

AGENDA

IRVINE RANCH WATER DISTRICT BOARD OF DIRECTORS REGULAR MEETING

January 28, 2019

PLEDGE OF ALLEGIANCE

CALL TO ORDER

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

ROLL CALL

Directors Matheis, Withers, Swan, Reinhart, and President LaMar

NOTICE

If you wish to address the Board on any item, including Consent Calendar items, please file your name with the District 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).

CONSENT CALENDAR

Next Resolution No. 2019-3

Items 3-16

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

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

4. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the January 14, 2019 Regular Board Meeting be approved as presented.

5. DECEMBER 2018 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 2018, and Disclosure Report of Reimbursements to Board members and staff; approve the December 2018 Summary of Payroll ACH payments in the total amount of \$1,937,948 and approve the December 2018 Accounts Payable Disbursement Summary of Warrants 393943 through 394724, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$18,214,787.

CONSENT CALENDAR (Continued)

Next Resolution No. 2019-3

Items 3-16

6. IRVINE RANCH WATER STRATEGIC MEASURES

Recommendation: Receive and file.

7. CULVER DRIVE RECYCLED WATER PIPELINE REPLACEMENT BUDGET INCREASE, CONTRACT CHANGE ORDER, AND FINAL ACCEPTANCE

Recommendation: That the Board authorize a budget increase in the amount of \$275,000, from \$717,000 to \$992,000, for project 10588; authorize the General Manager to execute Contract Change Order No. 1 in the amount of \$178,690.17 with E.J. Meyer Company; accept construction of the Culver Drive Recycled Water Pipeline Replacement, project 10588; authorize the General Manager to File a Notice of Completion; and authorize the payment of the retention 35 days after the date of recording the notice of completion.

8. DYER ROAD WELLFIELD SURGE TANKS BUDGET INCREASE AND CONTRACT CHANGE ORDER

Recommendation: That the Board authorize a budget increase in the amount of \$500,000, from \$4,066,200 to \$4,566,200, for Project 05473, and in the amount of \$100,000, from \$1,310,500 to \$1,410,500, for Project 06165; and authorize the General Manager to execute Contract Change Order No. 11 in the amount of \$145,259.55 with Pascal & Ludwig Constructors for the Dyer Road Wellfield Surge Tanks, Projects 05473 and 06165.

9. VAULT LID REPLACEMENT CONTRACT CHANGE ORDER

Recommendation: That the Board authorize the General Manager to execute Contract Change Order No. 1 in the amount of \$144,044.75 with Schuler Constructors for the Vault Lid Replacement, Project 10550.

10. PLANNING AREA 1 (ORCHARD HILLS) NEIGHBORHOOD 3 CAPITAL IMPROVEMENTS

Recommendation: That the Board authorize the addition of Project 10867 the FY 2018-19 Capital Budget in the amount of \$126,000 for the Planning Area 1 (Orchard Hills) Neighborhood 3 Capital Improvements.

11. BONITA CANYON RECYCLED WATER ZONE D TO B PRESSURE REDUCING STATION SUPPLY PIPELINE REPLACEMENT

Recommendation: That the Board authorize the addition of Project 10999 in the amount of \$325,000 to the FY 2018-19 Capital Budget for the Bonita Canyon Recycled Water Zone D to B Pressure Reducing Station Supply Pipeline Replacement, Project 10999.

| CONSENT CALENDAR (Continued) | Next Resolution No. 2019-3 | Items 3-16 |
|--|----------------------------|-----------------|
| <p>12. <u>THREE-YEAR DAM MONITORING AND SURVEILLANCE CONSULTANT SELECTION</u></p> <p>Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with GEI Consultants in the amount of \$192,720 for three years of dam monitoring and surveillance services.</p> | | |
| <p>13. <u>2019 INDEX TENDER NOTES REMARKETING</u></p> <p>Recommendation: That the Board adopt a resolution approving the Remarketing Statement and the Amendment to Remarketing Agreement relative to unscheduled mandatory tenders (Refunding Series 2011A-1 and refunding series 2011A-2).</p> | | Reso. No. 2019- |
| <p>14. <u>AUTHORIZATION TO ACCEPT FEDERAL EMERGENCY MANAGEMENT AGENCY ASSISTANCE FOR CANYON 2 FIRE DAMAGE TO DISTRICT FACILITIES</u></p> <p>Recommendation: That the Board adopt a resolution for designation of Applicant's Agent for Non-State Agencies.</p> | | Res. No. 2019- |
| <p>15. <u>MEMORANDUM OF UNDERSTANDING BETWEEN THE INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS (AFL-CIO) LOCAL #47 GENERAL UNIT EMPLOYEES AND IRVINE RANCH WATER DISTRICT JULY 1, 2018 THROUGH JUNE 30, 2021</u></p> <p>Recommendation: That the Board authorize the General Manager to execute the Memorandum of Understanding between IRWD and the International Brotherhood of Electrical Workers Local #47 General Unit employees, effective July 1, 2018, through June 20, 2021, subject to non-substantive changes.</p> | | |
| <p>16. <u>ADOPTION OF REVISED DISTRICT SCHEDULE OF POSITIONS AND SALARY RATE RANGES</u></p> <p>Recommendation: Adopt a resolution rescinding Resolution No. 2018-30 and adopting a revised scheduled of positions and salary rate ranges.</p> | | Reso. No. 2019- |

ACTION CALENDAR

17. LAKE FOREST ZONE B EAST RESERVOIR FLOATING COVER CONSTRUCTION AWARD

Recommendation: That the Board authorize a budget increase for Project 10551 in the amount of \$1,615,000, from \$390,000 to \$2,005,000; and authorize the General Manager to execute a construction contract with Layfield USA Corporation in the amount of \$1,617,495 for the Lake Forest Zone B East Reservoir Floating Cover, Project 10551.

18. IRWD EMBEDDED ENERGY PLAN UPDATE

Recommendation: That the Board authorize the General Manager to execute a sole source Professional Services Agreement with Navigant Consulting, Inc., in the amount of \$126,505 to update the IRWD Embedded Energy Plan and increase the budget in the amount of \$37,000 for Project 07154.

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, and 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.

19. General Manager's Report

20. Directors' Comments

21. Community Updates

Receive an oral update from District liaison(s) regarding communities within IRWD's service area and discuss relevant community happenings.

22. Closed Session

A. CONFERENCE WITH LEGAL COUNSEL—ANTICIPATED LITIGATION - Significant exposure to litigation pursuant to Government Code Section 54956.9(d)(2). One (1) potential case – Claim of Filanc-Balfour/Beatty

OTHER BUSINESS (Continued)

23. 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.

January 28, 2019
Prepared and
Submitted by: K. Swan^{KS}
Approved by: Paul A. 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

| | |
|------------|---|
| January 18 | OC Forum's State of the County, Newport Beach |
| January 21 | Monthly Discussion of District Activities with the General Manager |
| February 6 | Joint Legislative Committee Hearing on Safe & Affordable Drinking Water, Sacramento |
| February 7 | Orange County Business Council's 2019 Annual Dinner, Irvine |

Mary Aileen Matheis

| | |
|------------|---|
| January 18 | OC Forum's State of the County, Newport Beach |
|------------|---|

Peer Swan

| | |
|------------|--|
| January 18 | OC Forum's State of the County, Newport Beach |
| January 22 | Water UCI's <i>California Drought—Are we prepared for the next water crisis?</i> Lecture, UCI Applied Innovation |
| February 7 | Orange County Business Council's 2019 Annual Dinner, Irvine |

John Withers

| | |
|---------------------|--|
| January 18 | OC Forum's State of the County, Newport Beach |
| January 22 | Water UCI's <i>California Drought—Are we prepared for the next water crisis?</i> Lecture, UCI Applied Innovation |
| February 7 | Orange County Business Council's 2019 Annual Dinner, Irvine |
| February 27-March 1 | Urban Water Institute 2019 Water Conference, Palm Springs |

RECOMMENDATION:

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

LIST OF EXHIBITS:

None.

January 28, 2019

Prepared and

Submitted by: L. Bonkowski

Approved by: Paul A. Cook



CONSENT CALENDAR

MINUTES OF BOARD MEETING

SUMMARY:

Provided are the minutes of the January 14, 2019 Regular Board meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE JANUARY 14, 2019 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – January 14, 2019 Minutes of Regular Board Meeting

EXHIBIT “A”

MINUTES OF REGULAR MEETING – JANUARY 14, 2019

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President LaMar on January 14, 2019 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Reinhart, Matheis, Swan, Withers (arrived at 5:22 p.m.) and LaMar

Directors Absent: None.

Also Present: General Manager Cook, Executive of Engineering and Water Quality Burton, Executive Director of Water Policy Weghorst, Executive Director of Operations Chambers, Executive Director of Finance and Administration Clary, Director of Water Recycling Operations Zepeda, Director of Water Resources Sanchez, Director of Public Affairs Beeman, Director of Water Quality Colston, Director of Treasury and Risk Management Jacobson, Legal Counsel Collins, Legal Counsel DeMayo, Secretary Bonkowski, Government Relations Officer Compton, Consultant Deborah Diep, staff and members of the public.

WRITTEN AND ORAL COMMUNICATIONS: None.

ITEMS TOO LATE TO BE AGENDIZED: None.

PUBLIC HEARING

EVALUATING A CHANGE IN THE ELECTIONS PROCESS FOR THE IRVINE RANCH WATER DISTRICT BOARD OF DIRECTORS AND ESTABLISHING DIVISION BOUNDARIES

Pursuant to Elections Code section 10010, a fourth public hearing, and the second public hearing since drafting and publication of draft maps, is now being held after the drawing of draft maps. The first hearing after the drawing of draft maps was held on December 10, 2018. The purpose of both of these hearings is to invite and solicit public comments on the draft division maps, which have been published by the District on its website, and the potential sequence of elections for the directors from each division at different times to provide for staggered terms of office.

President LaMar declared that it is the time and place for a fourth hearing on evaluating a change in the elections process for the Irvine Ranch Water District Board of Directors and establishing division boundaries, and asked the Board Secretary to announce how the hearing was noticed.

Board Secretary Bonkowski said that the hearing was noticed by publication in the *Orange County Register* on Sunday, December 30, 2018; by publication in Spanish in the *Excelsior Unidos* on Friday, December 28, 2018; by publication in Korean in the *Korea Times* on Saturday, December 29, 2018; by publication in English and Traditional Chinese in the *World Journal* on Saturday, December 29, 2018, and Sunday, December 30, 2018; by publication in Farsi in *Hafteh Bazaar* on Friday, January 4, 2019; by electronic posting in English, Farsi, Korean, Traditional Chinese, and Spanish on the IRWD website, through which the notice can be translated into approximately 20 languages; and by physical posting at IRWD’s headquarters. She said that the four draft maps — Map A, Map B, Map C and

Map D — were published on IRWD’s website on November 29, 2018. She presented the Affidavits of Posting and Proof of Publication to the Board related to this hearing.

On MOTION by Swan, seconded by Matheis and carried (4-1) (Reinhart, LaMar, Swan and Matheis voting aye and Withers absent), the Board received and filed the Affidavits of Posting and Proof of Publication as presented by the Board Secretary.

President LaMar asked legal counsel to describe the nature of the proceedings, and to explain the purpose of the hearing.

Legal Counsel DeMayo described the nature of the proceedings, and explained the purpose of the hearing as being the opportunity to invite and solicit public comments on the draft division maps which have been published by the District on its website at least seven days prior to the hearing, and the potential sequence of elections for the directors from each division at different times to provide for staggered terms of office.

On MOTION by Swan, seconded and carried (4-1) (Reinhart, LaMar, Swan and Matheis voting aye and Withers absent), **THE PUBLIC HEARING WAS OPENED TO SOLICIT AND ACCEPT COMMENT ON THE PROPOSED MOVE TO BY-DIVISION ELECTIONS, THE COMPOSITION OF DIVISIONS, THE DRAFT DIVISION MAPS, AND SEQUENCE OF ELECTIONS.**

President LaMar requested that the Government Relations Officer provide a report to the Board regarding the draft division maps, and on any written comments received.

Government Relations Officer Compton provided a report to the Board regarding the draft division maps.

President LaMar inquired whether there is any person present who wished to provide comments on the proposed move to by-division elections, the composition of divisions, the draft maps, and the sequence of elections. There was no one who wished to be heard.

Using a PowerPoint presentation, Consultant Deborah Diep said that there were no additional comments from the public. She said she received two questions from the Board. She reviewed the plans and noted the population percentages for each. Director Withers arrived at 5:22 p.m. Following input from the Board, Ms. Diep said she will create two additional maps as requested. Director Swan further asked that Ms. Diep prepare an estimate of the population growth in specified areas in preparation for the 2020 Census. In response to Director Reinhart’s inquiry, Ms. Compton provided information on the schedule timeframe required for a change to the proposed by-division elections.

On MOTION by Matheis, seconded by Withers, and unanimously carried, **THE FOURTH PUBLIC HEARING WAS CLOSED AND THE BOARD AUTHORIZED STAFF TO DEVELOP ADDITIONAL MAPS AND AGENDIZE A FIFTH PUBLIC HEARING FOR MARCH 11, 2019 FOR THE BOARD OF DIRECTORS TO SOLICIT AND ACCEPT COMMENT ON THE PROPOSED MOVE TO BY-DIVISION ELECTIONS, THE COMPOSITION OF DIVISIONS, DRAFT DIVISION MAPS, AND SEQUENCE OF ELECTIONS.**

CONSENT CALENDAR

Director Swan asked that No. 10 be moved to the Action Calendar for discussion. There being no objections, this item was moved accordingly. On MOTION by Reinhart, seconded by Matheis and unanimously carried, CONSENT CALENDAR ITEMS 4 THROUGH 9 WERE APPROVED AS FOLLOWS:

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

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

5. MINUTES OF BOARD MEETINGS

Recommendation: That the minutes of the December 3, 1018 Regular Board meeting, December 10, 2018 Regular Board meeting, December 10, 2018 Special Board meeting, and December 17, 2018 Special Board meeting be approved as presented.

6. 2018 GENERAL DISTRICT ELECTION RESULTS

Recommendation: That the Board adopt the following resolution declaring results of the November 6, 2018 General District Election.

RESOLUTION NO. 2019-1

RESOLUTION OF THE BOARD OF DIRECTORS OF IRVINE
RANCH WATER DISTRICT DECLARING RESULTS OF
NOVEMBER 6, 2018 GENERAL DISTRICT ELECTION

7. MEMORANDUM ON OFFICERS OF THE BOARD, COMMITTEE APPOINTMENTS AND OTHER ASSIGNMENTS

Recommendation: That the Board receive and file the memorandum dated January 14, 2019, entitled Officers of the Board, Committee Appointments and Other Assignments, approve attendance for the meetings and events for the Board's representation for Calendar year 2019 as delineated, and adopt the following resolution rescinding Resolution No. 2018-3 and revising the assignment of Directors to Committees of the Board.

RESOLUTION NO. 2019-2

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT
RESCINDING RESOLUTION NO. 2018-3 AND REVISING THE
ASSIGNMENT OF DIRECTORS TO COMMITTEES OF THE BOARD

CONSENT CALENDAR (CONTINUED)

8. DOMESTIC WATER PIPELINE REPLACEMENT TO THE MICHELSON WATER RECYCLING PLANT AIR GAP FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the six-inch Domestic Water Pipeline Replacement to the Michelson Water Recycling Plant Air Gap, Project 07149, authorize the General Manager to file a Notice of Completion, and authorize the payment of the retention 35 days after the date of recording the Notice of Completion.

ACTION CALENDAR

MICHELSON WATER RECYCLING PLANT EQUIPMENT YARD ASPHALT REPLACEMENT CONTRACT AWARD

In response to Director Swan's inquiry, Facilities and Fleet Manager Dayer provided a summary of what is to be accomplished by replacing asphalt around the Michelson Water Recycling Plant equipment yard for this project. There being no further comments, on MOTION by Swan, seconded by Matheis and unanimously carried, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH SANDERS PAVING, INC. IN THE AMOUNT OF \$159,126.25 FOR REPLACEMENT OF APPROXIMATELY 45,150 SQUARE FEET OF ASPHALT AT THE MICHELSON WATER RECYCLING PLANT.**

CANAL ALIGNMENT STUDY FOR THE KERN FAN GROUNDWATER STORAGE PROJECT

Using a PowerPoint presentation, Engineer Ray Bennett reviewed the Kern Fan Groundwater Storage project (Project) and benefits noting that IRWD and Rosedale jointly submitted an application to the California Water Commission (CWC) that requested \$86 million in grant funds for the Kern Fan Groundwater Storage Project through the Water Storage Investment Program (WSIP) of which they conditionally were awarded \$67.5 million in grant funding. The Project includes construction of up to 1,200 acres of spreading basins and up to 12 new extraction wells. Water will be conveyed from the California Aqueduct to the Project via a new turnout at the California Aqueduct and a new canal with up to 500 cubic feet per second conveyance capacity.

Mr. Bennett noted that staff from IRWD, Rosedale and Dee Jasper and Associates (DJA) met to discuss the optimal location of project facilities, location of a new turnout from the California Aqueduct and possible alignments for the Project canal. He said that five possible alternatives for canal alignment were identified, including the alignment from the original application to the CWC. Prior to finalizing the canal alignment, it was agreed that a hydraulic study is needed to verify that the proposed California Aqueduct turnout location would not impact operations of the Cross Valley Canal. Rosedale, with IRWD's concurrence, has contracted with engineers at GEI to perform a hydraulic study for this purpose. The study will provide the information needed to evaluate canal alignment alternatives through a separate study.

Mr. Bennett said that DJA has prepared a scope of work to perform a planning level evaluation of up to three of the five canal alignments to be selected by Rosedale and IRWD. The total estimated cost for the evaluation is \$115,425 and includes four optional tasks. Staff has reviewed DJA's proposal and the negotiated costs are considered to be fair and reasonable.

Rosedale has reviewed DJA's proposal and is agreeable to the terms, pursuant to the cost sharing agreement. On December 11, 2018, Rosedale's Board of Directors approved the DJA proposal and Rosedale's 50% cost share for the planning-level evaluation.

Director Swan reported that this item was reviewed by the Supply Reliability Programs Committee on December 20, 2018. On MOTION by Swan, seconded and unanimously carried, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH DEE JASPAR AND ASSOCIATES, INC. IN THE AMOUNT OF \$115,425 TO PERFORM A PLANNING-LEVEL EVALUATION OF POTENTIAL CANAL ALIGNMENTS FOR THE KERN FAN GROUNDWATER STORAGE PROJECT.**

OTHER BUSINESS

GENERAL MANAGER'S REPORT

General Manager Cook reported on staff's preparations at MWRP and LAWRP for rain events this week and also said that the County of Orange is doing a good job cleaning out foliage and debris from the San Diego Creek near MWRP.

Mr. Cook reported on the recognition certificate received for sponsorship of the City of Irvine's Global Village Festival.

Mr. Cook introduced Mr. Jim Colston, the District's new Director of Water Quality, to the Board who formerly worked for the Orange County Sanitation District.

He further announced that a Southern California Water Coalition meeting is being held next Friday at the District, and invited the Board to attend.

DIRECTORS' COMMENTS

Director Reinhart reported on his attendance at a SOCWA Board meeting and an OCWD Water Issues Committee meeting. He further noted a telephone conversation with Mr. Herb Nakasome of the Santa Ana River Flood Protection Agency relative to the Serrano Creek project which has been reactivated.

Director Withers reported on his first meeting with OCSD's General Manager Herberg relative to his new appointment to the Administration Headquarters' Committee, an NWRI Operations Committee meeting, a number of elected officials swearing-in events, and an ACC-OC City Leaders' reception.

Director Matheis reported on her attendance at an ISDOC meeting and an ACC-OC City Leaders' reception.

Director Swan commented on the recent Paradise fire, and thanked the employees who contributed to help. He reported on his attendance at a Newport Bay Executive Committee meeting, a presentation by Metropolitan Water District's General Manager Jeff Kightlinger at West Basin Municipal Water District, Newport Chamber of Commerce meetings, a WACO monthly event, a swearing-in for

Ms. Gloria Gray at MWD, a swearing-in of Orange County Supervisors, an ACC-OC elected officials event, and a MWDOC Committee meeting.

Director LaMar reported on his attendance at a National Water Research Institute planning event.

Director Reinhart suggested that staff provide a report to the Engineering and Operations Committee on lessons learned from the Santa Rosa and Paradise fires as well as other recent disasters, and include steps that the District could take to manage a major fire event.

DISTRICT LIAISON

The District's consultant Mr. Bruce Newell provided an update on the Inter-Canyon League.

ADJOURNMENT

There being no further business, President LaMar adjourned the meeting at 6:25 p.m.

APPROVED and SIGNED this 28th day of January, 2019.

President, IRVINE RANCH WATER DISTRICT

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Claire Hervey Collins, Legal Counsel
– Lewis Brisbois

January 28, 2019 *SD*

Prepared by: J. Davis/T. Fournier *H*

Submitted by: R. Jacobson/C. Clary *ABC*

Approved by: Paul A. Cook *PA*

CONSENT CALENDAR

DECEMBER 2018 TREASURY REPORTS

SUMMARY:

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

- A. The Investment Summary Report for December 2018. This Investment Summary Report is in conformity with the 2018 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, 2018, as outlined in Exhibit "B".
- C. The Monthly Interest Rate Swap Summary as of December 31, 2018, as outlined in Exhibit "C".
- D. The December 31, 2018 Disbursement Summary of warrants 393943 through 394724, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$18,214,787 as outlined in Exhibit "D".
- E. The Summary of Payroll ACH payments in the total amount of \$1,937,948 as outlined in Exhibit "E".
- F. The Disclosure Report of Reimbursements to Board Members and Staff for December 2018, detailing payments or reimbursements for individual charges of \$100.00 or more per transaction, as outlined in Exhibit "E".

FISCAL IMPACTS:

As of December 31, 2018, the book value of the investment portfolio was \$380,416,915, with a 1.82% rate of return and a market value of \$378,927,760. Based on the District's December 31, 2018 quarterly real estate investment rate of return of 9.02%, the weighted average return for the fixed income and real estate investments was 3.93%.

As of December 31, 2018, the outstanding principal amount of fixed and variable rate debt was \$672,220,000. The monthly weighted average all-in variable rate was 1.80%. 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 3.59%.

Payroll ACH payments totaled \$1,937,948, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for December totaled \$18,214,787.

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, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF; APPROVE THE DECEMBER 2018 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$1,937,948 AND APPROVE THE DECEMBER 2018 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 393943 THROUGH 394724 WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$18,214,787.

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

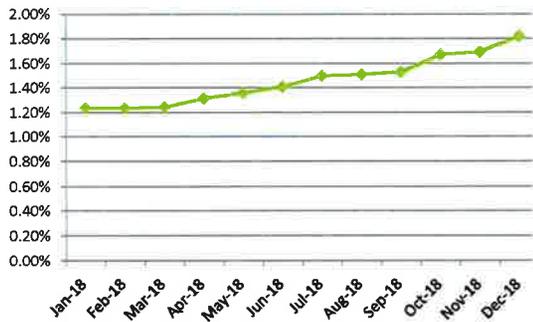
Exhibit "E" – Monthly Payroll ACH Summary

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

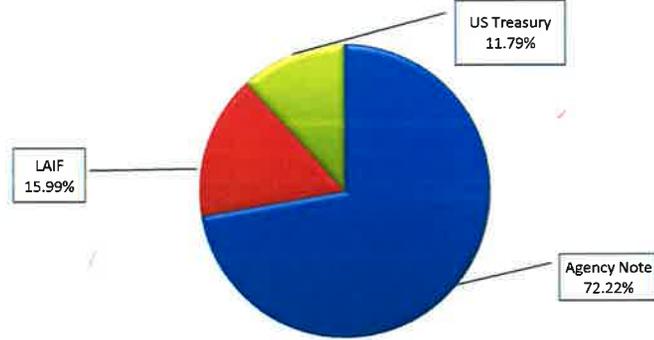
Exhibit "A"

Irvine Ranch Water District
Investment Portfolio Summary
December 2018

Monthly Fixed Income Yield



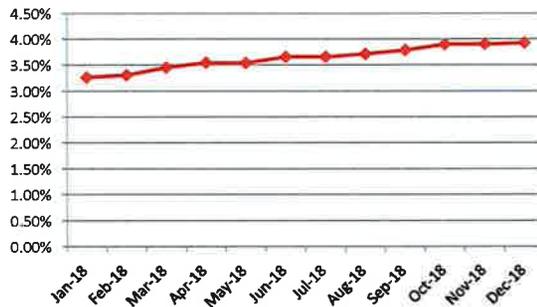
Portfolio Distribution



Investment Summary

| Type | PAR | Book Value | Market Value |
|--------------------|--------------------|--------------------|--------------------|
| Agency Note | 275,550,000 | 275,191,015 | 273,541,291 |
| LAIF | 61,000,000 | 61,000,000 | 60,942,119 |
| US Treasury | 45,000,000 | 44,225,900 | 44,444,350 |
| Grand Total | 381,550,000 | 380,416,915 | 378,927,760 |

Weighted Average Return Including Real Estate Portfolio



Maturity Distribution



Top Issuers

| Issuer | PAR | % Portfolio |
|-------------------------------------|--------------------|----------------|
| Fed Home Loan Mortgage Corp | 75,000,000 | 19.66% |
| Fed Natl Mortgage Assoc | 70,550,000 | 18.48% |
| Fed Home Loan Bank | 70,000,000 | 18.35% |
| State of California Treasury - LAIF | 61,000,000 | 15.99% |
| Fed Farm Credit Bank | 60,000,000 | 15.73% |
| US Treasury | 45,000,000 | 11.79% |
| Grand Total | 381,550,000 | 100.00% |

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

12/31/18

| SETTLMT | Call Schedule | Initial Call | Maturity Date | Rating | INVESTMENT TYPE | INSTITUTION / ISSUER | PAR Amount | COUPON DISCOUNT | YIELD | ORIGINAL COST | CARRY VALUE | MARKET VALUE ⁽¹⁾ 12/31/2018 | UNREALIZED ⁽²⁾ GAIN/(LOSS) |
|----------|------------------|--------------|---------------|-------------|-----------------|-----------------------------|--------------|-----------------|--------|-----------------|-----------------|--|---------------------------------------|
| 08/23/17 | | | 01/01/19 | | LAIF | State of California Tsy. | \$61,000,000 | | 2.000% | \$61,000,000.00 | \$61,000,000.00 | 60,942,118.75 | (57,881.25) |
| 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 | 4,999,769.58 | 4,994,650.00 | (5,119.58) |
| 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 | 4,999,597.46 | 4,994,650.00 | (4,947.46) |
| 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 | 4,999,576.27 | 4,994,650.00 | (4,926.27) |
| 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 | 9,999,273.15 | 9,984,100.00 | (15,173.15) |
| 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 | 5,004,781.05 | 4,991,200.00 | (13,581.05) |
| 03/21/18 | NA | NA | 03/21/19 | Aaa/NA/NR | FHLB - Note | Fed Home Loan Bank | 10,000,000 | 2.125% | 2.125% | 10,000,000.00 | 10,000,000.00 | 9,992,200.00 | (7,800.00) |
| 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 | 4,999,994.04 | 4,984,300.00 | (15,694.04) |
| 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 | 10,004,445.03 | 9,962,700.00 | (41,745.03) |
| 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 | 4,999,840.13 | 4,977,800.00 | (22,040.13) |
| 09/01/16 | N/A | N/A | 05/28/19 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 1.030% | 1.048% | 4,997,550.00 | 4,999,639.49 | 4,968,850.00 | (30,789.49) |
| 04/19/18 | N/A | N/A | 05/30/19 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 1.750% | 2.252% | 4,972,500.00 | 4,989,907.64 | 4,984,150.00 | (5,757.64) |
| 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 | 5,014,107.87 | 4,978,350.00 | (35,757.87) |
| 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 | 5,012,930.18 | 4,978,350.00 | (34,580.18) |
| 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 | 4,993,419.79 | 4,952,300.00 | (41,119.79) |
| 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 | 4,999,162.76 | 4,959,350.00 | (39,812.76) |
| 09/01/16 | N/A | N/A | 08/28/19 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.150% | 1.160% | 4,998,500.00 | 4,999,671.40 | 4,952,250.00 | (47,421.40) |
| 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 | 4,999,780.93 | 4,951,000.00 | (48,780.93) |
| 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 | 4,999,411.49 | 4,947,900.00 | (51,511.49) |
| 04/10/18 | NA | NA | 09/13/19 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 2.375% | 2.288% | 5,006,000.00 | 5,002,936.66 | 4,989,950.00 | (12,986.66) |
| 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 | 5,000,368.83 | 4,948,500.00 | (51,868.83) |
| 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 | 9,997,223.85 | 9,884,900.00 | (112,323.85) |
| 10/12/16 | Continuous after | 10/11/17 | 10/11/19 | Aaa/AA+/NR | FFCB - Note | Fed Farm Credit Bank | 10,000,000 | 1.120% | 1.205% | 9,975,000.00 | 9,993,075.87 | 9,882,300.00 | (110,775.87) |
| 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 | 5,000,213.01 | 4,941,150.00 | (59,063.01) |
| 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 | 4,997,222.64 | 4,945,850.00 | (51,372.64) |
| 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 | 4,995,494.51 | 4,944,350.00 | (51,144.51) |
| 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 | 5,000,455.94 | 4,941,750.00 | (58,705.94) |
| 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 | 4,994,315.83 | 4,943,700.00 | (50,615.83) |
| 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 | 4,972,122.36 | 4,943,900.00 | (28,222.36) |
| 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 | 4,993,655.00 | 4,943,100.00 | (50,555.00) |
| 12/19/18 | NA | NA | 02/29/20 | Aaa/NR/AAA | Treasury - Note | US Treasury | 10,000,000 | 1.250% | 2.672% | 9,833,593.76 | 9,838,544.06 | 9,846,100.00 | 7,555.94 |
| 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 | 5,157,064.86 | 5,089,500.00 | (67,564.86) |
| 12/20/18 | NA | NA | 03/31/20 | Aaa/NR/AAA | Treasury - Note | US Treasury | 10,000,000 | 2.250% | 2.665% | 9,948,000.00 | 9,949,336.19 | 9,959,000.00 | 9,663.81 |
| 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 | 4,983,834.68 | 4,924,300.00 | (59,534.68) |
| 06/29/18 | NA | NA | 04/23/20 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 2.500% | 2.544% | 4,996,000.00 | 4,997,155.28 | 4,993,050.00 | (4,105.28) |
| 06/29/18 | NA | NA | 05/15/20 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 2.550% | 2.566% | 4,998,450.00 | 4,998,870.26 | 5,000,750.00 | 1,879.74 |
| 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 | 4,981,604.19 | 4,952,200.00 | (29,404.19) |
| 06/11/18 | NA | NA | 06/11/20 | Aaa/NR/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 2.550% | 2.570% | 4,997,100.00 | 4,997,909.30 | 5,000,550.00 | 2,640.70 |
| 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 | 4,993,221.73 | 4,926,850.00 | (66,371.73) |

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

12/31/18

| SETTLMT | Call Schedule | Initial Call | Maturity Date | Rating | INVESTMENT TYPE | INSTITUTION / ISSUER | PAR Amount | COUPON DISCOUNT | YIELD | ORIGINAL COST | CARRY VALUE | MARKET VALUE ⁽¹⁾ 12/31/2018 | UNREALIZED ⁽²⁾ GAIN/(LOSS) |
|----------|------------------|--------------|---------------|-------------|-----------------|-----------------------------|------------|-----------------|--------|---------------|--------------|--|---------------------------------------|
| 04/19/18 | NA | NA | 07/30/20 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.500% | 2.535% | 4,886,000.00 | 4,921,171.67 | 4,917,350.00 | (3,821.67) |
| 06/08/18 | NA | NA | 07/30/20 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.500% | 2.559% | 4,890,100.00 | 4,919,154.02 | 4,917,350.00 | (1,804.02) |
| 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 | 4,944,965.77 | 4,909,500.00 | (35,465.77) |
| 09/14/18 | NA | NA | 08/24/20 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 2.680% | 2.789% | 4,989,700.00 | 4,991,281.27 | 5,007,200.00 | 15,918.73 |
| 05/21/18 | Continuous after | 12/01/17 | 09/01/20 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 1.680% | 2.735% | 4,884,250.00 | 4,915,477.52 | 4,926,100.00 | 10,622.48 |
| 09/14/18 | NA | NA | 09/04/20 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 2.690% | 2.794% | 4,990,050.00 | 4,991,554.23 | 5,007,850.00 | 16,295.77 |
| 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 | 4,943,100.00 | (56,900.00) |
| 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 | 5,464,641.00 | (85,359.00) |
| 09/28/18 | NA | NA | 10/31/20 | Aaa/NR/AAA | Treasury - Note | US Treasury | 5,000,000 | 1.750% | 2.847% | 4,889,453.13 | 4,875,707.12 | 4,931,650.00 | 55,942.88 |
| 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 | 4,969,292.52 | 4,924,350.00 | (44,942.52) |
| 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 | 4,986,968.43 | 4,927,400.00 | (59,568.43) |
| 11/30/17 | NA | NA | 11/24/20 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 1.964% | 1.964% | 4,983,550.00 | 4,989,541.42 | 4,931,600.00 | (57,941.42) |
| 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 | 4,983,780.43 | 4,936,000.00 | (47,780.43) |
| 11/09/18 | NA | NA | 12/31/20 | Aaa/NR/AAA | Treasury - Note | US Treasury | 5,000,000 | 2.375% | 2.958% | 4,939,843.75 | 4,943,915.63 | 4,988,850.00 | 44,934.37 |
| 11/27/18 | Quarterly | 01/25/19 | 01/25/21 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 3.020% | 3.021% | 5,000,000.00 | 5,000,000.00 | 5,000,800.00 | 800.00 |
| 10/12/18 | NA | NA | 01/31/21 | Aaa/NR/AAA | Treasury - Note | US Treasury | 10,000,000 | 1.375% | 2.890% | 9,664,843.76 | 9,697,085.63 | 9,770,700.00 | 73,614.37 |
| 12/14/18 | NA | NA | 02/16/21 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Corp | 5,000,000 | 2.375% | 2.806% | 4,954,750.00 | 4,955,774.53 | 4,982,650.00 | 26,875.47 |
| 12/14/18 | NA | NA | 02/28/21 | Aaa/NR/AAA | Treasury - Note | US Treasury | 5,000,000 | 2.000% | 2.755% | 4,919,515.95 | 4,921,311.13 | 4,948,050.00 | 26,738.87 |

TOTAL INVESTMENTS

\$381,550,000

\$380,342,374.13

\$380,416,914.64

\$378,927,759.75

 Petty Cash
 Ck Balance Bank of America

3,400.00

4,722,323.13

\$385,068,097.26

⁽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

| | |
|---|---------------|
| Outstanding Variable Rate Debt | \$273,300,000 |
| Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps) | \$143,300,000 |
| Investment Balance: | \$385,068,097 |
| Investment to Variable Rate Debt Ratio: | 269% |
| Portfolio - Average Number of Days To Maturity | 327 |

| | Investment Portfolio | Real Estate ⁽³⁾ Portfolio | Weighted Avg. Return |
|-----------------|----------------------|--------------------------------------|----------------------|
| December | 1.82% | 9.02% | 3.93% |
| November | 1.69% | 9.05% | 3.91% |
| Change | 0.13% | | 0.02% |

This Investment Summary Report is in conformity with the 2018 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures.

*S - Step up

IRVINE RANCH WATER DISTRICT
SUMMARY OF MATURITIES

12/31/18

| DATE | TOTAL | % | LAIF | Agency Notes | Agency Discount Notes | Collateral Deposit | US Treasury |
|----------------------------|----------------------|----------------|---------------------|----------------------|-----------------------|--------------------|---------------------|
| 12/18 | \$61,000,000 | 15.99% | \$61,000,000 | | | | |
| 01/19 | 15,000,000 | 3.93% | | 15,000,000 | | | |
| 02/19 | 10,000,000 | 2.62% | | 10,000,000 | | | |
| 03/19 | 20,000,000 | 5.24% | | 20,000,000 | | - | |
| 04/19 | 15,000,000 | 3.93% | | 15,000,000 | | | |
| 05/19 | 10,000,000 | 2.62% | | 10,000,000 | | | |
| 06/19 | 10,000,000 | 2.62% | | 10,000,000 | | | |
| 07/19 | 10,000,000 | 2.62% | | 10,000,000 | | | |
| 08/19 | 10,000,000 | 2.62% | | 10,000,000 | | | |
| 09/19 | 15,000,000 | 3.93% | | 15,000,000 | | | |
| 10/19 | 20,000,000 | 5.24% | | 20,000,000 | | | |
| 11/19 | 15,000,000 | 3.93% | | 15,000,000 | | | |
| SUB-TOTAL | \$211,000,000 | 55.30% | \$61,000,000 | \$150,000,000 | | | |
| 13 Months - 3 YEARS | | | | | | | |
| 12/01/19 - 2/28/2020 | 30,000,000 | 7.86% | | 20,000,000 | | | 10,000,000 |
| 3/01/2020 - 5/31/2020 | 40,000,000 | 10.48% | | 30,000,000 | | | 10,000,000 |
| 6/01/2020 - 8/31/2020 | 25,000,000 | 6.55% | | 25,000,000 | | | |
| 9/01/2020 - 11/30/2020 | 40,550,000 | 10.63% | | 35,550,000 | | | 5,000,000 |
| 12/01/2020 - 2/28/2021 | 35,000,000 | 9.17% | | 15,000,000 | | | 20,000,000 |
| | - | | | | | | |
| | - | | | | | | |
| | - | | | | | | |
| | - | | | | | | |
| TOTALS | \$381,550,000 | 100.00% | \$61,000,000 | \$275,550,000 | | | \$45,000,000 |

% OF PORTFOLIO

15.99%

72.22%

11.79%

IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT
INVESTMENT ACTIVITY
Dec-18

MATURITIES/SALES/CALLS

PURCHASES

| DATE | SECURITY TYPE | PAR | YIELD | Settlement Date | Maturity Date | SECURITY TYPE | PAR | YIELD TO MATURITY |
|------------|---------------|-------------|-------|-----------------|---------------|---------------|--------------|-------------------|
| 12/5/2018 | FNMA - Note | \$5,000,000 | 1.32% | 12/14/2018 | 2/16/2021 | FHLMC - Note | \$5,000,000 | 2.81% |
| 12/14/2018 | FHLB - Note | \$5,000,000 | 0.94% | 12/14/2018 | 2/28/2021 | US Treasury | \$5,000,000 | 2.76% |
| 12/14/2018 | FHLB - Note | \$5,000,000 | 1.32% | 12/19/2018 | 2/29/2020 | US Treasury | \$10,000,000 | 2.67% |
| | | | | 12/20/2018 | 3/31/2020 | US Treasury | \$10,000,000 | 2.67% |

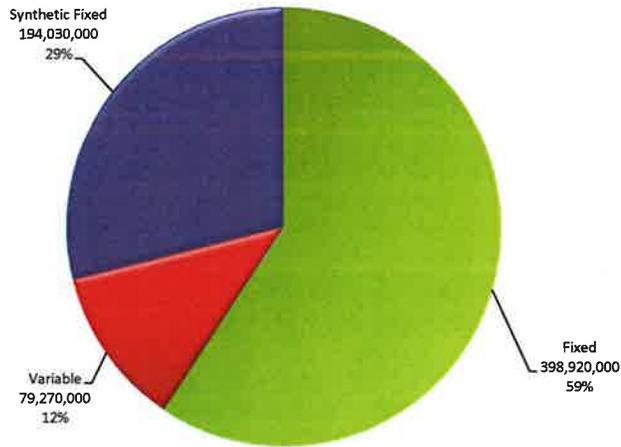
Irvine Ranch Water District
 Summary of Real Estate - Income Producing Investments
 12/31/2018

| | ACQUISITION DATE | PROPERTY TYPE | OWNERSHIP INTEREST | ORIGINAL COST | MARKET VALUE 12/31/2018 | ANNUALIZED RATE OF RETURN QUARTER ENDED 12/31/2018 |
|---|---------------------|------------------|-----------------------|-----------------------|----------------------------|---|
| Sycamore Canyon | Dec-92 | Apartments | Fee Simple | \$ 43,550,810 | \$ 145,000,000 | 19.22% |
| Wood Canyon Villas | Jun-91 | Apartments | Limited Partner | \$ 6,000,000 | \$ 30,670,120 | 8.69% |
| ITC (230 Commerce) | Jul-03 | Office Building | Fee Simple | \$ 5,739,845 | \$ 11,500,000 | 10.18% |
| Waterworks Business Pk. | Nov-08 | Research & Dev. | Fee Simple | \$ 8,630,577 | \$ 9,000,000 | 5.09% |
| Sand Canyon Professional Center | Jul-12 | Medical Office | Fee Simple | \$ 8,648,594 | \$ 11,000,000 | 8.50% |
| Total - Income Properties | | | | \$ 72,569,826 | \$ 207,170,120 | 14.68% |
| 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 | \$ 288,770,120 | 9.02% |

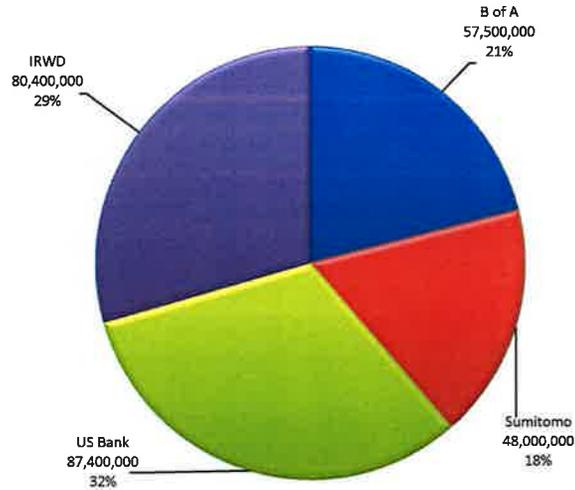
Exhibit "B"

Irvine Ranch Water District Summary of Fixed and Variable Rate Debt December 2018

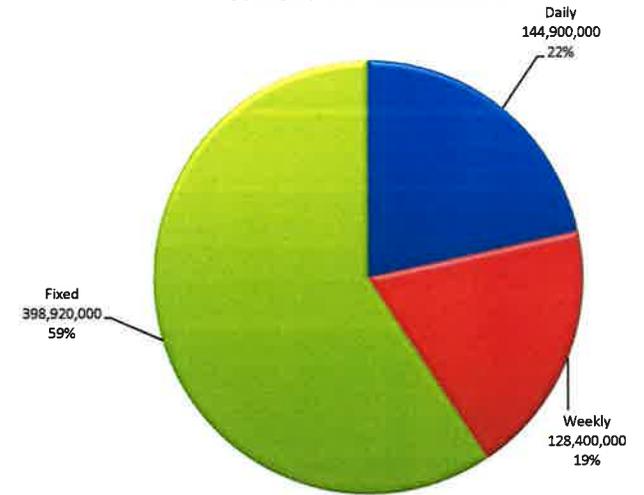
Current Debt Mix By Type



Letters of Credit / Support



Current Debt Rate Reset



Outstanding Par by Series

| Series | Issue Date | Maturity Date | Remaining | | Letter of | | Mode | Reset |
|---------------------------------|------------|---------------|----------------------|----------------|----------------|------------|----------|--------|
| | | | Principal | Percent | Credit/Support | Rmkt Agent | | |
| Series 1993 | 05/19/93 | 04/01/33 | \$29,900,000 | 4.45% | US Bank | BAML | Variable | Daily |
| Series 2008-A Refunding | 04/24/08 | 07/01/35 | \$48,000,000 | 7.14% | Sumitomo | BAML | Variable | Weekly |
| Series 2011-A-1 Refunding | 04/15/11 | 10/01/37 | \$48,240,000 | 7.18% | IRWD | Goldman | Variable | Weekly |
| Series 2011-A-2 Refunding | 04/15/11 | 10/01/37 | \$32,160,000 | 4.78% | IRWD | Morgan | Variable | Weekly |
| Series 2009 - A | 06/04/09 | 10/01/41 | \$57,500,000 | 8.55% | US Bank | US Bank | Variable | Daily |
| Series 2009 - B | 06/04/09 | 10/01/41 | \$57,500,000 | 8.55% | B of A | Goldman | Variable | Daily |
| 2010 Refunding COPS | 02/23/10 | 03/01/20 | \$3,775,000 | 0.56% | N/A | N/A | Fixed | Fixed |
| 2016 COPS | 09/01/16 | 03/01/46 | \$116,745,000 | 17.37% | N/A | N/A | Fixed | Fixed |
| 2010 Build America Taxable Bond | 12/16/10 | 05/01/40 | \$175,000,000 | 26.03% | N/A | N/A | Fixed | Fixed |
| Series 2016 | 10/12/16 | 02/01/46 | \$103,400,000 | 15.38% | N/A | N/A | Fixed | Fixed |
| Total | | | \$672,220,000 | 100.00% | | | | |

IRVINE RANCH WATER DISTRICT
SUMMARY OF FIXED & VARIABLE RATE DEBT
December-18

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 | MOODYS | 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 | \$29,900,000 | US BANK | 05/07/15 | 12/15/21 | Aa3/VMIG1 | AA-/A-1+ | N/R | \$30,303,036 | 0.3300% | \$100,000 | BAML | DAILY | 0.10% | \$29,900 | BANK OF NY | |
| SERIES 2008-A Refunding | 04/24/08 | 07/01/35 | JUL 1 | 5th Bus. Day | \$60,215,000 | \$48,000,000 | SUMITOMO | 04/01/11 | 07/21/21 | A1/P-1 | A/A-1 | A/F1 | \$48,710,137 | 0.3150% | \$153,437 | BAML | WED | 0.07% | \$33,600 | BANK OF NY | |
| SERIES 2011-A-1 Refunding | 04/15/11 | 10/01/37 | Oct 1 | 1st Bus. Day | \$60,545,000 | \$48,240,000 | N/A | N/A | N/A | Aa1/VMIG1 | A-1+ | AAA/F1+ | N/A | N/A | N/A | Goldman | WED | 0.13% | \$60,300 | BANK OF NY | |
| SERIES 2011-A-2 Refunding | 04/15/11 | 10/01/37 | Oct 1 | 1st Bus. Day | \$40,370,000 | \$32,160,000 | N/A | N/A | N/A | Aa1/VMIG1 | A-1+ | AAA/F1+ | N/A | N/A | N/A | Morgan S. | WED | 0.13% | \$40,200 | BANK OF NY | |
| SERIES 2009 - A | 06/04/09 | 10/01/41 | Oct 1 | 1st Bus. Day | \$75,000,000 | \$57,500,000 | US BANK | 04/01/11 | 12/15/21 | Aa2/VMIG 1 | AA-/A-1+ | AA/F1+ | \$58,142,740 | 0.3300% | \$191,871 | US Bank | DAILY | 0.07% | \$40,250 | US BANK | |
| SERIES 2009 - B | 06/04/09 | 10/01/41 | Oct 1 | 1st Bus. Day | \$75,000,000 | \$57,500,000 | B of A | 04/01/11 | 07/15/19 | A1/VMIG 1 | A/A-1 | A1/F1+ | \$58,142,740 | 0.4000% | \$232,571 | Goldman | DAILY | 0.10% | \$57,500 | US BANK | |
| | | | | | \$349,430,000 | \$273,300,000 | SUB-TOTAL VARIABLE RATE DEBT | | | | | | | \$195,298,652 | 0.3471% | \$677,879 | | | | | |
| | | | | | | | | | | | | | | (Wt. Avg) | | | | | | | |
| FIXED RATE ISSUES | | | | | | | | | | | | | | | | | | | | | |
| 2010 REFUNDING COPS | 02/23/10 | 03/01/20 | Mar -1 | MAR/SEPT | \$85,145,000 | \$3,775,000 | N/A | N/A | N/A | Aa1 | AAA | AAA | N/A | 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 | 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 | 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 | N/A | BANK OF NY |
| | | | | | \$480,290,000 | \$398,920,000 | SUB-TOTAL FIXED RATE DEBT | | | | | | | | | | | | | | |
| | | | | | \$829,720,000 | \$672,220,000 | TOTAL - FIXED & VARIABLE RATE DEBT | | | | | | | | | | | | | | |

| Remarketing Agents | | | GO VS COP's | | |
|--------------------|--------------------|-----|-------------|--------------------|-----|
| Goldman | 105,740,000 | 39% | GO: | 551,700,000 | 82% |
| Morgan Stanley | 32,160,000 | 12% | COPS: | 120,520,000 | 18% |
| BAML | 77,900,000 | 29% | Total | 672,220,000 | |
| US Bank | 57,500,000 | 21% | | | |
| | 273,300,000 | | | | |

| LOC Banks | | Breakdown Between Variable & Fixed Rate Mode | |
|-----------------|--------------------|--|-------------------------|
| SUMITOMO | 48,000,000 | Daily Issues | 144,900,000 22% |
| BANK OF AMERICA | 57,500,000 | Weekly Issues | 48,000,000 7% |
| US BANK | 87,400,000 | ITN Issues | 80,400,000 12% |
| | 192,900,000 | Sub-Total | 273,300,000 |
| | | Fixed Rate Issues | \$398,920,000 59% |
| | | Sub-Total - Fixed | 398,920,000 |
| | | TOTAL DEBT | |
| | | FIXED & VAR. | 672,220,000 100% |

