

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

March 25, 2019

PLEDGE OF ALLEGIANCE

CALL TO ORDER

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

ROLL CALL

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

NOTICE

If you wish to address the Board on any item, including Consent Calendar items, please file your name with the Secretary. Forms are provided on the lobby table. Remarks are limited to 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

Resolution No. 2019-9

Items 4-8

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

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

5. MINUTES OF BOARD MEETING

Recommendation: That the minutes of the March 11, 2019 Regular Board meeting be approved as presented.

6. NEWPORT COAST LIFT STATION REHABILITATION FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Newport Coast Lift Station Rehabilitation, Projects 05470 And 06400; 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.

CONSENT CALENDAR (Continued)		Resolution No. 2019-9	Items 4-8
7.	<u>FEBRUARY 2019 TREASURY REPORTS</u>		
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 February 2019, and Disclosure Report of Reimbursements to Board members and staff; approve the February 2019 Summary of Payroll ACH payments in the total amount of \$2,107,829 and approve the February 2019 Accounts Payable Disbursement Summary of Warrants 395760 through 396571, Workers’ Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$29,768,988.			
8.	<u>AMENDMENT NO. 8 TO THE SANTIAGO AQUEDUCT COMMISSION JOINT POWERS AGREEMENT</u>		
Recommendation: That the Board approve Amendment No. 8 to the Santiago Aqueduct Commission Joint Powers Agreement subject to non-substantive changes.			

ACTION CALENDAR - Continued

9. 2019 LEGISLATIVE AND REGULATORY UPDATE

Recommendation: That the Board adopt a “support” AB 510 (Cooley), AB 1204 (Rubio), and SB 414 (Caballero); a “watch” position on SB 307 (Roth); an “oppose unless amended” position on AB 1486 (Ting); and an “oppose / oppose unless amended” position on AB 332 (Hertzberg).

10. MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES CHANGE ORDER, VARIANCES, AND BUDGET INCREASE

Recommendation: That the Board approve Change Order No. 99 in the amount of \$330,609.60, with Filanc/Balfour Beatty for items including hardscaping, soil remediation, paving, mechanical and electrical changes, and SCADA programming modifications; authorize the General Manager to execute Variance No. 8 with Black & Veatch in the amount of \$2,865,066 for supplemental contract administration, construction phase, start-up, and commissioning services; authorize the General Manager to execute Variance No. 3 with Arcadis, Inc. in the amount of \$664,138 for supplemental construction management and document control system services; authorize the General Manager to execute Variance No. 3 with EI&C Engineering, Inc. in the amount of \$835,860 for supplemental process control system (PCS) oversight, construction management services, start-up testing, and various engineering tasks; and authorize a budget increase in the amount of \$10,969,000 from \$227,573,100 to \$238,542,100, to the FY 2018-19 Capital Budget for the Michelson Water Recycling Plant Biosolids and Energy Recovery Facilities, Project 04286.

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.

11. General Manager's Report
12. Directors' Comments
13. Receive oral update(s) from District liaison(s) regarding communities within IRWD's service area and provide information on relevant community events.
14. Closed Session

CONFERENCE WITH LABOR NEGOTIATORS – Pursuant to Government Code Section 54957.6

Designated Agency Representatives: Paul Cook and Jenny Roney

Employee Groups: IBEW Local #47 Non-Exempt Supervisor Unit Employees

15. Open Session
16. 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.

March 25, 2019

Prepared and

submitted by: K. Swan *KS*

Approved by: Paul A. Cook *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

February 12	Monthly Discussion of District Activities with the General Manager
February 25	Association of California Water Agencies DC 2019: Washington, D.C. Conference
April 4	MWDOC Board and Member Agency Elected Officials Forum
April 18	Orange County Business Council Leadership Series

Mary Aileen Matheis

March 20	OCWA Monthly Meeting featuring GWRS Project Update
March 28	ISDOC Quarterly Meeting and Luncheon Presentation
April 4-5	California Water Policy 28 Conference, San Diego
April 11	OC Forum Monthly Meeting / Presentation
April 12	Santa Ana River Watermaster Program, Norco
April 17	ACC-OC Board of Directors Installation
April 18	Orange County Business Council Leadership Series

Doug Reinhart

April 3	IRWD-OCWD Coordination Meeting
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Peer Swan

April 4	Water Education Foundation Presents " <i>Parting the Waters – Will it Take a Miracle?</i> " with Former Interior Secretary Bruce Babbitt Crocker Art Museum, Sacramento
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John Withers

March 28	ISDOC Quarterly Meeting and Luncheon Presentation
April 4	MWDOC Board and Member Agency Elected Officials Forum
April 17	ACC-OC Board of Directors Installation

RECOMMENDATION:

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

LIST OF EXHIBITS:

None.

March 25, 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 March 11, 2019 Regular Board meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE MARCH 11, 2019 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – March 11, 2019 Minutes of Regular Board Meeting

EXHIBIT "A"

MINUTES OF REGULAR MEETING – MARCH 11, 2019

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:11 p.m. by President LaMar on March 11, 2019 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

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

Directors Absent: None.

Also Present: General Manager Cook, Executive Director 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 Treasury and Risk Management Jacobson, Legal Counsel Collins, Legal Counsel DeMayo, Legal Counsel Roux, Secretary Bonkowski, Government Relations Officer Compton, Consultant Deborah Diep, staff, legal counsel, and members of the public.

WRITTEN COMMUNICATIONS: None.

ORAL COMMUNICATIONS: Ms. Robin Ganahl, a representative of the Orange County Clean Energy Advocates, invited the Board and staff to attend a public workshop on Community Choice Energy on March 17, 2019.

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, an additional public hearing, the third public hearing since the drafting and publication of draft maps, is now being held on March 11, 2019 after the drawing of draft maps. The first hearing after the drawing of draft maps was held on December 10, 2018. The second hearing after the drawing of draft maps was held on January 14, 2019. The purpose of both of these hearings, and the current hearing, 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 the Board meeting of March 11, 2019, to be the time and place for a 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.

District Secretary Bonkowski said that the hearing was noticed by publication in the *Orange County Register* on Sunday, February 24, 2019; by publication in Spanish in the *Excelsior Unidos* on Friday, February 22, 2019; by publication in Korean in the *Korea Times* on Saturday, February 23, 2019; by publication in English and Traditional Chinese in the *World Journal* on Saturday, February 23, 2019, and Sunday, February 24, 2019; by publication in Farsi in *Hafteh Bazaar* on Friday, February 22, 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 further said that five additional draft maps — Map A-1, Map B-1, Map C-1, Map D-1 and Map E — were published on IRWD's website on February 15, 2019. She presented affidavits of posting and proof of publication to the Board related to the hearing.

On MOTION by Swan, seconded by Matheis and carried (4-0) (Swan, LaMar, Reinhart and Matheis voting aye and Withers absent), the Board of Directors 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 said that the purpose of the hearing was an opportunity to invite and solicit public comment 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.

Director Withers arrived at 5:17 p.m. President LaMar asked to open the hearing. On MOTION by Matheis, seconded by Swan and unanimously carried, THE PUBLIC HEARING WAS OPENED TO SOLICIT AND ACCEPT COMMENTS ON THE PROPOSED MOVE TO BY-DIVISION ELECTIONS, THE COMPOSITION OF DIVISIONS, THE DRAFT DIVISION MAPS, AND SEQUENCE OF ELECTIONS.

In response to Director Swan's inquiry, Legal Counsel DeMayo said he will research and report back if the California Election Code would allow for a combination election within the statute with two at-large Directors and three with division boundaries.

President LaMar asked for a report to the Board regarding the draft division maps, and on any written comments received.

Using a PowerPoint presentation, Consultant Deborah Diep reviewed the maps. Following review, President LaMar asked for boundary revision on Map E along the Interstate 5 freeway with Director Reinhart asking to have prepared an overlay of the larger communities within the service areas. Following Director Reinhart's comments on Maps A and B, on MOTION by Reinhart, seconded by Matheis, and unanimously carried, MAPS A AND B WERE REMOVED FROM FURTHER CONSIDERATION. Following discussion, Ms. Deip said that she will move forward with the revisions as discussed and with the goal of trying to keep more communities of interest together.

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.

President LaMar inquired whether there were any other comments or questions from members of the Board of Directors. There were none.

President LaMar asked for a motion to close the hearing. On MOTION by Reinhart, seconded by Swan, and unanimously carried, THE PUBLIC HEARING WAS CLOSED AND THE BOARD AUTHORIZED STAFF TO AGENDIZE AN ADDITIONAL PUBLIC HEARING FOR APRIL 8, 2019, FOR THE BOARD OF DIRECTORS TO CONSIDER FINAL ACTION ON A TRANSITION TO BY-DIVISION ELECTIONS, AND TO CONSIDER ADOPTION OF A FINAL MAP OF DIVISION BOUNDARIES BASED ON MAP C, C-1, D, D-1, E OR ADDITIONAL MAP(S) E, AND A SEQUENCE OF ELECTIONS WITH THE ELECTION FOR DIVISION NUMBERS.

CONSENT CALENDAR

On MOTION by Matheis, seconded and unanimously carried, CONSENT CALENDAR ITEMS 4 THROUGH 10 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, Doug Reinhart, Peer Swan and John Withers, as described.

5. MINUTES OF BOARD MEETING

Recommendation: That the minutes of the February 11, 2019 Regular Board meeting be approved as presented.

6. SERRANO SUMMIT / LENNAR PROMISSORY NOTE REQUEST TO EXTEND MATURITY

Recommendation: That the Board authorize the General Manager to execute an amendment to the current promissory note between IRWD and Lennar Homes of California for an eight-month extension to April 30, 2020, at the current interest rate of 4.00%, to be applicable to both the principal and accrued interest amount as of September 1, 2019, without changing any other terms of the existing note.

7. SERRANO SUMMIT / CITY OF LAKE FOREST CIVIC CENTER SITE CONSTRUCTION SUPPORT SERVICES VARIANCE REQUEST NO. 5

Recommendation: That the Board authorize the General Manager to execute Variance No. 5 to the Professional Services Agreement with Michael Baker International for \$99,180 to provide remaining construction support services.

CONSENT CALENDAR (CONTINUED)

8. ANNUAL ORACLE SOFTWARE MAINTENANCE AND SUPPORT AGREEMENT RENEWAL

Recommendation: That the Board authorize the General Manager to approve renewal of the annual Oracle software maintenance and support agreements and additional licenses and support in the amount of \$1,121,000 for FY 2019-20 and \$969,000 for FY 2020-21.

9. REVISED IRWD REAL ESTATE INVESTMENT POLICY

Recommendation: That the Board adopt the following resolution by title rescinding Resolution No. 2017-9 and adopting a revised IRWD Real Estate Investment Policy.

RESOLUTION NO. 2019 - 8

RESOLUTION OF THE BOARD OF DIRECTORS OF THE IRVINE RANCH WATER DISTRICT RESCINDING RESOLUTION NO. 2017-9 AND ADOPTING REVISED REAL ESTATE INVESTMENT POLICY

10. JANUARY 2019 TREASURY REPORTS

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 January 2019 Summary of Payroll ACH payments in the total amount of \$1,924,211 and approve the January 2019 accounts payable Disbursement Summary of warrants 394725 through 395759 Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$30,438,893.

ACTION CALENDAR

SAN JOAQUIN RESERVOIR FILTRATION BUDGET ADDITION AND CONSULTANT SELECTION

Executive Director of Engineering and Water Quality Burton reported that the San Joaquin Reservoir serves recycled water to the IRWD Zone B distribution system primarily from Interstate 405 to the Newport Coast and Crystal Cove areas of the District. Mr. Burton said that algal growth on the surface of the reservoir has become an issue during the summer months as the water temperature rises resulting in increased clogging of customers' onsite private irrigation components (e.g., high efficiency sprinkler heads and fine mesh filters).

Mr. Burton said that IRWD retained PACE Advanced Water Engineering to evaluate the reservoir's water quality and to recommend filter pore sizes for water treatment. Based on the PACE study, filtration system and disinfection improvements will be constructed at the San Joaquin Reservoir to mitigate algae and debris entering the Zone B system.

Mr. Burton said that staff issued a Request for Proposal for design services to five consultants: AECOM, Carollo Engineers, Gannett Fleming, Lee & Ro and Tetra Tech. Gannett Fleming and Lee & Ro declined to submit proposals citing staff availability. AECOM, Carollo Engineers and Tetra Tech submitted proposals on January 30, 2019. He said that staff recommends this contract be awarded to Carollo based on the design concepts and project approach presented within its proposal, the strength of the project team, and its design experience on similar District projects.

Director Reinhart said that this item was reviewed and approved by the Engineering and Operations Committee on February 19, 2019. On MOTION by Reinhart, seconded and unanimously carried, THE BOARD AUTHORIZED THE ADDITION OF SAN JOAQUIN RESERVOIR FILTRATION, PROJECT 10379, TO THE FY 2018-19 CAPITAL BUDGET IN THE AMOUNT OF \$3,654,000; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH CAROLLO ENGINEERS IN THE AMOUNT OF \$634,888 FOR ENGINEERING DESIGN SERVICES FOR THE SAN JOAQUIN RESERVOIR FILTRATION, PROJECT 10379.

SUSTAINABLE GROUNDWATER MANAGEMENT ACT COMPLIANCE FOR IRWD'S KERN COUNTY WATER BANKING FACILITIES

On September 16, 2014, Governor Brown signed the Sustainable Groundwater Management Act (SGMA). The intent of the legislation was to require local and regional agencies to develop and implement plans to sustainably manage the groundwater resources of basins throughout the State. IRWD's Strand Ranch and Stockdale West water banking projects are located within the Kern County Sub-basin of the San Joaquin Valley Groundwater Basin.

The Kern Groundwater Authority was formed as a local Groundwater Sustainability Agency (GSA), which includes Rosedale-Rio Bravo Water Storage District. Rosedale has offered to provide SGMA coverage for IRWD's water banking lands, which are located outside of Rosedale's boundaries, by including these areas within its chapter of the Groundwater Sustainability Plan (GSP) being prepared by the Kern Groundwater Authority. Rosedale would provide SGMA coverage through the execution of two agreements.

On MOTION by Swan, seconded and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE THE MEMORANDUM OF AGREEMENT - SUSTAINABLE GROUNDWATER MANAGEMENT ACT AGREEMENT WITH ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT AND TO EXECUTE THE GROUNDWATER SUSTAINABILITY PLANNING AGREEMENT BETWEEN ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT AND IRVINE RANCH WATER DISTRICT, SUBJECT TO NON-SUBSTANTIVE CHANGES APPROVED BY LEGAL COUNSEL.

DRAFT TERMS FOR ONE-YEAR RECHARGE PROGRAM WITH BUENA VISTA WATER STORAGE DISTRICT

General Manager Cook reported that staff expects that current wet-year conditions will result in water supplies being made available for recharge at the Strand and Stockdale Integrated Banking Projects. Mr. Cook said that in 2017, the Board approved an agreement for a one-year recharge program that allowed Buena Vista Water Storage District (BVWSD) to augment recharge on the Strand Ranch by utilizing IRWD's Stockdale West basins to recharge high-flow Kern River water.

Mr. Cook said that IRWD was able to realize an increase of over 6,800 acre-feet of water in 2017 as a result of the execution of the agreement. He said that in the event high-flow Kern River water may be available this year, staff recommends that the Board authorize the General Manager to execute a letter agreement with BVWSD with similar terms as the 2017 agreement, subject to substantive changes approved by the Supply Reliability Programs Committee.

On MOTION by Swan, seconded and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A LETTER AGREEMENT WITH BUENA VISTA WATER STORAGE DISTRICT BASED ON THE PROPOSED DRAFT TERMS FOR A ONE-YEAR RECHARGE PROGRAM FOR 2019 TO AUGMENT RECHARGE ON THE STRAND RANCH BY UTILIZING THE STOCKDALE WEST RECHARGE BASINS, SUBJECT TO SUBSTANTIVE CHANGES APPROVED BY THE SUPPLY RELIABILITY PROGRAMS COMMITTEE.

TERMS FOR A 4-FOR-1 PILOT EXCHANGE PROGRAM WITH MOJAVE WATER AGENCY

Using a PowerPoint presentation, Executive Director of Water Policy Weghorst said that in January 2019, the Supply Reliability Programs Committee approved the terms for a short-term unbalanced exchange program with Mojave Water Agency. Mojave considered the terms and indicated its preference for a revenue component to be part of any established program. Based on this, staff has prepared terms for a 4-for-1 pilot exchange program with Mojave that would result in IRWD receiving three acre-feet for every four acre-feet of State Water Project (SWP) water that Mojave delivers into storage at the Strand and Stockdale Integrated Banking Projects (IRWD Water Bank). The terms provide for Mojave receiving compensation for the water through a separate agreement. The expedited execution of an agreement, based on the proposed pilot program terms, would allow IRWD to secure wet-year water supplies expected to be available this year to Mojave should recharge capacity be available after IRWD receives water from its existing exchange programs with Buena Vista Water Storage District.

Mr. Weghorst reviewed the terms for the pilot program under which IRWD proposes to compensate Mojave in the amount of \$177 per acre-foot for the SWP water it delivers into storage at the IRWD Water Bank. In addition, IRWD proposes to pay the costs associated with recharging the water and the costs of recovering Mojave's share of the water through the use of the IRWD Water Bank wells. Mojave would pay for all costs associated with the use of its capacities in the SWP to deliver water for recharge and to convey recovered return water to Mojave's service area. The effective cost of the water to IRWD would be consistent with the cost of water from IRWD's programs in Dudley Ridge Water District.

Director Swan reported that this item was reviewed and approved by the Supply Reliability Programs Committee on March 5, 2019. On MOTION by Swan, seconded and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A FOUR-FOR-ONE PILOT EXCHANGE LETTER AGREEMENT AS WELL AS A SIDE AGREEMENT TO COMPENSATE MOJAVE WATER AGENCY FOR THE WATER DELIVERED INTO STORAGE THAT INCORPORATES THE PROPOSED EXCHANGE AND COMPENSATION TERMS, BOTH SUBJECT TO SUBSTANTIVE CHANGES APPROVED BY THE SUPPLY RELIABILITY PROGRAMS COMMITTEE.

GENERAL MANAGER’S REPORT

General Manager Cook said that Mr. Austin Weatherman of Cal State Fullerton was in the audience attending tonight’s meeting for his Public Affairs class.

Director of Administration Mossbarger introduced Mr. Randy Williams as IRWD’s newly-hired User Support Manager, who previously worked for the Automobile Club of Southern California and Pacific Life.

DIRECTORS’ COMMENTS

Director Reinhart reported that he attended an OCWD Water Issues Committee meeting, a MWDOC 2019 Water Policy Forum and Dinner, an OCWD Board meeting, and a SOCWA Board meeting.

Director Withers reported on his attendance at an OC Forum Luncheon, a MWDOC 2019 Water Policy Forum and Dinner, a City of Irvine State of the City event, an Urban Water Institute Spring Conference, a Great Park Ice ceremonial opening, and an Orange County Government Leaders breakfast meeting.

Director Swan reported on his attendance at a monthly WACO meeting, a Newport Beach Chamber event, a CASA conference in Washington DC, an ACWA Legislative Symposium in Sacramento, and an ACWA Energy Committee meeting.

Director Matheis reported on her attendance at an ACWA conference in Washington, DC, an Urban Water Institute conference in Palm Springs, a Great Park Ice ceremonial opening, and an Irvine Police Department Awards banquet.

Director LaMar reported on his attendance at an OC Forum luncheon, a MWDOC Water Policy Forum and Dinner, an ACWA State Legislative Committee meeting, an ACWA DC annual conference in Washington, DC, a State legislative meeting, an ACWA legislative symposium, and an Irvine Police Department Awards banquet.

COMMUNITY UPDATES: None.

CLOSED SESSION

Legal Counsel Collins said that the following Closed Session will be held, and recessed the meeting to the Multi-purpose room.

CLOSED SESSION CONFERENCE WITH LEGAL COUNSEL — EXISTING LITIGATION - Pursuant to Government Code Section 54956.9(d)(1): *SCADA and Control Systems, Inc. v. Delta Systems Engineering, LLC, et al.*, Case No. 30-2018-01039707-CU-BC-CJC.

CLOSED SESSION CONFERENCE WITH LEGAL COUNSEL — EXISTING LITIGATION - Pursuant to Government Code Section 54956.9(d)(1): *Filanc-Balfour Beatty, JV v. IRWD*, Case No. 30-2019-01048770-CU-BC-CXC

OPEN SESSION

Following the Closed Session, the meeting was reconvened with Directors Withers, LaMar, Matheis, Swan and Reinhart present. President LaMar said no action was reported in Closed Session.

ADJOURNMENT

President LaMar adjourned the meeting at 8:45 p.m.

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

President, IRVINE RANCH WATER DISTRICT

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Claire Hervey Collins, Legal Counsel
– Lewis Brisbois

March 25, 2019

Prepared by: S. Toland/R. Mori

Submitted by: K. Burton *KLB*

Approved by: Paul A. Cook *[Signature]*

CONSENT CALENDAR

NEWPORT COAST LIFT STATION REHABILITATION FINAL ACCEPTANCE

SUMMARY:

The Newport Coast Lift Station Rehabilitation project is complete. IRWD's contractor, Pacific Hydrotech Corporation, has completed the required work and all punch list items. The project has received final inspection and acceptance of construction is recommended.

BACKGROUND:

The Newport Coast Lift Station Rehabilitation Project was implemented to address aging infrastructure and to improve facility accessibility for staff. The work included installation of approximately 3,000 feet of cured in place pipe rehabilitation of the existing ductile iron force main, an enclosed stairwell to access the drywell, and an electrical and odor control building with new electrical and instrumentation, odor control, and ventilation equipment. Pacific Hydrotech Corporation was awarded the construct contract July 11, 2018, and construction of all improvements was completed March 12, 2019. To improve the aesthetics of the site and to maximize the screening of the newly-constructed facilities from public view, staff will be proceeding with a separate landscaping contract in the coming months.

Project Title:	Newport Coast Lift Station Rehabilitation
Project Nos.:	05470 and 06400
Design Engineer:	GHD Engineering
Construction Management by:	IRWD Staff
Contractor:	Pacific Hydrotech Corporation
Original Contract Cost:	\$3,239,300.00
Final Contract Cost:	\$3,623,688.18
Original Contract Days:	450
Final Contract Days:	604
Final Change Order Approved On:	February 27, 2019

FISCAL IMPACTS:

Projects 05470 and 06400 are included in the FY 2018-19 Capital Budget. The existing budget is sufficient to fund the final payment for the project.

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; Section 15303, which provides for the construction of small new facilities in small structures to serve water mains, sewage and other utility extensions, including street improvements of reasonable length to serve such construction; 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. A Notice of Exemption for the project was filed with the County of Orange on October 29, 2015.

COMMITTEE STATUS:





This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE NEWPORT COAST LIFT STATION REHABILITATION, PROJECT NUMBERS 05470 AND 06400; 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:

None.

March 25, 2019 
Prepared by: J. Davis/T. Fournier 
Submitted by: R. Jacobson/C. Clary 
Approved by: Paul A. Cook 

CONSENT CALENDAR

FEBRUARY 2019 TREASURY REPORTS

SUMMARY:

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

- A. The Investment Summary Report for February 2019. This Investment Summary Report is in conformity with the 2019 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 February 28, 2019, as outlined in Exhibit "B".
- C. The Monthly Interest Rate Swap Summary as of February 28, 2019, as outlined in Exhibit "C".
- D. The February 28, 2019 Disbursement Summary of warrants 395760 through 396571, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$20,768,988 as outlined in Exhibit "D".
- E. The Summary of Payroll ACH payments in the total amount of \$2,107,829 as outlined in Exhibit "E".
- F. The Disclosure Report of Reimbursements to Board Members and Staff for February 2019, detailing payments or reimbursements for individual charges of \$100.00 or more per transaction, as outlined in Exhibit "E".

