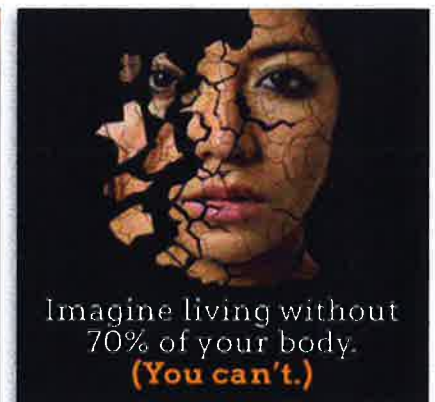
California WaterFix – the proposed \$15 billion twin-tunnels water infrastructure project – lost its audience of allies after nearly a decade of involvement and support. Stakeholders were unmotivated and unengaged. The need for a flexible, reliable and sustainable water supply to serve 25 million Californians was no longer top-of-mind. Plus, the project faced a host of obstacles: a lame duck governor who spearheaded the project, ballot measures, potential legislative and legal threats, an uncertain federal policy landscape, competing priorities for dollars and attention, as well as shifting perceptions about water delivery in light of recent heavy rains and snow, not to mention the official end of the drought. Opponents were the loudest voices on WaterFix, and they set out to have the program defeated or severely curtailed.

STRATEGY

To make an apathetic audience of supporters stop and take notice, FHA created an integrated, distinctive and dynamic communications and outreach program to serve as the Southern California’s rally cry in support of California WaterFix. The campaign, called WaterNext, was designed to break through the clutter of typical advocacy messaging to elevate the conversation, speaking to hearts and minds to generate interest and foster a better understanding of the project’s benefits to California in the years ahead. FHA developed out-of-the-box creative content and maximized social, owned and earned channels to reach target audiences, creating an echo chamber of support that was further strengthened by outreach to activate key influencers and decisionmakers.

RESULTS

FHA generated heightened awareness and understanding of California WaterFix that translated to renewed and strengthened support in Southern California. The WaterNext campaign has been lauded for playing a critical role in delivering votes of support by water agencies across the region, including an essential vote by the Metropolitan Water District of Southern California. As support among key stakeholders and decision-makers has grown louder, opposition messages that once dominated have become background noise. WaterNext messaging and content continues to drive engagement and progress for the project and is broadly shared across social, owned and earned channels.



CHALLENGE

The Metro Gold Line Foothill Extension Construction Authority is building one of the region's largest transit projects – a \$2 billion extension of light rail linking Los Angeles, San Gabriel Valley and Inland Empire. The Construction Authority needed to ensure the public, regional stakeholders and elected officials were fully informed through design and construction. Ultimately, the Construction Authority would need to garner additional public funding, driving a mandate to aggressively tout success and effectively manage any emerging issues.

STRATEGY

FHA provided strategic communications, media relations, crisis management and event planning services to the public agency, designed to increase visibility, highlight key milestones, proactively update the community, celebrate completion of high profile structures and architectural components, feature new technology, sustainability elements and operational advancements, demonstrate prudent use of taxpayer funds, and prep for any potential construction related incidents.

RESULTS

FHA successfully implemented a creative and effective news bureau function for an organization that wanted to break the mold of a traditional public agency, incorporating innovative architectural design and a commitment to bringing the project in on time and under budget. High-profile coverage was achieved in regional and national outlets, successful ribbon-cutting events were planned and managed, commemorative books were published, industry awards were received, and a comprehensive crisis communications plan was placed at the ready. And, necessary funding for the next phase of construction was secured with the recent passage of Measure M in Los Angeles County.

Slate
LA's Transit Revolution



Gold Line Bridge in Arcadia is a massive piece of art



Metro Gold Line Foothill Extension Construction Authority
Gold Line Bridge
 Project Completion Ceremony
 December 15, 2012 @ 10 a.m.



Please join us to mark the completion of the Gold Line Bridge, the first element of the Metro Gold Line Foothill Extension from Pasadena to Arcadia to be completed.

The December 15th ceremony will commemorate completion of work by Skanska USA and a number of the bridge's first team, who will incorporate the bridge as part of its ongoing construction of the 11.5 mile Foothill Extension light rail project.

WONDERFUL DESIGN AND ARTISTRY

Please plan to join the Construction Authority at this ceremony to see how the design and construction team helped design and build the Gold Line Bridge and enjoy a unique opportunity to view the bridge up close in a way that will not be possible in the future.

Los Angeles MAGAZINE
6 Quirky Facts about the Gold Line Bridge





Case Study: Orange County Water District and Sanitation District

CHALLENGE

With increased demand and decreased availability of imported water from traditional sources such as the Colorado River and Northern California, water supplies are becoming even more limited and expensive. To increase water independence, the Orange County Water District and Orange County Sanitation District developed an innovative solution to water shortages - purify sewer water to drinking water standards. The Groundwater Replenishment System would create a drought-proof supply of water for Orange County. Similar projects in other areas of the state had met intense opposition and were labeled as "toilet-to-tap" projects.

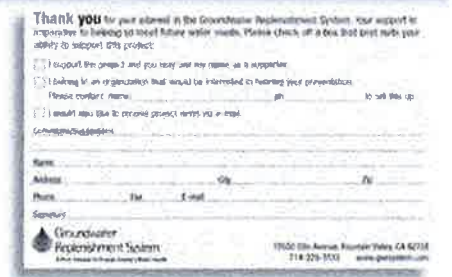
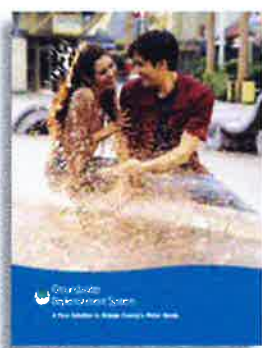
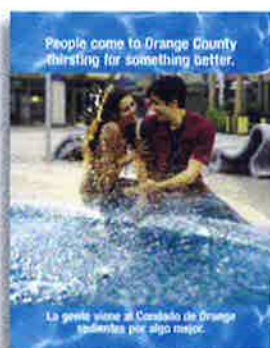
STRATEGY

Research indicated that many people have difficulty overcoming the "yuck factor" of drinking purified sewer water. However, research also found that the more people know about the project, the more likely they are to support it. They had to be reassured that the water is safe. In addition, focus group participants and survey respondents did not consider water a top-of-mind issue.

The strategy was to communicate the need for new water supplies to justify the project and use a wide array of tools to convey both the need and safety messages. Tactics included multicultural outreach to inform and build support from Latino, Asian and African American organizations and community leaders; government outreach to local, state and federal elected officials; a layered media approach for widespread communication, both paid and earned media; and community relations to inform residents through a speakers bureau, open houses for neighbors, newsletters, website, white papers and endorsement cards.

RESULTS

Polling prior to the project coming online showed that 77 percent of respondents favored the project. Because of the successful public outreach program, the project never faced organized opposition. The public outreach program received the highest honors from the Public Relations Society of America, WaterReuse Association, American Water Works Association and Association of California Water Agencies.





Case Study: Hoag Hospital Irvine

CHALLENGE

When Hoag took over a closed hospital in Irvine, rather than simply re-open the hospital, Hoag opted to keep it closed and renovate it over an 18-month period to bring state-of-the-art medical technology to the Irvine community. This meant Irvine would continue to be without a hospital and emergency department during the closure. The public outreach program needed to introduce the Hoag brand to the Irvine community and reassure residents that during the closure there would be accessible emergent care nearby at Kaiser Irvine.

STRATEGY

Irvine schools are among the best in the nation and people pay a premium to buy homes in this highly desired family community. The Hoag brand fit the upscale Irvine community perfectly. Our strategy was to emphasize Hoag's position as the preeminent health care provider in Orange County with key stakeholder groups and influencers through cost-effective and one-on-one direct communications. The public outreach program was inclusive of the community's diverse cultures. The message was simple: Hoag is worth the wait.

RESULTS

Hoag did not receive any phone calls, letters, e-mails, editorials or ongoing protests from people opposed to the temporary hospital closure. The program reached more than 70,000 residents directly and generated 451 media placements, all positive and containing Hoag's key messages. More than 6,500 people attended the community open house - 5,500 more than expected. The public outreach program earned multiple awards including PRWeek Awards Honorable Mention, Public Relations Society of America, Orange County chapter PROTOS Award and Healthcare Marketing and Public Relations Association of Southern California Golden Advocate Award.





Case Study: Desert Water Agency

CHALLENGE

Faced with historic drought, Governor Jerry Brown issued a mandate to reduce water use statewide. As residents and businesses in the Palm Springs area were among the highest per capita water users in California, Desert Water Agency was faced with the need to reduce water use by more than 30 percent within the year. To achieve such a dramatic reduction in water use and increase participation in conservation programs, DWA needed to change consumer behavior nearly overnight and make customers more aware of how they use water in their everyday lives.

STRATEGY

FHA launched an aggressive public education and outreach campaign calling on customers to hold themselves and their neighbors accountable for using water wisely, making inefficient water use socially unacceptable. By covering the town with campaign materials in restaurants, residential yards, home and garden retail stores, hotel rooms, mailboxes and more, the community outreach effort targeted customers when and where they made decisions about their water use. The FHA team dreamed up innovative ways to get the message across and break through the static in an environment where drought message fatigue was quickly setting in. Program elements included campaign brand and message development, graphic design, video production, paid and earned media placements and direct customer outreach.

RESULTS

The campaign successfully increased water awareness and encouraged customers to make dramatic changes to their water use. Water use in DWA's service area dropped by more than 30 percent during the course of the campaign. Additional key milestones were also achieved as participation in DWA's conservation rebate programs dramatically increased - the agency saw a 400 percent increase in the average annual number of smart irrigation controllers installed.





Case Study: State Water Contractors

CHALLENGE

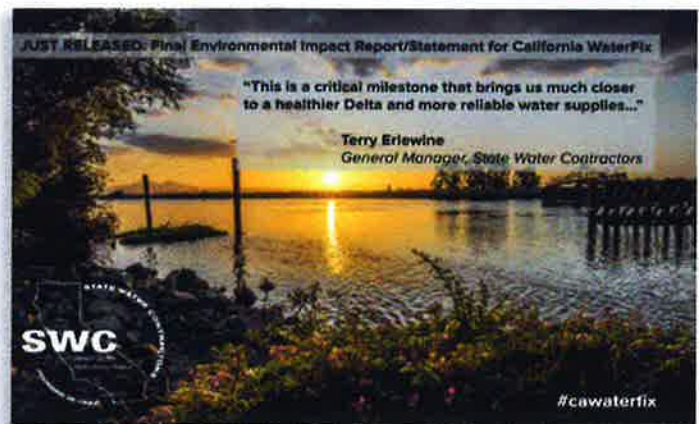
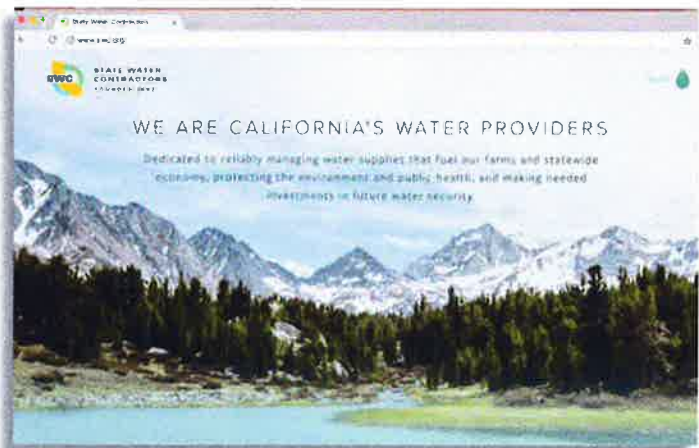
The State Water Contractors (SWC) was relatively unknown among California media and stakeholders, despite its significant role providing water for 25 million Californians, farms and businesses. As the organization and its member water agencies faced mounting regulatory, legal and public policy challenges, they needed to elevate their profile, reframe the debate on complex water issues and lay the groundwork for solutions.

STRATEGY

FHA developed and implemented ongoing strategic communications to increase SWC's visibility, educate and engage stakeholders, the media and opinion leaders in critical water issues. By establishing a brand and presence for the organization, FHA positioned SWC to drive a narrative in support of key policy and organizational objectives. The multi-year communications program has included aggressive media outreach, public education and advocacy, rapid response, social media and creation and deployment of compelling communications materials. FHA managed a robust media outreach program throughout years of high-stakes litigation and, since 2008, we have used evolving communications tools, messaging and outreach to support "California WaterFix" - Governor Jerry Brown's multi-billion dollar plan that will construct a major new water conveyance system to safeguard water supplies that serve 25 million Californians.

RESULTS

FHA's results-focused communications program helped advance SWC's policy priorities, turned the dialogue on controversial issues and established the organization as an authoritative voice in the water sector amongst fellow public agencies, the media and other stakeholders.





References



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Michelle Tuchman
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m.tuchman@cox.net
949-689-3056



INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
10/17/2017

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 have ADDITIONAL INSURED provisions or 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).

| PRODUCER Eichberg Associates, Inc. 21021 Vennus Blvd. Suite 210 Woodland Hills, California 91364 | Phone: (818)380-1700 Fax: (818)380-1717 | CONTACT NAME: John Agayan PHONE (AC, HO, EXT): (818)380-1700 FAX (AC, EXT): (818)380-1717 E-MAIL ADDRESS: john@eichbergassociates.com | | | | | | | | | | | | | | |
|---|---|--|-------------------------------|--------|--|-------|--|-------|------------|--|------------|--|------------|--|------------|--|
| INSURED Fiona Huron & Associates, Inc. 12711 Venura Blvd., Suite 170 Studio City, CA 91604 | <table border="1"> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> <tr> <td>INSURER A: Travelers Casualty Insurance Company Of America</td> <td>19046</td> </tr> <tr> <td>INSURER B: Underwriters At Lloyd's, London</td> <td>15792</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> </table> | | INSURER(S) AFFORDING COVERAGE | NAIC # | INSURER A: Travelers Casualty Insurance Company Of America | 19046 | INSURER B: Underwriters At Lloyd's, London | 15792 | INSURER C: | | INSURER D: | | INSURER E: | | INSURER F: | |
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COVERAGES CERTIFICATE NUMBER: 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 INSUR 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 Non Owned Auto GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JEOT <input type="checkbox"/> LOC OTHER: | <input checked="" type="checkbox"/> | 6806186P161 | 1/1/2017 | 1/1/2018 | EACH OCCURRENCE \$ 2,000,000 DALLAGE / RENTIES \$ 300,000 PREMISES (EA OCCURRENCE) \$ 5,000 MED EXP (Any one person) \$ 2,000,000 PERSONAL & ADV INJURY \$ 4,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ COMBINED SINGLE LIMIT (EA ACCIDENT) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ |
| A | AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> OWNED AUTOS ONLY <input checked="" type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$ | <input checked="" type="checkbox"/> | 6806186P161 | 1/1/2017 | 1/1/2018 | BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ EACH OCCURRENCE \$ AGGREGATE \$ |
| | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/BOARD MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below | Y/N <input type="checkbox"/> N/A | | | | PER STATUTE <input type="checkbox"/> OTHER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$ |
| B | Errors & Omissions | <input checked="" type="checkbox"/> | MPL 166724917 | 1/1/2017 | 1/1/2018 | 1,000,000 1,000,000 |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
With regard to the above-referenced Commercial General Liability insurance policy, Irvine Ranch Water District is included as additional insured as respects operations of the Named Insured, but only as their interest may appear.

| | |
|--|--|
| CERTIFICATE HOLDER Holder's Nature of Interest: Additional Insured Irvine Ranch Water District 15600 Sand Canyon Ave Irvine, CA 92618 | CANCELLATION 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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ACORD 25 (2016/03)

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INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DMK
R004DATE (MM/DD/YYYY)
10/17/2017

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|---|------------------|----------------------------------|
| PRODUCER PAYCHEX INSURANCE AGENCY INC/PAC 210764 P: F: (888) 443-6112 PO BOX 33015 SAN ANTONIO TX 78265 | CONTACT NAME | |
| | PHONE (AC) (ext) | AX (AC) (ext) (888) 443-6112 |
| INSURED FIONA HUTTON & ASSOCIATES INC INC 12711 VENTURA BLVD STE 170 STUDIO CITY CA 91604 | INSURER A | Hartford Accident & Indemnity Co |
| | INSURER B | |
| | INSURER C | |
| | INSURER D | |
| | INSURER E | |
| | INSURER F | |

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

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| TYPE | TYPE OF INSURANCE | FORM CLASS | CLASS | POLICY NUMBER | POLICY EFF DATE (MM/DD/YYYY) | POLICY EXP DATE (MM/DD/YYYY) | LIMITS |
|------|--|------------|-------|---------------|------------------------------|------------------------------|--|
| A | COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR | | | | | | EACH OCCURRENCE DAMAGE TO RENTED PREMISES (E&O occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMPROP AGG |
| | GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER: | | | | | | |
| A | AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY | | | | | | COMBINED SINGLE LIMIT (E&O accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) |
| | UMBRELLA LIAB EXCESS LIAB OCCUR CLAIMS-MADE DED RETENTION | | | | | | EACH OCCURRENCE AGGREGATE |
| A | SYNOPSIS COMPENSATION AND EMPLOYER LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/OWNER EXCLUDED? (Mandatory in NH) Y/N <input type="checkbox"/> If yes, describe under DESCRIPTION OF OPERATIONS below | | | 76 WEG 034650 | 01/01/2017 | 01/01/2018 | <input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE-EMPLOYEE \$1,000,000 E.L. DISEASE-POLICY LIMIT \$1,000,000 |
| | DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101. Additional Remarks Schedule may be attached if more space is required) | | | | | | Those usual to the Insured's Operations. |

CERTIFICATE HOLDER**CANCELLATION**

The Irvine Ranch Water District
15600 SAND CANYON AVE
IRVINE, CA 92618

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

Susan S. Castaneda

ACORD 25 (2016/03)

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January 22, 2018

Prepared by: S. Toland/R. Mori

Submitted by: K. Burton *KRB*

Approved by: Paul A. Cook *[Signature]*

ACTION CALENDAR

OWNER'S REPRESENTATIVE CONSULTANT SELECTION FOR THE SYPHON RESERVOIR IMPROVEMENTS

SUMMARY:

The Syphon Reservoir Improvements project will increase the District's seasonal recycled water storage capacity by approximately 4,500 acre-feet (AF). Staff solicited proposals from several consulting firms to provide engineering support services as the Owner's Representative (OR) throughout the environmental, permitting, and design phases of the project. Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement with HDR Engineering in the amount of \$1,551,040 for OR support services for the Syphon Reservoir Improvements.

BACKGROUND:

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

The proposed project will increase the reservoir's water storage capacity by approximately 4,500 AF. IRWD proposes to increase the reservoir storage capacity by replacing the existing 59-foot high dam with a new 136-foot high embankment dam. The final usable storage capacity at Syphon Reservoir will be approximately 4,900 AF.

Owner's Representative Consultant Services:

The OR will serve as an extension of IRWD's project management staff and will bring resources and expertise in program management, project scheduling and controls, compliance management, and technical expertise to support both the management and design oversight of the project through the final design phase. The OR responsibilities will include development and implementation of the project management plan, risk management, scheduling, technical support during the environmental compliance process, technical evaluation of recreational concepts, coordination with regulatory agencies and technical advisory group, and design phase oversight. The OR will also provide guidance and technical reviews of reports generated by IRWD's consultants responsible for the environmental compliance (CEQA/NEPA) and public outreach programs.

The OR will not perform final design work, but will provide technical support and assistance to IRWD during the development, implementation, and management of the project. The OR will also participate in technical reviews throughout the preliminary and final design phases. As such, the selected OR firm will be precluded from submitting a proposal for professional services related to the final design of the project.

Consultant Selection:

Staff issued a Request for Proposals for OR services to AECOM, Black & Veatch, HDR, and Kleinfelder. Staff received proposals from HDR and the teams of Black & Veatch and Kleinfelder. AECOM declined to submit as it indicated a preference to pursue the detailed design phase of the project rather than the OR role. Staff completed a thorough review and evaluation of the proposals received. While each firm presented a broad depth of experience and expertise relative to reservoirs and dams, HDR established a superior depth and knowledge of managing complex reservoir projects and an extensive track record of successfully working with lead regulatory agencies including the California Division of Safety of Dams and the United States Bureau of Reclamation. HDR's proposed project manager, who will be the OR team lead at all project meetings and public forums, demonstrated a high level of knowledge and direct experience with the various aspects of reservoir improvement projects including regulatory agency coordination, design, and construction. HDR's engineering fee is \$1,551,040. A copy of the proposal ranking matrix is included as Exhibit "A".

Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement with HDR Engineering in the amount of \$1,551,040 since its approach, schedule, and man-hours are consistent with the project goals. A copy of HDR's scope of work and fee proposal is presented as Exhibit "B".

FISCAL IMPACTS:

The Syphon Reservoir Improvements, Project 03808, is included in the FY 2017-18 Capital Budget as a flagged project. On July 7, 2017, the Board approved an Expenditure Authorization (EA) in the amount of \$2,500,000 for initial design and environmental compliance activities. Subsequently, staff decided to proceed with public outreach efforts for the project in parallel with the environmental compliance activities. Staff is requesting an additional EA to support public outreach efforts as outlined in the table below:

| Project No. | Current Budget | Addition <Reduction> | Total Budget | Existing EA | This EA Request | Total EA Request |
|-------------|----------------|----------------------|--------------|-------------|-----------------|------------------|
| 03808 | \$60,169,200 | \$0 | \$60,169,200 | \$2,650,000 | \$1,200,000 | \$3,850,000 |

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA). In conformance with the California Code of Regulations Title 14, Chapter 3, Section 15004, IRWD is preparing an Environmental Impact Report for the project.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on January 16, 2018.

RECOMMENDATION:

THAT THE BOARD APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$1,200,000; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH HDR ENGINEERING, IN THE AMOUNT OF \$1,551,040, TO PROVIDE ENGINEERING SUPPORT SERVICES AS THE OWNER'S REPRESENTATIVE FOR THE SYPHON RESERVOIR IMPROVEMENTS, PROJECT 03808.

LIST OF EXHIBITS:

- Exhibit "A" – Consultant Selection Matrix
- Exhibit "B" – HDR Scope of Work and Fee Proposal

EXHIBIT "A"

CONSULTANT SELECTION MATRIX

| Syphon Reservoir Improvements - Owner's Representative Engineering Services | | | | | |
|---|--|--------------|------------------|--|--------------------|
| Item | Description | Weights | HDR | B&V/Kleinfelder Team | |
| A | <u>TECHNICAL APPROACH</u> | | | | |
| 1 | Project Understanding | 30% | 1 | 2 | |
| 2 | Project Approach | 40% | 1 | 2 | |
| 3 | Project Team | 30% | 1 | 2 | |
| | <u>Weighted Score</u> | | 1.0 | 2.0 | |
| | Ranking of Consultants | | 1 | 2 | |
| B | <u>SCOPE OF WORK</u> | | | | |
| TASK | | Task Hours | Fee | Task Hours | Fee |
| 1 | Project Management | 2,154 | \$657,572 | 1,998 | \$494,907 |
| 2 | Preliminary Design Support | 943 | \$251,806 | 1,515 | \$336,649 |
| 3 | Miscellaneous Support | 1,426 | \$377,267 | 1,192 | \$281,194 |
| 4 | Final Design Support | 944 | \$264,395 | 2,064 | \$575,337 |
| | Total Engineering Services Fee | 5,467 | 1,551,040 | 6,769 | \$1,688,087 |
| C | <u>OTHER</u> | | | | |
| | Subconsultants | None | | Kleinfelder (Geotechnical Support), Psomas (Environmental Support), DDB (Permitting Support) | |
| | Exceptions taken to IRWD Professional Services Agreement | None | | Minor Mods. Requested | |
| | DIR Numbers Provided | Not Required | | Not Required | |
| | Insurance (Professional & General Liability) | Yes | | Yes | |

Scope

Irvine Ranch Water District (IRWD), is known for developing innovative and cost effective practices and projects. The Syphon Reservoir Improvement Project is a perfect example of this and will allow IRWD to store and reuse nearly all of its recycled water. With the additional storage, IRWD improves their supply reliability and reduces dependence on imported water, saving money and reducing discharge. **Our team has spent time researching this project and reviewing documentation to develop a deeper understanding of your expectations. Our approach includes a roadmap of the key challenges that require this team's attention, as well as opportunities to provide added benefits to the project.** Figure 1.1 represents how we plan to partner with IRWD. HDR has all of the in-house subject matter experts in all categories and a complete understanding of agency coordination to expand the Syphon Reservoir.

The HDR team is ready to dive deeper into the Syphon Reservoir project as your owner's representative. HDR brings to IRWD:



A long-standing partnership with IRWD and a proven ability to deliver quality projects. You can trust HDR to stand behind our work and do what's right for IRWD. Through this past working experience, our team knows the staff at IRWD and we understand your priorities. We have demonstrated that we will work with you to put the District's needs first and our project manager, **Chris Krivanec**, is committed to doing the same on this project.



Dam expertise in all phases of project development, from early design to construction. Our in-house dam experts, coordinated by Chris Krivanec and led by **Keith Ferguson**, will be supported by **Dan Osmun** and **Jeff Allen** who bring practical experience from former careers as dam owners, operators and regulators.