IRVINE RANCH WATER DISTRICT
SUMMARY OF DEBT RATES
Dec-18

| Rmkt Agent Mode | GOLDMAN DAILY | GOLDMAN WEEKLY | MORGAN STANLEY WEEKLY | MERRILL LYNCH DAILY | MERRILL LYNCH WEEKLY | US BANK DAILY |
|---------------------------|---------------|----------------|-----------------------|---------------------|----------------------|---------------|
| Bond Issue | 2009 - B | 2011 A-1 | 2011 A-2 | 1993 | 2008-A | 2009-A |
| Par Amount | 57,500,000 | 48,240,000 | 32,160,000 | 29,900,000 | 48,000,000 | 57,500,000 |
| Bank | BOFA | (SIFMA -1) | (SIFMA -1) | US BANK | Sumitomo | US BANK |
| Reset | | Wednesday | Wednesday | | Wednesday | |
| 12/1/2018 | 1.44% | 1.68% | 1.68% | 1.39% | 1.45% | 1.40% |
| 12/2/2018 | 1.44% | 1.68% | 1.68% | 1.39% | 1.45% | 1.40% |
| 12/3/2018 | 1.37% | 1.68% | 1.68% | 1.35% | 1.45% | 1.38% |
| 12/4/2018 | 1.34% | 1.68% | 1.68% | 1.33% | 1.45% | 1.35% |
| 12/5/2018 | 1.34% | 1.68% | 1.68% | 1.33% | 1.45% | 1.35% |
| 12/6/2018 | 1.32% | 1.64% | 1.64% | 1.29% | 1.41% | 1.33% |
| 12/7/2018 | 1.31% | 1.64% | 1.64% | 1.29% | 1.41% | 1.33% |
| 12/8/2018 | 1.31% | 1.64% | 1.64% | 1.29% | 1.41% | 1.33% |
| 12/9/2018 | 1.31% | 1.64% | 1.64% | 1.29% | 1.41% | 1.33% |
| 12/10/2018 | 1.29% | 1.64% | 1.64% | 1.28% | 1.41% | 1.33% |
| 12/11/2018 | 1.28% | 1.64% | 1.64% | 1.27% | 1.41% | 1.30% |
| 12/12/2018 | 1.28% | 1.64% | 1.64% | 1.28% | 1.41% | 1.28% |
| 12/13/2018 | 1.28% | 1.63% | 1.63% | 1.29% | 1.36% | 1.28% |
| 12/14/2018 | 1.35% | 1.63% | 1.63% | 1.32% | 1.36% | 1.30% |
| 12/15/2018 | 1.35% | 1.63% | 1.63% | 1.32% | 1.36% | 1.30% |
| 12/16/2018 | 1.35% | 1.63% | 1.63% | 1.32% | 1.36% | 1.30% |
| 12/17/2018 | 1.35% | 1.63% | 1.63% | 1.28% | 1.36% | 1.35% |
| 12/18/2018 | 1.36% | 1.63% | 1.63% | 1.33% | 1.36% | 1.35% |
| 12/19/2018 | 1.36% | 1.63% | 1.63% | 1.35% | 1.36% | 1.35% |
| 12/20/2018 | 1.38% | 1.67% | 1.67% | 1.37% | 1.41% | 1.40% |
| 12/21/2018 | 1.40% | 1.67% | 1.67% | 1.43% | 1.41% | 1.40% |
| 12/22/2018 | 1.40% | 1.67% | 1.67% | 1.43% | 1.41% | 1.40% |
| 12/23/2018 | 1.40% | 1.67% | 1.67% | 1.43% | 1.41% | 1.40% |
| 12/24/2018 | 1.40% | 1.67% | 1.67% | 1.47% | 1.41% | 1.40% |
| 12/25/2018 | 1.40% | 1.67% | 1.67% | 1.47% | 1.41% | 1.40% |
| 12/26/2018 | 1.41% | 1.67% | 1.67% | 1.48% | 1.41% | 1.42% |
| 12/27/2018 | 1.41% | 1.70% | 1.70% | 1.46% | 1.44% | 1.42% |
| 12/28/2018 | 1.41% | 1.70% | 1.70% | 1.43% | 1.44% | 1.41% |
| 12/29/2018 | 1.41% | 1.70% | 1.70% | 1.43% | 1.44% | 1.41% |
| 12/30/2018 | 1.41% | 1.70% | 1.70% | 1.43% | 1.44% | 1.41% |
| 12/31/2018 | 1.40% | 1.70% | 1.70% | 1.40% | 1.44% | 1.40% |
| Avg Interest Rates | 1.36% | 1.66% | 1.66% | 1.36% | 1.41% | 1.36% |
| Rmkt Fee | 0.10% | 0.13% | 0.13% | 0.10% | 0.07% | 0.07% |
| LOC Fee | 0.40% | | | 0.33% | 0.32% | 0.33% |
| All-In Rate | 1.86% | 1.79% | 1.79% | 1.79% | 1.80% | 1.76% |
| Par Amount | 105,740,000 | | 32,160,000 | 77,900,000 | | 57,500,000 |

| Interest Rate Mode | Percent of Total Variable Rate Debt | Par Outstanding | Weighted All-In Average Rate | Base Rate Average |
|--|-------------------------------------|-----------------------|------------------------------|-------------------|
| Daily | 53.02% | 144,900,000 | 1.81% | 1.36% |
| Weekly | 46.98% | 128,400,000 | 1.79% | 1.57% |
| Fixed | 100.00% | \$ 273,300,000 | 1.80% | 1.46% |
| COPS 2010 | 0.95% | 3,775,000 | 3.82% | |
| COPS 2016 | 29.27% | 116,745,000 | 2.90% | |
| BABS 2010 | 43.87% | 175,000,000 | 4.45% | (1) |
| SERIES 2016 | 25.92% | 103,400,000 | 3.32% | |
| | 100.00% | \$ 398,920,000 | 3.70% | |
| All-In Debt Rate Including \$130 Million Notional Amount of Swaps | | | | 3.59% |

(1) Rate adjusted up from 4.35% as a result of sequestration reducing BAB's subsidy by 6.2%

**IRVINE RANCH WATER DISTRICT
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL
December 31, 2018**

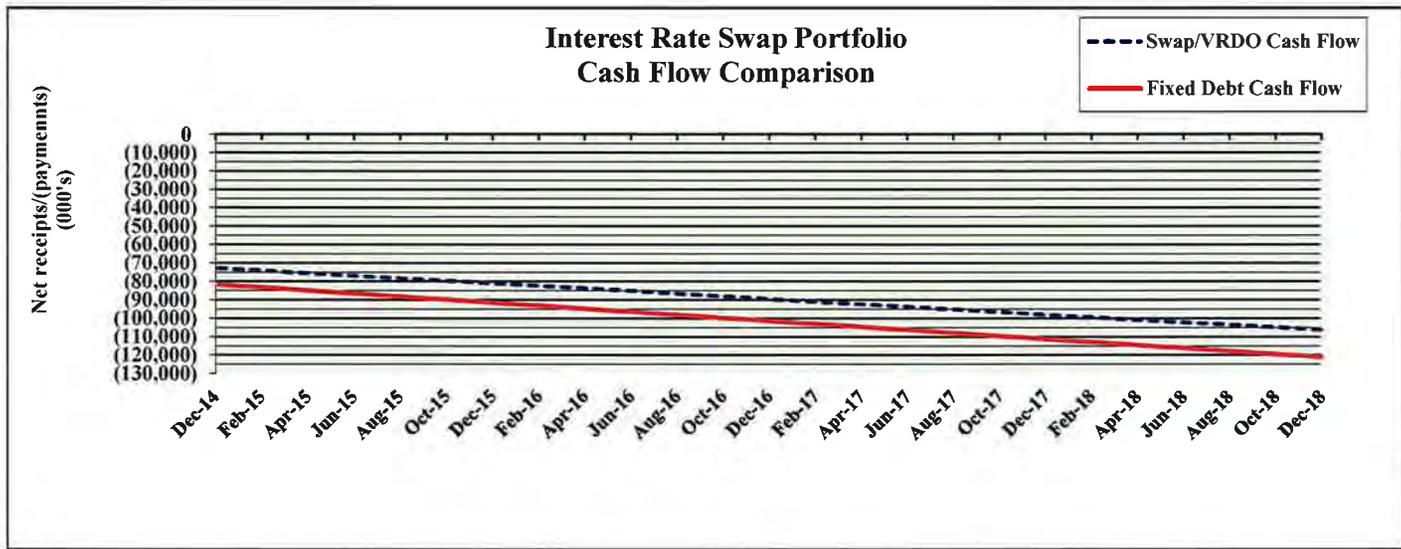
Exhibit "C"

| | | | |
|--------------------|------------------|--------------------|------------------|
| | Prior Mo. | Current Mo. | 12-Mo Avg |
| LIBOR Avg % | 2.32% | 2.45% | 2.02% |

| Current Fiscal Year Active Swaps | | | | | | | | Cash Flow | | | | (Since 6/06) | Mark to Market | |
|--|---------------|-------------------|---------------|---------------|----------------|------------|------------|--------------|---------------|----------------|----------------------|------------------------|---------------------|--|
| Effective Date | Maturity Date | Years to Maturity | Counter Party | Notional Amt | Type | Base Index | Fixed Rate | Prior Month | Current Month | Fiscal YTD | Cumulative Cash Flow | Current Mark to Market | Notional Difference | |
| Fixed Payer Swaps - By Effective Date | | | | | | | | | | | | | | |
| 6/4/2006 | 6/4/2019 | 119.5 | ML | \$ 20,000,000 | FXP | LIBOR | 6.200% | (61,418) | (66,432) | \$ (401,186) | \$ (12,257,578) | \$ 19,694,396 | \$ (305,604) | |
| 6/4/2006 | 6/4/2019 | 119.5 | CG | 20,000,000 | FXP | LIBOR | 6.200% | (61,418) | (66,432) | (401,186) | (12,257,578) | 19,694,474 | (305,526) | |
| 6/17/2006 | 6/17/2019 | 119.5 | CG | 30,000,000 | FXP | LIBOR | 6.140% | (91,005) | (97,358) | (593,872) | (18,177,580) | 29,510,660 | (489,340) | |
| 3/10/2007 | 3/10/2029 | 129.3 | ML | 30,000,000 | FXP | LIBOR | 5.687% | (79,761) | (85,822) | (524,517) | (16,376,425) | 21,698,391 | (8,301,609) | |
| 3/10/2007 | 3/10/2029 | 129.3 | CG | 30,000,000 | FXP | LIBOR | 5.687% | (79,761) | (85,822) | (524,517) | (16,376,425) | 21,680,636 | (8,319,364) | |
| Totals/Weighted Avgs | | | | 124.0 | \$ 130,000,000 | | 5.949% | \$ (373,363) | \$ (401,866) | \$ (2,445,278) | \$ (75,445,584) | \$ 112,278,557 | \$ (17,721,443) | |
| Total Current Year Active Swaps | | | | | \$ 130,000,000 | | | \$ (373,363) | \$ (401,866) | \$ (2,445,278) | \$ (75,445,584) | \$ 112,278,557 | \$ (17,721,443) | |

| 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 | | | | | | | | |



| | |
|---|---------------|
| Cash Flow Comparison Synthetic Fixed vs. Fixed Rate Debt | |
| Cash Flow to Date | |
| Synthetic Fixed = | \$106,089,024 |
| Fixed Rate = | \$125,090,937 |
| Assumptions: | |
| - Fixed rate debt issued at 5 10% in Jun-06, and 4 93% in Mar-07 (estimated TE rates - Bloomberg) | |
| - 'Synthetic' includes swap cash flow + interest + fees to date | |

Exhibit "D"

IRWD Ledger Upgrade

Void Payment Register

Report Date: 02-JAN-2019 16:51

Include Zero Amount Payments: Yes
Display Payee Address: No

Period From: 01-DEC-18

Page: 1
To: 31-DEC-18
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 | | | | | | |
| 390395 | 02-AUG-18 | YING LYU AND LEI YE | PAY | | 52.60 | 27-DEC-18 |
| 390453 | 08-AUG-18 | CHEN, SHUOWEN | PAY | | 51.12 | 27-DEC-18 |
| 390520 | 08-AUG-18 | MCNEILL, JOAN | PAY | | 38.93 | 27-DEC-18 |
| 390729 | 16-AUG-18 | OCHOA, JOSE | PAY | | 25.12 | 27-DEC-18 |
| 390741 | 16-AUG-18 | PREKOPA, CHRIS | PAY | | 37.72 | 27-DEC-18 |
| 390881 | 23-AUG-18 | DU, KEZHENG | PAY | | 93.32 | 27-DEC-18 |
| 390905 | 23-AUG-18 | HUANG, NAI- FONG | PAY | | 49.51 | 27-DEC-18 |
| 390915 | 23-AUG-18 | KANG, KAI | PAY | | 32.84 | 27-DEC-18 |
| 390921 | 23-AUG-18 | KO, ASHLEY | PAY | | 87.13 | 27-DEC-18 |
| 390932 | 23-AUG-18 | LIU, TONG | PAY | | 36.62 | 27-DEC-18 |
| 390933 | 23-AUG-18 | LUU, CATHY | PAY | | 21.94 | 27-DEC-18 |
| 390972 | 23-AUG-18 | REDDIVARI, KUMAR | PAY | | 10.06 | 27-DEC-18 |
| 391102 | 29-AUG-18 | FISHER, GUSTAVO | PAY | | 10.34 | 27-DEC-18 |
| 391107 | 29-AUG-18 | GILBERT, DAVID A | PAY | | 19.02 | 27-DEC-18 |
| 391205 | 29-AUG-18 | ZHOU, MEITONG | PAY | | 5,195.08 | 27-DEC-18 |
| 391241 | 05-SEP-18 | BAY, TRENISE | PAY | | 14.27 | 27-DEC-18 |
| 391243 | 05-SEP-18 | BECKER, NORMAN | PAY | | 49.83 | 27-DEC-18 |
| 391295 | 05-SEP-18 | HERNANDEZ, VERONICA | PAY | | 13.02 | 27-DEC-18 |
| 391299 | 05-SEP-18 | HONG, LYDIA | PAY | | 82.15 | 27-DEC-18 |
| 391301 | 05-SEP-18 | HORIBA, DAN | PAY | | 45.65 | 27-DEC-18 |
| 391351 | 05-SEP-18 | PARK, DONG KYUN | PAY | | 40.26 | 27-DEC-18 |
| 391372 | 05-SEP-18 | RUTLEND, DOREY | PAY | | 17.41 | 27-DEC-18 |
| 391419 | 05-SEP-18 | YANG, BIYI | PAY | | 38.02 | 27-DEC-18 |
| 391424 | 05-SEP-18 | ZHOU, HAODONG | PAY | | 33.02 | 27-DEC-18 |
| 391687 | 20-SEP-18 | CHAO, ANNIE | PAY | | 29.54 | 27-DEC-18 |
| 391707 | 20-SEP-18 | DODD, JOEY | PAY | | 37.25 | 27-DEC-18 |
| 391754 | 20-SEP-18 | HSIEH, YING-YING | PAY | | 32.26 | 27-DEC-18 |
| 391765 | 20-SEP-18 | JOON-TAE HWANG AND IN GAJIN | PAY | | 37.27 | 27-DEC-18 |
| 391780 | 20-SEP-18 | LUO, PENGCHENG | PAY | | 45.27 | 27-DEC-18 |
| 391831 | 20-SEP-18 | SABAH, MOJTADA | PAY | | 239.26 | 27-DEC-18 |
| 391869 | 20-SEP-18 | TRACY TAYLOR AND CLARIE CHA | PAY | | 47.20 | 27-DEC-18 |
| 391893 | 20-SEP-18 | XU, ANNA | PAY | | 81.71 | 27-DEC-18 |
| 391895 | 20-SEP-18 | YU, AMY | PAY | | 287.36 | 12-DEC-18 |
| 391967 | 27-SEP-18 | GONZALEZ, CINDY | PAY | | 23.95 | 27-DEC-18 |
| 391995 | 27-SEP-18 | LO, HUNG-TIEN | PAY | | 72.34 | 27-DEC-18 |
| 392838 | 25-OCT-18 | EQUITY OFFICE-BU24951 | PAY | | 100.00 | 21-DEC-18 |
| 393943 | 03-DEC-18 | SOHL, L. | PAY | | 59.18 | 04-DEC-18 |
| 394394 | 12-DEC-18 | YU, AMY | PAY | | 287.36 | 13-DEC-18 |

IRWD Ledger Upgrade

Void Payment Register

Report Date: 02-JAN-2019 16:51

Include Zero Amount Payments: Yes
Display Payee Address: No

Period From: 01-DEC-18

Page: 2
To: 31-DEC-18
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 | | | | | | |
| | | | | | Payment Document Subtotal | 7,474.93 |
| | | | | | Bank Account Subtotal | 7,474.93 |
| Report Count: 38 | | | | | Report Total | 7,474.93 |
| | | | | | | Voids |

*** End of Report ***

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 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 | | | | | | | | |
| 393943 | | 03-DEC-18 | SOHL, L. | PAY | 59.18 | | | Voided |
| 393944 | | 06-DEC-18 | Akiyoshi, Eric S (Eric) | | 116.00 | 06-DEC-18 | 116.00 | Reconciled |
| 393945 | | 06-DEC-18 | Bill, Cody (Cody) | | 1,153.28 | 12-DEC-18 | 1,153.28 | Reconciled |
| 393946 | | 06-DEC-18 | Compton, Christine A | | 30.52 | 17-DEC-18 | 30.52 | Reconciled |
| 393947 | | 06-DEC-18 | Cortez, Malcolm A (Malcolm) | | 39.24 | 31-DEC-18 | 39.24 | Reconciled |
| 393948 | | 06-DEC-18 | Ho, Connie | | 7.85 | 24-DEC-18 | 7.85 | Reconciled |
| 393949 | | 06-DEC-18 | Hufana, Eugenio D | | 130.81 | 06-DEC-18 | 130.81 | Reconciled |
| 393950 | | 06-DEC-18 | La, Jason (Jason) | | 120.00 | 06-DEC-18 | 120.00 | Reconciled |
| 393951 | | 06-DEC-18 | Lao, Richard S | | 265.71 | 07-DEC-18 | 265.71 | Reconciled |
| 393952 | | 06-DEC-18 | Malloy, Steven L (Steven) | | 328.00 | 07-DEC-18 | 328.00 | Reconciled |
| 393953 | | 06-DEC-18 | Nash, Joel | | 103.59 | 10-DEC-18 | 103.59 | Reconciled |
| 393954 | | 06-DEC-18 | Nieto, Agustin (Augie) | | 150.00 | 10-DEC-18 | 150.00 | Reconciled |
| 393955 | | 06-DEC-18 | Rutherford, Allan | | 2,577.40 | 07-DEC-18 | 2,577.40 | Reconciled |
| 393956 | | 06-DEC-18 | Schulze, Richard W (Richard) | | 188.00 | 17-DEC-18 | 188.00 | Reconciled |
| 393957 | | 06-DEC-18 | 100 BAYVIEW LLC | | 101.55 | 14-DEC-18 | 101.55 | Reconciled |
| 393958 | | 06-DEC-18 | ACCURATE AIR ENGINEERING INC | | 676.19 | 10-DEC-18 | 676.19 | Reconciled |
| 393959 | | 06-DEC-18 | ADAM'S FALCONRY SERVICE, LLC | | 1,440.00 | 10-DEC-18 | 1,440.00 | Reconciled |
| 393960 | | 06-DEC-18 | ADAMS STIRLING CLIENT TRUST ACCOUNT | | 2,000.00 | 11-DEC-18 | 2,000.00 | Reconciled |
| 393961 | | 06-DEC-18 | AGILENT TECHNOLOGIES, INC. | | 185.93 | 10-DEC-18 | 185.93 | Reconciled |
| 393962 | | 06-DEC-18 | ALEXANDER'S CONTRACT SERVICES, INC. | | 119,822.33 | 12-DEC-18 | 119,822.33 | Reconciled |
| 393963 | | 06-DEC-18 | AMAZON CAPITAL SERVICES, INC. | | 1,290.83 | 10-DEC-18 | 1,290.83 | Reconciled |
| 393964 | | 06-DEC-18 | AMERICAN TRAINING RESOURCES, INC | | 3,188.58 | 10-DEC-18 | 3,188.58 | Reconciled |
| 393965 | | 06-DEC-18 | AMERICAN WATER CHEMICALS, INC. | | 6,860.98 | 10-DEC-18 | 6,860.98 | Reconciled |
| 393966 | | 06-DEC-18 | ANIXTER INC | | 23,617.10 | 12-DEC-18 | 23,617.10 | Reconciled |
| 393967 | | 06-DEC-18 | APEX LIFE SCIENCES, LLC | | 3,986.50 | 10-DEC-18 | 3,986.50 | Reconciled |
| 393968 | | 06-DEC-18 | ARMORCAST PRODUCTS COMPANY | | 5,918.97 | 10-DEC-18 | 5,918.97 | Reconciled |
| 393969 | | 06-DEC-18 | AT&T | | 11.61 | 12-DEC-18 | 11.61 | Reconciled |
| 393970 | | 06-DEC-18 | AT&T | | 58.12 | 14-DEC-18 | 58.12 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 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 | | | | | | | | |
| 393971 | | 06-DEC-18 | AT&T | | 4,142.02 | 12-DEC-18 | 4,142.02 | Reconciled |
| 393972 | | 06-DEC-18 | ATRIUM IRVINE LLC | | 130.88 | 14-DEC-18 | 130.88 | Reconciled |
| 393973 | | 06-DEC-18 | BATTERY SYSTEMS INC | | 5,921.87 | 10-DEC-18 | 5,921.87 | Reconciled |
| 393974 | | 06-DEC-18 | BECKMAN COULTER INC | | 9,696.12 | 11-DEC-18 | 9,696.12 | Reconciled |
| 393975 | | 06-DEC-18 | BELLEWICK COMMUNITY ASSOCIATION | | 220.00 | 28-DEC-18 | 220.00 | Reconciled |
| 393976 | | 06-DEC-18 | BEST DRILLING AND PUMP, INC. | | 45,966.46 | 13-DEC-18 | 45,966.46 | Reconciled |
| 393977 | | 06-DEC-18 | BILL'S SWEEPING SERVICE INC | | 1,050.00 | 12-DEC-18 | 1,050.00 | Reconciled |
| 393978 | | 06-DEC-18 | BLAIRS TOWING INC | | 985.00 | 13-DEC-18 | 985.00 | Reconciled |
| 393979 | | 06-DEC-18 | BLOOMBERG FINANCE LP | | 12,735.00 | 17-DEC-18 | 12,735.00 | Reconciled |
| 393980 | | 06-DEC-18 | BORCHARD SURVEYING & MAPPING, INC. | | 3,772.50 | 14-DEC-18 | 3,772.50 | Reconciled |
| 393981 | | 06-DEC-18 | BRIGHTVIEW LANDSCAPE DEVELOPMENT | | 5,885.77 | 17-DEC-18 | 5,885.77 | Reconciled |
| 393982 | | 06-DEC-18 | BRITHINEE ELECTRIC | | 7,943.27 | 10-DEC-18 | 7,943.27 | Reconciled |
| 393983 | | 06-DEC-18 | BROWN AND CALDWELL | | 4,155.09 | 11-DEC-18 | 4,155.09 | Reconciled |
| 393984 | | 06-DEC-18 | BRUSSEAU, MICKELA | | 22.09 | | | Negotiable |
| 393985 | | 06-DEC-18 | BSI SERVICES AND SOLUTIONS (WEST), | | 14,175.49 | 14-DEC-18 | 14,175.49 | Reconciled |

| | | | | | | | |
|--------|-----------|--|--|----------|-----------|----------|------------|
| 393986 | 06-DEC-18 | INC. BUCCOLA LANDSCAPE SERVICES, INC. | | 679.20 | 12-DEC-18 | 679.20 | Reconciled |
| 393987 | 06-DEC-18 | BURKE, WILLIAMS & SORENSEN, LLP | | 3,607.50 | 12-DEC-18 | 3,607.50 | Reconciled |
| 393988 | 06-DEC-18 | BUSH & ASSOCIATES INC | | 3,392.00 | | | Negotiable |
| 393989 | 06-DEC-18 | BUXBAUM AND CHAKMAK PARTNERS | | 113.43 | 13-DEC-18 | 113.43 | Reconciled |
| 393990 | 06-DEC-18 | CALATLANTIC HOMES | | 973.69 | 11-DEC-18 | 973.69 | Reconciled |
| 393991 | 06-DEC-18 | CALIFORNIA BARRICADE RENTAL, INC. | | 3,495.00 | 20-DEC-18 | 3,495.00 | Reconciled |
| 393992 | 06-DEC-18 | CALTROL, INC. | | 355.68 | 10-DEC-18 | 355.68 | Reconciled |
| 393993 | 06-DEC-18 | CANON SOLUTIONS AMERICA, INC. | | 30.16 | 10-DEC-18 | 30.16 | Reconciled |
| 393994 | 06-DEC-18 | CAPTIVE AUDIENCE MARKETING INC. | | 79.00 | 11-DEC-18 | 79.00 | Reconciled |
| 393995 | 06-DEC-18 | CHANG, HUNGI | | 538.87 | 10-DEC-18 | 538.87 | Reconciled |
| 393996 | 06-DEC-18 | CHAVEZ, JOANNA | | 31.24 | | | 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-18 To 31-DEC-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 02-JAN-2019 16:51
 Page: 3

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 393997 | | 06-DEC-18 | CHEM SERVICE INC. | | 302.20 | 13-DEC-18 | 302.20 | Reconciled |
| 393998 | | 06-DEC-18 | CHEM, JACOB HSIN YI | | 15.11 | 14-DEC-18 | 15.11 | Reconciled |
| 393999 | | 06-DEC-18 | CHO DESIGN ASSOCIATES, INC | | 7,100.00 | 10-DEC-18 | 7,100.00 | Reconciled |
| 394000 | | 06-DEC-18 | CITY OF IRVINE | | 2,783.00 | 10-DEC-18 | 2,783.00 | Reconciled |
| 394001 | | 06-DEC-18 | CITY OF NEWPORT BEACH | | 1,344.00 | 12-DEC-18 | 1,344.00 | Reconciled |
| 394002 | | 06-DEC-18 | CITY OF SANTA ANA | | 118.60 | 10-DEC-18 | 118.60 | Reconciled |
| 394003 | | 06-DEC-18 | CIVIL SOURCE, INC. | | 20,988.50 | 24-DEC-18 | 20,988.50 | Reconciled |
| 394004 | | 06-DEC-18 | CLIFFORD MORIYAMA | | 4,000.00 | 10-DEC-18 | 4,000.00 | Reconciled |
| 394005 | | 06-DEC-18 | CONSTELLATION NEWENERGY, INC. | | 8,003.49 | 12-DEC-18 | 8,003.49 | Reconciled |
| 394006 | | 06-DEC-18 | CORELOGIC INC | | 576.62 | 12-DEC-18 | 576.62 | Reconciled |
| 394007 | | 06-DEC-18 | CORRPRO COMPANIES, INC. | | 265,401.45 | 14-DEC-18 | 265,401.45 | Reconciled |
| 394008 | | 06-DEC-18 | COUNTY OF ORANGE | | 3,090.00 | 10-DEC-18 | 3,090.00 | Reconciled |
| 394009 | | 06-DEC-18 | COX COMMUNICATIONS, INC. | | 3,647.68 | 10-DEC-18 | 3,647.68 | Reconciled |
| 394010 | | 06-DEC-18 | CULLIGAN OF SANTA ANA | | 13,000.00 | 14-DEC-18 | 13,000.00 | Reconciled |
| 394011 | | 06-DEC-18 | CUMMINS PACIFIC, LLC | | 77.20 | 10-DEC-18 | 77.20 | Reconciled |
| 394012 | | 06-DEC-18 | DAN WU & TAO JIANG | | 38.43 | | | Negotiable |
| 394013 | | 06-DEC-18 | DATASITE INC | | 9,244.00 | 17-DEC-18 | 9,244.00 | Reconciled |
| 394014 | | 06-DEC-18 | DEE JASPAR & ASSOCIATES, INC. | | 406.96 | 14-DEC-18 | 406.96 | Reconciled |
| 394015 | | 06-DEC-18 | EAST ORANGE COUNTY WATER DISTRICT | | 54,427.89 | 12-DEC-18 | 54,427.89 | Reconciled |
| 394016 | | 06-DEC-18 | EDMISTON, FATIMA D | | 73.35 | | | Negotiable |
| 394017 | | 06-DEC-18 | ELDEN GARDENS, LLC | | 68.34 | 14-DEC-18 | 68.34 | Reconciled |
| 394018 | | 06-DEC-18 | ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC. | | 26,830.00 | 12-DEC-18 | 26,830.00 | Reconciled |
| 394019 | | 06-DEC-18 | ENVIRONMENTAL RESOURCE ASSOCIATES | | 252.30 | 11-DEC-18 | 252.30 | Reconciled |
| 394020 | | 06-DEC-18 | ENVIRONMENTAL SCIENCE ASSOCIATES | | 2,466.82 | 11-DEC-18 | 2,466.82 | Reconciled |
| 394021 | | 06-DEC-18 | ESPINOZA, DESTINY | | 13.13 | 19-DEC-18 | 13.13 | Reconciled |
| 394022 | | 06-DEC-18 | EVANS-HYDRO INC | | 18,242.08 | 24-DEC-18 | 18,242.08 | Reconciled |
| 394023 | | 06-DEC-18 | EXECUTIVE LIGHTING & ELECTRIC | | 770.14 | 11-DEC-18 | 770.14 | Reconciled |
| 394024 | | 06-DEC-18 | FARWEST CORROSION CONTROL COMPANY | | 7,940.33 | 11-DEC-18 | 7,940.33 | 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-18 To 31-DEC-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 02-JAN-2019 16:51
 Page: 4

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|-------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 394025 | | 06-DEC-18 | FISHER SCIENTIFIC COMPANY LLC | | 1,946.72 | 10-DEC-18 | 1,946.72 | Reconciled |
| 394026 | | 06-DEC-18 | FLW, INC. | | 370.98 | 11-DEC-18 | 370.98 | Reconciled |
| 394027 | | 06-DEC-18 | FRONTIER CALIFORNIA INC. | | 209.80 | 13-DEC-18 | 209.80 | Reconciled |
| 394028 | | 06-DEC-18 | FU, XIAN | | 11.48 | | | Negotiable |
| 394029 | | 06-DEC-18 | GAYDOS, TERRI | | 531.93 | 10-DEC-18 | 531.93 | Reconciled |

| | | | | | | |
|--------|-----------|---|-----------|-----------|-----------|------------|
| 394030 | 06-DEC-18 | GEORGE YARDLEY CO., INC. | 650.00 | 10-DEC-18 | 650.00 | Reconciled |
| 394031 | 06-DEC-18 | GHD INC. | 2,050.00 | 11-DEC-18 | 2,050.00 | Reconciled |
| 394032 | 06-DEC-18 | GRAINGER | 2,774.88 | 10-DEC-18 | 2,774.88 | Reconciled |
| 394033 | 06-DEC-18 | HACH COMPANY | 3,320.16 | 10-DEC-18 | 3,320.16 | Reconciled |
| 394034 | 06-DEC-18 | HDR ENGINEERING INC | 96,110.86 | 13-DEC-18 | 96,110.86 | Reconciled |
| 394035 | 06-DEC-18 | HELFMATES STAFFING SERVICES | 17,078.30 | 12-DEC-18 | 17,078.30 | Reconciled |
| 394036 | 06-DEC-18 | HERITAGE FIELDS EL TORO, LLC | 3,105.72 | 19-DEC-18 | 3,105.72 | Reconciled |
| 394037 | 06-DEC-18 | HILL BROTHERS CHEMICAL COMPANY | 6,942.82 | 13-DEC-18 | 6,942.82 | Reconciled |
| 394038 | 06-DEC-18 | HOME DEPOT USA INC | 864.79 | 14-DEC-18 | 864.79 | Reconciled |
| 394039 | 06-DEC-18 | HORIZON LIGHTING, INC. | 4,933.30 | 11-DEC-18 | 4,933.30 | Reconciled |
| 394040 | 06-DEC-18 | HOWE, JAMES | 71.09 | 26-DEC-18 | 71.09 | Reconciled |
| 394041 | 06-DEC-18 | HUMANA INSURANCE COMPANY | 73.80 | 14-DEC-18 | 73.80 | Reconciled |
| 394042 | 06-DEC-18 | IRVINE PACIFIC | 73.39 | 10-DEC-18 | 73.39 | Reconciled |
| 394043 | 06-DEC-18 | IRVINE PIPE & SUPPLY INC | 886.08 | 10-DEC-18 | 886.08 | Reconciled |
| 394044 | 06-DEC-18 | IYER, AIYSHWARYA | 49.34 | | | Negotiable |
| 394045 | 06-DEC-18 | JAMES, TYLER | 992.97 | 10-DEC-18 | 992.97 | Reconciled |
| 394046 | 06-DEC-18 | JCI JONES CHEMICALS INC | 8,780.51 | 14-DEC-18 | 8,780.51 | Reconciled |
| 394047 | 06-DEC-18 | JOHN MICHAEL COVAS | 173.20 | 26-DEC-18 | 173.20 | Reconciled |
| 394048 | 06-DEC-18 | KB HOMES | 44.77 | 20-DEC-18 | 44.77 | Reconciled |
| 394049 | 06-DEC-18 | KILL-N-BUGS TERMITE AND PEST CONTROL SERVICES | 1,000.00 | 10-DEC-18 | 1,000.00 | Reconciled |
| 394050 | 06-DEC-18 | KLEINFELDER, INC. | 7,282.25 | 10-DEC-18 | 7,282.25 | Reconciled |
| 394051 | 06-DEC-18 | KONECRANES INC | 1,320.00 | 10-DEC-18 | 1,320.00 | Reconciled |
| 394052 | 06-DEC-18 | LANDCARE HOLDINGS, INC. | 9,186.00 | 11-DEC-18 | 9,186.00 | Reconciled |
| 394053 | 06-DEC-18 | LENNAR HOMES | 238.12 | 13-DEC-18 | 238.12 | Reconciled |
| 394054 | 06-DEC-18 | LEWIS BRISBOIS BISGAARD AND SMITH, LLP | 2,909.60 | 11-DEC-18 | 2,909.60 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 5
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 394055 | 06-DEC-18 | 06-DEC-18 | LI, JIA | | 41.72 | 13-DEC-18 | 41.72 | Reconciled |
| 394056 | 06-DEC-18 | 06-DEC-18 | LI, VICTORIA | | 30.02 | 10-DEC-18 | 30.02 | Reconciled |
| 394057 | 06-DEC-18 | 06-DEC-18 | LOS ANGELES AIR CONDITIONING, INC. | | 19,901.44 | 19-DEC-18 | 19,901.44 | Reconciled |
| 394058 | 06-DEC-18 | 06-DEC-18 | MAP COMMUNICATIONS, INC. | | 972.59 | 20-DEC-18 | 972.59 | Reconciled |
| 394059 | 06-DEC-18 | 06-DEC-18 | MARK ENTERPRISES, INC. | | 9,090.00 | 10-DEC-18 | 9,090.00 | Reconciled |
| 394060 | 06-DEC-18 | 06-DEC-18 | MARK KADESH | | 10,000.00 | 21-DEC-18 | 10,000.00 | Reconciled |
| 394061 | 06-DEC-18 | 06-DEC-18 | MC MASTER CARR SUPPLY CO | | 64.07 | 10-DEC-18 | 64.07 | Reconciled |
| 394062 | 06-DEC-18 | 06-DEC-18 | MOBILE MODULAR MANAGEMENT CORPORATION | | 1,212.19 | 11-DEC-18 | 1,212.19 | Reconciled |
| 394063 | 06-DEC-18 | 06-DEC-18 | NATIONAL BUSINESS FURNITURE, LLC | | 3,411.29 | 10-DEC-18 | 3,411.29 | Reconciled |
| 394064 | 06-DEC-18 | 06-DEC-18 | NATIONAL READY MIXED CONCRETE CO. | | 814.09 | 10-DEC-18 | 814.09 | Reconciled |
| 394065 | 06-DEC-18 | 06-DEC-18 | NATIONAL SPECIALITY ALLOYS LLC | | 2,193.79 | 11-DEC-18 | 2,193.79 | Reconciled |
| 394066 | 06-DEC-18 | 06-DEC-18 | NATURALWELL, LLC | | 687.50 | 10-DEC-18 | 687.50 | Reconciled |
| 394067 | 06-DEC-18 | 06-DEC-18 | NCH CORPORATION | | 211.75 | 11-DEC-18 | 211.75 | Reconciled |
| 394068 | 06-DEC-18 | 06-DEC-18 | NEW TANGRAM, LLC | | 6,462.34 | 10-DEC-18 | 6,462.34 | Reconciled |
| 394069 | 06-DEC-18 | 06-DEC-18 | NEWPORT WINDOW MAINTENANCE INC | | 2,314.00 | | | Negotiable |
| 394070 | 06-DEC-18 | 06-DEC-18 | NINYO & MOORE | | 4,098.75 | 10-DEC-18 | 4,098.75 | Reconciled |
| 394071 | 06-DEC-18 | 06-DEC-18 | O.C. SUPERIOR CUSTOM CLEANING SERVICES | | 4,392.00 | 10-DEC-18 | 4,392.00 | Reconciled |
| 394072 | 06-DEC-18 | 06-DEC-18 | OLIN CORPORATION | | 22,347.27 | 14-DEC-18 | 22,347.27 | Reconciled |
| 394073 | 06-DEC-18 | 06-DEC-18 | OVIVO USA, LLC | | 35,477.69 | 12-DEC-18 | 35,477.69 | Reconciled |
| 394074 | 06-DEC-18 | 06-DEC-18 | PACIFIC HYDROTECH CORPORATION | | 429,492.15 | 14-DEC-18 | 429,492.15 | Reconciled |
| 394075 | 06-DEC-18 | 06-DEC-18 | PACIFIC HYDROTECH CORPORATION | | 4,820.03 | 10-DEC-18 | 4,820.03 | Reconciled |
| 394076 | 06-DEC-18 | 06-DEC-18 | PACIFIC HYDROTECH CORPORATION | | 8,068.70 | 12-DEC-18 | 8,068.70 | Reconciled |
| 394077 | 06-DEC-18 | 06-DEC-18 | PACIFIC HYDROTECH CORPORATION | | 9,716.12 | 12-DEC-18 | 9,716.12 | Reconciled |
| 394078 | 06-DEC-18 | 06-DEC-18 | PARKHOUSE TIRE INC | | 202.79 | 11-DEC-18 | 202.79 | Reconciled |
| 394079 | 06-DEC-18 | 06-DEC-18 | PASCAL & LUDWIG CONSTRUCTORS | | 221,047.14 | 12-DEC-18 | 221,047.14 | Reconciled |
| 394080 | 06-DEC-18 | 06-DEC-18 | PASCAL & LUDWIG | | 11,634.06 | 14-DEC-18 | 11,634.06 | Reconciled |

CONSTRUCTORS
 IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 6
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 394081 | | 06-DEC-18 | PAYNE & FEARS LLP | | 5,328.00 | 11-DEC-18 | 5,328.00 | Reconciled |
| 394082 | | 06-DEC-18 | PIVOT INTERIORS INC | | 605.29 | 10-DEC-18 | 605.29 | Reconciled |
| 394083 | | 06-DEC-18 | POLLARDWATER.COM | | 2,763.79 | 12-DEC-18 | 2,763.79 | Reconciled |
| 394084 | | 06-DEC-18 | PRINCETON CASE WEST, INC. | | 1,463.23 | 14-DEC-18 | 1,463.23 | Reconciled |
| 394085 | | 06-DEC-18 | PTI SAND & GRAVEL INC | | 1,753.81 | 12-DEC-18 | 1,753.81 | Reconciled |
| 394086 | | 06-DEC-18 | PUREWORKS, INC. | | 1,797.43 | 11-DEC-18 | 1,797.43 | Reconciled |
| 394087 | | 06-DEC-18 | RAM AIR ENGINEERING INC | | 9,050.88 | 10-DEC-18 | 9,050.88 | Reconciled |
| 394088 | | 06-DEC-18 | RED WING SHOE STORE | | 758.78 | 12-DEC-18 | 758.78 | Reconciled |
| 394089 | | 06-DEC-18 | RELEVANT SOLUTIONS | | 1,281.88 | 11-DEC-18 | 1,281.88 | Reconciled |
| 394090 | | 06-DEC-18 | RELIANCE SAFETY CONSULTANTS, INC. | | 7,040.00 | 19-DEC-18 | 7,040.00 | Reconciled |
| 394091 | | 06-DEC-18 | RESILIENT COMMUNICATIONS INC. | | 6,849.44 | 13-DEC-18 | 6,849.44 | Reconciled |
| 394092 | | 06-DEC-18 | RESPONSE ENVELOPE, INC | | 717.62 | 11-DEC-18 | 717.62 | Reconciled |
| 394093 | | 06-DEC-18 | RICHMOND AMERICAN HOMES OF MARYLAND, INC | | 49.93 | 27-DEC-18 | 49.93 | Reconciled |
| 394094 | | 06-DEC-18 | RYAN HERCO PRODUCTS CORP | | 734.23 | 10-DEC-18 | 734.23 | Reconciled |
| 394095 | | 06-DEC-18 | S & J SUPPLY CO INC | | 5,075.63 | 10-DEC-18 | 5,075.63 | Reconciled |
| 394096 | | 06-DEC-18 | SAENZ, STEPHEN | | 60.00 | 10-DEC-18 | 60.00 | Reconciled |
| 394097 | | 06-DEC-18 | SAN REMO, LLC | | 48.00 | 24-DEC-18 | 48.00 | Reconciled |
| 394098 | | 06-DEC-18 | SANTA ANA BLUE PRINT | | 666.65 | 26-DEC-18 | 666.65 | Reconciled |
| 394099 | | 06-DEC-18 | SASAKI, SHINJI | | 25.73 | 11-DEC-18 | 25.73 | Reconciled |
| 394100 | | 06-DEC-18 | SCHINDLER ELEVATOR CORPORATION | | 214.92 | 12-DEC-18 | 214.92 | Reconciled |
| 394101 | | 06-DEC-18 | SCHWEITZER ENGINEERING LABORATORIES, INC. | | 4,094.50 | 10-DEC-18 | 4,094.50 | Reconciled |
| 394102 | | 06-DEC-18 | SHAMROCK SUPPLY CO INC | | 1,758.62 | 12-DEC-18 | 1,758.62 | Reconciled |
| 394103 | | 06-DEC-18 | SHEA/BAKER RANCH ASSOCIATES, LLC | | 83.40 | 31-DEC-18 | 83.40 | Reconciled |
| 394104 | | 06-DEC-18 | SHOETERIA | | 4,057.42 | 11-DEC-18 | 4,057.42 | Reconciled |
| 394105 | | 06-DEC-18 | SITMATIC | | 2,932.54 | 13-DEC-18 | 2,932.54 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 7
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 394106 | | 06-DEC-18 | SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT | | 3,204.49 | 14-DEC-18 | 3,204.49 | Reconciled |
| 394107 | | 06-DEC-18 | SOUTH ORANGE COUNTY WASTEWATER AUTHORITY | | 57,324.00 | 13-DEC-18 | 57,324.00 | Reconciled |
| 394108 | | 06-DEC-18 | SOUTHERN CALIFORNIA EDISON COMPANY | | 469,482.20 | 10-DEC-18 | 469,482.20 | Reconciled |
| 394109 | | 06-DEC-18 | SOUTHERN COUNTIES LUBRICANTS LLC | | 3,473.21 | 10-DEC-18 | 3,473.21 | Reconciled |
| 394110 | | 06-DEC-18 | SOUTHLAND WATER TECHNOLOGIES LLC | | 13,800.56 | 17-DEC-18 | 13,800.56 | Reconciled |
| 394111 | | 06-DEC-18 | SPARLING INSTRUMENTS LLC | | 2,178.27 | 10-DEC-18 | 2,178.27 | Reconciled |
| 394112 | | 06-DEC-18 | SRG CONTRACTORS L.P | | 812.04 | | | Negotiable |
| 394113 | | 06-DEC-18 | STATE WATER RESOURCES CONTROL BOARD | | 487.07 | 21-DEC-18 | 487.07 | Reconciled |
| 394114 | | 06-DEC-18 | STATE WATER RESOURCES CONTROL BOARD | | 294.35 | 12-DEC-18 | 294.35 | Reconciled |
| 394115 | | 06-DEC-18 | STATE WATER RESOURCES CONTROL BOARD | | 226.63 | 12-DEC-18 | 226.63 | Reconciled |
| 394116 | | 06-DEC-18 | SUEN, DONNA | | 31.94 | 12-DEC-18 | 31.94 | Reconciled |
| 394117 | | 06-DEC-18 | SUMMIT CHEMICAL | | 11,716.32 | 19-DEC-18 | 11,716.32 | Reconciled |

| | | | | | | | |
|--------|-----------|--|--|-----------|-----------|-----------|------------|
| 394118 | 06-DEC-18 | SPECIALTY PRODUCTS SUN-STAR ELECTRIC, INC. | | 389.51 | 11-DEC-18 | 389.51 | Reconciled |
| 394119 | 06-DEC-18 | SURF CITY OPTOMETRY | | 225.00 | 12-DEC-18 | 225.00 | Reconciled |
| 394120 | 06-DEC-18 | T.E. ROBERTS, INC. | | 57,600.30 | 17-DEC-18 | 57,600.30 | Reconciled |
| 394121 | 06-DEC-18 | TASSIN SCIENTIFIC SERVICES, LLC. | | 1,125.00 | | | Negotiable |
| 394122 | 06-DEC-18 | TAYLOR MORRISON | | 189.32 | 21-DEC-18 | 189.32 | Reconciled |
| 394123 | 06-DEC-18 | TETRA TECH, INC | | 14,974.50 | 17-DEC-18 | 14,974.50 | Reconciled |
| 394124 | 06-DEC-18 | THE IRVINE COMPANY LLC | | 1,840.08 | | | Negotiable |
| 394125 | 06-DEC-18 | THE NEW HOME COMPANY SOUTHERN CALIFORNIA LLC | | 236.12 | | | Negotiable |
| 394126 | 06-DEC-18 | THOMAS, BAYO | | 29.49 | 11-DEC-18 | 29.49 | 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-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 Account: Checking AP and PR Page: 8
 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 | | | | | | | | |
| 394127 | | 06-DEC-18 | THYSSENKRUPP ELEVATOR CORPORATION | | 191.94 | 10-DEC-18 | 191.94 | Reconciled |
| 394128 | | 06-DEC-18 | TOLL BROS., INC. | | 461.96 | | | Negotiable |
| 394129 | | 06-DEC-18 | TOTALFUNDS | | 2,000.00 | 11-DEC-18 | 2,000.00 | Reconciled |
| 394130 | | 06-DEC-18 | TRAVER, TIM | | 10,000.00 | | | Negotiable |
| 394131 | | 06-DEC-18 | TROPICAL PLAZA NURSERY INC | | 13,180.00 | 13-DEC-18 | 13,180.00 | Reconciled |
| 394132 | | 06-DEC-18 | TRUCPARCO | | 82.44 | 11-DEC-18 | 82.44 | Reconciled |
| 394133 | | 06-DEC-18 | UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA | | 1,227.70 | 13-DEC-18 | 1,227.70 | Reconciled |
| 394134 | | 06-DEC-18 | UNITED HEALTHCARE INSURANCE COMPANY | | 301.11 | 12-DEC-18 | 301.11 | Reconciled |
| 394135 | | 06-DEC-18 | UNITED PARCEL SERVICE INC | | 54.93 | 10-DEC-18 | 54.93 | Reconciled |
| 394136 | | 06-DEC-18 | UNIVAR USA INC | | 6,652.80 | 10-DEC-18 | 6,652.80 | Reconciled |
| 394137 | | 06-DEC-18 | USA BLUEBOOK | | 538.59 | 14-DEC-18 | 538.59 | Reconciled |
| 394138 | | 06-DEC-18 | USDA FOREST SERVICE | | 280.49 | 12-DEC-18 | 280.49 | Reconciled |
| 394139 | | 06-DEC-18 | VENT A HOOD OF CALIFORNIA | | 108.55 | 26-DEC-18 | 108.55 | Reconciled |
| 394140 | | 06-DEC-18 | VENTURES INC, URBAN STREET | | 97.60 | 10-DEC-18 | 97.60 | Reconciled |
| 394141 | | 06-DEC-18 | VERIZON WIRELESS SERVICES LLC | | 13,274.10 | 10-DEC-18 | 13,274.10 | Reconciled |
| 394142 | | 06-DEC-18 | WALTERS WHOLESALE ELECTRIC | | 217.76 | 12-DEC-18 | 217.76 | Reconciled |
| 394143 | | 06-DEC-18 | WANG, CHUANGUO | | 647.55 | 10-DEC-18 | 647.55 | Reconciled |
| 394144 | | 06-DEC-18 | WARD, WILLIAM P JR. | | 3,099.35 | 11-DEC-18 | 3,099.35 | Reconciled |
| 394145 | | 06-DEC-18 | WATEREUSE ASSOCIATION | | 5,500.00 | 21-DEC-18 | 5,500.00 | Reconciled |
| 394146 | | 06-DEC-18 | WAXIE'S ENTERPRISES, INC | | 1,637.34 | 10-DEC-18 | 1,637.34 | Reconciled |
| 394147 | | 06-DEC-18 | WECK LABORATORIES INC | | 290.00 | 20-DEC-18 | 290.00 | Reconciled |
| 394148 | | 06-DEC-18 | WEST YOST ASSOCIATES, INC | | 1,061.50 | 10-DEC-18 | 1,061.50 | Reconciled |
| 394149 | | 06-DEC-18 | WESTAMERICA COMMUNICATIONS, INC. | | 3,907.00 | 10-DEC-18 | 3,907.00 | Reconciled |
| 394150 | | 06-DEC-18 | WESTERN WEATHER GROUP INC | | 2,998.00 | 17-DEC-18 | 2,998.00 | 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-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 Account: Checking AP and PR Page: 9
 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 | | | | | | | | |
| 394151 | | 06-DEC-18 | WISCONSIN STATE LABORATORY OF HYGENE | | 660.00 | 10-DEC-18 | 660.00 | Reconciled |
| 394152 | | 06-DEC-18 | WOODARD & CURRAN INC | | 48,598.76 | 14-DEC-18 | 48,598.76 | Reconciled |
| 394153 | | 06-DEC-18 | WORKFORCE SAFETY LLC | | 4,544.00 | 18-DEC-18 | 4,544.00 | Reconciled |
| 394154 | | 06-DEC-18 | XU, SHUANG | | 111.33 | | | Negotiable |
| 394155 | | 06-DEC-18 | ZAREI, BAHAR | | 354.47 | 26-DEC-18 | 354.47 | Reconciled |
| 394156 | | 06-DEC-18 | ZEBRON CONTRACTING INC | | 37,555.00 | 12-DEC-18 | 37,555.00 | Reconciled |
| 394157 | | 07-DEC-18 | PERS LONG TERM PASADENA | | 538.89 | 12-DEC-18 | 538.89 | Reconciled |