FISCAL IMPACTS:

As of February 28, 2019, the book value of the investment portfolio was \$369,469,743, with a 1.90% rate of return and a market value of \$368,428,540. 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 4.00%.

As of February 28, 2019, the outstanding principal amount of fixed and variable rate debt was \$672,220,000. The monthly weighted average all-in variable rate was 1.78%. 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 3.57%.

Payroll ACH payments totaled \$2,107,829, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for February totaled \$20,768,988.

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 FEBRUARY 2019 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$2,107,829 AND APPROVE THE FEBRUARY 2019 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 395760 THROUGH 396571 WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$20,768,988.

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

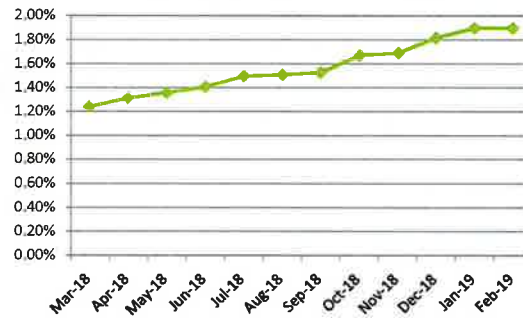
Exhibit "E" – Monthly Payroll ACH Summary

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

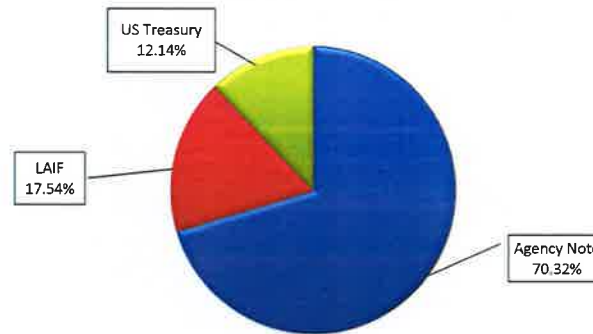
Exhibit "A"

Irvine Ranch Water District Investment Portfolio Summary February 2019

Monthly Fixed Income Yield



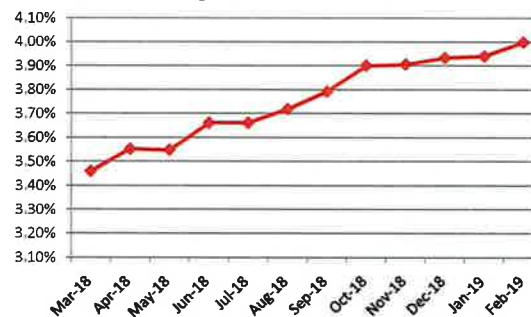
Portfolio Distribution



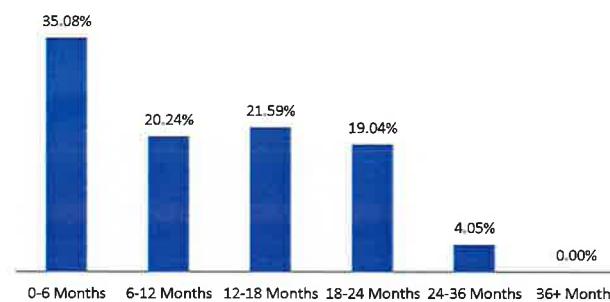
Investment Summary

Type	PAR	Book Value	Market Value
Agency Note	260,550,000	260,197,524	258,998,717
LAIF	65,000,000	65,000,000	64,938,323
US Treasury	45,000,000	44,272,219	44,491,500
Grand Total	370,550,000	369,469,743	368,428,540

Weighted Average Return
Including Real Estate Portfolio



Maturity Distribution



Top Issuers

Issuer	PAR	% Portfolio
Fed Home Loan Bank	75,000,000	20.24%
Fed Natl Mortgage Assoc	70,550,000	19.05%
State of California Treasury - LAIF	65,000,000	17.54%
Fed Farm Credit Bank	60,000,000	16.19%
Fed Home Loan Mortgage Corp	55,000,000	14.84%
US Treasury	45,000,000	12.14%
Grand Total	370,550,000	100.00%

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

02/28/19

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE ⁽¹⁾ 2/28/2019	UNREALIZED ⁽²⁾ GAIN/(LOSS)
08/23/17			03/01/19		LAIF	State of California Tsy.	\$65,000,000		2.320%	\$65,000,000.00	\$65,000,000.00	64,938,323.26	(61,676.75)
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	5,000,507.08	4,999,400.00	(1,107.08)
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	9,999,600.00	(400.00)
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	4,999,997.33	4,994,950.00	(5,047.33)
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	10,002,330.05	9,984,800.00	(17,530.05)
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	4,999,921.44	4,989,900.00	(10,021.44)
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	4,999,784.18	4,982,450.00	(17,334.18)
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	4,993,903.94	4,992,200.00	(1,703.94)
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	5,009,032.48	4,987,850.00	(21,182.48)
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	5,008,784.09	4,987,850.00	(20,934.09)
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	4,995,192.54	4,970,200.00	(24,992.54)
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	4,999,402.55	4,972,600.00	(26,802.55)
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	4,999,752.52	4,966,550.00	(33,202.52)
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	4,999,835.01	4,965,950.00	(33,885.01)
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	4,999,548.19	4,963,750.00	(35,798.19)
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	5,002,257.20	4,996,550.00	(5,707.20)
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	5,000,287.93	4,964,500.00	(35,787.93)
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	9,997,779.08	9,918,800.00	(78,979.08)
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	9,994,424.13	9,917,700.00	(76,724.13)
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	5,000,172.60	4,956,100.00	(44,072.60)
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	4,997,737.94	4,959,300.00	(38,437.94)
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	4,996,304.95	4,956,500.00	(39,804.95)
12/12/16	NA	NA	12/12/19	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.450%	1.440%	5,001,450.00	5,000,377.74	4,959,300.00	(41,077.74)
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	4,995,268.57	4,960,000.00	(35,268.57)
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	4,975,527.70	4,954,550.00	(20,977.70)
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	4,994,540.00	4,948,850.00	(45,690.00)
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	9,856,060.51	9,872,700.00	16,639.49
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	5,139,872.24	5,079,150.00	(60,722.24)
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	9,954,569.59	9,968,000.00	13,430.41
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	4,985,842.58	4,935,100.00	(50,742.58)
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	4,997,521.74	4,998,250.00	728.26
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	4,999,003.57	4,998,000.00	(1,003.57)
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	4,983,581.15	4,955,600.00	(27,981.15)
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	4,998,143.37	4,997,950.00	(193.37)
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	4,994,031.28	4,931,800.00	(62,231.28)

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

02/28/19

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE ⁽¹⁾ 2/28/2019	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	4,929,246.10	4,928,300.00	(946.10)
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	4,927,435.12	4,928,300.00	864.88
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	4,949,678.42	4,916,950.00	(32,728.42)
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	4,992,137.18	5,007,200.00	15,062.82
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	4,923,666.07	4,934,050.00	10,383.93
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	4,992,368.45	5,008,050.00	15,681.55
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	4,949,300.00	(50,700.00)
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	5,471,967.00	(78,033.00)
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	4,867,170.12	4,934,400.00	67,229.88
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	4,971,554.37	4,932,700.00	(38,854.37)
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	4,987,927.11	4,939,750.00	(48,177.11)
11/30/17	NA	NA	11/24/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.850%	1.964%	4,983,550.00	4,990,431.83	4,938,500.00	(51,931.83)
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	4,984,934.78	4,942,050.00	(42,884.78)
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	4,948,448.48	4,985,150.00	36,701.52
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	9,720,570.45	9,782,800.00	62,229.55
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	4,958,108.18	4,983,250.00	25,141.82
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	4,925,400.16	4,948,450.00	23,049.84
02/12/19	NA	NA	03/12/21	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	2.500%	2.516%	9,996,500.00	9,996,578.39	9,991,600.00	(4,978.39)
02/25/19	NA	NA	03/12/21	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	2.375%	2.549%	4,982,700.00	4,982,792.76	4,980,700.00	(2,092.76)

TOTAL INVESTMENTS\$370,550,000\$369,358,074.13\$369,469,743.27\$368,428,540.26(\$1,041,203.02)

Petty Cash
Ck Balance

Bank of America

3,400.00

1,849,167.99

\$371,210,642.12⁽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:

\$371,210,642

Investment to Variable Rate Debt Ratio:

259%

Portfolio - Average Number of Days To Maturity

308

	Investment Portfolio	Real Estate ⁽³⁾ Portfolio	Weighted Avg. Return
February	1.90%	9.02%	4.00%
January	1.90%	9.02%	3.94%
Change			0.06%

This Investment Summary Report is in conformity with the 2019 Investment Policy
and provides sufficient liquidity to meet the next six months estimated expenditures.

*S - Step up

IRVINE RANCH WATER DISTRICT
SUMMARY OF MATURITIES

02/28/19

DATE	TOTAL	%	LAIF	Agency Notes	Agency Discount Notes	Collateral Deposit	US Treasury
02/19	\$65,000,000	17.54%	\$65,000,000				
03/19	20,000,000	5.40%		20,000,000			
04/19	15,000,000	4.05%		15,000,000		-	
05/19	10,000,000	2.70%		10,000,000			
06/19	10,000,000	2.70%		10,000,000			
07/19	10,000,000	2.70%		10,000,000			
08/19	10,000,000	2.70%		10,000,000			
09/19	15,000,000	4.05%		15,000,000			
10/19	20,000,000	5.40%		20,000,000			
11/19	15,000,000	4.05%		15,000,000			
12/19	10,000,000	2.70%		10,000,000			
01/20	5,000,000	1.35%		5,000,000			
SUB-TOTAL	\$205,000,000	55.32%	\$65,000,000	\$140,000,000			
13 Months - 3 YEARS							
2/01/2020 - 5/31/2020	55,000,000	14.84%		35,000,000			20,000,000
6/01/2020 - 8/31/2020	25,000,000	6.75%		25,000,000			
9/01/2020 - 11/30/2020	40,550,000	10.94%		35,550,000			5,000,000
12/01/2020 - 2/28/2021	30,000,000	8.10%		10,000,000			20,000,000
03/01/2021 - 05/31/2021	15,000,000	4.05%		15,000,000			
	-						
	-						
	-						
	-						
TOTALS	\$370,550,000	100.00%	\$65,000,000	\$260,550,000			\$45,000,000

% OF PORTFOLIO

17.54%

70.32%

12.14%

IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT
INVESTMENT ACTIVITY
Feb-19

MATURITIES/SALES/CALLS

PURCHASES

[illegible]

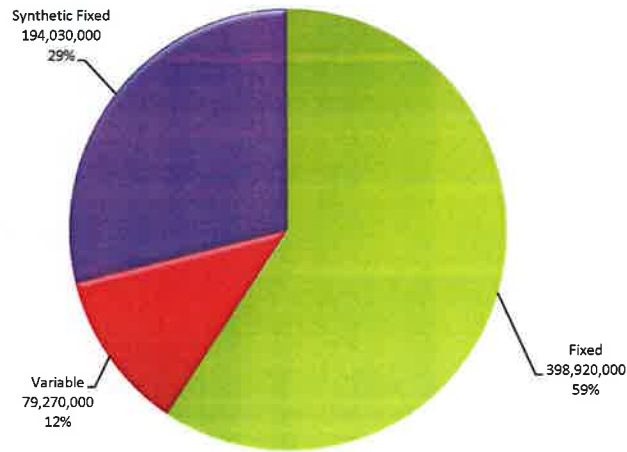
Irvine Ranch Water District
Summary of Real Estate - Income Producing Investments
12/31/2018

	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%

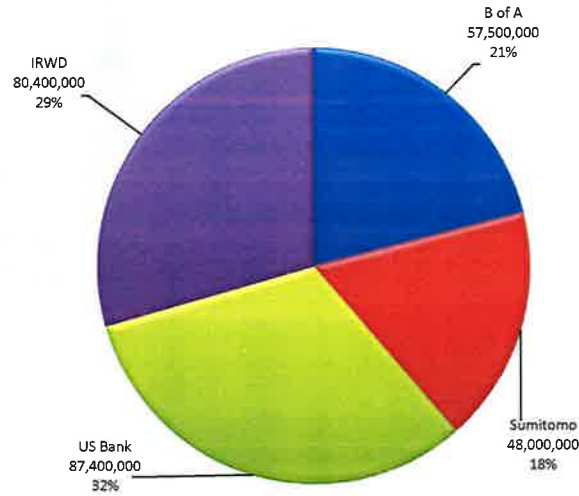
Exhibit "B"

Irvine Ranch Water District Summary of Fixed and Variable Rate Debt February 2019

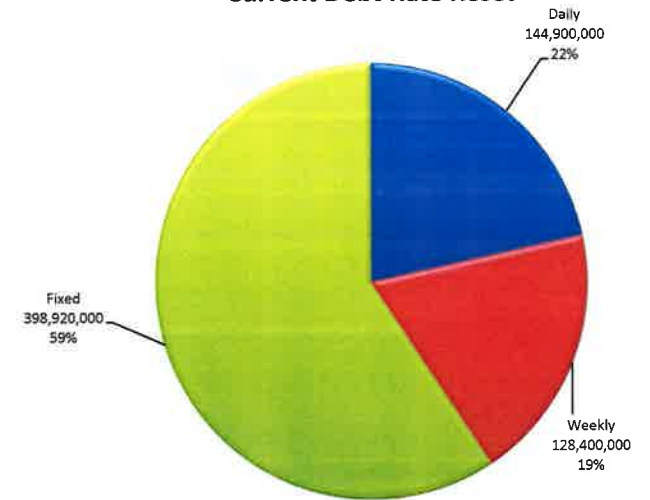
Current Debt Mix By Type



Letters of Credit / Support



Current Debt Rate Reset



Outstanding Par by Series

Series	Issue Date	Maturity Date	Remaining Principal	Percent	Letter of Credit/Support	Rmkt Agent	Mode	Reset
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	Goldman	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

February-19

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	Goldman	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/VMIG1	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/VMIG1	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)

0.10% \$261,750

(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	BANK OF NY
2010 GO Build America Taxable Bonds	12/16/10	05/01/40	MAY (2025)	MAY/NOV	\$175,000,000	\$175,000,000	N/A	N/A	N/A	Aa1	AAA	NR	N/A	N/A	N/A	N/A	N/A	N/A	N/A	US BANK
2016 COPS	09/01/16	03/01/46	Mar - 1	MAR/SEPT	\$116,745,000	\$116,745,000	N/A	N/A	N/A	NR	AAA	AAA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	US BANK
SERIES 2016	10/12/16	02/01/46	Feb - 1	FEB/AUG	\$103,400,000	\$103,400,000	N/A	N/A	N/A	NR	AAA	AAA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	BANK OF NY

\$480,290,000 \$398,920,000

SUB-TOTAL FIXED RATE DEBT

\$829,720,000 \$672,220,000

TOTAL- FIXED & VARIABLE RATE DEBT

Remarketing Agents

Goldman	137,900,000	50%
BAML	77,900,000	29%
US Bank	57,500,000	21%
	273,300,000	

GO VS COP's

GO:	551,700,000	82%
COPS:	120,520,000	18%
Total	672,220,000	

LOC Banks

SUMITOMO	48,000,000
BANK OF AMERICA	57,500,000
US BANK	87,400,000
	192,900,000

Breakdown Between Variable & Fixed Rate Mode

Daily Issues	144,900,000	22%
Weekly Issues	48,000,000	7%
ITN Issues	80,400,000	12%
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
Feb-19

Rmkt Agent Mode	GOLDMAN DAILY	GOLDMAN WEEKLY	GOLDMAN 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	
2/1/2019	1.26%	1.42%	1.42%	1.17%	1.14%	1.35%
2/2/2019	1.26%	1.42%	1.42%	1.17%	1.14%	1.35%
2/3/2019	1.26%	1.42%	1.42%	1.17%	1.14%	1.35%
2/4/2019	1.20%	1.42%	1.42%	1.23%	1.14%	1.20%
2/5/2019	1.20%	1.42%	1.42%	1.25%	1.14%	1.20%
2/6/2019	1.20%	1.42%	1.42%	1.25%	1.14%	1.25%
2/7/2019	1.22%	1.50%	1.50%	1.27%	1.24%	1.28%
2/8/2019	1.30%	1.50%	1.50%	1.38%	1.24%	1.30%
2/9/2019	1.30%	1.50%	1.50%	1.38%	1.24%	1.30%
2/10/2019	1.30%	1.50%	1.50%	1.38%	1.24%	1.30%
2/11/2019	1.32%	1.50%	1.50%	1.39%	1.24%	1.35%
2/12/2019	1.39%	1.50%	1.50%	1.47%	1.24%	1.38%
2/13/2019	1.42%	1.50%	1.50%	1.47%	1.24%	1.40%
2/14/2019	1.42%	1.71%	1.71%	1.47%	1.45%	1.45%
2/15/2019	1.45%	1.71%	1.71%	1.45%	1.45%	1.48%
2/16/2019	1.45%	1.71%	1.71%	1.45%	1.45%	1.48%
2/17/2019	1.45%	1.71%	1.71%	1.45%	1.45%	1.48%
2/18/2019	1.45%	1.71%	1.71%	1.45%	1.45%	1.48%
2/19/2019	1.43%	1.71%	1.71%	1.45%	1.45%	1.45%
2/20/2019	1.44%	1.71%	1.71%	1.45%	1.45%	1.44%
2/21/2019	1.44%	1.74%	1.74%	1.45%	1.56%	1.44%
2/22/2019	1.46%	1.74%	1.74%	1.45%	1.56%	1.44%
2/23/2019	1.46%	1.74%	1.74%	1.45%	1.56%	1.44%
2/24/2019	1.46%	1.74%	1.74%	1.45%	1.56%	1.44%
2/25/2019	1.46%	1.74%	1.74%	1.45%	1.56%	1.44%
2/26/2019	1.41%	1.74%	1.74%	1.47%	1.56%	1.42%
2/27/2019	1.42%	1.74%	1.74%	1.46%	1.56%	1.45%
2/28/2019	1.45%	1.73%	1.73%	1.51%	1.61%	1.45%
Avg Interest Rates	1.37%	1.60%	1.60%	1.39%	1.36%	1.39%
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	1.87%	1.73%	1.73%	1.82%	1.75%	1.79%
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	1.82%	1.38%
Weekly	46.98%	128,400,000	1.74%	1.51%
	100.00%	\$ 273,300,000	1.78%	1.44%
Fixed				
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				3.57%

(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
February 28, 2019

								Prior Mo.	Current Mo.	12-Mo Avg					
								LIBOR Avg %	2.51%	2.49%	2.17%				
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	0.3	ML	\$ 20,000,000	FXP	LIBOR	6.200%	(60,511)	(53,912)	\$ (515,609)	\$ (12,372,001)	\$ 19,752,035	\$ (247,965)		
6/4/2006	6/4/2019	0.3	CG	20,000,000	FXP	LIBOR	6.200%	(60,511)	(53,912)	(515,609)	(12,372,001)	19,752,212	(247,788)		
6/17/2006	6/17/2019	0.3	CG	30,000,000	FXP	LIBOR	6.140%	(89,465)	(79,881)	(763,217)	(18,346,925)	29,595,218	(404,782)		
3/10/2007	3/10/2029	10.0	ML	30,000,000	FXP	LIBOR	5.687%	(78,263)	(69,242)	(672,022)	(16,523,930)	21,546,294	(8,453,706)		
3/10/2007	3/10/2029	10.0	CG	30,000,000	FXP	LIBOR	5.687%	(78,263)	(69,242)	(672,022)	(16,523,930)	21,546,098	(8,453,902)		
Totals/Weighted Avgs		4.8		\$ 130,000,000			5.949%	\$ (367,013)	\$ (326,189)	\$ (3,138,479)	\$ (76,138,785)	\$ 112,191,857	\$ (17,808,143)		
Total Current Year Active Swaps															
				\$ 130,000,000				\$ (367,013)	\$ (326,189)	\$ (3,138,479)	\$ (76,138,785)	\$ 112,191,857	\$ (17,808,143)		

Current Fiscal Year Terminated Swaps								Cash Flow			(Since 6/06)	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			(Since 6/06)	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 Active & Terminated Swaps								\$ (367,013)	\$ (326,189)	\$ (3,138,479)	\$ (76,138,785)	\$ 112,191,857	\$ (17,808,143)		

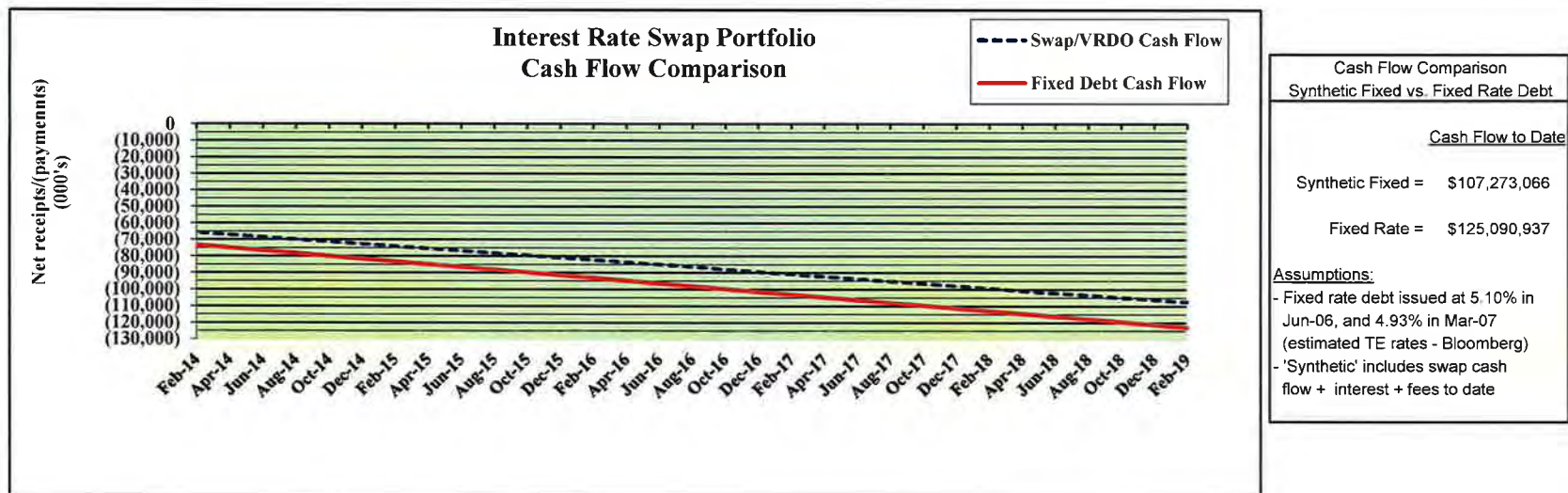


Exhibit "D"