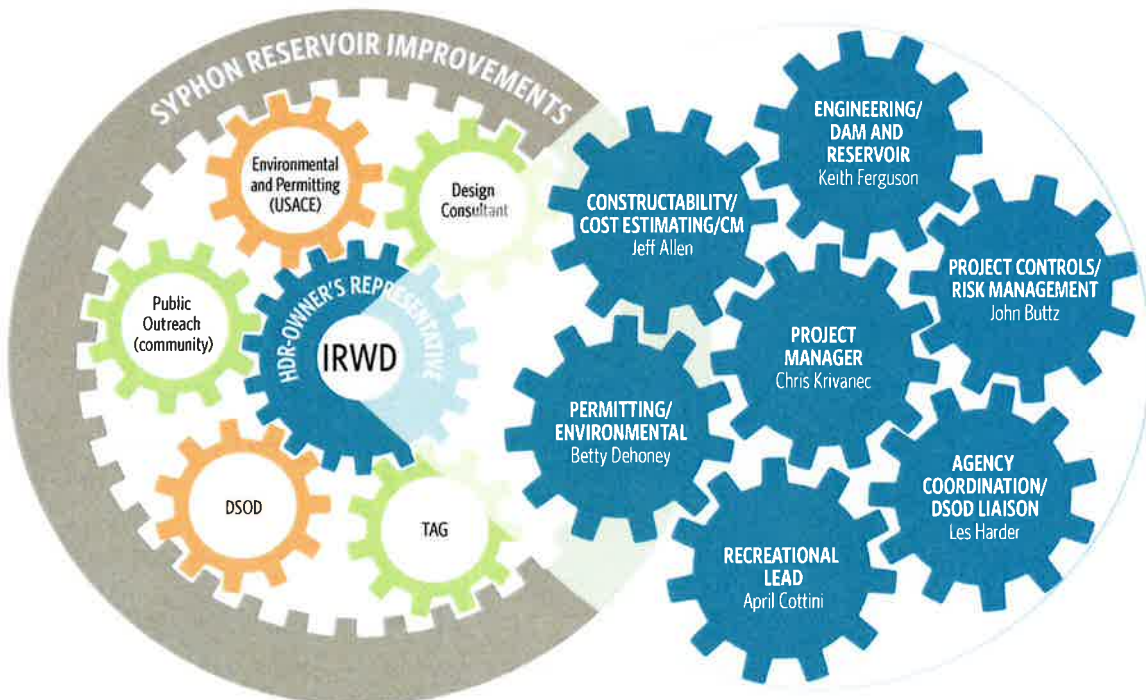


A comprehensive risk management system to successfully identify and manage key risks to project success. **John Buttz** will use HDR's proven risk management approach to characterize design, environmental and regulatory, public and construction risks early, identify a champion to address the risk and drive the process to resolution.



Technical credibility and a proven track record to secure environmental permits and design approvals. Securing environmental permits and design approvals are critical path items and require specialized expertise to meet schedule drivers. **Les Harder** has the technical credibility and know how to successfully navigate DSOD approvals and **Betty Dehoney**, as seasoned NEPA/CEQA professional, will partner with your environmental consultant to facilitate the environmental permitting.

Figure 1.1: Together, IRWD and HDR have the expertise and relationships to successfully produce the Syphon Reservoir Improvements.



Issues, Opportunities and Approach

We have identified some critical issues and opportunities in our preliminary work on this project. We have met with our key team members early on to leverage lessons learned from previous projects and to start working through them. The issues and opportunities are summarized below and our approach to addressing them are shown on the map.

- Issue: Public perception of risk and safety.** The area around the Syphon Reservoir is significantly developed with many homes, schools, highways, and other properties immediately adjacent to the existing dam and access roads. Given the proximity to the dam and the height of the proposed expansion, it's likely that there will be public concern about dam safety, but also impacts to their "viewshed." Public safety concerns are common with dam projects and HDR has effectively worked with public outreach teams and stakeholders to clearly convey approaches for understanding and reducing risk during design, dam safety monitoring activity and maintenance to protect public safety. HDR will work closely with your outreach consultant to develop effective risk communication strategies to build support for the project.
- Issue: Fault trace beneath dam.** Confirmation that the underlying fault is inactive needs to be confirmed and approved by DSOD. Should the fault be considered potentially active or active, the embankment dam design and risk profile could significantly change. HDR will lead the effort to develop a determination of fault activity and achieve DSOD concurrence early in the design process.
- Issue: Discharge conveyance.** The current design conveys all spillway and outlet emergency drawdown flows into the Portola Parkway storm drain. Confirmation that the storm drain system has the additional capacity to convey these flows during a storm event will be required. Should the existing storm drain not meet the flow requirements of the project, significant effort and approvals may be required to develop the needed conveyance system. A determination of discharge capacity will need to be completed early in the design process.
- Issue: Managing construction impacts.** Construction of large reservoirs inevitably creates public concern about construction impacts like noise, dust, truck traffic and safety. Early in the project, HDR will work with your outreach consultant to better understand construction concerns and will work with the designer and our construction experts to identify design and sequencing solutions to reduce or eliminate potential issues.
- Opportunity: Improved access roads.** The current access to Syphon Dam is through the newly constructed high school athletic facilities. A separate access road from Bee Canyon Access Road to the dam will be required to facilitate construction activities. An opportunity exists to make that temporary construction access road permanent to alleviate access issues through the high school facility and to provide access to recreational opportunities that will be incorporated into the final design. HDR will work with IRWD and the City to explore the possibility of creating a new permanent access road.
- Opportunity: Public access and recreation.** We understand that IRWD has received requests for access to the Syphon Reservoir property for cross-country running. The State Water Resources Control Board has established allowable beneficial uses of the Syphon Reservoir. These uses include water contact and non-contact recreation. Thus the opportunity exists to create hiking/running/biking trails throughout the site, provide boat access for fishing and boating and to use on-site borrow pits to enhance mountain biking. Together these amenities provide many recreational benefits to the community. HDR's recreational team will work with IRWD on concepts and initial designs for possible site amenities, including integration and shared facilities with the proposed City recreational park (Gateway Park) on the adjacent property north of Bee Canyon Access Road.



Task 1: Project Management

Project Management Approach

Successful project delivery encompasses more than having a sound technical approach and a thorough understanding of the project issues. **The Owner's Representative (OR) must act as a seamless extension of IRWD staff, bringing together several independent participants and creating an organized, focused delivery team with a shared vision and common goals.** As the OR, we will help IRWD develop and implement the project management elements necessary to:

- Complete planning and public acceptance
- Obtain permits and clearances
- Prepare a safe, efficient and cost effective design
- Complete construction on schedule, within established budgets, and meet design, operational goals and criteria

In order to make the above elements come to life, there are many items that we look at when we initially start working on a project:

Project Integration Management. No two projects are the same. Our program management team will develop a customized and comprehensive program to successfully manage the tasks, improve overall performance and meet IRWD's goals. We start by establishing clear and achievable objectives. We then make sure that all planning, design and construction activities are thoroughly managed. Throughout the life of this project, we will emphasize the importance of managing costs and associated risks.

Project Scope Management. Project Scope Management consists of initiation, scope planning, scope definition, scope verification, and scope change control. IRWD has been very clear on their desired scope of services for this project and HDR is committed to deliver to those expectations with experienced schedule and controls, compliance management and technical capabilities through the final design phase.

Project Time Management. Environmental compliance, the permitting process and final design need to be complete in two and a half years. We can make this happen. Time management will need to be defined, sequenced, developed and controlled with a partnership of IRWD, the environmental consultant, public outreach consultant, and your selected design consultant.

Project Cost Management. Rates and work will be negotiated with IRWD early. HDR costs will control their costs by performing all of the technical skills in house. As the Owner's Representative, Chris will report on project financial status and earned value using weekly financial downloads in order to identify budget concerns early and address them appropriately.

Project Quality Management. **Our expectation is to set the industry benchmark for excellence in services we provide to our clients.** We accomplish this through work well done, staying true to purpose, and exercising discipline. It is our policy to consistently provide professional services that satisfy statutory and regulatory requirements that meet or exceed your expectations. To achieve quality in our work, we have developed a Quality Management System (QMS) based on the fundamental principles and guidelines set forth by the ISO 9001:2008 series of international standards for quality management. Our QMS provides an important framework for ensuring that we are reaching the highest levels of quality—both for you and for ourselves. We remain focused on continual opportunities for improvement throughout our daily activities to achieve client satisfaction and meet performance expectations.

Project Communication Management. Project management is built on trust. Trust is achieved through transparency and effective communication. We foster transparency and communication through partnering meetings, task force meetings, weekly project team coordination meetings, and a number of electronic communication tools. Our communication tools integrate scope-of-work activities with schedule, resources, and budget details. The tools give our project management team a vivid picture of accomplishments, work in progress, milestones, and future activities and allows them to quickly and easily communicate them with you. They also allow our team to identify variances and plan corrective actions to maintain schedule and budget targets. The tools produce status reports and other documentation that are used to analyze and present the project status to you in concise, comprehensible summaries.

Project Risk Management. Planning for and managing risks of our projects are primary responsibilities of the project manager. Risks are the uncertainties regarding requirements, assumptions, resources and other project variables which could adversely or beneficially impact the performance of the project. Beneficial risks are known as opportunities. Risks are greatest at the start of the project due to potential unknowns and stakeholder desire to influence/change the final product. As the project nears completion, there is less to change and fewer unknowns.

Risk management consists of three primary steps:

- **Identify risks.** HDR will work with the design, environmental and public outreach team to develop a comprehensive list of potential project risks, including the likelihood and consequences of those risks.
- **Develop a response strategy.** Avoid, transfer, mitigate or accept.
- **Assign** action items and **actively** track each risk throughout the life of the project.

A. Project Management Plan

The Project Management Plan (PMP) is the “handbook” for all participants on the project, containing a complete set of guidelines for resolving management, administrative, financial, risk and project issues on all work phase activities of the Syphon Reservoir project. The Syphon Reservoir PMP will contain:

- Project Plan (defines the overall project delivery approach, discussed below)
- Project Risk Management Plan (addresses risks to successfully completing construction of the project, as opposed to dam safety risks discussed in Task 3 below)
- Schedule Guidelines (discussed below)
- Health & Safety Plan
- Project Delivery Model (defining all the phases and approval steps)
- Financial Plan (including cost tracking, cost projections, and contingency/reserve management)
- Change Management Plan (including decision-making hierarchy, decision log guideline)
- Quality Assurance and Quality Control Plan
- Document Management Plan
- Communication Plan (coordinated with the public outreach consultant)
- Permitting Strategy (coordinated with the environmental consultant)
- Cost Estimating Guidelines
- Design & Delivery Standards

HDR has templates for all of these PMP components that incorporate many “lessons learned” from other similar programs, and will be able to quickly and efficiently tailor them to IRWD’s needs.

The PMP is a “living document,” held on our web-based collaboration site and updated on an ongoing basis.

A. PROJECT MANAGEMENT

Core Competency Leader: Chris Krivanec, assisted by John Buttz on Project Controls

HDR Approach

- Act as a seamless extension of IRWD staff
- Build on our extensive program management experience to efficiently create guidelines for the entire team to follow
- Collaborate with all people that impact delivery of the project, inside and outside of the IRWD-HDR team, to successfully complete the project

a. Project Plan

We will develop the Project Plan at the very start of the project, to provide the framework and strategy for planning out the project in detail. We have had great success using “Mindjet” software for brainstorming and organizing the detailed requirements of work packages, and then using the software to prepare appropriate WBS, and an integrated overall project schedule. We’ll apply a similar approach to this project. Components of the Project Plan include:

- **Project Charter.** It is critical that the entire project team get on the same page from the beginning, about IRWD’s goals and objectives for the project. These can be generated in a brief workshop with IRWD management and staff, and captured in the Project Charter, which then serves as the framework for all the efforts to follow.
- **Major Work Packages.** We will develop a list of the major work packages (planning, public outreach, permitting/ environmental compliance, final design, bidding and award, construction, and project start-up), and the key compliance items (environmental and regulatory) associated with each. For example, the design will be a milestone-driven process with specific and proven outcomes required for each step: data collection and investigations, Preliminary Design Report (30%), 60%, 90%, and 100%. Specific construction work elements include:
 - Site access improvements (particularly related to truck traffic through local neighborhoods)
 - On-site borrow, stock-piling and processing
 - Foundation preparation
 - Embankment dam construction
 - Sloping intake and outlet pipe construction
 - Spillway construction
 - On-site improvements and restoration
 - Environmental mitigation

“ HDR has provided exemplary dam, levee and canal structure professional engineering services to the National Park Service. They have worked hand-in-hand with the NPS to develop risk-based products that give us efficient and effective means of managing the risks of our smaller hydraulic structures.

HDR has tracked their projects well, meeting all schedules, product quality, and cost requirements. They successfully completed diverse projects for NPS, including: dam exams, risk screening, canal system failure modes/risk evaluation, levee risk assessment and emergency management products. I thank HDR for all of the good work you do for the NPS. ”

Mark E. Baker, PE
NPS Dam Safety Officer, Denver, CO

- **Governing Agencies.** A list of all governing agencies involved in the review and approval of the project (such as DSOD, USBR and USACE), including their:
 - Interest in or authority over the project
 - Specific drivers/issues related to this project
 - When communications with each agency should commence
 - Approaches for maximizing successful interactions/ approvals with the agency
- **Budget and Schedule.** Establish the framework for developing the Project’s Baseline Schedule (including float and critical path) and Baseline Budget (including contingency). Define the approach for updating these over the life of the project. Review the current work effort, comment as needed and incorporate the schedule into the overall plan. We will collaborate with IRWD to identify any missing elements, connections, and needs to successfully complete the planning/permitting without delays or imposition of excessive environmental mitigation requirements or constraints.
- **Quality Assurance and Quality Control Plan.** Establish a detail quality assurance process and tracking system that will be followed by the OR, the design team and environmental teams. The QA/QC plan will provide a detailed approach of how to conduct internal, owner/ OR and agency reviews, track and close all comments and certify that the key work products have met the plan requirements.
- **Environmental Consultant.** Review the scope of work of the environmental consultant, and include in the overall project schedule.
- **Design Consultant.** Following IRWD’s current consultant hiring process, establish basic approach to selecting the final design consultant, including scope of work, selection criteria, review committee members, and proposals. Accurately reflect these in the overall project schedule.
- **Communication.** Establish overall communications strategy within the team, to the IRWD Board, and to the public. Coordinate this strategy with IRWD’s communications consultant.



A project charter is an essential first step in creating an integrated team and establishes a common vision for the project.

b. Project Schedule

On a schedule-driven project such as Syphon Reservoir, a **critical role of the OR is to own and drive the schedule**. We will prepare the schedule in Microsoft Project, and will issue monthly updates as part of our monthly project status report. We will work with IRWD to reach your milestones.

The project schedule is the primary place where the interactions of all the project elements play out. We will develop a project schedule and then manage to that schedule, partnering with consultants participating on this effort to establish ownership and buy-in. We will identify the critical path and risks to achieving a favorable schedule outcome. We will then use the schedule, and related milestones, to track earned value and identify whether the project is falling behind schedule and, if it is, how to get it back on track.

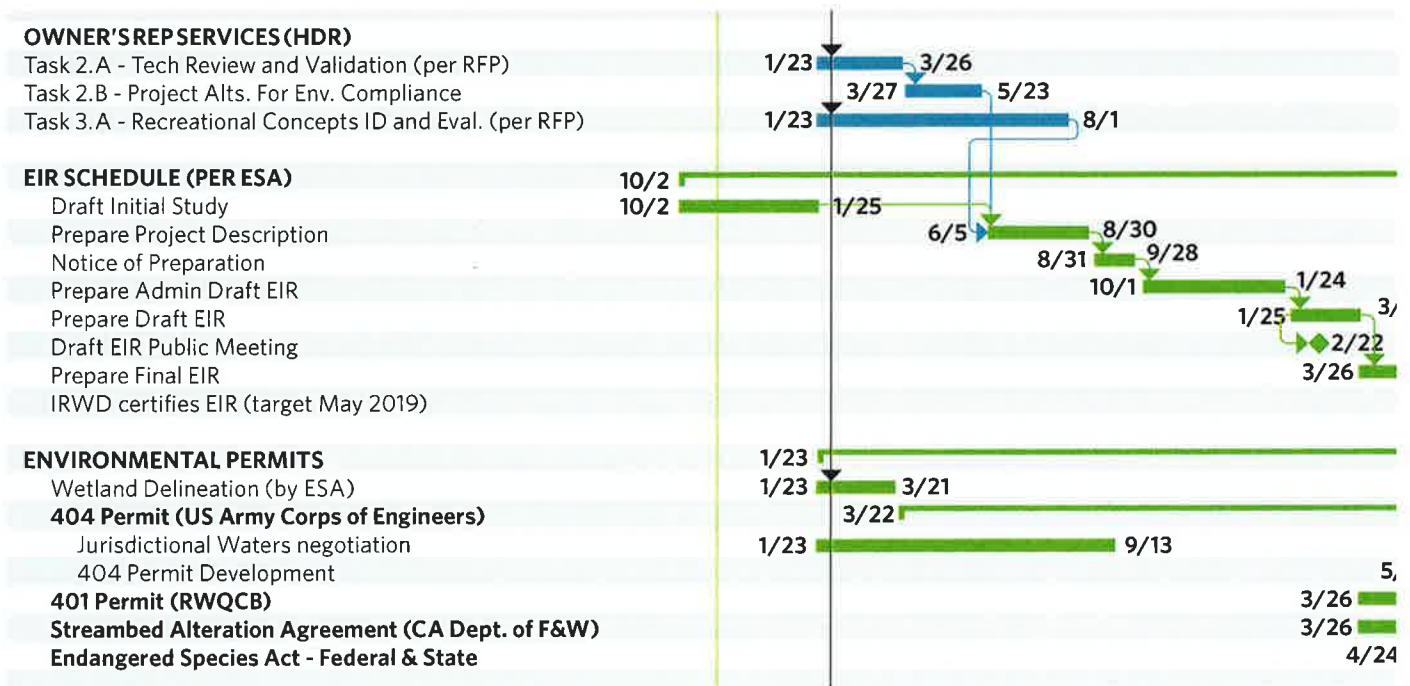
From a scheduling standpoint, it is particularly critical that we immediately get on the same page with your environmental consultant, ESA. We suggest holding a one to two day workshop with IRWD and its environmental consultant to review and finalize the schedule once we have the initial draft completed.

HDR already has a successful working relationship with ESA. In a similar relationship to this project, HDR is the program manager for SCVWD Pure Water and ESA is their EIR consultant. ESA was also a subconsultant to us on work with DWR for the Bay Delta Environmental studies, as well as teamed with ESA on other DWR and USBR projects.

Figure 1.2 is a snapshot of ESA’s environmental schedule. This is also included on our detailed schedule (Figure 1.3) that can be found on page 07.

In this day and age, getting to construction is often a bigger schedule challenge than the construction itself.

Figure 1.2: By proactively managing the schedule, we will minimize impacts from DSOD reviews, stakeholders, and environmental permitting.



We have prepared an initial project schedule for the Syphon Reservoir effort using Microsoft Project based on our experience on similar reservoir projects in California. **Some key points regarding the project schedule:**

- **DSOD Review.** The Department of Safety of Dams (DSOD) can have a key impact on our schedule. They will be involved in the review of every design deliverable, and we have allowed time for those reviews. There are also ways we can mitigate the risk of delays from DSOD reviews, which are discussed in the Risk Management section below.
- **Stakeholder Concerns.** Given the close proximity of residences, public concerns may impact staying on schedule. We have addressed similar concerns on a number of our projects and programs, and will collaborate with IRWD’s public outreach consultant to understand, anticipate, and be responsive to stakeholder concerns.
- **Environmental Permitting.** Environmental permitting is often on the critical path for infrastructure projects in California. It is likely that environmental permits on this project will include a 404 Permit from the U.S. Army Corps of Engineers (USACE), a 401 Permit from the Regional Water Quality Control Board, a Streambed Alteration Agreement from the California Department of Fish & Wildlife, and Endangered Species Act requirements from both the state and federal government. We have included the key interchanges between design and these permits that must be tracked and met. Completion of most of these permits requires certification of the EIR, which means the permits and the EIR all need to be managed as a package. **HDR appreciates the scope and lead role of your environmental consultant. We have successfully assisted permitting and approval on over 100 California projects. We also understand the critical permitting linkage between environmental consultant and final design engineer. HDR will provide the leadership and coordination amongst the team to effectively provide those insights to ESA and the final design engineer as they pursue those approvals, while also closely tracking their progress.** If their progress lags, we will work with IRWD to help them get back on track.
- **ROW Acquisition.** Right-of-way (ROW) acquisition is often a limiting schedule factor. This relates to both the permanent ROW needs, but just as importantly construction easement needs. While the reservoir property is owned by IRWD, we need to confirm the following potential ROW needs:
 - Temporary and permanent ROW needs of the conveyance facilities. We need to confirm whether the pipeline will be routed on public rights-of-way, and, if so, if the ROW is large enough for construction.

- Construction traffic access, if we need to avoid areas with high public use.
- Construction staging areas. These can likely be accommodated within IRWD’s reservoir property, but this needs to be confirmed. (Staging areas also need to be addressed in the CEQA document.)

c. Risk Management

At its core, our Risk Management approach involves anticipating potential problems, preventing them, or taking action to mitigate their impacts. This represents the highest level of project management. Risk analysis and management will occur in two components within this project:

- **Project Risks.** These address the risks to successfully completing construction of the project (e.g., schedule delays from permitting issues, construction delays). Sometimes these are referred to as “program risks.” These risks are discussed in this section.
- **Dam Safety Risks.** We will work with IRWD to go through each risk and prioritize them based on criteria established by the team from low to high and provide mitigation measures based on priority. These will address risks associated with potential future problems with the dam, after it is constructed. Our approach to addressing these risks is described in Task 3.B. on page 25.

We will continually evaluate and manage project risks throughout the design development and construction phase by creating and implementing a Risk Management Plan, using the following steps:

- **Workshops.** In a workshop setting, work with team members, IRWD staff, and outside experts to identify the most significant risks to the Project, and identifying risk strategies and IRWD’s risk tolerances. We will lead the workshop and come prepared with a draft Risk Register and Risk Management Plan to frame the discussion.
- **Probability and Priority.** Identify the probability each risk will occur, the consequence to the Project if the risk occurs, mitigation measures that can be taken if a risk occurs, and project team “owners” of those mitigation measures. Compile those risks into a tabular risk register, and a graphical “heat map.” The heat map allows team members to visually grasp the priority of the risks.
- **Strategy and Tolerance.** Work with IRWD staff to establish a risk strategy and risk tolerances, which in turn will help prioritize our risk mitigation efforts.
- Key leads will be responsible for their area of mitigation and will provide monthly updates to the project manager. On a monthly basis, meet with them to review progress and make course corrections.

We have prepared a preliminary risk register containing major risks for the Project, and the accompanying risk heat map (Figure 1.4) on the next page. We will produce a register and map to help mitigate potential risks associated with the Syphon Reservoir Improvements project.

Table 1.1: Risk registers are an important tool to assess and proactively manage risk.

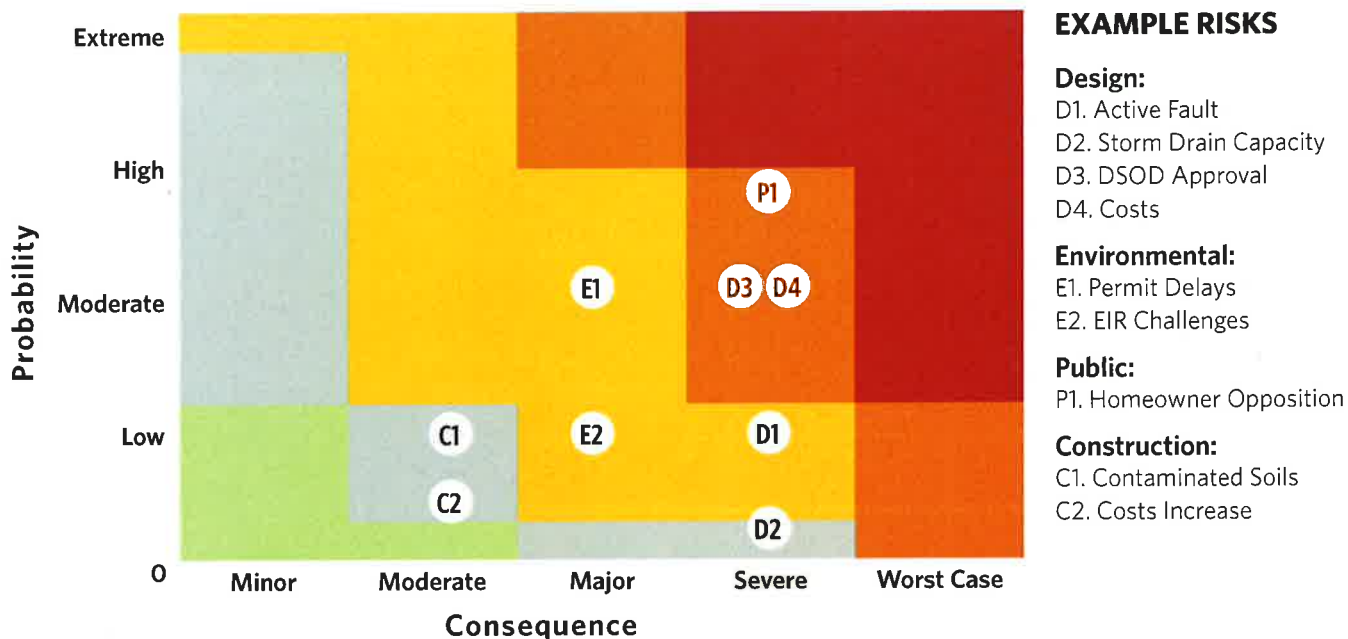
PRELIMINARY REGISTER OF MAJOR RISKS FOR SYPHON RESERVOIR PROJECT

| RISK TYPE | POTENTIAL CONSEQUENCES [A] | PROBABILITY [B] | MITIGATION MEASURES |
|--|---|------------------|---|
| Design | | | |
| 1. Fault beneath the embankment dam is determined to be active | Severe: Increased design costs and overall schedule delay due to design changes and agency coordination. | Low | <ul style="list-style-type: none"> Conduct fault evaluation early to determine activity and confirm with DSOD. Allows for time for embankment redesign if necessary. |
| 2. Storm drain capacity of Portola Parkway is insufficient to handle flows from outlet under emergency drawdown and spillway flow conditions | Severe: Increased cost to design outlet flow conveyance system, coordinate with City and DSOD. | Low | <ul style="list-style-type: none"> Conduct evaluation of storm drain capacity early to confirm adequacy. Allows time for additional conveyance if necessary. |
| 3. DSOD doesn't approve final design, causing design rework | Severe: Increased design costs and overall schedule delay | Moderate | <ul style="list-style-type: none"> Meet early with DSOD, determine their preferred methods of analysis and design criteria, then use those in our analyses. |
| 4. Costs increase beyond IRWD budget | Worst Case: If cost increases are high enough, project could be canceled. | Moderate | <ul style="list-style-type: none"> Implement a change management approach from the very beginning, making all proposed cost changes immediately visible. Establish project and program cost contingencies from the very beginning, and monitor their use. |
| Environmental and Regulatory | | | |
| 1. Delays in getting environmental permits | Major: Delays start of construction. | Moderate | <ul style="list-style-type: none"> Create a comprehensive schedule, analyze schedule risk, and identify the most critical linkages. Coordinate intensely with permitting agencies (e.g., hold pre-submission meetings). If permitting agency is short-staffed, help supplement their capabilities. |
| 2. EIR is successfully challenged, causing the EIR to be reworked and recirculated | Major: Delays completion of the EIR, holding up construction and other actions. | Low | <ul style="list-style-type: none"> Meet early with CEQA firm, identify complete list of CEQA alternatives. Involve CEQA people in preliminary design, and design around environmental issues. Hold regular collaboration and review meetings with the CEQA firm. |
| Public | | | |
| 1. Major opposition from downstream homeowners due to safety and aesthetic concerns | Severe: Delays project approval by the IRWD Board. | Moderate to High | <ul style="list-style-type: none"> Show public benefit: lake recreation, park adjacent to the reservoir, benefit of recycled water, improved safety of the new dam |
| Construction | | | |
| 1. On-site borrow turns out to be contaminated, forcing excavation to go deeper, driving up cost | Moderate: Impact likely limited, so cost increases also limited. | Low | <ul style="list-style-type: none"> Characterize soils early, get disposal items into the design and construction bids. |
| 2. Material costs increase dramatically by the time of construction due to competitive market conditions | Moderate: Cost impacts. | Low | <ul style="list-style-type: none"> Coordinate with contractors and borrow suppliers to monitor market conditions. |

- a. There are five Consequence Categories: Minor, Moderate, Major, Severe, Worst Case
- b. There are four general levels of Probability used: Low, Moderate, High, Extreme
- c. These are for illustrative purposes and specific probabilities will be developed during design

Effective risk management means taking action well in advance of impacts. A Risk Management Plan without a proactive risk mitigation effort is just "a book on a shelf."