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|-----------|--|-----------------|----------------|--------------|----------------|------------|
| 394158 | | 07-DEC-18 | CARE FRANCHISE TAX BOARD | SACRAMENTO 1 | 100.00 | 27-DEC-18 | 100.00 | Reconciled |
| 394159 | | 07-DEC-18 | INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 47 | DIAMOND BAR | 1,370.00 | 13-DEC-18 | 1,370.00 | Reconciled |
| 394160 | | 07-DEC-18 | ORANGE COUNTY SHERIFF'S OFFICE | 4601 JAMBOREE | 224.50 | 13-DEC-18 | 224.50 | Reconciled |
| 394161 | | 07-DEC-18 | ORANGE COUNTY SANITATION DISTRICT | FOUNTAIN VALLEY | 1,890.00 | 11-DEC-18 | 1,890.00 | Reconciled |
| 394162 | | 07-DEC-18 | ORANGE COUNTY SANITATION DISTRICT | FOUNTAIN VALLEY | 1,890.00 | 11-DEC-18 | 1,890.00 | Reconciled |
| 394163 | | 12-DEC-18 | Flotho, Eric (Eric) | | 416.03 | 14-DEC-18 | 416.03 | Reconciled |
| 394164 | | 12-DEC-18 | Gronlund, Brandon A | | 92.00 | 13-DEC-18 | 92.00 | Reconciled |
| 394165 | | 12-DEC-18 | Hjorth, Charles O (Charles) | | 200.00 | 17-DEC-18 | 200.00 | Reconciled |
| 394166 | | 12-DEC-18 | Irey, Craig M (Craig) | | 234.61 | 18-DEC-18 | 234.61 | Reconciled |
| 394167 | | 12-DEC-18 | Jackson, Bradley E (Brad) | | 279.22 | 14-DEC-18 | 279.22 | Reconciled |
| 394168 | | 12-DEC-18 | La, Jason (Jason) | | 86.90 | 13-DEC-18 | 86.90 | Reconciled |
| 394169 | | 12-DEC-18 | A&A WIPING CLOTH CO | | 1,336.10 | 17-DEC-18 | 1,336.10 | Reconciled |
| 394170 | | 12-DEC-18 | AAF INTERNATIONAL | | 146.73 | 17-DEC-18 | 146.73 | Reconciled |
| 394171 | | 12-DEC-18 | ABSOLUTE STANDARDS, INC. | | 220.00 | 18-DEC-18 | 220.00 | Reconciled |
| 394172 | | 12-DEC-18 | ACWA | | 40,305.00 | 27-DEC-18 | 40,305.00 | Reconciled |
| 394173 | | 12-DEC-18 | ADAM'S FALCONRY SERVICE, LLC | | 1,440.00 | 17-DEC-18 | 1,440.00 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 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 | | | | | | | | |
| 394174 | | 12-DEC-18 | AECOM TECHNICAL SERVICES, INC. | | 16,108.29 | 21-DEC-18 | 16,108.29 | Reconciled |
| 394175 | | 12-DEC-18 | AFLAC | | 148.74 | 20-DEC-18 | 148.74 | Reconciled |
| 394176 | | 12-DEC-18 | AFLAC | | 6,913.16 | 21-DEC-18 | 6,913.16 | Reconciled |
| 394177 | | 12-DEC-18 | AGILENT TECHNOLOGIES, INC. | | 84.86 | 17-DEC-18 | 84.86 | Reconciled |
| 394178 | | 12-DEC-18 | AGUILERA, JAVIER | | 1,078.45 | 17-DEC-18 | 1,078.45 | Reconciled |
| 394179 | | 12-DEC-18 | AIR TECHNOLOGY LABORATORIES | | 503.00 | | | Negotiable |
| 394180 | | 12-DEC-18 | ALL STAR GLASS | | 99.00 | 18-DEC-18 | 99.00 | Reconciled |
| 394181 | | 12-DEC-18 | ALVAPPILLAI, ARUMUGAM | | 69.26 | 31-DEC-18 | 69.26 | Reconciled |
| 394182 | | 12-DEC-18 | AMAZON CAPITAL SERVICES, INC. | | 831.76 | 17-DEC-18 | 831.76 | Reconciled |
| 394183 | | 12-DEC-18 | AQUA-METRIC SALES COMPANY | | 38,847.76 | 19-DEC-18 | 38,847.76 | Reconciled |
| 394184 | | 12-DEC-18 | ARCADIS U.S., INC. | | 66,128.47 | 20-DEC-18 | 66,128.47 | Reconciled |
| 394185 | | 12-DEC-18 | ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA | | 38,169.50 | 20-DEC-18 | 38,169.50 | Reconciled |
| 394186 | | 12-DEC-18 | AT&T | | 63.45 | 17-DEC-18 | 63.45 | Reconciled |
| 394187 | | 12-DEC-18 | AT&T | | 1,665.91 | 18-DEC-18 | 1,665.91 | Reconciled |
| 394188 | | 12-DEC-18 | AT&T | | 1,096.82 | 18-DEC-18 | 1,096.82 | Reconciled |
| 394189 | | 12-DEC-18 | ATHENS SERVICES | | 8,030.54 | 17-DEC-18 | 8,030.54 | Reconciled |
| 394190 | | 12-DEC-18 | AUDIO FONIXX, INC. | | 8,039.30 | 14-DEC-18 | 8,039.30 | Reconciled |
| 394191 | | 12-DEC-18 | AUTOZONE PARTS, INC. | | 441.08 | 19-DEC-18 | 441.08 | Reconciled |
| 394192 | | 12-DEC-18 | BATEMAN, HARLAN | | 33.90 | | | Negotiable |
| 394193 | | 12-DEC-18 | BATTERIES PLUS AND BATTERIES PLUS BULBS | | 877.28 | 18-DEC-18 | 877.28 | Reconciled |
| 394194 | | 12-DEC-18 | BEATY, ROGER W | | 31.61 | 31-DEC-18 | 31.61 | Reconciled |
| 394195 | | 12-DEC-18 | BIO-ACOUSTICAL CORP. | | 2,425.00 | 14-DEC-18 | 2,425.00 | Reconciled |
| 394196 | | 12-DEC-18 | BIOMERIEUX INC | | 416.91 | 17-DEC-18 | 416.91 | Reconciled |
| 394197 | | 12-DEC-18 | BLAIRS TOWING INC | | 105.00 | 20-DEC-18 | 105.00 | Reconciled |
| 394198 | | 12-DEC-18 | BLYTHE REALTY INC. | | 770.50 | | | Negotiable |
| 394199 | | 12-DEC-18 | BORCHARD SURVEYING & MAPPING, INC. | | 1,195.00 | 14-DEC-18 | 1,195.00 | Reconciled |
| 394200 | | 12-DEC-18 | BOYD & ASSOCIATES | | 3,753.00 | 19-DEC-18 | 3,753.00 | Reconciled |
| 394201 | | 12-DEC-18 | BSI SERVICES AND SOLUTIONS (WEST), INC. | | 18,642.50 | 20-DEC-18 | 18,642.50 | Reconciled |
| 394202 | | 12-DEC-18 | C WELLS PIPELINE MATERIALS INC | | 53,525.03 | 27-DEC-18 | 53,525.03 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 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 | | | | | | | | | |
| 394203 | | 12-DEC-18 | CALIFORNIA BANK & TRUST | | 44,975.84 | 19-DEC-18 | 44,975.84 | Reconciled | |
| 394204 | | 12-DEC-18 | CALIFORNIA BARRICADE RENTAL, INC. | | 3,690.00 | | | Negotiable | |
| 394205 | | 12-DEC-18 | CALIFORNIA DEPARTMENT OF TAX AND FEE ADMINISTRATION | | 1,051.00 | 19-DEC-18 | 1,051.00 | Reconciled | |
| 394206 | | 12-DEC-18 | CAMBRIA APARTMENTS | | 2,465.29 | | | Negotiable | |
| 394207 | | 12-DEC-18 | CANON FINANCIAL SERVICES, INC | | 1,396.90 | 17-DEC-18 | 1,396.90 | Reconciled | |
| 394208 | | 12-DEC-18 | CAROLLO ENGINEERS, INC | | 7,655.05 | 19-DEC-18 | 7,655.05 | Reconciled | |
| 394209 | | 12-DEC-18 | CASA | | 20,053.00 | 21-DEC-18 | 20,053.00 | Reconciled | |
| 394210 | | 12-DEC-18 | CCL CONTRACTING INC. | | 436,506.10 | 21-DEC-18 | 436,506.10 | Reconciled | |
| 394211 | | 12-DEC-18 | CDW GOVERNMENT LLC | | 3,920.72 | 18-DEC-18 | 3,920.72 | Reconciled | |
| 394212 | | 12-DEC-18 | CENTRAL COAST POWER SERVICES, LLC | | 9,419.46 | 18-DEC-18 | 9,419.46 | Reconciled | |
| 394213 | | 12-DEC-18 | CHANG, HYON | | 161.71 | 18-DEC-18 | 161.71 | Reconciled | |
| 394214 | | 12-DEC-18 | CHAO, HSIAO-WEI | | 38.00 | | | Negotiable | |
| 394215 | | 12-DEC-18 | CHEN, LIJUAN | | 14.91 | 19-DEC-18 | 14.91 | Reconciled | |
| 394216 | | 12-DEC-18 | CITY CIRCUIT BREAKERS | | 4,579.38 | 14-DEC-18 | 4,579.38 | Reconciled | |
| 394217 | | 12-DEC-18 | CITY OF IRVINE | | 866.50 | 17-DEC-18 | 866.50 | Reconciled | |
| 394218 | | 12-DEC-18 | CITY OF SANTA ANA | | 198.44 | 17-DEC-18 | 198.44 | Reconciled | |
| 394219 | | 12-DEC-18 | CLARIS STRATEGY INC. | | 11,016.00 | 20-DEC-18 | 11,016.00 | Reconciled | |
| 394220 | | 12-DEC-18 | COLONIAL LIFE & ACCIDENT INSURANCE CO. | | 1,103.26 | 21-DEC-18 | 1,103.26 | Reconciled | |
| 394221 | | 12-DEC-18 | COMERFORD, KATHY | | 261.56 | 18-DEC-18 | 261.56 | Reconciled | |
| 394222 | | 12-DEC-18 | CONSTELLATION NEWENERGY, INC. | | 64,926.87 | 20-DEC-18 | 64,926.87 | Reconciled | |
| 394223 | | 12-DEC-18 | CR & R INCORPORATED | | 389.96 | 17-DEC-18 | 389.96 | Reconciled | |
| 394224 | | 12-DEC-18 | CULLIGAN OF SANTA ANA | | 9,000.00 | 18-DEC-18 | 9,000.00 | Reconciled | |
| 394225 | | 12-DEC-18 | D & H WATER SYSTEMS INC. | | 847.41 | 20-DEC-18 | 847.41 | Reconciled | |
| 394226 | | 12-DEC-18 | DDB ENGINEERING, INC. | | 360.00 | 14-DEC-18 | 360.00 | Reconciled | |
| 394227 | | 12-DEC-18 | DEE JASPAR & ASSOCIATES, INC. | | 205.21 | 26-DEC-18 | 205.21 | Reconciled | |
| IRWD Ledger Upgrade | | | | | | | | | |
| BANK: Bank of America N.A. | | | Branch : Los Angeles | | | Payment Register For 01-DEC-18 To 31-DEC-18 | | | Report Date: 02-JAN-2019 16:51 |
| Bank Account Currency: USD (US Dollar) | | | Payment Type: All | | | Account: Checking AP and PR | | | Page: 12 |
| | | | | | | 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 | | | | | | | | |
| 394228 | | 12-DEC-18 | DENALI WATER SOLUTIONS LLC | | 7,603.53 | 17-DEC-18 | 7,603.53 | Reconciled |
| 394229 | | 12-DEC-18 | DISCOUNT COURIER SERVICE INC. | | 126.07 | 14-DEC-18 | 126.07 | Reconciled |
| 394230 | | 12-DEC-18 | DISCOVERY SCIENCE CENTER OF ORANGE COUNTY | | 10,204.62 | 20-DEC-18 | 10,204.62 | Reconciled |
| 394231 | | 12-DEC-18 | E. J. MEYER COMPANY, INC. | | 65,379.00 | 19-DEC-18 | 65,379.00 | Reconciled |
| 394232 | | 12-DEC-18 | ELITE EQUIPMENT, INC. | | 327.97 | 17-DEC-18 | 327.97 | Reconciled |
| 394233 | | 12-DEC-18 | EMEDCO | | 3,131.95 | 18-DEC-18 | 3,131.95 | Reconciled |
| 394234 | | 12-DEC-18 | ENETCENTRIC | | 1,279.17 | 14-DEC-18 | 1,279.17 | Reconciled |
| 394235 | | 12-DEC-18 | ENGINEERING/REMEDIATION RESOURCES GROUP, INC. | | 1,620.00 | 20-DEC-18 | 1,620.00 | Reconciled |
| 394236 | | 12-DEC-18 | ERNSTINE, JEFFERY | | 34.75 | 31-DEC-18 | 34.75 | Reconciled |
| 394237 | | 12-DEC-18 | EVERETT DOREY LLP | | 2,144.44 | 18-DEC-18 | 2,144.44 | Reconciled |
| 394238 | | 12-DEC-18 | EXCHANGE CLUB OF IRVINE | | 250.00 | 17-DEC-18 | 250.00 | Reconciled |
| 394239 | | 12-DEC-18 | FARRELL & ASSOCIATES | | 148.72 | 17-DEC-18 | 148.72 | Reconciled |
| 394240 | | 12-DEC-18 | FEDEX | | 777.03 | 18-DEC-18 | 777.03 | Reconciled |
| 394241 | | 12-DEC-18 | FIDELITY SECURITY LIFE INSURANCE COMPANY | | 7,248.05 | 19-DEC-18 | 7,248.05 | Reconciled |
| 394242 | | 12-DEC-18 | FIRE EXTINGUISHING SAFETY & SERVICE | | 604.34 | 14-DEC-18 | 604.34 | Reconciled |
| 394243 | | 12-DEC-18 | FIRST CHOICE SERVICES | | 2,812.79 | 18-DEC-18 | 2,812.79 | Reconciled |
| 394244 | | 12-DEC-18 | FISHER SCIENTIFIC COMPANY LLC | | 21,537.18 | 19-DEC-18 | 21,537.18 | Reconciled |

| | | | | | | | |
|--------|-----------|-------------------------------------|--|-----------|-----------|-----------|------------|
| 394245 | 12-DEC-18 | FLEET SOLUTIONS LLC | | 4,687.23 | 17-DEC-18 | 4,687.23 | Reconciled |
| 394246 | 12-DEC-18 | FOUGHT, CYNTHIA J. | | 3,268.52 | 17-DEC-18 | 3,268.52 | Reconciled |
| 394247 | 12-DEC-18 | FRONTIER CALIFORNIA INC. | | 51.96 | 19-DEC-18 | 51.96 | Reconciled |
| 394248 | 12-DEC-18 | FRONTLINE SENSORS AND SYSTEMS, INC. | | 4,636.41 | 18-DEC-18 | 4,636.41 | Reconciled |
| 394249 | 12-DEC-18 | FUSCOE ENGINEERING, INC. | | 6,020.26 | 14-DEC-18 | 6,020.26 | Reconciled |
| 394250 | 12-DEC-18 | GARY L. BARTON | | 9,772.50 | 14-DEC-18 | 9,772.50 | Reconciled |
| 394251 | 12-DEC-18 | GCI CONSTRUCTION, INC. | | 92,279.69 | 26-DEC-18 | 92,279.69 | Reconciled |
| 394252 | 12-DEC-18 | GENNA, AMANDA | | 40.99 | 17-DEC-18 | 40.99 | Reconciled |
| 394253 | 12-DEC-18 | GHD INC. | | 440.00 | 17-DEC-18 | 440.00 | 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-18 To 31-DEC-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 02-JAN-2019 16:51
 Page: 13

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 394254 | | 12-DEC-18 | GRAINGER | | 2,576.32 | 17-DEC-18 | 2,576.32 | Reconciled |
| 394255 | | 12-DEC-18 | GRAYBAR ELECTRIC COMPANY | | 2,476.89 | 17-DEC-18 | 2,476.89 | Reconciled |
| 394256 | | 12-DEC-18 | HAAKER EQUIPMENT COMPANY | | 3,312.41 | 18-DEC-18 | 3,312.41 | Reconciled |
| 394257 | | 12-DEC-18 | HABITAT RESTORATION SCIENCES, INC. | | 1,183.00 | 21-DEC-18 | 1,183.00 | Reconciled |
| 394258 | | 12-DEC-18 | HACH COMPANY | | 1,363.65 | 17-DEC-18 | 1,363.65 | Reconciled |
| 394259 | | 12-DEC-18 | HAMIDI, SHARHRAM | | 598.88 | 17-DEC-18 | 598.88 | Reconciled |
| 394260 | | 12-DEC-18 | HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY | | 72.30 | 17-DEC-18 | 72.30 | Reconciled |
| 394261 | | 12-DEC-18 | HDR ENGINEERING INC | | 23,563.23 | 20-DEC-18 | 23,563.23 | Reconciled |
| 394262 | | 12-DEC-18 | HEALTH SCIENCE ASSOCIATES, INC. | | 2,920.25 | 26-DEC-18 | 2,920.25 | Reconciled |
| 394263 | | 12-DEC-18 | HELEMATES STAFFING SERVICES | | 12,389.94 | 19-DEC-18 | 12,389.94 | Reconciled |
| 394264 | | 12-DEC-18 | HILL BROTHERS CHEMICAL COMPANY | | 11,584.91 | 21-DEC-18 | 11,584.91 | Reconciled |
| 394265 | | 12-DEC-18 | HOME DEPOT USA INC | | 707.54 | 24-DEC-18 | 707.54 | Reconciled |
| 394266 | | 12-DEC-18 | HOYA OPTICAL LABS OF AMERICA, INC. | | 211.00 | 18-DEC-18 | 211.00 | Reconciled |
| 394267 | | 12-DEC-18 | INDUSTRIAL METAL SUPPLY CO | | 295.81 | 17-DEC-18 | 295.81 | Reconciled |
| 394268 | | 12-DEC-18 | INDUSTRIAL NETWORKING SOLUTIONS | | 4,041.64 | 18-DEC-18 | 4,041.64 | Reconciled |
| 394269 | | 12-DEC-18 | IRVINE PACIFIC | | 206.75 | 21-DEC-18 | 206.75 | Reconciled |
| 394270 | | 12-DEC-18 | IRVINE PIPE & SUPPLY INC | | 962.24 | 14-DEC-18 | 962.24 | Reconciled |
| 394271 | | 12-DEC-18 | IRVINE UNIFIED SCHOOL DISTRICT | | 2,754.03 | 20-DEC-18 | 2,754.03 | Reconciled |
| 394272 | | 12-DEC-18 | IRWANDI, HELENA | | 217.54 | 26-DEC-18 | 217.54 | Reconciled |
| 394273 | | 12-DEC-18 | JIA, HENGYING | | 346.18 | 31-DEC-18 | 346.18 | Reconciled |
| 394274 | | 12-DEC-18 | JIG CONSULTANTS | | 14,906.10 | | | Negotiable |
| 394275 | | 12-DEC-18 | JIMNI SYSTEMS, INC. | | 1,419.37 | 14-DEC-18 | 1,419.37 | Reconciled |
| 394276 | | 12-DEC-18 | KAZARIANS & ASSOCIATES, INC. | | 1,988.28 | 20-DEC-18 | 1,988.28 | Reconciled |
| 394277 | | 12-DEC-18 | KING, MARJORIE | | 32.50 | | | Negotiable |
| 394278 | | 12-DEC-18 | KLEINFELDER, INC. | | 1,882.88 | 17-DEC-18 | 1,882.88 | Reconciled |
| 394279 | | 12-DEC-18 | KOELLER NEBEKER CARLSON & HALUCK, LLP | | 2,053.20 | 17-DEC-18 | 2,053.20 | 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-18 To 31-DEC-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 02-JAN-2019 16:51
 Page: 14

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 394280 | | 12-DEC-18 | KONECRANES INC | | 7,752.00 | 17-DEC-18 | 7,752.00 | Reconciled |
| 394281 | | 12-DEC-18 | LAGUNA BEACH COUNTY WATER DISTRICT | | 5,265.13 | | | Negotiable |
| 394282 | | 12-DEC-18 | LANDCARE HOLDINGS, INC. | | 38,440.33 | 21-DEC-18 | 38,440.33 | Reconciled |
| 394283 | | 12-DEC-18 | LARSEN, KEITH | | 57.94 | | | Negotiable |
| 394284 | | 12-DEC-18 | LI, ZHITAO | | 343.62 | | | Negotiable |
| 394285 | | 12-DEC-18 | LILLESTRAND LEADERSHIP CONSULTING, INC. | | 6,184.80 | 24-DEC-18 | 6,184.80 | Reconciled |
| 394286 | | 12-DEC-18 | MACKENZIE, KELLY | | 572.19 | 17-DEC-18 | 572.19 | Reconciled |
| 394287 | | 12-DEC-18 | MC FADDEN-DALE | | 500.56 | 17-DEC-18 | 500.56 | Reconciled |

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| 394288 | | 12-DEC-18 | INDUSTRIAL MC MASTER CARR SUPPLY CO | | 1,771.20 | 17-DEC-18 | 1,771.20 | Reconciled |
| 394289 | | 12-DEC-18 | MCR TECHNOLOGIES INC | | 7,374.33 | 17-DEC-18 | 7,374.33 | Reconciled |
| 394290 | | 12-DEC-18 | MILLER, RYAN | | 114.29 | | | Negotiable |
| 394291 | | 12-DEC-18 | MISSION COMMUNICATIONS, LLC | | 14,575.20 | 24-DEC-18 | 14,575.20 | Reconciled |
| 394292 | | 12-DEC-18 | MPULSE MOBILE, INC | | 142.49 | 19-DEC-18 | 142.49 | Reconciled |
| 394293 | | 12-DEC-18 | MR CRANE INC | | 1,447.20 | | | Negotiable |
| 394294 | | 12-DEC-18 | MSC INDUSTRIAL SUPPLY CO | | 2,847.21 | 18-DEC-18 | 2,847.21 | Reconciled |
| 394295 | | 12-DEC-18 | MUNICIPAL WATER DISTRICT OF ORANGE COUNTY | | 92,876.84 | 18-DEC-18 | 92,876.84 | Reconciled |
| 394296 | | 12-DEC-18 | MUTUAL PROPANE | | 252.38 | 17-DEC-18 | 252.38 | Reconciled |
| 394297 | | 12-DEC-18 | MYERS & SONS HI-WAY SAFETY, INC. | | 2,605.40 | 17-DEC-18 | 2,605.40 | Reconciled |
| 394298 | | 12-DEC-18 | NCL OF WISCONSIN INC | | 170.51 | 18-DEC-18 | 170.51 | Reconciled |
| 394299 | | 12-DEC-18 | NEWELL, ALLAN | | 43.22 | | | Negotiable |
| 394300 | | 12-DEC-18 | NEWPORT REAL ESTATE SERVICES | | 13,100.00 | 21-DEC-18 | 13,100.00 | Reconciled |
| 394301 | | 12-DEC-18 | NITTALA, SEETHA | | 381.27 | 26-DEC-18 | 381.27 | Reconciled |
| 394302 | | 12-DEC-18 | OAK PROJECT MANAGEMENT | | 47.06 | | | Negotiable |
| 394303 | | 12-DEC-18 | OH, DAVID | | 249.76 | 26-DEC-18 | 249.76 | Reconciled |
| 394304 | | 12-DEC-18 | OLIN CORPORATION | | 18,746.83 | 21-DEC-18 | 18,746.83 | Reconciled |
| 394305 | | 12-DEC-18 | ORANGE COAST PLUMBING | | 709.62 | 18-DEC-18 | 709.62 | Reconciled |
| 394306 | | 12-DEC-18 | ORANGE COUNTY AUTO PARTS CO | | 2,059.16 | 14-DEC-18 | 2,059.16 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 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 | | | | | | | | |
| 394307 | | 12-DEC-18 | ORANGE COUNTY CURRENT AFFAIRS FORUM | | 1,000.00 | 24-DEC-18 | 1,000.00 | Reconciled |
| 394308 | | 12-DEC-18 | ORANGE COUNTY TREASURER | | 107.13 | 14-DEC-18 | 107.13 | Reconciled |
| 394309 | | 12-DEC-18 | PALO VERDE IRRIGATION DISTRICT | | 2,845.00 | 18-DEC-18 | 2,845.00 | Reconciled |
| 394310 | | 12-DEC-18 | PAPER DEPOT DOCUMENT DESTRUCTION LLC | | 360.00 | 21-DEC-18 | 360.00 | Reconciled |
| 394311 | | 12-DEC-18 | PARK, WONSOOK | | 825.02 | 17-DEC-18 | 825.02 | Reconciled |
| 394312 | | 12-DEC-18 | PARKHOUSE TIRE INC | | 3,567.09 | 18-DEC-18 | 3,567.09 | Reconciled |
| 394313 | | 12-DEC-18 | PAYNE & FEARS LLP | | 111.00 | 17-DEC-18 | 111.00 | Reconciled |
| 394314 | | 12-DEC-18 | POLLARDWATER.COM | | 106.78 | 17-DEC-18 | 106.78 | Reconciled |
| 394315 | | 12-DEC-18 | PONTON INDUSTRIES INC | | 21,246.58 | 21-DEC-18 | 21,246.58 | Reconciled |
| 394316 | | 12-DEC-18 | PORRAS, JAVIER | | 35.30 | 24-DEC-18 | 35.30 | Reconciled |
| 394317 | | 12-DEC-18 | PRAXAIR DISTRIBUTION INC | | 3,763.40 | 18-DEC-18 | 3,763.40 | Reconciled |
| 394318 | | 12-DEC-18 | PRE-PAID LEGAL SERVICES INC | | 1,200.05 | 18-DEC-18 | 1,200.05 | Reconciled |
| 394319 | | 12-DEC-18 | PRO MOBILE AUTO DETAILING | | 600.00 | 17-DEC-18 | 600.00 | Reconciled |
| 394320 | | 12-DEC-18 | PROCARE WORK INJURY CENTER | | 1,530.21 | | | Negotiable |
| 394321 | | 12-DEC-18 | PRUDENTIAL OVERALL SUPPLY | | 7,640.61 | 17-DEC-18 | 7,640.61 | Reconciled |
| 394322 | | 12-DEC-18 | PSOMAS | | 1,637.50 | 17-DEC-18 | 1,637.50 | Reconciled |
| 394323 | | 12-DEC-18 | RABINOVICH, MICHELLE | | 74.29 | 18-DEC-18 | 74.29 | Reconciled |
| 394324 | | 12-DEC-18 | RAINBOW DISPOSAL CO INC | | 90.00 | 20-DEC-18 | 90.00 | Reconciled |
| 394325 | | 12-DEC-18 | RAM AIR ENGINEERING INC | | 7,527.17 | 17-DEC-18 | 7,527.17 | Reconciled |
| 394326 | | 12-DEC-18 | RANCHO MARIPOSA APTS | | 21.37 | | | Negotiable |
| 394327 | | 12-DEC-18 | RANCHO MONTEREY APARTMENTS | | 1,793.58 | | | Negotiable |
| 394328 | | 12-DEC-18 | RANDALL, RUTH | | 37.56 | 26-DEC-18 | 37.56 | Reconciled |
| 394329 | | 12-DEC-18 | REACH EMPLOYEE ASSISTANCE INC | | 2,060.80 | 17-DEC-18 | 2,060.80 | Reconciled |
| 394330 | | 12-DEC-18 | RED WING SHOE STORE | | 339.39 | 17-DEC-18 | 339.39 | Reconciled |
| 394331 | | 12-DEC-18 | RICHARD C. SLADE & ASSOCIATES LLC | | 10,351.65 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 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

| | | | | | | | |
|--------|-----------|--|--|----------|-----------|--------|------------|
| 394371 | 12-DEC-18 | TOTAKHAIL, FAHIMA | | 18.73 | | | Negotiable |
| 394372 | 12-DEC-18 | TRAN, STEPHEN | | 117.34 | | | Negotiable |
| 394373 | 12-DEC-18 | TROPICAL PLAZA NURSERY INC | | 696.00 | 17-DEC-18 | 696.00 | Reconciled |
| 394374 | 12-DEC-18 | TRUCPARCO | | 151.26 | 19-DEC-18 | 151.26 | Reconciled |
| 394375 | 12-DEC-18 | UNITED PARCEL SERVICE INC | | 197.66 | 18-DEC-18 | 197.66 | Reconciled |
| 394376 | 12-DEC-18 | UNITED SITE SERVICES OF CALIFORNIA INC | | 504.16 | 18-DEC-18 | 504.16 | Reconciled |
| 394377 | 12-DEC-18 | UREBAN WATER INSTITUTE INC | | 1,500.00 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 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 | | | | | | | | |
| 394378 | | 12-DEC-18 | VAUGHAN'S INDUSTRIAL REPAIR CO INC | | 36,524.33 | 19-DEC-18 | 36,524.33 | Reconciled |
| 394379 | | 12-DEC-18 | VERTECH INDUSTRIAL SYSTEMS, LLC | | 6,107.23 | 17-DEC-18 | 6,107.23 | Reconciled |
| 394380 | | 12-DEC-18 | VILLA SIENA APTS | | 51.98 | | | Negotiable |
| 394381 | | 12-DEC-18 | VWR INTERNATIONAL, LLC | | 2,260.22 | 17-DEC-18 | 2,260.22 | Reconciled |
| 394382 | | 12-DEC-18 | WARMINGTON BP ASSOCIATES, LLC | | 1,001.07 | 20-DEC-18 | 1,001.07 | Reconciled |
| 394383 | | 12-DEC-18 | WASTE MANAGEMENT OF ORANGE COUNTY | | 3,496.39 | 17-DEC-18 | 3,496.39 | Reconciled |
| 394384 | | 12-DEC-18 | WATER EDUCATION FOUNDATION | | 27,635.00 | 28-DEC-18 | 27,635.00 | Reconciled |
| 394385 | | 12-DEC-18 | WATEREUSE ASSOCIATION | | 8,399.50 | 21-DEC-18 | 8,399.50 | Reconciled |
| 394386 | | 12-DEC-18 | WATERSMART SOFTWARE, INC | | 13,597.50 | 19-DEC-18 | 13,597.50 | Reconciled |
| 394387 | | 12-DEC-18 | WAXIE'S ENTERPRISES, INC | | 190.23 | 17-DEC-18 | 190.23 | Reconciled |
| 394388 | | 12-DEC-18 | WECK LABORATORIES INC | | 816.00 | 21-DEC-18 | 816.00 | Reconciled |
| 394389 | | 12-DEC-18 | WIRELESS WATCHDOGS, LLC | | 1,044.00 | 18-DEC-18 | 1,044.00 | Reconciled |
| 394390 | | 12-DEC-18 | WOODBURY COMMUNITY ASSOCIATION | | 1,091.95 | | | Negotiable |
| 394391 | | 12-DEC-18 | YAU, SHIRLEY | | 33.91 | 18-DEC-18 | 33.91 | Reconciled |
| 394392 | | 12-DEC-18 | YOUNGBLADE, LYNDA | | 96.21 | 31-DEC-18 | 96.21 | Reconciled |
| 394393 | | 12-DEC-18 | YP LLC | | 91.00 | 17-DEC-18 | 91.00 | Reconciled |
| 394394 | | 12-DEC-18 | YU, AMY | | 287.36 | | | Voided |
| 394395 | | 12-DEC-18 | MERRIMAC PETROLEUM, INC. | LONG BEACH | 21,137.48 | 17-DEC-18 | 21,137.48 | Reconciled |
| 394396 | | 17-DEC-18 | SAWHNEY, PARDAMAN INS CLAIM SINGH | | 1,241.99 | 19-DEC-18 | 1,241.99 | Reconciled |
| 394397 | | 17-DEC-18 | JCI JONES CHEMICALS INC | NEWARK | 5,425.51 | 24-DEC-18 | 5,425.51 | Reconciled |
| 394398 | | 17-DEC-18 | MERRIMAC PETROLEUM, INC. | LONG BEACH | 15,525.10 | 20-DEC-18 | 15,525.10 | Reconciled |
| 394399 | | 17-DEC-18 | IRWD-PETTY CASH CUSTODIAN | IRVINE | 1,498.31 | 18-DEC-18 | 1,498.31 | Reconciled |
| 394400 | | 20-DEC-18 | SMOG TIME PURCHASE | | 1,008.25 | 24-DEC-18 | 1,008.25 | Reconciled |
| 394401 | | 20-DEC-18 | Bertsch, Frederick J (Jeff) | | 248.71 | 24-DEC-18 | 248.71 | Reconciled |
| 394402 | | 20-DEC-18 | Bonilla, Courtney | | 10.68 | | | Negotiable |
| 394403 | | 20-DEC-18 | Borowski, Michael (Mike) | | 102.00 | 26-DEC-18 | 102.00 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 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 | | | | | | | | |
| 394404 | | 20-DEC-18 | Cho, Harry K (Harry) | | 277.00 | 26-DEC-18 | 277.00 | Reconciled |
| 394405 | | 20-DEC-18 | Fournier, Tanja L (Tanja) | | 258.23 | 21-DEC-18 | 258.23 | Reconciled |
| 394406 | | 20-DEC-18 | Graff, Jeff N | | 90.00 | 27-DEC-18 | 90.00 | Reconciled |
| 394407 | | 20-DEC-18 | Hall, William P (William) | | 1,598.87 | 27-DEC-18 | 1,598.87 | Reconciled |
| 394408 | | 20-DEC-18 | LaMar, Steven E | | 353.96 | 31-DEC-18 | 353.96 | Reconciled |
| 394409 | | 20-DEC-18 | Lieuw, Jessica | | 25.68 | 26-DEC-18 | 25.68 | Reconciled |
| 394410 | | 20-DEC-18 | Matheis, Mary Aileen | | 87.61 | | | Negotiable |
| 394411 | | 20-DEC-18 | Meserlian, Barkev M | | 218.05 | | | Negotiable |
| 394412 | | 20-DEC-18 | Moeder, Jacob J (Jacob) | | 300.00 | 24-DEC-18 | 300.00 | Reconciled |

| | | | | | | |
|--------|-----------|--------------------------------|-----------|-----------|-----------|------------|
| 394413 | 20-DEC-18 | Monroy, Jonnathan | 80.79 | 24-DEC-18 | 80.79 | Reconciled |
| 394414 | 20-DEC-18 | Nash, Joel | 74.67 | 24-DEC-18 | 74.67 | Reconciled |
| 394415 | 20-DEC-18 | Nicholson, Darin | 91.98 | 26-DEC-18 | 91.98 | Reconciled |
| 394416 | 20-DEC-18 | Oldewage, Lars D (Lars) | 125.00 | 26-DEC-18 | 125.00 | Reconciled |
| 394417 | 20-DEC-18 | Pan, Jenny W (Jenny) | 81.23 | 31-DEC-18 | 81.23 | Reconciled |
| 394418 | 20-DEC-18 | Sidlin, Wayne | 275.00 | 27-DEC-18 | 275.00 | Reconciled |
| 394419 | 20-DEC-18 | Swan, Peer | 790.00 | 20-DEC-18 | 790.00 | Reconciled |
| 394420 | 20-DEC-18 | Van Deusen, Scott A (Scott) | 280.00 | 27-DEC-18 | 280.00 | Reconciled |
| 394421 | 20-DEC-18 | ABM INDUSTRY GROUPS, LLC | 18,915.01 | 24-DEC-18 | 18,915.01 | Reconciled |
| 394422 | 20-DEC-18 | ACCURATE AIR ENGINEERING INC | 1,444.55 | 27-DEC-18 | 1,444.55 | Reconciled |
| 394423 | 20-DEC-18 | ACCUSTANDARD INC | 127.26 | 27-DEC-18 | 127.26 | Reconciled |
| 394424 | 20-DEC-18 | ADS LLC | 2,160.00 | 31-DEC-18 | 2,160.00 | Reconciled |
| 394425 | 20-DEC-18 | AECOM TECHNICAL SERVICES, INC. | 6,184.75 | 31-DEC-18 | 6,184.75 | Reconciled |
| 394426 | 20-DEC-18 | AIRGAS, INC. | 905.16 | 24-DEC-18 | 905.16 | Reconciled |
| 394427 | 20-DEC-18 | ALL AMERICAN ASPHALT | 1,128.70 | | | Negotiable |
| 394428 | 20-DEC-18 | ALSTON & BIRD LLP | 80,199.73 | 26-DEC-18 | 80,199.73 | Reconciled |
| 394429 | 20-DEC-18 | AMAZON CAPITAL SERVICES, INC. | 1,118.27 | 24-DEC-18 | 1,118.27 | Reconciled |
| 394430 | 20-DEC-18 | ANDERSONPENNA PARTNERS, INC | 79,289.00 | 27-DEC-18 | 79,289.00 | Reconciled |
| 394431 | 20-DEC-18 | ANTHEM BLUE CROSS | 546.33 | 27-DEC-18 | 546.33 | Reconciled |
| 394432 | 20-DEC-18 | ANTHEM BLUE CROSS | 546.33 | 27-DEC-18 | 546.33 | Reconciled |
| 394433 | 20-DEC-18 | ANTHEM BLUE CROSS | 290.43 | 27-DEC-18 | 290.43 | Reconciled |
| 394434 | 20-DEC-18 | ANTHEM BLUE CROSS | 214.68 | 27-DEC-18 | 214.68 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 20
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 394435 | | 20-DEC-18 | APEX LIFE SCIENCES, LLC | | 2,380.00 | 31-DEC-18 | 2,380.00 | Reconciled |
| 394436 | | 20-DEC-18 | AT&T | | 173.53 | 31-DEC-18 | 173.53 | Reconciled |
| 394437 | | 20-DEC-18 | AT&T | | 11,501.84 | 31-DEC-18 | 11,501.84 | Reconciled |
| 394438 | | 20-DEC-18 | ATKINSON, ANDELSON, LOYA, RUUD AND ROMO | | 151.90 | 28-DEC-18 | 151.90 | Reconciled |
| 394439 | | 20-DEC-18 | AUDIO FONIXX, INC. | | 14,620.00 | 24-DEC-18 | 14,620.00 | Reconciled |
| 394440 | | 20-DEC-18 | AUTOZONE PARTS, INC. | | 30.35 | 31-DEC-18 | 30.35 | Reconciled |
| 394441 | | 20-DEC-18 | B & H PHOTO & VIDEO | | 7,490.00 | 28-DEC-18 | 7,490.00 | Reconciled |
| 394442 | | 20-DEC-18 | BDC SPECIAL WASTE | | 567.20 | 27-DEC-18 | 567.20 | Reconciled |
| 394443 | | 20-DEC-18 | BEHBEHANI, SHERI | | 27.00 | | | Negotiable |
| 394444 | | 20-DEC-18 | BELL TOWER FLORIST & GIFTS | | 329.13 | | | Negotiable |
| 394445 | | 20-DEC-18 | BILL'S SWEEPING SERVICE INC | | 460.00 | 27-DEC-18 | 460.00 | Reconciled |
| 394446 | | 20-DEC-18 | BIOMAGIC INC | | 18,305.01 | 26-DEC-18 | 18,305.01 | Reconciled |
| 394447 | | 20-DEC-18 | BLACK & VEATCH CORPORATION | | 273,163.64 | 26-DEC-18 | 273,163.64 | Reconciled |
| 394448 | | 20-DEC-18 | BLANCO, PAUL | | 197.57 | 31-DEC-18 | 197.57 | Reconciled |
| 394449 | | 20-DEC-18 | BORCHARD SURVEYING & MAPPING, INC. | | 3,005.00 | | | Negotiable |
| 394450 | | 20-DEC-18 | BOTTOMLINE REALTY | | 475.44 | | | Negotiable |
| 394451 | | 20-DEC-18 | BREMNTAG PACIFIC INC | | 21,582.87 | 24-DEC-18 | 21,582.87 | Reconciled |
| 394452 | | 20-DEC-18 | BRITHINEE ELECTRIC | | 6,865.49 | 26-DEC-18 | 6,865.49 | Reconciled |
| 394453 | | 20-DEC-18 | BROOKFIELD ENCLAVE LLC | | 1,217.74 | 27-DEC-18 | 1,217.74 | Reconciled |
| 394454 | | 20-DEC-18 | BROWN AND CALDWELL | | 9,070.04 | 26-DEC-18 | 9,070.04 | Reconciled |
| 394455 | | 20-DEC-18 | C WELLS PIPELINE MATERIALS INC | | 40,561.35 | | | Negotiable |
| 394456 | | 20-DEC-18 | CALIFORNIA BARRICADE RENTAL, INC. | | 16,609.56 | | | Negotiable |
| 394457 | | 20-DEC-18 | CALIFORNIA MUNICIPAL STATISTICS INC | | 1,950.00 | | | Negotiable |
| 394458 | | 20-DEC-18 | CALIFORNIA NEWSPAPER PARTNERSHIP | | 1,003.25 | | | Negotiable |
| 394459 | | 20-DEC-18 | CANON FINANCIAL SERVICES, INC | | 9,200.24 | 31-DEC-18 | 9,200.24 | Reconciled |
| 394460 | | 20-DEC-18 | CAROLLO ENGINEERS, INC | | 17,478.75 | 26-DEC-18 | 17,478.75 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 21
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Cleared

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|-----------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 394461 | | 20-DEC-18 | CCL CONTRACTING, INC | | 1,571.63 | 27-DEC-18 | 1,571.63 | Reconciled |
| 394462 | | 20-DEC-18 | CEM CORPORATION | | 15,814.46 | 31-DEC-18 | 15,814.46 | Reconciled |
| 394463 | | 20-DEC-18 | CENTRAL COAST POWER SERVICES, LLC | | 16,855.68 | 28-DEC-18 | 16,855.68 | Reconciled |
| 394464 | | 20-DEC-18 | CH LEE INVESTMENTS LLC | | 305.36 | 27-DEC-18 | 305.36 | Reconciled |
| 394465 | | 20-DEC-18 | CHAIREL CUSTOM HAY, INC. | | 1,240.63 | 27-DEC-18 | 1,240.63 | Reconciled |
| 394466 | | 20-DEC-18 | CHARLES P CROWLEY COMPANY INC | | 9,822.29 | | | Negotiable |
| 394467 | | 20-DEC-18 | CHEM TECH INTERNATIONAL INC | | 13,001.60 | | | Negotiable |
| 394468 | | 20-DEC-18 | CITY CIRCUIT BREAKERS | | 588.75 | 24-DEC-18 | 588.75 | Reconciled |
| 394469 | | 20-DEC-18 | CITY OF TUSTIN | | 857.47 | | | Negotiable |
| 394470 | | 20-DEC-18 | CIVIL SOURCE, INC. | | 35,868.00 | | | Negotiable |
| 394471 | | 20-DEC-18 | CNC ENGINEERING | | 2,468.75 | 27-DEC-18 | 2,468.75 | Reconciled |
| 394472 | | 20-DEC-18 | COMMERCIAL DOOR OF ORANGE COUNTY, INC. | | 532.93 | 31-DEC-18 | 532.93 | Reconciled |
| 394473 | | 20-DEC-18 | CONSTELLATION NEWENERGY, INC. | | 16,760.75 | 31-DEC-18 | 16,760.75 | Reconciled |
| 394474 | | 20-DEC-18 | COOMBS SERVICE GROUP | | 37,760.00 | 26-DEC-18 | 37,760.00 | Reconciled |
| 394475 | | 20-DEC-18 | CORELOGIC INC | | 49.98 | 27-DEC-18 | 49.98 | Reconciled |
| 394476 | | 20-DEC-18 | COSTCO WHOLESALE MEMBERSHIP | | 312.50 | | | Negotiable |
| 394477 | | 20-DEC-18 | CULLIGAN OF SANTA ANA | | 2,000.00 | 26-DEC-18 | 2,000.00 | Reconciled |
| 394478 | | 20-DEC-18 | DAN SUAREZ AND VICKI SUAREZ | | 728.88 | 31-DEC-18 | 728.88 | Reconciled |
| 394479 | | 20-DEC-18 | DATA CLEAN CORPORATION | | 534.00 | | | Negotiable |
| 394480 | | 20-DEC-18 | DEMARIA ELECTRIC MOTOR SERVICES, INC. | | 5,382.45 | 31-DEC-18 | 5,382.45 | Reconciled |
| 394481 | | 20-DEC-18 | DIRECTV INC | | 129.98 | 28-DEC-18 | 129.98 | Reconciled |
| 394482 | | 20-DEC-18 | DISCOUNT COURIER SERVICE INC. | | 297.12 | 26-DEC-18 | 297.12 | Reconciled |
| 394483 | | 20-DEC-18 | DRIVER SPG | | 1,409.00 | | | Negotiable |
| 394484 | | 20-DEC-18 | EHS INTERNATIONAL, INC | | 3,000.00 | 26-DEC-18 | 3,000.00 | Reconciled |
| 394485 | | 20-DEC-18 | EI&C ENGINEERING INC | | 59,392.00 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 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 | | | | | | | | |
| 394486 | | 20-DEC-18 | EIDENMULLER, BOB | | 405.01 | 26-DEC-18 | 405.01 | Reconciled |
| 394487 | | 20-DEC-18 | EL TORO WATER DISTRICT | | 125,228.39 | 31-DEC-18 | 125,228.39 | Reconciled |
| 394488 | | 20-DEC-18 | ENTERPRISE RIDESHARE | | 17,970.14 | 27-DEC-18 | 17,970.14 | Reconciled |
| 394489 | | 20-DEC-18 | ENTERPRISE SECURITY, INC | | 8,035.95 | | | Negotiable |
| 394490 | | 20-DEC-18 | ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC. | | 6,344.69 | 26-DEC-18 | 6,344.69 | Reconciled |
| 394491 | | 20-DEC-18 | ENVIRONMENTAL EXPRESS INC | | 1,190.32 | 28-DEC-18 | 1,190.32 | Reconciled |
| 394492 | | 20-DEC-18 | EVANTEC CORPORATION | | 8,640.47 | 28-DEC-18 | 8,640.47 | Reconciled |
| 394493 | | 20-DEC-18 | EXCEL PAVING CO. | | 1,264.89 | 27-DEC-18 | 1,264.89 | Reconciled |
| 394494 | | 20-DEC-18 | EXECUTIVE LIGHTING & ELECTRIC | | 912.79 | 27-DEC-18 | 912.79 | Reconciled |
| 394495 | | 20-DEC-18 | FAIRBANK, MASLIN, MAULLIN, METZ & ASSOC. INC. | | 72,950.00 | | | Negotiable |
| 394496 | | 20-DEC-18 | FEDEX | | 393.89 | 26-DEC-18 | 393.89 | Reconciled |
| 394497 | | 20-DEC-18 | FERGUSON ENTERPRISES, INC. | | 18,123.23 | 24-DEC-18 | 18,123.23 | Reconciled |
| 394498 | | 20-DEC-18 | FIONA HUTTON & ASSOCIATES, INC. | | 11,107.50 | | | Negotiable |
| 394499 | | 20-DEC-18 | FIREHOSEDIRECT.COM | | 1,952.50 | | | Negotiable |
| 394500 | | 20-DEC-18 | FISERV | | 91,795.90 | 26-DEC-18 | 91,795.90 | Reconciled |
| 394501 | | 20-DEC-18 | FISHER SCIENTIFIC COMPANY LLC | | 8,265.59 | 24-DEC-18 | 8,265.59 | Reconciled |
| 394502 | | 20-DEC-18 | FOOTHILL/EASTERN TRANSPORTATION | | 9,300.00 | 28-DEC-18 | 9,300.00 | Reconciled |
| 394503 | | 20-DEC-18 | FRANCHISE TAX BOARD | | 100.00 | | | Negotiable |
| 394504 | | 20-DEC-18 | FRONTIER | | 479.64 | 31-DEC-18 | 479.64 | Reconciled |

| | | | | | | |
|--------|-----------|---|-----------|-----------|-----------|------------|
| 394505 | 20-DEC-18 | CALIFORNIA INC. FRONTLINE SENSORS AND SYSTEMS, INC. | 3,710.22 | 27-DEC-18 | 3,710.22 | Reconciled |
| 394506 | 20-DEC-18 | GE GRID SOLUTIONS, LLC | 24,236.35 | 28-DEC-18 | 24,236.35 | Reconciled |
| 394507 | 20-DEC-18 | GENTERRA CONSULTANTS INC | 1,885.50 | 24-DEC-18 | 1,885.50 | Reconciled |
| 394508 | 20-DEC-18 | GEORGE HILLS COMPANY, INC. | 25.50 | 31-DEC-18 | 25.50 | Reconciled |
| 394509 | 20-DEC-18 | GHD INC. | 1,603.75 | 26-DEC-18 | 1,603.75 | Reconciled |
| 394510 | 20-DEC-18 | GLENN LUKOS ASSOCIATES, INC | 1,049.06 | | | Negotiable |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 23
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 394511 | | 20-DEC-18 | GRAINGER | | 1,813.63 | 27-DEC-18 | 1,813.63 | Reconciled |
| 394512 | | 20-DEC-18 | GRANT GENERAL CONTACTRORS | | 1,415.58 | | | Negotiable |
| 394513 | | 20-DEC-18 | GRAYBAR ELECTRIC COMPANY | | 861.61 | 24-DEC-18 | 861.61 | Reconciled |
| 394514 | | 20-DEC-18 | HACH COMPANY | | 8,518.98 | 31-DEC-18 | 8,518.98 | Reconciled |
| 394515 | | 20-DEC-18 | HAHN, AARON | | 285.59 | 31-DEC-18 | 285.59 | Reconciled |
| 394516 | | 20-DEC-18 | HARGUCHI, JUAN | | 50.51 | 27-DEC-18 | 50.51 | Reconciled |
| 394517 | | 20-DEC-18 | HARMSWORTH ASSOCIATES | | 10,253.00 | | | Negotiable |
| 394518 | | 20-DEC-18 | HDR ENGINEERING INC | | 3,517.50 | 31-DEC-18 | 3,517.50 | Reconciled |
| 394519 | | 20-DEC-18 | HELPMATES STAFFING SERVICES | | 24,187.27 | 26-DEC-18 | 24,187.27 | Reconciled |
| 394520 | | 20-DEC-18 | HILL BROTHERS CHEMICAL COMPANY | | 9,293.43 | 27-DEC-18 | 9,293.43 | Reconciled |
| 394521 | | 20-DEC-18 | HOME DEPOT USA INC | | 751.19 | 31-DEC-18 | 751.19 | Reconciled |
| 394522 | | 20-DEC-18 | HSU, HSIANG LING | | 250.00 | | | Negotiable |
| 394523 | | 20-DEC-18 | IDEXX DISTRIBUTION, INC | | 2,498.57 | 26-DEC-18 | 2,498.57 | Reconciled |
| 394524 | | 20-DEC-18 | INDEPENDENT SPECIAL DISTRICT OF ORANGE COUNTY | | 50.00 | | | Negotiable |
| 394525 | | 20-DEC-18 | INDUSTRIAL METAL SUPPLY CO | | 155.16 | 26-DEC-18 | 155.16 | Reconciled |
| 394526 | | 20-DEC-18 | INFOSYS LIMITED | | 24,480.00 | 31-DEC-18 | 24,480.00 | Reconciled |
| 394527 | | 20-DEC-18 | INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 47 | | 1,460.00 | 31-DEC-18 | 1,460.00 | Reconciled |
| 394528 | | 20-DEC-18 | IRON MOUNTAIN INFORMATION MANAGEMENT INC | | 1,531.81 | 24-DEC-18 | 1,531.81 | Reconciled |
| 394529 | | 20-DEC-18 | IRVINE PACIFIC | | 63.05 | | | Negotiable |
| 394530 | | 20-DEC-18 | IRVINE PIPE & SUPPLY INC | | 2,388.75 | 27-DEC-18 | 2,388.75 | Reconciled |
| 394531 | | 20-DEC-18 | JCI JONES CHEMICALS INC | | 2,494.30 | 27-DEC-18 | 2,494.30 | Reconciled |
| 394532 | | 20-DEC-18 | JIANG, SHUO | | 45.19 | | | Negotiable |
| 394533 | | 20-DEC-18 | KANTOR, DEBORAH | | 138.93 | 31-DEC-18 | 138.93 | Reconciled |
| 394534 | | 20-DEC-18 | KATHY MACKENZIE | | 220.96 | 26-DEC-18 | 220.96 | Reconciled |
| 394535 | | 20-DEC-18 | KB HOMES | | 62.55 | | | Negotiable |
| 394536 | | 20-DEC-18 | KENT & AMY DAHLBERG | | 57,681.00 | 26-DEC-18 | 57,681.00 | Reconciled |
| 394537 | | 20-DEC-18 | KIM, EDWARD | | 71.53 | 31-DEC-18 | 71.53 | Reconciled |
| 394538 | | 20-DEC-18 | KMT MANAGEMENT | | 55.65 | 24-DEC-18 | 55.65 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 24
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 394539 | | 20-DEC-18 | KONDO, TAINI | | 100.90 | | | Negotiable |
| 394540 | | 20-DEC-18 | LANDCARE HOLDINGS, INC. | | 97,070.44 | 27-DEC-18 | 97,070.44 | Reconciled |
| 394541 | | 20-DEC-18 | LANDSEA HOLDINGS CORPORATION | | 33.84 | | | Negotiable |
| 394542 | | 20-DEC-18 | LCS TECHNOLOGIES, INC. | | 8,640.00 | | | Negotiable |
| 394543 | | 20-DEC-18 | LEE & RO, INC. | | 28,753.91 | 27-DEC-18 | 28,753.91 | Reconciled |
| 394544 | | 20-DEC-18 | LENNAR HOMES | | 208.13 | 27-DEC-18 | 208.13 | Reconciled |
| 394545 | | 20-DEC-18 | LGC GEOTECHNICAL, INC. | | 1,202.50 | 28-DEC-18 | 1,202.50 | Reconciled |
| 394546 | | 20-DEC-18 | LI, ZEFAN | | 52.21 | | | Negotiable |
| 394547 | | 20-DEC-18 | LIEBERT CASSIDY WHITMORE | | 3,370.00 | 27-DEC-18 | 3,370.00 | Reconciled |
| 394548 | | 20-DEC-18 | IU'S LIGHTHOUSE, | | 1,003.23 | 26-DEC-18 | 1,003.23 | Reconciled |