IRWD Ledger Upgrade

Include Zero Amount Payments: Yes
Display Payee Address: No

Void Payment Register

Period From: 01-FEB-19

Report Date: 01-MAR-2019 08:46

Page: 1

To: 28-FEB-19

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						
392148	04-OCT-18	DOYLE, KATHLEEN	PAY		85.00	15-FEB-19
392163	04-OCT-18	GARRETT, JEFFREY	PAY		12.13	15-FEB-19
392174	04-OCT-18	HERMAN, BRITTANY	PAY		65.73	15-FEB-19
392177	04-OCT-18	HONG, LYDIA	PAY		33.30	15-FEB-19
392199	04-OCT-18	LIN, FENG	IRVINE		30.75	15-FEB-19
392201	04-OCT-18	LU, CHEN	PAY		11.48	15-FEB-19
392217	04-OCT-18	NEWTON, ALAN	PAY		29.40	15-FEB-19
392241	04-OCT-18	QUINTO, JESSALYNN	PAY		40.73	15-FEB-19
392258	04-OCT-18	SANG, RUNHAO	PAY		14.00	15-FEB-19
392285	04-OCT-18	TOLMASOFF, HELEN H	PAY		41.72	04-FEB-19
392306	04-OCT-18	YOO, JEFFREY	PAY		35.95	15-FEB-19
392308	04-OCT-18	ZHANG, YUNLIN	PAY		33.73	15-FEB-19
392436	11-OCT-18	PAULSON, IAN	PAY		73.79	15-FEB-19
392485	11-OCT-18	WALDMAN, STEPHANIE	PAY		23.10	15-FEB-19
392492	11-OCT-18	WEISS, NANCY	PAY		51.68	15-FEB-19
392521	18-OCT-18	ACOSTA, DAVID	PAY		10.31	15-FEB-19
392525	18-OCT-18	ALI, HUSHAM	PAY		43.10	15-FEB-19
392527	18-OCT-18	ALLEN, CONNOR	PAY		54.07	15-FEB-19
392534	18-OCT-18	ARAUJO, DIONILIA	PAY		36.23	15-FEB-19
392556	18-OCT-18	BRIGHTVIEW LANDSCAPE DEVELO	PAY		739.02	15-FEB-19
392569	18-OCT-18	CHONG, PETER	PAY		52.38	15-FEB-19
392590	18-OCT-18	DORHERTY, AEMEE	PAY		1.89	04-FEB-19
392601	18-OCT-18	FIELDER, DANIEL	PAY		16.65	15-FEB-19
392613	18-OCT-18	GONG, MING	PAY		124.40	15-FEB-19
392651	18-OCT-18	L. G. SUPPLY COMPANY	PURCHASE		2,015.19	15-FEB-19
392656	18-OCT-18	LI, CHENGXI	PAY		93.86	15-FEB-19
392670	18-OCT-18	MORALEZ, BOBBY	PAY		43.92	15-FEB-19
392695	18-OCT-18	RAJENDIRAN, RAJESH	PAY		18.73	15-FEB-19
392708	18-OCT-18	RICHARDSON, BRANDON	PAY		40.18	15-FEB-19
392755	18-OCT-18	WITTMAYER, SPENCER	PAY		46.99	15-FEB-19
392794	25-OCT-18	BERGMAN, ANDRE	PAY		50.82	15-FEB-19
392815	25-OCT-18	CHEN, JUAN	DIAMOND BAR		57.05	15-FEB-19
392832	25-OCT-18	DIVERSIFIED OCEAN VIEW	PAY		42.58	15-FEB-19
392888	25-OCT-18	KIM, IRIS	PAY		48.62	15-FEB-19
392893	25-OCT-18	LANDAVERDE, CHAYANNA	PAY		2.19	15-FEB-19
392898	25-OCT-18	MACDUFF, CHRIS	PAY		16.00	15-FEB-19
392910	25-OCT-18	NAZARZAI, ABDUL	PAY		561.21	15-FEB-19
392924	25-OCT-18	OMELVENY, MIKE	PAY		45.48	15-FEB-19

IRWD Ledger Upgrade

Include Zero Amount Payments: Yes
Display Payee Address: No

Void Payment Register

Period From: 01-FEB-19

Report Date: 01-MAR-2019 08:46

Page: 2

To: 28-FEB-19

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						
392933	25-OCT-18	PINEIRO, EMMA	PAY		57.33	15-FEB-19
392939	25-OCT-18	QI, JOLIN	PAY		44.66	15-FEB-19
392953	25-OCT-18	SHAKHSI MEIBODI, MOHAMMAD A	PAY		13.99	04-FEB-19
392954	25-OCT-18	SHI, WEIHAI	PAY		14.16	04-FEB-19
392975	25-OCT-18	TIC-AGRICULTURAL DIV	PAY		3,109.86	15-FEB-19
392986	25-OCT-18	WAHR, LAURA	PAY		59.80	15-FEB-19
392998	25-OCT-18	XU, GANG	PAY		63.79	15-FEB-19
393000	25-OCT-18	YU, LIANGZE	PAY		65.84	15-FEB-19
393001	25-OCT-18	YUAM, MENG	PAY		71.79	15-FEB-19
393002	25-OCT-18	ZHU, WENTAO	PAY		300.00	15-FEB-19
393545	15-NOV-18	KIM, SUNG	PAY		11.68	04-FEB-19
393605	15-NOV-18	SALA, VASILIKI	PAY		29.27	04-FEB-19
393620	15-NOV-18	STACY GARNER AND DANIELA PE	PAY		48.92	04-FEB-19
393737	28-NOV-18	CHO, SO	PAY		40.06	04-FEB-19
394290	12-DEC-18	MILLER, RYAN	PAY		114.29	26-FEB-19
395160	17-JAN-19	HAHN, STEVE	PAY		169.31	26-FEB-19
395689	30-JAN-19	MCKENNA GENERAL ENGINEERING	PAY		954.95	26-FEB-19
395778	07-FEB-19	AFLAC	1932 WYNNTON RD		6,913.16	07-FEB-19
395851	07-FEB-19	GAMALATH, DEWMINI	PAY		40.79	26-FEB-19
396087	14-FEB-19	IRVINE UNIFIED SCHOOL DISTR	CYPRESS VILLAGE		100.00	14-FEB-19
396089	14-FEB-19	IRVINE UNIFIED SCHOOL DISTR	IRVINE		1,927.46	14-FEB-19
396405	25-FEB-19	MK HAIRDRESSING STUDIO	PAY		61.58	26-FEB-19

Payment Document Subtotal

18,956.05

Payment Number	Date	Payee Name	Site	Address	Payment Amount	Void Date
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Payment Document: IRWD Wire

13039	27-FEB-19 INTERNAL REVENUE SERVICE	FRESNO	198,584.61	27-FEB-19
Payment Document Subtotal			198,584.61	
Bank Account Subtotal			217,540.66	
IRWD Ledger Upgrade			Report Date: 01-MAR-2019 08:46	
Void Payment Register			Page: 3	
Include Zero Amount Payments: Yes			To: 28-FEB-19	
Display Payee Address: No			Date: Void Date	
Report Count: 61			Report Total	217,540.66 VOIDS

*** End of Report ***

IRWD Ledger Upgrade Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46
 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								
395760		01-FEB-19	DAVIDSON, TOM	INS CLAIM	645.02	04-FEB-19	645.02	Reconciled
395761		01-FEB-19	CAMPBELL, DOUGLAS	INS CLAIM	250.00	04-FEB-19	250.00	Reconciled
395762		07-FEB-19	ISE METAL INC.	PURCHASE	219.96	20-FEB-19	219.96	Reconciled
395763		07-FEB-19	Barboza, Armando		536.00	11-FEB-19	536.00	Reconciled
395764		07-FEB-19	Colston, James		40.28	07-FEB-19	40.28	Reconciled
395765		07-FEB-19	Compton, Christine A		52.51	15-FEB-19	52.51	Reconciled
395766		07-FEB-19	Cortez, Malcolm A (Malcolm)		34.80	28-FEB-19	34.80	Reconciled
395767		07-FEB-19	Drzymkowski, Michele A (Michele)		9.28			Negotiable
395768		07-FEB-19	Hatch, Lauren		140.00	20-FEB-19	140.00	Reconciled
395769		07-FEB-19	Ho, Connie		14.85	11-FEB-19	14.85	Reconciled
395770		07-FEB-19	Midstokke, Paige		106.88			Negotiable
395771		07-FEB-19	Nash, Joel		59.74	11-FEB-19	59.74	Reconciled
395772		07-FEB-19	Schulze, Richard W (Richard)		200.00	11-FEB-19	200.00	Reconciled
395773		07-FEB-19	Stontz, Adam J		14.17			Negotiable
395774		07-FEB-19	A STITCH ON TIME.COM		136.30	08-FEB-19	136.30	Reconciled
395775		07-FEB-19	AAF INTERNATIONAL		2,090.53	11-FEB-19	2,090.53	Reconciled
395776		07-FEB-19	ACWA		12,000.00	13-FEB-19	12,000.00	Reconciled
395777		07-FEB-19	AFLAC		148.74	14-FEB-19	148.74	Reconciled
395778		07-FEB-19	AFLAC		6,913.16			Voided
395779		07-FEB-19	AGILENT TECHNOLOGIES, INC.		1,275.46	11-FEB-19	1,275.46	Reconciled
395780		07-FEB-19	AIRGAS, INC.		1,422.33	11-FEB-19	1,422.33	Reconciled
395781		07-FEB-19	ALCATARA, KRISTINE		83.61	13-FEB-19	83.61	Reconciled
395782		07-FEB-19	ALL AMERICAN ASPHALT		1,231.33	11-FEB-19	1,231.33	Reconciled
395783		07-FEB-19	ALSTON & BIRD LLP		29,529.45	14-FEB-19	29,529.45	Reconciled
395784		07-FEB-19	AMAZON CAPITAL SERVICES, INC.		150.88	11-FEB-19	150.88	Reconciled
395785		07-FEB-19	ANIXTER INC		9,266.50	12-FEB-19	9,266.50	Reconciled
395786		07-FEB-19	APEX LIFE SCIENCES, LLC		2,380.00	11-FEB-19	2,380.00	Reconciled
395787		07-FEB-19	ARIZONA PIPELINE COMPANY		1,729.33	21-FEB-19	1,729.33	Reconciled
395788		07-FEB-19	ARMORCAST PRODUCTS COMPANY		8,680.81	12-FEB-19	8,680.81	Reconciled
395789		07-FEB-19	ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA		36,009.24	14-FEB-19	36,009.24	Reconciled
395790		07-FEB-19	AT&T		11.61	14-FEB-19	11.61	Reconciled
395791		07-FEB-19	AT&T		4,016.21	12-FEB-19	4,016.21	Reconciled

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 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								
395792		07-FEB-19	AUTOZONE PARTS, INC.		372.02	11-FEB-19	372.02	Reconciled
395793		07-FEB-19	AVIVA ENERGY CORP		1,800.00	22-FEB-19	1,800.00	Reconciled
395794		07-FEB-19	BANK OF NEW YORK MELLON TRUST COMPANY NA		1,374.00	11-FEB-19	1,374.00	Reconciled
395795		07-FEB-19	BATES, TRENISE		84.27	19-FEB-19	84.27	Reconciled
395796		07-FEB-19	BAVCO BACKFLOW APPARATUS & VALVE COMPANY		214.38	11-FEB-19	214.38	Reconciled
395797		07-FEB-19	BILL'S SWEEPING SERVICE INC		1,050.00	13-FEB-19	1,050.00	Reconciled
395798		07-FEB-19	BMTI		806.05	08-FEB-19	806.05	Reconciled
395799		07-FEB-19	BOSCO CONSTRUCTORS, INC.		1,437.85	11-FEB-19	1,437.85	Reconciled
395800		07-FEB-19	BRITTANY APTS		234.82			Negotiable
395801		07-FEB-19	BROOKFIELD RESIDENTIAL		147.65	11-FEB-19	147.65	Reconciled
395802		07-FEB-19	BURKE, WILLIAMS & SORENSON, LLP		32.50	11-FEB-19	32.50	Reconciled
395803		07-FEB-19	BURLINGTON SAFETY LABORATORY OF CALIFORNIA INC		3,740.02	08-FEB-19	3,740.02	Reconciled
395804		07-FEB-19	CALIFORNIA BARRICADE RENTAL, INC.		4,580.00	11-FEB-19	4,580.00	Reconciled

395805	07-FEB-19	CANON FINANCIAL SERVICES, INC	1,312.40	11-FEB-19	1,312.40	Reconciled
395806	07-FEB-19	CANON SOLUTIONS AMERICA, INC.	45.40	11-FEB-19	45.40	Reconciled
395807	07-FEB-19	CAPTIVE AUDIENCE MARKETING INC.	79.00	12-FEB-19	79.00	Reconciled
395808	07-FEB-19	CHARLES P CROWLEY COMPANY INC	17,438.82	14-FEB-19	17,438.82	Reconciled
395809	07-FEB-19	CHLORINATORS INCORPORATED	974.00	12-FEB-19	974.00	Reconciled
395810	07-FEB-19	CHO DESIGN ASSOCIATES, INC	2,800.00	08-FEB-19	2,800.00	Reconciled
395811	07-FEB-19	CITY OF IRVINE	58.08			Negotiable
395812	07-FEB-19	CIVIL SOURCE, INC.	42,336.00	25-FEB-19	42,336.00	Reconciled
395813	07-FEB-19	CLEGHORN, DOUGLAS	693.64	11-FEB-19	693.64	Reconciled
395814	07-FEB-19	CLIFFORD MORIYAMA	4,000.00	11-FEB-19	4,000.00	Reconciled
395815	07-FEB-19	COASTLINE EQUIPMENT COMPANY	631.07	12-FEB-19	631.07	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 3
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
395816		07-FEB-19	COLONIAL LIFE & ACCIDENT INSURANCE CO.		1,103.26	15-FEB-19	1,103.26	Reconciled
395817		07-FEB-19	COMMERCIAL COATING RESOURCE INC		9,900.00	08-FEB-19	9,900.00	Reconciled
395818		07-FEB-19	CONSOLIDATED CONTRACTING SERVICES, INC.		1,626.00	15-FEB-19	1,626.00	Reconciled
395819		07-FEB-19	CONSTELLATION NEWENERGY, INC.		9,960.92	13-FEB-19	9,960.92	Reconciled
395820		07-FEB-19	CORELOGIC INC		156.21	12-FEB-19	156.21	Reconciled
395821		07-FEB-19	COX COMMUNICATIONS, INC.		261.38	12-FEB-19	261.38	Reconciled
395822		07-FEB-19	CRANE DEVELOPMENT		924.62			Negotiable
395823		07-FEB-19	CREANGA, ANDREI		53.53	13-FEB-19	53.53	Reconciled
395824		07-FEB-19	CURRINGTON, KEVIN		10.69	20-FEB-19	10.69	Reconciled
395825		07-FEB-19	D.R. HORTON		828.67	28-FEB-19	828.67	Reconciled
395826		07-FEB-19	DALE SUGGETT		673.34			Negotiable
395827		07-FEB-19	DANIELSON, ASHLEY		16.00	15-FEB-19	16.00	Reconciled
395828		07-FEB-19	DAVIS FARR LLP		9,500.00	08-FEB-19	9,500.00	Reconciled
395829		07-FEB-19	DEALERS SERVICE, INC		506.31	21-FEB-19	506.31	Reconciled
395830		07-FEB-19	EAGLE PRINT DYNAMICS		697.23	12-FEB-19	697.23	Reconciled
395831		07-FEB-19	ELITE AUTOMOTIVE SERVICE, LLC		550.00	08-FEB-19	550.00	Reconciled
395832		07-FEB-19	ELITE EQUIPMENT, INC.		520.89	11-FEB-19	520.89	Reconciled
395833		07-FEB-19	ENTERPRISE SECURITY, INC		1,081.54	11-FEB-19	1,081.54	Reconciled
395834		07-FEB-19	ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC.		8,160.00	12-FEB-19	8,160.00	Reconciled
395835		07-FEB-19	ENVIRONMENTAL RESOURCE ASSOCIATES		598.77	12-FEB-19	598.77	Reconciled
395836		07-FEB-19	ENVIRONMENTAL SCIENCE ASSOCIATES		108,537.55	14-FEB-19	108,537.55	Reconciled
395837		07-FEB-19	EVANS-HYDRO INC		7,113.88	21-FEB-19	7,113.88	Reconciled
395838		07-FEB-19	EXECUTIVE LIGHTING & ELECTRIC		8,086.76	12-FEB-19	8,086.76	Reconciled
395839		07-FEB-19	FARRELL & ASSOCIATES		517.46	08-FEB-19	517.46	Reconciled
395840		07-FEB-19	FEDEX		513.99	11-FEB-19	513.99	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 4
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
395841		07-FEB-19	FERGUSON ENTERPRISES, INC.		292.35	11-FEB-19	292.35	Reconciled
395842		07-FEB-19	FIDELITY SECURITY LIFE INSURANCE COMPANY		240.59	13-FEB-19	240.59	Reconciled
395843		07-FEB-19	FIDELITY SECURITY LIFE INSURANCE COMPANY		7,310.95	13-FEB-19	7,310.95	Reconciled
395844		07-FEB-19	FIERRO, SERGIO D		7,920.00	11-FEB-19	7,920.00	Reconciled
395845		07-FEB-19	FISHER SCIENTIFIC		3,425.02	11-FEB-19	3,425.02	Reconciled

395846	07-FEB-19	COMPANY LLC FLEET SOLUTIONS LLC	4,709.62	11-FEB-19	4,709.62	Reconciled
395847	07-FEB-19	FLUID COMPONENTS INTERNATIONAL L.L.C.	3,050.62	11-FEB-19	3,050.62	Reconciled
395848	07-FEB-19	FOMIN, EDUARD	60.87			Negotiable
395849	07-FEB-19	FORET, THADDEUS	32.32			Negotiable
395850	07-FEB-19	FRAKES, DAVID J	19.65			Negotiable
395851	07-FEB-19	GAMALATH, DEWMINI	40.79			Voided
395852	07-FEB-19	GANAHL LUMBER CO.	64.76	14-FEB-19	64.76	Reconciled
395853	07-FEB-19	GEIGER BROS	398.40	13-FEB-19	398.40	Reconciled
395854	07-FEB-19	GEOCON WEST, INC.	1,530.00	12-FEB-19	1,530.00	Reconciled
395855	07-FEB-19	GHD INC.	2,739.50	11-FEB-19	2,739.50	Reconciled
395856	07-FEB-19	GILOT OPPENHEIMER, RAFAEL	36.58			Negotiable
395857	07-FEB-19	GRAINGER	2,286.35	11-FEB-19	2,286.35	Reconciled
395858	07-FEB-19	GRAVITEC SYSTEMS, INC	75.37	13-FEB-19	75.37	Reconciled
395859	07-FEB-19	GUIDA SURVEYING INC.	2,660.90	11-FEB-19	2,660.90	Reconciled
395860	07-FEB-19	HAAKER EQUIPMENT COMPANY	655.49	12-FEB-19	655.49	Reconciled
395861	07-FEB-19	HABITAT RESTORATION SCIENCES, INC.	1,183.00	20-FEB-19	1,183.00	Reconciled
395862	07-FEB-19	HACH COMPANY	6,675.66	11-FEB-19	6,675.66	Reconciled
395863	07-FEB-19	HARRINGTON INDUSTRIAL PLASTICS LLC	4,786.42	11-FEB-19	4,786.42	Reconciled
395864	07-FEB-19	HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY	72.30	13-FEB-19	72.30	Reconciled
395865	07-FEB-19	HDR ENGINEERING INC	31,832.00	14-FEB-19	31,832.00	Reconciled

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 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								
395866		07-FEB-19	HELPMATES STAFFING SERVICES		2,690.58	11-FEB-19	2,690.58	Reconciled
395867		07-FEB-19	HERITAGE FIELDS EL TORO, LLC		8,846.90	12-FEB-19	8,846.90	Reconciled
395868		07-FEB-19	HGCPM, INC		5,475.09	11-FEB-19	5,475.09	Reconciled
395869		07-FEB-19	HILL BROTHERS CHEMICAL COMPANY		9,154.49	13-FEB-19	9,154.49	Reconciled
395870		07-FEB-19	HILTS CONSULTING GROUP, INC.		4,440.00	19-FEB-19	4,440.00	Reconciled
395871		07-FEB-19	HOFMANN FINN DEVELOPMENT COMPANY, INC		1,520.51	14-FEB-19	1,520.51	Reconciled
395872		07-FEB-19	HOME DEPOT USA INC		360.98	12-FEB-19	360.98	Reconciled
395873		07-FEB-19	HUMANA INSURANCE COMPANY		73.80	11-FEB-19	73.80	Reconciled
395874		07-FEB-19	IBM CORPORATION		10,664.35	14-FEB-19	10,664.35	Reconciled
395875		07-FEB-19	INTEGRATED PERFORMANCE CONSULTANTS, INC.		29,000.00	14-FEB-19	29,000.00	Reconciled
395876		07-FEB-19	IRVINE PACIFIC		344.04	20-FEB-19	344.04	Reconciled
395877		07-FEB-19	IRVINE PIPE & SUPPLY INC		1,414.60	08-FEB-19	1,414.60	Reconciled
395878		07-FEB-19	IRVINE UNIFIED SCHOOL DISTRICT		4,022.46	13-FEB-19	4,022.46	Reconciled
395879		07-FEB-19	IRWD-PETTY CASH CUSTODIAN		838.17	11-FEB-19	838.17	Reconciled
395880		07-FEB-19	JEREMY HARRIS CONSTRUCTION, INC.		1,326.34	13-FEB-19	1,326.34	Reconciled
395881		07-FEB-19	JOHN MICHAEL COVAS		173.20			Negotiable
395882		07-FEB-19	JOHNSON BROTHERS VENTURES, INC		1,331.80			Negotiable
395883		07-FEB-19	KAKIZAKI, KENICHI		14.13			Negotiable
395884		07-FEB-19	KANCHARLA, SRI NAGA VENKATA KRISHNA		81.49	11-FEB-19	81.49	Reconciled
395885		07-FEB-19	KAUHANKA, VITALI		20.01			Negotiable
395886		07-FEB-19	KELLAR, VIRGINIA		37.50	11-FEB-19	37.50	Reconciled
395887		07-FEB-19	KLEINFELDER, INC.		5,374.20	11-FEB-19	5,374.20	Reconciled
395888		07-FEB-19	LAGUNA BEACH COUNTY WATER DISTRICT		3,471.54	13-FEB-19	3,471.54	Reconciled
395889		07-FEB-19	LANDCARE HOLDINGS, INC.		32,856.18	15-FEB-19	32,856.18	Reconciled
395890		07-FEB-19	LANDSEA HOLDINGS CORPORATION		97.46			Negotiable
395891		07-FEB-19	LETTORNEAU, ERIC		73.79	08-FEB-19	73.79	Reconciled

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 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)

Payment Type: All

Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
395892		07-FEB-19	LEWIS, LYNDY		39.66			Negotiable
395893		07-FEB-19	LI, ZHONG		758.41	11-FEB-19	758.41	Reconciled
395894		07-FEB-19	LOM PARTNERS LLC AND JUDY SHEN		68.38			Negotiable
395895		07-FEB-19	LUBRICATION ENGINEERS, INC.		3,692.16	11-FEB-19	3,692.16	Reconciled
395896		07-FEB-19	MAP COMMUNICATIONS, INC.		1,337.87	12-FEB-19	1,337.87	Reconciled
395897		07-FEB-19	MARTIN, RICHARD		42.39			Negotiable
395898		07-FEB-19	MAUNE, HAREEN		52.06	19-FEB-19	52.06	Reconciled
395899		07-FEB-19	MBE AQUATIC SCIENCES, INC.		1,350.00	12-FEB-19	1,350.00	Reconciled
395900		07-FEB-19	MC MASTER CARR SUPPLY CO		1,023.52	11-FEB-19	1,023.52	Reconciled
395901		07-FEB-19	MPULSE MOBILE, INC		221.51	12-FEB-19	221.51	Reconciled
395902		07-FEB-19	MR CRANE INC		1,074.60	12-FEB-19	1,074.60	Reconciled
395903		07-FEB-19	NEWPORT REAL ESTATE SERVICES		13,100.00	12-FEB-19	13,100.00	Reconciled
395904		07-FEB-19	NORTHPARK MAINTENANCE ASSN		2,520.70	12-FEB-19	2,520.70	Reconciled
395905		07-FEB-19	O.C. SUPERIOR CUSTOM CLEANING		1,000.00	08-FEB-19	1,000.00	Reconciled
395906		07-FEB-19	OLIN CORPORATION		14,815.75	15-FEB-19	14,815.75	Reconciled
395907		07-FEB-19	ONESOURCE DISTRIBUTORS LLC		2,167.59	11-FEB-19	2,167.59	Reconciled
395908		07-FEB-19	ONG, MICHAEL		36.23	11-FEB-19	36.23	Reconciled
395909		07-FEB-19	ORACLE AMERICA, INC.		19,380.90	14-FEB-19	19,380.90	Reconciled
395910		07-FEB-19	ORANGE COUNTY AUTO PARTS CO		2,360.91	08-FEB-19	2,360.91	Reconciled
395911		07-FEB-19	ORANGE COUNTY SANITATION DISTRICT		1,890.00	08-FEB-19	1,890.00	Reconciled
395912		07-FEB-19	PACIFIC COAST BOLT CORP		4,249.20	13-FEB-19	4,249.20	Reconciled
395913		07-FEB-19	PACIFIC HYDROTECH CORPORATION		1,649.09	21-FEB-19	1,649.09	Reconciled
395914		07-FEB-19	PARK WEST APTS		1,850.78			Negotiable
395915		07-FEB-19	PARKHOUSE TIRE INC		769.70	12-FEB-19	769.70	Reconciled
395916		07-FEB-19	POLARIS SALES INC.		11,783.67	14-FEB-19	11,783.67	Reconciled
395917		07-FEB-19	PRAXAIR		825.64	11-FEB-19	825.64	Reconciled
395918		07-FEB-19	DISTRIBUTION INC PRE-PAID LEGAL SERVICES INC		1,188.10	12-FEB-19	1,188.10	Reconciled
395919		07-FEB-19	PROJECTLINE		1,468.94	12-FEB-19	1,468.94	Reconciled
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					Display Supplier Address: No			