Figure 1.4: Heat maps are an effective tool to display project risk and prioritize mitigation.



Based on this preliminary risk analysis, we believe the greatest potential risks to the Syphon Reservoir improvements are:

- Potential homeowner opposition to the project
- Delays in getting environmental approvals
- DSOD review and approval
- Increased costs

We will work with IRWD and the team of consultants to fully develop the project risk register, confirm/modify potential risks and develop detailed and specific mitigation plans. As the project evolves, the risk register will be continually reviewed, and mitigation measures evaluated and updated so the project advances according to schedule.

Deliverables

- Project Management Plan
- Project Plan
- Project Schedule
- Risk Management Plan

Assumptions

- IRWD will provide office space for a limited number of HDR's OR staff, to allow co-location.
- If any commercial, off-the-shelf project management software is chosen for use on the project, IRWD will purchase the software.

Optional Scope

- **Budget Management.** The current scope does not call out budget management as a specific task. As an OR, we would normally participate in both schedule and budget management. Typical budget management efforts would include: review of outside consultant invoices (prior to IRWD final review), budget status of every contract, earned value analysis, and budget and cash flow forecasts. These would all be compiled into our monthly report.
- **Additional PMP Items.** We propose to prepare a comprehensive PMP. Some of the PMP items we have listed above were not specifically listed in the RFP (e.g., health and safety, project delivery model, change management).

B. Meetings and Workshops

We appreciate the comprehensive list of meetings and workshops provided in the RFP, and have included them in our labor estimate accordingly. It is our responsibility, as the OR, to make every meeting productive and efficient. We will:

- Establish clear objectives for each meeting
- Based on those objectives, identify specific meeting attendees (thus minimizing “meeting overload”)
- Issue meeting agendas in advance
- Run meetings in a collaborative yet decisive manner
- Produce written minutes within two days of every meeting

Meetings and workshops play out most intensely at the start of a project. It is critical that the project team quickly get “on the same page” and launch their effort well. Team members can quickly be overwhelmed with meetings and workshops. For each key task, we will identify:

- The HDR lead and other HDR participants. In most cases Chris Krivanec will be the lead and only participant
- Key IRWD participants, and leads if appropriate
- Other participants (e.g., other consulting firms)
- Week-by-week deliverables and meetings

With this information in hand, we can “optimize” meetings, looking for synergies between teams, adjusting meeting dates to better align with deliverables.

B. MEETINGS AND WORKSHOPS

Core Competency Leader: Chris Krivanec

HDR Approach

- Establish clear objectives for each meeting. Work closely with IRWD to establish goals and desired outcomes ahead of each meeting
- Based on those objectives, identify specific meeting attendees (thus minimizing “meeting overload”)
- Issue meeting agendas in advance
- Run meetings in a collaborative yet decisive manner
- Produce written minutes within two days of every meeting

Deliverables

- Meeting agendas and associated materials, meeting minutes
- Weekly updates to initial activity for Pre-Design Support (Task 2) during the first 12 weeks – see Pre-Design Support scope

Assumptions

- IRWD to provide meeting space and other logistics for meetings
- HDR to develop all presentation materials, graphics, etc. in coordination with IRWD

Optional Scope

- **Optimized Meetings.** A number of the proposed project meetings could be optimized by videoconferencing and conference calls by key technical personnel. The result could be significant savings to IRWD.



Task 2: Pre-Design Support

A. Technical Review and Validation of Feasibility Documents

Detailed Technical Review and Validation of Feasibility Documents

HDR will complete a detailed evaluation of the data quality, concepts, recommended project configuration and dam type, constructability considerations, and other aspects of the feasibility studies as requested in the scope. Led by Keith Ferguson, HDR will assemble its technical advisors in geotechnical, seismic, structural, hydrology/hydraulics, construction and environmental/permitting disciplines (all from our internal dam program) to conduct the detailed evaluation of the feasibility study.

In order to complete this task within 60-days of NTP, HDR recommends holding a feasibility review workshop with IRWD and HDR's technical review team to discuss the findings of the feasibility study, identify any significant data gaps, fully develop any key issues that need to be addressed, and identify a path forward. This workshop framework will result in collaboration and an exchange of ideas to expedite the review and recommendation process. As a deliverable, HDR will provide a technical report that confirms concurrence with the recommendations, or informs IRWD of potential concerns.

As part of this review, HDR will evaluate the geotechnical data obtained during the feasibility and subsequent studies and provide a recommendation regarding the adequacy of the existing information or the need for additional geotechnical evaluations. If additional geotechnical evaluations are required, HDR will identify the specific evaluations and/or information needed and will make recommendations regarding the timing for obtaining that additional information. HDR's review and validation of the Feasibility Documents would:

- **Focus on the feasibility study elements that could have the greatest impact on the project cost or performance.** This review would start with the geotechnical elements of the feasibility study that require additional study. The first element would include more detailed study and characterization of the identified foundation fault and coordination with DSOD in determining if the fault is considered active, inactive, or if further investigation and trenching are required. An evaluation of the fault activity will inform the feasibility design risk analysis that will be completed as part of Task 3B, as well as our early discussions with DSOD.
- **Consider if additional exploration of the inlet/outlet alignment or other project features could potentially reduce uncertainty, reduce conservatism in the design, and improve the economy or performance of the project.** The review would also focus on the potential for more detailed analyses of ground motions and more detailed seismic deformation analyses that could support a smaller,

A. TECHNICAL REVIEW AND VALIDATION OF FEASIBILITY DOCUMENTS

Core Competency Leader: Chris Krivanec, Keith Ferguson

HDR Approach

- Feasibility workshop
- Identify any key issues along with potential solutions
- Focus on long lead time items like geotechnical explorations

Initial Assessment of Feasibility Documents

The technical review and validation of the Feasibility Study is an immediate need, so the HDR team has already reviewed the study to determine an initial assessment.

- The available background information contains abundant, good quality, geotechnical data that has been methodically developed from the original 2012 investigation through the 2016 lake bed sediment investigation.
- The recommended project configuration, described in the feasibility documents, appears reasonable for the site and project needs.
- The homogeneous embankment dam type, similar to the existing dam, appears to be the most efficient design based on foundation conditions, available construction materials, and anticipated seismic loading conditions, particularly if a potentially active fault is present beneath the dam and the potential for fault offset becomes a design criteria.
- The proposed dam type is further supported by the proximity of aggregate and rock sources, located more than 25 miles away, which suggest either rock fill or roller compacted concrete dam types would be less economic.
- A review of the spillway and outlet discharge capacities may be warranted early in the design process. The outlet will need to have the capacity to drain 50% of the reservoir volume (about 2,300 acre-feet) in 7 days in order to meet the DSOD emergency drawdown criteria for reservoirs smaller than 5,000 acre-feet. The spillway will need to be able to pass the Probable Maximum Flood from the 200-acre basin. In the feasibility design, both the spillway and outlet flow into a 42-inch pipe that drains into the Portola Parkway storm drain. The capacity of that drain system should be evaluated considering an emergency scenario.

more economic, embankment cross section that would still provide satisfactory protection against embankment deformation under the anticipated seismic loading. The review would also look at geotechnical aspects of other value engineering concepts or alternatives.

- Focus on issues that could impact the final design and constructability of the project.** These issues are likely associated with construction access during the two year construction period and the final configuration of wetlands mitigation and upland restoration areas. Additionally, the planned cut slopes above the proposed wetland mitigation area will be reviewed to determine if over steepening the existing slopes could become a stability issue over the long term.
- Value Engineering.** HDR will conduct a Value Engineering Workshop to identify potential value engineering concepts and alternatives for the project. The workshop will include a range of subject matter experts and also include project stakeholders identified by IRWD. The subject matter experts will include individuals with expertise in IRWD operations, dam design, cost estimating, dam construction, and environmental compliance. The two-day workshop

would be conducted by an experienced facilitator and the results of the workshop published in a formal document. The Value Engineering concepts and alternatives would be developed during the work shop, but initial considerations might include the following:

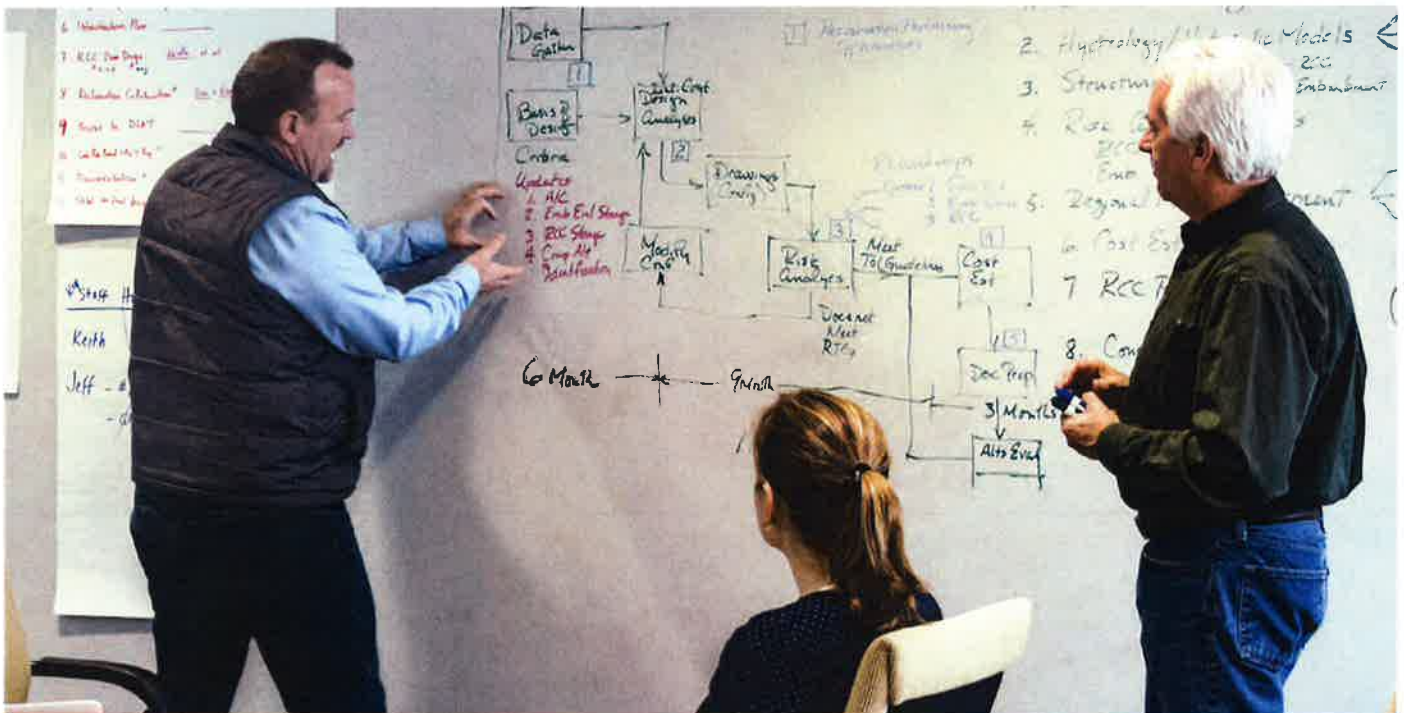
- Eliminate over-steepened cut slopes in proposed wetland mitigation area and replace with engineered fill that will increase reservoir capacity
- Develop areas surrounding the reservoir as recreational areas to increase support for the project and possibly share funding for the site development
- Coordinate reservoir operations to allow low head hydro at the new inlet/outlet facilities

Deliverables

- Feasibility Study Review TM (draft and final)

Assumptions

- The draft technical report shall be completed and submitted within 60 days of the Notice to Proceed
- 10 copies and one electronic copy in PDF format of the draft technical report will be submitted for review
- Upon resolution and incorporation of review comments, 10 copies and one electronic copy in PDF format of the final technical report will be submitted



Integrating design and construction sequencing improves project efficiency.

B. Project Alternatives Development for Environmental Compliance

Understanding

Project documents currently indicate that California Environmental Quality Act (CEQA) will be the environmental permitting entity for the Syphon Reservoir expansion project. However, if IRWD is successful in obtaining federal funding, or if the USACE is determined to have jurisdiction, the National Environmental Policy Act (NEPA) permitting process will be triggered. Because of that possibility it's important to understand the different requirements and possible impacts of CEQA vs. NEPA to be sure the environmental document is sound and legally defensible. HDR will work closely with ESA and IRWD to determine which environmental permitting process will have primacy as early as possible in the project.

Chris will be leading this effort with guidance from our dam expert, Keith; IRWD client manager, Gregorio; and our environmental support lead, Betty.

B. PROJECT ALTERNATIVES DEVELOPMENT FOR ENVIRONMENTAL COMPLIANCE

Core Competency Leader: Chris Krivanec with Keith Ferguson, Gregorio Estrada and Betty Dehoney

HDR Approach

- Legally Defensible Alternatives Screening Process
- Purpose and Need/Project Objectives Defined to support both CEQA and NEPA
- Conduct and Document Alternatives Screening to provide defensible EIR (and potential NEPA)

Table 1.2: Differences between CEQA and NEPA impact project approach.

| ISSUE | CEQA VS NEPA | RELEVANCE | STRATEGY |
|---|--|--|--|
| Range of alternatives | <ul style="list-style-type: none"> ▪ CEQA requires the alternatives that reduce significant effects of the project. ▪ NEPA requires a range of feasible and practical alternatives that meet the purpose and need. | If NEPA is required and the alternatives screening process does not include both CEQA and NEPA considerations, there maybe different alternatives carried through the environmental documents. | The project objective/purpose and need are critical to creating boundaries for the number of alternatives and should be defined as early as possible in the project. |
| Level of detail for alternatives | <ul style="list-style-type: none"> ▪ CEQA evaluates alternatives qualitatively. ▪ NEPA evaluates each alternative based an equal level of detail. | Very significant cost and schedule implications since each alternative has to be brought up to the detail of the proposed project. | If NEPA is required, HDR is prepared to provide needed engineering detail for alternatives. |
| Scoping | <ul style="list-style-type: none"> ▪ The scoping process for CEQA and NEPA has different procedures (e.g., notifications, requirements for publishing notices). | Once it is determined if there will be a NEPA nexus, the scoping process will be identified (CEQA or CEQA/NEPA). If the scoping procedures are not conducted in accordance with the proper procedures, there is a possibility that the environmental review process can be litigated and result in the will need for recirculation of the environmental documents. | HDR will review the scoping process for compliance with the applicable regulatory process to avoid a viable legal challenge regarding processes. |

Approach

HDR will provide the engineering support needed to identify and develop two additional project alternatives for the Syphon project, which will be evaluated by your environmental consultant, ESA, and incorporated into the EIR. We understand that ESA has the primary responsibility to evaluate the new project alternatives. However, HDR has the expertise and local staff available to provide additional support to ESA, if needed.

The initial potential alternatives for evaluation will be further defined during the brainstorming session and include the following:

- Alternative dam to the proposed earthen embankment type: HDR's dam engineering team, led by Keith Ferguson, will develop an alternative dam type for the Syphon reservoir. HDR will evaluate the suitability of the foundation condition for other types of dams, such as roller compacted concrete (RCC). The conceptual design will include the appurtenant facilities, including the intake structure, outlet system and spillway.

HDR has an ongoing working relationship with ESA on other water resources projects. This established relationship allows us to work seamlessly with ESA to quickly advance the environmental permitting process.

Collaboration with the environmental consultant saved six months on the Lower Northwest Interceptor program schedule.

- Alternative recycled water storage options within IRWD's existing system: The HDR team will also develop a separate alternative to a dam at the Syphon Reservoir site. Options could include a possible expansion of other existing facilities, or construction of a series of water storage tanks throughout the IRWD recycled water system. HDR's approach will be to assemble a team that is already familiar with IRWD's systems, led by Gregorio Estrada, and work closely with IRWD to develop reasonable alternatives. Separate workshops with IRWD staff will be needed to consider how the alternative would integrate into the existing IRWD system, along with the benefits and impacts of the alternatives.

For both of the alternatives, HDR will advance the designs to a conceptual level and complete drawings, construction quantities and a project description cost estimate in sufficient detail to support the CEQA-required alternative project analysis.

Other alternatives can be discussed that deviate from the project's goal of increased recycled water storage to mitigate seasonal demand. These may include seasonal diversion to Santa Ana River or San Diego Creek, or increased disposal through the OCSG GAP agreement or the SOCWA outfall connection at LAWRP. Consideration of these alternatives must take into account the impact to other projects. Communication of these alternatives must be coordinated internally to provide a consistent message. Inclusion of these alternatives can be discussed during the brainstorming session.

Optional Scope

The alternatives represent a high risk to the schedule and the cost. As discussed earlier, the alternatives selection process is often one of the points for litigation under CEQA and NEPA. We propose a more detailed level of support to support ESA's delivery of the CEQA (and potentially NEPA) environmental documents.

HDR proposes that we draft an initial white paper that provides a working set of "objectives", "need" for the project and then the "purpose" of the project. In the event that the reservoir is deemed jurisdiction by the US Army Corps of Engineers (Corps) and requires an Individual Section 404 permit, a NEPA document (Environmental Assessment (EA) or Environmental Impact Statement (EIS)) may be necessary even if there is no funding from Reclamation. Looking at these issues at the beginning of the environmental review process will reduce the potential for new alternatives to arise after the EIR is being drafted or a separate set of alternatives being considered in the EIR vs. the NEPA document.

The definition of the Project Objectives and Purpose and Need provide the foundation for alternatives screening and, more importantly, this process provides legal defensibility.

The next step in the alternatives analysis would be brainstorming the feasible and practical alternatives from an engineering perspective and identifying measures to reduce the adverse effects on sensitive environmental issues. The ESA proposal indicates one meeting for the identification of the alternatives. Due to the importance of alternatives screening and legal adequacy, HDR proposes additional support in the

alternatives screening process. Using our knowledge of IRWD facilities and reviewing other background reports, we will identify a range of alternatives including the following:

- On site alternatives (predominantly associated with reducing biological effects)
- Off-site alternatives
 - Additional storage opportunities
 - Operational alternatives

The alternatives process (Figure 1.5) includes a multi-step approach to reduce the universe of alternatives to feasible, practicable alternatives that can be permitted and meet at least most of the project objectives/purpose and need. The process to screen the alternatives is a step wise analysis. Some alternatives will be rejected from further evaluation while others will be addressed in the environmental documents.

1. Evaluate the alternative for feasibility and practicality. Feasibility and practicality are defined by metrics such as engineering feasibility, cost, permit ability, and if it meet most of your objectives.
2. If project is deemed infeasible, then that alternative would not be evaluated in the environmental document.
3. Alternatives deemed feasible will be evaluated as to whether they reduce the magnitude of impacts. In some cases, if the alternatives reduce one impact and increase the magnitude of another impact, that alternative will likely be retained. If the alternative increases the magnitude of effects with no beneficial effects, that alternative would likely be rejected.



- For alternatives retained (particularly for the proposed project), a review of the alternative's adverse effects would be reviewed to determine if there would be measures that could be implemented that could avoid or minimize adverse impacts. For the unavoidable effects, mitigation planning should be considered to reduce the cost of mitigation and facilitate the subsequent permitting.

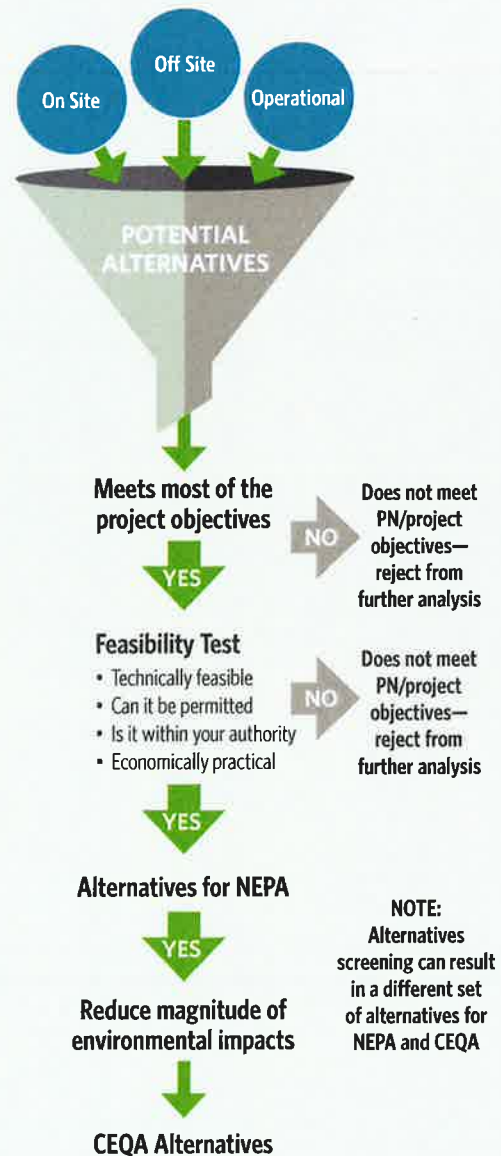
Documentation of this process is important to provide substantial factual basis for the alternatives screening process. This process increases the legal defensibility of the environmental document as well as supports the Section 404(b)(1) LEDPA (Least Environmentally Damaging Practicable Alternative) for documenting that you have incorporated avoidance and minimization measures before submitting the permit application.

Deliverables

- Alternatives Development Technical Memorandum (draft and final)

Once the need is established, the project objectives and purpose can be defined. The physical operating assumptions, including the potential sources and end users, will also be documented as well as the constraints that could affect the feasibility of the project (cost, construction feasibility, policy). This information will be used to craft the project objectives. The project objectives are used to reject alternatives that do not meet some of the objectives, but an alternative can be feasible that does not meet all of the objectives, so this process is very important. The Purpose of the project under NEPA is to resolve the Need. Some of the Project Objectives will likely be used in the Purpose, but the Purpose and Need (PN) statement is not generally identical. NEPA will evaluate the range of alternatives that can resolve the need.

Figure 1.5: Alternatives Screening Process



C. Environmental Compliance and Public Outreach Support

HDR's in house CEQA, public outreach specialist and subject matter experts will be responsible for reviewing the environmental and public outreach materials. In addition, our engineering team will be responsible for reviewing key parts of the environmental document. The environmental team and subject matter experts will be reviewing the document for legal defensibility, appropriate assumptions and conclusions.

Environmental Compliance

HDR will work closely with IRWD's environmental consulting team, ESA, to reduce risk that the EIR will need to be recirculated due to changes in the project description or that the mitigation measures have an adverse effect on constructability. Reviews of key documents will be conducted by HDR's in-house environmental or engineering subject matter experts. Of prime importance will be that the engineering team will review the project description and all mitigation measures. It will be important that the project be described in a manner that allows some flexibility in final design yet provides sufficient specificity that the magnitude of the impacts are adequately described. If at final design, new impacts are identified or additional mitigations are required, the environmental document will need to be recirculated for another public review. Therefore, this review is important to reduce that risk.

Mitigation measures are also critical to review for constructability. As part of our review, HDR's engineers and dam construction experts will assess the following:

- Will the mitigation measure be feasible in the field?
- Will it achieve the objective of protecting the resources?
- Is it economically feasible?
- Is there something else that works better or is less expensive?
- Are there conflicting measures or scheduling issues that could affect constructability? For example, there are times when measures to protect nesting birds and grading in the rainy season restrict the construction schedule so much that the construction can not be accomplished.

The environmental team will review the documentation for legal defensibility and assess whether the EIR addresses subsequent permitting and stakeholder concerns.