| | | | | | | |
|--------|-----------|---|------------|-----------|-----------|------------|
| 394549 | 20-DEC-18 | INC. LUBRICATION ENGINEERS, INC. | 1,730.84 | 26-DEC-18 | 1,730.84 | Reconciled |
| 394550 | 20-DEC-18 | MBC AQUATIC SCIENCES, INC. | 1,350.00 | 28-DEC-18 | 1,350.00 | Reconciled |
| 394551 | 20-DEC-18 | MBF CONSULTING, INC. | 5,590.00 | 31-DEC-18 | 5,590.00 | Reconciled |
| 394552 | 20-DEC-18 | MC FADDEN-DALE INDUSTRIAL | 831.00 | 27-DEC-18 | 831.00 | Reconciled |
| 394553 | 20-DEC-18 | MC MASTER CARR SUPPLY CO | 2,245.07 | 27-DEC-18 | 2,245.07 | Reconciled |
| 394554 | 20-DEC-18 | MEHTA, KIRTIKUMAR | 160.86 | 26-DEC-18 | 160.86 | Reconciled |
| 394555 | 20-DEC-18 | MOULTON NIGUEL WATER DISTRICT | 338,701.56 | | | Negotiable |
| 394556 | 20-DEC-18 | MSC INDUSTRIAL SUPPLY CO | 940.55 | 26-DEC-18 | 940.55 | Reconciled |
| 394557 | 20-DEC-18 | MUNICIPAL WATER DISTRICT OF ORANGE COUNTY | 16,103.32 | 26-DEC-18 | 16,103.32 | Reconciled |
| 394558 | 20-DEC-18 | NASH, LINDA | 27.67 | | | Negotiable |
| 394559 | 20-DEC-18 | NATIONAL METER & AUTOMATION, INC. | 56,439.45 | 28-DEC-18 | 56,439.45 | Reconciled |
| 394560 | 20-DEC-18 | NATIONAL READY MIXED CONCRETE CO. | 1,790.48 | 26-DEC-18 | 1,790.48 | Reconciled |
| 394561 | 20-DEC-18 | NEOGOV | 8,974.00 | | | Negotiable |
| 394562 | 20-DEC-18 | NEWAGE INDUSTRIES INC | 912.12 | 24-DEC-18 | 912.12 | Reconciled |
| 394563 | 20-DEC-18 | O'HAREN GOVERNMENT RELATIONS | 13,000.00 | 24-DEC-18 | 13,000.00 | Reconciled |
| 394564 | 20-DEC-18 | OC WELDING SERVICES | 3,000.00 | 26-DEC-18 | 3,000.00 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 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 | | | | | | | | |
| 394565 | | 20-DEC-18 | OLIN CORPORATION | | 38,322.28 | 28-DEC-18 | 38,322.28 | Reconciled |
| 394566 | | 20-DEC-18 | ON CALL EVENT RENTALS | | 1,653.00 | 28-DEC-18 | 1,653.00 | Reconciled |
| 394567 | | 20-DEC-18 | ORACLE AMERICA, INC. | | 3,062.00 | 28-DEC-18 | 3,062.00 | Reconciled |
| 394568 | | 20-DEC-18 | ORANGE COUNTY AUTO PARTS CO | | 1,216.42 | 24-DEC-18 | 1,216.42 | Reconciled |
| 394569 | | 20-DEC-18 | ORANGE COUNTY SHERIFF'S OFFICE | | 224.50 | | | Negotiable |
| 394570 | | 20-DEC-18 | ORANGE LINE OIL COMPANY | | 38.47 | 26-DEC-18 | 38.47 | Reconciled |
| 394571 | | 20-DEC-18 | OSINSKI, GARY | | 252.88 | 27-DEC-18 | 252.88 | Reconciled |
| 394572 | | 20-DEC-18 | PACIFIC COAST BOLT CORP | | 7,131.98 | 28-DEC-18 | 7,131.98 | Reconciled |
| 394573 | | 20-DEC-18 | PACIFIC PARTS & CONTROLS INC | | 1,876.06 | 26-DEC-18 | 1,876.06 | Reconciled |
| 394574 | | 20-DEC-18 | PACIFIC RESOURCE RECOVERY | | 1,798.35 | 27-DEC-18 | 1,798.35 | Reconciled |
| 394575 | | 20-DEC-18 | PARKHOUSE TIRE INC | | 4,137.97 | 27-DEC-18 | 4,137.97 | Reconciled |
| 394576 | | 20-DEC-18 | PAULUS ENGINEERING, INC. | | 828.22 | 26-DEC-18 | 828.22 | Reconciled |
| 394577 | | 20-DEC-18 | PERKINELMER HEALTH SCIENCES INC | | 383.20 | 31-DEC-18 | 383.20 | Reconciled |
| 394578 | | 20-DEC-18 | PERS LONG TERM CARE | | 538.89 | 26-DEC-18 | 538.89 | Reconciled |
| 394579 | | 20-DEC-18 | PILLSBURY WINTHROP SHAW PITTMAN LLP | | 4,615.00 | 24-DEC-18 | 4,615.00 | Reconciled |
| 394580 | | 20-DEC-18 | PIVOT INTERIORS INC | | 16,273.70 | 28-DEC-18 | 16,273.70 | Reconciled |
| 394581 | | 20-DEC-18 | PLUMBERS DEPOT INC. | | 163.35 | 28-DEC-18 | 163.35 | Reconciled |
| 394582 | | 20-DEC-18 | POND, ANTHONY | | 24.22 | 26-DEC-18 | 24.22 | Reconciled |
| 394583 | | 20-DEC-18 | PRAXAIR DISTRIBUTION INC | | 853.55 | 26-DEC-18 | 853.55 | Reconciled |
| 394584 | | 20-DEC-18 | PRICE, ERIC | | 27.73 | | | Negotiable |
| 394585 | | 20-DEC-18 | PRIME CONTROLS COMPANY INC | | 1,327.58 | 24-DEC-18 | 1,327.58 | Reconciled |
| 394586 | | 20-DEC-18 | PRUDENTIAL OVERALL SUPPLY | | 1,181.99 | 24-DEC-18 | 1,181.99 | Reconciled |
| 394587 | | 20-DEC-18 | PULTE GROUP | | 106.46 | | | Negotiable |
| 394588 | | 20-DEC-18 | PUMPING SOLUTIONS, INC | | 2,429.72 | 27-DEC-18 | 2,429.72 | Reconciled |
| 394589 | | 20-DEC-18 | R&B AUTOMATION, INC. | | 7,267.74 | 27-DEC-18 | 7,267.74 | Reconciled |
| 394590 | | 20-DEC-18 | RAM AIR ENGINEERING INC | | 8,954.70 | 24-DEC-18 | 8,954.70 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 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

Cleared

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|-----------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 394591 | | 20-DEC-18 | RCE CONSULTANTS, INC. | | 2,040.60 | | | Negotiable |
| 394592 | | 20-DEC-18 | RED WING SHOE STORE | | 166.37 | 27-DEC-18 | 166.37 | Reconciled |
| 394593 | | 20-DEC-18 | RELEVANT SOLUTIONS | | 1,075.84 | 26-DEC-18 | 1,075.84 | Reconciled |
| 394594 | | 20-DEC-18 | RELIANCE SAFETY CONSULTANTS, INC. | | 10,041.97 | 26-DEC-18 | 10,041.97 | Reconciled |
| 394595 | | 20-DEC-18 | RELIANCE STANDARD LIFE INSURANCE COMPANY | | 28,149.35 | | | Negotiable |
| 394596 | | 20-DEC-18 | RESILIENT COMMUNICATIONS INC. | | 192.10 | | | Negotiable |
| 394597 | | 20-DEC-18 | RICHMOND AMERICAN HOMES OF MARYLAND, INC | | 160.44 | | | Negotiable |
| 394598 | | 20-DEC-18 | RINCON TRUCK CENTER INC. | | 2,379.84 | 26-DEC-18 | 2,379.84 | Reconciled |
| 394599 | | 20-DEC-18 | RLG ENTERPRISES, INC | | 330.75 | 27-DEC-18 | 330.75 | Reconciled |
| 394600 | | 20-DEC-18 | ROSECRANS, CODY | | 12.49 | 28-DEC-18 | 12.49 | Reconciled |
| 394601 | | 20-DEC-18 | ROSEMOUNT INC. | | 1,464.48 | 28-DEC-18 | 1,464.48 | Reconciled |
| 394602 | | 20-DEC-18 | SANTA MARGARITA FORD | | 429.83 | 27-DEC-18 | 429.83 | Reconciled |
| 394603 | | 20-DEC-18 | SANTA MARGARITA WATER DISTRICT | | 303,138.35 | | | Negotiable |
| 394604 | | 20-DEC-18 | SARES REGIS GROUP | | 43.08 | | | Negotiable |
| 394605 | | 20-DEC-18 | SELECT TRENCHLESS PIPELINES INC | | 6,480.00 | 31-DEC-18 | 6,480.00 | Reconciled |
| 394606 | | 20-DEC-18 | SENGSAVANG, SHERRIE | | 13.68 | 31-DEC-18 | 13.68 | Reconciled |
| 394607 | | 20-DEC-18 | SHADER, MICHAEL | | 17.35 | | | Negotiable |
| 394608 | | 20-DEC-18 | SHAMROCK SUPPLY CO INC | | 1,737.17 | 27-DEC-18 | 1,737.17 | Reconciled |
| 394609 | | 20-DEC-18 | SHELLA SAMSON AND THE CRYSTAL COVE TRUST | | 138.65 | | | Negotiable |
| 394610 | | 20-DEC-18 | SHOETERIA | | 189.09 | 27-DEC-18 | 189.09 | Reconciled |
| 394611 | | 20-DEC-18 | SHOFFEIT PIPELINE INC. | | 2,784.67 | | | Negotiable |
| 394612 | | 20-DEC-18 | SHOFFEITT PIPELINE INC | | 1,651.97 | | | Negotiable |
| 394613 | | 20-DEC-18 | SIGMA-ALDRICH INC | | 340.69 | 26-DEC-18 | 340.69 | Reconciled |
| 394614 | | 20-DEC-18 | SIMI VALLEY LANDFILL AND RECYCLING CENTER | | 492.76 | 27-DEC-18 | 492.76 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 27
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 394615 | | 20-DEC-18 | SIRIUS COMPUTER SOLUTIONS INC | | 2,400.00 | 28-DEC-18 | 2,400.00 | Reconciled |
| 394616 | | 20-DEC-18 | SKORUZ TECHNOLOGIES INC | | 16,416.00 | 24-DEC-18 | 16,416.00 | Reconciled |
| 394617 | | 20-DEC-18 | SMOG TIME | | 710.00 | 24-DEC-18 | 710.00 | Reconciled |
| 394618 | | 20-DEC-18 | SON, CHANNET | | 3.39 | | | Negotiable |
| 394619 | | 20-DEC-18 | SOUTH COAST WATER DISTRICT | | 203.25 | | | Negotiable |
| 394620 | | 20-DEC-18 | SOUTHERN CALIFORNIA EDISON COMPANY | | 32.99 | 27-DEC-18 | 32.99 | Reconciled |
| 394621 | | 20-DEC-18 | SOUTHERN CALIFORNIA EDISON COMPANY | | 478,259.52 | 26-DEC-18 | 478,259.52 | Reconciled |
| 394622 | | 20-DEC-18 | SOUTHERN CALIFORNIA GAS COMPANY | | 10,651.88 | 28-DEC-18 | 10,651.88 | Reconciled |
| 394623 | | 20-DEC-18 | SOUTHERN CALIFORNIA SECURITY CENTERS, INC. | | 417.47 | | | Negotiable |
| 394624 | | 20-DEC-18 | SOUTHWEST VALVE & EQUIPMENT | | 1,350.00 | | | Negotiable |
| 394625 | | 20-DEC-18 | SPARKLETTS | | 120.64 | 31-DEC-18 | 120.64 | Reconciled |
| 394626 | | 20-DEC-18 | SPATIAL WAVE, INC. | | 500.00 | 24-DEC-18 | 500.00 | Reconciled |
| 394627 | | 20-DEC-18 | STANDARD & POOR'S FINANCIAL SERVICES LLC | | 1,000.00 | 31-DEC-18 | 1,000.00 | Reconciled |
| 394628 | | 20-DEC-18 | STATE WATER RESOURCES CONTROL BOARD | | 146,637.00 | | | Negotiable |
| 394629 | | 20-DEC-18 | STATE WATER RESOURCES CONTROL BOARD | | 15,840.00 | | | Negotiable |

| | | | | | | | |
|--------|-----------|-------------------------------|--|-----------|-----------|-----------|------------|
| 394630 | 20-DEC-18 | STETSON ENGINEERS INC. | | 20,928.12 | 26-DEC-18 | 20,928.12 | Reconciled |
| 394631 | 20-DEC-18 | STREAKWAVE WIRELESS, INC. | | 644.84 | 26-DEC-18 | 644.84 | Reconciled |
| 394632 | 20-DEC-18 | SUAN CARMACK | | 13.82 | 31-DEC-18 | 13.82 | Reconciled |
| 394633 | 20-DEC-18 | SUNSHINE SUPPLY COMPANY, INC. | | 5,414.70 | 26-DEC-18 | 5,414.70 | Reconciled |
| 394634 | 20-DEC-18 | SUSAN KOHN AND SCOTT KOHN | | 516.03 | | | Negotiable |
| 394635 | 20-DEC-18 | TAYLOR MORRISON | | 309.18 | | | Negotiable |
| 394636 | 20-DEC-18 | TESTAMERICA LABORATORIES, INC | | 192.15 | 27-DEC-18 | 192.15 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 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 | | | | | | | | |
| 394637 | | 20-DEC-18 | THE FURMAN GROUP, INC. | | 13,013.00 | 28-DEC-18 | 13,013.00 | Reconciled |
| 394638 | | 20-DEC-18 | THOMPSON INDUSTRIAL SUPPLY | | 3,366.31 | 27-DEC-18 | 3,366.31 | Reconciled |
| 394639 | | 20-DEC-18 | TOLL BROS., INC. | | 236.83 | | | Negotiable |
| 394640 | | 20-DEC-18 | TOTAL RESOURCE MANAGEMENT, INC. | | 13,074.82 | 27-DEC-18 | 13,074.82 | Reconciled |
| 394641 | | 20-DEC-18 | TRABUCO CANYON WATER DISTRICT | | 51,680.54 | | | Negotiable |
| 394642 | | 20-DEC-18 | TRI POINTE HOMES, INC. | | 402.62 | | | Negotiable |
| 394643 | | 20-DEC-18 | TROPICAL PLAZA NURSERY INC | | 67,995.85 | 24-DEC-18 | 67,995.85 | Reconciled |
| 394644 | | 20-DEC-18 | UCT, LLC | | 402.77 | 26-DEC-18 | 402.77 | Reconciled |
| 394645 | | 20-DEC-18 | UNITED PARCEL SERVICE INC | | 87.02 | 28-DEC-18 | 87.02 | Reconciled |
| 394646 | | 20-DEC-18 | UNITED SITE SERVICES OF CALIFORNIA INC | | 160.99 | 27-DEC-18 | 160.99 | Reconciled |
| 394647 | | 20-DEC-18 | USA BLUEBOOK | | 172.67 | 31-DEC-18 | 172.67 | Reconciled |
| 394648 | | 20-DEC-18 | USS CAL BUILDERS, INC. | | 248.33 | 31-DEC-18 | 248.33 | Reconciled |
| 394649 | | 20-DEC-18 | V&A CONSULTING ENGINEERS | | 12,611.00 | | | Negotiable |
| 394650 | | 20-DEC-18 | VALERIO, CHRISTIANA | | 77.95 | 27-DEC-18 | 77.95 | Reconciled |
| 394651 | | 20-DEC-18 | VIANNA, ZENILDO | | 327.80 | 24-DEC-18 | 327.80 | Reconciled |
| 394652 | | 20-DEC-18 | VIRTUAL GRAFFITI, INC. | | 1,850.00 | 24-DEC-18 | 1,850.00 | Reconciled |
| 394653 | | 20-DEC-18 | VWR INTERNATIONAL, LLC | | 1,490.60 | 27-DEC-18 | 1,490.60 | Reconciled |
| 394654 | | 20-DEC-18 | WACO FILTERS CORPORATION | | 5,347.72 | 31-DEC-18 | 5,347.72 | Reconciled |
| 394655 | | 20-DEC-18 | WALTON MOTORS & CONTROLS INC | | 990.92 | 26-DEC-18 | 990.92 | Reconciled |
| 394656 | | 20-DEC-18 | WASTE MANAGEMENT OF ORANGE COUNTY | | 2,550.93 | 27-DEC-18 | 2,550.93 | Reconciled |
| 394657 | | 20-DEC-18 | WATERLINE TECHNOLOGIES INC | | 4,341.20 | 27-DEC-18 | 4,341.20 | Reconciled |
| 394658 | | 20-DEC-18 | WAXIE'S ENTERPRISES, INC | | 3,558.02 | 24-DEC-18 | 3,558.02 | Reconciled |
| 394659 | | 20-DEC-18 | XIAO, YIHE | | 51.22 | 26-DEC-18 | 51.22 | Reconciled |
| 394660 | | 20-DEC-18 | YANG, CHUNCHEN | | 54.29 | | | Negotiable |
| 394661 | | 20-DEC-18 | YORKVILLE INVESTMENTS LLC | | 39.85 | | | Negotiable |
| 394662 | | 20-DEC-18 | YSI, INC | | 1,122.85 | 26-DEC-18 | 1,122.85 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 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 | | | | | | | | |
| 394663 | | 21-DEC-18 | A&Y ASPHALT CONTRACTORS, INC. | | 10,777.00 | 26-DEC-18 | 10,777.00 | Reconciled |
| 394664 | | 21-DEC-18 | AVINASH SINGHAL AND LOTIKA SINGHAL | | 478.07 | | | Negotiable |
| 394665 | | 21-DEC-18 | BROOKFIELD RESIDENTIAL | | 100.76 | 27-DEC-18 | 100.76 | Reconciled |
| 394666 | | 21-DEC-18 | BUCCOLA LANDSCAPE SERVICES, INC. | | 110.55 | | | Negotiable |
| 394667 | | 21-DEC-18 | CALIFORNIA PACIFIC HOMES | | 49.81 | 28-DEC-18 | 49.81 | Reconciled |
| 394668 | | 21-DEC-18 | CAROLAN, KAY | | 1,082.80 | | | Negotiable |
| 394669 | | 21-DEC-18 | CBN INC | | 40.91 | | | Negotiable |
| 394670 | | 21-DEC-18 | CITY OF IRVINE | | 2,001.20 | | | Negotiable |
| 394671 | | 21-DEC-18 | CLA-VAL COMPANY | | 3,495.07 | 28-DEC-18 | 3,495.07 | Reconciled |
| 394672 | | 21-DEC-18 | FLUID CONSERVATION | | 186.63 | | | Negotiable |

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| 394673 | | 21-DEC-18 | SYSTEMS INC FREEWAY MACHINE & WELDING SHOP | | 140.00 | | | Negotiable |
| 394674 | | 21-DEC-18 | HELPMATES STAFFING SERVICES | | 8,667.64 | 26-DEC-18 | 8,667.64 | Reconciled |
| 394675 | | 21-DEC-18 | HILL BROTHERS CHEMICAL COMPANY | | 1,970.00 | 27-DEC-18 | 1,970.00 | Reconciled |
| 394676 | | 21-DEC-18 | HINSILBLON LTD | | 500.00 | | | Negotiable |
| 394677 | | 21-DEC-18 | HUR, JEONG HYE | | 21.09 | | | Negotiable |
| 394678 | | 21-DEC-18 | IRVINE COMMUNITY DEVELOPMENT COMPANY LLC | | 255,233.71 | | | Negotiable |
| 394679 | | 21-DEC-18 | KAYUGA SOLUTION INC | | 7,820.00 | 27-DEC-18 | 7,820.00 | Reconciled |
| 394680 | | 21-DEC-18 | KENNY THE PRINTER | | 619.57 | 26-DEC-18 | 619.57 | Reconciled |
| 394681 | | 21-DEC-18 | LENNAR HOMES | | 255.31 | 27-DEC-18 | 255.31 | Reconciled |
| 394682 | | 21-DEC-18 | MCCALL'S METERS, INC. | | 2,994.81 | 28-DEC-18 | 2,994.81 | Reconciled |
| 394683 | | 21-DEC-18 | MENDOZA, LETICIA | | 39.28 | 27-DEC-18 | 39.28 | Reconciled |
| 394684 | | 21-DEC-18 | MORGAN, STEWART | | 34.00 | | | Negotiable |
| 394685 | | 21-DEC-18 | ONESOURCE DISTRIBUTORS LLC | | 215.45 | 24-DEC-18 | 215.45 | Reconciled |
| 394686 | | 21-DEC-18 | ORANGE COUNTY SANITATION DISTRICT | | 41,978.00 | 26-DEC-18 | 41,978.00 | Reconciled |
| 394687 | | 21-DEC-18 | PRAXAIR DISTRIBUTION INC | | 1,058.54 | 26-DEC-18 | 1,058.54 | Reconciled |
| 394688 | | 21-DEC-18 | PRUFTECHNIK INC | | 10,335.00 | 26-DEC-18 | 10,335.00 | Reconciled |
| 394689 | | 21-DEC-18 | REGIONAL GOVERNMENT SERVICES AUTHORITY | | 460.00 | 24-DEC-18 | 460.00 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 30
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------------------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 394690 | | 21-DEC-18 | REVEL ENVIRONMENTAL MANUFACTURING INC. | | 1,702.45 | 26-DEC-18 | 1,702.45 | Reconciled |
| 394691 | | 21-DEC-18 | SANTA ANA BLUE PRINT | | 911.33 | | | Negotiable |
| 394692 | | 21-DEC-18 | SHOETERIA | | 116.36 | 27-DEC-18 | 116.36 | Reconciled |
| 394693 | | 21-DEC-18 | SMITH SYSTEM DRIVER IMPROVEMENT INSTITUTE, INC. | | 1,449.08 | 27-DEC-18 | 1,449.08 | Reconciled |
| 394694 | | 21-DEC-18 | SMITH, SHERMAN | | 46.08 | 27-DEC-18 | 46.08 | Reconciled |
| 394695 | | 21-DEC-18 | SOUTHERN CALIFORNIA VETERINARY | | 126.71 | | | Negotiable |
| 394696 | | 21-DEC-18 | TIC-RETAIL PROPERTIES | | 27,011.40 | | | Negotiable |
| 394697 | | 21-DEC-18 | TOTAL RESOURCE MANAGEMENT, INC. | | 64,821.20 | 27-DEC-18 | 64,821.20 | Reconciled |
| 394698 | | 21-DEC-18 | TRI POINTE HOMES, INC. | | 72.56 | | | Negotiable |
| 394699 | | 21-DEC-18 | TU, WENBIN | | 526.60 | | | Negotiable |
| 394700 | | 21-DEC-18 | UTOPIA MANAGEMENT INC | | 42.67 | 27-DEC-18 | 42.67 | Reconciled |
| 394701 | | 21-DEC-18 | WEBER, HANA | | 66.42 | | | Negotiable |
| 394702 | | 21-DEC-18 | WU, CHUNHUI | | 19.44 | | | Negotiable |
| 394703 | | 21-DEC-18 | ZHANG, MINFANG | | 34.98 | | | Negotiable |
| 394704 | | 21-DEC-18 | Lassalette, James P (Jim) | | 110.00 | 28-DEC-18 | 110.00 | Reconciled |
| 394705 | | 21-DEC-18 | Mwe, Nang | | 188.00 | | | Negotiable |
| 394706 | | 21-DEC-18 | Pan, Jenny W (Jenny) | | 212.50 | 31-DEC-18 | 212.50 | Reconciled |
| 394707 | | 21-DEC-18 | Zaragoza, Anthony | | 90.00 | | | Negotiable |
| 394708 | | 27-DEC-18 | COX COMMUNICATIONS, INC. | PAY | 3,108.94 | 31-DEC-18 | 3,108.94 | Reconciled |
| 394709 | | 27-DEC-18 | DIVERSIFIED COMMUNICATIONS SERVICES, INC. | PURCHASE | 15,496.00 | | | Negotiable |
| 394710 | | 27-DEC-18 | TIC RETAIL PROPERTIES | IRVINE | 5,438.00 | | | Negotiable |
| 394711 | | 27-DEC-18 | US BANK NAT'L ASSOCIATION NORTH DAKOTA | PO BOX 790428 | 85,870.16 | | | Negotiable |
| 394712 | | 27-DEC-18 | HENKELS & MCCOY, INC. | PAY | 1,415.77 | | | Negotiable |
| 394713 | | 27-DEC-18 | KAM, DEBRA | PAY | 44.52 | 31-DEC-18 | 44.52 | Reconciled |

IRWD Ledger Upgrade Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 31
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|------|---------------|------|----------------|--------------|----------------|--------|
|----------------|--------------|------|---------------|------|----------------|--------------|----------------|--------|

Payment Document : IRWD CHECK

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------------------|--------------|-----------|--|---------------|----------------|--------------|----------------|------------|
| 394714 | | 27-DEC-18 | MOHAGHEGH, OMID | LAGUNA HILLS | 159.24 | 31-DEC-18 | 159.24 | Reconciled |
| 394715 | | 27-DEC-18 | VIRTUAL POLYMER COMPOUNDS | GETZVILLE | 6,215.80 | | | Negotiable |
| 394716 | | 27-DEC-18 | IRWD-PETTY CASH CUSTODIAN | IRVINE | 1,026.21 | 27-DEC-18 | 1,026.21 | Reconciled |
| 394717 | | 27-DEC-18 | 2333 ELDEN PARTNERS, LLC | PAY | 47.34 | | | Negotiable |
| 394718 | | 27-DEC-18 | FRONTIER CALIFORNIA INC. | CINCINNATI | 100.28 | | | Negotiable |
| 394719 | | 27-DEC-18 | SOUTHERN CALIFORNIA EDISON COMPANY | PURCHASE | 90,844.47 | 31-DEC-18 | 90,844.47 | Reconciled |
| 394720 | | 27-DEC-18 | VERIZON WIRELESS SERVICES LLC | PAY | 1,739.23 | 31-DEC-18 | 1,739.23 | Reconciled |
| 394721 | | 27-DEC-18 | DENALI WATER SOLUTIONS LLC | PO BOX 740903 | 7,498.30 | 31-DEC-18 | 7,498.30 | Reconciled |
| 394722 | | 27-DEC-18 | CULLIGAN OF SANTA ANA | WICHITA | 5,256.80 | | | Negotiable |
| 394723 | | 27-DEC-18 | IRVINE RANCH CONSERVANCY | PAY | 420.00 | | | Negotiable |
| 394724 | | 27-DEC-18 | YORK INSURANCE SERVICES GROUP INC - CA | PAY | 16,351.00 | 31-DEC-18 | 16,351.00 | Reconciled |
| Payment Document Subtotal: | | | | | 8,641,828.47 | | 6,943,708.83 | |

Payment Document : IRWD Wire

| | | | | | | | | |
|-------|--|-----------|--|-----------------|--------------|--|--|------------|
| 12889 | | 04-DEC-18 | YORK INSURANCE SERVICES GROUP INC - CA | PAY | 4,507.01 | | | Negotiable |
| 12890 | | 07-DEC-18 | ORANGE COUNTY SANITATION DISTRICT | FOUNTAIN VALLEY | 1,504,836.00 | | | Negotiable |
| 12891 | | 07-DEC-18 | ORANGE COUNTY SANITATION DISTRICT | FOUNTAIN VALLEY | 1,126,720.12 | | | Negotiable |
| 12892 | | 07-DEC-18 | ORANGE COUNTY SANITATION DISTRICT | FOUNTAIN VALLEY | 75,042.99 | | | Negotiable |
| 12893 | | 07-DEC-18 | ORANGE COUNTY SANITATION DISTRICT | FOUNTAIN VALLEY | 56,969.60 | | | 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-18 To 31-DEC-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 02-JAN-2019 16:51
 Page: 32

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|------------------------------|--------------|-----------|--|-----------------|----------------|--------------|----------------|------------|
| Payment Document : IRWD Wire | | | | | | | | |
| 12894 | | 07-DEC-18 | ORANGE COUNTY SANITATION DISTRICT | FOUNTAIN VALLEY | 14,396.56 | | | Negotiable |
| 12895 | | 07-DEC-18 | ORANGE COUNTY SANITATION DISTRICT | FOUNTAIN VALLEY | 20,555.25 | | | Negotiable |
| 12896 | | 07-DEC-18 | ORANGE COUNTY SANITATION DISTRICT | FOUNTAIN VALLEY | 1,200,922.70 | | | Negotiable |
| 12897 | | 11-DEC-18 | YORK INSURANCE SERVICES GROUP INC - CA | PAY | 7,945.83 | | | Negotiable |
| 12898 | | 17-DEC-18 | U.S. BANK NATIONALST. LOUIS ASSOCIATION | | 7,458.61 | | | Negotiable |
| 12899 | | 17-DEC-18 | FILANC-BALFOUR BEATTY JV | ACT 4427724347 | 733,011.32 | | | Negotiable |
| 12900 | | 17-DEC-18 | FILANC-BALFOUR BEATTY JV | ESR 211084000 | 11,335.97 | | | Negotiable |
| 12901 | | 18-DEC-18 | YORK INSURANCE SERVICES GROUP INC - CA | PAY | 3,643.28 | | | Negotiable |
| 12902 | | 18-DEC-18 | BANK OF AMERICA MERRILL LYNCH | CHICAGO | 73,010.08 | | | Negotiable |
| 12903 | | 18-DEC-18 | CITIGROUP GLOBAL MARKETS INC. | NEW YORK | 591,429.20 | | | Negotiable |
| 12904 | | 18-DEC-18 | BANK OF NEW YORK MELLON TRUST COMPANY NA | NEWARK | 115,643.83 | | | Negotiable |
| 12905 | | 18-DEC-18 | U.S. BANK NATIONALST. LOUIS ASSOCIATION | | 62,525.34 | | | Negotiable |
| 12906 | | 18-DEC-18 | BANK OF AMERICA | SAN FRANCISCO | 62,572.59 | | | Negotiable |
| 12907 | | 18-DEC-18 | U.S. BANK NATIONALST. LOUIS ASSOCIATION | | 32,341.15 | | | Negotiable |
| 12908 | | 18-DEC-18 | SUMITOMO MITSUI BANKING | NEW YORK | 55,456.44 | | | Negotiable |

| | | | | | |
|-------|-----------|--|-----------|------------|------------|
| 12909 | 18-DEC-18 | CORPORATION MERRILL LYNCH CAPITAL SERVICES, INC | CHARLOTTE | 401,713.53 | Negotiable |
| 12910 | 18-DEC-18 | CITIGROUP GLOBAL MARKETS INC. | NEW YORK | 401,713.53 | Negotiable |
| 12911 | 19-DEC-18 | BANK OF NEW YORK MELLON TRUST COMPANY NA | NEWARK | 38,923.61 | Negotiable |

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 33
 Payment Type: All 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 Wire | | | | | | | | |
| 12912 | | 19-DEC-18 | BANK OF NEW YORK MELLON TRUST COMPANY NA | NEWARK | 29,005.52 | | | Negotiable |
| 12913 | | 19-DEC-18 | MUNICIPAL WATER DISTRICT OF ORANGEVALLEY COUNTY | FOUNTAIN | 1,098,666.71 | | | Negotiable |
| 12914 | | 19-DEC-18 | EMPLOYEE BENEFIT SPECIALISTS, INC. | PO BOX 11657 | 13,208.06 | | | Negotiable |
| 12915 | | 19-DEC-18 | EMPLOYEE BENEFIT SPECIALISTS, INC. | PO BOX 11657 | 1,590.00 | | | Negotiable |
| 12916 | | 19-DEC-18 | EMPLOYEE BENEFIT SPECIALISTS, INC. | PO BOX 11657 | 36,283.20 | | | Negotiable |
| 12917 | | 21-DEC-18 | CALPERS | SACRAMENTO 1 | 2,802.27 | | | Negotiable |
| 12918 | | 21-DEC-18 | CALPERS | SACRAMENTO 1 | 514,406.25 | | | Negotiable |
| 12919 | | 21-DEC-18 | INTERNAL REVENUE SERVICE | FRESNO | 194,115.50 | | | Negotiable |
| 12920 | | 21-DEC-18 | FRANCHISE TAX BOARD | SACRAMENTO | 61,926.97 | | | Negotiable |
| 12921 | | 21-DEC-18 | EMPLOYMENT DEVELOPMENT DEPARTMENT | W SACRAMENTO | 9,900.51 | | | Negotiable |
| 12922 | | 21-DEC-18 | ORDONEZ, CYNTHIA MARIE | DESERT HOT SPR | 324.50 | | | Negotiable |
| 12923 | | 21-DEC-18 | CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES | SACRAMENTO | 1,729.50 | | | Negotiable |
| 12924 | | 21-DEC-18 | GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY | DENVER | 121,926.07 | | | Negotiable |
| 12925 | | 21-DEC-18 | CALPERS | SACRAMENTO | 192,308.79 | | | Negotiable |
| 12926 | | 21-DEC-18 | CALPERS | SACRAMENTO | 2,213.72 | | | Negotiable |
| 12927 | | 21-DEC-18 | INTERNAL REVENUE SERVICE | FRESNO | 200,504.80 | | | Negotiable |
| 12928 | | 21-DEC-18 | FRANCHISE TAX BOARD | SACRAMENTO | 63,020.89 | | | Negotiable |
| 12929 | | 21-DEC-18 | EMPLOYMENT DEVELOPMENT DEPARTMENT | W SACRAMENTO | 9,317.97 | | | Negotiable |
| 12930 | | 21-DEC-18 | ORDONEZ, CYNTHIA MARIE | DESERT HOT SPR | 324.50 | | | Negotiable |

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Payment Register For 01-DEC-18 To 31-DEC-18 Report Date: 02-JAN-2019 16:51
 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 34
 Payment Type: All 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 Wire | | | | | | | | |
| 12931 | | 21-DEC-18 | CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES | SACRAMENTO | 1,729.50 | | | Negotiable |
| 12932 | | 21-DEC-18 | GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY | DENVER | 120,795.09 | | | Negotiable |
| 12933 | | 21-DEC-18 | CALPERS | SACRAMENTO | 190,723.43 | | | Negotiable |
| 12934 | | 21-DEC-18 | CALPERS | SACRAMENTO | 1,276.26 | | | Negotiable |
| 12935 | | 21-DEC-18 | BANK OF NEW YORK MELLON TRUST COMPANY NA | NEWARK | 37,983.42 | | | Negotiable |
| 12936 | | 21-DEC-18 | BANK OF NEW YORK MELLON TRUST COMPANY NA | NEWARK | 50,068.68 | | | Negotiable |
| 12937 | | 26-DEC-18 | YORK INSURANCE SERVICES GROUP INC - CA | PAY | 21,606.48 | | | Negotiable |

Payment Document Subtotal: 9,580,433.13

| | | | |
|-------------------------|---------------|---------------|--------------|
| Bank Account Subtotal : | 18,222,261.60 | Disbursements | 6,943,708.83 |
| Report Count : 831 | Report Total: | 18,222,261.60 | 6,943,708.83 |

*** End of Report ***

| | | |
|----|---------------|-------------------------------|
| \$ | 18,222,261.60 | Disbursements |
| | <7,474.93> | Voids |
| \$ | 18,214,786.67 | Total Voids and Disbursements |

Exhibit "E"

MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS

December
2018

| | AMOUNT | VENDOR | PURPOSE |
|------------|-----------------------|-----------------|--------------------------|
| 12/7/2018 | 961,047.32 | BANK OF AMERICA | ACH Payments for Payroll |
| 12/21/2018 | 976,900.96 | BANK OF AMERICA | ACH Payments for Payroll |
| | <u>\$1,937,948.28</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-18 to 31-DEC-18

| NAME | CHECK NO. | CHECK | AMOUNT | ITEM DESCRIPTION | EXPENSE JUSTIFICATION |
|----------------------|-----------|-----------|-------------------|-----------------------|---|
| Akiyoshi, Eric | 393944 | 6-Dec-18 | 116.00 | Other(Misc) | Professional Engineer liscense renewal |
| Borowski, Mike | 394403 | 20-Dec-18 | 102.00 | Membership Renewal | CWEA membership |
| Cho, Harry | 394404 | 20-Dec-18 | 277.00 | Membership Renewal | AWWA CA-NV Section membership |
| Fournier, Tanja | 394405 | 20-Dec-18 | 199.00 | Membership Renewal | Morningstar membership |
| Hall, William | 394407 | 20-Dec-18 | 238.04 | Lodging | USC Cross Connection Control Training, Los Angeles, CA - Nov. 4, 2018 |
| Hall, William | 394407 | 20-Dec-18 | 238.04 | Lodging | USC Cross Connection Control Training, Los Angeles, CA - Nov. 5, 2018 |
| Hall, William | 394407 | 20-Dec-18 | 238.04 | Lodging | USC Cross Connection Control Training, Los Angeles, CA - Nov. 6, 2018 |
| Hall, William | 394407 | 20-Dec-18 | 238.04 | Lodging | USC Cross Connection Control Training, Los Angeles, CA - Nov. 7, 2018 |
| Hall, William | 394407 | 20-Dec-18 | 238.04 | Lodging | USC Cross Connection Control Training, Los Angeles, CA - Nov. 8, 2018 |
| Hjorth, Charles | 394165 | 12-Dec-18 | 200.00 | Other(Misc) | Safety shoe allowance |
| Irey, Craig | 394166 | 12-Dec-18 | 101.70 | Lodging | Water Smart Innovations Conference, Las Vegas, NV - Oct. 4, 2018 |
| Jackson, Brad | 394167 | 12-Dec-18 | 279.22 | Other(Misc) | Meeting supplies |
| LaMar, Steve | 394408 | 20-Dec-18 | 231.03 | Lodging | Urban Water Institute Conference, San Diego, CA - Aug. 22, 2018 |
| Lao, Richard | 393951 | 6-Dec-18 | 150.00 | Registration Fees | On-Line Water Quality Course to obtain CEUs to renew T2 and D2 certificates |
| Malloy, Steve | 393952 | 6-Dec-18 | 328.00 | Membership Renewal | WEF membership |
| Meserlian, Barkev | 394411 | 20-Dec-18 | 218.05 | Other(Misc) | Meeting supplies |
| Moeder, Jacob | 394412 | 20-Dec-18 | 300.00 | Membership Renewal | ASCE membership |
| Mwe, Nang | 394705 | 21-Dec-18 | 188.00 | Membership Renewal | CWEA membership |
| Nieto, Augie | 393954 | 6-Dec-18 | 150.00 | Certification Renewal | SWRCB Wastewater Treatment Plant Operator Grade V |
| Oldewage, Lars | 394416 | 20-Dec-18 | 125.00 | Other(Misc) | Safety shoe allowance |
| Pan, Jenny | 394706 | 21-Dec-18 | 102.52 | Other(Misc) | Meeting supplies |
| Schulze, Richard | 393956 | 6-Dec-18 | 188.00 | Membership Renewal | CWEA membership |
| Sidlin, Wayne | 394418 | 20-Dec-18 | 275.00 | Certification Renewal | CWEA Laboratory Analyst Grade 1 |
| Swan, Peer | 394419 | 20-Dec-18 | 523.96 | Airfare | WEF 35th Annual Water Summit, Sacramento, CA - Sept. 20, 2018 |
| Van Deusen, Scott | 394420 | 20-Dec-18 | 188.00 | Membership Renewal | CWEA membership |
| Total Amount: | | | \$5,432.68 | | |

January 28, 2018

Prepared by: C. Smithson/ Debra Pardee

Submitted by: Cheryl Clary

Approved by: Paul A. Cook

CONSENT CALENDAR

IRVINE RANCH WATER DISTRICT STRATEGIC MEASURES

SUMMARY:

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

BACKGROUND:

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

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

RECEIVE AND FILE.

LIST OF EXHIBITS:

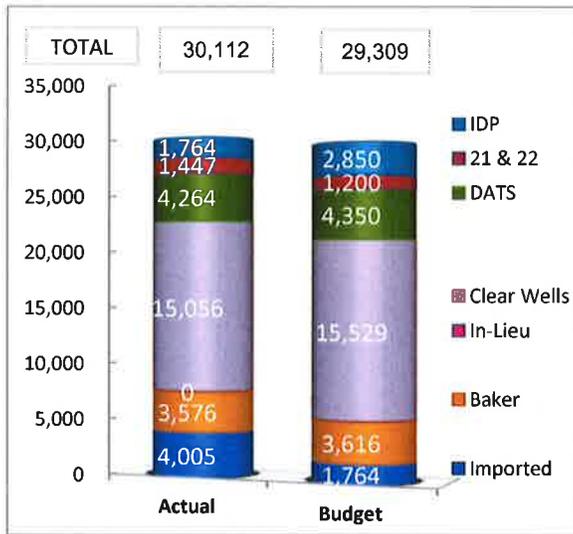
Exhibit "A" – December 2018 Strategic Measures

IRVINE RANCH WATER DISTRICT

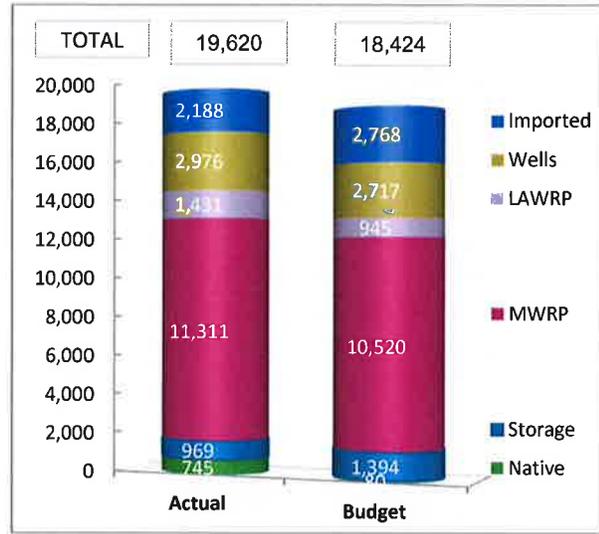
Operational Performance Measures

Data as of December 31, 2018

Potable Water Production FYTD (AF)



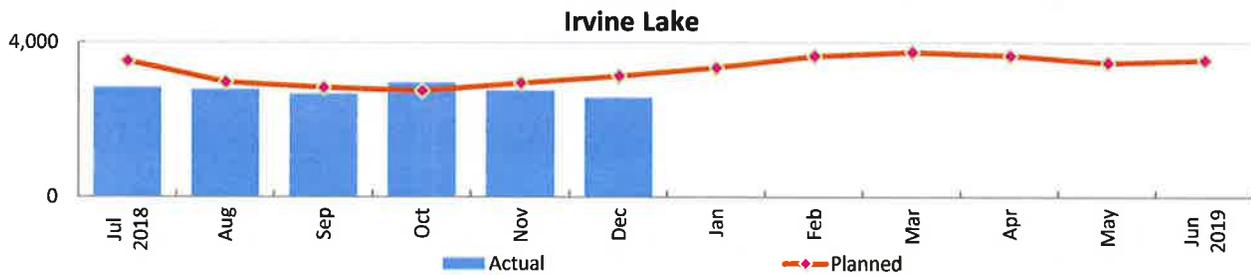
Non-Potable Water Production FYTD (AF)



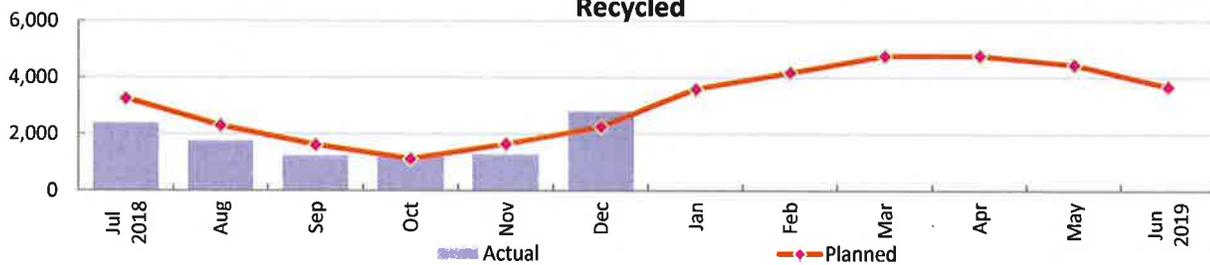
* Excess production moved to recycled reservoirs.

Non-Potable Reservoir Storage (AF)

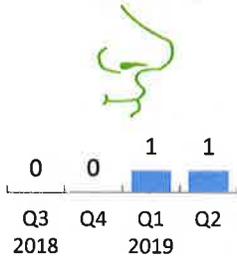
Irvine Lake



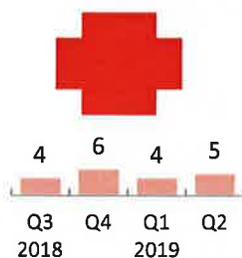
Recycled



Odor Complaints (FY by quarter)



OSHA Recordables Incidents



Regulatory Compliance Incidents

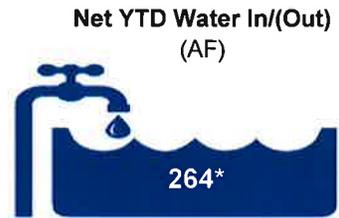
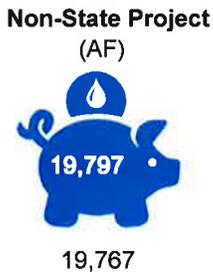
| | | | | |
|--------------|---------|---------|---------|---------|
| AQMD | 0 | 1 | 0 | 0 |
| Plants | 0 | 0 | 0 | 0 |
| Sewer Spills | 0 | 1 | 2 | 1 |
| | Q3 2018 | Q4 2018 | Q1 2019 | Q2 2019 |

IRVINE RANCH WATER DISTRICT

Other Statistical Information

Data as of December 31, 2018

Banked Water



*Calendar Year including extraordinary supply received.

Certificates of Occupancies FYTD



Total Potable Water



AF **GPCD**

FY 18-19 30,112 64

FY 13-14 33,171 81

Reduction 9.2% **21%**

Acre-Foot Per Acre Irrigation



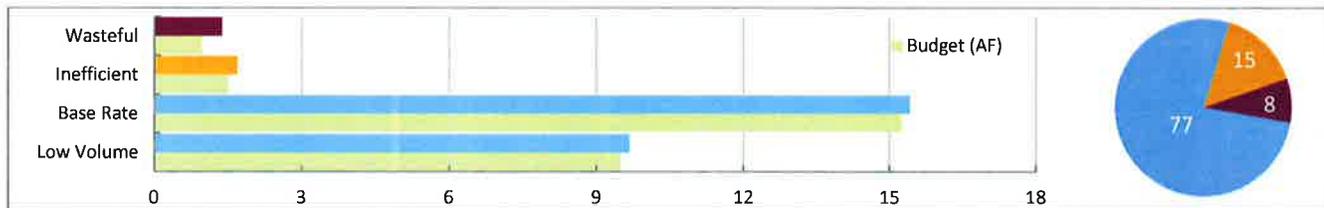
AF **ET Based Allocation**

FY 18-19 Q2 0.18 0.20

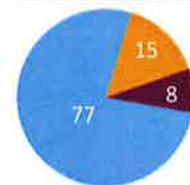
FY 13-14 Q2 0.20 0.37

Potable Sales by Tier FYTD

(in thousands)

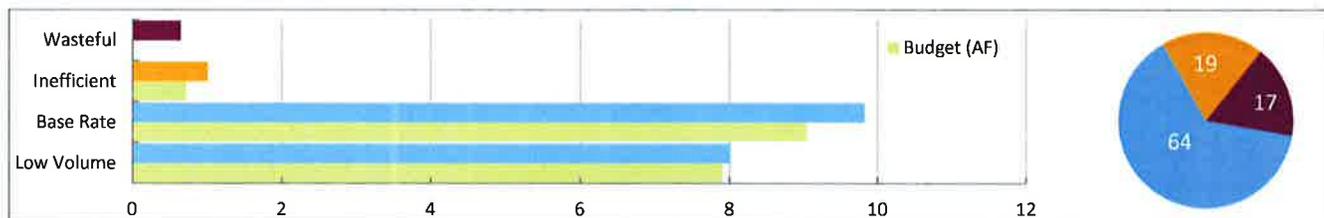


% of Customers by Tier

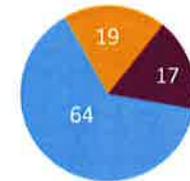


Non-Potable Sales by Tier FYTD

(in thousands)

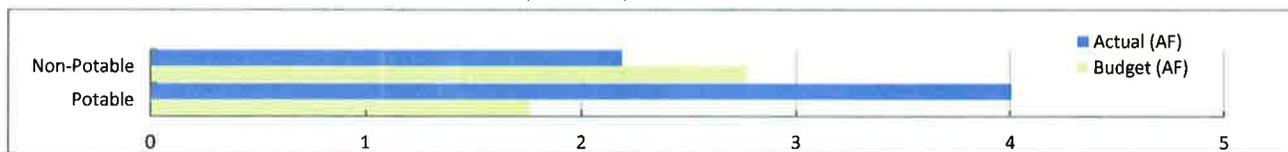


% of Customers by Tier



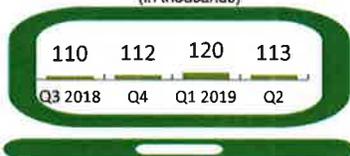
Imported Water Purchases FYTD

(in thousands)



Website Hits

(in thousands)



Customer Satisfaction Index**



** 12 month rolling average

January 28, 2019

Prepared by: T. Bonkowski / M. Cortez

Submitted by: K. Burton

Approved by: Paul A. Cook 

CONSENT CALENDAR

CULVER DRIVE RECYCLED WATER PIPELINE REPLACEMENT BUDGET INCREASE, CONTRACT CHANGE ORDER, AND FINAL ACCEPTANCE

SUMMARY:

The Culver Drive Recycled Water Pipeline Replacement constructed a 12-inch recycled water pipeline to replace an eight-inch pipeline in Culver Drive between University Drive and Ethel Coplen Way in Irvine. Construction is complete and the District's contractor, E.J. Meyer Company, has completed all punch list items. The project has received final inspection and acceptance of construction is recommended. Staff recommends that the Board:

- Authorize a budget increase in the amount of \$275,000, from \$717,000 to \$992,000;
- Authorize the General Manager to execute Contract Change Order No. 1 in the amount of \$178,690.17 with E.J. Meyer Company;
- Accept the construction of the Culver Drive Recycled Water Pipeline Replacement;
- Authorize the General Manager to file a Notice of Completion; and
- Authorize the payment of the retention 35 days after the date of recording the Notice of Completion.