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
395920		07-FEB-19	PURE EFFECT INC		7,553.50	12-FEB-19	7,553.50	Reconciled
395921		07-FEB-19	PUREWORKS, INC.		2,500.00	11-FEB-19	2,500.00	Reconciled
395922		07-FEB-19	RAM AIR ENGINEERING INC		12,673.59	12-FEB-19	12,673.59	Reconciled
395923		07-FEB-19	REACH EMPLOYEE ASSISTANCE INC		1,058.40	19-FEB-19	1,058.40	Reconciled
395924		07-FEB-19	RED WING SHOE STORE		200.00	11-FEB-19	200.00	Reconciled
395925		07-FEB-19	RELIANCE SAFETY CONSULTANTS, INC.		4,510.00	20-FEB-19	4,510.00	Reconciled
395926		07-FEB-19	RICHMOND AMERICAN HOMES OF MARYLAND, INC		116.50	21-FEB-19	116.50	Reconciled
395927		07-FEB-19	RINCON TRUCK CENTER INC.		7,447.01	08-FEB-19	7,447.01	Reconciled
395928		07-FEB-19	ROMAGNANO, SOPHIA		30.45	14-FEB-19	30.45	Reconciled
395929		07-FEB-19	RYLAARSDAM, W.F.		39.03	27-FEB-19	39.03	Reconciled
395930		07-FEB-19	S & J SUPPLY CO INC		6,245.94	11-FEB-19	6,245.94	Reconciled
395931		07-FEB-19	SAFANEJAD, SHAMIM		312.25	21-FEB-19	312.25	Reconciled
395932		07-FEB-19	SAN MARCO APARTMENTS		301.31			Negotiable
395933		07-FEB-19	SANTA ANA BLUE PRINT		192.59	12-FEB-19	192.59	Reconciled
395934		07-FEB-19	SANTA MARGARITA FORD		1,203.11	11-FEB-19	1,203.11	Reconciled
395935		07-FEB-19	SCHINDLER ELEVATOR CORPORATION		214.92	13-FEB-19	214.92	Reconciled
395936		07-FEB-19	SCHWAB, GARY		13.23			Negotiable
395937		07-FEB-19	SECURITAS SECURITY		59,585.26	13-FEB-19	59,585.26	Reconciled

395938	07-FEB-19	SERVICES USA, INC. SHAMROCK SUPPLY CO INC	1,754.71	12-FEB-19	1,754.71	Reconciled
395939	07-FEB-19	SIMPSON CHEVROLET OF GARDEN GROVE	56,817.78	13-FEB-19	56,817.78	Reconciled
395940	07-FEB-19	SMOG TIME	1,008.25	08-FEB-19	1,008.25	Reconciled
395941	07-FEB-19	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	1,077.16	19-FEB-19	1,077.16	Reconciled
395942	07-FEB-19	SOUTHERN CALIFORNIA EDISON COMPANY	8,865.90	11-FEB-19	8,865.90	Reconciled
395943	07-FEB-19	SOUTHERN CALIFORNIA SECURITY CENTERS, INC.	44.72	20-FEB-19	44.72	Reconciled

IRWD Ledger Upgrade
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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
395944		07-FEB-19	SOUTHERN CALIFORNIA WATER COMMITTEE INC		1,500.00	12-FEB-19	1,500.00	Reconciled
395945		07-FEB-19	SPARKLETTS		210.69	12-FEB-19	210.69	Reconciled
395946		07-FEB-19	SPARLING INSTRUMENTS LLC		2,051.59	12-FEB-19	2,051.59	Reconciled
395947		07-FEB-19	STREAKWAVE		757.20	11-FEB-19	757.20	Reconciled
395948		07-FEB-19	WIRELESS, INC. T. E. ROBERTS, INC.		4,537.00	20-FEB-19	4,537.00	Reconciled
395949		07-FEB-19	TALLEY INC		906.72	11-FEB-19	906.72	Reconciled
395950		07-FEB-19	THOMPSON INDUSTRIAL SUPPLY		851.51	12-FEB-19	851.51	Reconciled
395951		07-FEB-19	THYSSENKRUPP ELEVATOR CORPORATION		198.24	11-FEB-19	198.24	Reconciled
395952		07-FEB-19	TIC-OFFICE PROPERTIES		5,418.68	12-FEB-19	5,418.68	Reconciled
395953		07-FEB-19	TIC-RETAIL PROPERTIES		1,129.98	12-FEB-19	1,129.98	Reconciled
395954		07-FEB-19	TIC-SPECTRUM OFFICE		1,776.30	12-FEB-19	1,776.30	Reconciled
395955		07-FEB-19	TOLL BROS., INC.		158.73	22-FEB-19	158.73	Reconciled
395956		07-FEB-19	TRI COUNTY PUMP COMPANY		38,989.20	13-FEB-19	38,989.20	Reconciled
395957		07-FEB-19	TROPICAL PLAZA NURSERY INC		676.00	11-FEB-19	676.00	Reconciled
395958		07-FEB-19	TURNER ROYALTY, LLC		1,400.00	13-FEB-19	1,400.00	Reconciled
395959		07-FEB-19	TURTLE RIDGE APARTMENTS		286.73			Negotiable
395960		07-FEB-19	TUSTIN TOYOTA		301.32	08-FEB-19	301.32	Reconciled
395961		07-FEB-19	UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA		1,330.00	13-FEB-19	1,330.00	Reconciled
395962		07-FEB-19	UNITED HEALTHCARE INSURANCE COMPANY		264.27	12-FEB-19	264.27	Reconciled
395963		07-FEB-19	UNITED PARCEL SERVICE INC		150.89	11-FEB-19	150.89	Reconciled
395964		07-FEB-19	UTILITY SYSTEMS SCIENCE & SOFTWARE INC.		1,479.60	11-FEB-19	1,479.60	Reconciled
395965		07-FEB-19	VERIZON WIRELESS SERVICES LLC		4,854.13	12-FEB-19	4,854.13	Reconciled

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 Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
395966		07-FEB-19	VERTECH INDUSTRIAL SYSTEMS, LLC		29,335.88	14-FEB-19	29,335.88	Reconciled
395967		07-FEB-19	VILLANUEVA, LEONE		54.70	15-FEB-19	54.70	Reconciled
395968		07-FEB-19	WACO FILTERS CORPORATION		5,996.16	13-FEB-19	5,996.16	Reconciled
395969		07-FEB-19	WARMINGTON BP ASSOCIATES, LLC		60.99	14-FEB-19	60.99	Reconciled
395970		07-FEB-19	WASTE MANAGEMENT OF ORANGE COUNTY		5,217.25	11-FEB-19	5,217.25	Reconciled
395971		07-FEB-19	WAXIE'S ENTERPRISES, INC		1,417.78	11-FEB-19	1,417.78	Reconciled
395972		07-FEB-19	WECK LABORATORIES		415.00	14-FEB-19	415.00	Reconciled

395973	07-FEB-19	INC WHITLINGER, RICHARD		18.47			Negotiable
395974	07-FEB-19	WILSON, JEREMY		47.96	21-FEB-19	47.96	Reconciled
395975	07-FEB-19	WIRELESS WATCHDOGS, LLC		1,120.00	12-FEB-19	1,120.00	Reconciled
395976	07-FEB-19	YANG, CONGFEN		41.90			Negotiable
395977	07-FEB-19	YP LLC		91.00	12-FEB-19	91.00	Reconciled
395978	07-FEB-19	YUSHAN HAN AND SHIQI HAN		181.36	11-FEB-19	181.36	Reconciled
395979	07-FEB-19	ZEBRON CONTRACTING INC		6,800.00	13-FEB-19	6,800.00	Reconciled
395980	07-FEB-19	AFLAC	1932 WYNNTON RD	6,913.16	14-FEB-19	6,913.16	Reconciled
395981	11-FEB-19	CALIFORNIA DEPARTMENT OF TAX AND FEE ADMINISTRATION	SACRAMENTO	690.00	26-FEB-19	690.00	Reconciled
395982	12-FEB-19	SCHULER	PURCHASE	193,435.67	15-FEB-19	193,435.67	Reconciled
395983	12-FEB-19	E.J. MEYER CONSTRUCTORS, INC.	HIGHLAND	170,943.16	14-FEB-19	170,943.16	Reconciled
395984	12-FEB-19	GCI CONSTRUCTION, INC.	SAN CLEMENTE	16,321.27	20-FEB-19	16,321.27	Reconciled
395985	12-FEB-19	PACIFIC HYDROTECH CORPORATION	ESC 8622300	10,120.62	15-FEB-19	10,120.62	Reconciled
395986	12-FEB-19	PACIFIC HYDROTECH CORPORATION	PERRIS	192,291.88	14-FEB-19	192,291.88	Reconciled
395987	12-FEB-19	PASCAL & LUDWIG CONSTRUCTORS	ESR 243289025	6,232.95	14-FEB-19	6,232.95	Reconciled
395988	12-FEB-19	PASCAL & LUDWIG CONSTRUCTORS	ESR 243289424	18,848.29	14-FEB-19	18,848.29	Reconciled
395989	12-FEB-19	PASCAL & LUDWIG CONSTRUCTORS	ONTARIO	476,543.59	14-FEB-19	476,543.59	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
395990		14-FEB-19	Bennett, Ray R (Ray)		195.96	20-FEB-19	195.96	Reconciled
395991		14-FEB-19	Figueroa, Jorge (Jorge)		180.00	27-FEB-19	180.00	Reconciled
395992		14-FEB-19	Fike, Ethan O (Ethan)		290.00	20-FEB-19	290.00	Reconciled
395993		14-FEB-19	Kulick, Michael		188.00	21-FEB-19	188.00	Reconciled
395994		14-FEB-19	Lao, Richard S		17.40	20-FEB-19	17.40	Reconciled
395995		14-FEB-19	Lassalette, James P (Jim)		60.00	28-FEB-19	60.00	Reconciled
395996		14-FEB-19	Oldewage, Lars D (Lars)		297.20	19-FEB-19	297.20	Reconciled
395997		14-FEB-19	Orozco, Linda		69.39	20-FEB-19	69.39	Reconciled
395998		14-FEB-19	Ramirez, Miguel		108.41	20-FEB-19	108.41	Reconciled
395999		14-FEB-19	Sanchez, George (George)		188.00			Negotiable
396000		14-FEB-19	Sciabica, Joseph		229.00	20-FEB-19	229.00	Reconciled
396001		14-FEB-19	Shapiro, Matthew		104.64			Negotiable
396002		14-FEB-19	Silva, Jose A (Jose)		280.00	25-FEB-19	280.00	Reconciled
396003		14-FEB-19	Soto, Franklin E (Frank)		280.00	21-FEB-19	280.00	Reconciled
396004		14-FEB-19	Whittaker, Jerry A		145.00	22-FEB-19	145.00	Reconciled
396005		14-FEB-19	Zaragoza, Anthony		94.81	19-FEB-19	94.81	Reconciled
396006		14-FEB-19	ABM INDUSTRY GROUPS, LLC		18,915.01	21-FEB-19	18,915.01	Reconciled
396007		14-FEB-19	ADAM'S FALCONRY SERVICE, LLC		720.00	19-FEB-19	720.00	Reconciled
396008		14-FEB-19	ADS LLC		2,160.00	20-FEB-19	2,160.00	Reconciled
396009		14-FEB-19	AIRGAS, INC.		3,579.40	19-FEB-19	3,579.40	Reconciled
396010		14-FEB-19	ALAMOUDI, ABDULLAH		52.92	26-FEB-19	52.92	Reconciled
396011		14-FEB-19	AMAZON CAPITAL SERVICES, INC.		946.49	20-FEB-19	946.49	Reconciled
396012		14-FEB-19	AMERICAN GEOTECHNICAL, INC.		5,862.50	19-FEB-19	5,862.50	Reconciled
396013		14-FEB-19	ANDERSONPENNA PARTNERS, INC		61,454.50	25-FEB-19	61,454.50	Reconciled
396014		14-FEB-19	APPLIED ENGINEERING CONCEPTS		8,180.00	19-FEB-19	8,180.00	Reconciled
396015		14-FEB-19	AQUA BEN CORPORATION		3,094.90	20-FEB-19	3,094.90	Reconciled
396016		14-FEB-19	AT&T		1,096.82	20-FEB-19	1,096.82	Reconciled
396017		14-FEB-19	AT&T		1,665.91	19-FEB-19	1,665.91	Reconciled
396018		14-FEB-19	ATHENS SERVICES		9,364.49	19-FEB-19	9,364.49	Reconciled
396019		14-FEB-19	ATTIANESE, BOB		400.79	19-FEB-19	400.79	Reconciled

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
396020		14-FEB-19	AUTOZONE PARTS, INC.		629.38	21-FEB-19	629.38	Reconciled
396021		14-FEB-19	BANK OF AMERICA		13,520.30	22-FEB-19	13,520.30	Reconciled
396022		14-FEB-19	BDC SPECIAL WASTE		372.00	20-FEB-19	372.00	Reconciled
396023		14-FEB-19	BIGWIG MONSTER, LLC		19,050.00	20-FEB-19	19,050.00	Reconciled
396024		14-FEB-19	BOBCAT COMPANY		196.67	25-FEB-19	196.67	Reconciled
396025		14-FEB-19	BRADY INDUSTRIES, LLC		1,293.55	19-FEB-19	1,293.55	Reconciled
396026		14-FEB-19	BRITHINEE ELECTRIC		14,837.68	21-FEB-19	14,837.68	Reconciled
396027		14-FEB-19	C L OLSON & ASSOCIATES, INC.		6,465.00	21-FEB-19	6,465.00	Reconciled
396028		14-FEB-19	C WELLS PIPELINE MATERIALS INC		1,266.07	21-FEB-19	1,266.07	Reconciled
396029		14-FEB-19	CALIFORNIA BARRICADE RENTAL, INC.		10,100.00	22-FEB-19	10,100.00	Reconciled
396030		14-FEB-19	CANDELA CORPORATION		29.45	19-FEB-19	29.45	Reconciled
396031		14-FEB-19	CEMEX, INC.		1,664.74	19-FEB-19	1,664.74	Reconciled
396032		14-FEB-19	CHARLES P CROWLEY COMPANY INC		47,390.25	25-FEB-19	47,390.25	Reconciled
396033		14-FEB-19	CHEMGLASS LIFE SCIENCES, LLC		374.69	20-FEB-19	374.69	Reconciled
396034		14-FEB-19	CHO DESIGN ASSOCIATES, INC		2,050.00	19-FEB-19	2,050.00	Reconciled
396035		14-FEB-19	CITY OF SANTA ANA		191.22	19-FEB-19	191.22	Reconciled
396036		14-FEB-19	CITY OF TUSTIN		136,488.69	20-FEB-19	136,488.69	Reconciled
396037		14-FEB-19	COLESWORTHY, CAROLINE		29.97			Negotiable
396038		14-FEB-19	CONSTELLATION NEWENERGY, INC.		315.50	20-FEB-19	315.50	Reconciled
396039		14-FEB-19	COOMBS SERVICE GROUP		9,117.35	20-FEB-19	9,117.35	Reconciled
396040		14-FEB-19	CR & R INCORPORATED		389.96	20-FEB-19	389.96	Reconciled
396041		14-FEB-19	CULLIGAN OF SANTA ANA		8,000.00	19-FEB-19	8,000.00	Reconciled
396042		14-FEB-19	D & G SIGNS		1,942.43	22-FEB-19	1,942.43	Reconciled
396043		14-FEB-19	D & H WATER SYSTEMS INC.		1,330.72	21-FEB-19	1,330.72	Reconciled
396044		14-FEB-19	DEACON, JANET		83.48			Negotiable
396045		14-FEB-19	DEALERS SERVICE, INC		1,524.29	21-FEB-19	1,524.29	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-FEB-19 To 28-FEB-19 Account: Checking AP and PR Payment Currency: USD (US Dollar) Display Supplier Address: No Report Date: 01-MAR-2019 08:46 Page: 12								

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
396046		14-FEB-19	DEMARIA ELECTRIC MOTOR SERVICES, INC.		13,411.72	28-FEB-19	13,411.72	Reconciled
396047		14-FEB-19	DISCOUNT COURIER SERVICE INC.		67.47	19-FEB-19	67.47	Reconciled
396048		14-FEB-19	DISCOVERY SCIENCE CENTER OF ORANGE COUNTY		7,090.74	20-FEB-19	7,090.74	Reconciled
396049		14-FEB-19	DWYER INSTRUMENTS INC		159.56	19-FEB-19	159.56	Reconciled
396050		14-FEB-19	EAGLE SYSTEMS INTERNATIONAL INC.		152,375.26			Negotiable
396051		14-FEB-19	EAST ORANGE COUNTY WATER DISTRICT		67,192.51	19-FEB-19	67,192.51	Reconciled
396052		14-FEB-19	ECO SERVICES LLC		5,333.96	19-FEB-19	5,333.96	Reconciled
396053		14-FEB-19	EDWARD P BAKER III		2,394.52	28-FEB-19	2,394.52	Reconciled
396054		14-FEB-19	ENVIRONMENTAL EXPRESS INC		1,101.79	21-FEB-19	1,101.79	Reconciled
396055		14-FEB-19	EVERETT DOREY LLP		206.75	20-FEB-19	206.75	Reconciled
396056		14-FEB-19	EXECUTIVE LIGHTING & ELECTRIC		622.04	21-FEB-19	622.04	Reconciled
396057		14-FEB-19	FEDEX NATIONAL LTL, INC		1,236.87	19-FEB-19	1,236.87	Reconciled
396058		14-FEB-19	FIRST CHOICE SERVICES		536.85	21-FEB-19	536.85	Reconciled
396059		14-FEB-19	FISHER SCIENTIFIC COMPANY LLC		1,162.39	19-FEB-19	1,162.39	Reconciled
396060		14-FEB-19	FOUGHT, CYNTHIA J.		2,831.70	19-FEB-19	2,831.70	Reconciled
396061		14-FEB-19	FRONTIER CALIFORNIA INC.		51.95	22-FEB-19	51.95	Reconciled
396062		14-FEB-19	FUSCOE ENGINEERING, INC.		720.00	20-FEB-19	720.00	Reconciled
396063		14-FEB-19	G4S JUSTICE		203.61	19-FEB-19	203.61	Reconciled

		SERVICES						
396064	14-FEB-19	GAIKWAD, ASHISH	129.23	20-FEB-19	129.23	Reconciled		
396065	14-FEB-19	GANAHL LUMBER CO.	61.91	21-FEB-19	61.91	Reconciled		
396066	14-FEB-19	GANCY, TIM	75.82			Negotiable		
396067	14-FEB-19	GARDEN COMMUNITIES	37,795.20			Negotiable		
396068	14-FEB-19	GRAINGER	3,685.95	19-FEB-19	3,685.95	Reconciled		
396069	14-FEB-19	GRAVITEC SYSTEMS, INC	1,130.09	20-FEB-19	1,130.09	Reconciled		
396070	14-FEB-19	GRAYBAR ELECTRIC COMPANY	3,160.66	19-FEB-19	3,160.66	Reconciled		
396071	14-FEB-19	HAAKER EQUIPMENT COMPANY	374.11	20-FEB-19	374.11	Reconciled		
396072	14-FEB-19	HACH COMPANY	4,161.41	19-FEB-19	4,161.41	Reconciled		
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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
396073		14-FEB-19	HARMSWORTH ASSOCIATES		2,890.00	19-FEB-19	2,890.00	Reconciled
396074		14-FEB-19	HARRINGTON INDUSTRIAL PLASTICS LLC		27,058.01	21-FEB-19	27,058.01	Reconciled
396075		14-FEB-19	HDR ENGINEERING INC		68,438.37	25-FEB-19	68,438.37	Reconciled
396076		14-FEB-19	HELP/SYSTEMS, LLC		8,069.66	19-FEB-19	8,069.66	Reconciled
396077		14-FEB-19	HELPMATES STAFFING SERVICES		17,644.02	21-FEB-19	17,644.02	Reconciled
396078		14-FEB-19	HERITAGE FIELDS EL TORO, LLC		183,193.94	25-FEB-19	183,193.94	Reconciled
396079		14-FEB-19	HILL BROTHERS CHEMICAL COMPANY		5,505.61	20-FEB-19	5,505.61	Reconciled
396080		14-FEB-19	HOME DEPOT USA INC		37.69	20-FEB-19	37.69	Reconciled
396081		14-FEB-19	HUNSAKER & ASSOCIATES IRVINE		1,344.00	19-FEB-19	1,344.00	Reconciled
396082		14-FEB-19	HYDRO INTERNATIONAL		8,434.60	19-FEB-19	8,434.60	Reconciled
396083		14-FEB-19	INDUSTRIAL ELECTRIC MACHINERY LLC		926.39	19-FEB-19	926.39	Reconciled
396084		14-FEB-19	IRON MOUNTAIN INFORMATION MANAGEMENT INC		1,577.94	19-FEB-19	1,577.94	Reconciled
396085		14-FEB-19	IRVINE PACIFIC		229.77	20-FEB-19	229.77	Reconciled
396086		14-FEB-19	IRVINE PIPE & SUPPLY INC		7,344.97	19-FEB-19	7,344.97	Reconciled
396087		14-FEB-19	IRVINE UNIFIED SCHOOL DISTRICT		100.00			Voided
396088		14-FEB-19	IRVINE UNIFIED SCHOOL DISTRICT		100.00			Negotiable
396089		14-FEB-19	IRVINE UNIFIED SCHOOL DISTRICT		1,927.46			Voided
396090		14-FEB-19	IRVINE UNIFIED SCHOOL DISTRICT		100.00			Negotiable
396091		14-FEB-19	IRVINE UNIFIED SCHOOL DISTRICT		100.00	27-FEB-19	100.00	Reconciled
396092		14-FEB-19	JCI JONES CHEMICALS INC		5,255.25	20-FEB-19	5,255.25	Reconciled
396093		14-FEB-19	JEN, KEVIN		89.09			Negotiable
396094		14-FEB-19	JIG CONSULTANTS		2,885.00	25-FEB-19	2,885.00	Reconciled
396095		14-FEB-19	JOANN STORES INC.		76.16			Negotiable
396096		14-FEB-19	JOE RHODES MAINT SERVICE INC		1,092.62	20-FEB-19	1,092.62	Reconciled

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Payment Type: All				Display Supplier Address: No					