C. ENVIRONMENTAL COMPLIANCE AND PUBLIC OUTREACH SUPPORT

Core Competency Leader: Betty Dehoney, CEP, PMP, ENV SP and Chris Krivanec, PE, GE

HDR Approach

- Review environmental documents for
 - Legal defensibility
 - Constructability
- Collaborate with public outreach team to:
 - Provide engineering information to support informed outreach to local stakeholders
 - Understand and address stakeholder's concerns related to safety
 - Provide project materials for the public outreach
 - Actively engage and prepare for public meetings

Public Outreach Support

Public outreach is essential to the success of the project and the technical team plays a key role in that effort. HDR understands the importance of meeting the scope requirements by providing reviews of the outreach plan and schedule, producing renderings of the proposed facilities and providing input into development of project materials and is prepared to deliver these services. However, we have found that the technical staff also plays a key role in establishing project understanding and building public trust in the project. Specific ways we can do that as your owner's representative include:

- Working closely with the outreach team to clearly understand stakeholder groups and their concerns
- Being well prepared for public presentations and stakeholder meetings and understanding the importance of consistent messaging
- Conveying key concepts regarding dam safety, such as how IRWD is:
 - Minimizing risk during design
 - Continuously monitoring and conducting proactive maintenance
 - Installing and using early warning systems
 - Routine updates to their Emergency Action Plans (EAP)
- Sharing information in a transparent and understandable manner
- Building relationships and engaging with stakeholder groups
- Participating in other outreach activities such as open house events, speaker's bureau's, tours, etc.
- Listening to and responding to public concerns



As a first step, Chris Krivanec, our project manager will meet with IRWD and your outreach consultant to outline the public outreach plan, initial concerns and issues, discuss schedule, the nature of collateral material envisioned and technical expertise required at various steps in the project. Once the outreach plan and schedule is developed, our team along with one of our in-house strategic communications/outreach specialists will review the plan and provide comments to IRWD.

Throughout the project, we will provide needed project graphics, renderings, schematics, aerials and other materials needed to support outreach efforts. Additionally, our technical team (dam safety experts, recreation planners, environmental specialist, etc.) will provide project write-ups, descriptions and other graphics needed for planned outreach. These same professionals will be available for public meetings and other stakeholder events during the project.

Deliverables – Environmental Compliance

- One red line/strike out version of the Administrative draft document
- Technical memorandum addressing issues that can not be addressed in red line/strike out

Deliverables – Public Outreach

- Project renderings and schematics (e.g., reservoir design, recreational concepts, etc.)
- Graphics/technical information for use in materials produced by the outreach consultant

Assumptions

- No more than 2 staff will attend 6, 3-hour meetings
-

D. Permitting Support

Understanding

HDR has reviewed the list of potential environmental permits included in the Syphon Reservoir Environmental Regulatory Evaluation Preliminary Draft prepared by Dudek. The list of potential environmental permits is valid with the following additions: potential for National Environmental Policy Act (NEPA) environmental documentation required in the event that IRWD is successful in obtaining Federal funding or Federal permit (e.g., Individual Section 404). Additional coordination may be necessary with the City of Irvine, the County of Orange and other local agencies for construction permits.

Approach

To reduce the risk of schedule delays, HDR recommends that IRWD initiate agency coordination early in the project. We will coordinate with ESA to prepare for and schedule these meetings to make them timely and productive. Additionally, we also recommend that special studies and consultation be initiated immediately to resolve the following outstanding issues:

Clean Water Act 404/401. There is uncertainty regarding the jurisdiction of USACE. Task 2 of ESA's scope (confirming the jurisdiction/non-jurisdiction) should be authorized as soon as feasible. If USACE deems that an Individual Permit is required, then the NEPA process becomes a scheduling/coordination issue.

Orange County Central and Coastal Natural Communities Conservation Act/Habitat Conservation Plan. Initiate coordination with the resources agencies regarding effects and mitigation measures. As noted in ESA's proposal, coordination with the agencies will "refine alternate mitigation options and clarify the preferred mitigation approach."

NEPA. ESA has assumed a CEQA plus process under Reclamation in their proposal; however, if this assumption is not valid, and another agency (such as USACE if the reservoir is deemed jurisdictional) implements NEPA, it will be important to proactively coordinate as soon as it becomes apparent that this is a potential. HDR recommends early and regular coordination with USACE to keep the NEPA process moving. This obviously has substantial schedule implication. Other federal actions that HDR will track are the ongoing changes in the environmental regulatory process as a result of Executive Orders. Some of the orders we are tracking and their implications include:

- EO 13766 – Expediting Environmental Reviews and Approvals for High Priority Infrastructure Projects
- EO 13807 – Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure
- DOI Secretarial Order 3355 on Streamlining National Environmental Reviews and Implementation of Executive Order 13807

D. PERMITTING SUPPORT

Core Competency Leader: Betty Dehoney, CEP, PMP, ENV SP

HDR Approach

- Initiate Agency Coordination for:
 - Clean Water Act 404
 - HCP/NCCP mitigation
- NEPA Coordination (if necessary)

Potential Environmental Permits

- Federal Endangered Species Act
- California Endangered Species Act
- Orange County Central and Coastal Natural Communities Conservation Act/Habitat Conservation Plan
- Migratory Bird Treaty Act
- Clean Water Act (Sections 401 and 404)
- California Fish and Game Code (Section 1600)
- Porter-Cologne Water Quality Control Act
- California Environmental Quality Act (California Public Resources Code, Section 21000 et. seq.)
- Conveyance Agreement – Syphon Canyon Dam and Reservoir

HDR has an experienced team of environmental experts that have worked on the issues that are likely to be addressed in this project. We will bring this team and their expertise to serve as your representative provide permitting support, compliance and strategic direction, as needed. By using this approach, the following benefits will be achieved:

- Reduce potential schedule delays associated with late comments or requirements from resources agencies
- Reduce potential for costly redesign by incorporating avoidance, minimization, and mitigation into the preliminary design
- Reduce cost by reducing compensatory mitigation

HDR's subject matter experts are available to complete reviews outlined in the scope of work, but also have the ability to provide expedited reviews to accelerate the schedule if necessary. Table 1.3 demonstrates our experience with the required permits.

Table 1.3: Understanding permitting requirements expedites review.

| PERMITS | HDR SUBJECT MATTER EXPERTS | | RELEVANT PROJECT EXPERIENCE* |
|--|----------------------------|-------------|--|
| | Betty Dehoney | Ingrid Eich | |
| 404 Clean Water Act | ● | ● | Anderson Dam Seismic Retrofit Project Geotechnical studies, Irvine Ranch Co Experience included JD, functional assessment, and mitigation development, NCCP. |
| Special Area Management Plan for the San Diego Creek Watershed | | ● | Rancho Mission Viejo, SAMP/NCCP. |
| Endangered Species Act | ● | ● | Anderson Dam Seismic Retrofit Project Geotechnical studies, Irvine Ranch Co Experience included JD, functional assessment, and mitigation development, NCCP. |
| Central and Coastal Habitat Conservation Plan (HCP) | | ● | Rancho Mission Viejo, SAMP/NCCP; Irvine Ranch Co Rare Plants, LBV and CAGN, mitigation development, NCCP. |
| Federal Migratory Bird Treaty Act | ● | ● | Anderson Dam Seismic Retrofit Project Geotechnical studies, Irvine Ranch Co Experience included JD, functional assessment, and mitigation development, NCCP. |
| Section 401 Clean Water Act | ● | ● | Anderson Dam Seismic Retrofit Project Geotechnical studies, Irvine Ranch Co Experience included JD, functional assessment, and mitigation development, NCCP. |
| State Endangered Species Act | ● | ● | Anderson Dam Seismic Retrofit Project Geotechnical studies, Irvine Ranch Co Experience included JD, functional assessment, and mitigation development, NCCP. |
| Central and Coastal Natural Community Conservation Plan (NCCP) | | ● | Rancho Mission Viejo, SAMP/NCCP; Irvine Ranch Co Rare Plants, LBV and CAGN, mitigation development, NCCP. |
| Streambed Alteration Agreement | ● | ● | Anderson Dam Seismic Retrofit Project Geotechnical studies, Irvine Ranch Co Experience included JD, functional assessment, and mitigation development, NCCP. |
| CEQA Plus | ● | | Delano Water District and South Village WW Treatment Plant Expansion. |

*Some of our staff have completed projects in the vicinity that are directly relevant prior to joining HDR. To provide clarity, key individuals are only identified in cases where HDR did not conduct the work.



Keith Ferguson and Les Harder on a site visit to confirm Calero Dam design.

E. Regulatory Coordination

Approach to Managing Interface with Division of Safety of Dams

Official DSOD approval of the project is not possible until a complete set of drawings, specifications, and cost estimate bid package is available. However, in order to minimize design risks and achieve timely approval of our design documents, our approach and scope of work includes early and frequent communication with DSOD. **In addition, our Team will use their experience, technical expertise and credibility, and knowledge of DSOD to select a project design configuration that meets all of their requirements.**

Our Team has both the extensive and recent experience working with DSOD on dams, spillways, outlet works and tunnels including Calero Dam, Anderson Dam and Lenihan Dam, Olivenhain Dam, Lake Mathews Outlet Facility, and San Vicente projects.

A total of seven meetings/briefings are anticipated for the interface with DSOD. The three initial proposed meetings are related to site characterization, design criteria and configuration, and basis of design elements of the work. The remaining meetings and briefings are related to the specific design milestones of 30, 60, 90, and draft final (100) percent work.

“ I have known Les Harder for nearly 30 years and I reviewed many of his dam safety projects over the years. Les has excellent and broad technical expertise regarding the design and evaluation of new and existing dams. He has managed many projects and has always demonstrated an ability to efficiently identify and implement sound solutions. ”

David Gutierrez, Chief, Division of Safety of Dam (DSOD)
CA Department of Water Resources



“ The report describes the features and preliminary designs for Staff Recommended Alternative 15 that includes the stabilization of the dam under seismic loading, design of the new low-level outlet works for fault offset, design of a new high-level outlet works to meet emergency drawdown, and enlargement of the spillway to safely pass the Probable Maximum Flood. This comprehensive design alternative adequately addresses all of the identified deficiencies of Leroy Anderson Dam and its appurtenant structures to ensure the safe operation of the dam. ”

Letter from David Gutierrez, DSOD
May 28, 2013

E. REGULATORY COORDINATION

Core Competency Leader: Les Harder

HDR Approach

- Engage DSOD early and regularly
- Set regular design workshops to facilitate DSOD reviews
- Build on existing relationships with DSOD

DSOD Safety Regulatory Experience

Our team is highly knowledgeable of DSOD standards and expectations and has worked closely with DSOD on many dam seismic retrofit design projects in California. Members of our team have extensive history working for and with DSOD:

| TEAM MEMBER | DSOD | EXPERIENCE |
|----------------|------|--|
| Chris Krivanec | ✓ | Calero Dam Seismic Retrofit project |
| Keith Ferguson | ✓ | Olivenhain, San Vicente, Lopez and Florence Lake Dam projects |
| Les Harder | ✓ | Former deputy director at DWR and oversaw the activities of DSOD and positive working relationship with DSOD staff to help streamline agency coordination, review and approval |

USBR Coordination

HDR understands that IRWD is pursuing possible Federal funding through the United States Bureau of Reclamation (USBR) Title 16 grant program. Should the requirements of that grant funding include additional USBR coordination and technical reviews, HDR can facilitate coordination with USBR as needed. HDR has extensive experience working with USBR and understands their technical requirements and processes. Dan Osmun, who has worked for USBR for eight years, would lead that coordination effort, determining the level of USBR oversight required and facilitate USBR technical reviews if necessary.

Task 3: Miscellaneous Support

A. Recreational Concepts Identification and Evaluation

Approach

HDR recognizes that recreational concepts are a high priority and early action is required to meet the schedule. Our in-house team has local, relevant experience and relationships to expedite the identification of viable recreational alternatives. At the urban edge of the County’s Limestone Canyon Regional Park, the Syphon Reservoir site affords the unique opportunity for panoramic views of its context, both developed and natural. With this inherent park-like character and the adjacent Crean Lutheran High School sports facilities, the addition of a recreational use element as a public amenity is a compelling consideration for inspiring positive community engagement.

To determine appropriate recreation opportunities and relative value to IRWD and the community, HDR will begin the assessment by thoroughly mapping the Syphon Reservoir context. With many new homes under construction or just completed nearby, and a number of neighborhood and City parks in the area, the site should be evaluated contextually to determine how it could integrate into the growing network of open space in the north Irvine area. Connectivity between these recreation opportunities could provide area residents a greater, more convenient reach to these facilities, and ease of accessibility to the site helps determine anticipated use by the community. The planned construction of Gateway Park at the northern end of the Jeffrey Open Space Trail creates an opportunity to share public amenities (parking, restrooms, etc.) and connect the two outdoor spaces.

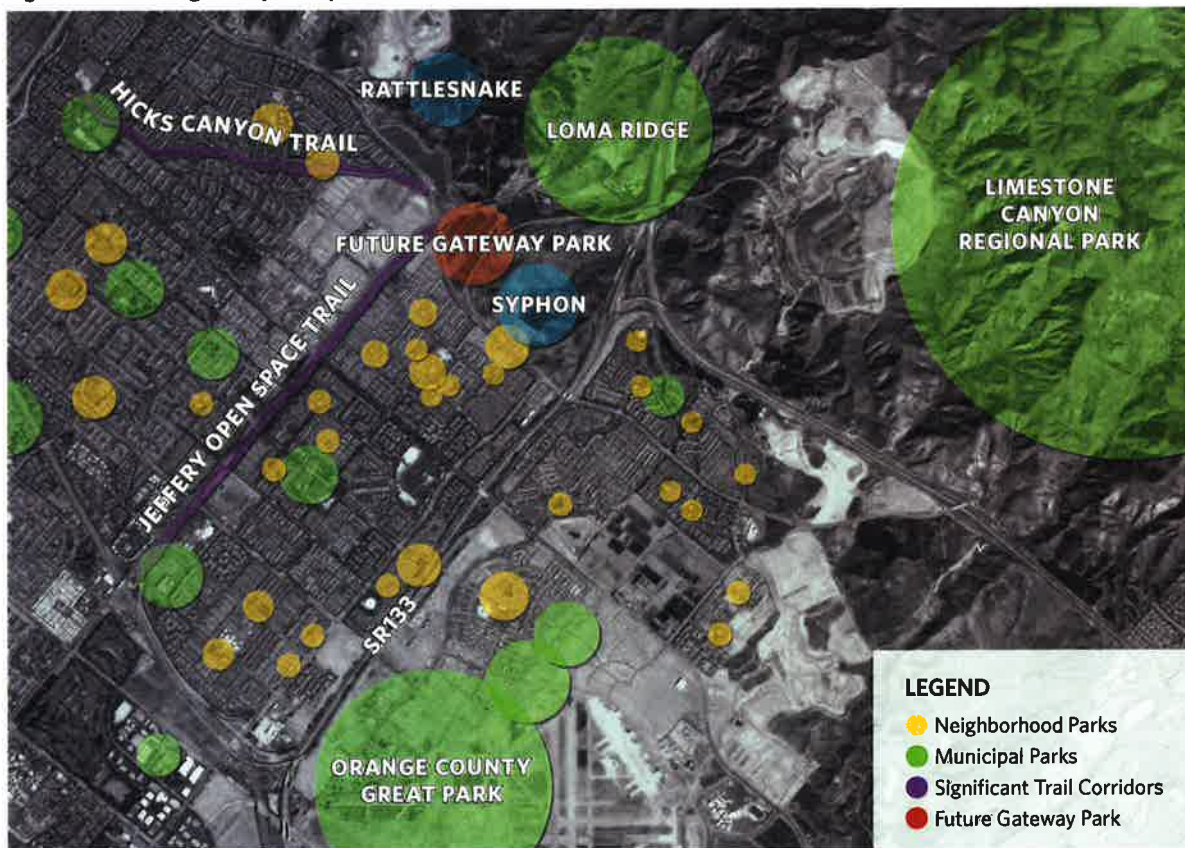
A. RECREATIONAL CONCEPTS IDENTIFICATION AND EVALUATION

Core Competency Leader: April Cottini

HDR Approach

- Context analysis
- Stakeholder input & community outreach
- Concept development
- Design development and estimate of probable cost

Figure 1.6: Linking area parks provides recreational access by bike or foot.



HDR will coordinate and attend meetings with the City of Irvine and The Irvine Company to explore partnering opportunities for these future developments.

With attention to the success of the nearby Rattlesnake Reservoir facilities and the current and future amenities of all of the open space resources nearby, the HDR team will develop a list of potential recreational features and assess how these features, or combinations thereof, suit Syphon Reservoir. Configuring and scaling these elements to suit the site, the assessment will lead to the development of 3-4 feasible, site-specific recreational use concepts. The topographic and spatial attributes of the site, detailed in the 2012 GEI feasibility study, are ideal for passive recreation, be it a fishing or small boating pier, trails for walking, running or off-road biking, or simply quiet, contemplative scenic overlooks with seating or small group picnic areas. **With the natural character of the site and practical purpose of the reservoir – water conservation through recycling – there is an excellent opportunity to introduce a public education component** with an interpretive, narrative landscape, such as explanatory signage along a trail or a small kiosk or exhibit space.

Given the primary purpose of the project, recreation should compliment, not complicate, IRWD operations. The addition of a recreational element should be carefully considered for public safety, liability to IRWD, constructability, maintenance and project cost implications, regulatory agency coordination, impact on the natural and built environment, and the relative value of potential recreation features to the community. The HDR team will engage IRWD in the development of specific criteria to evaluate the concepts against, in order to determine which concepts are truly feasible and approved for use in public review and discussion. Additionally, HDR will coordinate with ESA to be sure that the selected recreational concepts are incorporated in the environmental review and permitting process.

With input from IRWD the team will refine the concepts accordingly, evaluating against both public input and the essential criteria previously developed, to determine two alternates to further develop to 30% detail. The final alternates will be estimated for opinion of probable cost, including the siting of architectural and programmatic features, identification of pedestrian and maintenance vehicle circulation, hardscape and planting areas, schematic/relative grading, and site security, as well as programmatic elements specific to each alternate.

Deliverables

- Feasibility report including context analysis, 3-4 schematic recreational opportunity concepts (1 plan and section each at minimum), evaluation criteria matrix
- Basis of design report including 30% development and opinion of probable cost for 1-2 concepts

Assumptions

- Accurate site survey/CAD data provided



B. Risk Analysis

HDR understands that IRWD’s top priority for the Syphon Reservoir is dam safety, and that the project team needs to demonstrate that the project is safe and reliable to IRWD, regulatory agencies, and the surrounding community. HDR has effectively used detailed risk analyses to evaluate dam safety and communicate that risk to key stakeholders. The detailed risk analysis will identify the likelihood and consequences of a broad range of potential failure modes (PFMs), including those associated with seismic loading, flooding, seepage, stability and internal erosion. The risk analysis can also verify the measures included in the dam design to lower that risk to tolerable levels are appropriate.

The approach HDR will take is to assemble an independent cadre of geotechnical, hydrologic/hydraulic, and structural experts to establish the feasibility-level baseline risk early in the pre-design phase of the project. HDR’s risk assessment cadre would consist of the following technical advisors:

| EXPERTS | DISCIPLINE |
|--------------------------------|----------------------------------|
| Dan Osmun, PE | Risk analysis (lead facilitator) |
| Keith Ferguson, PE | Geotechnical and dam design |
| Elena Sossenkina, PE | Consequence assessment |
| Les Harder, PhD, PE, GE | Geotechnical and seismic |
| John Parrish, PE | Hydrology and Hydraulics |
| Sam Planck, PE | Hydraulic Structures |

The risk cadre will review the technical data available, including geotechnical data, engineering analyses, breach analyses and conceptual designs. Additional work will be completed by HDR to assess potential downstream consequences as part of the risk analysis. Those consequences can be in the form of loss of life (per traditional USBR procedures), and can also include other secondary factors such as economic and political consequences.

The risk cadre will meet for a week-long workshop, to discuss potential failure modes (PFMs), estimate the likelihood of those PFMs occurring using detailed event tree analyses, and consider the likely consequences. The PFM risk analyses will be combined into a comprehensive risk assessment for the proposed dam. The team will use established USBR guidelines so that the analysis meets public protection guidelines and is acceptable to USBR.

That risk will be evaluated and communicated to IRWD, DSOD and the community. A final risk analysis will be completed late in the final design process, with the participation of the design consultant, to verify that the final dam design addresses all dam safety risks. Before conducting the risk assessments, HDR and IRWD will review the risk analysis approach with DSOD to confirm we comply with their requirements.

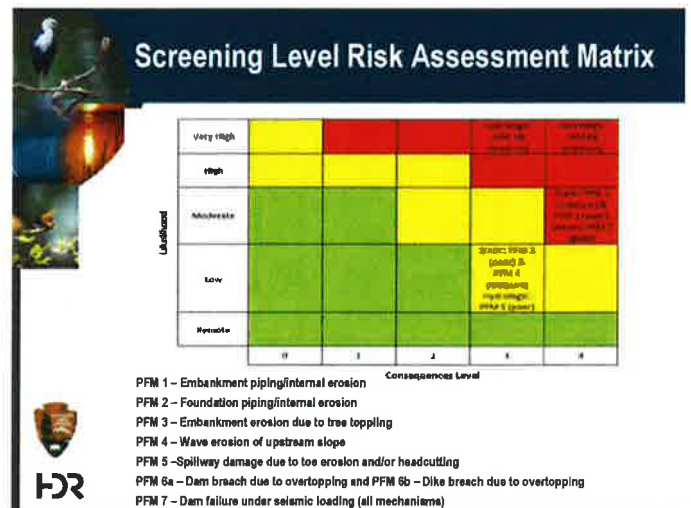
B. RISK ANALYSIS

Core Competency Leader: Dan Osmun

HDR Approach

- Early evaluations to identify dam safety risks and verify they are being addressed
- Communicate risk with DSOD and the public
- Final risk analysis to achieve designer concurrence that the design addresses all dam safety risks

Both the feasibility design and final design risk analyses will include the likelihood of failure (annual probability of failure – APF) and assessment of failure consequences. The best practices for quantitative risk analysis published jointly by the USBR and USACE will be used for the analysis. Consequences shall be estimated using the Risk and Consequences Estimating Methodology (RCEM) published by the USBR (2012). **The HDR team brings extensive risk analysis experience to the project, led by Dan Osmun, who led the USBR risk assessment team in the Denver Technical Services Center for 30 years.** The HDR team has most recently used both simplified and detailed risk analyses to evaluate dam projects including the National Park Service dam assessments as well as the Calero Dam and Scoggins Dam final designs.



The National Park Service used HDR’s risk analysis to prioritize dam safety mitigation projects.

The risk analysis will be comprised of the following:

- **Feasibility Design Risk Assessment.** HDR's OR team will perform a quantitative risk analysis of the proposed feasibility design of Syphon Dam considering the configuration presented in the Syphon Reservoir Feasibility Study (GEI, 2012).
- **Final Design Risk Assessment.** At completion of the 60% design, HDR's OR team will update the feasibility design quantitative risk analysis of Syphon Dam considering the available design evaluations and layouts. The quantitative risk assessment will be updated by the same cadre of experts to confirm the risk estimate considering the updated dam.

Deliverables

- Feasibility Design Risk Assessment TM (draft and final)
- Final Design Risk Assessment TM (draft and Final)

Assumptions

- For purposes of scope and budget development, the risk analysis effort is based on complying with the requirements of the most stringent potential regulatory agency involved in the project.
- The scope may be reduced as the project develops if less stringent requirements are determined based on future identification of the lead regulatory agency



Risk Informed Decision Making (RIDM) was successfully used on the Scoggins dam project.

C. Technical Advisory Group

Understanding

Technical Advisory Groups (TAG) play a critical role in dam development projects. For the Syphon Reservoir project, it is especially important that the TAG independently verify that the project does not present unacceptable risks to the IRWD, the public, property or the environment. HDR has frequently used and participated in TAG's for similar projects and understands the how to establish and manage a TAG that successfully meets the objective of having them review the project.

Approach

HDR's approach to forming and effectively managing the TAG is based on the following:

- Carefully selecting TAG members for their expertise and objectivity
- Establishing a clear and concise "charge" of the TAG that focuses their review efforts
- Confirming their specific qualifications and disciplines appropriate for the project, potential risks and known challenges
- Clearly defining their roles and responsibilities
- Engaging them at the right time on the project to be of most value
- Providing timely and relevant project information for their review
- Planning for and facilitating TAG workshops to maximize effectiveness
- Accurately and thoroughly documenting their work, observations and conclusions
- Engaging them and/or their findings in the public communications related to the project

HDR is actively involved and serves in leadership positions with the U.S. Society on Dams (USSD) and the Association of State Dam Safety Officials (ASDSO), the leading industry organization for dam professionals. Through this involvement we have access to recognized industry experts with acknowledged and expertise in their respective disciplines. For the Syphon reservoir project, we envision engaging the following disciplines on the TAG:

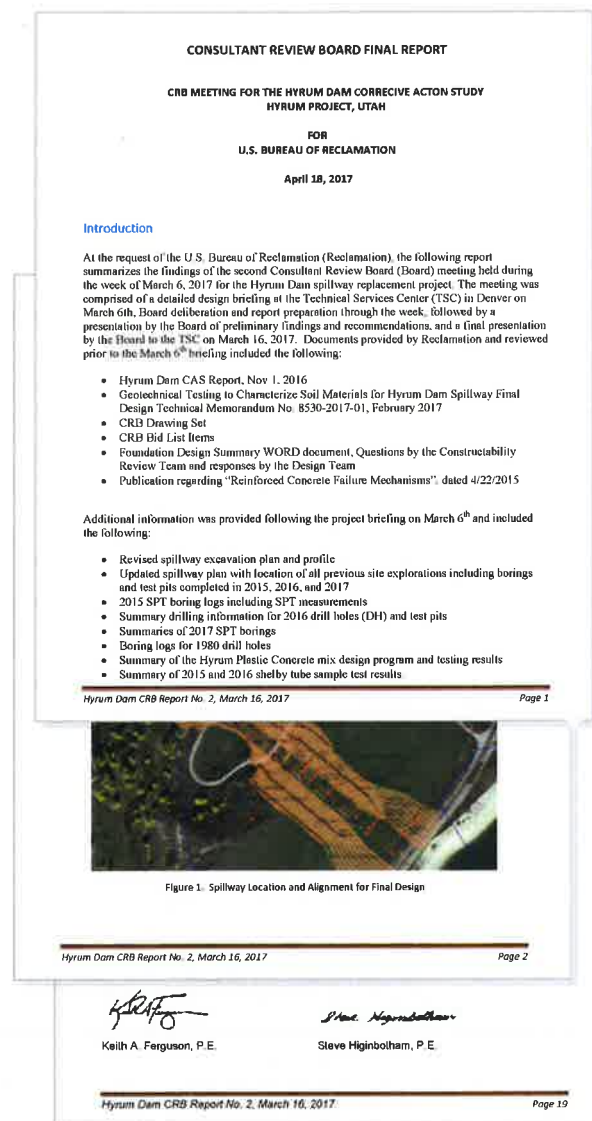
- Potential Failure Mode Analysis and Risk Informed Decision Making
- Engineering geology/site characterization
- Seismic analysis
- Hydrology/hydraulics
- Dam construction

C. TECHNICAL ADVISORY GROUP

Core Competency Leader: Keith Ferguson

HDR Approach

- Identify key project challenges
- Assemble a respected TAG team
- Conduct collaborative and effective review workshops



Our team has successfully developed and facilitated expert panels to help our clients assess and manage risks.