BACKGROUND:

The Zone A recycled water system in Culver Drive, between University Drive to the south and Ethel Coplen Way to the north, supplies recycled water to the Rancho San Joaquin Golf Course and the City of Irvine's landscaped parkway along southbound Culver Drive. This pipeline segment is composed of an eight-inch asbestos cement pipe (ACP) and is approximately 1,200 feet long; it was originally installed in 1976 and has had several repairs in recent years. A forensic analysis on a sample section concluded that the pipe exhibited corrosion of the interior or leaching of the lime component of the ACP, likely caused by high pH levels in recycled water. Hydraulic modeling of the Zone A recycled water system also determined a need to increase the segment's pipe diameter from eight to 12 inches to meet maximum velocity criteria.

The design of the 12-inch replacement polyvinyl chloride pipeline was completed in June 2018 and a construction contract was awarded to E.J. Meyer Company on July 24, 2018. At this time, all work has been completed and the pipeline is now in service. The location of the replacement pipeline is shown in Exhibit "A".

Contract Change Order No. 1:

E.J. Meyer Company submitted a change order for additional work and costs due the following:

- Lost pipe installation production caused by the City of Irvine’s shortening of work hours. The City of Irvine changed the start time of the work from 7:00 to 9:00 a.m. to mitigate traffic delays of up to 45 minutes on southbound Culver Drive between Michelson Drive and University Drive due to school traffic (UC Irvine and University High School). The amount of this portion of the change order was \$136,251.25.
- Unknown and differing site conditions, including additional work required to connect an unknown lateral at the golf course meter vault, and the contractor encountering two-sack slurry fill within the pipe alignment during pipeline installation. The amount of this portion of the change order was \$36,399.12.
- Final quantity adjustment for paving in the amount of \$6,039.80.

Staff recommends the Board authorize the General Manager to execute Contract Change Order No. 1 with E.J. Meyer Company in the amount of \$178,690.17 for the Culver Drive Recycled Water Pipeline Replacement. Contract Change Order No. 1 is attached as Exhibit “B”.

Final Acceptance:

E.J. Meyer Company was awarded the construction contract on July 24, 2018 and completed construction of the pipeline on November 26, 2018.

| | |
|-----------------------------|--|
| Project Title: | Culver Drive Recycled Water Pipeline Replacement Project |
| Project No.: | 10588 |
| Design Engineer: | RCE |
| Construction Management by: | IRWD Staff |
| Contractor: | E.J. Meyer Company |
| Original Contract Cost: | \$707,777.00 |
| Final Contract Cost: | \$886,467.17 |
| Original Contract Days: | 120 |
| Final Contract Days: | 134 |

FISCAL IMPACTS:

Project 10588 is included in the FY 2018-19 Capital Budget. A budget increase is required as shown in the following table:

| Project No. | Current Budget | Addition <Reduction> | Total Budget |
|----------------|----------------|-------------------------|-----------------|
| 10588 | \$717,000 | \$275,000 | \$992,000 |

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) and in conformance with California Code of Regulations Title 14, Chapter 3, Sections 15302 and 15282. Section 15302 provides exemption for replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced. Section 15282 provides exemption for the installation of a new pipeline or maintenance, repair, restoration, removal, or demolition of an existing pipeline as set forth in Section 21080.21 of the Public Resources Code, as long as the project does not exceed one mile (or 5,280 feet) in length. A Notice of Exemption for the project was filed with the County of Orange on February 22, 2018.

COMMITTEE STATUS:

The budget increase and contract change order items were reviewed by the Engineering and Operations Committee on November 20, 2018. The final acceptance portion was not reviewed by a Committee.

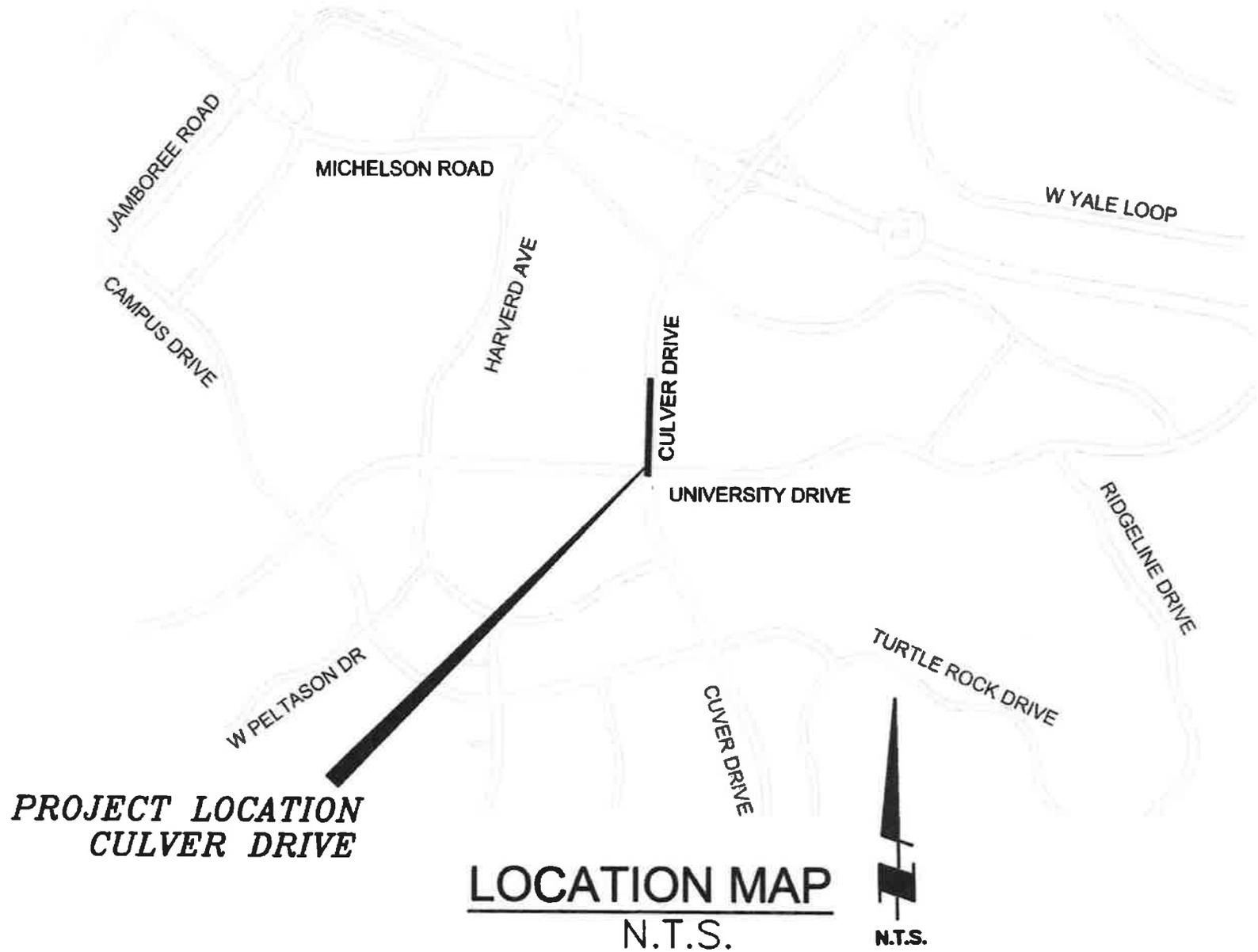
RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE IN THE AMOUNT OF \$275,000, FROM \$717,000 TO \$992,000, FOR PROJECT 10588; AUTHORIZE THE GENERAL MANAGER TO EXECUTE CONTRACT CHANGE ORDER NO. 1 IN THE AMOUNT OF \$178,690.17 WITH E.J. MEYER COMPANY; ACCEPT CONSTRUCTION OF THE CULVER DRIVE RECYCLED WATER PIPELINE REPLACEMENT, PROJECT 10588; AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION; AND AUTHORIZE THE PAYMENT OF THE RETENTION 35 DAYS AFTER THE DATE OF RECORDING THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

- Exhibit "A" – Project Location Map
- Exhibit "B" – Contract Change Order No. 1

EXHIBIT "A"



**PROJECT LOCATION
CULVER DRIVE**

LOCATION MAP

N.T.S.

N.T.S.

EXHIBIT "B"

CONTRACT CHANGE ORDER



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

C.O. No. 1

Final

Project No. 10588

Culver Drive Recycled Water Pipeline Replacement

Project Title

Date: 11/12/2018

| THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED. | \$ ADDITIONS | \$ DELETIONS | DAYS ± |
|---|----------------------|--------------|-----------|
| 1. Reduced working hours, standby, City changed start time from 7am to 9am. | \$ 136,251.25 | \$ - | 9 |
| 2. Differing site conditions; pipe connection changes at meter vault tie in and hard digging at University tie in | \$ 36,399.12 | \$ - | 5 |
| 3. Final paving quantity adjustment | \$ 6,039.80 | \$ - | |
| | \$ - | \$ - | |
| | \$ - | \$ - | |
| | \$ - | \$ - | |
| Contract date changed from Nov. 21, 2018 to Dec. 5, 2018 | | | |
| TOTAL | \$ 178,690.17 | \$ - | 14 |

DAYS ±

| | | | |
|---|------|------------|-----|
| 1. NET AMOUNT THIS CHANGE ORDER | = \$ | 178,690.17 | 14 |
| 2. ORIGINAL CONTRACT AMOUNT | = \$ | 707,777.00 | 120 |
| 3. TOTAL PREVIOUS CHANGE ORDER(S) | = \$ | - | 0 |
| 4. TOTAL BEFORE THIS CHANGE ORDER (2+3) | = \$ | 707,777.00 | 120 |
| 5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4) | = \$ | 886,467.17 | 134 |

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

One Hundred Seventy Eight Thousand Six Hundred Ninety and 17/100 ----- Dollars

Date: 11-13-18 Contractor: E.J. Meyer Kristina Curran By: [Signature]
 Project Manager

| SIGNATURE | DATE | APPROVAL LEVEL REQUIRED |
|---|-------------------------|--|
| <u>[Signature]</u> 1877 D Engineer or Consulting Engineer | <u>11/13/18</u> Date | Department Director Approval Required <input type="checkbox"/> |
| <u>Melinda A. Cortez</u> Principal Engineer | <u>11/13/18</u> Date | Executive Director Approval Required <input type="checkbox"/> |
| <u>[Signature]</u> Executive Director of Engineering & Water Quality | <u>11/13/18</u> Date | General Manager Approval Required <input type="checkbox"/> |
| General Manager | Date | Board Approval Required <input checked="" type="checkbox"/> |
| | | <u>608678</u> Purchase Order No. |

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

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

January 28, 2019

Prepared by: H. Cho/M. Cortez

Submitted by: K. Burton *KLB*

Approved by: Paul A. Cook *PAC*

CONSENT CALENDAR

DYER ROAD WELLFIELD SURGE TANKS BUDGET INCREASE AND CONTRACT CHANGE ORDER

SUMMARY:

The Dyer Road Wellfield (DRWF) Surge Tanks project will construct new surge tanks at Wells 5 and 7 and replace the corroded surge tanks at Wells 11 and 15. The District's contractor has encountered continuing underground field issues during the construction activities at Well 11 and Well 15. Staff recommends that the Board:

- Authorize a budget increase in the amount of \$500,000, from \$4,066,200 to \$4,566,200, for Project 05473, and in the amount of \$100,000, from \$1,310,500 to \$1,410,500, for Project 06165, and
- Authorize the General Manager to execute Contract Change Order (CCO) No. 11 in the amount of \$145,259.55 with Pascal & Ludwig Constructors for the Dyer Road Wellfield Surge Tanks.

BACKGROUND:

The DRWF was constructed in the 1990s as a domestic water source for IRWD and consists of 18 wells located in the city of Santa Ana. The wells were constructed with underground surge tanks at Wells 11 and 15; these tanks have thinning walls due to corrosion and are near the end of their useful lives. As part of the investigation into their replacement, a comprehensive surge analysis of the entire DRWF Zone 1 system including the Wells 21/22 Treatment Plant recommended the construction of five new surge tanks at Wells 5, 7, 11, 15 and 16. The construction of the surge tank at Well 16 was recently completed as part of the Initial Disinfection Facility (IDF) Sodium Hypochlorite Storage and Feed System project, since Well 16 and IDF are located on the same site. This project will install new surge tanks at Wells 5 and 7 and replace the existing surge tanks at Wells 11 and 15. The four well sites are shown in Exhibit "A".

Since the tanks' corrosion resulted from being directly buried in soil with high groundwater, the new tanks are being installed aboveground at Wells 5 and 7, in a partially recessed and canopied concrete vault at Well 11, and in an underground concrete vault at Well 15. The construction contract was awarded to Pascal & Ludwig in April 2017. The surge tanks have been installed at each of the well sites, and the contractor is currently completing all remaining appurtenant work. At Wells 5 and 7, the remaining work of installing the air compressor is ongoing and should be completed by the end of this month. At Well 11, the surge tank was placed in the walled recessed area, and remaining work items include construction of the canopy over the surge tank, modifying the driveway into the site, modifying the block wall and access gate, and installing the air compressor and programmable logic control (PLC) unit. At Well 15, the remaining work items include installation of the air compressor and PLC, and final paving of the site.

Contract Change Order:

Pascal & Ludwig has encountered continuing underground field issues during the construction activities at Well 11 and Well 15. The challenges and additional work required to complete the project, are described in the CCO Summary shown in Exhibit “B”.

At Well 11, there were two challenges requiring additional work. The first challenge was the unknown soil conditions encountered during demolition of the original surge tank and during construction of the pipe connecting the new surge tank to the well discharge pipe. Though not reflected on the as-built documents, concrete slurry was used to encase the bottom of the original surge tank, which required more effort to demolish and remove. Additionally, when the pipe connecting the new surge tank and the well discharge pipe was constructed, the soil at the bottom of the excavation would not meet compaction requirements due to high groundwater, requiring removal of the soft soil and installation of a geomembrane fabric and crushed rock to create a solid foundation. The cost for this item is \$91,410. The additional time required for the work is 22 days.

The second challenge was the unknown condition of the primary Southern California Edison (SCE) power service conduit that crosses beneath Segerstrom Avenue to the well site; the required repair was unknown during design. The size of the new surge tank and the new recessed surge tank pit required relocating the electric transformer laterally from one side of the well property to the other. SCE used this as an opportunity to replace the conductor wire from the transmission main in the street to the well site. After removing the old conductor wire, SCE used a mandrel in the service conduit to confirm that a new conductor wire could be pulled through. However, SCE could not pull the mandrel through the conduit after multiple attempts, indicating an issue with the conduit that requires repair. The location of the defect is in the center median of the street in front of the well. The cost for this item is \$53,849.55 which includes removal and replanting an 18-foot tall queen palm directly above the location of the conduit. No additional work days are required.

Staff reviewed the costs for the change order items and finds them fair and reasonable. CCO No. 11 in the total amount of \$145,259.55 is attached as Exhibit “C”. Construction completion is anticipated in March 2019.

FISCAL IMPACTS:

The cost for the DRWF Surge Tanks is divided between Projects 05473 and 06165. The replacement of the surge tanks at Well 11 and Well 15 is funded by Project 05473, and the construction of the new surge tanks at Well 5 and Well 7 is funded by Project 06165. Projects 05473 and 06165 are included in the FY 2018-19 Capital Budget. A budget increase is required to fund the construction of the project as shown in the following table:

| Project No. | Current Budget | Addition <Reduction> | Total Budget |
|-------------|----------------|----------------------|--------------|
| 05473 | \$4,066,200 | \$500,000 | \$4,566,200 |
| 06165 | \$1,310,500 | \$100,000 | \$1,410,500 |
| Total | \$5,376,700 | \$600,000 | \$5,976,700 |

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, Section 15301 (b) which provides exclusion for minor alteration of public facilities; Section 15302 which provides for replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose; and Section 15303 which consists of exclusion for minor alteration of public facilities such as water and other utility extensions. A Notice of Exemption was filed with the Orange County Clerk-Recorder on May 25, 2016.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on January 15, 2019.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE IN THE AMOUNT OF \$500,000, FROM \$4,066,200 TO \$4,566,200, FOR PROJECT 05473, AND IN THE AMOUNT OF \$100,000, FROM \$1,310,500 TO \$1,410,500, FOR PROJECT 06165; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE CONTRACT CHANGE ORDER NO. 11 IN THE AMOUNT OF \$145,259.55 WITH PASCAL & LUDWIG CONSTRUCTORS FOR THE DYER ROAD WELLFIELD SURGE TANKS, PROJECTS 05473 AND 06165.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Contract Change Order Summary
- Exhibit "C" – Contract Change Order No. 11

EXHIBIT "B"

DRWF Surge Tanks Project 05473 & 06165 Construction Change Order Summary

Contractor: Pascal & Ludwig
Design Engineer: Tetra Tech

| | | | | | | | | | | | Contract Days | | | | Original Completion Date: |
|--------------|---|---------------------|-----------------------------------|------------------------|-----------------------------------|--|--|-------------------------------|---|-------------------------|--|------------------------|----------------------|-----------------------------|---------------------------|
| | | | | | | | | | | | Original Days: 420 | | | | 6/21/2018 |
| | | | | | | | | | | | Original Contract Amount: \$3,693,000.00 | | | | |
| Change Order | Description | Change Order Amount | Well 15 Shoring Related CO Amount | Previous Change Orders | Cumulative Total of Change Orders | Cumulative Total of Well 15 Shoring CO | Cumulative Total of All Other CO Items | % of Original Contract Amount | % of Original Contract Amount of Non-Well 15 Shoring CO Items | Revised Contract Amount | Change Order Days | Previous Change Orders | Cum. Total C.O. days | Revised Total Contract Days | Revised Completion Date |
| 1 | Approved by Exe. Director of Engineering and Water Quality Approved on December 4, 2017 Electrical conduit change per SCE, Well 11 crane for column off-load, Class 250 valves, 16"x12" reducer for Well 15, flange insulation kits | \$72,008.00 | \$0.00 | \$0.00 | \$72,008.00 | \$0.00 | \$72,008.00 | 1.95% | 1.95% | \$3,765,008.00 | 60 | 0 | 60 | 480 | 8/20/2018 |
| 2 | Approved by Exe. Director of Engineering and Water Quality Approved on April 13, 2018 Well 11 SCE conduit investigation, buried 12-inch insulating flange, crane to off surge tanks for Well 11 and 15, additional shoring column installation costs for Well 15 | \$74,271.76 | \$30,213.00 | \$72,008.00 | \$146,279.76 | \$30,213.00 | \$116,066.76 | 3.96% | 3.14% | \$3,839,279.76 | 7 | 60 | 67 | 487 | 8/27/2018 |
| 3 | Approved by Exe. Director of Engineering and Water Quality Approved on May 2, 2018 Well 11 exploratory trench, Maples systems HMI, new Orbit radios, grounding grid for 4 well sites | \$11,517.35 | \$0.00 | \$146,279.76 | \$157,797.11 | \$30,213.00 | \$127,584.11 | 4.27% | 3.45% | \$3,850,797.11 | 1 | 67 | 68 | 488 | 8/28/2018 |
| 4 | Approved by Board of Directors Approved on May 29, 2018 Additional shoring column installation costs, material costs for steel plates, credit for original bid amount for column installation at Well 15 | \$317,977.00 | \$317,977.00 | \$157,797.11 | \$475,774.11 | \$348,190.00 | \$127,584.11 | 12.88% | 3.45% | \$4,168,774.11 | 42 | 68 | 110 | 530 | 10/9/2018 |
| 5 | Approved by Executive Director of Engineering and Water Quality Approved on July 5, 2018 Credit for trucking and soil disposal for Well 15 from original bid, Well 15 vault wall height increase, surge tank piping re-route due to conflict at Well 7 | \$5,272.00 | -\$10,679.00 | \$475,774.11 | \$481,046.11 | \$337,511.00 | \$143,535.11 | 13.03% | 3.89% | \$4,174,046.11 | 3 | 110 | 113 | 533 | 10/12/2018 |
| 6 | Approved by Executive Director of Engineering and Water Quality Approved on July 25, 2018 Standby charges and additional shoring installation costs at Well 15, and early installation for the butterfly valve to the surge tank at Well 11 | \$44,898.00 | \$35,926.00 | \$481,046.11 | \$525,944.11 | \$373,437.00 | \$152,507.11 | 14.24% | 4.13% | \$4,218,944.11 | 42 | 113 | 155 | 575 | 11/23/2018 |
| 7 | Approved by Executive Director of Engineering and Water Quality Approved on July 25, 2018 Modified demo process at Well 11, temporary power at Well 11, standby charge for temporary power, and additional CCTV video of neighbors' homes | \$41,920.38 | \$0.00 | \$525,944.11 | \$567,864.49 | \$373,437.00 | \$194,427.49 | 15.38% | 5.16% | \$4,260,864.49 | 5 | 155 | 160 | 580 | 11/28/2018 |
| 8 | Approved by Executive Director of Engineering and Water Quality Approved on October 1, 2018 Concrete encountered at early valve replacement at Well 11, temporary power at Well 11, and vibration monitoring at Well 11 | \$38,148.68 | \$0.00 | \$567,864.49 | \$606,013.17 | \$373,437.00 | \$232,576.17 | 16.41% | 6.06% | \$4,299,013.17 | 5 | 160 | 165 | 585 | 12/3/2018 |
| 9 | Approved by Executive Director of Engineering and Water Quality Approved on November 8, 2018 Reciprocating compressors at Wells 5 and 7 rather than screw type compressors and wood lagging credit at Well 15 | \$35,478.81 | -\$9,132.92 | \$606,013.17 | \$641,491.98 | \$364,304.08 | \$277,187.90 | 17.37% | 7.20% | \$4,334,491.98 | 15 | 165 | 180 | 600 | 12/18/2018 |
| 10 | Approved by General Manager Approved on January 4, 2019 Replace block wall that settled at Well 15, grout voids underneath Well 15 building, storm drain inlet at Well 11, and temporary power at Well 11 | \$98,945.48 | \$72,369.35 | \$641,491.98 | \$740,437.46 | \$436,673.43 | \$303,764.03 | 20.05% | 7.29% | \$4,433,437.46 | 21 | 180 | 201 | 621 | 1/8/2019 |

CONTRACT CHANGE ORDER EXHIBIT "C"



Irvine Ranch Water District

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

C.O. No. 11
 Final

Project No. 05473/06165

Dyer Road Well Field Surge Tanks

Project Title

Date: January 7, 2019

| THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED. | \$ ADDITIONS | \$ DELETIONS | DAYS ± |
|--|---------------------|--------------|-----------|
| 1. Well 11 SCE primary conduit repair in street median. | \$53,849.55 | \$-0- | 0 |
| 2. Remove Well 11 encased concrete slurry from old surge tank. | \$91,410.00 | \$-0- | 22 |
| | | | |
| The project completion date is revised from January 8, 2019 to January 30, 2019. | | | |
| TOTAL | \$145,259.55 | \$-0- | 22 |

DAYS ±

| | | | |
|---|---|----------------|-----|
| 1. NET AMOUNT THIS CHANGE ORDER | = | \$145,259.55 | 22 |
| 2. ORIGINAL CONTRACT AMOUNT | = | \$3,693,000.00 | 420 |
| 3. TOTAL PREVIOUS CHANGE ORDER(S) | = | \$740,437.46 | 201 |
| 4. TOTAL BEFORE THIS CHANGE ORDER (2+ 3) | = | \$4,433,437.46 | 621 |
| 5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4) | = | \$4,578,697.01 | 643 |

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

One Hundred Forty Five Thousand Two Hundred Fifty Nine and 55/100 ----- Dollars

| Date | Contractor | By |
|---|------------|---|
| SIGNATURE | | DATE |
| APPROVAL LEVEL REQUIRED | | |
| _____ | _____ | _____ |
| IRWD Engineer or Consulting Engineer | Date | Department Director Approval Required <input type="checkbox"/> Executive Director Approval Required <input type="checkbox"/> General Manager Approval Required <input type="checkbox"/> Board Approval Required <input type="checkbox"/> |
| Principal Engineer | Date | |
| Executive Director of Engineering & Water Quality | Date | |
| General Manager | Date | |
| | | Purchase Order No. _____ |

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

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

January 28, 2019

Prepared by: T. Bonkowski/M. Cortez

Submitted by: K. Burton *(KLB)*

Approved by: Paul A. Cook *(Signature)*

CONSENT CALENDAR

VAULT LID REPLACEMENT CONTRACT CHANGE ORDER

SUMMARY:

The Vault Lid Replacement project will replace 23 vault lids, one vault ladder, and one vault section at various locations within the District's service area. Staff requested the replacement of four additional vault lids at the University Lift Station. Staff recommends that the Board authorize the General Manager to execute Contract Change Order No. 1 in the amount of \$144,044.75 with Schuler Constructors for the Vault Lid Replacement project.

BACKGROUND:

The District owns and operates numerous facilities (e.g., meters and valves) located in underground vaults at various locations within its service area. After years of service and normal operational wear, a vault's components, including lids and vault ladders, require replacement to maintain structural integrity and provide safe accessibility. On May 29, 2018 the Vault Lid Replacement project was awarded to Schuler Constructors to replace 23 vault lids, one vault ladder, and one vault section.

Contract Change Order No. 1:

Staff identified four additional vault lids that are in need of expedited replacement at the University Lift Station at University Drive and MacArthur Boulevard. The lifting mechanisms of these vault lids have failed and the underside of the lids are corroded due to the corrosive atmosphere of the lift station's wet well causing a safety hazard. At staff's request, Schuler Constructors submitted a cost proposal in the amount of \$144,044.75 for the additional work to replace the vault lids. Staff reviewed and found Schuler's proposal as fair and reasonable; the cost is comparable to the unit costs of the other lids in the original scope of work. Staff recommends the Board authorize the General Manager to execute Contract Change Order No. 1 in the amount of \$144,044.75 with Schuler Constructors. A 75-day contract time extension is required due to manufacturing, delivery, and installation of the additional vault lids. Contract Change Order No. 1 is attached as Exhibit "A".

FISCAL IMPACTS:

Project 10550 is included in the FY 2018-19 Capital Budget. The existing budget is sufficient to fund the work.

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) and in conformance with California Code of Regulations Title 14, Chapter 3, 15301. Section 15301

provides exemption for minor alterations of existing 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 County of Orange on November 30, 2017.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on January 15, 2019.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE CONTRACT CHANGE ORDER NO. 1 IN THE AMOUNT OF \$144,044.75 WITH SCHULER CONSTRUCTORS FOR THE VAULT LID REPLACEMENT, PROJECT 10550.

LIST OF EXHIBITS:

Exhibit "A" – Contract Change Order No. 1

CONTRACT CHANGE ORDER

EXHIBIT "A"



Irvine Ranch Water District

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

C.O. No. 1
 Final

Project No. 06121, 06123, 10550

Vault Lid Replacement

Project Title

Date: 1/2/2019

| THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED. | \$ ADDITIONS | \$ DELETIONS | DAYS ± |
|---|---------------|--------------|--------|
| 1. Vault Lid replacement at the University Lift Station. | \$ 144,044.75 | \$ - | 75 |
| | \$ - | \$ - | |
| | \$ - | \$ - | |
| | \$ - | \$ - | |
| | \$ - | \$ - | |
| | \$ - | \$ - | |
| | \$ - | \$ - | |
| Contract end date changed from January 25, 2019 to April ¹⁰ 14, 2019 | | | |
| TOTAL | \$ 144,044.75 | \$ - | 75 |

| | | | |
|---|------|--------------|-----|
| 1. NET AMOUNT THIS CHANGE ORDER | = \$ | 144,044.75 | 75 |
| 2. ORIGINAL CONTRACT AMOUNT | = \$ | 932,960.00 | 240 |
| 3. TOTAL PREVIOUS CHANGE ORDER(S) | = \$ | - | 0 |
| 4. TOTAL BEFORE THIS CHANGE ORDER (2+ 3) | = \$ | 932,960.00 | 240 |
| 5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4) | = \$ | 1,077,004.75 | 315 |

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

One Hundred Forty Four Thousand Forty Four and 75/100

----- Dollars

1-4-18
Date

Schuler Constructors
Contractor

Kevin Panzer
By:

| SIGNATURE | DATE | APPROVAL LEVEL REQUIRED |
|---|-----------------------|--|
| | <u>1/4/19</u> Date | Department Director Approval Required <input type="checkbox"/> |
| IRWD Engineer or Consulting Engineer | | Executive Director Approval Required <input type="checkbox"/> |
| <u>Malcolm A Cortez</u> | <u>1/4/19</u> Date | General Manager Approval Required <input type="checkbox"/> |
| Principal Engineer | | Board Approval Required <input checked="" type="checkbox"/> |
| | <u>1/4/19</u> Date | |
| Executive Director of Engineering & Water Quality | | |
| General Manager | | |
| | | 607948 |
| | | Purchase Order No. |

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

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

Hatch Removal Check

| | | | | | | | |
|--|-----------|-----------------|---------------------|-----------------|------------------|--------------------|-----------------------|
| PROJECT TITLE: | | | | DATE PERFORMED: | | | |
| PROJECT NO. # | | | | DATE OF REPORT: | | | |
| WORK PERFORMED BY: SCHULER Constructors | | | | | | | |
| DESCRIPTION OF WORK: Replace (4) 316SS hatches @ university lift station | | | | | | | |
| EQUIPMENT | | | | HOURS | RATE | TOTAL | Cal Trans Code |
| Service Truck | | | | 112 | 32.48 | \$3,637.76 | 12-20 |
| Boom Truck | | | | 80 | 70.42 | \$5,633.60 | 4985 |
| Man Basket | | | | 80 | 37.5 | \$3,000.00 | n/a |
| Stake Bed | | | | 112 | 32.48 | \$3,637.76 | 12-20 |
| TOTAL EQUIP. | | | | | | \$15,909.12 | |
| LABOR | | HOURS RE | REG RATE | HOURS O. | O.T. RATE | TOTAL LABOR | |
| Operator | | 80 | 108.35 | | | \$8,668.00 | |
| Foreman | | 112 | 92.65 | | | \$10,376.80 | |
| Group 5 Labor | | 112 | 88.27 | | | \$9,886.24 | |
| Group 1 Labor | | 32 | 77.15 | | | \$2,468.80 | |
| TOTAL LABOR | | | | | | \$31,399.84 | |
| MATERIALS | | | | | | | |
| Load Level 5 316SS Hatches | | | | | | \$57,250.00 | |
| False Deck Support Material | | | | | | \$1,500.00 | |
| Grout and Concrete Material | | | | | | \$1,000.00 | |
| Misc SS Strut / Clamps/ Anchors | | | | | | \$800.00 | |
| TOTAL MATERIAL | | | | | | \$60,550.00 | |
| SUBS/SPECIALISTS | | | | | | | |
| T-lock repair | | | | | | \$14,000.00 | |
| TOTAL SUBS/SPECIALISTS | | | | | | \$14,000.00 | |
| TOTALS | | | | | | | |
| LABOR | | | \$31,399.84 | | | | |
| CONSUMABLES | 2% | | \$628.00 | | | | |
| TOTAL LABOR | | | \$32,027.84 | | | | |
| EQUIPMENT | | | \$15,909.12 | | | | |
| CONSUMABLES | 2% | | \$318.18 | | | | |
| TOTAL EQUIPMENT | | | \$16,227.30 | | | | |
| MATERIALS | | | \$60,550.00 | | | | |
| CONSUMABLES | 2% | | \$1,211.00 | | | | |
| TOTAL MATERIALS | | | \$61,761.00 | | | | |
| SUBS/SPCL | | | \$14,000.00 | | | | |
| TOTAL COST | | | \$124,016.14 | | | | |
| MARKUPS | % | | | | | | |
| LABOR | 15 | | \$4,804.18 | | | | |
| EQUIPMENT | 15 | | \$2,434.10 | | | | |
| MATERIALS | 15 | | \$9,264.15 | | | | |
| SUBS/SPCLS | 15 | | \$2,100.00 | | | | |
| TOTAL SHEET | | | \$142,618.56 | | | | |
| BOND | 1% | | \$1,426.19 | | | | |
| TOTAL EXTRA | | | \$144,044.75 | | | | |

January 28, 2019

Prepared by: K. Lew

Submitted by: K. Burton 

Approved by: Paul A. Cook 

CONSENT CALENDAR

PLANNING AREA 1 (ORCHARD HILLS) NEIGHBORHOOD 3 CAPITAL IMPROVEMENTS

SUMMARY:

Irvine Community Development Company (ICDC) is continuing with Planning Area 1 (Orchard Hills) development including the next phase of Neighborhood 3 backbone street improvements. As part of the Neighborhood 3 development project, ICDC will design and construct IRWD's recycled water capital facilities under an existing Supplemental Reimbursement Agreement. Staff recommends that the Board authorize the addition of Project 10867 to the FY 18-19 Capital Budget in the amount of \$126,000.

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 serves to define the improvements to be designed and constructed within a specific planning area as well as the estimated reimbursable costs.

A Supplemental Reimbursement Agreement was previously approved in February 2005 for all IRWD capital facilities within Planning Areas 1 and 2. All required IRWD capital improvements are documented in the Planning Area 1 and 2 Sub-Area Master Plan Addendum No. 2 dated July 2016 as prepared by Stantec Consulting Services, Inc. The improvements are shown in Exhibit "A".

Neighborhood 3 capital facilities include construction of approximately 900 feet of six-inch recycled water pipeline. ICDC selected Wilson Mikami to complete the Neighborhood 3 design plans. ICDC received five bids and the low bidder for the IRWD work was Irvine Pipeline Company, Inc. with a bid of \$44,120; bids ranged from \$44,120 to \$125,128. Construction concurrence will be approved under Director-level authority.

A summary of the Orchard Hills Neighborhood 3 Recycled Water Capital Improvement costs is shown below:

| | |
|--|------------------|
| Design Engineering (Wilson Mikami) | \$ 5,100.00 |
| Construction (Irvine Pipeline) | \$44,120.00 |
| Construction Engineering (Wilson Mikami) | \$ 6,800.00 |
| Construction Geotechnical (CEM Lab) | \$ 4,450.00 |
| Construction Staking (Adams Streeter) | \$ 2,775.00 |
| Archeo/Paleo (LSA Associates) | \$ 5,040.00 |
| ICDC Administration Fee (1%) | <u>\$ 441.20</u> |
| | \$68,726.20 |

FISCAL IMPACTS:

Staff is requesting to add Project 10867 to the FY 2018-19 Capital Budget as shown below:

| Project No. | Current Budget | Addition <Reduction> | Total Budget |
|----------------|-------------------|-------------------------|-----------------|
| 10867 | \$-0- | \$ 126,000 | \$ 126,000 |

ENVIRONMENTAL COMPLIANCE:

The construction of the capital facilities for Planning Area 1 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#2004041080, was certified by the lead agency, the City of Irvine, on June 14, 2005.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on January 15, 2019.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION OF PROJECT 10867 TO THE FY 2018-19 CAPITAL BUDGET IN THE AMOUNT OF \$126,000 FOR THE PLANNING AREA 1 (ORCHARD HILLS) NEIGHBORHOOD 3 CAPITAL IMPROVEMENTS.

LIST OF EXHIBITS:

Exhibit "A" – Project Location Map

January 28, 2019

Prepared by: C. Kessler/M. Cortez

Submitted by: K. Burton *KLB*

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

CONSENT CALENDAR

BONITA CANYON RECYCLED WATER ZONE D TO B
PRESSURE REDUCING STATION SUPPLY PIPELINE REPLACEMENT
BUDGET ADDITION

SUMMARY:

A 12-inch recycled water line within a steel casing that supplies Zone D recycled water to the Zone B system via the Bonita Canyon Zone D to B Pressure Reducing Station is leaking and requires replacement. This project will install a replacement 12-inch pipeline in a new alignment. Staff recommends that the Board authorize the addition of Project 10999 in the amount of \$325,000 to the FY 2018-19 Capital Budget for the Bonita Canyon Recycled Water Zone D to B Pressure Reducing Station Supply Pipeline Replacement.

BACKGROUND:

The section of 12-inch recycled water pipeline that is to be replaced is located in front of the Bonita Canyon Pump Station and crosses perpendicularly to both westbound lanes of Bonita Canyon Drive. A location map is attached as Exhibit "A". The pipeline consists of various segments of ductile iron, polyvinyl chloride, and cement mortar lined and coated steel pipe built in 1991, 2001, and 2010, respectively. This section of pipeline is currently out of service due to leaks despite several repairs. This project will install a replacement pipeline and abandon the existing pipeline in place.

Staff issued a Request for Proposal for the design of the replacement pipeline to five consultants in November 2018. Staff expects to review, select and award a Professional Services Agreement for the design under the General Manager's authority in January 2019.

FISCAL IMPACTS:

Project 10999 is not included in the FY 2018-19 Capital Budget. Staff requests the addition of Project 10999 to the FY 2018-19 Capital Budget to fund the project as shown in the following table. Funding will be provided by the replacement fund for recycled water.

| Project No. | Current Budget | Addition <Reduction> | Total Budget |
|-------------|----------------|----------------------|--------------|
| 10999 | \$-0- | \$325,000 | \$325,000 |

ENVIRONMENTAL COMPLIANCE:

This project is categorically exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301, which provides exclusion for minor alteration of public facilities; and Statutory Exemption 15282, which provides for the installation of a new pipeline that does not exceed one mile (more than 5,210 feet) in length.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on January 15, 2019.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION OF PROJECT 10999 IN THE AMOUNT OF \$325,000 TO THE FY 2018-19 CAPITAL BUDGET FOR THE BONITA CANYON RECYCLED WATER ZONE D TO B PRESSURE REDUCING STATION SUPPLY PIPELINE REPLACEMENT, PROJECT 10999.

LIST OF EXHIBITS:

Exhibit "A" – Location Map

EXHIBIT "A"



Exhibit "A"
Location Map

January 28, 2019

Prepared by: J. Smyth / M. Cortez

Submitted by: K. Burton *(KLB)*

Approved by: Paul A. Cook *(Signature)*

CONSENT CALENDAR

THREE-YEAR DAM MONITORING AND SURVEILLANCE CONSULTANT SELECTION

SUMMARY:

The District maintains a dam monitoring and surveillance program where operational data and performance reports are submitted annually to the California Division of Safety of Dams (DSOD) for each District-owned dam. Geotechnical engineering firms are utilized to prepare the DSOD reports. Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement with GEI Consultants in the amount of \$192,720 for three years of dam monitoring and surveillance services.

BACKGROUND:

The DSOD oversees dam safety in California. In accordance with DSOD requirements, as provided for in the statutes and regulations pertaining to supervision of dams and reservoirs, the District maintains a Dam Monitoring and Surveillance program. Operational data and performance reports are submitted annually to the DSOD for the five District-owned dams: Rattlesnake, Sand Canyon, San Joaquin, Santiago Creek, and Syphon Reservoir. Geotechnical engineering firms are utilized to ensure the most accurate interpretation of the operational data and to prepare the DSOD report verifying the stability of each dam. The District's current three-year contract with Genterra Consultants expired on December 31, 2018.

Consultant Selection:

Staff requested proposals from six geotechnical engineering firms to provide dam monitoring and surveillance services for the five District-owned dams for a period of three calendar years from 2019 through 2021. Three of the six consultants, Geopentech, HDR, and Wood, declined to submit proposals citing their current workloads; Kleinfelder declined due to not having locally trained staff. The remaining two firms, AECOM Technical Services and GEI Consultants, submitted proposals.

Staff evaluated the proposals based on the consultants' project approach, project team and relevant experience and recommends the selection of GEI Consultants. As co-owner of Santiago Creek Dam, Serrano Water District provided its input in the consultant selection process and agreed with the selection. GEI Consultants has completed Phase 1 of the Santiago Creek Dam spillway assessment for the Districts with good performance and will begin Phase 2 in 2019. The consultant evaluation matrix is attached as Exhibit "A".

Staff recommends awarding a Professional Services Agreement to GEI Consultants for a three-year term of dam monitoring and surveillance services for all five District-owned dams. A copy of GEI Consultants' proposal is attached as Exhibit "B".

FISCAL IMPACTS:

Dam Monitoring and Surveillance is included in the Water Operations Department Operating Budget approved annually by the Board.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on January 15, 2019.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH GEI CONSULTANTS IN THE AMOUNT OF \$192,720 FOR THREE YEARS OF DAM MONITORING AND SURVEILLANCE SERVICES.

LIST OF EXHIBITS:

Exhibit "A" – Consultant Selection Evaluation Matrix
Exhibit "B" – GEI Consultant's Proposal

EXHIBIT "A"
DAM MONITORING CONSULTANT SELECTION MATRIX

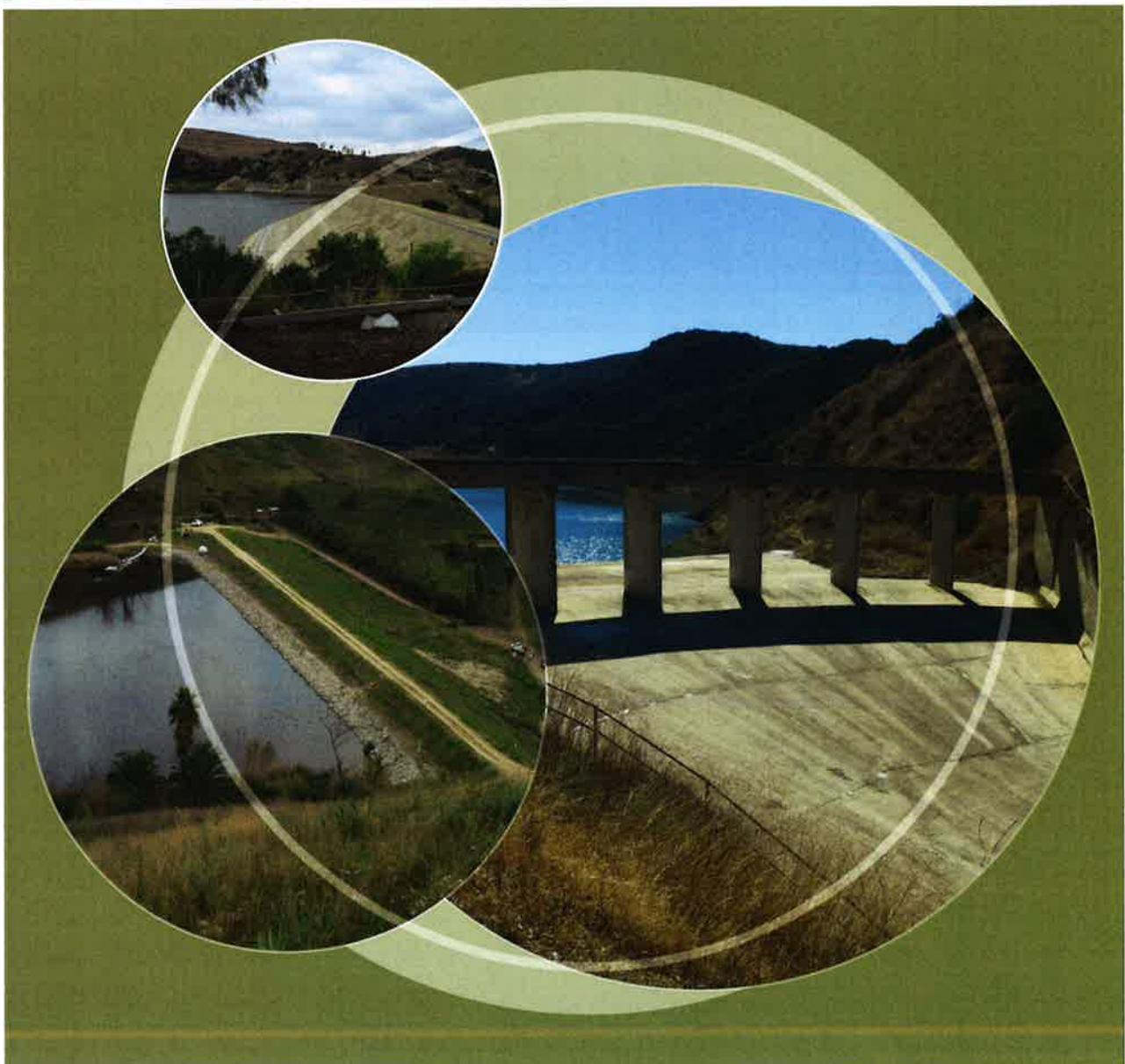
| Item | Description | Weights | AECOM | GEI |
|-------------|--|----------------|--------------|-------------|
| A | TECHNICAL APPROACH | 50% | | |
| 1 | Project Understanding | 40% | 2 | 1 |
| 2 | Scope of Work/Responsiveness to RFP | 30% | 2 | 1 |
| 3 | Proposal Approach | 30% | 2 | 1 |
| | <u>Weighted Score (Technical Approach)</u> | | 2 | 1 |
| B | QUALIFICATION AND EXPERIENCE | 50% | | |
| 1 | Project Manager | 35% | 2 | 1 |
| 2 | Project Engineer /Team | 35% | 2 | 1 |
| 3 | Similar Projects | 30% | 1 | 2 |
| | <u>Weighted Score (Experience)</u> | | 1.7 | 1.3 |
| | COMBINED WEIGHTED SCORE | | 1.85 | 1.15 |
| C | SCOPE OF WORK | | | |
| | TASK 1. Data Review and Analysis | | | |
| | Task Hours | | 232 | 171 |
| | Cost | | \$ 33,029 | \$ 33,695 |
| | TASK 2. Field Inspections | | | |
| | Task Hours | | 384 | 144 |
| | Cost | | \$ 58,668 | \$ 41,790 |
| | TASK 3. Reports | | | |
| | Task Hours | | 447 | 380 |
| | Cost | | \$ 67,093 | \$ 95,785 |
| | TASK 4. As-needed Engineering Assistance | | | |
| | Task Hours | | 90 | 90 |
| | Cost | | \$ 12,111 | \$ 21,450 |
| D | OTHER | | | |
| | Joint Venture | | No | No |
| | DIR Registration | | 100005693 | 1000025634 |
| | Insurance (Professional & General Liability) | | Yes | Yes |
| | Exceptions taken to IRWD Std. Contract | | No | No |
| | Total Hours | | 1,153 | 785 |
| | TOTAL FEE AMOUNT | | \$ 170,901 | \$ 192,720 |
| | Ranking of consultants | | 2 | 1 |
| | FORCED RANKINGS: | | | |
| | 1 - Excellent | | | |
| | 2 - Very Good | | | |

EXHIBIT "B"



Three-Year Monitoring and Surveillance Program for
Rattlesnake Canyon, Sand Canyon, San Joaquin,
Syphon, and Santiago Creek Dams
for Calendar Years 2019-2021

PROPOSAL PREPARED FOR THE IRVINE RANCH WATER DISTRICT NOVEMBER 8, 2018





November 8, 2018

Consulting Mr. Malcolm A. Cortez, PE
Engineers and Principal Engineer
Scientists Irvine Ranch Water District
Michelson Water Recycling Plant
3512 Michelson Avenue
Irvine, CA 92612

Subject: Proposal for Three-Year Monitoring and Surveillance Program for Rattlesnake Canyon, Sand Canyon, San Joaquin, Syphon, and Santiago Creek Dams for Calendar Years 2019 through 2021

Dear Mr. Cortez:

GEI Consultants, Inc. (GEI) has prepared the enclosed proposal to provide Irvine Ranch Water District (IRWD) with engineering services for a three-year monitoring and surveillance program for Rattlesnake Canyon, Sand Canyon, San Joaquin, Syphon, and Santiago Creek Dams. Our budget proposal for the work is contained in a separate sealed envelope as requested in the Request for Proposal. All of the subject dams are under the regulatory jurisdiction of the California Division of Safety of Dams (DSOD).

GEI has provided engineering services for more than 2,500 dam projects nationwide and over 240 in California – it is a core strength of our 800-person firm. Thomas Keller, our proposed Project Manager, has been a key player in many notable Southern California dam projects for the last 35 years, and has extensive experience in coordinating with DSOD on behalf of dam owners. He managed GEI's engineering services to evaluate the feasibility of expanding IRWD's Syphon Reservoir and is currently managing GEI's condition assessment of the Santiago Creek Dam spillway.

Other key members of our team include David Gutierrez and Richard Sanchez. Both have inspected and evaluated IRWD's dams while they worked for DSOD. In addition to their direct knowledge of IRWD's dams, they bring unequalled knowledge regarding dam safety, monitoring and surveillance programs, and DSOD's policies, procedures and regulations. Mr. Gutierrez is currently providing technical support for GEI's evaluation of the Santiago Creek Dam spillway.

GEI's experience will ensure that IRWD is addressing the most important and appropriate dam safety issues while considering the efficient use of precious resources. Please feel free to contact Thomas Keller at 760.795.1972 or tkeller@geiconsultants.com if you have any questions about our proposal or wish to set up an interview.