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
396097		14-FEB-19	KAYUGA SOLUTION INC		7,440.00	19-FEB-19	7,440.00	Reconciled
396098		14-FEB-19	KB HOMES		305.35	26-FEB-19	305.35	Reconciled
396099		14-FEB-19	KHABAZ, FARHAN		689.45	19-FEB-19	689.45	Reconciled
396100		14-FEB-19	LAMBERT GROVE, LLC		1,320.38	19-FEB-19	1,320.38	Reconciled
396101		14-FEB-19	LAUGHLIN, MICHAEL		46.94			Negotiable
396102		14-FEB-19	LEE & RO, INC.		32,760.04	22-FEB-19	32,760.04	Reconciled
396103		14-FEB-19	LEE, SUNG		18.78			Negotiable
396104		14-FEB-19	LENNAR HOMES		3,393.54	20-FEB-19	3,393.54	Reconciled
396105		14-FEB-19	LENER, AARON		61.58	20-FEB-19	61.58	Reconciled
396106		14-FEB-19	LI, JUN		30.54			Negotiable
396107		14-FEB-19	LIU, YING		42.83			Negotiable
396108		14-FEB-19	LOS ANGELES AIR CONDITIONING, INC.		215,694.00	27-FEB-19	215,694.00	Reconciled
396109		14-FEB-19	LUBRICATION		5,290.05	19-FEB-19	5,290.05	Reconciled

396110	14-FEB-19	ENGINEERS, INC.						
396111	14-FEB-19	M.CUBED	1,112.50	20-FEB-19	1,112.50	Reconciled		
396112	14-FEB-19	MARK KADESH	10,000.00	26-FEB-19	10,000.00	Reconciled		
	14-FEB-19	MC FADDEN-DALE	167.49	20-FEB-19	167.49	Reconciled		
		INDUSTRIAL						
396113	14-FEB-19	MC MASTER CARR	104.15	19-FEB-19	104.15	Reconciled		
		SUPPLY CO						
396114	14-FEB-19	MCPHEE, MARILYN	46.00			Negotiable		
396115	14-FEB-19	MCR TECHNOLOGIES	15,695.08	22-FEB-19	15,695.08	Reconciled		
		INC						
396116	14-FEB-19	MERITAGE HOMES OF	16.71	26-FEB-19	16.71	Reconciled		
		CALIFORNIA, INC						
396117	14-FEB-19	MICHAEL BAKER	11,006.03	22-FEB-19	11,006.03	Reconciled		
		INTERNATIONAL,						
		INC.						
396118	14-FEB-19	MISSION	5,634.00	21-FEB-19	5,634.00	Reconciled		
		COMMUNICATIONS,						
		LLC						
396119	14-FEB-19	MOHAMMAD MAYYAS	2,258.72	19-FEB-19	2,258.72	Reconciled		
396120	14-FEB-19	MON, MATTHEW	145.25	20-FEB-19	145.25	Reconciled		
396121	14-FEB-19	MOODY, JOSEPH	184.89	19-FEB-19	184.89	Reconciled		
396122	14-FEB-19	MORSEY, KERRY	44.36			Negotiable		
396123	14-FEB-19	MR CRANE INC	2,737.80	19-FEB-19	2,737.80	Reconciled		
396124	14-FEB-19	MRO ELECTRIC &	2,179.00	20-FEB-19	2,179.00	Reconciled		
		SUPPLY CO.						
396125	14-FEB-19	MUNICIPAL WATER	16,327.80	20-FEB-19	16,327.80	Reconciled		
		DISTRICT OF ORANGE						
		COUNTY						
396126	14-FEB-19	NATIONAL BUSINESS	1,903.73	19-FEB-19	1,903.73	Reconciled		
		FURNITURE, LLC						

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-FEB-19 To 28-FEB-19
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
396127		14-FEB-19	NATIONAL READY		2,313.25	19-FEB-19	2,313.25	Reconciled
			MIXED CONCRETE CO.					
396128		14-FEB-19	NETFILE, INC		3,800.00	21-FEB-19	3,800.00	Reconciled
396129		14-FEB-19	NEWPORT REAL		13,100.00	21-FEB-19	13,100.00	Reconciled
			ESTATE SERVICES					
396130		14-FEB-19	NOIR DE		210.66			Negotiable
			CHAZOURNES,					
			GUILAUNE					
396131		14-FEB-19	NUMA, TAKESHI		127.22			Negotiable
396132		14-FEB-19	OLIN CORPORATION		26,152.77	25-FEB-19	26,152.77	Reconciled
396133		14-FEB-19	ORANGE COUNTY AUTO		1,810.19	19-FEB-19	1,810.19	Reconciled
			PARTS CO					
396134		14-FEB-19	PACIFIC AUTO WASH		67.96	19-FEB-19	67.96	Reconciled
			PARTNERS					
396135		14-FEB-19	PACIFIC LEGACY		44.06			Negotiable
			REAL ESTATE					
396136		14-FEB-19	PACIFIC PARTS &		601.55	19-FEB-19	601.55	Reconciled
			CONTROLS INC					
396137		14-FEB-19	PACIFIC RESOURCE		1,274.40	19-FEB-19	1,274.40	Reconciled
			RECOVERY					
396138		14-FEB-19	PAPER DEPOT		360.00	22-FEB-19	360.00	Reconciled
			DOCUMENT					
396139		14-FEB-19	DESTRUCTION LLC					
			PERKINELMER HEALTH		13,380.00	25-FEB-19	13,380.00	Reconciled
			SCIENCES INC					
396140		14-FEB-19	PIAO, SHENGHUA		44.92			Negotiable
396141		14-FEB-19	PIPELINE PRODUCTS		3,629.02	19-FEB-19	3,629.02	Reconciled
			INC					
396142		14-FEB-19	PRAXAIR		757.30	20-FEB-19	757.30	Reconciled
			DISTRIBUTION INC					
396143		14-FEB-19	PRUDENTIAL OVERALL		6,850.05	19-FEB-19	6,850.05	Reconciled
			SUPPLY					
396144		14-FEB-19	PTI SAND & GRAVEL		3,799.92	20-FEB-19	3,799.92	Reconciled
			INC					
396145		14-FEB-19	QUAIL RIDGE		263.60			Negotiable
			APARTMENTS					
396146		14-FEB-19	QUALITY		888.75	20-FEB-19	888.75	Reconciled
			ENVIRONMENTAL					
			CONTAINERS					
396147		14-FEB-19	R&B AUTOMATION,		1,208.31	25-FEB-19	1,208.31	Reconciled
			INC.					
396148		14-FEB-19	RANCHO MADERAS		54.03			Negotiable
			APTS					
396149		14-FEB-19	RANCHO MARIPOSA		75.11			Negotiable
			APTS					
396150		14-FEB-19	REGENCY CENTERS		32.66			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-FEB-19 To 28-FEB-19
 Account: Checking AP and PR
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 Display Supplier Address: No

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
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Payment Document : IRWD CHECK							
396151	14-FEB-19	RENTOKIL NORTH AMERICA, INC	24,549.00	22-FEB-19	24,549.00	Reconciled	
396152	14-FEB-19	RESPONSE ENVELOPE, INC	10,965.94	22-FEB-19	10,965.94	Reconciled	
396153	14-FEB-19	RICE, JOHN	148.03	26-FEB-19	148.03	Reconciled	
396154	14-FEB-19	RINCON TRUCK CENTER INC.	290.47	19-FEB-19	290.47	Reconciled	
396155	14-FEB-19	RLG ENTERPRISES, INC	833.37	19-FEB-19	833.37	Reconciled	
396156	14-FEB-19	RODRIGUEZ, PETE	746.10	19-FEB-19	746.10	Reconciled	
396157	14-FEB-19	ROSEMOUNT INC.	5,262.34	20-FEB-19	5,262.34	Reconciled	
396158	14-FEB-19	RS HUGHES COMPANY, INC.	1,255.29	20-FEB-19	1,255.29	Reconciled	
396159	14-FEB-19	RUSKEY, JULIE	124.17	21-FEB-19	124.17	Reconciled	
396160	14-FEB-19	SAF-T-FLO WATER SERVICES, INC.	5,817.73	20-FEB-19	5,817.73	Reconciled	
396161	14-FEB-19	SANDERS PAVING INC	12,287.50	21-FEB-19	12,287.50	Reconciled	
396162	14-FEB-19	SANTA ANA BLUE PRINT	2,868.83	20-FEB-19	2,868.83	Reconciled	
396163	14-FEB-19	SANTA MARGARITA FORD	558.69	20-FEB-19	558.69	Reconciled	
396164	14-FEB-19	SEAL ANALYTICAL INC	1,056.39	19-FEB-19	1,056.39	Reconciled	
396165	14-FEB-19	SELECT TRENCHLESS PIPELINES INC	8,400.00	25-FEB-19	8,400.00	Reconciled	
396166	14-FEB-19	SEPARATION PROCESSES, INC.	1,558.00	19-FEB-19	1,558.00	Reconciled	
396167	14-FEB-19	SHAH, ANKIT	159.18	19-FEB-19	159.18	Reconciled	
396168	14-FEB-19	SHEA HOMES, LIMITED PARTNERSHIP	77.91			Negotiable	
396169	14-FEB-19	SIMI VALLEY LANDFILL AND RECYCLING CENTER	433.44	20-FEB-19	433.44	Reconciled	
396170	14-FEB-19	SITEONE LANDSCAPE SUPPLY, LLC	569.53	20-FEB-19	569.53	Reconciled	
396171	14-FEB-19	SMT AUTOMOTIVE LLC	45.52	19-FEB-19	45.52	Reconciled	
396172	14-FEB-19	SOUTH COAST WATER CO.	90.00	20-FEB-19	90.00	Reconciled	
396173	14-FEB-19	SOUTH COAST WATER DISTRICT	33.57	26-FEB-19	33.57	Reconciled	
396174	14-FEB-19	SOUTHERN CALIFORNIA EDISON COMPANY	164,222.57	19-FEB-19	164,222.57	Reconciled	
IRWD Ledger Upgrade Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 17 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar) Payment Type: All Display Supplier Address: No							

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
396175		14-FEB-19	SOUTHERN CALIFORNIA GAS COMPANY		19,059.96	20-FEB-19	19,059.96	Reconciled
396176		14-FEB-19	SOUTHERN CALIFORNIA SECURITY CENTERS, INC.		2,875.59			Negotiable
396177		14-FEB-19	SPARKLETT'S		92.29	21-FEB-19	92.29	Reconciled
396178		14-FEB-19	STETSON ENGINEERS INC.		4,274.42	21-FEB-19	4,274.42	Reconciled
396179		14-FEB-19	STREAKWAVE WIRELESS, INC.		331.22	19-FEB-19	331.22	Reconciled
396180		14-FEB-19	SUMMIT CHEMICAL SPECIALTY PRODUCTS		11,642.40	27-FEB-19	11,642.40	Reconciled
396181		14-FEB-19	SUSAN A. SIROTA		4,395.00	19-FEB-19	4,395.00	Reconciled
396182		14-FEB-19	SWINERTON BUILDERS		1,877.38	20-FEB-19	1,877.38	Reconciled
396183		14-FEB-19	THE PARKLANDS		244.94			Negotiable
396184		14-FEB-19	THERMO FISHER SCIENTIFIC (ASHEVILLE) LLC		388.19	19-FEB-19	388.19	Reconciled
396185		14-FEB-19	TIC-OFFICE PROPERTIES		409.03	19-FEB-19	409.03	Reconciled
396186		14-FEB-19	TIC-RETAIL PROPERTIES		456.49	19-FEB-19	456.49	Reconciled
396187		14-FEB-19	TOLL BROS., INC.		107.61	22-FEB-19	107.61	Reconciled
396188		14-FEB-19	TRAFFIC CONTROL ENGINEERING, INC		5,000.00			Negotiable
396189		14-FEB-19	TRI POINTE HOMES, INC.		360.42	28-FEB-19	360.42	Reconciled
396190		14-FEB-19	TROPICAL PLAZA NURSERY INC		8,214.90	19-FEB-19	8,214.90	Reconciled
396191		14-FEB-19	TRUCPARCO		1,421.00	22-FEB-19	1,421.00	Reconciled
396192		14-FEB-19	UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA		922.93	26-FEB-19	922.93	Reconciled
396193		14-FEB-19	UNITED PARCEL		81.55	19-FEB-19	81.55	Reconciled

396194	14-FEB-19	SERVICE INC UTILITY SYSTEMS SCIENCE & SOFTWARE INC.	3,330.00	27-FEB-19	3,330.00	Reconciled
396195	14-FEB-19	V&A CONSULTING ENGINEERS	14,562.55	21-FEB-19	14,562.55	Reconciled
396196	14-FEB-19	VAUGHAN'S INDUSTRIAL REPAIR CO INC	1,317.20	19-FEB-19	1,317.20	Reconciled

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46
 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 18
 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 CHECK								
396197		14-FEB-19	VERTECH INDUSTRIAL SYSTEMS, LLC		5,904.41	19-FEB-19	5,904.41	Reconciled
396198		14-FEB-19	VULCAN MATERIALS COMPANY		1,474.05	19-FEB-19	1,474.05	Reconciled
396199		14-FEB-19	WANG, JIAHUI		1,250.65			Negotiable
396200		14-FEB-19	WARLICH, THOMAS		166.20			Negotiable
396201		14-FEB-19	WECK LABORATORIES INC		214.00	25-FEB-19	214.00	Reconciled
396202		14-FEB-19	WEIS, MEL		86.76	25-FEB-19	86.76	Reconciled
396203		14-FEB-19	WENG, EMILY		650.12	25-FEB-19	650.12	Reconciled
396204		14-FEB-19	WESTERN WEATHER GROUP INC		1,649.41	21-FEB-19	1,649.41	Reconciled
396205		14-FEB-19	WISSMUELLER, SCOTT		561.70	20-FEB-19	561.70	Reconciled
396206		14-FEB-19	XU, JING		88.10			Negotiable
396207		14-FEB-19	XU, SHAOQUAN		13.55	25-FEB-19	13.55	Reconciled
396208		14-FEB-19	YANG, TOU BEE		79.88	21-FEB-19	79.88	Reconciled
396209		14-FEB-19	YAO, SHUNTIAN		28.14			Negotiable
396210		14-FEB-19	YOO, BYUNG CHUL		1.17			Negotiable
396211		14-FEB-19	YORKVILLE INVESTMENTS LLC		47.37	21-FEB-19	47.37	Reconciled
396212		14-FEB-19	ZHENG, SONG		6.96			Negotiable
396213		14-FEB-19	IRVINE UNIFIED SCHOOL DISTRICT	CYPRESS VILLAGE	100.00			Negotiable
396214		14-FEB-19	IRVINE UNIFIED SCHOOL DISTRICT	IRVINE	100.00	26-FEB-19	100.00	Reconciled
396215		14-FEB-19	IRVINE UNIFIED SCHOOL DISTRICT	IRVINE	1,827.46	25-FEB-19	1,827.46	Reconciled
396216		15-FEB-19	FRANCHISE TAX BOARD	SACRAMENTO 1	100.00	27-FEB-19	100.00	Reconciled
396217		15-FEB-19	ORANGE COUNTY SHERIFF'S OFFICE	4601 JAMBOREE	224.50	25-FEB-19	224.50	Reconciled
396218		15-FEB-19	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 47	DIAMOND BAR	1,355.00	25-FEB-19	1,355.00	Reconciled
396219		15-FEB-19	PERS LONG TERM CARE	PASADENA	538.89	19-FEB-19	538.89	Reconciled
396220		15-FEB-19	IRWD-PETTY CASH CUSTODIAN	IRVINE	704.84	15-FEB-19	704.84	Reconciled
396221		15-FEB-19	CITY OF LAKE FOREST	25550 COMM STE	69,668.50			Negotiable
396222		21-FEB-19	Alfaro, Alvaro (Alvaro)		109.24			Negotiable
396223		21-FEB-19	Cano, Marco T (Marco)		188.00			Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46
 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 19
 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 CHECK								
396224		21-FEB-19	Chaves, Romuel- Dave E		6.96			Negotiable
396225		21-FEB-19	Chia, David C		6.96			Negotiable
396226		21-FEB-19	Figueroa, Jorge (Jorge)		455.00	27-FEB-19	455.00	Reconciled
396227		21-FEB-19	Jackson, Bradley E (Brad)		10.76			Negotiable
396228		21-FEB-19	Lassalette, James P (Jim)		188.00	28-FEB-19	188.00	Reconciled
396229		21-FEB-19	Matheis, Mary Aileen		971.20			Negotiable
396230		21-FEB-19	McCarter, David G (David)		188.00			Negotiable
396231		21-FEB-19	Oldewage, Lars D (Lars)		597.71	26-FEB-19	597.71	Reconciled
396232		21-FEB-19	Parsons, Sheryl		55.14	26-FEB-19	55.14	Reconciled
396233		21-FEB-19	Perez, Rodolfo (Rudy)		372.00			Negotiable
396234		21-FEB-19	Swan, Peer		2,609.32	21-FEB-19	2,609.32	Reconciled

396235	21-FEB-19	Withers, John B	1,591.94				Negotiable
396236	21-FEB-19	A STITCH ON TIME.COM	272.61	25-FEB-19	272.61		Reconciled
396237	21-FEB-19	ACCUSTANDARD INC	119.47	26-FEB-19	119.47		Reconciled
396238	21-FEB-19	AECOM TECHNICAL SERVICES, INC.	47,309.59	28-FEB-19	47,309.59		Reconciled
396239	21-FEB-19	ALSTON & BIRD LLP	92,290.00	28-FEB-19	92,290.00		Reconciled
396240	21-FEB-19	AMAZON CAPITAL SERVICES, INC.	978.67	26-FEB-19	978.67		Reconciled
396241	21-FEB-19	ANDERSON'S NU POWER CO., INC	25,300.00	28-FEB-19	25,300.00		Reconciled
396242	21-FEB-19	APPLIED ENGINEERING CONCEPTS	5,640.00	26-FEB-19	5,640.00		Reconciled
396243	21-FEB-19	ARCADIS U.S., INC.	95,599.68				Negotiable
396244	21-FEB-19	ARLING, JEANNETTE	80.05	26-FEB-19	80.05		Reconciled
396245	21-FEB-19	AT&T	14,958.16	27-FEB-19	14,958.16		Reconciled
396246	21-FEB-19	AT&T	173.53	26-FEB-19	173.53		Reconciled
396247	21-FEB-19	ATKINSON, ANDELSON, LOYA, RUUD AND ROMO INC	29.24	26-FEB-19	29.24		Reconciled
396248	21-FEB-19	AUSTIN HARDWOODS, INC	281.86				Negotiable
396249	21-FEB-19	AUTOZONE PARTS, INC.	85.97	27-FEB-19	85.97		Reconciled
396250	21-FEB-19	BASU, BIKASH	221.06				Negotiable
396251	21-FEB-19	BENNETT, VANCE	696.35	25-FEB-19	696.35		Reconciled

IRWD Ledger Upgrade Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46
 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								
396252		21-FEB-19	BILL'S SWEEPING SERVICE INC		460.00	27-FEB-19	460.00	Reconciled
396253		21-FEB-19	BIOMAGIC INC		11,440.63	26-FEB-19	11,440.63	Reconciled
396254		21-FEB-19	BLACK & VEATCH CORPORATION		246,673.24			Negotiable
396255		21-FEB-19	BORCHARD SURVEYING & MAPPING, INC.		2,790.00			Negotiable
396256		21-FEB-19	BRITHINEE ELECTRIC		10,424.78	27-FEB-19	10,424.78	Reconciled
396257		21-FEB-19	BROWN AND CALDWELL		79,250.21	28-FEB-19	79,250.21	Reconciled
396258		21-FEB-19	BRUCE HADLEY NEWELL		1,250.00	27-FEB-19	1,250.00	Reconciled
396259		21-FEB-19	BURLINGTON SAFETY LABORATORY OF CALIFORNIA INC		538.00	25-FEB-19	538.00	Reconciled
396260		21-FEB-19	C WELLS PIPELINE MATERIALS INC		71,798.22			Negotiable
396261		21-FEB-19	CALIFORNIA BARRICADE RENTAL, INC.		2,170.00	25-FEB-19	2,170.00	Reconciled
396262		21-FEB-19	CALIFORNIA DEPARTMENT OF TAX AND FEE ADMINISTRATION		991.00	27-FEB-19	991.00	Reconciled
396263		21-FEB-19	CALIFORNIA PACIFIC HOMES		367.88	25-FEB-19	367.88	Reconciled
396264		21-FEB-19	CANDELA CORPORATION		49.14	26-FEB-19	49.14	Reconciled
396265		21-FEB-19	CANON FINANCIAL SERVICES, INC		9,722.05	27-FEB-19	9,722.05	Reconciled
396266		21-FEB-19	CHEMGLASS LIFE SCIENCES, LLC		723.24	27-FEB-19	723.24	Reconciled
396267		21-FEB-19	CHEN, QIGANG		34.35			Negotiable
396268		21-FEB-19	CITY OF TUSTIN		76,527.79	26-FEB-19	76,527.79	Reconciled
396269		21-FEB-19	CLA-VAL COMPANY		9,700.01	26-FEB-19	9,700.01	Reconciled
396270		21-FEB-19	COMMERCIAL DOOR OF ORANGE COUNTY, INC.		13,704.03	26-FEB-19	13,704.03	Reconciled
396271		21-FEB-19	CONSTELLATION NEWENERGY, INC.		17,000.83	26-FEB-19	17,000.83	Reconciled
396272		21-FEB-19	CORELOGIC INC		434.70	25-FEB-19	434.70	Reconciled
396273		21-FEB-19	CSAC EXCESS INSURANCE AUTHORITY		37,615.00	28-FEB-19	37,615.00	Reconciled
396274		21-FEB-19	DADGAR, FARHANG		50.12			Negotiable
396275		21-FEB-19	DATA CLEAN CORPORATION		534.00	26-FEB-19	534.00	Reconciled

IRWD Ledger Upgrade Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 21
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								