Keith Ferguson was the past president of USSD and has the respect of and access to the foremost dam experts in the country and will use this experience to assemble the most qualified, independent TAG for IRWD.

Final decisions on TAG configuration should be based on key project issues and include individuals that are highly respected and have extensive experience addressing similar dam issues. HDR will work with IRWD to confirm and prioritize the issues and needed areas of expertise on the TAG. Once the areas of expertise/issues are agreed to, HDR will present IRWD with a list of potential candidates for each discipline for their consideration. Once the TAG candidates are identified, HDR will work directly with them to negotiate rates and confirm the scope of work the TAG is to deliver.

The TAG will be engaged at two specific times during the project: during preliminary design and again during the final design. HDR will work closely with IRWD to define the full scope of the TAG role and their specific responsibilities during the two 5-day workshops. Based on our experience, we propose that the TAG be engaged to address the following topics during the pre-design workshop:

- Confirm Site Characterization and Drilling Program
- Address concerns regarding potential for active fault traces under dam footprint
- Dam Safety Design Criteria

During final design, we propose that the TAG be actively engaged to review:

- Confirm Potential Failure Modes have been addressed in design documentation
- Address constructability concerns
- Identify any major residual risks and mitigation strategies

Keith Ferguson will HDR's task leader for the TAG and will plan and moderate the TAG workshops. HDR will work directly with IRWD to finalize workshop agenda's, including intended outcomes and will produce workshop summaries.

Chris Krivanec has successfully worked with similar advisory groups and expert panels as a designer and project manager. Keith Ferguson and Les Harder have also served as expert panelists on dam projects and will bring that experience to get the greatest value from the TAG.

Deliverables

- Technical Advisory Group Plan (draft and final)
- Workshop agendas and meeting minutes
- TAG reports (authored by the TAG members) (draft and final)

Assumptions

- Task 1.B currently assumes a total of 10 days of workshops, based on an assumption of two 5-day workshops established at strategic milestones in the overall schedule. IRWD anticipates conducting one workshop during concept or preliminary design and the second workshop during final design.
- The OR shall contact the proposed TAG participants, negotiate their billing rates, and schedule the two 5-day TAG workshops.
- TAG members will prepare reports following design workshops, including their findings and recommendations.
- TAG workshop meeting minutes and reports will include 3 copies and one electronic copy in PDF format for drafts, and 10 copies, one electronic copy in PDF format, and the MS Word file for final versions.
- Individual TAG participant costs are excluded from this proposal. Once TAG participant scope and rates are defined, IRWD may elect to contract directly with each TAG participant or execute a variance with the OR to fund the costs of the TAG participants.



Task 4: Final Design Support

A. Final Design Request for Proposals

One of the keys to meeting IRWD’s overall schedule objectives for the Syphon Project will be to bring on the design team in early 2018. Based on HDR’s initial assessment of the overall project schedule, IRWD’s environmental consultant will need an updated project description (based upon the details of the 30% design) as soon as possible. That critical design input will be needed to advance the environmental compliance process.

HDR will assist IRWD with the development of the design scope of work to be included in the RFP for selection of the final design consultant. **HDR will draw from its extensive experience as a dam designer on recent projects like Calero Dam, Scoggins Dam and Chehalis Dam to develop the RFP design approach and scope of work details necessary for a successful project.** The RFP scope of work will include:

- Key design milestones and deliverables (described in Section 4B)
- Design criteria
- Regular coordination meetings with IRWD and the OR
- Design review workshops with DSOD, the Technical Advisory Group and other stakeholders
- Program coordination check points with the environmental, permitting, and public outreach teams

IRWD will prepare the overall RFP and incorporate the detailed scope of work language drafted by HDR. HDR will also participate in the review of consultant proposals, associated interviews, and final selection of the design team.

Below is a draft outline we will update when we are assisting IRWD in choosing the final design team.

- I. Prepare with IRWD the Request for Proposal (RFP) to distribute to potential design teams and/or post on IRWD’s website
 - A. If necessary, review the RFP with IRWD and necessary board members prior to the release date
 - B. Attend the Pre-proposal meeting with IRWD to answer any questions from the attendees
 - C. Review and answer any questions from potential design teams prior to the teams submitting their proposals. Assist in preparing update responses for IRWD to send out to the potential design teams.
- II. At IRWD’s discretion, review the RFP submittals from potential design firms
 - A. If requested, supply IRWD with comments and concerns of submittals
 - B. Be mindful not to discuss any submittals outside of the review board
 - C. Suggest to IRWD the top submittals to attend the interview
- III. Attend the interview
 - A. Develop and suggest to IRWD questions to ask interview candidates
 - B. Provide comments to IRWD of each potential design team’s interview
 - C. Discuss and choose the final design team with IRWD
- IV. Meet with IRWD and the design team to make sure everyone understands expectations going forward

A. FINAL DESIGN REQUEST FOR PROPOSAL

Core Competency Leader: Chris Krivanec with support from Keith Ferguson

HDR Approach

- Scope will be based upon HDR’s dam design experience
- Need to bring on design team early
- Program schedule, which integrates all aspects of the project, will drive the design approach

Deliverables

- Request for Design Proposals (Draft and Final)

Assumptions

- One Pre-Proposal meeting will be required
- Up to 10 design proposals will be reviewed
- Up to three design consultants will be required to interview
- The design contract will need to be awarded by July 2018

B. Technical Review of Final Design Deliverables

HDR understands that IRWD needs a comprehensive set of technical reviewers that understands dam design, the requirements of DSOD and USBR, and the interrelationship between the design and the environmental and permitting process. The HDR OR team will provide technical reviews of engineering deliverables prepared by the final design engineer, including:

- Geotechnical work plans and associated reports (draft and final)
- Preliminary Design Report (PDR) (draft and final)
- Final design packages at the 60, 90, and 100 percent completion levels

We anticipate that the PDR will include the design criteria and engineering analyses to form the basis for the dam design, along with a set of preliminary (30 percent level) design drawings. The 60, 90 and 100 percent design packages will include plans, specifications and opinions of probable construction costs.

HDR will draw from its complete set of technical resources as needed to complete comprehensive technical reviews of the dam design, including the following disciplines:

- Geotechnical, Geologic and Seismic Engineering
- Structural Engineering
- Hydrology and Hydraulics
- Mechanical, Electrical and Engineering
- Pipeline and Water Treatment Engineering
- Cost Engineering
- Construction Management
- Environmental and Permitting

In addition to a comprehensive technical review, HDR's reviews will confirm whether recommendations from the environmental documents, compliance with regulatory and jurisdictional agencies (including DSOD), and compliance with permitting requirements have been incorporated into the design documents.

As an optional scope item, HDR can review the design team's updated project description. HDR's engineering and environmental compliance teams will provide feedback on the level of detail and appropriateness of how the project description will inform the environmental documents.

B. TECHNICAL REVIEW OF FINAL DESIGN DELIVERABLES

Core Competency Leader: Keith Ferguson

HDR Approach

- Assemble a comprehensive team of reviewers
- Understand what is needed in a complete dam design
- Verify design meets DSOD and regulatory needs

Deliverables

- Technical Reviews of Geotechnical work plans and associated reports (draft and final)
- Technical Reviews of Preliminary Design Report (PDR) (draft and final)
- Technical Reviews of final design packages (60, 90, and 100 percent completion levels)

Assumptions

- HDR's technical reviews shall be conducted in parallel with IRWD, and the OR shall provide written review comments to IRWD within two weeks of receiving each document.
- Review comments shall be organized in a spreadsheet format and supplemented with redlines on the drawings as necessary

Optional Scope

- Technical Review of a revised Project Description

“ The HDR Design Team did an outstanding job. A key to HDR's success was an Internal Design Review Team that worked closely with SBFCA to provide the most cost effective efficacious solutions for a number of difficult designs and cost issues. One member of the Design Review team, Les Harder, was instrumental in this process and also collaborated extensively with the USACE, DWR, and the Central Valley Flood Protection Board to obtain concurrence and approval of these measures. ”

Michael Inmine, Executive Director Sutter
Butte Flood Control Agency

C. Opinion of Probable Construction Cost and Construction Schedule Reviews

Understanding

As your Owner’s Representative, HDR will provide a detailed review of the designer’s opinion of probable construction cost (OPCC) and their construction schedule, assess the completeness and accuracy of their work and identify missing components. **HDR’s proven experience in dam design, estimating, construction and scheduling provides IRWD with:**

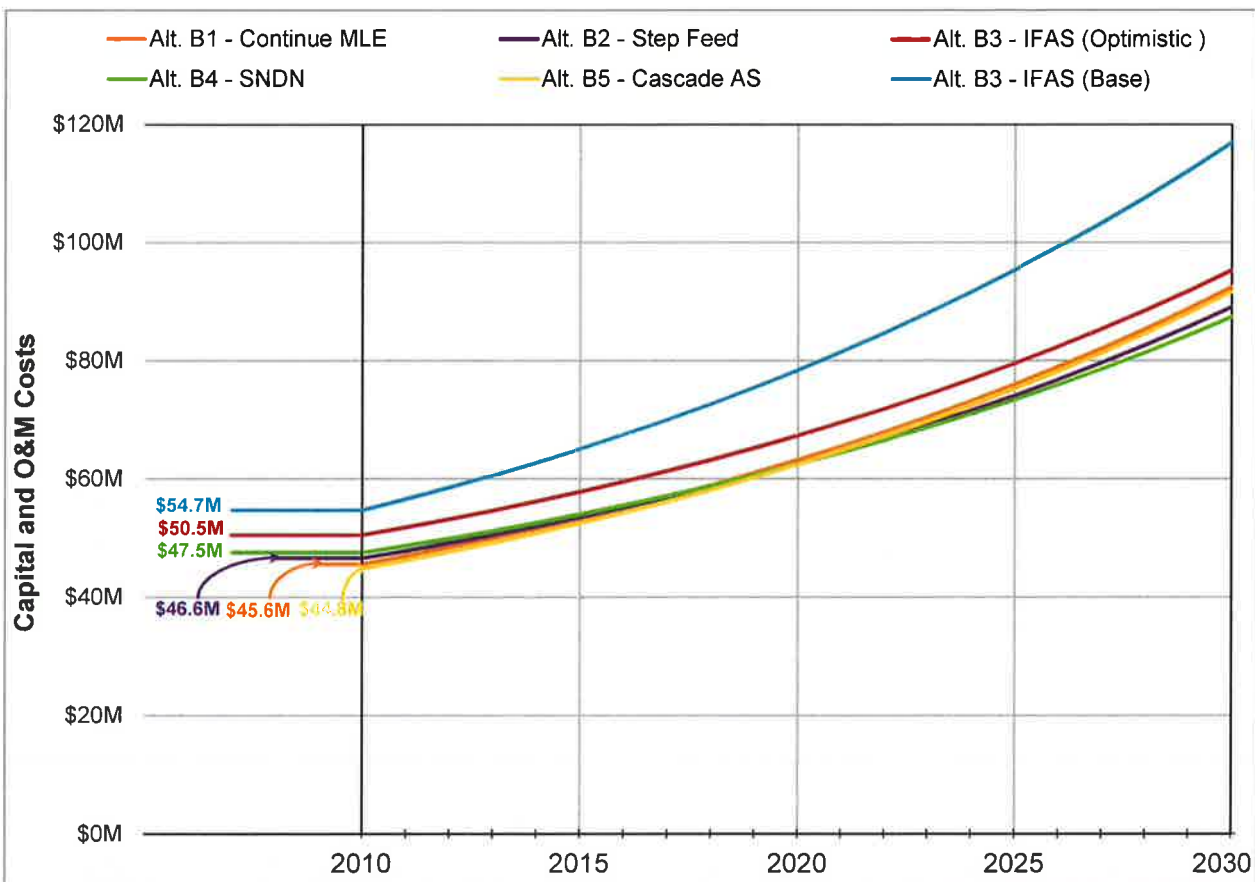
- An accurate cost understanding that allows you to make project decisions with confidence
- An estimate grounded in understanding dam construction and market conditions – so there are no surprises going into construction
- A realistic construction schedule that enables timely use of the reservoir, reducing potential diversion and avoiding costly water purchases
- Detailed, supporting analyses that allow you to understand, manage and mitigate project risk

C. OPINION OF PROBABLE CONSTRUCTION COST AND CONSTRUCTION SCHEDULE REVIEWS

Core Competency Leader: Jeff Allen

HDR Approach

- Based on design milestones
- Integrates cost and schedule reviews to account for interdependencies
- Level of detailed analysis increases as design advances
- Select independent verification of costs and schedule



HDR has worked with IRWD to develop unique cost presentation materials for the Board to clearly illustrate project drivers. This focus on clear and relevant communication supports timely decisions and schedule compliance.

Cost and Schedule Review – Approach Overview

Our approach to assessing **construction schedule** and **opinion of probable construction cost (OPCC)** to deliver high-confidence cost and schedule understanding is based on the following expectations:

- Thorough understanding of the driving project parameters such as design change, design basis and project direction
- Coordination with IRWD and the design team to understand the full basis for the construction schedule and cost estimates.
- Development of a high-level independent construction schedule to help thoroughly understand key constraints, work relationships, schedule drivers, and schedule risk drivers.
- Assessment of schedule sensitivity to NTP, weather, operational, or other constraints; and consideration of reasonable construction duration and contract performance periods, and why they may be different.
- Critical evaluation of the work breakdown and quantity development. Based on our experience; targeting the awareness and appropriate representation of temporary works or otherwise incidental work under the contract directly affects cost and schedule.
- Specific evaluation of whether the schedule and cost estimates appropriately reflect environmental and operational constraints and compliance.
- Evaluation of regional market drivers such as supplier outlooks, availability of material, labor and key equipment resources, busyness of contractors, and general contractor and specialty key subcontractor appeal. Apply lessons from local projects to mitigate potential risks related to local drivers.
- Targeted means, methods, resource and productivity assessment for key work.

- Thoughtful evaluation and independent determination of typical direct and below-the-line cost factors such as including mobilization, contractor general expense, unlisted work items, design contingency and construction contingency.
- Development of deliverables assessing project schedules and cost opinions and that offer clear and concise ideas to consider for the remaining design, procurement, or CM setup efforts; including identification of specific cost saving or risk reducing ideas.

Project Approach

HDR's approach to evaluating cost and schedule assures an appropriate evolution of detail and thoroughness, as well as recognition and handling of key project features as the design evolves from 30 to 60, 90 and 100 percent. Our approach also integrates the cost and schedule reviews to incorporate their interdependence, resulting in a more realistic OPCC and schedule understanding. It is based on the design milestones and addresses the scope items for both cost and schedule.

Our reviews will address completeness, accuracy and gaps by evaluating the specific content that would be expected at each stage of design, as described below.

Cost Estimate and Schedule Review 60% Design

Cost estimate review. Demonstration of a complete understanding of the work; identification and evaluation of potential alternatives and options to be incorporated into the design; assessment of key resource needs, availability, and pricing – labor, equipment, specialty work disciplines, aggregate materials, mechanical and control equipment, etc.; draft guide specifications as well as full development of select key specifications and special contract provisions; key work



Led by Jeff Allen, construction schedule updates and cost estimates will be evaluated from a unique blend of dam **owner, designer and contractor** perspectives. Mr. Allen brings many years of experience as a contractor responsible for not only estimating but also implementing project and corporate means, methods and resources for successful dam construction. Often Mr. Allen's role was assessing project risk, market conditions and internally reviewing estimates to provide project costing, surety support, resource availability, and market conditions supported construction bids that could be successfully constructed.

and temporary work items should have well developed means and methods and those estimates should reflect productivity and resource-based estimates; finalize preliminary plans for project procurement/delivery and contract industry solicitation and awareness; refinement of cost contingencies and factors; select resource and productivity-based component estimate checks. HDR will also contact local commercial aggregate suppliers (quarries) to determine availability and suitability of import materials if needed to address cost or construction risk.

Schedule review. Logic and calendar driven gantt chart with critical work identified and key relationships developed; fully developed WBS; identification of all calendar and outside work constraints; preliminarily evaluate schedule sensitivity to select risks, means and methods, constraints; provide sound logic relationships have been developed as well as durations and constraints; initial recommendations regarding contract performance period and schedule related contract and specification provisions.

90% Design

Cost estimate review. Finalization of all work being represented in the work breakdown structure; highly developed specifications; very thoughtful measurement and payment provisions; final planning and implementation of

procurement/delivery approach; assess market conditions and potential impact to cost, final refinement of project contingency and factors; cost impacts of project schedule and risk; development of contractor general expense and project indirect expense; further resource and productivity-based independent estimate checks for select items.

Schedule review. Final incorporation of all work and design development; final schedule sensitivity analysis, final determination of contract performance period, provisions and specifications; final determination of degree, if any, the design construction schedule will be incorporated into solicitation and bidding documents.

100% Design

Cost estimate review. Finalization of OPCC; finalization of critical review of specifications and contract provisions including quantities developed for measurement and payment; final market analysis and probable impact on bids/proposals.

Schedule review. Final determination of contract performance period, interim milestone requirements; cross check all before receiving bids/proposals.

Deliverables

- Provide comments regarding the completeness, accuracy and missing components of cost estimates developed at the 60, 90 and 100 percent design milestones and meet with IRWD to discuss the contents of each report submitted.

Assumptions

- Designer will provide a basis-of-estimate and basis-of-schedule TM to support costs estimates in a detailed work-breakdown format. Supporting documents will include quantity development, means and methods, productivity development, and where appropriate resource and productivity based cost development.
- Designer will provide Microsoft Project schedule.
- HDR will meet with designer for one 4-hour meeting to review and discuss the cost estimate and schedule prior to 60% design and at each of the design milestones (4 meetings total).

Optional Scope

HDR has identified a 30% OR review as an optional service that provides great value in assuring complete basis-of-schedule and basis-of-cost platforms are in place to guide the 60% and subsequent efforts to provide well-developed and meaningful information upon their initial submittals.

- 30% Design
 - **Cost estimate review.** Thorough and complete review of the designer basis-of-cost-estimate; understanding of the work and a well-developed work breakdown structure; sound quantity development; establishment of a specification list and identification of key specification and contract provision considerations; development of cost contingency approach.
 - **Schedule review.** Strong basis-of-schedule document; reflect the well-developed WBS; preliminary logic and calendar driven gantt chart with critical work identified and key relationships developed.
 - **Deliverable.** Provide comments regarding the completeness, accuracy and missing components of cost estimates developed at the 30 percent design.
- 60% Design – Constructability Review
 - At the 60% design milestone, HDR will plan and facilitate a 6 hour constructability workshop with IRWD, the designer and the environmental consultant to identify and propose solutions to any potential constructability issues.
 - **Deliverable.** Written summary of constructability workshop and agreed-upon recommendations.

D. Regulatory Coordination

During the Pre-Design tasks, HDR will lead the effort to coordinate with the lead agencies, namely the DSOD for their review and ultimate approval of the dam design.

Once the final design engineer is under contract, primary coordination with the lead regulatory agency will transition from the OR to the design consultant.

During final design, the OR will assist IRWD with general oversight with respect to coordinating and corresponding with the lead regulatory agency during the final design phase of the project. As the final design engineer takes the lead on direct coordination with the governing agencies, the OR will act as an independent advisor to IRWD so that the necessary coordination is occurring timely and to provide comments on content and any additional considerations to the final design engineer relative to agency coordination.

D. REGULATORY COORDINATION

Core Competency Leader: Les Harder

HDR Approach

- Early coordination with lead agencies (DSOD) for approvals during Pre-Design
- Coordination with the design consultant
- Assist with oversight and provide coordination during final design

Deliverables

- Provide comments on content and additional considerations to the design engineer regarding agency coordination efforts

E. Miscellaneous Technical Support

HDR has the depth and breadth of technical expertise needed to respond to IRWD's request for miscellaneous technical support. Based on our understanding of this project and complex dam projects generally, the supplemental support may include, but not be limited to the following:

- Geotechnical data or interpretive reports
- Static and seismic embankment stability
- Embankment and foundation seepage
- Spillway hydraulics
- Reservoir outlet hydraulics
- Borrow sourcing and materials handling
- Reservoir water quality/aeration system
- Sizing of strainer and chlorination/dechlorination facilities

We will collaborate with IRWD to define additional tasks, prepare an approach and engage the needed team members to successfully complete the task in the time required.

E. MISCELLANEOUS TECHNICAL SUPPORT

Core Competency Leader: Chris Krivanec

HDR Approach

- Coordinate with IRWD to define additional tasks
- Prepare approach and engage appropriate team members
- Define deliverables

Deliverables

- To be determined based on tasks assigned

Assumptions

- For budgeting purposes, \$75,000 is included in our Budget Proposal



December 4, 2017

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

Attention: Scott Toland, P.E.

Regarding: Revised Budget Proposal for Engineering Support Services as the Owner's Representative for the Syphon Reservoir Improvements Project

Dear Mr. Toland,

Enclosed please find HDR's revised budget proposal and supplemental information for the Owner's Representative Services for the Syphon Reservoir Improvements project. The revisions include updated staff rates, separated travel costs, and modified level of effort for certain tasks. Specific changes are summarized below.

Estimated Level of Effort and Fee

We have eliminated the "Rates for Meetings" category and instead applied annual staff rates as detailed in the Staff Rate Schedule. All travel costs have been separated and are included as per diem costs, as summarized in the Travel Per Diem Schedule.

Additionally, we adjusted the level of effort estimate based on your direction. The hours for Task 4.A (Final Design Request for Proposals) were increased to reflect a greater level of effort than originally proposed. We also reduced the level of effort for Betty Dehoney under the Pre-Design Support tasks and shifted hours to support staff to more accurately reflect the experience required for those tasks.

Staff Rate Schedule

We have prepared a staff rate schedule showing key staff and staff categories. The rates cover individual years from 2018-2020, with an annual escalation of 2.5% each year.

Travel Per Diem Schedule

Since most staff traveling for this project will be from our Folsom and Denver offices, we have estimated travel costs for those two locations. We have also established per diem rates for one-day and multi-day trips. The schedule was intended to provide a balance of cost resolution and simplicity to streamline cost tracking and invoicing.

We appreciate your consideration of our revised budget proposal, and look forward to hearing from you. Please contact either Chris at 916.817.4842 or Christopher.Krivanec@hdrinc.com, or Robert at 916.817.4858 or Robert.Boling@hdrinc.com if you have any questions.

Respectfully,
HDR Engineering, Inc.