Sincerely,

GEI CONSULTANTS, INC.

A handwritten signature in black ink that reads "Thomas O. Keller".

Thomas O. Keller, PE, GE
Vice President, Project Manager

A handwritten signature in black ink that reads "David Gutierrez".

David Gutierrez, PE, GE
Vice President, Civil Engineer

TABLE OF CONTENTS

COVER LETTER

Project Understanding and Scope 1

Team 1

Qualifications, Experience, and References 1

Schedule..... 1

Budget..... 1

Joint Venture 1

Conflict of Interest..... 1

Insurance..... 1

Contract..... 1

Public Works Requirements..... 1

Appendix A – Dam Safety Inspection Checklist

Appendix B – Staff Resumes

Appendix C – Project Descriptions

1.

PROJECT UNDERSTANDING AND SCOPE

PROJECT UNDERSTANDING

Irvine Ranch Water District (IRWD) owns Rattlesnake Canyon, Sand Canyon, San Joaquin, and Syphon Dams. The reservoirs impounded by these dams are used to store recycled water, and all but San Joaquin Dam are also used to store local runoff. IRWD jointly owns Santiago Creek Dam with Serrano Water District (SWA) for storage of local runoff as well as untreated water from Metropolitan Water District of Southern California. All five dams are earth embankments with heights ranging from 79 to 224 feet.

All five dams are under the regulatory jurisdiction of the California Department of Water Resources (DWR), Division of Safety of Dams (DSOD). DSOD regulates dam safety in California, with the goal of avoiding dam failure and thus preventing potential loss of life and destruction of property. Data on the five dams contained in DSOD’s September 2018 inventory of dams within their jurisdiction are summarized in **Table 1**.

TABLE 1. INVENTORY OF DAMS

| Parameter | Rattlesnake Canyon Dam | Sand Canyon Dam | San Joaquin Dam | Syphon Dam | Santiago Creek Dam |
|--------------------------------|------------------------|-----------------|-----------------|------------|--------------------|
| DSOD No. | 1029.003 | 1029.002 | 1029.000 | 1029.004 | 75.000 |
| Year Built | 1959 | 1912 | 1966 | 1949 | 1933 |
| Height (feet) | 79 | 58 | 224 | 59 | 136 |
| Crest Length (feet) | 980 | 861 | 873 | 843 | 1,425 |
| Reservoir Capacity (acre-feet) | 1,480 | 960 | 3,036 | 578 | 25,000 |
| Downstream Hazard | High | Extremely High | Extremely High | High | Extremely High |

Effective July 1, 2017, DSOD updated the hazard potential classifications for all State jurisdictional dams, as shown in **Table 2**. The downstream hazard classifications for the dams owned by IRWD and SWA range from “High” to “Extremely High” based on evaluations by DSOD. This downstream hazard classification is based solely on potential for loss of life and property should the dam fail, not the condition of the dam or its critical appurtenant structures. DSOD’s hazard potential classifications are based on Federal guidelines published by the Federal Emergency Management Agency (FEMA). FEMA recommends a three-step rating system that defines low-, significant-, and high-hazard potential classifications, which are determined from the potential for loss of life, economic loss, and environmental damage resulting from a hypothetical dam failure. DSOD further subdivides FEMA’s “High” classification into an “Extremely High” classification to identify dams upstream of highly populated areas or extensive development and dams with short evacuation warning times.

TABLE 2. CRITERIA FOR DSOD’S DOWNSTREAM HAZARD POTENTIAL CLASSIFICATION

| Downstream Hazard Potential Classification | Loss of Human Life | Economic, Environmental, and Lifeline Losses |
|--|---------------------------------|--|
| Low* | None expected | Low and principally limited to dam owner’s property |
| Significant* | None expected | Yes |
| High* | Probable (One or more expected) | Yes (but not necessary for this classification) |
| Extremely High | Considerable | Yes – major impacts to critical infrastructure or property |

* Reference FEMA P-946, July 2013, Federal Guidelines for Inundation Mapping of Flood Risks Associated with Dam Incidents and Failures

DSOD performs a dam safety inspection of Rattlesnake, Sand Canyon, and Syphon Dams once every year, and San Joaquin and Santiago Creek Dams twice a year. Given the importance of dam safety to IRWD, a geotechnical consultant is engaged by IRWD to perform additional field inspections of the dams beyond those performed by DSOD. These include semi-annual inspections of Rattlesnake Canyon, Sand Canyon, San Joaquin, and Syphon Dams and quarterly inspections of Santiago Creek Dam.

In addition, IRWD staff visually inspect all five dams daily. Measurements of drain flows, monitoring wells, and piezometers are taken monthly. Piezometers are used to measure ground water and other fluid pressure levels. Surface monuments on the crest of each dam are measured by a licensed surveyor annually to check for horizontal and vertical movements.

IRWD maintains a dam monitoring and surveillance program where operational data and performance reports are submitted annually to DSOD for the five dams described above. This proposal is in response to IRWD’s request to provide engineering services for a three-year period to support the dam monitoring and surveillance program

SCOPE OF WORK

Our scope of work is divided into the following four main tasks:

- Task 1 – Data Plotting and Evaluation
- Task 2 – Field Inspections
- Task 3 – Reporting
- Task 4 – As-Needed Services

Descriptions of the scope of work and approach for each task are provided below.

Task 1 – Data Plotting and Evaluation

IRWD will collect the following information and transmit it to GEI on a periodic basis:

- Transmitted Monthly – Water surface elevations taken daily at Rattlesnake Canyon, Sand Canyon, San Joaquin, Syphon, and Santiago Creek Dams.
- Transmitted Monthly – Measurements of piezometers, monitoring wells and seepage monitoring stations taken once per month at Rattlesnake Canyon, Sand Canyon, Syphon, and San Joaquin Dams and twice per month at Santiago Creek Dam.

- Transmitted Monthly – Data on black sediment, identified as Organic Silt (OH), that had been collecting in the East, West, and filter drain weir boxes at San Joaquin Dam. The sediment is being monitored monthly in the West drain with a pictorial history and weight of the dried material. IRWD will filter, dry and weigh the sediment, and take monthly pictures of the sediment in the weir box.
- Transmitted Annually – Measurements of surface crest monument movements for each dam.

We have assumed that IRWD will provide spreadsheets that contain historical measurement data, including templates for preparing graphical plots of the data. GEI will review the tables and templates and make improvements to them as deemed necessary and with approval from IRWD. Plots of the existing data will be made to establish baseline readings and trends.

GEI will add the measurement data received from IRWD to the master database on a monthly basis and produce graphical plots of the data as a function of time. Piezometer and seepage data will be plotted in combination with the reservoirs' water surface elevations and the precipitation in the area for the period being evaluated.

Black sediment (organic silt) collected with seepage at San Joaquin Reservoir is a long-occurring phenomenon and it is encouraging that it has subsided in the East and filter drains. The sediment data and photos will be evaluated against past weights, quantities, and physical appearance. Any significant changes will be evaluated, and conclusions formulated as to possible impact on the safety of the dam.

Survey data of the dam crests will also be plotted and evaluated. Settlement, if any, will be calculated and compared against design threshold limits (if available). Lateral movements, if any, will be evaluated to determine if they are permanent movements or possibly the result of reservoir fluctuations.

Trends in all measurement data will be evaluated, and engineering judgements made as to the accuracy of the data, adequacy of the instruments, the adequacy of the instrumentation network, and the performance of the dams based on the instrumentation data. Graphical plots of the data and GEI commentary on the graphical plots will be emailed to IRWD within five days of receiving the monthly dataset from IRWD. Possible spurious measurements will be flagged so that IRWD can perform additional measurements to confirm or correct the data.

Task 2 – Field Inspections

GEI staff will perform semi-annual field inspections of Rattlesnake Canyon, Sand Canyon, San Joaquin, and Syphon Dams, and quarterly inspections of Santiago Creek Dam. We will coordinate our inspections with IRWD and DSOD so that we perform our inspections at the same time DSOD performs their inspections. GEI will also be available to inspect the dams after significant earthquakes (great than magnitude 5.0) as required by DSOD. DSOD requires that outlet gates be exercised at least once a year to demonstrate adequate operability in case of an emergency. GEI will be present for operation of the outlet works gates. We recommend that field inspections be performed together with IRWD dam operators so that any unusual conditions observed by the operators can be conveyed and discussed.

The dam inspections will be performed by Richard Sanchez, a senior engineer at GEI with extensive experience in dam engineering (**see Section 2**). Mr. Sanchez performed inspections of all five IRWD dams numerous times when he was Area Engineer and Southern Regional Engineer for DSOD. The dam inspection items will include the following:

- Dam crest: alignment, erosion, ruts or depressions, settlement/sinkholes, cracks, excessive vegetation, freeboard

- Upstream slope: slope protection, erosion, cracking, inclination, excessive vegetation, sloughing/instability
- Downstream slope: slope protection, seepage, erosion, cracking, inclination, excessive vegetation, sloughing/instability
- Instrumentation: reliability, performance, calibration
- Animal burrows in embankment
- Abutments: seepage, erosion, excessive vegetation, sinkholes/depressions, sloughing/instability
- Downstream toe: seepage, soft areas, excessive vegetation, sloughing/instability
- Spillway: blockage from vegetation/debris, corrosion/spalling, sediment, gate controls, drains/weepholes, joints, movement, structural integrity
- Inlet/outlet works: valve/gate operation/controls, corrosion, blockage from vegetation/debris, structural integrity
- Reservoir perimeter: erosion, inclination, sloughing/instability, landslides

A Dam Safety Inspection Checklist will be used to rapidly document dam safety inspections. A sample checklist is included in **Appendix A**. The checklist will be catered to each dam, as appropriate. Dam conditions will be documented using photographs and videos. We will also evaluate all the instrumentation at the dams to verify they are properly maintained and protected, and we will take actual measurements of these instruments when possible to verify functionality.

Information on each dam will be reviewed prior to performance of the first inspection. We have assumed that IRWD will provide available information on each dam, such as construction plans and specifications, geotechnical reports, dam improvement and repair documents, and past inspection reports. The existing information will be used to identify special areas of concern, and to allow for a more efficient inspection process. GEI field observations will be compared against those contained in previous inspection reports to assess whether changes appear to be occurring that might lead to a dam safety issue.

Task 3 – Reporting

Annual Reports

GEI will prepare an annual report for each of the five dams to summarize the surveillance and monitoring of each dam. The reports will include plans and sections of each dam showing major features, including piezometers, surface crest monuments and seepage monitoring points. They will incorporate GEI's graphical plots of water surface elevations, piezometer levels, seepage flow rates and surface movements.

The reports will summarize analyses of the measurement data and the results of field inspection observations. The reports will include conclusions, recommendations and corrective actions relative to the safety and stability of each dam. Reports will be prepared in a form acceptable to both IRWD and DSOD as well as meet the requirements of the "Statutes and Regulations Pertaining to Supervision of Dams and Reservoirs" and any other applicable federal, state and local codes. GEI is known for the preparation of well written reports, with clearly prepared figures and tables to convey findings, results, and recommendations. Examples are the reports prepared for IRWD for expansion of Syphon Dam and condition assessment of the Santiago Creek Dam spillway.

Six hard copies of the draft reports and a Microsoft Word and Adobe Acrobat file will be submitted to IRWD for review within six weeks following the end of each calendar year. Eight copies of the final reports

and a Microsoft Word and Adobe Acrobat file will be submitted to IRWD following comment incorporation. We understand that IRWD will submit copies of the final reports to DSOD.

Semi-Annual Reports

GEI will prepare semi-annual letter reports for each dam at the midway point. The letter reports will provide comments on the safety of each dam and any recommendations for corrective measures to meet dam safety requirements. This will allow IRWD to have more frequent input on the safety of each dam, and thus allow potential problems to be addressed in a timely manner. The letter reports will be submitted within six weeks following the designated end of the mid-year period.

If at any time GEI identifies a serious dam safety issue requiring immediate attention, we will notify IRWD immediately irrespective of the formal reporting requirements.

Task 4 – As-Needed Services

GEI will provide dam engineering and emergency response assistance to IRWD on an as-needed basis. GEI can respond immediately to emergency situations and can have key personnel at any of the dam sites within about one hour.

GEI's as-needed dam engineering experience covers the entire range of activities pertinent to dam design, safety evaluation, and rehabilitation. This includes inspections, siting studies, geotechnical investigations, feasibility level designs, permitting, final designs, preparation of plans and specifications, construction inspections, hydrology and hydraulic studies, dam failure evaluations, analyses of seepage, stability, and seismic behavior, borrow studies, and laboratory testing and analyses.

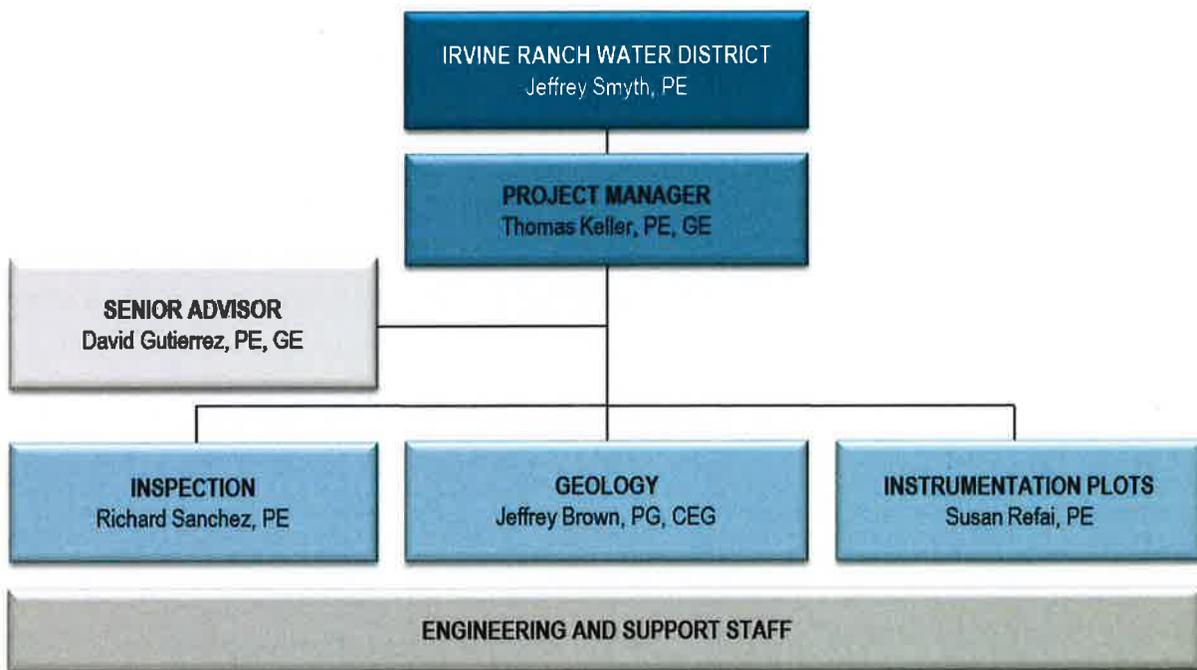
2. TEAM

The GEI team will be led by Thomas Keller as Project Manager, with key personnel consisting of Richard Sanchez as Lead Dam Inspector and David Gutierrez as Senior Advisor. They have a combined 119 years of experience in dam engineering with excellent working relationships with DSOD staff. Mr. Keller managed GEI's engineering evaluations to evaluate the feasibility of expanding Syphon Reservoir. Mr. Sanchez and Mr. Gutierrez have both inspected all five of IRWD's dams on numerous occasions when they worked for DSOD, and Mr. Gutierrez was involved in GEI's recent condition assessment of the Santiago Creek Dam spillway.

They will be supported by a deep bench of GEI professionals with extensive experience in all aspects of dam engineering. Jeffery Brown will perform geologic evaluations as needed; he was the project geologist for both the Syphon Reservoir enlargement project and Santiago Creek Dam spillway condition assessment. Susan Refai will assist with input and plotting of instrumentation data provided by IRWD.

A summary of the roles, qualifications, and experience of key personnel are presented in the next section, including the anticipated percentage of time each will contribute to the project. Detailed resumes are contained in **Appendix B**.

FIGURE 1. PROJECT TEAM ORGANIZATION



KEY PROJECT TEAM STAFF



THOMAS KELLER, PE, GE
PROJECT MANAGER

Mr. Keller is a professional civil and geotechnical engineer with extensive experience in dam and reservoir engineering. He has managed over 100 water resource projects involving permitting, planning, analysis, design, construction, and operations. These projects have included over 50 dam investigations in Southern California, as well as significant interactions with DSOD. Mr. Keller was Project Manager for engineering studies to assess the feasibility of increasing the capacity of IRWD's Syphon Reservoir. He was also Project Manager for a condition assessment of the Santiago Creek Dam spillway. Mr. Keller has extensive experience in the geotechnical aspects of dam engineering, including evaluation of instrumentation data, field explorations, laboratory testing, analyses of dam and appurtenant structures, development of plans and specifications, and construction monitoring.

Education

MS, Civil Engineering
BS, Civil Engineering

Experience in the Industry
42 years

Registrations/Licenses

Professional Engineer,
CA No. C82502
Geotechnical Engineer,
CA No. GE2521

Project Participation
~10% of project effort



RICHARD SANCHEZ, PE
DAM INSPECTOR

Mr. Sanchez has over 39 years of experience in water resources engineering projects with an emphasis on project management, design, construction management, and dam safety. Mr. Sanchez oversees and manages civil engineering, geotechnical, dam safety, construction management, and special project work at GEI. Prior to joining GEI, Mr. Sanchez held numerous engineering and management level positions during his career at DWR, including Chief of the Division of Engineering, Assistant Chief of the Division of Operations and Maintenance, Chief of Construction, and Regional Southern Engineer with California's DSOD.

Education

BS, Civil Engineering

Experience in the Industry
39 years

Registrations/Licenses

Professional Engineer,
CA No. 37148

Project Participation
~55% of project effort

While at DSOD, Mr. Sanchez supervised California's southern region dam safety program, an inventory of 400 dams and reservoirs of various types and sizes. He personally inspected Rattlesnake Canyon, Sand Canyon, San Joaquin, Syphon, and Santiago Creek Dams numerous times.



DAVID GUTIERREZ, PE, GE
SENIOR ADVISOR

Mr. Gutierrez has worked in a variety of capacities over his 37-year engineering career. He is considered an expert in overall water management and dam safety and has created and led a variety of programs and projects at GEI and the State of California. As Chief, Division of Safety of Dams (DSOD), Mr. Gutierrez worked on all aspects of dam safety and participated in the design and construction of all major dams built or repaired in the last 15 years. Before this, he completed complex dam engineering analysis including hydrologic, concrete dam structural analysis, geotechnical and seismic design, construction oversight and overseeing the maintenance of dams. While at DSOD he inspected several IRWD dams, and while at GEI he provided technical support for the condition assessment of the Santiago Creek Dam spillway.

Mr. Gutierrez has served on various national boards and committees including the Board of Directors for the Association of State Dam Safety Officials (ASDSO), President of ASDSO, Chair of the Legislative Committee of ASDSO, the National Dam Safety Review Board, the Department of Homeland Security Government Coordinating Council, and the State of California's Strong Motion Instrumentation Advisory Committee. He also led the development of the Model State Dam Safety Program and Peer Review Manual for dam safety programs.

Education

MS, Geotechnical Engineering
BS, Civil Engineering

Experience in the Industry
37 years

Registrations/Licenses

Professional Engineer,
CA No. 40734
Geotechnical Engineer,
CA No. 2148

Project Participation
~5% of project effort



JEFFREY BROWN, PG, CEG
SENIOR ENGINEERING GEOLOGIST

Mr. Brown has 39 years of experience in geologic and geotechnical investigations throughout Southern California and other areas of the southwestern states. He has served as project geologist and project manager on a broad range of infrastructure projects for the private sector and federal, state and local governments and agencies. Mr. Brown worked with Mr. Keller on both the Syphon Dam reservoir expansion project and the Santiago Creek Dam spillway condition assessment.

His experience in field activities includes geologic hazard assessment; geologic mapping; boring and trench logging; subsurface sampling for geotechnical studies; hard rock, soft rock and near-shore marine sediment core logging; well installation, percolation testing, packer testing, and aquifer testing; and rippability testing. Construction-phase experience includes fill observation and compaction testing, footing and drilled pier inspection, excavation and tunnel logging, and pile driving.

Education

BA, Earth Science
AA, Civil Engineering

Experience in the Industry
39 years

Registrations/Licenses

Certified Engineering Geologist,
CA No. EG1930
Professional Geologist,
CA No. 5144

Project Participation
~5% of project effort



SUSAN REFAI, PE
PROJECT ENGINEER

Ms. Refai is a professional engineer with six years of experience with GEI as a civil and geotechnical engineer working on a wide variety of projects, including dams. Her geotechnical experience includes development and implementation of subsurface exploration programs, installation and monitoring of instrumentation, analyses, and construction observations.

Education

BS, Civil Engineering

Experience in the Industry

6 years

Registrations/Licenses

Professional Engineer,
CA No. 89105

Project Participation

~25% of project effort

Ms. Refai was responsible for updating annual Dam Safety Surveillance and Monitoring Plans and Reports for 20 dams owned by Pacific Gas & Electric that are regulated by DSOD and FERC. This work included analyzing instrumentation data such as piezometers, leakage weirs, survey monuments, and reservoir level monitors for each dam, and incorporating the results into the annual reports.

3. QUALIFICATIONS, EXPERIENCE, AND REFERENCES

FIRM OVERVIEW



GEI is recognized as one of the foremost and experienced dam engineering companies in the United States – it is a core strength of our firm. GEI employs over 800 highly-qualified and experienced staff in over 40 offices nationwide, including 5 offices in California. Many of our more than 200 California staff are focused on dam, levee, and related geotechnical and civil engineering projects. GEI has provided engineering services for more than 2,500 dam projects nationwide and over 240 in California. The breadth of our dam engineering experience is shown in Figure 1. Most of these projects have involved assessing the condition of aging earth or concrete dams, along with their spillways, outlet works, and ancillary facilities, often followed by analysis of remediation alternatives and frequently design and construction of the remediation projects. We have been selected for many as-needed contracts for dam engineering services by clients such as DWR, Los Angeles County Department of Public Works, City of San Diego, Sweetwater Authority, Pacific Gas and Electric, U.S. Army Corps of Engineers, and Bureau of Reclamation.

DSOD Experience

The GEI Team has an on-going and day-to-day working relationship with DSOD. We have performed studies, developed designs, and obtained permits for the repair, alteration, and enlargement of numerous jurisdictional dams. Mr. Gutierrez and Mr. Sanchez, key personnel for this project, have a combined 76 years of experience working within DSOD and Mr. Gutierrez was former Chief of DSOD. Both are intimately familiar with DSOD’s policies, procedures and regulations, and they have inspected IRWD’s five dams on numerous occasions.

Dam Safety Inspection Experience

GEI’s experience with dam inspections spans nearly 50 years. We have conducted dam safety inspections, responded to emergencies, performed field investigations, conducted monitoring, and assisted with permitting and regulatory compliance literally thousands of times.

In addition to performing “single dam” projects for a client, GEI has been engaged numerous times to perform dam safety evaluations of a suite of dams, and to perform “as-needed” dam engineering services for clients on a multi-year basis. Over the years, GEI has developed proven methods for dam safety evaluations and have provided engineering services extending well beyond the inspection stage, including remedial investigations and designs for dam safety modifications for hundreds of dams.

FIGURE 1. DAM EXPERIENCE IN CALIFORNIA



Our inspectors are skilled in the use of Dam Safety Inspection Checklists to rapidly document dam safety inspections and have developed “systems that work” to: budget and schedule inspection trips to minimize costs for travel and expenses; document conditions with video and photos; and process information and observations into electronic dam safety reports and inventory databases.



Embankment Dam Experience

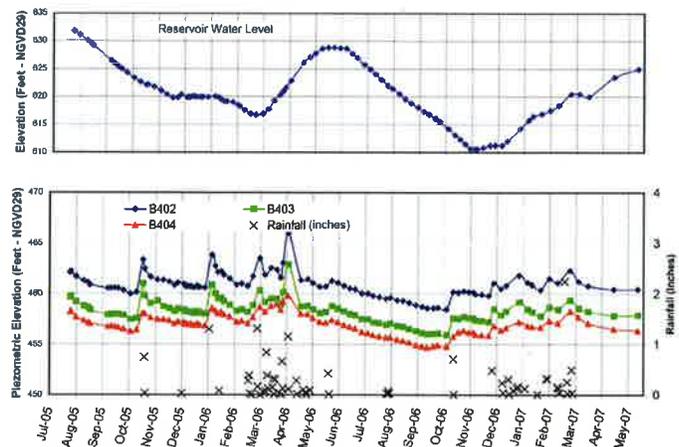
All five of IRWD’s dams are earth embankments. Embankment dam engineering is one of the primary strengths of GEI and the key personnel for this project. GEI is recognized as a national leader in embankment dam engineering, serving clients in the federal, state, water agency, and local government sectors, as well as private industry.

GEI has performed hundreds of subsurface investigations for new embankment dams, dam rehabilitations and construction materials borrow sources, and we have performed numerous geotechnical analyses for dam safety evaluations and dam design. Our embankment dams capabilities include the entire range of services, including foundation investigations and testing, safety evaluations related to geological and geotechnical issues and potential hazards, static and seismic analysis for embankment slope and foundation stability, foundation evaluations and improvement designs, seepage analysis for drains and filter designs, design of seepage cutoff systems, liquefaction and deformation analyses, settlement analysis for structure design and camber design, design of erosion protection on embankment slopes, design of embankment dam instrumentation, and design of stream diversion and dewatering systems. In addition, GEI has extensive experience with inspection and evaluation of spillways and outlet works for embankment dams.

Instrumentation Experience

Most of the dam projects that GEI gets involved in require a review of historical performance data and previous engineering reports. They commonly involve developing recommendations related to dam safety instrumentation and monitoring programs, as well as assessments of safety concerns and necessary mitigation measures. Many of our dam projects have involved development of emergency response and/or repair procedures in the event of a dam safety incident.

GEI regularly provides dam monitoring services, both as part of routine programs and as event-based or emergency response efforts. We have performed instrumentation inventories for projects where existing instrumentation networks have aged or become only partially functional to determine the condition of the system and provide recommendations for abandonment and/or replacement. GEI has developed monitoring and surveillance programs, established survey monuments, and performed detailed assessments of facility conditions. We review data collected by others, including data from piezometers, reservoir level and rainfall gauges, survey monuments,



inclinometers, relief wells, seepage weirs, and strong motion accelerometers to assess dam performance and identify changing conditions.

GEI has also designed and constructed Automated Data Acquisition Systems (ADAS), including preparation of Operations and Maintenance Manuals and Instruction Handbooks. We provide ongoing support to our clients for instrumentation networks, perform trouble-shooting, and system start-up.

Emergency Response Experience

GEI has extensive experience working with dam owners during emergency response and in the development and use of emergency action plans. A recent example is the Oroville Dam emergency response and recovery with DWR. During the recent Oroville spillway incident, DWR immediately requested GEI provide qualified and reliable technical staff with dam expertise and familiar with emergency response procedures. The GEI Team provided support to DWR's emergency response providing technical advice and support throughout the emergency. GEI also provided support in the emergency response including engineering project managers, and led the geotechnical, hydraulics, hydrology, and construction sections of the design team, and later supported those efforts on-site during construction in the summer of 2017.

GEI will provide senior personnel and staff who are experienced and knowledgeable to assist IRWD develop response efforts and manage emergency situations if they develop.

GEI Quality Management Overview

A core value of GEI is the delivery of high quality professional services to our clients. GEI's Quality Assurance (QA) Program describes the processes, procedures and controls that, when applied to GEI projects, will consistently achieve the standard of quality that our clients and stakeholders rely on and expect.

The GEI QA Program is based on the fundamental concepts of:

- Planning for Quality; including appropriate scope, schedule and budget for quality management activities
- Individual Accountability; each team assumes individual ownership of their quality management responsibilities
- Independent Technical Review; obtaining input and reviews from relatively independent qualified technical reviewers at key project stages
- Quality Control Documentation; providing written documentation of independent technical reviews

Quality management is an essential element of exceptional project delivery and is instrumental to GEI'S success.



REFERENCES

GEI has worked on hundreds of projects relevant to the monitoring and surveillance of IRWD's five dams and providing as-needed dam engineering services. Highlights of the following selected projects are contained in **Appendix C**, including client references for each.

| Client | Project |
|--|---|
| Irvine Ranch Water District | Syphon Dam |
| Irvine Ranch Water District | Santiago Creek Dam Spillway |
| City of San Diego | As-Needed Dam Engineering Services |
| Helix Water District | Chet Harritt and Cuyamaca Dams |
| United Water Conservation District | Santa Felicia Dam Assessments |
| Sweetwater Authority | As-Needed Dam Engineering Services |
| Los Angeles County | San Gabriel Dam Safety Review Services |
| Jackson Valley Irrigation District | Jackson Creek Dam As-Needed Dam Safety Engineering Services |
| Monterey County Water Resources Agency | San Antonio Dam Engineering Services |
| Los Angeles County | Cogswell Dam Spillway Condition Assessment |

January 28, 2019 
Prepared by: Jennifer Davis/Tanja Fournier 
Submitted by: Rob Jacobson/Cheryl Clary 
Approved by: Paul A. Cook 

CONSENT CALENDAR

2019 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 underwriter (Goldman Sachs), and IRWD legal counsel have prepared the required Remarketing Statement. Staff recommends that the Board adopt a resolution approving the Remarketing Statement and Amendment to Remarketing Agreement (2011 A-2).

BACKGROUND:

The District currently has \$48,240,000 of Index Tender Notes (ITNs), that are remarketed by Goldman Sachs (2011 A-1) and \$32,160,000 of ITNs that have been previously 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 2018 at the SIFMA weekly index with a spread of minus one basis point, resulting in an all-in rate for 2018 of 1.41%. The all-in rate includes the net interest rate (the index and spread) and annual remarketing fees of approximately 0.13%. The new interest rate spread, if any, to the SIFMA index will be determined on February 5, 2019.

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. Legal counsel also prepared Amendment No.1 to Remarketing Agreement, which appoints Goldman Sachs & Co. LLC as the new remarketing agent for the Series 2011 A-2. The Remarketing Statement and Amendment No.1 to Remarketing Agreement are attached for the Board's review as Exhibit "A" and Exhibit "B", respectively. Staff recommends that the Board adopt a Resolution approving the updated Remarketing Statement and Amendment to Remarketing Agreement. A copy of the Resolution is attached as Exhibit "C".

FISCAL IMPACTS:

The current outstanding principal amount for the 2011 A-1 and A-2 ITN bond issues is \$80.4 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 5, 2019.

COMMITTEE STATUS:

Due to the cancellation of the January Finance and Personnel Committee meeting this item was not reviewed by Finance and Personnel Committee, however the Remarketing Statement was provided to the committee members on January 10, 2019.

RECOMMENDATION:

THAT THE BOARD APPROVE THE 2019 INDEX TENDER NOTES REMARKETING STATEMENT, AND ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2019-

RESOLUTION OF THE BOARD OF DIRECTORS OF
THE IRVINE RANCH WATER DISTRICT APPROVING
THE REMARKETING STATEMENT AND
THE AMENDMENT TO REMARKETING AGREEMENT 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" – Amendment No. 1 to Remarketing Agreement

Exhibit "C" – Resolution Approving the Remarketing Statement and Amendment to Remarketing agreement

Exhibit “A”

**A complete copy of the Remarketing Statement
for Series 2011 A-1 and 2011 A-2
is available with the District Secretary**

AMENDMENT NO. 1 TO REMARKETING AGREEMENT

This AMENDMENT NO. 1 TO REMARKETING AGREEMENT (this "**Amendment**") executed and entered into on January 30, 2019, is by and between Irvine Ranch Water District (the "**District**") and Goldman Sachs & Co. LLC, as remarketing agent (the "**Remarketing Agent**").

RECITALS

A. On April 15, 2011, the District issued its Bonds of Irvine Ranch Water District Refunding Series 2011A-2 (the "**2011A-2 Bonds**") pursuant to an Indenture of Trust, dated as of April 1, 2011 (the "**Indenture**"), by and between the District and The Bank of New York Mellon Trust Company, N.A., as trustee.

B. In connection with the issuance of the 2011A-2 Bonds, the District entered into a Remarketing Agreement, dated as of April 1, 2011 (the "**Original Remarketing Agreement**"), with Morgan Stanley & Co., Incorporated, as remarketing agent thereunder (the "**Original Remarketing Agent**").

C. In accordance with the Section 8 of the Original Remarketing Agreement, the District has provided notice to the Original Remarketing Agent of the District's election to remove the Original Remarketing Agent as the remarketing agent for the 2011A-2 Bonds effective as of January 30, 2019.

D. The District desires to appoint the Remarketing Agent as the remarketing agent for the 2011A-2 Bonds effective as of January 30, 2019, and the Remarketing Agent desires to accept such appointment and assume the duties of the remarketing agent under the Original Remarketing Agreement.

E. The District and the Remarketing Agent desire to amend the Original Remarketing Agreement to reflect: (i) the appointment of the Remarketing Agent as the new remarketing agent for the 2011A-2 Bonds; and (ii) the assumption of remarketing agent duties for the 2011A-2 Bonds by the Remarketing Agent.

F. All acts, conditions and things that are required by law to exist, to have happened and to have been performed precedent to and in connection with the execution and entry into of this Amendment do exist, have happened and been performed, and the parties hereto are duly authorized to execute and enter into this Amendment.

In consideration of the foregoing, the parties hereto agree as follows:

ARTICLE I**DEFINITIONS AND AUTHORIZATION**

Section 1.1. Definitions and Rules of Construction. Unless the context otherwise requires, the capitalized terms that are used herein but not defined shall, for all purposes of this Amendment, have the meanings that are specified in the Original Remarketing Agreement, together with any amendments thereof or supplements thereto which are permitted to be made thereunder. Unless the context otherwise indicates, words importing the singular number include the plural

number and vice versa. The terms “hereby,” “hereof,” “hereto,” “herein,” “hereunder” and any similar terms, as used in this Amendment, refer to the Amendment as a whole.

Section 1.2. Authorization for Amendment. This Amendment is entered into in accordance with Sections 8 and 18 of the Original Remarketing Agreement.

ARTICLE II

AMENDMENT TO ORIGINAL REMARKETING AGREEMENT

Section 2.1. Assignment and Assumption of Remarketing Agent Duties for 2011A-2 Bonds. Effective on January 30, 2019, all references to the “Remarketing Agent” for the 2011A-2 Bonds under the Original Remarketing Agreement shall refer to Goldman Sachs & Co. LLC. Goldman Sachs & Co. LLC affirms that, as of January 30, 2019: (i) it satisfies the requirements to serve as the “Remarketing Agent” under the Indenture and the Original Remarketing Agreement; (ii) it accepts the duties of the remarketing agent under the Indenture and the Original Remarketing Agreement; and (iii) except as described in Section 2.2 of this Amendment, the representations and covenants that are set forth in Section 6 of the Original Remarketing Agreement are true and correct as to it, and are hereby made to the District. The District hereby acknowledges the assignment of the duties of the remarketing agent to Goldman Sachs & Co. LLC effective as of January 30, 2019.

Section 2.2. Amendment of Representation regarding Corporate Existence. The first phrase of Section 6(d) (prior to the first semicolon) of the Original Remarketing Agreement is hereby amended and restated as follows:

“It is a limited liability company validly existing and in good standing under the laws of the State of New York;”

Section 2.3. Amendment of Notice Provision. The notice information for the Remarketing Agent in Section 14(a) of the Original Remarketing Agreement is hereby amended and restated as follows:

“Goldman Sachs & Co. LLC
200 West Street, 6th Floor
New York, New York 10282
Attention: Municipal Money Market Desk
Telephone: (212) 902-6633
Email: ficc-vrdn-trading@ny.email.gs.com
Facsimile: (212) 493-0479.”

ARTICLE III

MISCELLANEOUS

Section 3.1. Effect of Amendment. This Amendment shall be effective on January 30, 2019. As of such date, all of the terms and provisions that are contained in this Amendment shall form part of the Original Remarketing Agreement as fully and with the same effect as if all such terms and provisions had been set forth in the Original Remarketing Agreement. The Original Remarketing Agreement is hereby ratified and confirmed, and shall continue in full force and effect in accordance with the terms and provisions thereof, as amended and supplemented hereby. If there

shall be any conflict between the terms of this Amendment and the terms of the Original Remarketing Agreement (as in effect on the day prior to January 30, 2019), the terms of this Amendment shall prevail.

Section 3.2. Binding Effect. This Amendment shall inure to the benefit of and shall be binding upon the District and the Remarketing Agent and their respective successors and assigns.

Section 3.3. Severability. In the event that any provision of this Amendment shall be held invalid or unenforceable by a court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provisions hereof.

Section 3.4. Execution in Counterparts. This Amendment may be executed in several counterparts, each of which shall be deemed an original, and all of which shall constitute but one and the same instrument.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties have executed this Amendment No. 1 to Remarketing Agreement effective the date first above written.

IRVINE RANCH WATER DISTRICT

By: _____
President

By: _____
Secretary

**GOLDMAN SACHS & CO. LLC,
as Remarketing Agent**

By: _____
Its: _____

Exhibit “C”

RESOLUTION NO. 2019-3

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

The Irvine Ranch Water District (“IRWD”) previously 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”).

In Resolution No. 2011-10, adopted by IRWD authorizing and providing for the issuance of the Bonds, the Treasurer of IRWD 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 IRWD 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 IRWD.

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 7, 2019 or such other date as may be determined by the Treasurer (the “Unscheduled Mandatory Tenders”).

This Board of Directors desires to approve the form of the remarketing statement (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.

In connection with the issuance of the Series A-2 Bonds, IRWD entered into a Remarketing Agreement, dated as of April 1, 2011 (the “Original Remarketing Agreement”), with Morgan Stanley & Co., Incorporated, as remarketing agent thereunder.

IRWD desires to amend the Original Remarketing Agreement to reflect: (i) the appointment of Goldman Sachs & Co. LLC (the “Remarketing Agent”) as the new remarketing agent for the Series A-2 Bonds; and (ii) the assumption of remarketing agent duties for the Series A-2 Bonds by the Remarketing Agent (the “Amendment to Remarketing Agreement”).

The Board of Directors desires to approve the form of the Amendment to Remarketing Agreement.

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 of Directors 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 of Directors hereby approves the use of the Remarketing Statement by the remarketing agent 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 of Directors hereby further approves the use by the remarketing agent 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 agent.

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 Amendment to Remarketing Agreement, to be dated the date determined by the Treasurer and in substantially the form presented to the Board of Directors 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).

Section 4. 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 5. This resolution shall take effect immediately upon its adoption.

ADOPTED, SIGNED AND APPROVED this 28th day of January, 2019.

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:
LEWIS BRISBOIS BISGAARD & SMITH LLP

By: _____
Legal Counsel

January 28, 2019
Prepared by: E. Zuniga
Submitted by: J. Roney
Approved by: Paul A. Cook 

CONSENT CALENDAR

AUTHORIZATION TO ACCEPT FEDERAL EMERGENCY MANAGEMENT AGENCY ASSISTANCE FOR CANYON 2 FIRE DAMAGE TO DISTRICT FACILITIES

SUMMARY:

Staff recommends that the Board adopt a resolution allowing the District to receive reimbursement from the California Governor's Office of Emergency Services (Cal OES) for expenses incurred from the October 9, 2017 Canyon 2 Fire.

BACKGROUND:

On October 9, 2017 the County of Orange activated its Emergency Operations Center in response to the wildland fire near Coal Canyon. The fire was on the west side of Irvine Park burning towards Santiago Canyon Road. The event was labeled as the Canyon 2 Fire. The fire affected IRWD primarily in the Silverado Canyon area. District staff responded to the County Operational Area Incident Command Post at Orange Park, delivered mobile generators and fuel to the reservoirs and pump stations, and provided personnel and equipment for the power outage at Zone 5 reservoir / pump station.

On October 10, 2017, the United States President declared a major disaster making federal disaster aid available to nine counties for the October 2017 California Wildfires. The District's service area was affected by the wildfires and deemed eligible for disaster assistance under this Presidential declaration.

On December 19, 2017, the District completed the Federal Emergency Management Agency (FEMA) Request for Public Assistance application and submitted the list of projects associated with the damage sustained and the expenses incurred by the District as a result of the Canyon 2 Fire as attached in Exhibit A.

On February 24, 2018, the District was informed by Cal OES that our Request for Public Assistance was approved by FEMA as attached in the Exhibit B.

For IRWD to become eligible for reimbursement for costs incurred as a result of the October 9, 2017 Canyon 2 Fire, the District must submit a resolution to the California Governor's Office of Emergency Services.

FISCAL IMPACTS:

Acceptance of the Cal OES Public Assistance amount of \$24,522.47 will reimburse the District for expenses incurred in response to the declared Canyon 2 Fire Disaster.

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.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

IRWD RESOLUTION NO. 2019-

CALIFORNIA OFFICE OF EMERGENCY SERVICES ID NO.: 059-91074

DESIGNATION OF APPLICANT'S AGENT RESOLUTION FOR
NON-STATE AGENCIES

LISTS OF EXHIBITS:

- Exhibit "A" – FEMA Request for Public Assistance Application
- Exhibit "B" – California OES Approval of Request for Public Assistance
- Exhibit "C" – Designation of Applicant's Agent Resolution for Non-State Agencies

**Department of Homeland Security
Federal Emergency Management Agency**

General Info

| | | | |
|-------------------------|---|---------------------|--|
| Project # | 29916 | Project Type | Work Completed / Fully Documented |
| Project Category | B - Emergency Protective Measures | Applicant | Irvine Ranch Water District (059-0C328-00) |
| Project Title | Irvine Ranch Water District Emergency Protective Measures | Event | 4344DR-CA (4344DR) |

Damage Description and Dimensions

The Disaster # 4344DR, which occurred between **10/08/2017** and **10/31/2017**, caused:

Damage # 80110; Emergency Protective Measures (Emergency Protective Measures)

Irvine Ranch Water District (IRWD) is an independent special district serving Central Orange County, California (established in 1961) located at 3512 Michelson Drive, Irvine, Ca. (33.395275, -117.502134). The following component was effected during the fire and protective measures were put in place to protect the general public:

During the incident period of 10/8/2017 through 10/31/2017, a(n) Fire created an immediate threat to the health and safety of the general public requiring emergency response and protective measures.

- Provided the necessary man power and equipment for the power outage due to the fire near the reservoir/pump station (zone 5), until power was restored at the Irvine Ranch Water District on 10/8/2017.

Scope of Work**80110 Emergency Protective Measures****Work Completed:**

The applicant utilized F/A Labor, Equipment and Material to maintain power during the emergency of the reservoir/pump station (zone 5) for the required emergency response and protective measures at the Irvine Ranch Water District on 10/8/2017.

- A. Provided 5 EA Generator(s), 220 KVA to maintain power.
- B. Provided required man-power and equipment to maintain power.
 1. F/A Labor – 15 Laborer(s) – 116.75 over time hours \$12,916.58
 2. F/A Equip – 31 EA - 270.25 equipment hours \$8,122.39
 3. Material – \$65.90

DAC: The applicant is claiming DAC for gathering documentation and meetings with FEMA to discuss the project. 80 hours \$3,417.60

Work Completed total: **\$24,522.47**

Scope Notes:



February 24, 2018

Sunny Lee
Safety and Security Specialist
Irvine Ranch Water District
PO Box 57000
Irvine, CA 92619

Subject: Approval of Request for Public Assistance
FEMA-4344-DR-CA, October 2017 California Wildfires
Cal OES ID: 059-91074 FEMA ID: 059-0C328-00
Subrecipient: Irvine Ranch Water District
Cal OES Log: 645642.1 FEMA Log: None

Dear Sunny Lee:

The California Governor's Office of Emergency Services (Cal OES) is pleased to inform Irvine Ranch Water District (Subrecipient) your Request for Public Assistance for the October 2017 California Wildfires has been approved by the Federal Emergency Management Agency (FEMA). Cal OES requests you use the Cal OES ID number noted above when corresponding with Cal OES for this disaster. All correspondence should be addressed to:

Mr. David Gillings, State Public Assistance Officer
California Governor's Office of Emergency Services
Recovery Section, Public Assistance Division
3650 Schriever Avenue
Mather, California 95655
ATTN: FEMA-4344-DR-CA

Incident Period

Eligibility of Public Assistance costs, as a result of the October 2017 California Wildfires, will be based on events that occurred within the incident period of October 8, 2017, through October 31, 2017. Pursuant to Title 44 of the Code of Federal Regulations (44 CFR) section 206.202, any known damage that occurred within the incident period must have been reported to Cal OES within 60 days of the Recovery Scoping Meeting, formerly known as the Kickoff Meeting, to be eligible for federal assistance.

Deadline to Identify Projects

Project Worksheets (PW) are the reimbursement vehicles used to fund disaster projects. PWs are used to document the location, damage description and dimensions, scope of work, and cost estimate for each project. The PW is the basis for funding and all cost estimates and damages must be identified within 60 days following the Recovery Scoping Meeting for each of those projects identified on the



3650 SCHRIEVER AVENUE • MATHER, CA 95655
RECOVERY SECTION • PUBLIC ASSISTANCE DIVISION
PHONE: (916) 845-8200 • FAX: (916) 845-8387

subrecipient’s List of Projects. Damages and costs must be estimated when final supporting documents are not yet available. Subrecipient is strongly encouraged to submit PW information as soon as possible to expedite the assistance and funding process. Failure to identify and submit PW information in accordance with these parameters may jeopardize project funding or place additional work requirements on subrecipients to ensure reimbursement of all project costs. No project funding or payment is available for a PW until it is obligated.

Project Completion Deadlines

In accordance with 44 CFR section 206.204, FEMA requires all projects be completed within approved timeframes or funding may be jeopardized. It is imperative subrecipients submit a time extension request for any project that will not be completed by the current approved project deadline. Further, time extensions will only be granted by Cal OES or FEMA if subrecipient can demonstrate extenuating circumstances or unusual project requirements beyond its control that prevent the successful completion of the approved scope of work by the current approved project deadline. Please be advised FEMA and Cal OES will examine these requests closely and time extensions will only be approved for extenuating circumstances. To assist you in determining whether your agency requires a time extension, please refer to the following time limitations for the completion of work associated with this disaster:

| DR-4344 Emergency Work Deadlines (Categories A and B) | | DR-4344 Permanent Work Deadlines (Categories C-G) | |
|--|-------------------------------------|--|-------------------------------------|
| Regulatory Deadline | Cal OES Time Extension Authority | Regulatory Deadline | Cal OES Time Extension Authority |
| April 10, 2018 | October 10, 2018 | April 10, 2019 | October 09, 2021 |

As delineated in the table above, Cal OES is able to grant time extensions through October 10, 2018, for emergency work, and October 9, 2021, for permanent work. FEMA must approve time extensions for any project that will be completed after these dates. Time extension requests must include the extenuating circumstances causing the delay, the PW number, category of work, a construction schedule, an estimated project completion date, as well as dates and provision of previously approved time extensions. Time extension requests should be submitted to Cal OES prior to the established deadline.

Compliance with Federal, State, and Local Environmental and Historical Laws

Initiating a project prior to FEMA’s review for compliance with federal environmental and historic laws and executive orders may result in jeopardizing funding. FEMA will complete any required documentation and interagency consultations. Subrecipients must obtain all necessary permits required for all projects, and must comply with any federal, state or local environmental and historic laws or permit requirements.

Change in Scope of Work or Additional Funding

Any change to the scope of work and/or significant increase in project funding must be requested in writing through Cal OES. A version to the original PW will be prepared by Cal OES based on the eligible work in the documentation provided with the request. The draft PW will be transmitted by Cal OES to FEMA for approval. It is imperative subrecipients wait for FEMA’s approval before

initiating any changes to the approved scope of work. Such work may be subject to review for compliance with various federal environmental and historic preservation laws and regulations. Any additional work performed prior to approval by FEMA and completion of these reviews may jeopardize funding for the entire project.

Administrative Costs

Pursuant to 44 CFR Part 207, Section 324 Management Costs and Direct Administrative Costs, subrecipients can claim direct administrative costs through the PW process for those disasters declared on or after November 13, 2007. Direct administrative costs now include costs that can be tracked, charged and accounted for directly to a specific project. These tasks can include, but are not limited to, staff time spent to complete initial, interim and final inspections; preparing PWs; collecting and organizing documentation; and attending certain meetings with Cal OES and FEMA. Indirect costs for any other federal award or activity cannot be charged to a project. In addition, Cal OES will continue to provide a 10 percent administrative allowance on the Cal OES cost-share amount.

Net Small Project Overrun (NSPO) Guidelines

Pursuant to 44 CFR section 206.204(e)(2), Public Assistance subrecipients may appeal for additional small project funding within 60 days of the completion of work on their last small project. The small project threshold for this event is \$125,501. When submitting an appeal for an NSPO, you must include: a cost overrun summary listing all small project PWs, actual costs to complete the approved scope of work, and project completion dates. Furthermore, you must be prepared to supply all required supporting documentation upon request.

Appeal Process

In accordance with 44 CFR section 206.206, you have the right to appeal any determination made by FEMA. Subrecipients must submit an appeal, through Cal OES, within 60 days of the certified mail return receipt sent by FEMA that provides notification of the FEMA determination. Cal OES then has an additional 60 days to review the appeal, make a recommendation, and transmit the appeal to FEMA. FEMA regulations require the subrecipient to provide a documented justification in support of their position, the monetary figure in dispute, and the provision of federal law, and the regulation or policy with which the subrecipient believes the initial action was inconsistent. At a minimum, subrecipients are encouraged to submit the above documentation, as well as any additional documentation needed to best support the appeal argument. All known relevant information must be submitted with the first appeal. Failure to provide this information will affect Cal OES' ability to support the appeal and still meet FEMA's regulatory deadlines.

Funding Process

Upon obligation of federal and state funds, you will be notified by Cal OES via grant obligation notification letters. These obligation letters will describe the state and federal funding processes. Questions regarding payments of approved funding should be directed to Cal OES Grants Processing Unit at (916) 845-8110.

Insurance

Pursuant to 44 CFR section 206.252, a subrecipient is required to obtain and maintain insurance on insurable facilities as a condition of receiving Public Assistance funding from FEMA. This requirement is waived when eligible costs for an insurable facility do not exceed \$5,000. FEMA will notify the subrecipient of the type and amount of insurance required. However, FEMA cannot require greater types and extent of insurance than is certified as reasonable by the State Insurance Commissioner. FEMA Policy 206-086-1, Public Assistance Policy on Insurance, describes these requirements in detail.

Procurement

For all approved, federally funded and/or federally financed projects, subrecipients are required to follow the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, at 2 CFR Part 200, as adopted by the Department of Homeland Security at 2 CFR Part 3002, when using the federal financial assistance to procure property and/or services.