396276	21-FEB-19	DEALERS SERVICE, INC	2,760.02			Negotiable
396277	21-FEB-19	DEE JASPAR & ASSOCIATES, INC.	560.02	28-FEB-19	560.02	Reconciled
396278	21-FEB-19	DIRECTV INC	133.51			Negotiable
396279	21-FEB-19	DISCOUNT COURIER SERVICE INC.	58.60	25-FEB-19	58.60	Reconciled
396280	21-FEB-19	DUDEK	3,980.00	27-FEB-19	3,980.00	Reconciled
396281	21-FEB-19	EBS UTILITIES ADJUSTING, INC	55,407.94	28-FEB-19	55,407.94	Reconciled
396282	21-FEB-19	EISEL ENTERPRISES INC	5,493.10	25-FEB-19	5,493.10	Reconciled
396283	21-FEB-19	ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC.	6,388.75	25-FEB-19	6,388.75	Reconciled
396284	21-FEB-19	EVCI, UGURCAN	41.52			Negotiable
396285	21-FEB-19	EXECUTIVE LIGHTING & ELECTRIC	522.97	27-FEB-19	522.97	Reconciled
396286	21-FEB-19	FALCON ELECTRIC, INC.	560.00	27-FEB-19	560.00	Reconciled
396287	21-FEB-19	FEDEX	343.25	26-FEB-19	343.25	Reconciled
396288	21-FEB-19	FERGUSON ENTERPRISES, INC.	58,758.74	27-FEB-19	58,758.74	Reconciled
396289	21-FEB-19	FIRST CHOICE SERVICES	1,293.14	26-FEB-19	1,293.14	Reconciled
396290	21-FEB-19	FISERV	276.50	25-FEB-19	276.50	Reconciled
396291	21-FEB-19	FISHER SCIENTIFIC COMPANY LLC	1,242.32	25-FEB-19	1,242.32	Reconciled
396292	21-FEB-19	FLW SERVICE CORPORATION	834.78			Negotiable
396293	21-FEB-19	FRONTIER CALIFORNIA INC.	479.55			Negotiable
396294	21-FEB-19	FUSCOE ENGINEERING, INC.	8,899.20	25-FEB-19	8,899.20	Reconciled
396295	21-FEB-19	GANAHL LUMBER CO.	1,255.58	27-FEB-19	1,255.58	Reconciled
396296	21-FEB-19	GRAINGER	6,516.25	26-FEB-19	6,516.25	Reconciled
396297	21-FEB-19	GRAVITEC SYSTEMS, INC	350.94	26-FEB-19	350.94	Reconciled
396298	21-FEB-19	GRAYBAR ELECTRIC COMPANY	5,365.85	25-FEB-19	5,365.85	Reconciled
396299	21-FEB-19	HACH COMPANY	4,454.45	26-FEB-19	4,454.45	Reconciled
396300	21-FEB-19	HAMILTON, LORI	187.92			Negotiable
396301	21-FEB-19	HARRINGTON INDUSTRIAL PLASTICS LLC	2,643.03	25-FEB-19	2,643.03	Reconciled
396302	21-FEB-19	HARRY H. KOBZEFF	186.68	25-FEB-19	186.68	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-FEB-19 To 28-FEB-19 Account: Checking AP and PR Payment Currency: USD (US Dollar) Display Supplier Address: No						
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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
396303		21-FEB-19	HELPMATES STAFFING SERVICES		19,271.16	27-FEB-19	19,271.16	Reconciled
396304		21-FEB-19	HERITAGE FIELDS EL TORO, LLC		345.70	26-FEB-19	345.70	Reconciled
396305		21-FEB-19	HILL BROTHERS CHEMICAL COMPANY		4,975.00	26-FEB-19	4,975.00	Reconciled
396306		21-FEB-19	HINSILBLON LTD		3,625.00			Negotiable
396307		21-FEB-19	HOME DEPOT USA INC		2,508.16	26-FEB-19	2,508.16	Reconciled
396308		21-FEB-19	INDUSTRIAL METAL SUPPLY CO		114.00	25-FEB-19	114.00	Reconciled
396309		21-FEB-19	INDUSTRIAL NETWORKING SOLUTIONS		2,902.33	25-FEB-19	2,902.33	Reconciled
396310		21-FEB-19	INTEGRATED PROCESS TECHNOLOGIES, INC.		24,149.14	27-FEB-19	24,149.14	Reconciled
396311		21-FEB-19	IRVINE COMMUNITY DEVELOPMENT COMPANY LLC		39,351.44	28-FEB-19	39,351.44	Reconciled
396312		21-FEB-19	IRVINE PACIFIC		59.44			Negotiable
396313		21-FEB-19	IRVINE PIPE & SUPPLY INC		495.68	25-FEB-19	495.68	Reconciled
396314		21-FEB-19	IRWD-PETTY CASH CUSTODIAN		912.27	25-FEB-19	912.27	Reconciled
396315		21-FEB-19	JUST ENERGY SOLUTIONS INC.		62.49	25-FEB-19	62.49	Reconciled
396316		21-FEB-19	KRONICK MOSKOVITZ TIEDEMANN & GIRARD		2,535.94	25-FEB-19	2,535.94	Reconciled
396317		21-FEB-19	LA HABRA FENCE COMPANY INC		1,665.00	26-FEB-19	1,665.00	Reconciled
396318		21-FEB-19	LANDCARE HOLDINGS, INC.		35,181.34	27-FEB-19	35,181.34	Reconciled
396319		21-FEB-19	LANDSEA HOLDINGS CORPORATION		162.37			Negotiable
396320		21-FEB-19	LEE & RO, INC.		14,104.82	28-FEB-19	14,104.82	Reconciled
396321		21-FEB-19	LU'S LIGHTHOUSE, INC.		3,447.82	26-FEB-19	3,447.82	Reconciled
396322		21-FEB-19	MAR, MICHELLE		32.00			Negotiable
396323		21-FEB-19	MC MASTER CARR		1,865.06	26-FEB-19	1,865.06	Reconciled

396324	21-FEB-19	SUPPLY CO					
396325	21-FEB-19	MEGGER	756.45	27-FEB-19	756.45	Reconciled	
		MERRIMAC	22,523.37	25-FEB-19	22,523.37	Reconciled	
		PETROLEUM, INC.					
396326	21-FEB-19	MICRO FOCUS	12,584.00	27-FEB-19	12,584.00	Reconciled	
		SOFTWARE INC.					
396327	21-FEB-19	MOHAMMADI, ELLIE	52.08	27-FEB-19	52.08	Reconciled	
396328	21-FEB-19	MR CRANE INC	1,447.20	25-FEB-19	1,447.20	Reconciled	
IRWD Ledger Upgrade							
		Payment Register For		01-FEB-19 To	28-FEB-19	Report Date: 01-MAR-2019 08:46	
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								
396329		21-FEB-19	MUNICIPAL UNDERGROUND SERVICES INC		9,000.00	25-FEB-19	9,000.00	Reconciled
396330		21-FEB-19	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		15,478.30	26-FEB-19	15,478.30	Reconciled
396331		21-FEB-19	NEPTUNE TECHNOLOGY GROUP, INC.		163,435.20	28-FEB-19	163,435.20	Reconciled
396332		21-FEB-19	NINYO & MOORE		4,973.25	25-FEB-19	4,973.25	Reconciled
396333		21-FEB-19	NMG GEOTECHNICAL INC		9,408.10	28-FEB-19	9,408.10	Reconciled
396334		21-FEB-19	NOVACOAST INC		4,550.00	26-FEB-19	4,550.00	Reconciled
396335		21-FEB-19	OLSON, HAGEL & FISHBURN, LLP		593.00	25-FEB-19	593.00	Reconciled
396336		21-FEB-19	OMAR DANDASHI		2,939.93			Negotiable
396337		21-FEB-19	ORANGE COUNTY AUTO PARTS CO		3,310.34	25-FEB-19	3,310.34	Reconciled
396338		21-FEB-19	ORANGE COUNTY SANITATION DISTRICT		173.43	25-FEB-19	173.43	Reconciled
396339		21-FEB-19	PACIFIC HYDROTECH CORPORATION		222,949.67			Neqotiable
396340		21-FEB-19	PACIFIC HYDROTECH CORPORATION		487.39	25-FEB-19	487.39	Reconciled
396341		21-FEB-19	PACIFIC HYDROTECH CORPORATION		11,246.80	28-FEB-19	11,246.80	Reconciled
396342		21-FEB-19	PACIFIC PARTS & CONTROLS INC		5,416.98	25-FEB-19	5,416.98	Reconciled
396343		21-FEB-19	PAN-PACIFIC MANAGEMENT		100.00	27-FEB-19	100.00	Reconciled
396344		21-FEB-19	PARKHOUSE TIRE INC		256.98	26-FEB-19	256.98	Reconciled
396345		21-FEB-19	PELLETIER & ASSOCIATES, INC.		390.00	25-FEB-19	390.00	Reconciled
396346		21-FEB-19	PILAR ONATE		6,147.92			Negotiable
396347		21-FEB-19	PINNACLE TOWERS LLC		749.21	28-FEB-19	749.21	Reconciled
396348		21-FEB-19	PIVOT INTERIORS INC		842.61	25-FEB-19	842.61	Reconciled
396349		21-FEB-19	PRUDENTIAL OVERALL SUPPLY		1,251.17	25-FEB-19	1,251.17	Reconciled
396350		21-FEB-19	PSOMAS		1,802.50	27-FEB-19	1,802.50	Reconciled
396351		21-FEB-19	PTI SAND & GRAVEL INC		640.27	28-FEB-19	640.27	Reconciled
396352		21-FEB-19	PUMAR, JOSE		38.84			Negotiable
396353		21-FEB-19	QUICKEL PAVING INC		500.00	25-FEB-19	500.00	Reconciled
IRWD Ledger Upgrade			Payment Register For			01-FEB-19 To 28-FEB-19	Report Date: 01-MAR-2019 08:46	
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								
396354		21-FEB-19	RAM AIR ENGINEERING INC		13,463.44	26-FEB-19	13,463.44	Reconciled
396355		21-FEB-19	REFRIGERATION SUPPLIES DISTRIBUTOR		164.85	25-FEB-19	164.85	Reconciled
396356		21-FEB-19	REGIONAL GOVERNMENT SERVICES AUTHORITY		1,840.00	26-FEB-19	1,840.00	Reconciled
396357		21-FEB-19	RELIABLE WATER SOLUTIONS, LLC		1,286.97	27-FEB-19	1,286.97	Reconciled
396358		21-FEB-19	RENTOKIL NORTH AMERICA, INC		14,836.00			Negotiable
396359		21-FEB-19	RESPONSE ENVELOPE, INC		490.01	27-FEB-19	490.01	Reconciled
396360		21-FEB-19	RINCON TRUCK CENTER INC.		65.00	26-FEB-19	65.00	Reconciled
396361		21-FEB-19	RODRIGUEZ, MARIA G		214.44			Negotiable
396362		21-FEB-19	ROME, HEATHER		909.65	25-FEB-19	909.65	Reconciled
396363		21-FEB-19	S & J SUPPLY CO INC		5,791.32	26-FEB-19	5,791.32	Reconciled

396364	21-FEB-19	S&S SEEDS INC	8,118.15	26-FEB-19	8,118.15	Reconciled
396365	21-FEB-19	SAFETY-KLEEN SYSTEMS, INC	386.50	26-FEB-19	386.50	Reconciled
396366	21-FEB-19	SANDERS PAVING INC	135,705.91	27-FEB-19	135,705.91	Reconciled
396367	21-FEB-19	SANTA ANA BLUE PRINT	2,375.13			Negotiable
396368	21-FEB-19	SANTA MARGARITA FORD	1,138.14	26-FEB-19	1,138.14	Reconciled
396369	21-FEB-19	SEAL ANALYTICAL INC	3,147.41	25-FEB-19	3,147.41	Reconciled
396370	21-FEB-19	SEVILLA, NILS	100.00			Negotiable
396371	21-FEB-19	SHAMROCK SUPPLY CO INC	1,191.50	26-FEB-19	1,191.50	Reconciled
396372	21-FEB-19	SHERWIN WILLIAMS COMPANY	452.55	27-FEB-19	452.55	Reconciled
396373	21-FEB-19	SKORUZ TECHNOLOGIES	19,224.00	28-FEB-19	19,224.00	Reconciled
396374	21-FEB-19	SNYDER LANGSTON L.P.	1,536.32	27-FEB-19	1,536.32	Reconciled
396375	21-FEB-19	SONG, YING	30.35			Negotiable
396376	21-FEB-19	SOUTHERN CALIFORNIA EDISON COMPANY	37.71	26-FEB-19	37.71	Reconciled
396377	21-FEB-19	SOUTHERN CALIFORNIA EDISON COMPANY	457,333.93	25-FEB-19	457,333.93	Reconciled

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 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								
396378		21-FEB-19	SOUTHERN CALIFORNIA GAS COMPANY		3,624.94			Negotiable
396379		21-FEB-19	SOUTHERN CALIFORNIA SECURITY CENTERS, INC.		320.38			Negotiable
396380		21-FEB-19	SPATIAL WAVE, INC.		960.00	26-FEB-19	960.00	Reconciled
396381		21-FEB-19	SS MECHANICAL CONSTRUCTION CORP		9,787.29	27-FEB-19	9,787.29	Reconciled
396382		21-FEB-19	STREAKWAVE WIRELESS, INC.		4,729.42	25-FEB-19	4,729.42	Reconciled
396383		21-FEB-19	TAYLOR MORRISON		85.16	27-FEB-19	85.16	Reconciled
396384		21-FEB-19	TRI COUNTY PUMP COMPANY		17,510.48	27-FEB-19	17,510.48	Reconciled
396385		21-FEB-19	TRI POINTE HOMES, INC.		170.81	28-FEB-19	170.81	Reconciled
396386		21-FEB-19	TROPICAL PLAZA NURSERY INC		47,096.05	27-FEB-19	47,096.05	Reconciled
396387		21-FEB-19	TYCO FIRE & SECURITY (US) MANAGEMENT INC		971.54			Negotiable
396388		21-FEB-19	UNITED PARCEL SERVICE INC		70.29	26-FEB-19	70.29	Reconciled
396389		21-FEB-19	USA PORTOLA WEST LLC		745.74			Negotiable
396390		21-FEB-19	VULCAN MATERIALS COMPANY		1,474.96	25-FEB-19	1,474.96	Reconciled
396391		21-FEB-19	VWR INTERNATIONAL, LLC		141.32	26-FEB-19	141.32	Reconciled
396392		21-FEB-19	WACO FILTERS CORPORATION		4,999.26			Negotiable
396393		21-FEB-19	WASTE MANAGEMENT OF ORANGE COUNTY		346.61	27-FEB-19	346.61	Reconciled
396394		21-FEB-19	WATERSMART SOFTWARE, INC		13,597.50	28-FEB-19	13,597.50	Reconciled
396395		21-FEB-19	WAXIE'S ENTERPRISES, INC		458.43	25-FEB-19	458.43	Reconciled
396396		21-FEB-19	WECK LABORATORIES INC		60.00	27-FEB-19	60.00	Reconciled
396397		21-FEB-19	WEI, YI-HAN		165.84			Negotiable
396398		21-FEB-19	WESTAMERICA COMMUNICATIONS, INC.		750.00	25-FEB-19	750.00	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 26
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
396399		21-FEB-19	WILMINGTON INSTRUMENT COMPANY INC		5,707.09	26-FEB-19	5,707.09	Reconciled

396400	21-FEB-19	YORK INSURANCE SERVICES GROUP INC - CA	8,175.50	25-FEB-19	8,175.50	Reconciled
396401	21-FEB-19	YORKVILLE INVESTMENTS LLC	53.37			Negotiable
396402	21-FEB-19	YSI, INC	26,676.33			Negotiable
396403	21-FEB-19	ZHAO, ERIC	100.00	28-FEB-19	100.00	Reconciled
396404	21-FEB-19	Reinhart, Douglas HOME J	1,163.48	21-FEB-19	1,163.48	Reconciled
396405	25-FEB-19	MK HAIRDRESSING PAY STUDIO	61.58			Voided
396406	27-FEB-19	SOUTHERN CORONA CALIFORNIA WATER COMMITTEE INC	1,500.00			Negotiable
396407	27-FEB-19	Bertsch, Frederick J (Jeff)	1,178.22			Negotiable
396408	27-FEB-19	Bornhoff, Mike (Mike)	290.00			Negotiable
396409	27-FEB-19	Borowski, Michael (Mike)	172.30			Negotiable
396410	27-FEB-19	Chaney, David (Dave)	87.00			Negotiable
396411	27-FEB-19	Fehser, Noah (Noah)	80.00			Negotiable
396412	27-FEB-19	Jackson, Bradley E (Brad)	54.82			Negotiable
396413	27-FEB-19	Lum, Christopher A (Christopher)	24.94			Negotiable
396414	27-FEB-19	Malloy, Steven L (Steven)	30.00			Negotiable
396415	27-FEB-19	Mossbarger, Anthony J (Tony)	89.04	28-FEB-19	89.04	Reconciled
396416	27-FEB-19	Nash, Joel	24.94			Negotiable
396417	27-FEB-19	Nguyen, Viet Quoc	38.28	28-FEB-19	38.28	Reconciled
396418	27-FEB-19	Orozco, Gustavo A (Gus)	164.00			Negotiable
396419	27-FEB-19	Soto, Franklin E (Frank)	1,329.00			Negotiable
396420	27-FEB-19	Stontz, Adam J	177.60			Negotiable
396421	27-FEB-19	A&A WIPING CLOTH CO	1,336.10			Negotiable
396422	27-FEB-19	AEGIS ENGINEERING MANAGEMENT, INC.	22,771.75			Negotiable

IRWD Ledger Upgrade

BANK: Bank of America N.A.

Bank Account Currency: USD (US Dollar)

Payment Type: All

Branch : Los Angeles

USD (US Dollar)

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Payment Document : IRWD CHECK								
396423		27-FEB-19	ALEXANDER'S CONTRACT SERVICES, INC.		119,791.85			Negotiable
396424		27-FEB-19	AMAZON CAPITAL SERVICES, INC.		462.06			Negotiable
396425		27-FEB-19	AMERICAN GEOTECHNICAL, INC.		2,671.25			Negotiable
396426		27-FEB-19	ANTHONY N. LARSEN		450.00			Negotiable
396427		27-FEB-19	APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC		321.22			Negotiable
396428		27-FEB-19	ARMBRUSTER, DON		25.76			Negotiable
396429		27-FEB-19	AT&T		248.20			Negotiable
396430		27-FEB-19	AUDIO FONIXX, INC.		9,859.33			Negotiable
396431		27-FEB-19	AUTOZONE PARTS, INC.		152.74			Negotiable
396432		27-FEB-19	AVIVA ENERGY CORP		900.00			Negotiable
396433		27-FEB-19	B & H PHOTO & VIDEO		1,259.00			Negotiable
396434		27-FEB-19	B & K ELECTRIC WHOLESAL		3,420.47			Negotiable
396435		27-FEB-19	BDC SPECIAL WASTE		200.00			Negotiable
396436		27-FEB-19	BIOMAGIC INC		4,664.50			Negotiable
396437		27-FEB-19	BRENNTAG PACIFIC INC		22,384.69			Negotiable
396438		27-FEB-19	BSI SERVICES AND SOLUTIONS (WEST), INC.		15,999.00			Negotiable
396439		27-FEB-19	BURLINGTON SAFETY LABORATORY OF CALIFORNIA INC		370.01			Negotiable
396440		27-FEB-19	CALIFORNIA BARRICADE RENTAL, INC.		15,511.86			Negotiable
396441		27-FEB-19	CALIFORNIA CHAMBER OF COMMERCE		71.26			Negotiable
396442		27-FEB-19	CALTROL, INC.		251.43			Negotiable
396443		27-FEB-19	CAMERON-COLE, LLC		1,736.16			Negotiable
396444		27-FEB-19	CHARLES P CROWLEY COMPANY INC		15,989.06			Negotiable
396445		27-FEB-19	CHEM TECH		6,934.40			Negotiable

396446 27-FEB-19 INTERNATIONAL INC CITY CIRCUIT BREAKERS 2,133.45 Negotiable
 396447 27-FEB-19 CITY OF IRVINE 3,281.60 Negotiable
 IRWD Ledger Upgrade Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46
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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
396448		27-FEB-19	CITY OF NEWPORT BEACH		1,092.29			Negotiable
396449		27-FEB-19	CIVIL SOURCE, INC.		36,557.50			Negotiable
396450		27-FEB-19	CLARIS STRATEGY INC.		1,675.00			Negotiable
396451		27-FEB-19	CONSTELLATION NEWENERGY, INC.		25,843.02			Negotiable
396452		27-FEB-19	CORRPRO COMPANIES, INC.		99,038.03			Negotiable
396453		27-FEB-19	COX COMMUNICATIONS, INC.		3,386.29			Negotiable
396454		27-FEB-19	CPC SYSTEMS, INC.		6,995.66			Negotiable
396455		27-FEB-19	CULLIGAN OF SANTA ANA		10,764.40			Negotiable
396456		27-FEB-19	DEE JASPAR & ASSOCIATES, INC.		768.06			Negotiable
396457		27-FEB-19	DELL MARKETING LP		89,920.01			Negotiable
396458		27-FEB-19	DILYTICS INC		19,920.00			Negotiable
396459		27-FEB-19	DIRECTV INC		132.53			Negotiable
396460		27-FEB-19	EAGLE AERIAL PHOTOGRAPHY, INC.		5,650.00			Negotiable
396461		27-FEB-19	ENVIRONMENTAL RESOURCE ASSOCIATES		143.02			Negotiable
396462		27-FEB-19	ENVIRONMENTAL SCIENCE ASSOCIATES		1,595.00			Negotiable
396463		27-FEB-19	EXECUTIVE LIGHTING & ELECTRIC		503.67			Negotiable
396464		27-FEB-19	FAIRBANK, MASLIN, MAULIN, METZ & ASSOC. INC.		35,250.00			Negotiable
396465		27-FEB-19	FEDEX		358.22			Negotiable
396466		27-FEB-19	FIONA HUTTON & ASSOCIATES, INC.		16,117.50			Negotiable
396467		27-FEB-19	FISHER SCIENTIFIC COMPANY LLC		303.26			Negotiable
396468		27-FEB-19	FLUID CONSERVATION SYSTEMS INC		269.59			Negotiable
396469		27-FEB-19	FRONTIER CALIFORNIA INC.		100.26			Negotiable
396470		27-FEB-19	FUSCOE ENGINEERING, INC.		8,648.19			Negotiable
396471		27-FEB-19	GHD INC.		2,490.50			Negotiable
396472		27-FEB-19	GRAINGER		11,039.59			Negotiable

IRWD Ledger Upgrade Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46
 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								
396473		27-FEB-19	HABITAT RESTORATION SCIENCES, INC.		1,183.00			Negotiable
396474		27-FEB-19	HACH COMPANY		4,193.60			Negotiable
396475		27-FEB-19	HARRINGTON INDUSTRIAL PLASTICS LLC		1,939.68			Negotiable
396476		27-FEB-19	HDR ENGINEERING INC		33,207.48			Negotiable
396477		27-FEB-19	HELPMATES STAFFING SERVICES		9,915.13			Negotiable
396478		27-FEB-19	HILL BROTHERS CHEMICAL COMPANY		12,606.37			Negotiable
396479		27-FEB-19	HOME DEPOT USA INC		270.03			Negotiable
396480		27-FEB-19	HORIZON TECHNOLOGY INC		245.72			Negotiable
396481		27-FEB-19	HOYA OPTICAL LABS OF AMERICA, INC.		633.00			Negotiable
396482		27-FEB-19	IDEXX DISTRIBUTION, INC		7,836.66			Negotiable
396483		27-FEB-19	INFOSEND, INC.		84,683.35			Negotiable
396484		27-FEB-19	INSITUFORM TECHNOLOGIES INC		373,844.00			Negotiable
396485		27-FEB-19	IRVINE COMMUNITY		51,738.18			Negotiable

396486	27-FEB-19	DEVELOPMENT COMPANY LLC	IRVINE PIPE & SUPPLY INC	1,034.38	Negotiable
396487	27-FEB-19	IRWD-PETTY CASH CUSTODIAN		628.58	Negotiable
396488	27-FEB-19	KAESER COMPRESSORS, INC.		577.50	Negotiable
396489	27-FEB-19	KPRS CONSTRUCTION SERVICES, INC.		206,254.50	Negotiable
396490	27-FEB-19	KUSTERS ZIMA CORPORATION		772.02	Negotiable
396491	27-FEB-19	LABWORKS, LLC		2,200.00	Negotiable
396492	27-FEB-19	LU'S LIGHTHOUSE, INC.		55.78	Negotiable
396493	27-FEB-19	MAP COMMUNICATIONS, INC.		705.84	Negotiable
396494	27-FEB-19	MARK ENTERPRISES, INC.		14,909.12	Negotiable
396495	27-FEB-19	MC FADDEN-DALE INDUSTRIAL		229.66	Negotiable

IRWD Ledger Upgrade Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46
 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								
396496		27-FEB-19	MC MASTER CARR SUPPLY CO		48.06			Negotiable
396497		27-FEB-19	MCR TECHNOLOGIES INC		3,541.12			Negotiable
396498		27-FEB-19	MISSION COMMUNICATIONS, LLC		563.40			Negotiable
396499		27-FEB-19	MOBILE MODULAR MANAGEMENT CORPORATION		1,212.19			Negotiable
396500		27-FEB-19	MR CRANE INC		1,074.60			Negotiable
396501		27-FEB-19	MUTUAL PROPANE		533.24			Negotiable
396502		27-FEB-19	MYERS POWER PRODUCTS		539.19			Negotiable
396503		27-FEB-19	NEWPORT WINDOW MAINTENANCE INC		2,314.00			Negotiable
396504		27-FEB-19	NMG GEOTECHNICAL INC		660.20			Negotiable
396505		27-FEB-19	NOVACOAST INC		15,992.50			Negotiable
396506		27-FEB-19	OLIN CORPORATION		26,123.47			Negotiable
396507		27-FEB-19	ONESOURCE		231.10			Negotiable
396508		27-FEB-19	DISTRIBUTORS LLC ORANGE COUNTY AUTO PARTS CO		4,118.10			Negotiable
396509		27-FEB-19	ORRICK, HERRINGTON & SUTCLIFFE LLP		30,000.00			Negotiable
396510		27-FEB-19	PACIFIC COAST BOLT CORP		4,167.77			Negotiable
396511		27-FEB-19	PACIFIC PARTS & CONTROLS INC		6,104.21			Negotiable
396512		27-FEB-19	PELLETIER & ASSOCIATES, INC.		2,722.75			Negotiable
396513		27-FEB-19	POLARIS SALES INC.		2,523.99			Negotiable
396514		27-FEB-19	PRAXAIR DISTRIBUTION INC		1,117.45			Negotiable
396515		27-FEB-19	PROBOLSKY RESEARCH LLC		46,075.00			Negotiable
396516		27-FEB-19	PTI SAND & GRAVEL INC		2,266.42			Negotiable
396517		27-FEB-19	PYRO-COMM SYSTEMS INC		476.21			Negotiable
396518		27-FEB-19	QUICKEL PAVING INC		7,400.00			Negotiable
396519		27-FEB-19	R&B AUTOMATION, INC.		3,023.65			Negotiable
396520		27-FEB-19	RAM AIR ENGINEERING INC		2,630.00			Negotiable