Christopher Krivanec, PE, GE
Owner's Representative


Robert Boling, PE
Principal-in-Charge

hdrinc.com

3230 El Camino Real, Suite 200, Irvine, CA 92602-1377
T 714.730.2300 F 714.730.2301

Irvine Ranch Water District
 Owner's Representative for the Syphon Reservoir Improvements Project
 Estimated Level of Effort and Fee



| NO. | TASK DESCRIPTION | LEVEL OF EFFORT, HOURS | | | | | | | | | | | | | | | | | FEE, DOLLARS | | | | | |
|---------|---|------------------------|-----------------------|-------------|------------------|-----------------|---------------|-----------------|----------------------|----------------------|---------------------|--------------------|-------------------|------------------|-------------------|----------------------|------------|---------------------|--------------|------------------|-----------------|---------------|------------------|------------------|
| | | Project Manager | Quality Assur Manager | QC Reviewer | Engr&Design Lead | Envr Compl Lead | Pgm Mgmt Lead | Reg Agency Lead | Sr Technical Advisor | Sr. Project Engr/Sci | Project II Engr/Sci | Project I Engr/Sci | Staff II Engr/Sci | Staff I Engr/Sci | CAD / BIM Manager | CAD / BIM Technician | Accountant | Project Coordinator | TOTAL LABOR | LABOR | TRAVEL PER DIEM | DIRECT COSTS | TOTAL | TOTAL |
| | | Kvnanec | Buttz | EG | Ferguson | Dehoney | Buttz | Harder | E7 | EE | E5 | E4 | E3 | E2 | F4 | T2 | | | | | | | | |
| | 2018 Rate | 839 | 871 | 855 | 811 | 800 | 877 | 892 | 812 | 893 | 838 | 838 | 848 | 818 | 818 | 811 | 818 | 818 | 811 | | | | | |
| | 2019 Rate | 839 | 871 | 855 | 811 | 800 | 877 | 892 | 812 | 893 | 838 | 838 | 848 | 818 | 818 | 811 | 818 | 818 | 811 | | | | | |
| | 2020 Rate | 839 | 871 | 855 | 811 | 800 | 877 | 892 | 812 | 893 | 838 | 838 | 848 | 818 | 818 | 811 | 818 | 818 | 811 | | | | | |
| 1 | Project Management | | | | | | | | | | | | | | | | | | | | | | | |
| 1 A | Project Management Plan | 112 | | 4 | 8 | 8 | 96 | | 104 | | 228 | 180 | | | | | | 72 | 812 | 219,844 | 0 | 2,199 | 222,043 | |
| 1 B | Meetings and Workshops | 752 | | | 120 | 96 | 16 | 10 | | | | | | | | | | | 994 | 299,844 | 68,875 | 2,998 | 371,717 | |
| 1 C | Project Management (HDR Contract) | 100 | | | | | | | | | | | | | | | | | 348 | 63,180 | 0 | 632 | 63,812 | |
| | Subtotal 1 Project Management | 964 | 0 | 4 | 128 | 104 | 112 | 10 | 104 | 0 | 228 | 180 | 0 | 0 | 0 | 0 | 0 | 124 | 124 | 662,868 | 68,875 | 5,829 | 667,572 | 667,590 |
| 2 | Pre-Design Support | | | | | | | | | | | | | | | | | | | | | | | |
| 2 A | Technical Review and Validation of Feasibility Documents | 52 | 1 | 4 | 44 | 2 | | | | 60 | | 8 | | | | | | 16 | 187 | 53,794 | 0 | 536 | 54,332 | |
| 2 B | Project Alternatives Development for Environmental Compliance | 48 | 4 | | 24 | 8 | | | | 60 | 60 | 16 | 48 | | | 16 | 60 | 16 | 372 | 91,176 | 0 | 911 | 92,087 | |
| 2 C | Environmental Compliance and Public Outreach Support | 40 | | | | 16 | | | | 60 | 60 | 64 | | | | | | 4 | 184 | 49,740 | 0 | 497 | 50,237 | |
| 2 D | Permitting Support | 24 | | | | 12 | | | | | | 104 | | | | | | 4 | 144 | 37,268 | 0 | 373 | 37,641 | |
| 2 E | Regulatory Coordination | 8 | | | | | 40 | | | | | | | | | | | 6 | 56 | 17,536 | 0 | 173 | 17,599 | |
| | Subtotal 2 Pre-Design Support | 172 | 5 | 16 | 68 | 38 | 0 | 40 | 8 | 120 | 120 | 192 | 48 | 0 | 16 | 80 | 0 | 40 | 943 | 248,314 | 0 | 2,492 | 251,806 | 251,890 |
| 3 | Miscellaneous Support | | | | | | | | | | | | | | | | | | | | | | | |
| 3 A | Recreational Concepts Identification and Evaluation | 24 | 4 | 8 | | | | | | | 100 | 160 | | 180 | 16 | 40 | | 16 | 548 | 116,628 | 0 | 1,166 | 117,794 | |
| 3 B | Risk Analysis | 88 | | 8 | 120 | | | | 212 | 152 | 152 | 40 | | | 28 | | | 22 | 822 | 241,016 | 0 | 2,410 | 243,426 | |
| 3 C | Technical Advisory Group | 24 | | | 24 | | | | | | | | | | | | | 8 | 56 | 15,898 | 0 | 159 | 16,047 | |
| | Subtotal 3 Miscellaneous Support | 136 | 4 | 16 | 144 | 0 | 0 | 0 | 212 | 152 | 252 | 200 | 0 | 188 | 44 | 40 | 0 | 46 | 1,426 | 373,532 | 0 | 1,735 | 377,267 | 377,300 |
| 4 | Final Design Support | | | | | | | | | | | | | | | | | | | | | | | |
| 4 A | Final Design Request for Proposals | 48 | | 4 | 24 | | | | | | | | | | | | | 4 | 80 | 23,736 | 0 | 237 | 23,973 | |
| 4 B | Technical Review of Final Design Deliverables | 48 | 8 | 12 | 48 | | | | | | | | | | | | | 24 | 284 | 84,976 | 0 | 850 | 85,826 | |
| 4 C | Opinion of Prob. Constr. Cost and Constr. Schedule Reviews | 8 | 4 | 12 | | | | | | | | 40 | | | | | | 24 | 188 | 44,136 | 0 | 441 | 44,577 | |
| 4 D | Regulatory Coordination | 16 | | | | | 80 | 16 | 16 | 20 | 20 | | | | | | | 112 | 112 | 34,672 | 0 | 347 | 35,019 | |
| 4 E | Miscellaneous Technical Support | 24 | | 8 | 20 | | 16 | 12 | 20 | 20 | 60 | 32 | 20 | 20 | 20 | 20 | | 8 | 300 | 74,748 | 0 | 252 | 75,000 | |
| | Subtotal 4 Final Design Support | 144 | 12 | 36 | 92 | 0 | 16 | 32 | 180 | 100 | 20 | 60 | 32 | 20 | 20 | 20 | 0 | 60 | 944 | 252,288 | 0 | 2,127 | 254,395 | 254,400 |
| | TOTAL, hours (BASE ESTIMATE, WITHOUT OPTIONAL TASKS) | 1,416 | 21 | 72 | 432 | 142 | 128 | 142 | 504 | 372 | 620 | 672 | 80 | 208 | 80 | 120 | 124 | 342 | 5,487 | 1,467,982 | 68,875 | 14,183 | 1,551,040 | 1,551,100 |
| | TOTAL, dollars (BASE ESTIMATE, WITHOUT OPTIONAL TASKS) | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Optional Tasks | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1 A.1 | Develop budget management plan | 8 | | | | | 24 | | | | | | | | | | | 32 | 10,056 | 0 | 101 | 10,157 | | |
| 5.1 A.2 | Update and maintain budgets | 48 | | | | | 40 | | | | | 144 | | | | | | 232 | 66,656 | 0 | 667 | 67,323 | | |
| 5.1 B.1 | Optimized Meetings | (72) | | | (48) | (30) | (50) | (10) | | | | | | | | | | (206) | (64,584) | (15,450) | (846) | (80,680) | | |
| 5.4 C.1 | 30% cost review, 60% constructability review | 32 | | 4 | 32 | | | | 80 | | | | | | | | | 148 | 148 | 45,104 | 0 | 451 | 45,555 | |
| | Subtotal 5 Optional Tasks | 16 | 0 | 4 | (14) | (20) | 14 | (10) | 0 | 80 | 144 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 204 | 57,232 | (16,450) | 573 | 42,355 | 42,400 |
| | TOTAL, hours (INCLUDING OPTIONAL TASKS) | 1,416 | 21 | 72 | 432 | 142 | 128 | 142 | 504 | 372 | 620 | 672 | 80 | 208 | 80 | 120 | 124 | 342 | 5,467 | 1,525,214 | 63,425 | 14,756 | 1,583,396 | 1,592,500 |
| | TOTAL, dollars (INCLUDING OPTIONAL TASKS) | | | | | | | | | | | | | | | | | | | | | | | |

* The fee estimate is based on applying composite rates that consider the project duration from 2018 to 2020. The annual rates shown were used to develop the composite rates based on the anticipated project cost distribution.

Irvine Ranch Water District
 Owner's Representative for the Syphon Reservoir Improvements Project
 Staff Rate Schedule



| Staff | 2018 Rates | 2019 Rates | 2020 Rates |
|--------------------------|------------|------------|------------|
| Krivanec, Christopher | \$290 | \$297 | \$304 |
| Ferguson, Keith | \$317 | \$325 | \$333 |
| Buttz, John | \$312 | \$320 | \$328 |
| Dehoney, Betty | \$298 | \$305 | \$313 |
| Harder, Les | \$302 | \$310 | \$318 |
| Senior Technical Advisor | \$312 | \$320 | \$328 |
| Senior Engineer | \$293 | \$300 | \$308 |
| Project Engineer II | \$268 | \$275 | \$282 |
| Project Engineer I | \$244 | \$250 | \$256 |
| Staff Engineer II | \$180 | \$185 | \$190 |
| Staff Engineer I | \$146 | \$150 | \$154 |
| CAD/BIM Manager | \$195 | \$200 | \$205 |
| CAD/BIM Technician II | \$151 | \$155 | \$159 |
| CAD/BIM Technician I | \$122 | \$125 | \$128 |
| Project Accountant | \$146 | \$150 | \$154 |
| Project Administrator | \$117 | \$120 | \$123 |

Irvine Ranch Water District
 Owner's Representative for the Syphon Reservoir Improvements Project
 Travel Per Diem Schedule



| Description | First Day | Add'l Days |
|----------------------------------|-----------|------------|
| Travel from Folsom Office | | |
| 1-Day Trip | \$400 | - |
| Multiple Day Trip | \$590 | \$305 |
| Travel from Denver Office | | |
| 1-Day Trip | \$505 | - |
| Multiple Day Trip | \$695 | \$305 |

The Estimated Level of Effort and Fee includes a total travel budget of \$68,875. The estimate is based on the following assumptions:

| Meeting /Workshop Description | Number with Travel | Number by Phone | Total Number | Duration Each |
|--|--------------------|-----------------|--------------|---------------|
| 1 Kick-Off Meeting | 1 | | 1 | 2 hours |
| 2 Monthly Project Management Team Meetings through Final Design Phase | 28 | 2 | 30 | 2 hours |
| 3 Environmental Consultant Coordination Meetings | 12 | 8 | 20 | 2 hours |
| 4 Environmental Permitting Coordination Meetings | 6 | 4 | 10 | 2 hours |
| 5 Public Outreach Coordination Meetings | 6 | | 6 | 3 hours |
| 6 Coordination Meetings and Site Visits with Regulatory and Jurisdictional Agencies (DSOD, USACE, Bureau of Reclamation) | 10 | | 10 | 2 hours |
| 7 District Board Meetings and Briefings | 10 | | 10 | 2 hours |
| 8 Technical Advisory Group Workshops | 2 | | 2 | 5 days |
| 9 Design Phase Coordination Meetings | 12 | 6 | 18 | 2 hours |
| 10 Other Meetings and Site Visits, as directed by IRWD | 15 | | 15 | 2 hours |
| TOTAL | 102 | 20 | 122 | |

| Attendees and Travel Details | Folsom | Denver | Total |
|--|-----------------|-----------------|-----------------|
| 1 Krivanec and Ferguson: 1 trip; multiple day | \$590 | \$695 | \$1,285 |
| 2 Krivanec: 28 trips; Ferguson: 9 trips; Buttz: 10 trips; single day | \$14,800 | \$5,050 | \$19,850 |
| 3 Krivanec: 12 trips; single day | \$4,800 | | \$4,800 |
| 4 Krivanec: 6 trips; single day | \$2,400 | | \$2,400 |
| 5 Krivanec: 6 trips; multiple day | \$3,540 | | \$3,540 |
| 6 Krivanec: 10 trips; Ferguson: 5 trips; Harder: 5 trips; multiple day | \$5,900 | \$6,950 | \$12,850 |
| 7 Krivanec: 10 trips; multiple day | \$5,900 | | \$5,900 |
| 8 Krivanec and Ferguson: 2 trips, 5 days; multiple day | \$3,620 | \$3,830 | \$7,450 |
| 9 Krivanec: 12 trips; single day | \$4,800 | | \$4,800 |
| 10 Krivanec: 15 trips; single day | \$6,000 | | \$6,000 |
| TOTAL | \$52,350 | \$16,525 | \$68,875 |

January 22, 2018

Prepared by: A. Kalinsky/M. Cortez

Submitted by: K. Burton *KLB*

Approved by: Paul A. Cook *[Signature]*

ACTION CALENDAR

REHABILITATION OF DYER ROAD WELLFIELD WELLS 2 AND 17 AND LIMITED REDEVELOPMENT OF WELL 52 CONSTRUCTION AWARD

SUMMARY:

Dyer Road Wellfield (DRWF) Wells 2 and 17 have experienced a reduction in production and specific capacity and need rehabilitation. DRWF Well 2 was taken out of service in April 2017 due to a sharp increase in the sanding rate combined with a sharp loss in production. Well 52 has not experienced a decline in specific capacity; however, the well has been idle for more than three years and requires limited pumping redevelopment at this time. Staff recommends that the Board authorize the General Manager to execute a construction contract with Best Drilling and Pump, Inc. in the amount of \$967,760 for the rehabilitation of DRWF Wells 2 and 17 and limited redevelopment of Well 52.

BACKGROUND:

DRWF Wells 2 and 17 require rehabilitation in order to improve their hydraulic performance and to eliminate excessive sanding at Well 2. DRWF Well 2 was constructed in 1981 with mild steel as the casing material. The specific capacity has decreased from 66 gallons per minute per foot of drawdown (gpm/ft-dd) as recorded in 2013 to the current specific capacity of 13 gpm/ft-dd. In April 2017, the well was taken out of service due to excessive sand production and significant loss in production capacity. The sharp increase in sand production indicates that the casing may be damaged and require a liner. The original pumping rate was 4,000 gpm; the latest recorded pumping rate in 2017 was 2,400 gpm.

DRWF Well 17 was constructed in 1994; the casing material is copper bearing steel. Like DRWF Well 2, the specific capacity of Well 17 has decreased over time from the well's original specific capacity of 94 gpm/ft-dd to 21 gpm/ft-dd in 2017. The original pumping rate was 3,500 gpm; the average flow rate for Well 17 dropped to 2,120 gpm in the last year.

Well 52 was constructed in 2011 and is a significant resource to the District with a production capacity of over 5,000 gpm with minimal draw-down. The casing material is 316L stainless steel. Well 52 is not equipped and has been idle since pumping redevelopment was completed in September 2014. The original specific capacity of the new well (as measured in October 2011) was 127 gpm/ft-dd at a pumping rate of 5,000 gpm. In 2014, after a series of pumping and surging, an eight-hour constant rate test was performed with a specific capacity of 172 gpm/ft-dd at a pumping rate of 5,100 gpm. Partial redevelopment of Well 52 is recommended to maintain its integrity and production capability, as well as to mitigate potential biofilm growth and potential irreversible plugging of the gravel pack and aquifer formation.

A location map showing the wells is attached as Exhibit "A".

Construction Award:

In July 2017, IRWD retained Richard C. Slade & Associates to provide design services for the rehabilitation of DRWF Wells 2 and 17 and limited redevelopment of Well 52. Richard C. Slade & Associates completed the rehabilitation design in December 2017, and the project was advertised for construction to a select list of nine contractors. The bid opening was held on January 11, 2018 and three bids were received. Best Drilling and Pump, Inc. was the apparent low bidder with a bid amount of \$967,760; the engineer's estimate was \$990,300. The bid summary is attached as Exhibit "B".

FISCAL IMPACTS:

DRWF Well 2 and Well 17 Rehabilitation, Projects 10097 and 07090, are included in the FY 2017-18 Capital Budget and the existing budgets are sufficient to fund the construction phase of the projects. The existing budget of Well 17 Rehabilitation, Project 07090, is sufficient to fund the construction phase of the limited redevelopment of Well 52.

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 which provides exemption for minor alterations of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. A Notice of Exemption for the project was filed with the Orange County Clerk Recorder on August 4, 2017.

COMMITTEE STATUS:

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

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH BEST DRILLING AND PUMP, INC. IN THE AMOUNT OF \$967,760 FOR REHABILITATION OF DYER ROAD WELLFIELD WELLS 2 AND 17 AND LIMITED REDEVELOPMENT OF WELL 52, PROJECTS 10097 AND 07090.

LIST OF EXHIBITS:

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

Exhibit A



RICHARD C. SLADE & ASSOCIATES LLC
CONSULTING GROUNDWATER GEOLOGISTS
14051 Burbank Blvd., Suite 300
Sherman Oaks, CA 91401
Southern California (818) 506-0418
Northern California (707) 963-3914
www.rcslade.com

WELL LOCATION MAP IRWD DYER ROAD WELLFIELD WELL NO. 2

Job No. 382-OGE18

October 2017



RICHARD C. SLADE & ASSOCIATES LLC
CONSULTING GROUNDWATER GEOLOGISTS
 14051 Burbank Blvd., Suite 300
 Sherman Oaks, CA 91401
 Southern California (818) 506-0418
 Northern California (707) 963-3914
www.rcslade.com

WELL LOCATION MAP
IRWD DYER ROAD WELLFIELD WELL NO. 17

Job No. 382-OGE18

October 2017



RCS RICHARD C. SLADE & ASSOCIATES LLC
 CONSULTING GROUNDWATER GEOLOGISTS
 14051 Burbank Blvd., Suite 300
 Sherman Oaks, CA 91401
 Southern California (818) 506-0418
 Northern California (707) 963-3914
 www.rcslade.com

WELL LOCATION MAP
IRWD WELL NO. 52
 Job No. 382-OGE18 October 2017

Irvine Ranch Water District Bid Summary For
 Rehabilitation of DRWF Well Nos. 2 and 17 and Limited Redevelopment of Well No. 52
 PR 07090 and 10097, Code 7111

EXHIBIT "B"

| Item No. | Description | Qty | Unit | Engineer's Estimate | | 1 Best Drilling and Pump, Inc. Colton, CA | | 2 Weber Water Resources CA, LLC Corona, CA | | 3 General Pump Company, Inc. San Dimas, CA | |
|----------|---|-----|------|---------------------|--------------|---|--------------|--|--------------|--|--------------|
| | | | | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount |
| | | | | | | | | | | | |
| A-1 | Mobilization/Demobilization of pump rig, equipment and accessories Prepare contract documents and other preliminary work and prepare site as specified | 1 | LS | \$60,000.00 | \$60,000.00 | \$35,000.00 | \$35,000.00 | \$52,980.00 | \$52,980.00 | \$58,725.00 | \$58,725.00 |
| A-2 | Disconnect motor from electrical system, remove discharge header, pipe, motor column pipe, vertical turbine pump, couplings, electrical cable and all other appurtenances and sound well. Deliver pump and discharge header to DISTRICT storage facility. Retain and protect column pipe from damage for pump re-installation task. | 1 | LS | \$10,000.00 | \$10,000.00 | \$12,000.00 | \$12,000.00 | \$22,288.00 | \$22,288.00 | \$22,700.00 | \$22,700.00 |
| A-3 | Brush well casing with a stiff nylon and/or steel brush. Bail sediment following brushing. | 20 | HRS | \$450.00 | \$9,000.00 | \$375.00 | \$7,500.00 | \$542.95 | \$10,859.00 | \$495.00 | \$9,900.00 |
| A-4 | Airlift sediment fill from the bottom of the well | 1 | LS | \$2,400.00 | \$2,400.00 | \$10,000.00 | \$10,000.00 | \$33,218.00 | \$33,218.00 | \$14,000.00 | \$14,000.00 |
| A-5 | Perform Casing Inspection Thickness Measurement (CITM) survey of well casing | 1 | LS | \$9,000.00 | \$9,000.00 | \$7,500.00 | \$7,500.00 | \$3,671.00 | \$3,671.00 | \$5,300.00 | \$5,300.00 |
| A-6 | Conduct a caliper survey to the total depth of the well. | 1 | LS | \$1,500.00 | \$1,500.00 | \$1,600.00 | \$1,600.00 | \$1,224.00 | \$1,224.00 | \$2,200.00 | \$2,200.00 |
| A-7 | Perform a plumbness & alignment survey to the total depth of the well | 1 | LS | \$1,000.00 | \$1,000.00 | \$2,700.00 | \$2,700.00 | \$3,093.00 | \$3,093.00 | \$3,900.00 | \$3,900.00 |
| A-8 | Install a Type 304L Stainless Steel casing liner and gravel pack, if necessary, as directed by the DISTRICT. | 1 | LS | \$275,000.00 | \$275,000.00 | \$245,000.00 | \$245,000.00 | \$159,068.00 | \$159,068.00 | \$226,750.00 | \$226,750.00 |
| A-9 | Conduct well redevelopment using "air-jetting" methods, via the AirBurst® or BoreBlast® methods. | 1 | LS | \$15,000.00 | \$15,000.00 | \$18,000.00 | \$18,000.00 | \$21,625.00 | \$21,625.00 | \$21,000.00 | \$21,000.00 |
| A-10 | Conduct treatment and discharge of mechanical and/or pumping redevelopment fluids (as applicable) via neutralization and blending and disposal of solids/sludges per specifications, including treatment, sampling, analysis and reporting for NPDES discharge compliance. | 1 | LS | \$15,000.00 | \$15,000.00 | \$20,000.00 | \$20,000.00 | \$23,125.00 | \$23,125.00 | \$24,200.00 | \$24,200.00 |
| A-11 | Clear water column and provide up to three downwell interim, clear-viewing, color video surveys of well casing as specified. | 3 | EA | \$1,300.00 | \$3,900.00 | \$1,200.00 | \$3,600.00 | \$521.00 | \$1,563.00 | \$1,900.00 | \$5,700.00 |
| A-12 | Mobilize, install, maintain, remove and demobilize a diesel or gasoline engine, temporary test pump, equipment and other appurtenances/accessories as necessary in accordance with specifications. | 1 | LS | \$25,000.00 | \$25,000.00 | \$17,500.00 | \$17,500.00 | \$38,343.00 | \$38,343.00 | \$56,180.00 | \$56,180.00 |
| A-13 | Perform pumping development of the well including monitoring of water levels, pumping rates, and sand content, as specified. | 48 | HRS | \$450.00 | \$21,600.00 | \$425.00 | \$20,400.00 | \$400.00 | \$19,200.00 | \$220.00 | \$10,560.00 |
| A-14 | Perform a 12-hour (maximum) step drawdown test and a minimum 24-hour (maximum 48-hour) constant rate pumping test, including monitoring of water levels, pumping rates, and sand content, as specified. | 60 | HRS | \$450.00 | \$27,000.00 | \$425.00 | \$25,500.00 | \$400.00 | \$24,000.00 | \$220.00 | \$13,200.00 |
| A-15 | Perform a flowmeter (spinner) survey under dynamic (pumping) conditions throughout the perforated sections of the well, as specified. | 1 | LS | \$6,000.00 | \$6,000.00 | \$3,750.00 | \$3,750.00 | \$3,307.00 | \$3,307.00 | \$6,500.00 | \$6,500.00 |
| A-16 | Conduct depth-specific groundwater sampling at specific depth intervals. Collection, sampling and analysis to be performed by the DISTRICT. | 3 | EA | \$500.00 | \$1,500.00 | \$400.00 | \$1,200.00 | \$333.00 | \$999.00 | \$700.00 | \$2,100.00 |
| A-17 | Clear water column and provide a final downwell color video survey of the well casing as specified. | 1 | LS | \$1,300.00 | \$1,300.00 | \$1,200.00 | \$1,200.00 | \$1,563.00 | \$1,563.00 | \$1,900.00 | \$1,900.00 |
| A-18 | Conduct a static spinner survey of the well under non-pumping conditions. | 1 | LS | \$6,000.00 | \$6,000.00 | \$3,750.00 | \$3,750.00 | \$3,307.00 | \$3,307.00 | \$1,100.00 | \$1,100.00 |
| A-19X | Obtain vertical pump, motor, discharge header from DISTRICT and re-install pump to previous depth prior to removal, as specified. | 1 | LS | \$15,000.00 | \$15,000.00 | \$45,000.00 | \$45,000.00 | \$14,000.00 | \$14,000.00 | \$25,200.00 | \$25,200.00 |
| A-19Y | Re-establish wiring and connection of permanent pump into DISTRICT electrical system, in the presence of a DISTRICT electrician and conduct testing of the permanent pump for a period of three (3) consecutive days. | 1 | LS | \$7,500.00 | \$7,500.00 | \$5,000.00 | \$5,000.00 | \$4,873.00 | \$4,873.00 | \$2,000.00 | \$2,000.00 |

Irvine Ranch Water District Bid Summary For
 Rehabilitation of DRWF Well Nos. 2 and 17 and Limited Redevelopment of Well No. 52
 PR 07090 and 10097, Code 7111