In conclusion, expediting the processing of project worksheets and reimbursements involves a high level of proactive participation. It is imperative that you coordinate with your staff and designated Cal OES/FEMA personnel to submit the List of Projects, conduct site inspections, and supporting documentation in a timely manner in order to avoid unnecessary delays in reimbursements which can ultimately affect your jurisdiction's recovery. If you have any questions related to this correspondence, please contact us at (916) 845-8200.

Sincerely,

THE CAL OES RECOVERY TEAM

**DESIGNATION OF APPLICANT'S AGENT RESOLUTION
FOR NON-STATE AGENCIES**

BE IT RESOLVED BY THE Board of Directors OF THE Irvine Ranch Water District
(Governing Body) (Name of Applicant)

THAT Paul Cook - General Manager, OR
(Title of Authorized Agent)

Jenny Roney - Director of Human Resources, OR
(Title of Authorized Agent)

Emilyn Zuniga - Safety Manager
(Title of Authorized Agent)

is hereby authorized to execute for and on behalf of the Irvine Ranch Water District, a public entity
(Name of Applicant)

established under the laws of the State of California, this application and to file it with the California Governor's Office of Emergency Services for the purpose of obtaining certain federal financial assistance under Public Law 93-288 as amended by the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, and/or state financial assistance under the California Disaster Assistance Act.

THAT the Irvine Ranch Water District, a public entity established under the laws of the State of California,
(Name of Applicant)

hereby authorizes its agent(s) to provide to the Governor's Office of Emergency Services for all matters pertaining to such state disaster assistance the assurances and agreements required.

Please check the appropriate box below:

- This is a universal resolution and is effective for all open and future disasters up to three (3) years following the date of approval below.
- This is a disaster specific resolution and is effective for only disaster number(s) FEMA-4344-DR-CA

Passed and approved this 28th day of January, 2019

Steve LaMar, Board President X
(Name and Title of Governing Body Representative)

(Name and Title of Governing Body Representative)

(Name and Title of Governing Body Representative)

CERTIFICATION

I, Steve LaMar, duly appointed and Directors of
(Name) (Title)
Irvine Ranch Water District, do hereby certify that the above is a true and correct copy of a
(Name of Applicant)

Resolution passed and approved by the Board of Directors of the Irvine Ranch Water District
(Governing Body) (Name of Applicant)

on the 28th day of January, 2019.

(Signature)

Secretary to the Board of Directors
(Title)

January 28, 2019

Prepared by: L. Srader

Submitted by: J. Roney

Approved by: Paul A. Cook



CONSENT CALENDAR

MEMORANDUM OF UNDERSTANDING BETWEEN THE INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS (AFL-CIO) LOCAL #47 GENERAL UNIT EMPLOYEES AND IRVINE RANCH WATER DISTRICT JULY 1 2018 THROUGH JUNE 30, 2021

SUMMARY:

Negotiations have concluded between IRWD and the International Brotherhood of Electrical Workers (IBEW) Local #47 General Unit employees, and the terms and conditions agreed upon during the negotiations process have been ratified by General Unit employees. Staff recommends that the Board authorize the General Manager to execute the Memorandum of Understanding (MOU) with IBEW Local #47 General Unit employees, subject to non-substantive changes.

BACKGROUND:

Negotiations between the parties initiated on March 16, 2018 to develop a successor to the MOU that was set to expire on June 30, 2018. A tentative agreement was reached on November 15, 2018, with the IBEW Local #47 General Unit employees ratifying the tentative agreement on December 12, 2018. Substantive provisions of the new MOU include:

- A three-year term for the agreement, from July 1, 2018, to June 30, 2021.
- Change to Article IX Cost of Living Adjustments to include:
Effective retroactive up to six months from ratification by the Union, and not prior to July 1, 2018, General Unit employees will receive a Cost of Living Adjustment (COLA) equal to 4.0% of base hour rate. Effective July 1st of each subsequent year of the MOU, General Unit employees shall receive a COLA equal to the Los Angeles-Long Beach-Anaheim Consumer Price Index for all Urban Consumers (CPI-U) measured over the directly preceding period of April to April.
- Addition to Article X. Deferred Compensation to include:
Section B. Direct District Contribution. The District will, upon completion of two years of employment, contribute on behalf of each General Unit employee, an amount equal to 1% of the employee's base pay as a District Direct Contribution to the District's deferred compensation plan in accordance with District Policy.
- Addition to Article XII. Work Schedules and Rest Periods to include:
Section C. Shift Differential. Employees working regularly scheduled shifts, which shifts include work-time between the hours of 6:00 PM to 6:00 AM, will be paid \$2.00 per hour for actual hours worked between the above stated times.

- Change to Article XIV. Standby Pay to include:
Increase in Standby Pay from not to exceed 12 hours to not to exceed 13 hours of one and one half times base hourly rate of pay for one work week.
- Addition of Article XVII Annual Vacation Leave Transfer/Payout to include:
Provision to cash out and/or transfer to deferred compensation account vacation hours, at a minimum, the hours that exceed the maximum accrual and at a maximum the hours in excess of 80, provided at least 40 hours have been used in the immediately preceding calendar year.

FISCAL IMPACTS:

Additional funds needed to implement the 4.0% Cost of Living Adjustment for IBEW Local #47 General Unit employees is approximately \$328,000 in wages and \$73,550 in Public Employees Retirement System employer contributions. Actual funds needed to implement the District 1% Direct Deferred Compensation contribution, the Shift Differential pay and the Standby Pay increase, for fiscal year 2018-19, is approximately \$214,690. Sufficient funds are available in the FY 2018-19 operating budget to implement the recommended action. The fiscal impact for FY 2019-20 and 2020-21 will be included in the budgetary process for each of those years.

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 reviewed by committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE MEMORANDUM OF UNDERSTANDING BETWEEN IRWD AND THE INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL #47 GENERAL UNIT EMPLOYEES, EFFECTIVE JULY 1, 2018, THROUGH JUNE 20, 2021, SUBJECT TO NON-SUBSTANTIVE CHANGES.

LIST OF EXHIBITS

Exhibit "A" – Memorandum of Understanding between IRWD and IBEW Local #47 General Unit Employees

EXHIBIT "A"

Memorandum of Understanding

**International Brotherhood of Electrical Workers (AFL-CIO) Local #47 General Unit
Employees
and
Irvine Ranch Water District**

July 1, 2018 - June 30, 2021

EXHIBIT "A"

TABLE OF CONTENTS

I. PARTIES AND RECOGNITION..... 1

II. TERM OF AGREEMENT 1

III. SCOPE OF AGREEMENT..... 1

IV. UNION RIGHTS 1

V. DISTRICT RIGHTS 2

VI. EMPLOYEE RELATIONS DISCUSSION FORUM 3

VII. GENERAL UNIT ACCESS 3

VIII. CONTRIBUTION TO CALPERS RETIREMENT BENEFIT 4

IX. COST OF LIVING ADJUSTMENT..... 4

X. DEFERRED COMPENSATION 4

XI. HEALTHCARE BENEFITS CONTRIBUTION 5

XII. WORK SCHEDULES AND REST PERIODS 5

XIII. OVERTIME 5

XIV. STANDBY PAY 6

XV. CALL OUT PAY..... 6

XVI. ANNUAL SICK LEAVE PAYOUT 6

XVII. ANNUAL VACATION LEAVE PAYOUT..... 6

XVIII. BEREAVEMENT LEAVE 7

XIX. UNIFORMS 7

XX. EDUCATION AND TRAINING ASSISTANCE 7

XXI. SAFETY EQUIPMENT 8

XXII. COMMERCIAL DRIVER’S LICENSE INCENTIVE 9

**XXIII. SHARED HEALTH AND FITNESS
INCENTIVE..... 9**

**XXIV. OTHER BENEFITS AND FORMS OF
COMPENSATION..... 9**

XXV. UNION FEES AND/OR DUES..... 9

XXVI. NO LOCKOUT/WORK STOPPAGES 10

**XXVII. PRE-DISCIPLINARY PROCEDURAL NOTICE AND OPPORTUNITY FOR
RESPONSE AND HEARING 10**

XXVIII. GRIEVANCE PROCEDURE 13

XXIX. SAVINGS CLAUSE 14

EXHIBIT A. POSITIONS INCLUDED IN THE GENERAL UNIT 16

EXHIBIT "A"

Memorandum of Understanding
Between International Brotherhood of Electrical Workers (AFL-CIO) Local #47
General Unit Employees
and
Irvine Ranch Water District

I. **PARTIES AND RECOGNITION**

This Memorandum of Understanding ("MOU") is made and entered into between the Irvine Ranch Water District ("IRWD" or "District") and the International Brotherhood of Electrical Workers (AFL-CIO) Local #47, herein after referred to as the Union, the formally recognized exclusive representative of the General Unit employees, pursuant to the provisions of the Meyers-Milias Brown Act.

II. **TERM OF AGREEMENT**

The terms and conditions of this Memorandum of Understanding ("MOU") shall remain in full force and effect from July 1, 2018 until June 30, 2021 inclusive. This MOU represents the total agreement between the parties. Neither party shall be compelled to negotiate on any subject within the scope of this Agreement during the term of this Agreement without the express written agreement of the other. If either party desires to make any changes or modifications of this Agreement for the ensuing period, it shall give written notice to the other party not less than sixty (60) days prior to the termination of this Agreement, in writing.

III. **SCOPE OF AGREEMENT**

A. **Recognition.** This Agreement shall apply to IRWD's Regular employees in the positions listed in Exhibit A (the General Unit), excluding temporary employees and managerial, confidential and supervisory employees as defined in the Meyers Milias Brown Act and applicable Public Employment Relations Board regulations.

B. **Representation.** The IRWD recognizes the IBEW Local #47 as the exclusive representative of all employees covered hereby for the purpose of meeting and conferring with respect to wages, hours and all other terms and conditions of employment, as defined by the Meyers Milias Brown Act.

IV. **UNION RIGHTS**

The IBEW Local #47 is the only employee organization entitled to meet-and-confer in good faith on matters within the scope of representation on behalf of General Unit employees in the unit.

EXHIBIT "A"

V. DISTRICT RIGHTS

A. The District shall retain and continue to have sole and exclusive responsibility and right, except as otherwise expressly and clearly provided by this Agreement, to manage, plan, direct and control all aspects of its operations, to direct its employees and its work force; to hire, promote, transfer, demote, layoff, recall, discipline, suspend or discharge employees at will and in its sole discretion; to assign and reassign employees to new or different duties or classifications, hours of work and shifts; to add or delete job classifications and duties; to establish rules and regulations not in direct conflict with this Agreement; to introduce new and improved methods of operation; to subcontract to others any work on or off premises; to set and attain work and production standards; to improve quality; to reduce costs; to perform any and all other things which the District deems necessary and desirable for the efficient and successful operation of its business, subject to any meet and confer obligations imposed by the Meyers Miliias Brown Act. Changes to regularly scheduled shifts shall be made upon 5 business days advance notice, unless such changes are agreed to between the employee(s) and the relevant supervisor(s)/manager(s). For the purposes of this MOU, 'regularly scheduled shift' will be defined as a recurring shift assignment other than emergency, special assignment or other abnormal or unusual work shift assignment.

B. The District shall be the sole judge as to the reliability, competency and performance of any of the employees. All employees must perform their work to the satisfaction of the District.

C. Nothing in this Agreement shall limit the District's management functions, under which it shall have, among others, the right to determine the qualifications of employees; to observe and evaluate an employee's job performance and to apply disciplinary action as the District deems just, necessary, desirable or appropriate; and to require employees to observe District rules and regulations presently in effect and/or to be put into effect, provided they are not in direct violation with the provisions of this Agreement, subject to any meet and confer obligations imposed by the Meyers Miliias Brown Act.

D. It is the exclusive right of the District to administer the merit system.

E. Without limiting the above, the District retains the authority to take whatever action may be necessary when it determines there exists an emergency situation.

F. The right and responsibility of final decisions regarding wages, hours, fringe benefits, working conditions, and other terms and conditions of employment resides solely with the District's Board, subject to any meet and confer obligations imposed by the Meyers Miliias Brown Act.

G. This Agreement shall not abridge any right to a "Skelly" hearing, if such right is due to an employee independent of this Agreement.

EXHIBIT "A"

VI. EMPLOYEE RELATIONS DISCUSSION FORUM

A. The Director of Human Resources and up to three (3) other District representatives may meet with the General Unit's representative and no more than four (4) other General Unit employee representatives once every three (3) months at the request of either party. The General Manager will make every effort to attend as available. More frequent meetings may be held by mutual agreement. The requesting party shall construct a meeting agenda and submit it to the other side in writing prior to the meeting.

B. The basic purpose of these meetings is to discuss issues of common interest and to solve problems in a constructive fashion.

VII. UNION ACCESS

A. **Reasonable Access.** Union and General Unit employee representatives will be allowed reasonable time to meet with management to perform Union duties as needed. Time spent during regular work hours must be approved in advance by the Director of Human Resources or the General Manager.

B. **Access to Facilities.** The Union may schedule pre-work, after work or lunch meetings for the General Unit representatives and/or employees in the District conference rooms at reasonable times when these facilities are not being used by submitting a verbal, written or electronic request for approval to the appropriate District representative. The request shall include the date, time and the number of people expected for the meeting. The District will provide consideration for up to two (2) meetings per year to begin at 4:00pm. The Union will be granted access to General Unit employees on District premises for the purposes of investigating grievances, engaging in contract enforcement and other representational duties, upon reasonable request, explanation of process and approval by the Director of Human Resources. The Union will present such requests to the Human Resources Director at least 48 hours in advance of the access sought. The Union will not interfere with the regular District business/duties when present on District property. Unit employees may be granted release time at the discretion of the Director of Human Resources for a reasonable amount of time to meet with the Union for the purposes of investigating grievances, engaging in contract enforcement and other representational duties.

C. **Bulletin Boards.** The District shall provide for the Union's use, designated bulletin boards where employees in the bargaining unit have access during regular business hours subject to the following conditions:

1. All postings for bulletin boards must contain the date of posting and the identification of the organization.

2. The Union will not post information which is defamatory, derogatory or obscene. Upon notice from the District of allegedly inappropriate material posted, the Union shall remove the offending material promptly. If not removed within 48 hours, the Union's right to post will be suspended for a period not to exceed 90 days.

EXHIBIT "A"

VIII. CONTRIBUTION TO CALPERS RETIREMENT BENEFIT

A. General Unit employees hired on or after January 1, 2013 who have worked for another CalPERS or other reciprocal agency without a six month break in service shall be enrolled for CalPERS retirement benefits in the District's 2nd tier retirement formula of two percent at 60 (2% @ 60) and will contribute the full amount of the employee portion of the CalPERS contribution, currently established by CalPERS as 7%, commencing at their date of hire.

B. General Unit employees hired on or after January 1, 2013 shall be enrolled for CalPERS retirement benefits in the two percent at 62 (2% @ 62) formula as mandated by the California Public Employees' Pension Reform Act of 2012 (PEPRA), and will contribute an employee contribution of 50% of the total normal cost of benefits, limited to a maximum of 8% of compensation as provided by PEPRA.

C. General Unit employees enrolled in the District's 1st tier CalPERS retirement benefit formula of two and one half percent at 55 (2.5% @ 55) will contribute 8% of "member's earnings" into his/her retirement account.

It is the intent that this section shall be construed in a manner consistent with PEPRA; to the extent of any conflict between PEPRA and this MOU, PEPRA shall be controlling. Resolutions, amendments to the District's contract with CalPERS and such other proceedings and documents as may be necessary or requested by CalPERS to implement the changes to the CalPERS retirement benefits as discussed in this MOU will be submitted for adoption by the District's Board.

IX. COST OF LIVING ADJUSTMENT

Effective retroactively up to 6 months from ratification by the Union, and not prior to July 1, 2018, General Unit employees will receive a Cost of Living Adjustment equal to 4.0% of base hourly rate.

Effective July 1st of each subsequent year of this MOU, General Unit employees shall receive a Cost of Living Adjustment (COLA) to base hourly rate, equal to the Los Angeles-Long Beach-Anaheim Consumer Price Index for all Urban Consumers (CPI-U) measured over the directly preceding period of April to April.

X. DEFERRED COMPENSATION

A. **Matching District Contribution.** After the completion of one year of employment the District will match up to 3% of employees' contribution to the District's deferred compensation plan in accordance with District Policy during the term of this Agreement.

B. **Direct District Contribution.** Beginning in March 2019 the District will, upon employee completion of two years of employment, contribute on behalf of each General Unit member, an amount, equal to 1% of employee's base pay, as a District

EXHIBIT "A"

Direct Contribution to the District's deferred compensation plan, in accordance with District Policy.

XI. HEALTHCARE BENEFITS CONTRIBUTION

General Unit employees will receive CalPERS or other comparable program medical insurance, that includes comparable costs, services and providers, as determined through the bargaining process. The District contribution to employee premiums will be based on the calculation methodology of 90% of the highest enrollment PPO plan offered.

XII. WORK SCHEDULES AND REST PERIODS

A. **Work Schedules.** The standard work week for General Unit employees consists of seven consecutive 24-hour periods beginning at noon on Friday and ending at noon the following Friday. An alternate work week may be allowed with the approval of the General Manager. Regular daily-shift starting and ending times are between the hours of 6:00am and 5:30pm as determined by the Department Director or his/her designee. Exceptions to the regular daily-shift start times may occur as the operational needs of the District require for work occurring outside the 6:00am to 5:30pm time frame.

B. **Rest Periods.** General Unit employees may, on their regularly scheduled day of work, utilize a 10-minute rest break in the morning hours and an additional 10-minute rest break in the afternoon, as well as a 30 minute meal period. Meal periods are not compensable. Meal period times are assigned by the immediate supervisor on a schedule basis to meet the needs of the District service. Rest breaks must be taken at times that do not disrupt District service as determined by the employee's supervisor.

C. **Shift Differential.** Employees working regularly scheduled shifts, which shifts include work time between the hours of 6:00pm and 6:00am, will be paid \$2.00 per hour for actual hours worked between the above stated times. FLSA non-productive paid hours (i.e., sick time, vacation and personal holiday) are not subject to Shift Differential pay.

XIII. OVERTIME

A. **Daily/Weekly.** Full-time non-exempt General Unit employees (employees who are regularly scheduled to work 40 hours/week) who are required by their supervisor or other authorized person to work in excess of 40 hours in one work week, or more than his/her regularly scheduled hours in one day will be compensated at their overtime rate of pay as defined by District policy. Overtime shall only be worked with approval of the employee's supervisor.

B. **Holiday.** Full-time non-exempt General Unit employees who are required by their supervisor or other authorized person to work on a District approved holiday will

EXHIBIT "A"

be compensated at his/her overtime rate of pay for all hours worked on the holiday, in addition to straight-time for his/her normally scheduled hours of holiday pay.

XIV. STANDBY PAY

General Unit employees who are required by the District to be on standby for emergency work during normal off-duty hours will be paid 1.86 hours at one and one half times their base hour rate of pay for each day assigned to standby duty, not to exceed thirteen (13) hours of overtime pay for one work week. General Unit employees will not receive standby pay for any days on which he/she does not report to work or leaves work early due to illness

XV. CALL OUT PAY

General Unit Employees called back to work during an off-duty period will be compensated for a minimum of two (2) hours of pay. Call-Out Pay will include pay for the time the employee uses to travel to and from the work location.

XVI. ANNUAL SICK LEAVE PAYOUT

General Unit employees may elect, annually, in accordance with District Policy to be paid for up to 96 hours of accrued sick leave. Employees must retain a minimum eighty (80) hour sick leave balance at the time of the payout. Payment will be made in accordance with the following schedule:

| | |
|------------------------|---|
| 0-10 years of service | up to 96 hours at 50% |
| 11-15 years of service | up to 30 hours @ 100%, remainder (up to 96 hrs) @ 50% |
| 16-20 years of service | up to 60 hours @ 100%, remainder (up to 96 hrs) @ 50% |
| 21+ years of service | up to 96 hours at 100% |

XVII. ANNUAL VACATION LEAVE TRANSFER/PAYOUT-TA

A. **Payout/Transfer.** General Unit employees must, in accordance with District Policy, in February or whenever is practicable closest to February 28th of each calendar year, via written designation, cash out and/or transfer to their deferred compensation account, at a minimum the hours that exceed their Vacation Accrual Maximum as of the time for the cash out and/or transfer. Employees may cash out and/or transfer to their deferred compensation account, more than the hours that exceed their Vacation Accrual Maximum, up to vacation hours in excess of 80 in their vacation accrual bank, provided they have used at least 40 hours of accrued vacation during the immediately preceding calendar year. Hours requested for transfer will be converted at 100% value based on the employee's base hourly rate at the time of payout and/or transfer.

EXHIBIT "A"

B. **Minimum Vacation Accrual Bank Retention.** Employees must retain a minimum of eighty (80) vacation hours in their vacation accrual bank at the time of the transfer and/or payout.

C. **Accrual Maximum Following Transfer/Payout.** In the event the employee's written designation for vacation hours transfer and/or payout was not sufficient to reduce all hours in excess of the Vacation Accrual Maximum, the remaining hours that exceed the Vacation Accrual Maximum will be transferred by the District to the employee's deferred compensation account at 100% value based on the employee's base hourly rate at the time of the transfer.

XVIII. BEREAVEMENT LEAVE

In the event of the death, or the critical illness, where death appears to be imminent, of an immediate family member (as defined in District Personnel Policy and Procedure No. 17 – Bereavement) of a General Unit employee, Bereavement Leave will be granted for three (3) work days per calendar year, if traveling within 500 miles from the District for services, or five (5) work days per calendar year, if traveling over 500 miles from the District for services. If additional hours are required, the employee may elect to take these hours without pay or have the hours deducted from his or her accrued sick leave and/or vacation hours. Additional bereavement leave may be granted at the discretion of the Director of Human Resources. General Unit employees are required to notify their supervisor when the need for Bereavement Leave arises.

XIX. UNIFORMS

The District will provide to each General Unit employee, required by the District to wear a uniform as a condition of employment, eleven (11) sets of uniforms. Unit employees may be issued other accessory items, such as belts, hats and outerwear as determined necessary by the District. The District will provide the maintenance and upkeep of the provided uniforms.

Standby personnel will be issued three additional shirts and pants for a total of 14 each of shirts and pants.

Lab employees will be provided with lab coats which will be maintained by the District.

XX. EDUCATION AND TRAINING ASSISTANCE

A. **Tuition Reimbursement.** General Unit employees are eligible for tuition reimbursement of up to 75% of eligible tuition and text book expenses in accordance with District policy.

B. **College Degree Incentive Program.** General Unit employees who obtain a college degree through an accredited program are eligible to receive a \$1000.00 incentive payment in accordance with District policy.

EXHIBIT "A"

C. **Certificates of Competence Incentive Program.** General Unit employees who obtain a job-related Certificate of Competence which exceeds his/her minimum job requirements are eligible to receive a \$750.00 incentive payment for each Certificate received in accordance with District Policy.

D. **Occupational Program Certificate Incentive Program.** General Unit employees who obtain a job-related Occupational Program certificate which exceeds his/her minimum job requirements are eligible to receive a \$750.00 incentive payment for each Certificate received in accordance with District policy.

XXI. **SAFETY EQUIPMENT**

The District agrees to provide General Unit employees with safety equipment to ensure personal safety in the performance of his/her job duties.

A. **Safety Shoe Reimbursement.** General Unit employees will be provided reimbursement for the purchase of safety shoes in accordance with District Policy according to the following schedule:

| | |
|----------------------------|---|
| Category 1 | Up to \$200/calendar year |
| Category 2 | Up to \$125/calendar year |
| Category 3 | Up to \$125/calendar year |
| Category 4 | Up to \$125/calendar year plus Category 1 reimbursement if eligible |
| Physician prescribed shoes | Up to \$200/calendar year |

B. **Prescription Safety Eyewear.** General Unit employees who require prescription eye glasses and who are required to wear safety glasses as part of their normal job duties will be provided reimbursement for the purchase of prescription safety glasses in accordance with District policy, not to exceed \$225/calendar year.

XXII. **COMMERCIAL DRIVER'S LICENSE INCENTIVE**

A. General Unit employees who are required to maintain a commercial driver's license for the performance of their assigned job duties will receive an annual Commercial Driver's License Incentive of \$200, to be paid on a per-pay period basis of \$7.70.

B. General Unit employees in non-commercial driver's license required job classifications will receive the annual Commercial Driver's License Incentive described in section A above if the employee maintains their Commercial Driver's License in good standing and it is determined by the District that such licensure in the specific job class is beneficial to the District service.

EXHIBIT "A"

XXIII. SHARED HEALTH AND FITNESS INCENTIVE

Effective January 1, 2016, General Unit employees are eligible for 50% reimbursement of costs associated with gym memberships, electronic fitness tracking devices, monitored weight loss programs (i.e. Weight Watchers, Jenny Craig, Lindora, etc.) and/or smoking cessation programs up to a maximum of \$400 per fiscal year. The Shared Health and Fitness Incentive replaces the Exercise Incentive program of \$10 for each 25 hours of exercise performed at a District fitness facility.

XXIV. OTHER BENEFITS AND FORMS OF COMPENSATION

All other forms of compensation, including employee benefits not specifically mentioned in this MOU shall remain unchanged for the duration of the MOU.

XXV. UNION FEES AND/OR DUES

A. Union Dues and Authorization to Deduct

1. The District shall, during the term of this MOU, deduct monies for membership dues on a per pay period basis from employees represented by the Union who have a dues deduction and authorization form on file with IBEW Local #47. In so doing, the District shall make periodic deductions from pay of employees for whom IBEW Local #47 certifies it has, in its physical custody, a written authorization which has been signed by the individual from whose salary or wages the deduction is to be made. IBEW Local #47 shall not be required to provide a copy of an individual authorization to the District unless a dispute arises about the existence or term of the authorization.

2. Pursuant to Government Code Section 1157.129b), all employee requests to cancel or change deductions for IBEW Local #47 dues shall be directed to IBEW Local #47. The District shall rely on information provided by the Union regarding whether deductions for IBEW Local #47 dues were properly cancelled or changed.

B. Sufficient Employee Earnings for Deduction

The employee's earnings must be sufficient after the other legal and required deductions are made to cover the amount of the dues or fees authorized. When an employee is in a non-pay status for an entire pay period, no withholding will be made to cover the pay period from future earnings. In the case of an employee in a non-pay status only during part of the pay period, whose salary is not sufficient to cover the full withholding, no deduction shall be made. In the case of an employee who is receiving wage replacement benefits (i.e., SDI, PFL, LTD, TD, etc.) during a pay period, no deduction shall be made. In this connection, all other legal and required deductions including health care and insurance deductions) have priority over Union dues.

EXHIBIT "A"

C. Indemnification

The Union shall indemnify, defend and hold the District harmless against any liability rising from any claims, demands or other action relating to the District's compliance with the Union dues obligation, including claims relating to the Union's use of the monies collected under these provisions. The District reserves the right to select and direct legal counsel in the case of any challenges to the district's compliance with the union dues obligation and the Union agrees to pay an attorney, arbitrator or court fees related thereto.

XXVI. NO LOCKOUT/WORK STOPPAGES

A. No employee shall engage in a strike, work stoppage, slowdown, job action, sick-in, sick-out, or any concerted interference with work of the District or impeding of work or business of the District. Due to the direct threat to public health and safety that would result, participation by any employee in a strike, work stoppage, slowdown, job action, sick-in, sick-out, or any concerted interference with work of the District or impeding of work or business of the District shall subject the employee to immediate discharge at the sole discretion of the District. Without limiting the foregoing, the District shall be entitled to injunctive relief to end any such strike, work stoppage, slowdown, job action, sick-in, sick-out, or any concerted interference with work of the District or impeding of work or business of the District.

B. For the purposes of this Agreement, "strike" or "striking activity" is defined to mean or include engaging or directly participating in any strike, slowdown, job action, sick-in, sick-out, or any concerted interference with the work of the District or impending of work or business of the District.

C. The District shall not lockout bargaining Unit Employees.

D. The District shall not hire non-bargaining unit Regular employees (as defined by District policy) to perform bargaining unit work.

XXVII. PRE-DISCIPLINARY PROCEDURAL NOTICE AND OPPORTUNITY FOR RESPONSE AND HEARING

A. **Minor Discipline.** Non-probationary General Unit employees subject to minor discipline (not qualifying as "Substantial Discipline" as defined below) may provide a written response to be attached to the minor discipline documentation if they so choose. Such written response must be submitted within ten (10) calendar days from receipt of the minor discipline.

B. **Substantial Discipline.** Non-probationary General Unit employees will be accorded pre-disciplinary safeguards as described in this section before any substantial disciplinary action is imposed. Substantial disciplinary action shall include:

EXHIBIT "A"

1. Termination;
2. Involuntary demotion involving reduction in pay;
3. Disciplinary reduction in pay constituting more than one (1) work-week of pay equivalency;
4. Suspension without pay for five (5) or more working days.

C. **Notice of Intent.** A written Notice of Intent to impose substantial disciplinary action must be prepared by the Manager, working with Human Resources, setting forth:

1. A short statement of the reason for the proposed action;
2. A summary of the performance problems upon which the action is based;
3. An explanation of the rule or policy that was violated, including references to the policy number or other source, if applicable;
4. A summary of any preceding disciplinary actions within the last year, with copies attached;
5. A description of any documents or other physical or documentary evidence being relied upon in connection with this action with copies attached; and
6. A statement that the employee will have a right to respond, verbally, in writing or both to the appropriate District authority.

A copy of the Notice of Intent, with a signed employee acknowledgment, must be forwarded to Human Resources for retention in the employee's personnel file.

D. **Employee Response.** To ensure that the District does not act without considering relevant information available to it, employees are to be provided the opportunity to respond verbally, in writing or both to the intended imposition of any substantial disciplinary action within seven (7) calendar days from the date of the Notice of Intent to the department director, who may at his or her discretion reverse the Manager's recommendation.

E. **Appeals**

1. **Right to Appeal.** Employees have a right to appeal the imposition of the following actions:

- a. Termination;
- b. Involuntary demotion involving reduction in pay;
- c. Disciplinary reduction in pay constituting more than one (1) work-week of pay equivalency;
- d. Suspension without pay for five (5) or more working days.

EXHIBIT "A"

2. Method of Appeal

- a. In the event of the imposition of substantial discipline as described herein, the decision of the department director will be considered final unless the employee files an appeal in accordance with this policy.
- b. An employee wishing to appeal must file a signed written statement with the Director of Human Resources within seven (7) calendar days of the effective date of the action. This writing must describe his/her intention to appeal, the reason for the appeal, and whether or not the use of a hearing officer is being requested.
- c. Upon receipt of the notice and if no hearing officer is requested, the Director of Human Resources or his/her designee will arrange for a meeting with the General Manager or his/her designee and the employee requesting an appeal, within seven (7) calendar days of the filing of the appeal. After weighing all the evidence, the General Manager will render a decision within seven (7) calendar days of the meeting unless a time extension is deemed necessary. The decision of the General Manager is final.
- d. If a hearing officer is requested, the Director of Human Resources will arrange for a meeting between the employee, his representative if any and the General Manager or his/her designee within seven calendar days *after* the hearing officer has submitted findings and recommendations. The General Manager, after weighing all the evidence and the findings of the hearing officer, will make a decision which will be final.

3. Hearing Officer

- a. At any time during the conduct of the appeal, but prior to its submission to the General Manager or designee, the use of a hearing officer may be requested by either the employee or the employee's representative, if any, the department director who imposed the substantial discipline, or the Director of Human Resources.
- b. If a hearing officer is requested, the District will secure a hearing officer from the State Mediation and Conciliation Services (SMCS) or the State office of the Administrative Law Judge (ALJ), who will be a neutral professional with fact-finding experience. If the hearing officer is requested by the appellant, the cost will be borne by the appellant or their representative. If the hearing officer is requested by the District, the cost will be borne by the District. If the hearing officer is determined to be used by mutual agreement of the parties, the cost will be borne equally by the appellant or their representative and the District.

EXHIBIT "A"

- c. The function of the hearing officer will be to examine the facts and available evidence, question witnesses and make a recommendation to the General Manager.
 - e. The findings and recommendations of the hearing officer will be submitted to both the appellant and the General Manager. Any final decision issued by the General Manager shall be in writing and issued to the employee and her/his representative, if any.
4. Right to representation.
- In the conduct of the appeal, the appellant will have the right, at his/her own expense, to be represented by another person of his/her own choosing and to summon witnesses on his/her behalf.

XXVIII. GRIEVANCE PROCEDURE

A. Definitions:

1. Grievance - A grievance is an allegation by an employee(s) or the Union of a violation of any express provision of the applicable MOU.
2. Grievant – An employee, group of employees or the Union.

B. Timeliness:

1. The grievance must be filed by the grievant within the timelines set forth herein.
2. The timelines contained herein may be extended to a definite date by written, mutual agreement of the grievant and the District's appropriate representative.

C. Employee Representation. The grievant, at his/her own expense, may be represented by a person of his or her choice to prepare and present the grievance at any step of this process. The employee may use a reasonable amount of pre-approved release time to process the grievance.

D. Informal Grievance Procedure. Within fifteen (15) calendar days following the event, or within fifteen (15) calendar days after the grievant should reasonably have known of the event, the grievant should attempt to resolve the grievance on an informal basis by discussion with his/her immediate supervisor. If the grievant is not able to resolve the grievance after informal discussion with his/her

EXHIBIT "A"

immediate supervisor, the grievant will have the right to file a formal grievance in writing within ten (10) calendar days after the informal discussion with his/her immediate supervisor. The written formal grievance shall contain:

1. Employee name, job title and department name
2. Name of representative, if any
3. Statement of grievance, providing date and time or action aggrieved and circumstances of grievance
4. Specific provisions of MOU alleged to have been violated
5. Date of informal discussion with immediate supervisor
6. Date of filing of formal grievance
7. Signature of employee and/or representative, if any. (Electronic signature accepted.)

E. Formal Grievance Procedure.

1. First Level Formal Review – Department Director: The formal written grievance shall be presented to the employee's Department Director or his/her designee who will discuss the grievance with the employee, his/her representative, if any and any other appropriate persons. The Department Director will render his/her decision in writing to the employee within ten (10) calendar days after receiving the grievance. If the employee does not agree with the Department Director's decision, or if no answer is received within ten (10) calendar days, the employee may present the formal written grievance to the General Manager. Failure of the employee to submit the grievance to the General Manager within ten (10) calendar days after receipt of the written decision from his/her Department Director will constitute a dropping of the grievance.

2. Second Level Formal Review - General Manager Review: The General Manager, after receiving the grievance, will discuss the grievance with the employee, his/her representative, if any and any other appropriate persons. The General Manager may select a designee not in the normal line of supervision, including, but not limited to, a representative of the SMCS or ALJ, to advise him concerning the grievance. The General Manager will render a decision in writing to the employee within 14 calendar days after receiving the grievance. The decision of the General Manager shall be final.

XXIX. SAVINGS CLAUSE

Should any part hereof or any provision herein contained be rendered or declared illegal or an unfair labor practice by reason of any existing or subsequently enacted legislation, or by any decree of a court of competent jurisdiction, or by the decision of any

EXHIBIT "A"

APPROVED AS TO FORM: Date
Jeff Brown, Partner
Payne and Fears

EXHIBIT "A"

EXHIBIT A

Positions included in the General Unit

| | |
|--|---|
| Accountant | Office Assistant |
| | Office Specialist |
| Accounting Clerk | Office Specialist, Senior |
| Accounting Clerk, Senior | |
| Asset Maintenance Coordinator | Operations Coordinator |
| Automation Technician | |
| Automation Specialist | Operator I |
| | Operator II |
| | Operator III |
| | Payroll Administrator |
| | Process Specialist |
| | Public Affairs Analyst |
| | Public Affairs Specialist |
| | Purchasing Coordinator |
| Buyer | |
| Buyer, Senior | Purchasing Coordinator, Senior |
| Collections Systems CCTV Technician | |
| Collection Systems CCTV Technician, Senior | Recycled Water Project Specialist |
| Collection Systems Technician I | Recycled Water Specialist |
| Collection Systems Technician II | Recycled Water Specialist, Senior |
| Collection Systems Technician, Senior | |
| | Risk Analyst |
| Construction Inspector | Scientist |
| Construction Inspector, Senior | Scientist, Senior |
| | Support Specialist |
| | Support Specialist, Senior |
| Cross Connection Specialist | |
| Customer Service Field Technician | Utility Worker |
| Customer Service Field Technician, Senior | Vehicle/Equipment Mechanic |
| Customer Service Specialist I | Vehicle/Equipment Mechanic, Senior |
| Customer Service Specialist II | |
| Customer Service Specialist III | Water Maintenance Technician I |
| Development Services Specialist | Water Maintenance Technician II |
| Electrical Technician | Water Maintenance Technician III |
| Electrical Technician, Senior | |
| Electrical/Instrumentation Designer | Water Efficiency Analyst |
| | Water Efficiency Field Technician |
| | Water Efficiency Field Technician, Senior |
| | Water Efficiency Specialist |
| | Water Efficiency Specialist, Senior |
| | Water Resources Specialist |

EXHIBIT "A"

Wetlands Scientist
Wetlands Specialist
Wetlands Specialist, Senior

Engineering Technician I
Engineering Technician II
Engineering Technician III
Environmental Compliance
Specialist
Facilities Services Technician
Facilities Services Technician,
Senior
GIS Technician I
GIS Technician II
GIS Technician III
Graphic Design Specialist
Information Services Coordinator
Instrumentation Technician
Instrumentation Technician, Senior
Laboratory Analyst

Landscape Contracts Administrator
Mail Coordinator
Maintenance Apprentice
Maintenance Mechanic
Maintenance Mechanic, Senior
Material Control Clerk I
Material Control Clerk II

Metering Systems Technician I
Metering Systems Technician II
Metering Systems Technician III

4844-8347-6614.1

January 28, 2019
Prepared by: L. Srader
Submitted by: J. Roney
Approved by: Paul A. Cook 

CONSENT CALENDAR

ADOPTION OF A REVISED SCHEDULE OF POSITIONS AND SALARY RATE RANGES

SUMMARY:

Staff recommends that the Board adopt a resolution rescinding Resolution No. 2018-30 and revising the District's Schedule of Positions and Salary Rate Ranges by resolution attached as Exhibit "A".

BACKGROUND:

Staff is recommending that the Board adopt a revised District Schedule of Positions and Salary Rate Ranges to incorporate the following changes:

- Agreement reached with the International Brotherhood of Electrical Workers Local #47 (AFL-CIO) General Unit Employees for a Cost of Living Adjustment (COLA) equal to 4.0% of base hourly rate, effective retroactively up to six months from ratification by the Union and not prior to July 1, 2018.
- Periodic review of current budgeted positions has determined the need for additional adjustments to the District's Schedule of Positions and Salary Rate Ranges as follows:
 - Reclassify *Source Control Program Administrator* position (U12.E) to *Regulatory Compliance Manager* position (U18.E) to account for the increased scope of activities within the Regulatory Compliance Department; and
 - Reclassify *Government Relations Officer* position (U23.E) to *Government Relations Officer/Deputy District Counsel* position (U25.E) in recognition of the added scope of responsibilities required of this position.

While the changes to the positions and salary grades listed above are allowable under the General Manager's authority, CalPERS requires that each employment position and pay rate be identified in a publicly available pay schedule (CalPERS Regulations, 2 CCR 570.5). Provided as Exhibit "A" is the resolution and revised salary rate ranges for adoption with a red-lined comparison of the salary rate ranges provided as Exhibit "B".

FISCAL IMPACTS:

The FY 2018-19 Operating Budget adopted by the Board of Directors on April 23, 2018 includes funding sufficient for the proposed changes.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2019 -

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
IRVINE RANCH WATER DISTRICT RESCINDING
RESOLUTION NO. 2018-30 AND ADOPTING A REVISED
SCHEDULE OF POSITIONS AND SALARY RATE
RANGES

LIST OF EXHIBITS:

Exhibit "A" – Resolution of the Board of Directors of the Irvine Ranch Water District Adopting
a Revised Schedule of Positions and Salary Rate Ranges

Exhibit "B" – Red-lined Changes to the District Schedule of Positions and Salary Rate Ranges

EXHIBIT "A"

RESOLUTION NO. 2019 -

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT, RESCINDING
RESOLUTION NO. 2018-30 AND
ADOPTING A REVISED SCHEDULE OF POSITIONS
AND SALARY RATE RANGES

The Board of Directors of Irvine Ranch Water District, by adoption of Resolution No. 2018-30 on December 10, 2018, established a Schedule of Positions and Salary Rate Ranges of the Irvine Ranch Water District; and

The Board of Directors of Irvine Ranch Water District has reviewed the Schedule of Positions and Salary Rate Ranges and desires to make revisions thereto.

The Schedule of Positions and Salary Rate Ranges requires amendment for all classifications in the International Brotherhood of Electrical Workers (AFL-CIO) Local #47 General Unit Employees (General Unit Employees) to provide for a four percent (4%) cost-of-living adjustment (COLA) increase to base salary effective July 1, 2018, consistent with the approval of the Memorandum of Understanding (MOU) with the General Unit Employees; and

The Schedule of Positions and Salary Rate Ranges requires amendment to add two new classifications of Regulatory Compliance Manager (U18.E) and Government Relations Officer/Deputy District Counsel (U25.E), to effectively accomplish the District's goals and strategic objectives and to deliver efficient, effective service to our customers.

The Board of Directors of Irvine Ranch Water District therefore resolves as follows:

Section 1. That the Schedule of Positions and Salary Rate Ranges adopted by Resolution No. 2018-30 on December 10, 2018 is hereby rescinded effective January 28, 2019.

Section 2. That the Schedule of Positions and Salary Rate Ranges for the Irvine Ranch Water District as set forth in Schedule I attached to this Resolution, and as effective July 1, 2018 for General Unit Employees and effective January 28, 2019 for all other classifications, is hereby approved and adopted.

ADOPTED, SIGNED and APPROVED on January 28, 2019.

President, IRVINE RANCH WATER DISTRICT

Secretary, IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:
Lewis Brisbois Bisgaard & Smith LLP

By: _____
District Counsel

IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE
Managers, Exempt Supervisors, Confidential & Exempt Employees
Effective January 28, 2019

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|--------------------------|---------|---------|--|
| <u>NON-EXEMPT</u> | | | |
| Salary Grade U 1.N | 2,937 | 3,642 | 3,823 |
| Salary Grade U 2.N | 3,001 | 3,742 | 3,929 |
| Salary Grade U 3.N | 3,064 | 3,844 | 4,037 |
| Salary Grade U 4.N | 3,120 | 3,956 | 4,154 |
| Salary Grade U 5.N | 3,192 | 4,066 | 4,269 |
| Salary Grade U 6.N | 3,254 | 4,184 | 4,393 |
| Salary Grade U 7.N | 3,319 | 4,300 | 4,516 |
| Salary Grade U 8.N | 3,391 | 4,423 | 4,644 |
| Salary Grade U 9.N | 3,456 | 4,545 | 4,774 |
| Salary Grade U 10.N | 3,528 | 4,670 | 4,902 |
| Salary Grade U 11.N | 3,596 | 4,789 | 5,026 |
| Salary Grade U 12.N | 3,667 | 4,929 | 5,177 |
| Salary Grade U 13.N | 3,736 | 5,070 | 5,326 |
| Salary Grade U 14.N | 3,820 | 5,214 | 5,475 |
| Salary Grade U 15.N | 3,902 | 5,352 | 5,620 |
| Salary Grade U 16.N | 3,994 | 5,502 | 5,776 |
| Salary Grade U 17.N | 4,079 | 5,640 | 5,922 |
| Salary Grade U 18.N | 4,168 | 5,791 | 6,082 |
| Salary Grade U 19.N | 4,263 | 5,937 | 6,236 |
| Safety Assistant | | | |
| Salary Grade U 20.N | 4,377 | 6,130 | 6,437 |
| Salary Grade U 21.N | 4,501 | 6,315 | 6,633 |

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|--|----------------|----------------|---|
| Salary Grade U 22.N Executive Secretary Human Resources Assistant | 4,625 | 6,514 | 6,840 |
| Salary Grade U 23.N | 4,747 | 6,711 | 7,045 |
| Salary Grade U 24.N | 4,882 | 6,920 | 7,266 |
| Salary Grade U 25.N Human Resources Technician | 5,010 | 7,132 | 7,491 |
| Salary Grade U 26.N Executive Assistant | 5,166 | 7,346 | 7,713 |
| Salary Grade U 27.N | 5,314 | 7,561 | 7,939 |
| Salary Grade U 28.N | 5,469 | 7,785 | 8,176 |
| Salary Grade U 29.N Administrative Assistant Safety Specialist | 5,632 | 8,012 | 8,413 |
| Salary Grade U 30.N | 5,803 | 8,249 | 8,662 |
| Salary Grade U 31.N Human Resources Analyst | 5,975 | 8,498 | 8,922 |
| Salary Grade U 32.N User Support Administrator Network Administrator | 6,146 | 8,748 | 9,186 |
| Salary Grade U 33.N | 6,325 | 9,003 | 9,454 |
| Salary Grade U 34.N | 6,514 | 9,252 | 9,716 |
| Salary Grade U 35.N | 6,710 | 9,530 | 10,007 |

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|--|---------|---------|--|
| EXEMPT | | | |
| Salary Grade U 1.E | 4,723 | 6,068 | 6,371 |
| Salary Grade U 2.E | 4,881 | 6,303 | 6,619 |
| Salary Grade U 3.E | 5,037 | 6,538 | 6,867 |
| Salary Grade U 4.E | 5,194 | 6,790 | 7,128 |
| Salary Grade U 5.E | 5,352 | 7,041 | 7,394 |
| Salary Grade U 6.E | 5,537 | 7,314 | 7,680 |
| Salary Grade U 7.E | 5,714 | 7,585 | 7,962 |
| Salary Grade U 8.E | 5,900 | 7,881 | 8,275 |
| Salary Grade U 9.E | 6,080 | 8,170 | 8,577 |
| Salary Grade U 10.E | 6,283 | 8,479 | 8,903 |
| Asset Systems Analyst Assistant Engineer Customer Service Supervisor Development Services Supervisor Management Analyst Public Affairs Analyst Regulatory Compliance Analyst Senior Public Affairs Specialist | | | |
| Salary Grade U 11.E | 6,484 | 8,792 | 9,233 |
| Financial Analyst Purchasing Supervisor Senior Accountant Water Efficiency Supervisor | | | |
| Salary Grade U 12.E | 6,694 | 9,131 | 9,585 |
| Energy Analyst Source Control Program Administrator Treasury Analyst | | | |
| Salary Grade U 13.E | 6,911 | 9,462 | 9,933 |
| Accounting Supervisor GIS Supervisor Legislative Analyst Right of Way Agent Senior Human Resources Analyst Water Resources Planner | | | |

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|---|---------|---------|--|
| Salary Grade U 14.E Associate Engineer District Secretary QA/QC Compliance Administrator | 7,135 | 9,826 | 10,317 |
| Salary Grade U 15.E Applications Analyst Automation Programmer Laboratory Supervisor Senior Network Administrator | 7,362 | 10,194 | 10,702 |
| Salary Grade U 16.E | 7,608 | 10,579 | 11,109 |
| Salary Grade U 17.E Asset Systems Manager Automation Manager Collection Systems Manager Construction Inspection Manager Construction Services Manager Customer Service Manager Electrical and Instrumentation Manager Engineer Facilities/Fleet Manager Field Services Manager Natural Resources Manager Purchasing Manager Safety Manager Water Efficiency Manager | 7,850 | 10,968 | 11,515 |
| Salary Grade U 18.E Manager of Risk & Contracts Administration Public Affairs Manager Regulatory Compliance Manager Senior Applications Analyst Senior Applications Developer Senior Database Administrator Treasury Manager User Support Manager Water Quality Manager | 8,105 | 11,386 | 11,954 |
| Salary Grade U 19.E Operations Manager Mechanical Services Manager Recycled Water Development Manager | 8,362 | 11,806 | 12,398 |

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|--|---------|---------|--|
| Water Resources Manager | | | |
| Salary Grade U 20.E | 8,622 | 12,244 | 12,856 |
| Controller Manager of Strategic Planning and Analysis Network and Cybersecurity Manager Senior Engineer | | | |
| Salary Grade U 21.E | 8,885 | 12,686 | 13,321 |
| Salary Grade U 22.E | 9,170 | 13,158 | 13,817 |
| Applications Manager | | | |
| Salary Grade U 23.E | 9,461 | 13,634 | 14,317 |
| Government Relations Officer Principal Engineer | | | |
| Salary Grade U 24.E | 9,717 | 14,184 | 14,891 |
| Salary Grade U 25.E | 10,017 | 14,720 | 15,455 |
| Government Relations Officer/Deputy General Counsel | | | |
| Salary Grade U 26.E | 10,474 | 15,499 | 16,273 |
| Salary Grade U 27.E | 10,954 | 16,320 | 17,135 |
| Director of Administrative Services Director of Human Resources Director of Maintenance Director of Public Affairs Director of Recycling Operations Director of Water Operations Director of Water Quality & Regulatory Compliance Director of Water Resources Treasurer/Director of Risk Management | | | |
| Salary Grade U 28.E | 11,457 | 17,179 | 18,038 |
| Salary Grade U 29.E | 11,980 | 18,088 | 18,992 |
| Salary Grade U 30.E | 12,533 | 19,049 | 20,000 |
| Executive Director of Finance Executive Director of Engineering & Water Quality Executive Director of Operations Executive Director of Water Policy | | | |
| Salary Grade U 31.E | 13,157 | 20,129 | 21,135 |
| Salary Grade U 32.E | 13,816 | 21,275 | 22,339 |

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|------------------------|----------------|----------------|---|
| Salary Grade U 33.E | 14,503 | 22,483 | 23,607 |
| Salary Grade U 34.E | 15,231 | 23,759 | 26,281 |
| General Manager | | | |

IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE
Non-Exempt Supervisors Unit
Effective January 28, 2018

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|--|---------|---------|--|
| <u>NON-EXEMPT</u> | | | |
| Salary Grade S 26.N | 4,967 | 7,063 | 7,416 |
| Salary Grade S 27.N | 5,110 | 7,270 | 7,634 |
| Salary Grade S 28.N | 5,259 | 7,486 | 7,862 |
| Salary Grade S 29.N | 5,415 | 7,704 | 8,089 |
| Salary Grade S 30.N | 5,580 | 7,932 | 8,329 |
| Salary Grade S 31.N | 5,745 | 8,171 | 8,579 |
| Cross Connection Supervisor Facilities Services Supervisor Fleet Supervisor | | | |
| Salary Grade S 32.N | 5,910 | 8,412 | 8,833 |
| Collection Systems Supervisor Mechanical Services Supervisor | | | |
| Salary Grade S 33.N | 6,082 | 8,657 | 9,090 |
| Water Maintenance Supervisor | | | |
| Salary Grade S 34.N | 6,263 | 8,896 | 9,342 |
| Construction Inspection Supervisor Automation Supervisor Electrical Supervisor Instrumentation Supervisor | | | |
| Salary Grade S 35.N | 6,452 | 9,163 | 9,622 |
| Operations Supervisor | | | |

IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE
General Employees Unit
Effective July 1, 2018

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|--------------------------|--|---------|--|
| <u>NON-EXEMPT</u> | | | |
| Salary Grade 1.N | \$2,931 | \$3,635 | \$3,816 |
| Salary Grade 2.N | \$2,994 | \$3,734 | \$3,921 |
| Salary Grade 3.N | \$3,059 | \$3,837 | \$4,029 |
| Salary Grade 4.N | \$3,114 | \$3,948 | \$4,145 |
| Salary Grade 5.N | \$3,184 | \$4,058 | \$4,261 |
| Salary Grade 6.N | \$3,248 | \$4,176 | \$4,384 |
| | Office Assistant Mail Coordinator | | |
| Salary Grade 7.N | \$3,311 | \$4,291 | \$4,506 |
| Salary Grade 8.N | \$3,385 | \$4,415 | \$4,635 |
| Salary Grade 9.N | \$3,451 | \$4,536 | \$4,763 |
| Salary Grade 10.N | \$3,520 | \$4,659 | \$4,891 |
| Salary Grade 11.N | \$3,589 | \$5,780 | \$5,017 |
| | Maintenance Apprentice Material Control Clerk I Utility Worker | | |
| Salary Grade 12.N | \$3,660 | \$4,919 | \$5,167 |
| Salary Grade 13.N | \$3,728 | \$5,061 | \$5,313 |
| | Customer Service Specialist I Support Specialist | | |
| Salary Grade 14.N | \$3,812 | \$5,202 | \$5,463 |
| Salary Grade 15.N | \$3,894 | \$5,342 | \$5,610 |
| | Collection Systems Technician I Office Specialist | | |
| Salary Grade 16.N | \$3,985 | \$5,491 | \$5,765 |
| | Accounting Clerk | | |

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|---|---------|---------|--|
| Customer Service Field Technician Laboratory Analyst Metering Systems Technician I Water Efficiency Field Technician Water Maintenance Technician I | | | |
| Salary Grade 17.N | \$4,071 | \$5,627 | \$5,908 |
| Customer Service Specialist II | | | |
| Salary Grade 18.N | \$4,159 | \$5,780 | \$6,068 |
| Material Control Clerk II Senior Support Specialist | | | |
| Salary Grade 19.N | \$4,255 | \$5,926 | \$6,223 |
| Development Services Specialist Purchasing Coordinator Senior Office Specialist | | | |
| Salary Grade 20.N | \$4,368 | \$6,116 | \$6,423 |
| Collection Systems Technician II Engineering Technician I GIS Technician I Operator I Senior Accounting Clerk | | | |
| Salary Grade 21.N | \$4,492 | \$6,301 | \$6,619 |
| Collection Systems CCTV Technician Customer Service Specialist III Senior Customer Service Field Technician Senior Water Efficiency Field Technician | | | |
| Salary Grade 22.N | \$4,616 | \$6,500 | \$6,827 |
| Facilities Services Technician Maintenance Mechanic Metering Systems Technician II Recycled Water Specialist Senior Purchasing Coordinator Vehicle/Equipment Mechanic Water Maintenance Technician II | | | |
| Salary Grade 23.N | \$4,737 | \$6,697 | \$7,031 |
| Salary Grade 24.N | \$4,871 | \$6,907 | \$7,252 |
| Buyer Cross Connection Specialist | | | |

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|---|---------|---------|--|
| Public Affairs Assistant Water Efficiency Specialist Water Resources Specialist Wetlands Specialist | | | |
| Salary Grade 25.N | \$4,999 | \$7,119 | \$7,476 |
| Engineering Technician II GIS Technician II Senior Collection Systems CCTV Technician Senior Collection Systems Technician | | | |
| Salary Grade 26.N | \$5,153 | \$7,331 | \$7,696 |
| Metering Systems Technician III Water Maintenance Technician III | | | |
| Salary Grade 27.N | \$5,303 | \$7,545 | \$7,923 |
| Accountant Senior Vehicle/Equipment Maintenance Mechanic Senior Facilities Services Technician Operator II Senior Maintenance Mechanic Senior Recycled Water Specialist | | | |
| Salary Grade 28.N | \$5,459 | \$7,771 | \$8,160 |
| Construction Inspector Automation Technician Landscape Contracts Administrator Electrical Technician Instrumentation Technician Scientist | | | |
| Salary Grade 29.N | \$5,621 | \$7,997 | \$8,395 |
| Senior Buyer Engineering Technician III GIS Technician III Senior Wetlands Specialist Operator III Lead Maintenance Mechanic Recycled Water Project Specialist Senior Water Efficiency Specialist Public Affairs Specialist | | | |
| Salary Grade 30.N | \$5,791 | \$8,232 | \$8,646 |
| Risk Analyst | | | |

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|---|----------------|----------------|---|
| Senior Electrical Technician Senior Instrumentation Technician Environmental Compliance Specialist Graphic Design Specialist | | | |
| Salary Grade 31.N | \$5,961 | \$8,481 | \$8,903 |
| Information Services Coordinator Senior Construction Inspector Water Efficiency Analyst Payroll Administrator | | | |
| Salary Grade 32.N | \$6,134 | \$8,731 | \$9,168 |
| Wetlands Scientist Automation Specialist Process Specialist Senior Scientist Asset Maintenance Coordinator | | | |
| Salary Grade 33.N | \$6,313 | \$8,985 | \$9,434 |
| Operations Coordinator | | | |
| Salary Grade 34.N | \$6,500 | \$9,233 | \$9,696 |
| Electrical/Instrumentation Designer | | | |
| Salary Grade 35.N | \$6,696 | \$9,510 | \$9,986 |

EXHIBIT "B"

IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE

Managers, Exempt Supervisors, Confidential & Exempt Employees

Effective December 10, 2018

Effective January 28, 2019

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|--------------------------|----------------|----------------|---|
| <u>NON-EXEMPT</u> | | | |
| Salary Grade U 1.N | 2,937 | 3,642 | 3,823 |
| Salary Grade U 2.N | 3,001 | 3,742 | 3,929 |
| Salary Grade U 3.N | 3,064 | 3,844 | 4,037 |
| Salary Grade U 4.N | 3,120 | 3,956 | 4,154 |
| Salary Grade U 5.N | 3,192 | 4,066 | 4,269 |
| Salary Grade U 6.N | 3,254 | 4,184 | 4,393 |
| Salary Grade U 7.N | 3,319 | 4,300 | 4,516 |
| Salary Grade U 8.N | 3,391 | 4,423 | 4,644 |
| Salary Grade U 9.N | 3,456 | 4,545 | 4,774 |
| Salary Grade U 10.N | 3,528 | 4,670 | 4,902 |
| Salary Grade U 11.N | 3,596 | 4,789 | 5,026 |
| Salary Grade U 12.N | 3,667 | 4,929 | 5,177 |
| Salary Grade U 13.N | 3,736 | 5,070 | 5,326 |
| Salary Grade U 14.N | 3,820 | 5,214 | 5,475 |
| Salary Grade U 15.N | 3,902 | 5,352 | 5,620 |
| Salary Grade U 16.N | 3,994 | 5,502 | 5,776 |
| Salary Grade U 17.N | 4,079 | 5,640 | 5,922 |
| Salary Grade U 18.N | 4,168 | 5,791 | 6,082 |
| Salary Grade U 19.N | 4,263 | 5,937 | 6,236 |
| Safety Assistant | | | |
| Salary Grade U 20.N | 4,377 | 6,130 | 6,437 |

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|---|----------------|----------------|---|
| Salary Grade U 21.N | 4,501 | 6,315 | 6,633 |
| Salary Grade U 22.N | 4,625 | 6,514 | 6,840 |
| Executive Secretary Human Resources Assistant | | | |
| Salary Grade U 23.N | 4,747 | 6,711 | 7,045 |
| Salary Grade U 24.N | 4,882 | 6,920 | 7,266 |
| Salary Grade U 25.N | 5,010 | 7,132 | 7,491 |
| Human Resources Technician | | | |
| Salary Grade U 26.N | 5,166 | 7,346 | 7,713 |
| Executive Assistant | | | |
| Salary Grade U 27.N | 5,314 | 7,561 | 7,939 |
| Salary Grade U 28.N | 5,469 | 7,785 | 8,176 |
| Salary Grade U 29.N | 5,632 | 8,012 | 8,413 |
| Administrative Assistant Safety Specialist | | | |
| Salary Grade U 30.N | 5,803 | 8,249 | 8,662 |
| Salary Grade U 31.N | 5,975 | 8,498 | 8,922 |
| Human Resources Analyst | | | |
| Salary Grade U 32.N | 6,146 | 8,748 | 9,186 |
| User Support Administrator Network Administrator | | | |
| Salary Grade U 33.N | 6,325 | 9,003 | 9,454 |
| Salary Grade U 34.N | 6,514 | 9,252 | 9,716 |
| Salary Grade U 35.N | 6,710 | 9,530 | 10,007 |

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|--|---------|---------|--|
| EXEMPT | | | |
| Salary Grade U 1.E | 4,723 | 6,068 | 6,371 |
| Salary Grade U 2.E | 4,881 | 6,303 | 6,619 |
| Salary Grade U 3.E | 5,037 | 6,538 | 6,867 |
| Salary Grade U 4.E | 5,194 | 6,790 | 7,128 |
| Salary Grade U 5.E | 5,352 | 7,041 | 7,394 |
| Salary Grade U 6.E | 5,537 | 7,314 | 7,680 |
| Salary Grade U 7.E | 5,714 | 7,585 | 7,962 |
| Salary Grade U 8.E | 5,900 | 7,881 | 8,275 |
| Salary Grade U 9.E | 6,080 | 8,170 | 8,577 |
| Salary Grade U 10.E | 6,283 | 8,479 | 8,903 |
| Asset Systems Analyst Assistant Engineer Customer Service Supervisor Development Services Supervisor Management Analyst Public Affairs Analyst Regulatory Compliance Analyst Senior Public Affairs Specialist | | | |
| Salary Grade U 11.E | 6,484 | 8,792 | 9,233 |
| Financial Analyst Purchasing Supervisor Senior Accountant Water Efficiency Supervisor | | | |
| Salary Grade U 12.E | 6,694 | 9,131 | 9,585 |
| Energy Analyst Source Control Program Administrator Treasury Analyst | | | |
| Salary Grade U 13.E | 6,911 | 9,462 | 9,933 |
| Accounting Supervisor GIS Supervisor Legislative Analyst Right of Way Agent Senior Human Resources Analyst | | | |

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|--|---------|---------|--|
| <hr/> | | | |
| Water Resources Planner | | | |
| <hr/> | | | |
| Salary Grade U 14.E | 7,135 | 9,826 | 10,317 |
| Associate Engineer District Secretary QA/QC Compliance Administrator | | | |
| <hr/> | | | |
| Salary Grade U 15.E | 7,362 | 10,194 | 10,702 |
| Applications Analyst Automation Programmer Laboratory Supervisor Senior Network Administrator | | | |
| <hr/> | | | |
| Salary Grade U 16.E | 7,608 | 10,579 | 11,109 |
| <hr/> | | | |
| Salary Grade U 17.E | 7,850 | 10,968 | 11,515 |
| Asset Systems Manager Automation Manager Collection Systems Manager Construction Inspection Manager Construction Services Manager Customer Service Manager Electrical and Instrumentation Manager Engineer Facilities/Fleet Manager Field Services Manager Natural Resources Manager Purchasing Manager Safety Manager Water Efficiency Manager | | | |
| <hr/> | | | |
| Salary Grade U 18.E | 8,105 | 11,386 | 11,954 |
| Manager of Risk & Contracts Administration Public Affairs Manager Regulatory Compliance Manager Senior Applications Analyst Senior Applications Developer Senior Database Administrator Treasury Manager User Support Manager Water Quality Manager | | | |
| <hr/> | | | |
| Salary Grade U 19.E | 8,362 | 11,806 | 12,398 |
| Operations Manager Mechanical Services Manager | | | |

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|--|----------------|----------------|---|
| Recycled Water Development Manager Water Resources Manager | | | |
| Salary Grade U 20.E | 8,622 | 12,244 | 12,856 |
| Controller Manager of Strategic Planning and Analysis Network and Cybersecurity Manager Senior Engineer | | | |
| Salary Grade U 21.E | 8,885 | 12,686 | 13,321 |
| Salary Grade U 22.E | 9,170 | 13,158 | 13,817 |
| Applications Manager | | | |
| Salary Grade U 23.E | 9,461 | 13,634 | 14,317 |
| Government Relations Officer Principal Engineer | | | |
| Salary Grade U 24.E | 9,717 | 14,184 | 14,891 |
| Salary Grade U 25.E | 10,017 | 14,720 | 15,455 |
| Government Relations Officer/Deputy General Counsel | | | |
| Salary Grade U 26.E | 10,474 | 15,499 | 16,273 |
| Salary Grade U 27.E | 10,954 | 16,320 | 17,135 |
| Director of Administrative Services Director of Human Resources Director of Maintenance Director of Public Affairs Director of Recycling Operations Director of Water Operations Director of Water Quality & Regulatory Compliance Director of Water Resources Treasurer/Director of Risk Management | | | |
| Salary Grade U 28.E | 11,457 | 17,179 | 18,038 |
| Salary Grade U 29.E | 11,980 | 18,088 | 18,992 |
| Salary Grade U 30.E | 12,533 | 19,049 | 20,000 |
| Executive Director of Finance Executive Director of Engineering & Water Quality Executive Director of Operations Executive Director of Water Policy | | | |
| Salary Grade U 31.E | 13,157 | 20,129 | 21,135 |

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|------------------------|----------------|----------------|---|
| Salary Grade U 32.E | 13,816 | 21,275 | 22,339 |
| Salary Grade U 33.E | 14,503 | 22,483 | 23,607 |
| Salary Grade U 34.E | 15,231 | 23,759 | 26,281 |
| General Manager | | | |

**IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE**

Non-Exempt Supervisors Unit

Effective December 10, 2018

Effective January 28, 2018

| | MINIMUM | MAXIMUM | EXCEPTIONAL PERFORMANCE TOP OF RANGE |
|---|---------|---------|--|
| <u>NON-EXEMPT</u> | | | |
| Salary Grade S 26.N | 4,967 | 7,063 | 7,416 |
| Salary Grade S 27.N | 5,110 | 7,270 | 7,634 |
| Salary Grade S 28.N | 5,259 | 7,486 | 7,862 |
| Salary Grade S 29.N | 5,415 | 7,704 | 8,089 |
| Salary Grade S 30.N | 5,580 | 7,932 | 8,329 |
| Salary Grade S 31.N Cross Connection Supervisor Facilities Services Supervisor Fleet Supervisor | 5,745 | 8,171 | 8,579 |
| Salary Grade S 32.N Collection Systems Supervisor Mechanical Services Supervisor | 5,910 | 8,412 | 8,833 |
| Salary Grade S 33.N Water Maintenance Supervisor | 6,082 | 8,657 | 9,090 |
| Salary Grade S 34.N Construction Inspection Supervisor Automation Supervisor Electrical Supervisor Instrumentation Supervisor | 6,263 | 8,896 | 9,342 |
| Salary Grade S 35.N Operations Supervisor | 6,452 | 9,163 | 9,622 |

**IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE**

**General Employees Unit
Effective December 10, 2018**

Effective July 1, 2018

| | MINIMUM | | MAXIMUM | | EXCEPTIONAL PERFORMANCE TOP OF RANGE | |
|--|---------|---------|---------|---------|--|---------|
| NON-EXEMPT | | | | | | |
| Salary Grade 1.N | \$2,818 | \$2,931 | \$3,495 | \$3,635 | \$3,669 | \$3,816 |
| Salary Grade 2.N | \$2,879 | \$2,994 | \$3,590 | \$3,734 | \$3,770 | \$3,921 |
| Salary Grade 3.N | \$2,941 | \$3,059 | \$3,689 | \$3,837 | \$3,874 | \$4,029 |
| Salary Grade 4.N | \$2,994 | \$3,114 | \$3,796 | \$3,948 | \$3,986 | \$4,145 |
| Salary Grade 5.N | \$3,062 | \$3,184 | \$3,902 | \$4,058 | \$4,097 | \$4,261 |
| Salary Grade 6.N | \$3,123 | \$3,248 | \$4,015 | \$4,176 | \$4,215 | \$4,384 |
| Office Assistant Mail Coordinator | | | | | | |
| Salary Grade 7.N | \$3,184 | \$3,311 | \$4,126 | \$4,291 | \$4,333 | \$4,506 |
| Salary Grade 8.N | \$3,255 | \$3,385 | \$4,245 | \$4,415 | \$4,457 | \$4,635 |
| Salary Grade 9.N | \$3,318 | \$3,451 | \$4,362 | \$4,536 | \$4,580 | \$4,763 |
| Salary Grade 10.N | \$3,385 | \$3,520 | \$4,480 | \$4,659 | \$4,703 | \$4,891 |
| Salary Grade 11.N | \$3,451 | \$3,589 | \$4,596 | \$5,780 | \$4,824 | \$5,017 |
| Maintenance Apprentice Material Control Clerk I Utility Worker | | | | | | |
| Salary Grade 12.N | \$3,519 | \$3,660 | \$4,730 | \$4,919 | \$4,968 | \$5,167 |
| Salary Grade 13.N | \$3,585 | \$3,728 | \$4,866 | \$5,061 | \$5,109 | \$5,313 |
| Customer Service Specialist I Support Specialist | | | | | | |
| Salary Grade 14.N | \$3,665 | \$3,812 | \$5,002 | \$5,202 | \$5,253 | \$5,463 |
| Salary Grade 15.N | \$3,744 | \$3,894 | \$5,137 | \$5,342 | \$5,394 | \$5,610 |
| Collection Systems Technician I Office Specialist | | | | | | |
| Salary Grade 16.N | \$3,832 | \$3,985 | \$5,281 | \$5,491 | \$5,543 | \$5,765 |
| Accounting Clerk | | | | | | |

| | MINIMUM | | MAXIMUM | | EXCEPTIONAL PERFORMANCE TOP OF RANGE | |
|---|---------|---------|---------|---------|--|---------|
| Customer Service Field Technician Laboratory Analyst Metering Systems Technician I Water Efficiency Field Technician Water Maintenance Technician I | | | | | | |
| Salary Grade 17.N | \$3,914 | \$4,071 | \$5,411 | \$5,627 | \$5,681 | \$5,908 |
| Customer Service Specialist II | | | | | | |
| Salary Grade 18.N | \$3,999 | \$4,159 | \$5,558 | \$5,780 | \$5,835 | \$6,068 |
| Material Control Clerk II Senior Support Specialist | | | | | | |
| Salary Grade 19.N | \$4,091 | \$4,255 | \$5,698 | \$5,926 | \$5,984 | \$6,223 |
| Development Services Specialist Purchasing Coordinator Senior Office Specialist | | | | | | |
| Salary Grade 20.N | \$4,200 | \$4,368 | \$5,881 | \$6,116 | \$6,176 | \$6,423 |
| Collection Systems Technician II Engineering Technician I GIS Technician I Operator I Senior Accounting Clerk | | | | | | |
| Salary Grade 21.N | \$4,319 | \$4,492 | \$6,059 | \$6,301 | \$6,364 | \$6,619 |
| Collection Systems CCTV Technician Customer Service Specialist III Senior Customer Service Field Technician Senior Water Efficiency Field Technician | | | | | | |
| Salary Grade 22.N | \$4,438 | \$4,616 | \$6,250 | \$6,500 | \$6,564 | \$6,827 |
| Facilities Services Technician Maintenance Mechanic Metering Systems Technician II Recycled Water Specialist Senior Purchasing Coordinator Vehicle/Equipment Mechanic Water Maintenance Technician II | | | | | | |
| Salary Grade 23.N | \$4,555 | \$4,737 | \$6,439 | \$6,697 | \$6,761 | \$7,031 |
| Salary Grade 24.N | \$4,684 | \$4,871 | \$6,641 | \$6,907 | \$6,973 | \$7,252 |
| Buyer Cross Connection Specialist Public Affairs Assistant Water Efficiency Specialist | | | | | | |

| | MINIMUM | | MAXIMUM | | EXCEPTIONAL PERFORMANCE TOP OF RANGE | |
|---|---------|---------|---------|---------|--|---------|
| Water Resources Specialist Wetlands Specialist | | | | | | |
| Salary Grade 25.N | \$4,807 | \$4,999 | \$6,845 | \$7,119 | \$7,188 | \$7,476 |
| Engineering Technician II GIS Technician II Senior Collection Systems CCTV Technician Senior Collection Systems Technician | | | | | | |
| Salary Grade 26.N | \$4,955 | \$5,153 | \$7,049 | \$7,331 | \$7,400 | \$7,696 |
| Metering Systems Technician III Water Maintenance Technician III | | | | | | |
| Salary Grade 27.N | \$5,099 | \$5,303 | \$7,255 | \$7,545 | \$7,618 | \$7,923 |
| Accountant Senior Vehicle/Equipment Maintenance Mechanic Senior Facilities Services Technician Operator II Senior Maintenance Mechanic Senior Recycled Water Specialist | | | | | | |
| Salary Grade 28.N | \$5,249 | \$5,459 | \$7,472 | \$7,771 | \$7,846 | \$8,160 |
| Construction Inspector Automation Technician Landscape Contracts Administrator Electrical Technician Instrumentation Technician Scientist | | | | | | |
| Salary Grade 29.N | \$5,405 | \$5,621 | \$7,689 | \$7,997 | \$8,072 | \$8,395 |
| Senior Buyer Engineering Technician III GIS Technician III Senior Wetlands Specialist Operator III Lead Maintenance Mechanic Recycled Water Project Specialist Senior Water Efficiency Specialist Public Affairs Specialist | | | | | | |
| Salary Grade 30.N | \$5,568 | \$5,791 | \$7,915 | \$8,232 | \$8,313 | \$8,646 |
| Risk Analyst Senior Electrical Technician Senior Instrumentation Technician Environmental Compliance Specialist Graphic Design Specialist | | | | | | |

| | MINIMUM | | MAXIMUM | | EXCEPTIONAL PERFORMANCE TOP OF RANGE | |
|-------------------------------------|----------------|---------|----------------|---------|---|---------|
| Salary Grade 31.N | \$5,732 | \$5,961 | \$8,155 | \$8,481 | \$8,561 | \$8,903 |
| Information Services Coordinator | | | | | | |
| Senior Construction Inspector | | | | | | |
| Water Efficiency Analyst | | | | | | |
| Payroll Administrator | | | | | | |
| Salary Grade 32.N | \$5,898 | \$6,134 | \$8,395 | \$8,731 | \$8,815 | \$9,168 |
| Wetlands Scientist | | | | | | |
| Automation Specialist | | | | | | |
| Process Specialist | | | | | | |
| Senior Scientist | | | | | | |
| Asset Maintenance Coordinator | | | | | | |
| Salary Grade 33.N | \$6,070 | \$6,313 | \$8,639 | \$8,985 | \$9,071 | \$9,434 |
| Operations Coordinator | | | | | | |
| Salary Grade 34.N | \$6,250 | \$6,500 | \$8,878 | \$9,233 | \$9,323 | \$9,696 |
| Electrical/Instrumentation Designer | | | | | | |
| Salary Grade 35.N | \$6,438 | \$6,696 | \$9,144 | \$9,510 | \$9,602 | \$9,986 |

January 28, 2019

Prepared by: A. Murphy / M. Cortez

Submitted by: K. Burton

Approved by: Paul A. Cook



ACTION CALENDAR

LAKE FOREST ZONE B EAST RESERVOIR FLOATING COVER CONSTRUCTION AWARD

SUMMARY:

The Lake Forest Zone B East Reservoir Floating Cover project will construct a floating cover and miscellaneous site improvements at the existing recycled water reservoir. Staff recommends that the Board:

- Authorize a budget increase for Project 10551 in the amount of \$1,615,000, from \$390,000 to \$2,005,000; and
- Authorize the General Manager to execute a construction contract with Layfield USA Corporation in the amount of \$1,617,495 for the Lake Forest Zone B East Reservoir Floating Cover project.

BACKGROUND:

The Lake Forest Zone B East Reservoir is a 40,000 square foot concrete lined open reservoir that was constructed in 1963. It is located west of the Lake Forest Sports Park, near Regency Lane and Lake Forest Drive; a site map is included as Exhibit "A". The reservoir primarily supplies recycled water to the City of Lake Forest Sports Park, Saddleback Church, and landscape medians in the Zone C system, and the upper end of the Zone B system in Lake Forest. During summer months, the reservoir's water quality tends to decline due to algae growth promoted by warm temperatures. A floating cover was previously installed at the reservoir to minimize growth but was removed in 2005 due to deterioration, and the reservoir has remained uncovered since.

The proposed project will install a new cover to deter algae growth by blocking sunlight, as well as minimize plant debris from entering the reservoir. The project also includes miscellaneous site improvements including providing a potable water line to the reservoir for washing the floating cover, improvements to the reservoir outlet valve access, replacement of existing electrical conduits and pull boxes, and asphalt pavement replacement around the reservoir. The design and bid package for this project was completed by Hilts Consulting Group in November 2018.

Construction Bid:

The project was advertised to a select bidders list of two floating cover contractors on December 13, 2018. These two companies are the only local contractors with expertise in construction of floating covers. The bid opening was held on January 17, 2019, with bids received from Layfield USA Corporation and Raven CLI Construction. The apparent low bidder is Layfield with a bid of \$1,617,495. The Bid Summary is attached as Exhibit "B". The engineer's estimate of \$1,116,780 was based on the design engineers experience with previously

completed floating cover projects. Staff believes that the quoted bid prices, which were both higher than the engineers estimate, reflect the current market cost of the project; the bids are within 10% of each other.

Layfield is a geomembrane manufacturer and has constructed many of the floating covers throughout Southern California including El Toro Water District's 275 million gallon R-6 reservoir in 2001 and South Coast Water District's 48 million gallon Bradt reservoir in 2014. Staff recommends awarding the construction contract for this project to Layfield.

FISCAL IMPACTS:

Project 10551 is included in the FY 2018-19 Capital Budget. A budget increase is required to fund the construction and engineering support services for the project as shown in the table below.

| Project No. | Current Budget | Addition <Reduction> | Total Budget |
|-------------|----------------|----------------------|--------------|
| 10551 | \$390,000 | \$1,615,000 | \$2,005,000 |

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 which provides exemption for minor alterations of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. A Notice of Exemption for the project was filed with the County of Orange on December 18, 2018.

COMMITTEE STATUS:

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

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE FOR PROJECT 10551 IN THE AMOUNT OF \$1,615,000, FROM \$390,000 TO \$2,005,000; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH LAYFIELD USA CORPORATION IN THE AMOUNT OF \$1,617,495 FOR THE LAKE FOREST ZONE B EAST RESERVOIR FLOATING COVER, PROJECT 10551.

LIST OF EXHIBITS:

- Exhibit "A" – Project Site Map
- Exhibit "B" – Bid Summary

EXHIBIT "A"



**LAKE FOREST ZONE B EAST RESERVOIR FLOATING COVER
PROJECT SITE MAP**

EXHIBIT "B"

Bid Opening: Thursday, January 17, 2019 @ 2:00 p.m.

Irvine Ranch Water District Bid Summary For
Lake Forest Zone B East Reservoir Floating Cover
PR 10551, Code 7346

Entered By: L. Gates

| Item No. | Description | Qty | Unit | Engineer's Estimate | | 1 Layfield USA Corp Spring Valley, CA | | 2 Raven CLI Construction, Inc. Sioux Falls, SD | | 3 | |
|----------|--|-------|------|---------------------|--------------|---|--------------|--|--------------|------------|--------------|
| | | | | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount |
| | | | | | | | | | | | |
| 1 | Mobilization and Demobilization | 1 | LS | \$32,500.00 | \$32,500.00 | \$62,110.00 | \$62,110.00 | \$70,000.00 | \$70,000.00 | | \$0.00 |
| 2 | Dewater Reservoir and Clean Reservoir Interior | 1 | LS | \$12,000.00 | \$12,000.00 | \$18,220.00 | \$18,220.00 | \$18,000.00 | \$18,000.00 | | \$0.00 |
| 3 | Unit Cost to Remove and Dispose Sediment from Reservoir Interior | 30 | CY | \$550.00 | \$16,500.00 | \$515.00 | \$15,450.00 | \$400.00 | \$12,000.00 | | \$0.00 |
| 4 | Unit Cost to Repair Existing Reservoir Interior Gunite Lining | 50 | SF | \$330.00 | \$16,500.00 | \$210.00 | \$10,500.00 | \$210.00 | \$10,500.00 | | \$0.00 |
| 5 | Unit Cost to Coat Existing Reservoir Interior Gunite Lining Cracks | 1,600 | LF | \$10.00 | \$16,000.00 | \$14.50 | \$23,200.00 | \$14.50 | \$23,200.00 | | \$0.00 |
| 6 | Repair Existing Reservoir Perimeter Curb | 1 | LS | \$4,000.00 | \$4,000.00 | \$2,780.00 | \$2,780.00 | \$2,800.00 | \$2,800.00 | | \$0.00 |
| 7 | Modifications to Existing Inlet / Outlet Pipe | 1 | LS | \$20,400.00 | \$20,400.00 | \$13,430.00 | \$13,430.00 | \$13,000.00 | \$13,000.00 | | \$0.00 |
| 8 | Modifications to Existing Well Inlet Pipe and Installation of District Provided Standpipe Assembly | 1 | LS | \$28,300.00 | \$28,300.00 | \$79,700.00 | \$79,700.00 | \$89,000.00 | \$89,000.00 | | \$0.00 |
| 9 | Unit Cost to Replace Existing Galled Nuts and Damaged Studs | 200 | EA | \$45.00 | \$9,000.00 | \$12.50 | \$2,500.00 | \$25.00 | \$5,000.00 | | \$0.00 |
| 10 | Provide CSPE Geomembrane Floating Cover and Chafer Materials and Fabricated Panels | 1 | LS | \$239,000.00 | \$239,000.00 | \$298,790.00 | \$298,790.00 | \$282,000.00 | \$282,000.00 | | \$0.00 |
| 11 | Install Reservoir Geomembrane Floating Cover and Chafer Fabricated panels | 1 | LS | \$91,700.00 | \$91,700.00 | \$217,480.00 | \$217,480.00 | \$322,000.00 | \$322,000.00 | | \$0.00 |
| 12 | Provide and Install Floating Cover Rainwater Collection Troughs | 1 | LS | \$87,000.00 | \$87,000.00 | \$123,480.00 | \$123,480.00 | \$169,000.00 | \$169,000.00 | | \$0.00 |
| 13 | Provide, Install, and Test Floating Cover Rainwater Removal Pump Assemblies | 1 | LS | \$20,000.00 | \$20,000.00 | \$43,360.00 | \$43,360.00 | \$48,000.00 | \$48,000.00 | | \$0.00 |
| 14 | Provide and Install Floating Cover Hatches | 1 | LS | \$34,000.00 | \$34,000.00 | \$32,440.00 | \$32,440.00 | \$73,000.00 | \$73,000.00 | | \$0.00 |
| 15 | Provide and Install Floating Cover Vents | 1 | LS | \$12,000.00 | \$12,000.00 | \$8,940.00 | \$8,940.00 | \$20,000.00 | \$20,000.00 | | \$0.00 |
| 16 | Provide and Install Site Electrical Improvements | 1 | LS | \$116,000.00 | \$116,000.00 | \$312,200.00 | \$312,200.00 | \$280,000.00 | \$280,000.00 | | \$0.00 |
| 17 | Provide Reservoir Startup Support and Startup Testing | 1 | LS | \$6,800.00 | \$6,800.00 | \$13,650.00 | \$13,650.00 | \$22,000.00 | \$22,000.00 | | \$0.00 |
| 18 | Clearing, Grubbing, Site Demolition and Soil Preparation | 1 | LS | \$31,600.00 | \$31,600.00 | \$73,850.00 | \$73,850.00 | \$62,000.00 | \$62,000.00 | | \$0.00 |
| 19 | Construct Asphalt Concrete Pavement | 1,870 | SY | \$64.00 | \$119,680.00 | \$52.20 | \$97,614.00 | \$52.00 | \$97,240.00 | | \$0.00 |
| 20 | Construct Storm Drain Pipe and Fittings | 1 | LS | \$26,600.00 | \$26,600.00 | \$16,890.00 | \$16,890.00 | \$17,000.00 | \$17,000.00 | | \$0.00 |
| 21 | Construct Connection to Existing Pump Station Discharge | 1 | LS | \$18,000.00 | \$18,000.00 | \$19,220.00 | \$19,220.00 | \$19,000.00 | \$19,000.00 | | \$0.00 |
| 22 | Construct 4-inch C900 PVC Pipe and Ductile Iron Fittings | 257 | LF | \$200.00 | \$51,400.00 | \$113.00 | \$29,041.00 | \$113.00 | \$29,041.00 | | \$0.00 |

| | | | | Engineer's Estimate | | 1 Layfield USA Corp Spring Valley, CA | | 2 Raven CLI Construction, Inc. Sioux Falls, SD | | 3 | |
|--|---|-----|------|--|-----------------------|--|-----------------------|--|-----------------------|------------------------|---------------|
| Item No. | Description | Qty | Unit | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount |
| 23 | Construct 4-inch Ductile Iron Pipe and Fittings | 71 | LF | \$320.00 | \$22,720.00 | \$263.38 | \$18,699.98 | \$265.00 | \$18,815.00 | | \$0.00 |
| 24 | Provide and Install 4-inch Backflow Preventer Assembly per IRWD Std. W-7 | 1 | LS | \$18,000.00 | \$18,000.00 | \$12,670.00 | \$12,670.00 | \$12,600.00 | \$12,600.00 | | \$0.00 |
| 25 | Provide and Install 4-inch Wharf Head Hydrant Assembly per IRWD Std. W-9 | 1 | LS | \$13,500.00 | \$13,500.00 | \$9,670.00 | \$9,670.00 | \$9,600.00 | \$9,600.00 | | \$0.00 |
| 26 | Provide and Install 1-inch Air Release and Vacuum Valve Assembly (ARI) per IRWD Std. W-11 | 1 | EA | \$4,000.00 | \$4,000.00 | \$8,300.00 | \$8,300.00 | \$8,300.00 | \$8,300.00 | | \$0.00 |
| 27 | Provide and Install 2-inch Flush-Out Assembly per IRWD Std. W-13 | 1 | LS | \$7,000.00 | \$7,000.00 | \$9,220.00 | \$9,220.00 | \$9,200.00 | \$9,200.00 | | \$0.00 |
| 28 | Construct Gravel Access to Existing Valves | 1 | LS | \$15,000.00 | \$15,000.00 | \$12,780.00 | \$12,780.00 | \$12,700.00 | \$12,700.00 | | \$0.00 |
| 29 | Construct Retaining Wall | 1 | LS | \$18,000.00 | \$18,000.00 | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$20,000.00 | | \$0.00 |
| 30 | Perform Floating Cover Cleaning After Reservoir Fill and Site Improvements | 1 | LS | \$8,000.00 | \$8,000.00 | \$10,310.00 | \$10,310.00 | \$12,004.00 | \$12,004.00 | | \$0.00 |
| 31 | Provide Closeout Submittals and Record Drawings | 1 | LS | \$1,000.00 | \$1,000.00 | \$1,000.00 | \$1,000.00 | \$1,000.00 | \$1,000.00 | | \$0.00 |
| Subtotal | | | | | \$1,116,200.00 | | \$1,617,494.98 | | \$1,788,000.00 | | \$0.00 |
| Adjustment (+ or -) | | | | | | | \$0.00 | | \$0.00 | | \$0.00 |
| TOTAL AMOUNT OF BID | | | | | \$1,116,200.00 | | \$1,617,494.98 | | \$1,788,000.00 | | \$0.00 |
| NOTES: | | | | Item | | Manufacturers: | | Manufacturers: | | Manufacturers: | |
| 1 - Layfield USA Corp.'s bid amount of \$1,617,495.00 contained a mathematical error in Bid Item No. 23. The corrected bid amount of \$1,617,494.98 is reflected herein. | | | | Floating Cover and Chafer Geomembrane Material | | Burke Industries | | Burke Industries | | | |
| | | | | | | Subcontractors: | | Subcontractors: | | Subcontractors: | |
| | | | | | | Civil Mechanical/Site Demo - Pacific Hydrotech Corporation | | Civil Mechanical - Pacific Hydrotech Corporation | | | |
| | | | | | | Electrical - Halcyon Electric, Inc. | | Electrical - Halcyon Electric, Inc. | | | |

January 28, 2019

Prepared by: D. Johnson

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

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

ACTION CALENDAR

IRWD EMBEDDED ENERGY PLAN UPDATE

SUMMARY:

Navigant Consulting, Inc. completed an Embedded Energy Plan for IRWD in 2015, which quantified energy use associated with IRWD facilities involved in the treatment, distribution, collection, use, reuse and disposal of water and biosolids. An update to the plan is proposed that will bring the embedded energy analyses current and will be used to develop updated pumping surcharges for future years. Staff recommends that the Board:

- Authorize a budget increase in the amount of \$37,000 for Project 07154, from \$231,500 to \$268,500; and
- Authorize the General Manager to execute a Professional Services Agreement with Navigant Consulting, Inc. (Navigant) in the amount of \$126,505 to update the IRWD Embedded Energy Plan.

BACKGROUND:

On April 28, 2014, the Board approved the development of an Embedded Energy Plan to quantify energy use associated with each IRWD facility involved in the production, treatment, distribution, collection, reuse, and disposal of water and biosolids. The Plan analyzed energy data from 2006 to 2013 and included the development of an analytical tool which identified portions of the District where future water conservation should be focused and where pumping surcharges should be assessed. The development of the Plan helped position IRWD to obtain energy utility funding for energy related programs and enhanced IRWD's role as an industry leader in the water-energy nexus.

Staff now recommends an update to the Embedded Energy Plan to account for new IRWD facilities and system changes and to revise the analysis with data from 2014 to 2017. The scope of the updated analysis will include the following elements:

- Update historic and future energy use estimates (in kilowatt-hours per acre-foot) associated with the production, treatment and distribution of water for each portion of IRWD's service area;
- Update energy use estimates associated with sewage collection and treatment, as well as the distribution of recycled water and production of biosolids.
- Update the spreadsheet-based embedded energy tool and revised pumping cost analysis which will be used to develop recommendations for pumping surcharges for consideration when establishing rates and charges for future years.

The update will be used to assist staff in identifying geographic areas in which to target water efficiency programs and energy reduction measures. In addition, the update will enhance IRWD’s role as an industry leader in water and energy efficiency and will support future IRWD participation in a statewide water-energy nexus registry.

Award of Professional Services Agreement:

In 2014, Navigant Consulting, Inc. was selected for the development of IRWD’s Embedded Energy Plan through a competitive process. Navigant successfully completed the Plan in 2015, and has continued to demonstrate unique and outstanding expertise in performing embedded energy planning work. Navigant was also selected to perform similar work for the California Public Utilities Commission.

At staff’s request, Navigant submitted the scope of work to update the IRWD Embedded Energy Plan, provided as Exhibit “A”. Staff has negotiated with Navigant and considers the scope of work and associated costs to be fair and reasonable. To take advantage of Navigant’s previous work and unique experience in preparing the 2015 Plan as well as to help meet a schedule for developing accurate pumping surcharges for establishing upcoming rates and charges, staff recommends that Navigant be awarded a sole source Professional Services Agreement to update the Plan in the amount of \$126,505.

FISCAL IMPACTS:

The cost for Navigant’s services to update the Embedded Energy Plan update is \$126,505. Project 07154 (Water and Energy Planning Studies DW 18/19) is included in the FY 2018-19 Capital Budget, which includes a budget of \$100,000 to perform this work. Staff requests a budget increase to Project 07154 in the amount of \$37,000 for the costs associated with this update, plus approximately \$10,000 for staff time as shown in the following table.

| Project No. | Current Budget | Addition <Reduction> | Total Budget |
|-------------|----------------|----------------------|--------------|
| 07154 | \$231,500 | \$37,000 | \$268,500 |

ENVIRONMENTAL COMPLIANCE:

This item 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 Engineering and Operations Committee on January 15, 2019.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A SOLE SOURCE PROFESSIONAL SERVICES AGREEMENT WITH NAVIGANT CONSULTING, INC., IN THE AMOUNT OF \$126,505 TO UPDATE THE IRWD EMBEDDED ENERGY

PLAN AND INCREASE THE BUDGET IN THE AMOUNT OF \$37,000 FOR PROJECT 07154.

LIST OF EXHIBITS:

Exhibit "A" – Navigant Consulting Scope of Work for Updating IRWD Embedded Energy Plan

Exhibit "A"

Amul Sathe
Director



Amul.sathe@navigant.com
415.399.2180

January 8, 2019

Dane Johnson
Water Resources Planner
Irvine Ranch Water District
15600 Sand Canyon Avenue, Irvine, California 92618
SENT BY EMAIL

Re: Letter Proposal for Updating IRWD Embedded Energy Plan

Dear Dane:

Navigant is very pleased to submit this proposal to update the Irvine Ranch Water District (IRWD) Embedded Energy Plan (the 2015 Plan). IRWD's 2015 Plan was commissioned to examine energy use associated with collection, use, reuse, and disposal of water and biosolids in IRWD's service area. In December 2015, Navigant delivered the final report and tools for IRWD's Embedded Energy Plan. This memo documents the draft scope for Navigant to update the 2015 Plan.

The overall intent of this scope is to:

- Leverage past analysis as much as possible
- Account for IRWD system changes
- Refresh analysis with new IRWD data (i.e. data from 2014 through 2017)
- Deliver spreadsheet-based models and datasets (rather than GIS tools as the 2015 Plan did).

This update does not touch on every aspect of the scope of the 2015 Plan. The next section discusses specific scope updates for this study.

Outline of Proposed Scope

Task 1 - Project Management

This task includes project management activities required to ensure adherence to schedule and budget. This task will include:

- A kick-off meeting to review project objectives and introduce key members of the project team.
- A data request to be submitted to IRWD to collect readily available information needed for the Embedded Energy Plan Update
- Monthly invoicing and progress meetings

Task 2 - Historic Embedded Energy Analysis Update

This task will calculate total energy use and historic embedded energy on an annual basis from 2014 through 2017. The 2015 Plan already processed data from 2005 to 2013. Embedded energy estimates will be made for the following ten major facility types:

1. Water Supply
 - a. Potable Supply
 - b. Non-Potable Supply
2. Water Treatment
3. Water Distribution

4. Wastewater Collection
5. Wastewater Treatment
6. Non-Potable/Recycled Water Treatment
7. Non-Potable/Recycled Water Distribution
8. Wastewater Discharge
9. Biosolids Treatment
10. Biosolids Product Disposal

This task will estimate the total historic energy use by each of the major systems as well as the average energy intensity (EI) of each major system (in kWh/AF or Therms/AF). This task will also use billing data to estimate the average energy cost intensity (CI) for each facility (in \$/AF). Cost intensity is to be used in the surcharge analysis task.

Throughout this process special considerations will be taken to:

- Track electric and gas consumption separately
- Track data by individual facility
- Track data by year
- Note the distinction of IRWD energy use vs. energy used by other water and wastewater utilities (such as MWD and OCSD).

Core to completing this task is collecting accurate, complete data from IRWD. In the past, IRWD has been able to provide flow data on a monthly basis for each facility in MS Excel format. This scope assumes data can continue to be provided in this format. The 2015 Plan linked each IRWD water facility to an SCE and SCG energy meter. That mapping of facilities is expected to remain consistent for this update. This scope assumes SCE and SCG account numbers have not changed since 2013. This scope assumes up to 10 new IRWD facilities with new SCE or SCG account numbers have come online since 2013.

Outputs of this task include:

- A summary of the total energy consumption by facility type over the data analysis period (2014-2017) and a high level comparison to previous years (2005 – 2013)
- The annual energy intensity and cost intensity of each facility.

Task 3 - Spatial Embedded Energy Estimate Update

This task will develop estimates of embedded energy in each of the potable water Geopressure Zones (GPZ) and Raw Water Zones (RWZ) within IRWD territory. The 2015 Plan established a methodology for conducting this analysis by tracing the flow of water through each system to each zone. This update will continue to use the same methodology and update the analysis for the new data collected in the Historic Embedded Energy Analysis Task. The 2015 plan included 109 GPZs and 33 RWZs. This scope and budget assumes up to 10 new GPZs and 5 new RWZ may have been established.

The spatial analysis will be conducted based on the latest year of available data (2017)

This analysis will ultimately develop multiple types of output:

- A table of the EI and CI for each region by system type that feeds into the Embedded Energy Tool
- A table indicating the percent of total embedded energy use each region accounts for
- A metric of total energy use associated with outdoor water use by region so IRWD can target landscape irrigation programs regionally

Task 4 - Historic Water Use Analysis

This task will analyze historic potable and non-potable water use in IRWD territory on an annual basis from 2014 to the latest year of available data. Past analysis already processed data from 2005 to 2013. The results of this analysis will provide a basis for comparing historic conservation program accomplishments.

This scope assumes that one of following is true:

1. Customer account numbers have not changed since 2013 allowing our team to continue using previous geolocation data

2. New IRWD customer data provided to Navigant has at least 95% of customers linked to their GPZ and RWZ. We recognize new customers, or a small minority of existing customers may not be geolocated.

Outputs of this task include:

- An annual summary of the total potable and non-potable water delivered to IRWD customers as well as an estimate of wastewater collected
- A breakdown of water consumption by GPZ and RWZ

Task 5 - Embedded Energy Tool Update

This task will provide a spreadsheet based Embedded Energy Management tool with new data derived as part of earlier tasks in this study. Spatial embedded energy estimates, historic water consumption data, and data on the savings from individual rebated conservation technologies are all inputs to the tool. The Embedded Energy Tool will use energy intensity, cost intensity, and water use data from a single year (2017) to perform analysis. Methodology and function updates to the tool are not planned as part of this scope.

The tool will contain the following:

- Data Tables – Data tables that IRWD staff can plot in GIS will be provided in the tool. The following data will be provided at the GPZ and RWZ level as appropriate:
 - Energy Intensity
 - Cost Intensity
 - Historic water use
- Conservation Analysis
 - Potable Analysis
 - Non-Potable Analysis

Outputs of this task include:

- Spreadsheet based Embedded Energy Tool

Task 6 - Pumping Surcharge Analysis Update

The energy cost of providing potable water and non-potable water varies throughout IRWD's service territory based on location. This task will assess the variation in the energy cost of pumping to develop pumping surcharges by region. The 2015 Plan developed and recommended surcharge zones for both the potable and non-potable systems under two scenarios using energy cost data from 2013. This update will continue to use the same methodology as the 2015 Plan but update the data to use the latest full year available.

Pumping surcharge zones in the 2015 Plan were developed by grouping similar cost zones together to create three total potable surcharge zones and three non-potable surcharge zones. It is possible that new pumping cost data could slightly alter the previously recommended groupings. This task will refresh the 2015 Plan analysis with new pumping cost data and deliver a spreadsheet tool that allows IRWD staff to consider regrouping zones.

Outputs of this task include:

- Updated recommended surcharges for previously established zones (due by the end of March 2019)
- A spreadsheet tool allowing IRWD to edit surcharge zone definitions (due at the completion of the overall project)

The 2015 plan final report contained the following disclaimer related to surcharge analysis. A similar disclaimer will be applied to Task 6 deliverables in this scope:

This report (the "report") was prepared for IRWD on terms specifically limiting the liability of Navigant Consulting, Inc. ("Navigant"). Navigant's conclusions are the result of the exercise of Navigant's reasonable professional judgment, based in part upon materials provided by IRWD and others. Navigant's analysis is based on a methodology agreed to by IRWD staff using available

data from 2013. Navigant has presented the results of its analysis for the scenarios requested by IRWD staff. Determination as to what surcharge values to ultimately adopt is to be made by IRWD.

Task 7 - Final Report

A single comprehensive report will be developed on the analysis conducted as part of the Embedded Energy Plan Update. This report will include full documentation of all data sources and assumptions as well as “next-step” recommendations. As this update study does not plan to update methodology relative to the current study, the report will either point readers to the 2015 Plan for methodology discussions or will simply copy the methodology sections from the 2015 Plan.

- An executive summary of the Embedded Energy Plan
- Technical sections that concisely summarize the information contained in each of the technical tasks.
- An appendix consisting of the complete technical detail (updated if necessary based on IRWD feedback).

All comments provided on the draft report by IRWD will be incorporated into a final report.

Schedule

This project will be carried out over a 5-month period starting in February 2019 and concluding around June 2019. Analysis for Task 6 (Pumping Surcharge) will be completed by the end of March 2019.

Budget

The budget for the outlined scope will be **\$126,505**. The table below provides additional detail.

| Staff Title | Rate | Hours by Task | | | | | | | Total |
|---------------------|-------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| | | Task 1 | Task 2 | Task 3 | Task 4 | Task 5 | Task 6 | Task 7 | |
| Director | \$345 | 8 | 8 | 8 | 2 | 8 | 8 | 10 | 52 |
| Associate Director | \$290 | | | | | | | | 0 |
| Managing Consultant | \$235 | 24 | 40 | 25 | 15 | 40 | 40 | 15 | 199 |
| Senior Consultant | \$200 | | 90 | 14 | 10 | | | 20 | 134 |
| Consultant | \$170 | | 50 | 40 | 30 | 30 | 30 | 20 | 200 |
| Total Hours | | 32 | 188 | 87 | 57 | 78 | 78 | 65 | 585 |
| <i>Total Fees</i> | | <i>\$8,400</i> | <i>\$38,660</i> | <i>\$18,235</i> | <i>\$11,315</i> | <i>\$17,260</i> | <i>\$17,260</i> | <i>\$14,375</i> | <i>\$125,505</i> |
| <i>Travel Costs</i> | | <i>\$1,000</i> | | | | | | | <i>\$1,000</i> |
| Total | | \$9,400 | \$38,660 | \$18,235 | \$11,315 | \$17,260 | \$17,260 | \$14,375 | \$126,505 |

Key Navigant Personnel

The key personnel for the assignment will include:

- Amul Sathe (Director), Project Director
- Kristin Landry (Managing Consultant), Day-to-day Project Manager
- Available Navigant Consultants and Senior Consultants (e.g., Na Yu, Lucas Schroyer, John Aquino)

Navigant’s staff are not licensed as engineers or architects; the professional services provided by Navigant do not require licensed engineers or architects.

If you have any questions or need additional details on our proposal, please feel free to contact me at 415-399-2180 or amul.sathe@navigant.com.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Amul Sathe', is positioned above the typed name.

Amul Sathe
Director