IRWD Ledger Upgrade Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46
 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								
396521		27-FEB-19	REAL WATER CONSULTANTS INC.		8,532.00			Negotiable
396522		27-FEB-19	RED WING SHOE STORE		2,287.09			Negotiable
396523		27-FEB-19	RESTEK CORPORATION		426.26			Negotiable

396524	27-FEB-19	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT	189,808.19	Negotiable
396525	27-FEB-19	S & J SUPPLY CO INC	13,902.99	Negotiable
396526	27-FEB-19	SAFETY-KLEEN SYSTEMS, INC	1,453.69	Negotiable
396527	27-FEB-19	SANTA ANA BLUE PRINT	982.29	Negotiable
396528	27-FEB-19	SANTA MARGARITA FORD	49.13	Negotiable
396529	27-FEB-19	SCHINDLER ELEVATOR CORPORATION	214.92	Negotiable
396530	27-FEB-19	SEAL ANALYTICAL INC	2,898.00	Negotiable
396531	27-FEB-19	SHAMROCK SUPPLY CO INC	464.90	Negotiable
396532	27-FEB-19	SHOETERIA	12,435.29	Negotiable
396533	27-FEB-19	SOUTH BAY FOUNDRY, INC	350.19	Negotiable
396534	27-FEB-19	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	4,358.90	Negotiable
396535	27-FEB-19	SOUTHERN CALIFORNIA EDISON COMPANY	89,674.18	Negotiable
396536	27-FEB-19	SOUTHERN CALIFORNIA EDISON COMPANY	2,800.00	Negotiable
396537	27-FEB-19	STANDARD & POOR'S FINANCIAL SERVICES LLC	5,000.00	Negotiable
396538	27-FEB-19	STANTEC CONSULTING SERVICES INC.	9,678.00	Negotiable
396539	27-FEB-19	START INC.	2,039.00	Negotiable
396540	27-FEB-19	STRADLING YOCCA CARLSON & RAUTH	25,000.00	Negotiable
396541	27-FEB-19	SUKLE ADVERTISING INC.	2,787.10	Negotiable
396542	27-FEB-19	TESTAMERICA LABORATORIES, INC	297.15	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-FEB-19 To 28-FEB-19

Account: Checking AP and PR

Payment Currency: USD (US Dollar)

Display Supplier Address: No

Report Date: 01-MAR-2019 08:46

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document #: IRWD CHECK								
396543		27-FEB-19	THOMPSON		301.48			Negotiable
396544		27-FEB-19	INDUSTRIAL SUPPLY		98.67			Negotiable
396545		27-FEB-19	TIC-RESORT PROPERTIES		1,509.59			Negotiable
396546		27-FEB-19	TIC-RETAIL PROPERTIES		373.12			Negotiable
396547		27-FEB-19	TIC-SPECTRUM OFFICE		9,791.44			Negotiable
396548		27-FEB-19	TOTAL RESOURCE MANAGEMENT, INC.		2,250.00			Negotiable
396549		27-FEB-19	TRENCH SHORING COMPANY		1,386.00			Negotiable
396550		27-FEB-19	TROPICAL PLAZA NURSERY INC		83.28			Negotiable
396551		27-FEB-19	UNITED PARCEL SERVICE INC		852.63			Negotiable
396552		27-FEB-19	UNITED SITE SERVICES OF CALIFORNIA INC		2,714.00			Negotiable
396553		27-FEB-19	UNIVAR USA INC		2,000.00			Negotiable
396554		27-FEB-19	US BANK NAT'L ASSOC N.DAKOTA		78,227.45			Negotiable
396555		27-FEB-19	US BANK NAT'L ASSOCIATION NORTH DAKOTA		694.92			Negotiable
396556		27-FEB-19	VWR INTERNATIONAL, LLC		989.50			Negotiable
396557		27-FEB-19	WALTERS WHOLESALE ELECTRIC		4,251.14			Negotiable
396558		27-FEB-19	WARE MALCOMB WATERLINE		4,736.16			Negotiable
396559		27-FEB-19	TECHNOLOGIES INC WAXIE'S		1,705.75			Negotiable
396560		27-FEB-19	ENTERPRISES, INC WECK LABORATORIES INC		890.00			Negotiable
396561		27-FEB-19	WORKFORCE SAFETY LLC		2,972.00			Negotiable
396562		27-FEB-19	YORKE ENGINEERING, LLC		2,180.00			Negotiable
396563		27-FEB-19	ORANGE COUNTY SANITATION DISTRICT	FOUNTAIN VALLEY	1,890.00			Negotiable

396564 28-FEB-19 L. G. SUPPLY PURCHASE 2,015.19 Negotiable
 COMPANY
 IRWD Ledger Upgrade Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 33
 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								
396565		28-FEB-19	R C FOSTER CORPORATION	CORONA	33,250.00			Negotiable
396566		28-FEB-19	E.J. MEYER COMPANY, INC.	HIGHLAND	44,323.36			Negotiable
396567		28-FEB-19	ORANGE COUNTY SHERIFF'S OFFICE	4601 JAMBOREE	224.50			Negotiable
396568		28-FEB-19	FRANCHISE TAX BOARD	SACRAMENTO 1	100.00			Negotiable
396569		28-FEB-19	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 47	DIAMOND BAR	1,355.00			Negotiable
396570		28-FEB-19	PERS LONG TERM CARE	PASADENA	538.89			Negotiable
396571		28-FEB-19	Colvin, Todd C (Todd)	HOME	358.00			Negotiable
Payment Document Subtotal:					8,664,733.35		5,471,718.33	

Payment Document : IRWD Wire

12989	04-FEB-19	CALPERS	SACRAMENTO	195,305.42		Negotiable
12990	04-FEB-19	INTERNAL REVENUE SERVICE	FRESNO	186,822.13		Negotiable
12991	04-FEB-19	FRANCHISE TAX BOARD	SACRAMENTO	56,752.69		Negotiable
12992	04-FEB-19	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	14,661.04		Negotiable
12993	04-FEB-19	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	3,003.34		Negotiable
12994	04-FEB-19	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	DENVER	139,194.50		Negotiable
12995	07-FEB-19	ORANGE COUNTY SANITATION DISTRICT	FOUNTAIN VALLEY	1,229,313.78		Negotiable
12996	07-FEB-19	CALPERS	SACRAMENTO 1	496,658.36		Negotiable
12997	07-FEB-19	CALPERS	SACRAMENTO 1	2,891.07		Negotiable
12998	07-FEB-19	CHARD SNYDER & ASSOCIATES, INC.	PURCHASE	1,401.80		Negotiable
IRWD Ledger Upgrade Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46						
BANK: Bank of America N.A.		Branch : Los Angeles		Account: Checking AP and PR		Page: 34
Bank Account Currency: USD (US Dollar)				Payment Currency: USD (US Dollar)		
Payment Type: All				Display Supplier Address: No		

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
12999		07-FEB-19	CHARD SNYDER & ASSOCIATES, INC.	PURCHASE	5,993.85			Negotiable
13000		07-FEB-19	CHARD SNYDER & ASSOCIATES, INC.	PURCHASE	3,871.74			Negotiable
13001		11-FEB-19	CALPERS	SACRAMENTO	1,203.69			Negotiable
13002		14-FEB-19	YORK INSURANCE SERVICES GROUP INC - CA	PAY	8,908.63			Negotiable
13003		15-FEB-19	U.S. BANK NATIONALST. LOUIS ASSOCIATION		7,613.46			Negotiable
13004		19-FEB-19	EMPLOYEE BENEFIT SPECIALISTS, INC. 11657	PO BOX	11,995.68			Negotiable
13005		19-FEB-19	EMPLOYEE BENEFIT SPECIALISTS, INC. 11657	PO BOX	237.60			Negotiable
13006		19-FEB-19	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	92,448.98			Negotiable
13007		19-FEB-19	U.S. BANK NATIONALST. LOUIS ASSOCIATION		40,297.30			Negotiable
13008		19-FEB-19	BANK OF AMERICA	SAN FRANCISCO	39,903.47			Negotiable
13009		19-FEB-19	U.S. BANK NATIONALST. LOUIS ASSOCIATION		21,011.92			Negotiable
13010		19-FEB-19	SUMITOMO MITSUI BANKING	NEW YORK	43,213.15			Negotiable

13011	19-FEB-19	CORPORATION BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	11,260.41	Negotiable
13012	19-FEB-19	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	7,506.94	Negotiable
13013	19-FEB-19	GOLDMAN, SACHS & CO. LLC	PO BOX 9081	100,500.00	Negotiable
13014	19-FEB-19	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	3,472.22	Negotiable
13015	19-FEB-19	ORANGE COUNTY SANITATION DISTRICT	FOUNTAIN VALLEY	1,082,475.49	Negotiable
13016	19-FEB-19	ORANGE COUNTY SANITATION DISTRICT	FOUNTAIN VALLEY	1,504,836.00	Negotiable
13017	19-FEB-19	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY	FOUNTAIN VALLEY	467,915.23	Negotiable

IRWD Ledger Upgrade Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 35
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
13018	19-FEB-19	INTERNAL REVENUE SERVICE	FRESNO		237,955.29			Negotiable
13019	19-FEB-19	FRANCHISE TAX BOARD	SACRAMENTO		74,044.73			Negotiable
13020	19-FEB-19	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO		18,781.77			Negotiable
13021	19-FEB-19	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO		3,003.34			Negotiable
13022	19-FEB-19	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	DENVER		291,996.99			Negotiable
13023	20-FEB-19	CALPERS	SACRAMENTO		198,230.09			Negotiable
13024	20-FEB-19	EQUITY OFFICE- BU24951	PAY		100.00			Negotiable
13025	21-FEB-19	FILANC-BALFOUR BEATTY JV	ACT 4427724347		538,190.52			Negotiable
13026	21-FEB-19	FILANC-BALFOUR BEATTY JV	ESR 211084000		4,237.52			Negotiable
13027	21-FEB-19	JOON-TAE HWANG AND IN GAJIN	ANDEPAY		37.27			Negotiable
13028	21-FEB-19	VOLVO IRVINE	PAY		18.13			Negotiable
13029	21-FEB-19	DING, JUN	PAY		33.18			Negotiable
13030	21-FEB-19	CALPERS	SACRAMENTO		33,053.02			Negotiable
13031	21-FEB-19	CHARD SNYDER & ASSOCIATES, INC.	PURCHASE		5,399.14			Negotiable
13032	21-FEB-19	CHARD SNYDER & ASSOCIATES, INC.	PURCHASE		1,138.26			Negotiable
13033	26-FEB-19	YORK INSURANCE SERVICES GROUP INC - CA	PAY		10,691.63			Negotiable
13034	27-FEB-19	CHARD SNYDER & ASSOCIATES, INC.	PURCHASE		5,307.69			Negotiable
13035	27-FEB-19	CHARD SNYDER & ASSOCIATES, INC.	PURCHASE		4,034.34			Negotiable
13036	27-FEB-19	CHARD SNYDER & ASSOCIATES, INC.	PURCHASE		5,134.20			Negotiable
13037	27-FEB-19	CHARD SNYDER & ASSOCIATES, INC.	PURCHASE		4,413.96			Negotiable
13038	27-FEB-19	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK		53,767.36			Negotiable
13039	27-FEB-19	INTERNAL REVENUE SERVICE	FRESNO		198,584.61			Voided

IRWD Ledger Upgrade Payment Register For 01-FEB-19 To 28-FEB-19 Report Date: 01-MAR-2019 08:46
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 36
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
13040	28-FEB-19	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK		1,889,307.03			Negotiable
13041	28-FEB-19	BANK OF AMERICA MERRILL LYNCH	CHICAGO		42,121.58			Negotiable
13042	28-FEB-19	ORANGE COUNTY	F.V.		2,918.60			Negotiable

13043 28-FEB-19 WATER DISTRICT
 U.S. BANK NATIONALST. LOUIS 2,918,625.00 Negotiable
 ASSOCIATION

Payment Document Subtotal: 12,321,795.14

Bank Account Subtotal : 20,986,528.49 5,471,718.33

Report Count : 867 Report Total: 20,986,528.49 5,471,718.33

DISBURSEMENTS

*** End of Report ***

\$ 20,986,528.49 Disbursements
~~<217,540.66>~~ Voids
 20,768,987.83 Total Voids and Disbursements

Exhibit "E"

MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS

February
2019

	AMOUNT	VENDOR	PURPOSE
2/1/2019	956,869.35	BANK OF AMERICA	ACH Payments for Payroll
2/15/2019	1,150,959.51	BANK OF AMERICA	ACH Payments for Payroll
	<u><u>\$2,107,828.86</u></u>		

IRWD Gov Code 53065.5 Disclosure Report

Exhibit "F"


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

01-FEB-19 to 28-FEB-19

NAME	CHECK NO.	CHECK DATE	AMOUNT	ITEM DESCRIPTION	EXPENSE JUSTIFICATION
Barboza, Armando	395763	7-Feb-19	188.00	Membership Renewal	CWEA renewal
Barboza, Armando	395763	7-Feb-19	288.00	Certification Renewal	Orange County Environmental Health certificate
Bennett, Ray	395990	14-Feb-19	180.96	Mileage	SGMA Meeting at Rosedale-Rio Bravo, Bakersfield, CA - January 29, 2019
Bertsch, Jeff	396407	27-Feb-19	258.00	Airfare	CPX 360 Cybersecurity Summit, Las Vegas, NV - February 3-6, 2019
Bertsch, Jeff	396407	27-Feb-19	200.00	Registration Fees	CPX 360 Cybersecurity Summit, Las Vegas, NV - February 3-6, 2019
Bertsch, Jeff	396407	27-Feb-19	143.49	Lodging	CPX 360 Cybersecurity Summit, Las Vegas, NV - February 3, 2019
Bertsch, Jeff	396407	27-Feb-19	143.49	Lodging	CPX 360 Cybersecurity Summit, Las Vegas, NV - February 4, 2019
Bertsch, Jeff	396407	27-Feb-19	143.49	Lodging	CPX 360 Cybersecurity Summit, Las Vegas, NV - February 5, 2019
Bornhoff, Mike	396408	27-Feb-19	188.00	Membership Renewal	CWEA renewal
Bornhoff, Mike	396408	27-Feb-19	102.00	Certification Renewal	CWEA Mechanical Tech Grade IV certification
Borowski, Michael	396409	27-Feb-19	172.30	Certification Renewal	SWRCB Water Distribution Operator Grade II
Cano, Marco	396223	21-Feb-19	188.00	Membership Renewal	CWEA renewal
Colvin, Todd	396571	28-Feb-19	170.00	Certification Renewal	CWEA Collections Systems Maintenance Grade I
Colvin, Todd	396571	28-Feb-19	188.00	Membership Renewal	CWEA renewal
Figueroa, Jorge	395991	14-Feb-19	180.00	Certification Renewal	SWRCB Distribution Grade II certification
Figueroa, Jorge	396226	21-Feb-19	230.00	Certification Renewal	SWRCB Wastewater Grade III Exam Fee
Figueroa, Jorge	396226	21-Feb-19	225.00	Certification Renewal	SWRCB Wastewater Grade III Exam Fee
Fike, Ethan	395992	14-Feb-19	188.00	Membership Renewal	CWEA renewal
Fike, Ethan	395992	14-Feb-19	102.00	Certification Renewal	CWEA Electrical Instrumentation Grade IV certification
Kulick, Michael	395993	14-Feb-19	188.00	Membership Renewal	CWEA renewal
Lassalette, Jim	396228	21-Feb-19	188.00	Membership Renewal	CWEA renewal
Matheis, Mary Aileen	396229	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 26, 2018
Matheis, Mary Aileen	396229	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 27, 2018
Matheis, Mary Aileen	396229	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 28, 2018
Matheis, Mary Aileen	396229	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 29, 2018
McCarter, David	396230	21-Feb-19	188.00	Membership Renewal	CWEA renewal
Oldewage, Lars	395996	14-Feb-19	245.00	Registration Fees	AGWA-AGWT Annual Groundwater Conference, Ontario, CA - February 11, 2019
Oldewage, Lars	396231	21-Feb-19	527.96	Airfare	ACWA Regulatory Update Meeting, Sacramento, CA - February 13, 2019
Orozco, Gustavo	396418	27-Feb-19	164.00	Membership Renewal	CWEA renewal
Perez, Rodolfo	396233	21-Feb-19	188.00	Membership Renewal	CWEA renewal
Ramirez, Miguel	395998	14-Feb-19	108.41	Other(Misc)	Wireless device accessory
Reinhart, Doug	396404	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 26, 2018
Reinhart, Doug	396404	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 27, 2018
Reinhart, Doug	396404	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 28, 2018
Reinhart, Doug	396404	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 29, 2018
Sanchez, George	395999	14-Feb-19	188.00	Membership Renewal	CWEA renewal
Schulze, Richard	395772	7-Feb-19	200.00	Other(Misc)	Safety shoe allowance
Silva, Jose	396002	14-Feb-19	188.00	Membership Renewal	CWEA renewal
Soto, Frank	396003	14-Feb-19	188.00	Membership Renewal	CWEA renewal
Soto, Frank	396419	27-Feb-19	255.67	Lodging	CWEA 46th Annual Pretreatment, Pollution Prevention & Stormwater Conference - February 11, 2019
Soto, Frank	396419	27-Feb-19	270.60	Lodging	CWEA 46th Annual Pretreatment, Pollution Prevention & Stormwater Conference - February 12, 2019
Soto, Frank	396419	27-Feb-19	270.60	Lodging	CWEA 46th Annual Pretreatment, Pollution Prevention & Stormwater Conference - February 13, 2019
Soto, Frank	396419	27-Feb-19	270.60	Lodging	CWEA 46th Annual Pretreatment, Pollution Prevention & Stormwater Conference - February 14, 2019
Swan, Peer	396234	21-Feb-19	433.53	Mileage	Localizing California Water, Groveland, CA - Roundtrip - November 6-9, 2019
Swan, Peer	396234	21-Feb-19	194.39	Lodging	Localizing California Water, Groveland, CA - November 8, 2019
Swan, Peer	396234	21-Feb-19	194.39	Lodging	Localizing California Water, Groveland, CA - November 9, 2019
Swan, Peer	396234	21-Feb-19	541.96	Airfare	Public Policy Institute of Calif.: Water Priorities for California's Next Governor, Sacramento, CA - November 13,
Swan, Peer	396234	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 27, 2018
Swan, Peer	396234	21-Feb-19	100.80	Mileage	ACWA 2018 Fall Conference, San Diego, CA - Roundtrip - November 25-30, 2019
Swan, Peer	396234	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 28, 2018
Swan, Peer	396234	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 29, 2018
Swan, Peer	396234	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 30, 2018
Withers, John	396235	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 27, 2018
Withers, John	396235	21-Feb-19	224.53	Lodging	ACWA 2018 Fall Conference, San Diego, CA - November 28, 2018
Withers, John	396235	21-Feb-19	937.86	Other(Misc)	Taste Catering for CORO Southern California event at the Duck Club - November 8, 2019
Total Amount:			\$12,653.92		

March 25, 2019

Prepared and

submitted by: K. Burton 

Approved by: Paul A. Cook 

CONSENT CALENDAR

AMENDMENT NO. 8 TO THE SANTIAGO AQUEDUCT COMMISSION JOINT POWERS AGREEMENT

SUMMARY:

IRWD and The Irvine Company executed an agreement in 2018 to transfer The Irvine Company's 2.5 cubic feet per second (cfs) capacity in Reach 1U of the Baker Pipeline to IRWD. Amendment No. 8 to the Santiago Aqueduct Commission (SAC) Joint Powers Agreement recognizes the transfer of capacity and the resulting allocation of costs of maintenance, capital repairs and capital improvements to the Baker Pipeline. Amendment No. 8 also updates the member and represented agencies of the Santiago Aqueduct Commission following IRWD's consolidation with former member agency Los Alisos Water District and IRWD's capacity transfer with The Irvine Company. Staff recommends that the Board approve Amendment No. 8 to the Santiago Aqueduct Commission Joint Powers Agreement, subject to non-substantive changes.

BACKGROUND:

IRWD and The Irvine Company executed an *Assignment and Assumption Agreement (Transfer Agreement)* in 2018 to transfer The Irvine Company's 2.5 cfs capacity in Reach 1U of the Baker Pipeline to IRWD. The Transfer Agreement is attached as Exhibit "A". The transfer of capacity rights and the resulting allocations of maintenance, capital repairs, and capital improvement costs became effective July 1, 2018.

The intent of Amendment No. 8 to the SAC Joint Powers Agreement is to memorialize the effect of the Transfer Agreement and acknowledge that each of the SAC member and represented agencies not participating in the Transfer Agreement will retain the same capacity rights identified in Amendment No. 7 to the SAC Joint Powers Agreement. Additionally, Amendment No. 8 updates the member and represented agencies of SAC following IRWD's consolidation with former member agency Los Alisos Water District and IRWD's capacity transfer with The Irvine Company. Amendment No. 8 is attached as Exhibit "B".

The capacity of each SAC member and represented agency in each reach of the Baker Pipeline is shown in Exhibit "A" of Amendment No. 8. The maintenance, capital repair and capital improvement cost shares for each member and represented agency in each reach, and for the Baker Pipeline as a whole, are shown in Exhibit "B" of Amendment No. 8. The capacities and allocation of costs of maintenance, capital repairs and capital improvements of the non-participating Transfer Agreement SAC member and the represented agencies remain unchanged from Amendment No. 7.

FISCAL IMPACTS:

Effective July 1, 2018 the allocation of costs for maintenance, capital repairs and capital improvements will be allocated between the participating member agencies and represented agencies as shown in Exhibit “B”. IRWD’s capacity purchase will have an added annual maintenance cost of approximately \$600.

ENVIRONMENTAL COMPLIANCE:

This activity is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15306 which provides exclusion for projects involving basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. These may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 19, 2019 and the Santiago Aqueduct Commission on March 21, 2019.

RECOMMENDATION:

THAT THE BOARD APPROVE AMENDMENT NO. 8 TO THE SANTIAGO AQUEDUCT COMMISSION JOINT POWERS AGREEMENT, SUBJECT TO NON-SUBSTANTIVE CHANGES.

LIST OF EXHIBITS:

- Exhibit “A” – Assignment and Assumption Agreement between Irvine Ranch Water District and The Irvine Company
- Exhibit “B” – Amendment No. 8 to the Santiago Aqueduct Commission Joint Powers Agreement

EXHIBIT "A"

ASSIGNMENT AND ASSUMPTION AGREEMENT

This ASSIGNMENT AND ASSUMPTION AGREEMENT ("**Agreement**") is dated July 1, 2018 (the "**Effective Date**") and is between **IRVINE RANCH WATER DISTRICT**, a California water district, organized under Division 13 of the California Water Code ("**IRWD**"), and The Irvine Company LLC, a Delaware limited liability company, as successor-in-interest to The Irvine Company, a Delaware corporation ("**TIC**"). IRWD and TIC are each a "**Party**" and together are the "**Parties**."