| Item No | Description | Qty | Unit | Engineer's Estimate | | 1 Best Drilling and Pump, Inc. Colton, CA | | 2 Weber Water Resources CA, LLC Corona, CA | | 3 General Pump Company, Inc. San Dimas, CA | |
|--|--|-----|------|---------------------|---------------------|---|---------------------|--|---------------------|--|---------------------|
| | | | | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount |
| | | | | | | | | | | | |
| *A-19Z | Allowance for additional costs for parts and/or materials during replacement of permanent pump. | 1 | LS | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 |
| A-20 | Conduct well disinfection and clean up site, as specified. | 1 | LS | \$7,000.00 | \$7,000.00 | \$6,500.00 | \$6,500.00 | \$5,959.00 | \$5,959.00 | \$2,500.00 | \$2,500.00 |
| A-21 | Standby time with active rig and crew as directed by DISTRICT | 16 | HRS | \$100.00 | \$1,600.00 | \$10.00 | \$160.00 | \$25.00 | \$400.00 | \$200.00 | \$3,200.00 |
| A-22 | Standby time with inactive rig and crew as directed by DISTRICT | 16 | HRS | \$100.00 | \$1,600.00 | \$10.00 | \$160.00 | \$25.00 | \$400.00 | \$200.00 | \$3,200.00 |
| A-23 | Restore site and proximity to pre-existing conditions. | 1 | LS | \$5,000.00 | \$5,000.00 | \$3,500.00 | \$3,500.00 | \$1,907.00 | \$1,907.00 | \$2,000.00 | \$2,000.00 |
| SUBTOTAL, Schedule A Base Bid Items | | | | | \$537,900.00 | | \$506,520.00 | | \$460,972.00 | | \$534,015.00 |
| B-1 | Mobilization/Demobilization of pump rig, equipment and accessories. Prepare contract documents and other preliminary work, and prepare site as specified. | 1 | LS | \$50,000.00 | \$50,000.00 | \$30,000.00 | \$30,000.00 | \$48,775.00 | \$48,775.00 | \$51,300.00 | \$51,300.00 |
| B-2 | Disconnect motor from electrical system, remove discharge header, pipe, motor, vertical turbine pump, couplings, and all other appurtenances and sound well. Deliver pump and discharge header to DISTRICT storage facility. | 1 | LS | \$10,000.00 | \$10,000.00 | \$7,500.00 | \$7,500.00 | \$8,843.00 | \$8,843.00 | \$22,700.00 | \$22,700.00 |
| B-3 | Brush well casing with a stiff nylon and/or steel brush. Bail sediment following brushing. | 20 | HRS | \$450.00 | \$9,000.00 | \$375.00 | \$7,500.00 | \$480.45 | \$9,609.00 | \$495.00 | \$9,900.00 |
| B-4 | Airlift sediment fill from the bottom of the well. | 1 | LS | \$2,400.00 | \$2,400.00 | \$10,000.00 | \$10,000.00 | \$33,218.00 | \$33,218.00 | \$14,000.00 | \$14,000.00 |
| B-5 | Conduct initial biocleaning of the casing walls by swabbing methods using hydrogen peroxide, as specified. | 1 | LS | \$5,000.00 | \$5,000.00 | \$15,000.00 | \$15,000.00 | \$16,708.00 | \$16,708.00 | \$25,720.00 | \$25,720.00 |
| B-6 | Perform Casing Inspection Thickness Measurement (CITM) survey of well casing. | 1 | LS | \$9,000.00 | \$9,000.00 | \$7,500.00 | \$7,500.00 | \$5,095.00 | \$5,095.00 | \$5,300.00 | \$5,300.00 |
| B-7 | Conduct a caliper survey to the total depth of the well. | 1 | LS | \$1,500.00 | \$1,500.00 | \$1,600.00 | \$1,600.00 | \$1,973.00 | \$1,973.00 | \$2,200.00 | \$2,200.00 |
| B-8 | Perform a plumbness & alignment survey to the total depth of the well. | 1 | LS | \$1,000.00 | \$1,000.00 | \$2,700.00 | \$2,700.00 | \$3,720.00 | \$3,720.00 | \$3,900.00 | \$3,900.00 |
| B-9 | Conduct well redevelopment using "air-jetting" methods, via the AirBurst® or BoreBlast® methods. | 1 | LS | \$15,000.00 | \$15,000.00 | \$15,500.00 | \$15,500.00 | \$21,625.00 | \$21,625.00 | \$21,000.00 | \$21,000.00 |
| B-10 | Perform chemical treatment of well water using HercChem.Tech chemical treatment plan, as specified. | 1 | LS | \$60,000.00 | \$60,000.00 | \$70,000.00 | \$70,000.00 | \$59,433.00 | \$59,433.00 | \$75,050.00 | \$75,050.00 |
| B-11 | Perform mechanical redevelopment (airlifting and swabbing) of the well. | 80 | HRS | \$425.00 | \$34,000.00 | \$500.00 | \$40,000.00 | \$458.35 | \$36,668.00 | \$495.00 | \$39,600.00 |
| B-12 | Conduct treatment and discharge of mechanical and/or pumping redevelopment fluids (as applicable) via neutralization and blending and disposal of solids/sludges per specifications, including treatment, sampling, analysis and reporting for NPDES discharge compliance. | 1 | LS | \$15,000.00 | \$15,000.00 | \$20,000.00 | \$20,000.00 | \$26,875.00 | \$26,875.00 | \$24,200.00 | \$24,200.00 |
| B-13 | Clear water column and provide up to three downwell interim, clear-viewing, color video surveys of well casing as specified. | 3 | EA | \$1,300.00 | \$3,900.00 | \$1,200.00 | \$3,600.00 | \$521.00 | \$1,563.00 | \$1,900.00 | \$5,700.00 |
| B-14 | Mobilize, install, maintain, remove, and demobilize a diesel or gasoline engine, temporary test pump, equipment and other appurtenances/accessories as necessary in accordance with specifications. | 1 | LS | \$25,000.00 | \$25,000.00 | \$17,500.00 | \$17,500.00 | \$28,093.00 | \$28,093.00 | \$49,180.00 | \$49,180.00 |
| B-15 | Perform pumping redevelopment of the well including monitoring of water levels, pumping rates, and sand content, as specified. | 48 | HRS | \$450.00 | \$21,600.00 | \$425.00 | \$20,400.00 | \$400.00 | \$19,200.00 | \$220.00 | \$10,560.00 |
| B-16 | Perform a 12-hour (maximum) step drawdown test and a minimum 24-hour (maximum 48-hour) constant rate pumping test, including monitoring of water levels, pumping rates, and sand content, as specified. | 60 | HRS | \$450.00 | \$27,000.00 | \$425.00 | \$25,500.00 | \$400.00 | \$24,000.00 | \$220.00 | \$13,200.00 |
| B-17 | Perform a flowmeter (spinner) survey under dynamic (pumping) conditions throughout the perforated sections of the well, as specified. | 1 | LS | \$6,000.00 | \$6,000.00 | \$3,750.00 | \$3,750.00 | \$3,677.00 | \$3,677.00 | \$6,500.00 | \$6,500.00 |
| **B-18 | Conduct depth-specific groundwater sampling at specific depth intervals. Collection, sampling and analysis are to be performed by the DISTRICT. | 6 | EA | \$500.00 | \$3,000.00 | \$400.00 | \$2,400.00 | \$166.00 | \$996.00 | \$700.00 | \$4,200.00 |
| B-19 | Clear water column and provide a final downwell color video survey of the well casing as specified. | 1 | LS | \$1,300.00 | \$1,300.00 | \$1,200.00 | \$1,200.00 | \$1,563.00 | \$1,563.00 | \$1,900.00 | \$1,900.00 |
| B-20 | Conduct a static spinner survey of the well under non-pumping conditions. | 1 | LS | \$6,000.00 | \$6,000.00 | \$3,750.00 | \$3,750.00 | \$3,677.00 | \$3,677.00 | \$3,350.00 | \$3,350.00 |

Irvine Ranch Water District Bid Summary For
 Rehabilitation of DRWF Well Nos. 2 and 17 and Limited Redevelopment of Well No. 52
 PR 07090 and 10097, Code 7111

| Item No | Description | Qty | Unit | Engineer's Estimate | | 1 Best Drilling and Pump, Inc. Colton, CA | | 2 Weber Water Resources CA, LLC Corona, CA | | 3 General Pump Company, Inc. San Dimas, CA | | |
|--|--|-----|------|---------------------|--------------|---|--------------|--|--------------|--|--------------|---------------------|
| | | | | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount | |
| | | | | | | | | | | | | |
| B-21X | Obtain vertical turbine pump, motor, and discharge header from DISTRICT and re-install pump to previous depth prior to removal, as specified. | 1 | LS | \$15,000.00 | \$15,000.00 | \$45,000.00 | \$45,000.00 | \$8,850.00 | \$8,850.00 | \$24,200.00 | \$24,200.00 | |
| B-21Y | Re-establish wiring and connection of permanent pump into DISTRICT electrical system, in the presence of a DISTRICT electrician and conduct testing of the permanent pump for a period of three (3) consecutive days | 1 | LS | \$7,500.00 | \$7,500.00 | \$5,000.00 | \$5,000.00 | \$4,873.00 | \$4,873.00 | \$2,000.00 | \$2,000.00 | |
| *B-21Z | Allowance for additional costs for parts and/or materials during replacement of permanent pump | 1 | LS | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | |
| B-22 | Conduct well disinfection and clean-up site, as specified | 1 | LS | \$7,000.00 | \$7,000.00 | \$6,500.00 | \$6,500.00 | \$5,969.00 | \$5,969.00 | \$2,500.00 | \$2,500.00 | |
| B-23X | Standby time with active rig and crew as directed by DISTRICT | 16 | HRS | \$100.00 | \$1,600.00 | \$10.00 | \$160.00 | \$400.00 | \$6,400.00 | \$200.00 | \$3,200.00 | |
| B-23Y | Standby time with inactive rig and crew as directed by DISTRICT | 16 | HRS | \$100.00 | \$1,600.00 | \$10.00 | \$160.00 | \$400.00 | \$6,400.00 | \$200.00 | \$3,200.00 | |
| B-24 | Restore site and proximity to pre-rehabilitation conditions, as necessary. | 1 | LS | \$5,000.00 | \$5,000.00 | \$3,500.00 | \$3,500.00 | \$1,907.00 | \$1,907.00 | \$1,000.00 | \$1,000.00 | |
| SUBTOTAL, Schedule B Base Bid Items | | | | | | \$353,400.00 | | \$375,720.00 | | \$399,710.00 | | \$435,560.00 |
| C-1 | Mobilization/Demobilization of pump rig, equipment and accessories. Prepare contract documents and other preliminary work and prepare site as specified. | 1 | LS | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$47,105.00 | \$47,105.00 | \$16,660.00 | \$16,660.00 | |
| C-2 | Clear water column and a color video survey of well casing | 1 | LS | \$1,300.00 | \$1,300.00 | \$1,200.00 | \$1,200.00 | \$1,563.00 | \$1,563.00 | \$1,900.00 | \$1,900.00 | |
| C-3 | Brush well casing with a stiff nylon and/or steel brush. Bail sediment following brushing. | 20 | HRS | \$450.00 | \$9,000.00 | \$375.00 | \$7,500.00 | \$542.95 | \$10,859.00 | \$345.00 | \$6,900.00 | |
| C-4 | Conduct treatment and discharge of mechanical and/or pumping redevelopment fluids (as applicable) via neutralization and blending and disposal of solids/sludges per specifications, including treatment, sampling, analysis and reporting for NPDES discharge compliance. | 1 | LS | \$10,000.00 | \$10,000.00 | \$7,500.00 | \$7,500.00 | \$48,125.00 | \$48,125.00 | \$24,200.00 | \$24,200.00 | |
| C-5 | Mobilize, install, maintain, remove and demobilize a diesel or gasoline engine, temporary test pump, equipment and other appurtenances/accessories as necessary in accordance with specifications | 1 | LS | \$25,000.00 | \$25,000.00 | \$25,000.00 | \$25,000.00 | \$30,043.00 | \$30,043.00 | \$37,300.00 | \$37,300.00 | |
| C-6 | Perform pumping redevelopment of the well including monitoring of water levels, pumping rates, and sand content, as specified | 12 | HRS | \$450.00 | \$5,400.00 | \$425.00 | \$5,100.00 | \$400.00 | \$4,800.00 | \$220.00 | \$2,640.00 | |
| **C-7 | Perform a 12-hour (maximum) step drawdown test and a maximum 12-hour constant rate pumping test, including monitoring of water levels, pumping rates, and sand content, as specified. | 24 | HRS | \$450.00 | \$10,800.00 | \$425.00 | \$10,200.00 | \$400.00 | \$9,600.00 | \$220.00 | \$5,280.00 | |
| C-8 | Perform a flowmeter (spinner) survey under dynamic (pumping) conditions throughout the perforated sections of the well, as specified. | 1 | LS | \$6,000.00 | \$6,000.00 | \$3,750.00 | \$3,750.00 | \$3,653.00 | \$3,653.00 | \$4,535.00 | \$4,535.00 | |
| C-9 | Clear water column and provide a final downwell color video survey of the well casing as specified | 1 | LS | \$1,300.00 | \$1,300.00 | \$1,200.00 | \$1,200.00 | \$1,563.00 | \$1,563.00 | \$1,900.00 | \$1,900.00 | |
| C-10 | Conduct a static spinner survey of the well under non-pumping conditions. | 1 | LS | \$6,000.00 | \$6,000.00 | \$3,750.00 | \$3,750.00 | \$3,653.00 | \$3,653.00 | \$1,100.00 | \$1,100.00 | |

Irvine Ranch Water District Bid Summary For
 Rehabilitation of DRWF Well Nos. 2 and 17 and Limited Redevelopment of Well No. 52
 PR 07090 and 10097, Code 7111

| | | | | Engineer's Estimate | | 1 Best Drilling and Pump, Inc. Colton, CA | | 2 Weber Water Resources CA, LLC Corona, CA | | 3 General Pump Company, Inc. San Dimas, CA | |
|--|---|-----|------|----------------------------|------------|--|--------------|---|----------------|---|----------------|
| Item No | Description | Qty | Unit | Unit | Total | Unit | Total | Unit | Total | Unit | Total |
| | | | | Price | Amount | Price | Amount | Price | Amount | Price | Amount |
| C-11 | Conduct well disinfection and clean-up site, as specified. | 1 | LS | \$7,000.00 | \$7,000.00 | \$6,500.00 | \$6,500.00 | \$5,969.00 | \$5,969.00 | \$2,500.00 | \$2,500.00 |
| C-12X | Standby time with active rig and crew as directed by DISTRICT | 16 | HRS | \$100.00 | \$1,600.00 | \$10.00 | \$160.00 | \$400.00 | \$6,400.00 | \$200.00 | \$3,200.00 |
| C-12Y | Standby time with inactive rig and crew as directed by DISTRICT | 16 | HRS | \$100.00 | \$1,600.00 | \$10.00 | \$160.00 | \$400.00 | \$6,400.00 | \$200.00 | \$3,200.00 |
| C-13 | Restore site and proximity to pre-existing conditions | 1 | LS | \$4,000.00 | \$4,000.00 | \$3,500.00 | \$3,500.00 | \$1,907.00 | \$1,907.00 | \$500.00 | \$500.00 |
| SUBTOTAL, Base Bid Schedule C | | | | | | | \$85,520.00 | | \$181,640.00 | | \$111,815.00 |
| Subtotal, Base Bid Schedules A, B, & C | | | | | | | \$967,760.00 | | \$1,042,322.00 | | \$1,081,390.00 |
| Adjustment (+ or -) | | | | | | | \$0.00 | | \$0.00 | | |
| TOTAL AMOUNT OF A, B, & C BID | | | | | | | \$967,760.00 | | \$1,042,322.00 | | \$1,081,390.00 |
| *\$10,000 Amount for Item No. A-19Z (Schedule A) and B-21Z (Schedule B) not included in Engineer's Estimate calculations as stated in Project Manual | | | | Item | | Manufacturers: | | Manufacturers: | | Manufacturers: | |
| | | | | None | | None | | None | | None | |
| **Quantity for Item No. B-18 (Schedule B) differs on Engineer's Estimate (3ea) to Project Manual (6ea). | | | | | | | | Roscoe Moss (Casing - Liner) | | | |
| **Quantity for Item No. C-7 (Schedule C) differs on Engineer's Estimate (36 hours) to Project Manual (24 hours). | | | | | | Subcontractors: | | Subcontractors: | | Subcontractors: | |
| | | | | | | General Pump Company, Inc | | Pacific Surveys - Video Spinner Survey | | None | |
| | | | | | | | | Aurburst Technology - Aurburst | | | |

January 22, 2018

Prepared and

submitted by: C. Compton 

Approved by: Paul A. Cook 

ACTION CALENDAR

PROPOSED REVISIONS TO THE IRWD WATER CONSERVATION POLICY PRINCIPLES

SUMMARY:

Irvine Ranch Water District policy position papers are reviewed periodically to determine if the positions are still valid, need to be revised or if new papers should be written on different issues. Based on the discussions taking place in Sacramento and around the state regarding “Making Water Conservation a California Way of Life,” it is an appropriate time to review the District’s Water Conservation Policy Principles paper, which was last adopted by the Board in February 2009, and IRWD’s Recognition of Local Agency Investments in Water Conservation Policy Principles paper, which was last adopted by the Board in June 2005. After reviewing these two papers, staff recommends that the Board adopt the proposed Water Use Efficiency and Conservation Policy Principles paper to supersede the Water Conservation Policy Principles and Recognition of Local Agency Investments in Water Conservation Policy Principles papers.

BACKGROUND:

In 2004, IRWD began producing policy “white papers” on topics of particular interest to the District. Because of IRWD’s standing in the water industry, the opinion of the District is regularly solicited on issues of vital interest to the industry and the community. In order to keep these position papers current and usable for explaining the District’s position, staff occasionally recommends that the Board review the papers and when appropriate, incorporate revisions or adopt new papers.

As California considers how to “Make Water Conservation a California Way of Life,” staff has engaged in policy discussions throughout the state over the past year on legislation to enact a framework and process for gaining greater water use efficiency within urban communities. Once the legislation is enacted and the guiding statutory framework is set for urban water use efficiency going forward, the policy debate will turn to how to implement the goals behind the Governor’s direction to “Make Water Conservation a California Way of Life.” Achieving greater water use efficiency within urban communities is an important aspect of sustainable and resilient water management in California, but implementation of “Make Water Conservation a California Way of Life” should not be done in a silo without consideration of other aspects of smart water management or without recognition of the complexities of implementation.

IRWD currently has two policy principles papers on water conservation. IRWD’s Water Conservation Policy Principles paper was adopted by the Board on February 20, 2009, and the District’s Recognition of Local Agency Investments in Water Conservation Policy Principles paper was adopted by the Board on June 3, 2005. Given the conversations that are and will continue to take place regarding implementation of “Make Water Conservation a California Way of Life,” staff is proposing a paper on “Water Use Efficiency and Conservation Policy Principles” to supersede these two older policy principles papers. A draft of the proposed paper

is attached as Exhibit "A". A copy of the Water Conservation Policy Principles and Recognition of Local Agency Investments in Water Conservation Policy Principles papers, which are proposed to be superseded, are attached as Exhibits "B" and "C", respectively.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

None.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on January 15, 2018.

RECOMMENDATION:

THAT THE BOARD APPROVE THE PROPOSED WATER USE EFFICIENCY AND CONSERVATION POLICY PRINCIPLES PAPERS TO SUPERSEDE THE WATER CONSERVATION POLICY PRINCIPLES AND RECOGNITION OF LOCAL AGENCY INVESTMENTS IN WATER CONSERVATION POLICY PRINCIPLES PAPERS.

LIST OF EXHIBITS:

- Exhibit "A" – Proposed IRWD Water Use Efficiency and Conservation Policy Principles
- Exhibit "B" – IRWD's Water Conservation Policy Principles Paper
- Exhibit "C" – IRWD's Recognition of Local Agency Investment in Water Conservation Policy Principles Paper

EXHIBIT “A”

IRVINE RANCH WATER DISTRICT POLICY POSITION WATER USE EFFICIENCY AND CONSERVATION

January 15, 2018

ISSUE SUMMARY:

Agencies responsible for managing water resources have an obligation to provide the resource in a safe and efficient manner. Management of any limited resource includes the practice of conservation and using the resource efficiently. Water supply management is no different. As a local agency responsible for water supply management, the Irvine Ranch Water District continues to promote new ways to conserve water and enhance urban water use efficiency, both locally and statewide, and continues to engage productively in statewide policy discussions on how to enhance urban water use efficiency while improving statewide and local drought resiliency.

BACKGROUND:

Irvine Ranch Water District has specified in its mission statement the objective to provide reliable, high-quality water to its customers. Implicit in the concept of reliability is the responsibility to develop an array of strategies to responsibly meet existing and future water demands. Although these strategies should include both supply augmentation and demand management, the ability to develop new cost-effective supplies— or simply maintain existing supplies— may be limited by physical, environmental, institutional, and legal factors. Consequently, it is imperative that water agencies optimize the use of existing water supplies. One way to accomplish this is through the development and implementation of water use efficiency and water conservation programs.

Fundamentally, water use efficiency and conservation programs should be customized to reflect local needs and water use practices. As a result, it should be expected that local water use efficiency and conservation programs will vary from agency to agency. Agencies may choose to focus their programs on some or all of the following areas: incentives, rate structures, landscape modifications, in-lieu programs or supplies that conserve or capture previously unused water, such as water banking or recycled water.

As California looks to improve sustainable management of its water resources and to enhance drought resiliency, Governor Brown has called upon the state to “Make Water Conservation a California Way of Life.” IRWD supports the sentiment in the Governor’s call to action, and supports efforts to enhance water use efficiency within California’s urban and agricultural communities. Toward that end, the District co-sponsored legislation in 2017 that would have implemented the goals of the Governor’s vision to “Make Water Conservation a California Way of Life.” While that legislation was not passed in 2017, there will likely be similar legislation passed in 2018 requiring urban retail water suppliers to take additional steps to enhance urban water use efficiency. The implementation of that legislation will begin upon its passage and continue for several years.

Despite agreement on the importance of water use efficiency and conservation, implementation of a statewide or regional water use efficiency and conservation framework requires thoughtful consideration of a variety of policies and factors. As a means of providing input into the discussions surrounding water use efficiency and conservation in California, and in order to guide the District’s advocacy efforts in this policy area, the following policy principles have been adopted by the IRWD Board of Directors.

POLICY PRINCIPLES:

- 1) **IRWD is committed to “Making Water Conservation a California Way of Life.”** IRWD has committed to *“Be a leader in the innovation and implementation of water use efficiency and conservation measures promoting the most efficient use of water on both a per capita and a per acre basis.”* The District will continue to promote thoughtful policies that enhance the ethic of water use efficiency throughout the state.
- 2) **An integrated and sustainable approach to California water resource management must recognize the role that water use efficiency and supply development play in ensuring an adequate and reliable water supply for California’s many diverse communities.** State policies and regulations related to water use efficiency and conservation should:
 - Recognize the complexities and factors effecting efficient water management;
 - Recognize the need for continued supply development;
 - Focus on the efficient use of potable water supplies;
 - Distinguish between water use efficiency and conservation;
 - Clearly define roles and responsibilities of state and local agencies; and
 - Avoid promoting a “conservation first” approach to water management.
- 3) **Water efficiency and conservation programs are most successful if they are locally designed, implemented and managed.** Maximum flexibility should be provided to local water agencies to develop water use efficiency and conservation programs in order to achieve state-established water use efficiency goals. To the extent practical, water use efficiency should be achieved by locally established and managed financial incentives and disincentives as contrasted with mandated or regulatory solutions.
- 4) **Water use efficiency and conservation programs should be cost effective and economically viable.** The economic value of water use efficiency and conservation is, at a minimum, the avoided cost of the most expensive water and should normally include other avoided costs that would have to be expended if the water was not conserved. (For example, indoor water conservation programs should consider benefits from reduced wastewater treatment costs.) Local agencies should not be required to undertake or implement water use efficiency and conservation actions which are not cost effective, economically viable, feasible or practicable.
- 5) **Local agencies should take steps to preserve fiscal stability and water affordability when implementing water use efficiency and conservation programs.** Retail water agencies should adopt rate structures that insulate revenues from decreases in water sales associated with conservation and provide customers with appropriate “signals” as to efficiency water use levels. State and regional policies should encourage, enhance and protect, but not mandate, the use of water-budget based rate structures.
- 6) **The benefits and consequences of statewide, regional and local water use efficiency and conservation policies should be understood prior to being implemented.** While greater water use efficiency is important to managing water resources, water use efficiency and conservation programs can have unintended consequences if not implemented thoughtfully. (For example, greater success in the area of water conservation hardens demand, which may impact a local agency’s ability to respond to a drought, or may have a negative impact on

recycled water supplies.) To avoid negative impacts, statewide water use efficiency policies and regulations should consider and account for both the benefits and consequences of enhanced water use efficiency and conservation.

- 7) **Statewide and regional policies should encourage and reward previous investments in beneficial water use efficiency strategies, including water recycling, water-budget based rate structures that create a nexus between those overusing water and those bearing the costs of overuse, and investments in distribution system integrity, among others.** Retail water agencies that have invested in conservation should be rewarded for making these investments. Agencies that have not invested in conservation should bear the burden of their inefficiencies through rationing or higher rates during times of shortage. With an equitable system in place, all water agencies will be more motivated to commit to encouraging conservation.
- 8) **Statewide and regional water use efficiency goals must incentivize and account for local investments in drought resilient supplies.** Water conservation and water use efficiency gains alone will not result in a resilient water supply that will allow local agencies to manage through severe shortage situations. Statewide and regional water use efficiency and conservation policies and programs should recognize past investments in, and incentivize the continued development of, drought resilient supplies. At a minimum, state policies and regulations should exclude drought resilient supplies from any mandatory reduction enacted during a water shortage emergency.
- 9) **Conservation strategies should include promoting both the expansion and efficient use of recycled water and potable reuse.** Water recycling and reuse is a form of water use efficiency and conservation. At a minimum statewide policies and regulations should exclude recycled water from any mandatory reduction enacted during a water shortage emergency, provide at least a 1.0 evapotranspiration adjustment factor for landscapes irrigated with recycled water, and provide a reasonable credit for potable reuse.
- 10) **State agencies should engage urban retail water suppliers during implementation and development of methodologies, and regulations related to “Making Water Conservation a California Way of Life.”** Implementation of urban water use objectives and commercial, industrial and institutional (CII) performance measures should:
 - Build upon accepted water use efficiency and industry standards;
 - Set outdoor water use standards based on the factors consider in the Model Water Efficient Landscape Ordinance adopted in 2015;
 - Set a reasonable water loss standard for potable distribution systems that accounts for differences between systems;
 - Establish cost effective and feasible CII performance measures allowing urban retail water suppliers to implement only those measures appropriate for their service areas;
 - Establish standardized variances for a variety of anomalous situations and streamline approval processes for their use;
 - Ensure provision of the accurate, comprehensive, and timely data needed by urban retail water suppliers to calculate urban water use objectives; and
 - Build on existing tools and reporting devices to keep reporting processes simple, to eliminate duplicative reporting of data, and minimize needless waste of resources.

EXHIBIT "B"

IRVINE RANCH WATER DISTRICT POLICY POSITION WATER CONSERVATION

February 20, 2009

Issue Summary:

Agencies responsible for managing water resources have an obligation to provide the resource in a safe and efficient manner. Management of any limited resource includes the practice of conservation. Irvine Ranch Water District has implemented an aggressive water conservation program that rewards customers for conserving, and continues to promote new ways to conserve water, both locally and state-wide.

Background:

Irvine Ranch Water District has specified in its mission statement the objective to provide reliable, high-quality water to its customers. Implicit in the concept of reliability is the responsibility to develop an array of strategies to responsibly meet existing and future water needs. Although these strategies should include both supply augmentation and demand management, the ability to develop new cost-effective supplies (or simply maintain existing supplies) is limited by physical, environmental, institutional, and legal factors. Consequently, it is imperative that water agencies optimize the use of their water supplies. One way to do this is through the development and implementation of water conservation programs.

Despite agreement on the importance of water conservation, there have been limited and inconsistent efforts to establish a coordinated approach to conservation across the layers of water agencies in both Southern and Northern California. Consequently, these programs have been unevenly applied, with a wide range in the level of participation across agencies. For example, not all agencies have signed the 1991 Memorandum of Understanding outlining best management practices (BMPs) for urban water conservation programs across the State. Even among MOU signatories, significant variation in implementation strategies and levels are common. Reasons for this variation include:

- Variations in the understanding of the need and benefits of water conservation programs (“Why should we conserve if supply is greater than demand?”);
- Variation in the political will of the governing body to implement policies or programs that seek to modify behavior, either by incentives or disincentives;
- Concerns about protecting revenue streams from the sale of water (rate setting/structure issue);
- Variations in “the conservation ethic”;
- Differing situations and approaches in determining the cost effectiveness of conservation programs;
- Level of understanding of the associated environmental benefits of conservation; and
- Lack of clear pricing signals from water wholesalers.

Although these may be good reasons, the resulting compliance variability has led some to suggest that legislative remedies mandating conservation efforts are necessary. Governor Schwarzenegger has called for a 20 percent reduction in statewide water demand by 2020, which has led to increased calls for regulatory approaches. While supportive of the intent of the legislature, IRWD believes “local control” should prevail and that water agencies answerable to their constituents should pursue their own methods of conservation. Additionally, IRWD believes that an aggressive effort by water agencies to coordinate, promote, and spread water conservation activities should be undertaken immediately. This approach should be economically based and provide “credit” to agencies for conservation activities that improve regional water supply reliability.

Policy Principles:

- IRWD has committed to: *“Be a leader in the innovation and implementation of conservation measures promoting the most efficient use of water on both a per capita and a per acre basis.”*
- Conservation programs should be economically viable:
 - The economic value of conservation is, at a minimum, the avoided cost of the most expensive water;
 - When multiple agencies are involved (e.g. wholesaler, retailer), avoided costs are cumulative thereby increasing the funds available for conservation;
 - Indoor water conservation should consider benefits from reduced wastewater treatment.
- To the extent practical, conservation should be achieved by locally managed financial incentives and disincentives as contrasted with mandated or regulatory solutions;
- Statewide policy approaches should:
 - Recognize that water efficiency programs are most successful if they are locally designed, implemented and managed;
 - Allow agencies flexibility and options for compliance in achieving statewide demand reduction goals;
 - Build upon accepted water use efficiency and industry standards;
 - Encourage and reward previous investments in beneficial water use efficiency and conservation strategies, including water recycling; aggressive rate structures that create a nexus between those overusing water and those bearing the costs of overuse; and investments in distribution system integrity, among others;
 - Build on existing tools and reporting devices to keep reporting processes simple and minimize replication and needless waste of resources.
- Conservation strategies should include promoting both the expanded and efficient use of recycled water;
- Conservation programs should include devices and techniques that minimize human intervention through automation, thereby helping to promote reliable, long term benefits;

- Conservation programs should be undertaken by the agency best suited to most effectively achieve the objectives;
- Retail water agencies should adopt rate structures that:
 - Insulate revenues from decreases in water sales associated with conservation,
 - Provide customers with appropriate “signals” on their water use efficiency.
- Wholesale water agencies should “incentivize” conservation through the development and implementation of a methodology for distributing available water during shortages that provides appropriate adjustments to agencies that aggressively pursue conservation; and
- Water agencies should discontinue conservation incentive programs that have achieved their objectives, and re-direct resources to new initiatives.

EXHIBIT "C"

IRVINE RANCH WATER DISTRICT POLICY POSITION RECOGNITION OF LOCAL AGENCY INVESTMENT IN WATER CONSERVATION

June 3, 2005

Issue Summary:

Water shortages from drought have a regional, even statewide, impact on water purveyors. When rationing measures are imposed, agencies that have implemented water conservation measures in the past should be rewarded for this investment. Agencies that have not promoted water conservation should feel the first impact from the rationing measures.

Background:

Droughts in Southern California are inevitable. That prospect should motivate federal, state and local agencies responsible for water supply management to optimize their water resources to the fullest extent possible. Conservation programs are one tool by which local agencies can promote the more efficient use of water while reducing the impact from droughts. Those conservation programs include devices, rate structures, landscape modifications, in-lieu programs, water banking, desalination and recycled water.

During a declared drought, retail water agencies can implement locally adopted plans to reduce the amount of water available to the customers, either through rationing or through rates measures. Wholesale agencies, under the current structure, typically treat retail agencies equally in that the rationing or rates measures are uniformly applied to all agencies. This is inequitable in that some agencies have already invested local funds into conservation while other agencies have not. The inequity is compounded because agencies that have achieved greater success in conservation through local investment have "hardened" their demands thus may not be able to achieve the requested/required cut-backs. Agencies that have invested locally in conservation should be rewarded for making these investments. Agencies that have not invested in conservation should bear the burden of their inefficiencies through rationing or higher rates. With a system of equity in place, all water agencies will be more motivated to make the commitment to encourage conservation.

As part of this discussion, there is a need to acknowledge regional funding programs such as Metropolitan Water District of Southern California's (MWD) Local Resources Program (LRP). Embedded in MWD's rate structure is a "stewardship" charge. This charge provides funds for conservation programs and local resources projects such as recycled water. Some may say that, by purchasing water from MWD, one is (indirectly) investing in regional conservation. While that is true to some extent, MWD's LRP funds and other conservation subsidies do not fully pay for conservation programs. Even when supplemented with Federal or State grants, there is often the need for local investment. To the extent local dollars are invested promoting greater conservation, that agency should receive credit for those efforts and the political will to "do the right thing."

Policy Principals:

- Not all agencies have committed equally to invest local funds toward conservation measures;
- During a drought, the current system to reduce water sales uniformly among sub-agencies is inequitable in that it does not acknowledge the investment by local agencies and does not properly “incentivize” agencies to invest in conservation;
- There is a need to develop a methodology for quantifying the efforts of local agencies that leads directly to conserved potable water;
- A methodology should be developed to adjust imported water allocations during a drought based on those efforts that reflect the additional investment and political will to implement conservation programs including recycled water.

January 22, 2018

Submitted by: P. Weghorst *PW*

Approved by: Paul Cook *P. Cook*

ACTION CALENDAR

PROPOSED POLICY PRINCIPLES ON ORANGE COUNTY WATER RELIABILITY IMPROVEMENTS

SUMMARY:

Staff has prepared an update to IRWD's Policy Principles Paper on South Orange County Water Reliability. The most recent version of this paper was adopted by the Board of Directors on January 13, 2017. Staff has made proposed revisions to the paper taking into consideration opportunities to expand the use of existing interconnections to provide emergency supplies to South County agencies and concepts that Orange County Water District is contemplating that would allow Orange County water agencies to implement storage accounts and exchanges in the Orange County Groundwater Basin. Staff recommends that the Board approve the revised policy principles paper, including its change in title.

BACKGROUND:

In 2004, IRWD began producing policy papers on topics of particular interest to the District. Because of IRWD's standing in the water resource industry, the opinion of the District is regularly solicited on issues of importance to the industry and the community. In order to keep these position papers current and usable for explaining the District's position, staff recommends that the Board review the papers and, as needed, incorporate revisions or adopt new papers.

2005 Policy Position Paper:

On June 3, 2005, the Board adopted a Policy Position Paper on South County Water Reliability. This paper took into consideration the results of the 2004 South Orange County System Reliability Plan that recommended several projects to improve water supply and system reliability in South Orange County. The recommendations led to the construction of pump station improvements and pipeline interconnections to facilitate deliveries to South County from IRWD's potable water system. The recommendations also led to the construction of the Baker Water Treatment Plant.

Reliability Improvements:

In 2016, the OC Reliability Study concluded that additional water supply projects and programs will be needed to improve both supply and system reliability during shortage periods in South Orange County. IRWD is in a position to continue working with Orange County water agencies to implement new projects and programs that will further increase water supply and system reliability. One example is for IRWD to support discussions related to expanding the use of existing interconnections to assist South County with emergency water supplies. Other examples would be for IRWD to offer opportunities to share reliability benefits from its water banking projects in Kern County, its right to store and use water from Irvine Lake, its capacity rights in the Baker Plant, and other IRWD water supply assets.

Update to Policy Position Paper:

In January 2017, the Board adopted an update to the District's Policy Position Paper on South County Reliability to reflect the projects and programs that have been implemented since 2005 as well as the potential shared benefits that IRWD could provide from its water supply projects and programs. Recently, staff has made proposed revisions to the paper taking into consideration opportunities to expand the use of existing interconnections to provide emergency supplies to South County agencies and concepts that Orange County Water District is contemplating that would allow Orange County water agencies to implement storage accounts and exchanges in the Orange County Groundwater Basin. A version of the paper with revisions shown as tracked changes is attached as Exhibit "A". A version of the paper with all the revisions accepted is provided as Exhibit "B". This revised paper will help guide IRWD in advocating for and pursuing projects and programs to assist Orange County water agencies in improving water supply and system reliability. Staff recommends that the Committee recommend that Board adopt the Revised Policy Position Paper.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Supply Reliability Programs Committee on January 18, 2018.

RECOMMENDATION:

THAT THE BOARD APPROVE THE REVISED POLICY PRINCIPLES PAPER ON ORANGE COUNTY WATER RELIABILITY IMPROVEMENTS.

LIST OF EXHIBITS:

- Exhibit "A" – Proposed Policy Principles on Orange County Water Reliability Improvements (with revisions shown as tracked changes)
- Exhibit "B" – Proposed Policy Principles on Orange County Water Reliability Improvements (with revisions accepted)

EXHIBIT "A"

DRAFT

IRVINE RANCH WATER DISTRICT POLICY POSITION ~~SOUTH~~-ORANGE COUNTY WATER RELIABILITY IMPROVEMENTS

Revised: January ~~18~~22, 2018

Issue Summary:

Unplanned interruptions in a retail water agency's ability to provide water can have dire consequences to its customers and local economy. It is in the best interest of all water agencies to work with each other to ensure that all customers in Orange County have access to reliable supplies of water. Irvine Ranch Water District is positioned to assist ~~the South-Orange~~ County water agencies to implement new projects and programs that will further increase ~~their~~ water supply and system reliability_countywide.

Background:

~~South~~-Orange County water agencies ~~are heavily-remain~~ dependent on imported water supplies. These imported water supplies are provided through ~~two~~ major pipeline systems that deliver treated and untreated water from Metropolitan Water District of Southern California (MWD) and through water deliveries made from IRWD's Baker Water Treatment Plant. The Baker Plant makes use of untreated Colorado River water from MWD that is available through the Santiago Lateral. MWD's Diemer Water Treatment Plant provides most of the treated imported water supply to Orange County.

The regional potable water supply system serving South Orange County has limited looping or redundancy options and has limited local storage capacity. A large earthquake or other disaster could damage the East Orange County Feeder Number 2 or the Allen McCulloch Pipeline, potentially causing significant reductions in water deliveries to South Orange County for multiple days. A major earthquake that damages the Diemer Water Treatment Plant could potentially interrupt South Orange County water supplies for more than a month. Many South County water agencies have constructed additional storage facilities to rely upon during such potential supply interruptions and some of the agencies have developed recycled water systems that diversify their water supplies and improve reliability. While these storage and recycled water projects have improved regional supply reliability, they are not expected to provide complete system and supply reliability for South Orange County.

MWDOC's 2004 South County Reliability Plan:

In September 2004, the Municipal Water District of Orange County (MWDOC) and the South Orange County retail water agencies (with support from the Bureau of Reclamation) completed a four-year reliability planning effort with the release of the South Orange County System Reliability Plan. The Plan appraised system risks and identified projects to increase system reliability.

The Plan concluded that water system reliability in South Orange County could be substantially increased by accessing the Orange County Groundwater Basin. It also concluded that some emergency water supplies for retail water agencies in south Orange County could be provided through IRWD's potable water distribution system. It identified IRWD interconnections that would strengthen the backbone distribution system of the South County water agencies.

Emergency Services Agreement:

The 2004 Plan was the impetus for the Emergency Service Program Participation and Operations Agreement for South County and Irvine Ranch Water District Interconnection Projects (Emergency Interconnect Agreement) that was executed in November 2008. This agreement led to the construction of pump station improvements and pipeline connections that provide emergency supplies to participating South County water agencies. The agreement acknowledges that IRWD's ability to deliver such emergency supplies will diminish over time.

Baker Water Treatment Plant:

The plan also contemplated the Baker Water Treatment Plant and an inland well field connected to the East Orange County Feeder No. 2. Construction of the Baker Plant began in 2014 and was placed into service in January 2017. The project provides 28.8 million gallons per day of drinking water to IRWD and four South Orange County water districts. The Baker Plant was designed to treat MWD supplies from the Colorado River; it also has the ability to treat native water available from Irvine Lake. IRWD holds rights to store and use water from Irvine Lake.

2016 OC Reliability Study:

In December 2014, MWDOC initiated a comprehensive assessment of the current and future water supply and system reliability for all of Orange County. This evaluation, known as the "Orange County Water Reliability Study", was completed in 2016. MWDOC led the study efforts with the collaboration of the managers from MWDOC's member agencies, Orange County Water District (OCWD) as well as the cities of Anaheim, Fullerton and Santa Ana. These managers formed the Working Group that provided direction and technical support to the study including the development of study assumptions associated with future water demands, system modeling, scenario development and the implementation of future projects. IRWD staff actively participated in the over 25 meetings of the Working Group.

Study Findings:

The findings of the 2016 OC Reliability Study indicated that if MWD and its member agencies were to implement a reasonable list of projects that have a high likelihood of success, that future water supply shortages in the Brea/La Habra and Orange County Basin areas would be small enough to manage through enhanced groundwater management and additional water conservation efforts. The findings further indicate that shortages in the South Orange County area would require additional water supply projects and programs to improve both supply and system reliability during shortage periods. The study demonstrated that substantial improvements in South County reliability could be achieved through access to water banking projects, water conservation efforts and access to emergency supplies from the Orange County Basin. Such improvements could be realized without having to invest in costly base loaded supplies from sources such as seawater desalination projects. The base loaded supplies from such sources would not be needed in most years and would provide little benefit to Orange County.

Future Water Supply Reliability Improvement Programs:

IRWD Water Banking Benefits Extended to Orange County Agencies:

As IRWD continues to implement its water banking programs in Kern County, it will become possible to share this reliability benefit with other water agencies, especially those within Orange County. IRWD has begun discussions with MWDOC to implement a shared reliability program that would provide access to supplies from IRWD's water banking projects in Kern County to other Orange County water agencies.

Storage Accounts and Exchanges in the Orange County Basin:

OCWD is ~~currently~~ considering the implementation of programs that could increase water supply reliability as contemplated in MWDOC's 2004 and 2016 studies. IRWD and the other Orange County Groundwater Producer Agencies have a vested interest in maximizing the use of storage in the Orange County Basin to meet their own water supply reliability needs. These vested interests should be protected and be given first priority consideration by OCWD prior to implementing a storage and exchange program.

Policy Principles:

Following are policy principles to help guide IRWD in advocating for and pursuing projects and programs to assist ~~South~~ Orange County water agencies in improving water supply and system reliability.

- IRWD should work with all the water agencies in Orange County to ensure that all agencies have access to water supplies for use during emergency conditions.
- ~~The South~~ Orange County water agencies should be encouraged to pool resources, ~~potentially by contract or through forming a joint powers agency (JPA)~~, to finance the facilities necessary to achieve water reliability. MWDOC should work with affected agencies to encourage participation and should act as a facilitator on behalf of the beneficiary agencies.
- IRWD recognizes that it is uniquely positioned, from both a geographic and hydraulic perspective, to facilitate the conveyance of water into South Orange County. IRWD should continue to work with the South County water agencies to maximize the ability to deliver emergency supplies through the IRWD system by making use of existing interconnections and implementing improvements and programs that will ensure the ability to provide deliveries of water into the future. The development of amendments to the existing emergency interconnect agreement should be considered to facilitate such improvements and programs, based on the availability of capacity within IRWD's facilities.
- The Groundwater Producers and OCWD staff should work together to identify ways to optimize the management of the Orange County Groundwater Basin (Basin) and to first determine how much storage is available in the Basin for allocation to the Producers in

individual storage accounts. The goal of these activities would be to maintain the Basin at reduced levels of accumulated overdraft and to provide the Producers increased dry-year water supply reliability;

- IRWD supports efforts of MWDOC and the ~~other Orange~~South County water agencies as they work with the Orange County Water District in securing a contractual ability of retail water agencies to store or exchange water in the Orange County Basin; any storage and exchange program within the Orange County Basin should first made available to the Groundwater Producer Agencies and should benefit the Groundwater Basin. Nothing should preclude the ability of a Groundwater Producer to provide emergency supply assistance within the County through participation in a storage and exchange program. ~~and the ability to recover the water for use on an emergency basis.~~
- IRWD supports efforts by MWDOC to secure the ability to convey groundwater through regionally owned transmission facilities operated by MWD to increase water supply reliability in Orange County.
- Concepts, policies, terms, and processes for implementing any ~~water storage and exchange~~ program to assist ~~with~~ South County agencies with emergency water supply reliability, using water from the Orange County Groundwater Basin, should be limited to the use of interconnections and must first be vetted with the Groundwater Producer Agencies. ~~in collaboration with~~ The terms must ensure that the water supply reliability needs of the Orange County Groundwater Producers Agencies are met as a first priority and that the Producers are and should not result in protected from cost impacts or any infringement on groundwater production rights.
- The implementation of any ~~storage and exchange~~ programs involving water from the Basin for the benefit to improve the emergency supply reliability of South County agencies must be consistent with the OCWD District Act, the requirements of the California Environmental Quality Act and should not infringe upon the jurisdiction of other Orange County agencies. Existing contractual arrangements, such as the Dyer Road Well Field Agreement and the Emergency Interconnect Agreement, should take priority over any subsequent arrangements.
- IRWD should work to update existing or develop new interconnection agreements that would allow participating South County water agencies to reimburse IRWD, proportionately, for access to existing capital facilities as well as improvements to the IRWD system needed to allow South County water agencies access to stored or exchanged water. ~~These improvements could include modifications for the use of existing groundwater wells, upsized transmission pipelines, and improvements to existing pump stations and interconnections.~~ Such reimbursements should take into consideration the operational-total cost of delivering water through the IRWD system including appropriate capital, operational, maintenance, energy, replacement, administration and water purchase expenses.
- Use of IRWD infrastructure by South County agencies should be subject to current and future availability, with the needs of IRWD's customers taking top priority.

- IRWD should work with MWDOC to implement a shared reliability program that would provide access to supplies and the South County water agencies to investigate using from IRWD's water banking projects in Kern County to Orange County agencies by selling options to call on water during water shortage conditions.
- IRWD should also consider using , its rights to store and use water from Irvine Lake, its capacity rights in the Baker Plant, and other IRWD water supply assets to provide shared water supply reliability benefits to South County water agencies.
- Any sharing of benefits from IRWD projects with South Orange County water agencies should not result in impacts to the ability of IRWD to meet the water supply needs of its service area or financially impact its customers. IRWD should be proportionally compensated for its capital investments as well as appropriate operations, maintenance, replacement and administration costs.

EXHIBIT “B”
DRAFT
IRVINE RANCH WATER DISTRICT POLICY POSITION
ORANGE COUNTY WATER RELIABILITY IMPROVEMENTS

Revised: January 22, 2018

Issue Summary:

Unplanned interruptions in a retail water agency’s ability to provide water can have dire consequences to its customers and local economy. It is in the best interest of all water agencies to work with each other to ensure that all customers in Orange County have access to reliable supplies of water. Irvine Ranch Water District is positioned to assist Orange County water agencies to implement new projects and programs that will further increase water supply and system reliability countywide.

Background:

Orange County water agencies remain dependent on imported water supplies. These imported water supplies are provided through major pipeline systems that deliver treated and untreated water from Metropolitan Water District of Southern California (MWD) and through water deliveries made from IRWD’s Baker Water Treatment Plant. The Baker Plant makes use of untreated Colorado River water from MWD that is available through the Santiago Lateral. MWD’s Diemer Water Treatment Plant provides most of the treated imported water supply to Orange County.

The regional potable water supply system serving South Orange County has limited looping or redundancy options and has limited local storage capacity. A large earthquake or other disaster could damage the East Orange County Feeder Number 2 or the Allen McCulloch Pipeline, potentially causing significant reductions in water deliveries to South Orange County for multiple days. A major earthquake that damages the Diemer Water Treatment Plant could potentially interrupt South Orange County water supplies for more than a month. Many South County water agencies have constructed additional storage facilities to rely upon during such potential supply interruptions and some of the agencies have developed recycled water systems that diversify their water supplies and improve reliability. While these storage and recycled water projects have improved regional supply reliability, they are not expected to provide complete system and supply reliability for South Orange County.

MWDOC’s 2004 South County Reliability Plan:

In September 2004, the Municipal Water District of Orange County (MWDOC) and the South Orange County retail water agencies (with support from the Bureau of Reclamation) completed a four-year reliability planning effort with the release of the South Orange County System Reliability Plan. The Plan appraised system risks and identified projects to increase system reliability.

The Plan concluded that water system reliability in South Orange County could be substantially increased by accessing the Orange County Groundwater Basin. It also concluded that some emergency water supplies for retail water agencies in south Orange County could be provided through IRWD’s potable water distribution system. It identified IRWD interconnections that would strengthen the backbone distribution system of the South County water agencies.

Emergency Services Agreement:

The 2004 Plan was the impetus for the Emergency Service Program Participation and Operations Agreement for South County and Irvine Ranch Water District Interconnection Projects (Emergency Interconnect Agreement) that was executed in November 2008. This agreement led to the construction of pump station improvements and pipeline connections that provide emergency supplies to participating South County water agencies. The agreement acknowledges that IRWD's ability to deliver such emergency supplies will diminish over time.

Baker Water Treatment Plant:

The plan also contemplated the Baker Water Treatment Plant and an inland well field connected to the East Orange County Feeder No. 2. Construction of the Baker Plant began in 2014 and was placed into service in January 2017. The project provides 28.8 million gallons per day of drinking water to IRWD and four South Orange County water districts. The Baker Plant was designed to treat MWD supplies from the Colorado River; it also has the ability to treat native water available from Irvine Lake. IRWD holds rights to store and use water from Irvine Lake.

2016 OC Reliability Study:

In December 2014, MWDOC initiated a comprehensive assessment of the current and future water supply and system reliability for all of Orange County. This evaluation, known as the "Orange County Water Reliability Study", was completed in 2016. MWDOC led the study efforts with the collaboration of the managers from MWDOC's member agencies, Orange County Water District (OCWD) as well as the cities of Anaheim, Fullerton and Santa Ana. These managers formed the Working Group that provided direction and technical support to the study including the development of study assumptions associated with future water demands, system modeling, scenario development and the implementation of future projects. IRWD staff actively participated in the over 25 meetings of the Working Group.

Study Findings:

The findings of the 2016 OC Reliability Study indicated that if MWD and its member agencies were to implement a reasonable list of projects that have a high likelihood of success, that future water supply shortages in the Brea/La Habra and Orange County Basin areas would be small enough to manage through enhanced groundwater management and additional water conservation efforts. The findings further indicate that shortages in the South Orange County area would require additional water supply projects and programs to improve both supply and system reliability during shortage periods. The study demonstrated that substantial improvements in South County reliability could be achieved through access to water banking projects, water conservation efforts and access to emergency supplies from the Orange County Basin. Such improvements could be realized without having to invest in costly base loaded supplies from sources such as seawater desalination projects. The base loaded supplies from such sources would not be needed in most years and would provide little benefit to Orange County.

Future Water Supply Reliability Improvement Programs:

IRWD Water Banking Benefits Extended to Orange County Agencies:

As IRWD continues to implement its water banking programs in Kern County, it will become possible to share this reliability benefit with other water agencies, especially those within Orange County. IRWD has begun discussions with MWDOC to implement a shared reliability program that would provide access to supplies from IRWD's water banking projects in Kern County to other Orange County water agencies.

Storage Accounts and Exchanges in the Orange County Basin:

OCWD is considering the implementation of programs that could increase water supply reliability as contemplated in MWDOC's 2004 and 2016 studies. IRWD and the other Orange County Groundwater Producer Agencies have a vested interest in maximizing the use of storage in the Orange County Basin to meet their own water supply reliability needs. These vested interests should be protected and be given first priority consideration by OCWD prior to implementing a storage and exchange program.

Policy Principles:

Following are policy principles to help guide IRWD in advocating for and pursuing projects and programs to assist Orange County water agencies in improving water supply and system reliability.

- IRWD should work with all the water agencies in Orange County to ensure that all agencies have access to water supplies for use during emergency conditions.
- Orange County water agencies should be encouraged to pool resources to finance the facilities necessary to achieve water reliability. MWDOC should work with affected agencies to encourage participation and should act as a facilitator on behalf of the beneficiary agencies.
- IRWD recognizes that it is uniquely positioned, from both a geographic and hydraulic perspective, to facilitate the conveyance of water into South Orange County. IRWD should continue to work with the South County water agencies to maximize the ability to deliver emergency supplies through the IRWD system by making use of existing interconnections and implementing improvements and programs that will ensure the ability to provide deliveries of water into the future. The development of amendments to the existing emergency interconnect agreement should be considered to facilitate such improvements and programs, based on the availability of capacity within IRWD's facilities.
- The Groundwater Producers and OCWD staff should work together to identify ways to optimize the management of the Orange County Groundwater Basin (Basin) and to first determine how much storage is available in the Basin for allocation to the Producers in individual storage accounts. The goal of these activities would be to maintain the Basin at reduced levels of accumulated overdraft and to provide the Producers increased dry-year water supply reliability;

- IRWD supports efforts of MWDOC and the other Orange County water agencies as they work with the Orange County Water District in securing a contractual ability of retail water agencies to store or exchange water in the Orange County Basin; any storage and exchange program within the Orange County Basin should first be made available to the Groundwater Producer Agencies and should benefit the Groundwater Basin. Nothing should preclude the ability of a Groundwater Producer to provide emergency supply assistance within the County through participation in a storage and exchange program.
- IRWD supports efforts by MWDOC to secure the ability to convey groundwater through regionally owned transmission facilities operated by MWD to increase water supply reliability in Orange County.
- Concepts, policies, terms, and processes for implementing any program to assist South County agencies with emergency water supply reliability, using water from the Orange County Groundwater Basin, should be limited to the use of interconnections and must first be vetted with the Groundwater Producer Agencies. The terms must ensure that the water supply reliability needs of the Groundwater Producers are met as a first priority and that the Producers are protected from cost impacts or any infringement on groundwater production rights.
- The implementation of any programs involving water from the Basin to improve the emergency supply reliability of South County agencies must be consistent with the OCWD District Act, the requirements of the California Environmental Quality Act and should not infringe upon the jurisdiction of other Orange County agencies. Existing contractual arrangements, such as the Dyer Road Well Field Agreement and the Emergency Interconnect Agreement, should take priority over any subsequent arrangements.
- IRWD should work to update existing or develop new interconnection agreements that would allow participating South County water agencies to reimburse IRWD, proportionately, for access to existing capital facilities as well as improvements to the IRWD system needed to allow South County water agencies access to stored or exchanged water. Such reimbursements should take into consideration the total cost of delivering water through the IRWD system including appropriate capital, operational, maintenance, energy, replacement, administration and water purchase expenses.
- Use of IRWD infrastructure by South County agencies should be subject to current and future availability, with the needs of IRWD's customers taking top priority.
- IRWD should work with MWDOC to implement a shared reliability program that would provide access to supplies from IRWD's water banking projects in Kern County to Orange County agencies by selling options to call on water during water shortage conditions.
- IRWD should also consider using its rights to store and use water from Irvine Lake, its capacity rights in the Baker Plant, and other IRWD water supply assets to provide shared water supply reliability benefits to South County water agencies.

- Any sharing of benefits from IRWD projects with Orange County water agencies should not result in impacts to the ability of IRWD to meet the water supply needs of its service area or financially impact its customers. IRWD should be proportionally compensated for its capital investments as well as appropriate operations, maintenance, replacement and administration costs.