On or about April 13, 1961, the Los Alisos Water District, the El Toro Water District, and the Orange County Municipal Water District entered into the Santiago Aqueduct Commission Joint Powers Agreement (the "**JPA**"). The JPA created the Santiago Aqueduct Commission ("**Commission**") to construct, maintain, repair and manage the Santiago Aqueduct ("**Aqueduct**"), which would transmit water to the parties to the JPA.

The JPA was amended seven times, by: Amendment to the JPA (on or about September 11, 1961); Amendment No. 2 to the JPA (on or about January 1, 1978) ("**Amendment 2**"); Amendment No. 3 to the JPA (on or about January 13, 1978) ("**Amendment 3**"); Amendment No. 4 to the JPA (on or about September 1, 1981) ("**Amendment 4**"); Amendment No. 5 to the JPA (on or about October 22, 1986); Amendment No. 6 to the JPA (on or about July 8, 1999); and Amendment No. 7 to the JPA (on or about June 19, 2014). These Amendments, along with all exhibits and attachments thereto, are collectively identified in this Agreement as the "**Amendments**." TIC was not a signatory to the JPA nor any of the Amendments other than Amendment 3 and Amendment 4.

Amendment 2 added IRWD as a party and as a member of the Commission and TIC as a party to the JPA with respect to certain matters. That amendment, and various other leases and subleases issued pursuant to the Amendments, granted the Parties certain rights and obligations with respect to the construction, maintenance, operation of water lines to be constructed parallel to the Aqueduct to supply water to, among others, the Parties. Pursuant to the JPA Amendments, TIC possesses 2.5 cfs capacity in Reach 1U of the Aqueduct, also known as the Baker Pipeline.

The Parties intend by this Agreement to assign and transfer TIC's rights and obligations under the JPA, the Amendments, and any other leases or subleases related thereto, to IRWD for valuable consideration.

The Parties therefore agree as follows:

1. Assignment. In exchange for IRWD's payment to TIC of the sum of \$56,410.00 (the "**Transfer Fee**") concurrent with the delivery of this Agreement, TIC hereby assigns and transfers to IRWD all of TIC's right, title, interest and obligations under the JPA and the Amendments (collectively, the "**TIC Interest**") effective as of July 1, 2018. Upon assignment and transfer of the TIC Interest as set forth in this section, IRWD accepts from TIC all such TIC Interest, subject to the terms and conditions set forth in this Agreement.

2. Assumption. IRWD assumes and agrees to perform and fulfill all the terms, covenants, conditions, and obligations required to be performed and fulfilled by TIC under the JPA and the Amendments.

3. Assignor Representations. TIC represents that, to TIC's knowledge, (a) TIC has not transferred or assigned any portion of the TIC Interest (including the 2.5 cfs capacity in Reach 1U as set forth in the Amendments), (b) TIC has not amended, modified or terminated the JPA or the Amendments except as set forth therein, and (c) TIC has not breached the JPA or the Amendments. As used herein, "to TIC's knowledge" shall mean and refer to the current knowledge of Peter Changala, who is the employee of TIC's affiliate (Irvine Management Company) who is most likely to know about the status of the TIC Interest.

4. As-Is; Where-Is. Except as otherwise set forth in Section 3 above, IRWD acknowledges and agrees that it is accepting the assignment and conveyance of the TIC Interest based solely upon IRWD's inspection and investigation of the same and all documents related thereto, or its opportunity to do so, and the TIC Interest is assigned in an "AS IS, WHERE IS" condition, without relying upon any representation or warranties, express, implied or statutory, of any kind. Notwithstanding anything to the contrary, TIC's aggregate liability in connection with this Agreement shall not exceed the amount of the Transfer Fee.

5. Successors and Assigns. This Agreement will be binding on and inure to the benefit of the Parties, their heirs, executors, administrators, successors in interest, and assigns.

6. Choice of Law and Venue. All matters relating to this Agreement are governed by the laws of the State of California, and venue for any action related to the Agreement shall be the Superior Court of Orange County.

7. Notice. Any notice will be deemed given by depositing it in the United States Mail, first class, return receipt requested, or by courier or overnight delivery service and addressed as follows:

If to IRWD:

Irvine Ranch Water District
16500 Sand Canyon Avenue
P.O. Box 5700
Irvine, CA 92619-7000
Attn: Paul A. Cook, General Manager

If to TIC:

The Irvine Company LLC
550 Newport Center Drive
Newport Beach, CA 92660
Attn: General Counsel

8. Amendment. Any amendment or modification of this Agreement must be written and properly executed by both Parties.

9. Interpretation. Each Party has participated in negotiating and drafting this Agreement, so if an ambiguity or a question of intent or interpretation arises, this Agreement is to be construed as if the Parties had drafted it jointly, as opposed to being construed against a party because it was responsible for drafting one or more provisions of this Agreement.

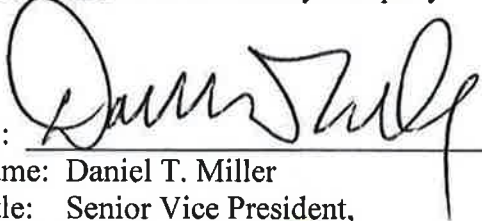
10. Further Assurances. The Parties shall take such actions, or execute, acknowledge and deliver, or obtain the execution, acknowledgment, and delivery of such instruments as are reasonably necessary, appropriate or desirable to give effect to the provisions of this Agreement.


11. Entire Agreement. This Agreement constitutes the entire agreement between the Parties regarding TIC's assignment and IRWD's assumption of all of the TIC Interest. This Agreement supersedes all prior or contemporaneous agreements, commitments, conditions, discussions, instruments, offers, promises and/or proposals between the Parties regarding TIC's assignment and IRWD's assumption of all of the TIC Interest, whether oral or written.

12. Authority. The Parties represent that the individuals executing this Agreement have the legal power, right and actual authority to bind that Party to the terms and conditions of this Agreement.

IRWD and TIC are signing this Agreement to be effective as of the Effective Date.

THE IRVINE COMPANY LLC,
a Delaware limited liability company

By: 
Name: Daniel T. Miller
Title: Senior Vice President,
Entitlement & Public Affairs

By: 
Name: Peter J. Changala
Title: Vice President, Ag Operations

IRVINE RANCH WATER DISTRICT

By: 
Paul A. Cook, General Manager

APPROVED AS TO FORM:
Lewis Brisbois Bisgaard & Smith, LLP

By: 
General Counsel

EXHIBIT "B"

AMENDMENT NO. 8 TO THE SANTIAGO AQUEDUCT COMMISSION JOINT POWERS AGREEMENT

This Amendment No. 8 to the Santiago Aqueduct Commission Joint Powers Agreement (“**Amendment No. 8**”) is effective March 21, 2019, and is between the following six member agencies of the SANTIAGO AQUEDUCT COMMISSION (the “**Commission**”) created by a Joint Powers Agreement dated September 11, 1961 (as amended, the “**Joint Powers Agreement**”):

EL TORO WATER DISTRICT;
IRVINE RANCH WATER DISTRICT (“**IRWD**”) on its own behalf and as assignee of
The Irvine Company;
MOULTON NIGUEL WATER DISTRICT;
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY (formerly known as Orange
County Municipal Water District) (“**MWDOC**”) on behalf of represented
agencies EAST ORANGE COUNTY WATER DISTRICT (“**EOCWD**”) and the
County of Orange (the “**County**”);
SANTA MARGARITA WATER DISTRICT; and
TRABUCO CANYON WATER DISTRICT (formerly known as Santa Ana Mountains
County Water District).

The member agencies are also sometimes referred to as the “**Parties**.” Together EOCWD and the County are the “**represented agencies**” but are not member agencies.

The Joint Powers Agreement has been previously amended by the following amendments: the first Amendment (December 20, 1974); Amendment No. 2 (January 13, 1978); Amendment No. 3 (November 1, 1978); Amendment No. 4 (September 1, 1981); Amendment No. 5 (October 22, 1986); Amendment No. 6 (July 8, 1999); and Amendment No. 7 (June 19, 2014).

The Joint Powers Agreement (as amended) establishes certain hydraulic grade lines and capacity rights for the member agencies and represented agencies in the various reaches of the Santiago Aqueduct, also known as the Baker Pipeline. The costs of maintenance, capital repairs and capital improvements to the Baker Pipeline are allocated to the member agencies and represented agencies in proportion to each party’s capacity rights in each reach as compared with the total capacity for each reach and in proportion to the length of each reach as compared with the entire length of the Baker Pipeline.

Capacity rights in the Baker Pipeline have been transferred among various member agencies and represented agencies, as previously reflected in the tables set forth in Amendment No. 7.

In 2018, IRWD and The Irvine Company executed an *Assignment and Assumption Agreement* (the “**Transfer Agreement**”) to transfer The Irvine Company’s capacity in the Baker

Pipeline to IRWD. The transfer of capacity rights and the resulting allocations of maintenance, capital repairs, and capital improvement costs became effective as of July 1, 2018. The Parties intend by this Amendment No. 8 to memorialize the effect of the Transfer Agreement and acknowledge that each of the Parties and represented agencies not participating in the Transfer Agreement will retain the same capacity rights identified in Amendment No. 7. The Parties also intend by this Amendment No. 8 to clarify the members of the Commission following IRWD's consolidation in 2010 with former member agency Los Alisos Water District.

Therefore, the Parties amend the Joint Powers Agreement as follows:

SECTION 1. Exhibit A to this Amendment No. 8 depicts the capacities and hydraulic grade lines in the Baker Pipeline resulting from the Transfer Agreement. Exhibit B to this Amendment No. 8 depicts the corresponding allocation of costs of maintenance, capital repairs, and capital improvements for each reach of the Baker Pipeline and the Baker Pipeline in its entirety. Both exhibits are incorporated by reference into the Joint Powers Agreement and shall amend and supersede in their entirety the capacities and hydraulic grade lines in the Baker Pipeline as well as the allocation of costs previously set forth in the Joint Powers Agreement.

SECTION 2. In order to reflect the consolidation of Los Alisos Water District with IRWD, and the transfer of The Irvine Company's capacity to IRWD, the first two paragraphs of Section 3 of the Joint Powers Agreement, as amended by Amendment No. 6, are amended to read as follows:

"The Commission shall consist of six (6) regular members, one (1) regular member to be selected by each of the following member agencies:

El Toro Water District;
Irvine Ranch Water District;
Moulton Niguel Water District;
Municipal Water District of Orange County;
Santa Margarita Water District; and
Trabuco Canyon Water District.

The Commission shall maintain and operate the Baker Pipeline. Each member agency shall have one vote. MWDOC shall represent itself, EOCWD and the County of Orange. Each member agency may appoint two alternate members, designated a first alternate member and a second alternate member, to the Commission."

SECTION 3. Except as modified by this Amendment No. 8, the Parties reaffirm the Joint Powers Agreement as amended by the prior seven amendments described above. The Parties shall execute this Amendment No. 8 in duplicate, each identical duplicate of which will be considered an original.

[Signatures appear on following pages.]

The Parties have executed this Amendment No. 8 on the dates set forth below.

DATED: _____

EL TORO WATER DISTRICT

By: _____
President

By: _____
Secretary

APPROVED AS TO FORM:
Redwine and Sherrill, LLP

By: _____
District Counsel

DATED: _____

IRVINE RANCH WATER DISTRICT

By: _____
President

By: _____
Secretary

APPROVED AS TO FORM:
Lewis Brisbois Bisgaard & Smith, LLP

By: _____
District Counsel

DATED: _____

MOULTON NIGUEL WATER DISTRICT

By: _____
President

By: _____
Secretary

APPROVED AS TO FORM:
Best Best & Krieger LLP

By: _____
District Counsel

DATED: _____

MUNICIPAL WATER DISTRICT OF ORANGE
COUNTY

By: _____
President

By: _____
Secretary

APPROVED AS TO FORM:
Best Best & Krieger, LLP

By: _____
District Counsel

DATED: _____

SANTA MARGARITA WATER DISTRICT

By: _____
President

By: _____
Secretary

APPROVED AS TO FORM:
Best Best & Krieger, LLP

By: _____
District Counsel

DATED: _____

TRABUCO CANYON WATER DISTRICT

By: _____
President

By: _____
Secretary

APPROVED AS TO FORM:
Atkinson, Andelson, Loya, Ruud & Romo, LLP

By: _____
District Counsel

EXHIBIT A

SANTIAGO AQUEDUCT COMMISSION
BAKER PIPELINE
PIPELINE CAPACITIES

	Reach 1U	Reach 2U	Reach 3U	Reach 4U	Reach 5U
Length (LF)	9,400	10,425	7,950	28,500	6,070
HGL Elevation at End of Reach ¹	816	788	770	703	690
Agency	CFS	CFS	CFS	CFS	CFS
East Orange County Water District	10.00	-	-	-	-
County of Orange	1.00	1.06	1.06	1.06	-
Irvine Ranch Water District	49.00	14.59	10.54	10.54	10.50
Santa Margarita Water District	13.00	13.08	13.05	13.05	13.00
Trabuco Canyon Water District	8.00	8.05	8.03	8.03	8.00
El Toro Water District	5.00	5.00	5.00	5.00	5.00
Moulton Niguel Water District	13.00	13.00	13.00	13.00	13.00
Total Capacity	99.00	54.78	50.68	50.68	49.50

¹ Beginning HGL elevation of 832 at OC-33

Exhibit B

Pipeline Capacities Maintenance, Capital Repair, and Capital Improvement Share, Total and By Reach

Length (LF)	Reach 1U 9,400		Reach 2U 10,425		Reach 3U 7,950		Reach 4U 28,500		Reach 5U 6,070		Total Pipeline 62,345	
	Capacity Length	%	Capacity Length	%	Capacity Length	%	Capacity Length	%	Capacity Length	%	Capacity Length	%
East Orange County Water District	94,000	9.53%	-	-	-	-	-	-	-	-	94,000	2.58%
County of Orange	9,400	0.95%	11,051	2.33%	8,427	2.33%	30,210	2.33%	-	-	59,088	1.62%
Irvine Ranch Water District	460,600	49.84%	152,101	26.52%	83,793	20.73%	300,390	20.73%	63,735	21.22%	1,060,619	29.06%
Santa Margarita Water District	122,200	13.35%	136,359	23.65%	103,747	25.61%	371,925	25.61%	78,910	26.26%	813,141	22.28%
Trabuco Canyon Water District	75,200	8.15%	83,921	14.64%	63,839	15.81%	228,855	15.81%	48,560	16.16%	500,375	13.71%
El Toro Water District	47,000	5.05%	52,125	9.13%	39,750	9.87%	142,500	9.87%	30,350	10.10%	311,725	8.54%
Moulton Niguel Water District	122,200	13.13%	135,525	23.73%	103,350	25.65%	370,500	25.65%	78,910	26.26%	810,485	22.21%
Total	930,600	100%	571,082	100%	402,906	100%	1,444,380	100%	300,465	100%	3,649,433	100%

March 25, 2019

Prepared and

submitted by: C. Compton

Approved by: Paul A. Cook



ACTION CALENDAR

2019 LEGISLATIVE AND REGULATORY UPDATE

SUMMARY:

This report provides an update on the 2019-2020 legislative session and IRWD priorities. As legislation and regulations develop, staff will provide updates and recommendations to the Water Resources Policy and Communications Committee and the Board, as appropriate.

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

- *AB 510 (Cooley) — Local Government Records: Destruction of Records — “SUPPORT”;*
- *AB 1204 (Rubio) — Primary Drinking Water Standards: Implementation Date — “SUPPORT”;*
- *AB 1486 (Ting) — Local Agencies: Surplus Land — “OPPOSE UNLESS AMENDED”;*
- *SB 307 (Roth) — Water Conveyance: Use of Facility with Unused Capacity — “WATCH”;*
- *SB 332 (Hertzberg/Wiener) — Wastewater Treatment: Recycled Water — “OPPOSE/OPPOSE UNLESS AMENDED”; and*
- *SB 414 (Caballero) — Small System Water Authority Act of 2019 — “SUPPORT”.*

BACKGROUND:

The 2019 bill introduction deadline was February 22, 2019. Approximately 2,600 bills were introduced. On the Assembly side, 1,821 bills were introduced while the Senate introduced 784 bills. Many of the introduced bills contain spot or intent language; however, a number of bills include substantive proposals. With the introduction deadline having passed, the 2019 legislative year will come into full swing with policy committees ramping up and legislators working to amend their legislation so that it will be heard by the April 26 and May 3 policy committee deadlines.

A wide variety of bills have been introduced on issues of interest to IRWD including water conservation, groundwater, and recycled water. There are also a number of bills related to greenhouse gas emissions, energy, and public contracting. Many of these bills are expected to have significant amendments prior to their first policy committee hearings. As such, staff will monitor proposals and bring updates and recommendations to the Water Resources Policy and Communications Committee and the Board, as appropriate.

A copy of the 2019 Legislative Matrix is attached as Exhibit “A”. Exhibit “B” is the 2019 “Legislative Update Report Links to Bill Texts,” which contains links to the bills discussed below, unless a separate exhibit is noted.

State Budget Update:

January Revenue Numbers:

On February 11, 2019, State Controller Betty Yee released her monthly report on the State’s finances. She announced that the State took in \$18.79 billion during the month of January. This was \$1.81 billion, or 8.8 percent, less than estimates contained in the Governor’s Fiscal Year (FY) 2019-2020 budget proposal, but \$1.21 billion, or 6.9 percent, higher than estimates contained in FY 2018-2019 enacted budget. According to the State Controller, “[t]otal revenues of \$74.42 billion for the first seven months of FY 2018-19 were lower than expected in the proposed and enacted budgets by \$2.87 billion and \$1.32 billion, respectively. In the fiscal year to date, state revenues are just 0.2 percent lower than the same time last year.”

2019 State Legislative Update:

Water Tax and Other Safe Drinking Water Proposals:

Since the end of the 2017-2018 legislative session, work on a solution for safe drinking water in California has continued to be a topic of considerable conversation at the State level. Governor Newsom included support for a funding solution in his inaugural address and State of the State, and included a funding proposal in his proposed budget.

On February 1, 2019, his administration released budget trailer bill language detailing his funding proposal in the Safe and Affordable Drinking Water and Exide Cleanup Budget Trailer Bill. The Safe and Affordable Drinking Water and Exide Cleanup Budget Trailer Bill follows the provisions of SB 623 (Dodd, D-Napa) from 2017-2018 closely and includes a statewide water tax and a tax on fertilizer, confined animals facilities and dairy operations. The budget trailer bill also includes the liability relief previously included in SB 623 for agricultural operations.

With regard to the water tax, the budget trailer bill proposes a monthly water tax on the following:

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

IRWD currently has an “oppose” position on the budget trailer bill.

In addition to the budget trailer bill, there are currently five bills this legislative session that relate to safe drinking water:

- AB 134 (Bloom, D-Santa Monica) – Safe, Clean, Affordable, and Accessible Drinking Water: As introduced, the bill includes findings and declarations related to the intent of the Legislature to address safe, clean, affordable, and accessible drinking water. As introduced, the bill includes no funding mechanism. IRWD currently has a “watch” position on AB 134;
- AB 217 (Garcia, D-Coachella) – Safe and Affordable Drinking Water Fund: The bill, as introduced, would establish the Safe and Affordable Drinking Water Fund in the State Treasury and would provide that moneys in the fund are available, upon appropriation by the Legislature, to the State Board to provide a stable source of funding to secure access to safe drinking water for all Californians, while also ensuring the long-term sustainability of drinking water service and infrastructure. As introduced, the bill includes no funding mechanism; however, it is expected that the bill will be amended shortly to include a hybrid approach to funding safe drinking water. The approach is outlined in a chart put together by the Chairman Eduardo Garcia’s office, which is attached as Exhibit “C”. IRWD currently has a “watch” position on AB 217;
- SB 200 (Monning, D-Santa Cruz) – Safe and Affordable Drinking Water Fund: The bill, as amended on March 11, 2019, would establish the Safe and Affordable Drinking Water Fund in the State Treasury and would provide that moneys in the fund are continuously appropriated to the State Board to provide a stable source of funding to secure access to safe drinking water for all Californians, while also ensuring the long-term sustainability of drinking water service and infrastructure. As amended, the bill does not include a funding mechanism. IRWD currently has a “watch” position on SB 200;
- SB 669 (Caballero, D-Salinas) – Water Quality: Safe Drinking Water Fund: SB 669 is the proposed sponsored by the Association of California Water Agencies (ACWA) and the California Municipal Utilities Association (CMUA). It proposed an alternative mechanism to fund safe drinking water. The proposal would create a Safe Drinking Water Trust to provide a perpetual funding source to address safe drinking water in disadvantaged communities. IRWD currently has a “support” position on SB 669; and
- ACA 3 (Mathis (R-Visalia)/Garcia) – Water: Minimum Funding Guarantee: ACA 3, while not directly related to safe and affordable drinking water, relates to providing a durable funding source for water in the state which could be used to address safe and affordable drinking water in California. The proposed constitutional amendment proposes that commencing with the 2021–2022 fiscal year, not less than two percent of State revenues are to be set apart for the payment of principal and interest on bonds authorized pursuant to the Water Quality, Supply, and Infrastructure Improvement Act of 2014; water supply, delivery, and quality projects administered by the department; and water quality projects administered by the State Board. IRWD currently has a “watch” position on ACA 3.

Additionally, CMUA, in coordination with the Eastern Municipal Water District (EMWD), is sponsoring SB 414 (Caballero). SB 414, which is similar to AB 2050 (2018), proposes to enact the Small System Water Authority Act of 2019. The proposal seeks to address the governance issues causing unsafe drinking water in a number of communities in California. IRWD currently

has a “support in concept” position on the proposal because the bill language had yet to be released. Given that the bill is now in print, staff recommends that the Board adopt a “support” position on SB 414.

Staff would propose adjusting the District’s position on the other safe drinking water fundings bills should the bills be amended to propose a water tax is consistent with the Board-adopted position on a public good charge on water, or be amended in a way that presents other policy concerns for the District.

Staff continues to work with the water coalition on addressing safe drinking water in California without a water tax, and will provide an oral update on any new developments.

“Making Water a California Way of Life” Related Legislation:

Last year, Senator Bob Hertzberg (D, Van Nuys) and Assemblymember Laura Friedman (D, Glendale) authored SB 606 and AB 1668, the “Making Water Conservation a California Way of Life” legislation. The legislation, among other things, requires urban retail water suppliers to calculate and comply with an urban water use objective. The urban water use objective is comprised of adding efficient indoor residential water use, efficient outdoor water use, and water loss to create a retail-level water budget for each urban retail agency.

When SB 606 and AB 1668 were enacted last year, one of the outstanding issues was the fact that the urban water use objective language did not clearly state that the State Board could only enforce the water loss performance standard within the urban water use objective. In fact, the State Board has made statements indicating that enforcement of the water loss performance standard, which is currently being set by the State Board, may be enforced under both the urban water use objective and as a separate objective.

Hearing the concerns raised by the water community, Senator Hertzberg has introduced SB 134 this year to clarify that the performance standard being set by the State Board on water loss shall only be enforced via the urban water use objective. The District currently has a “support” position on SB 134, which is scheduled to be heard by the Senate Natural Resources and Water Committee on April 9.

In addition to SB 134, Assemblymember Friedman has introduced two bills related to the long-term conservation legislation while Assemblymember Brian Dahle (R-Redding) has introduced one. Those bills would:

- *AB 1414 (Friedman) – Urban Retail Water Suppliers: Reporting:* AB 1414 seeks to address issues raised by some urban retail water suppliers that the reporting deadlines contained in the “Making Water Conservation a California Way of Life” are challenging to meet given the large amount of data needed to complete the reports. As a result, AB 1414 proposes changing the reporting date for submitting a validated water loss audit to the Department of Water Resources (DWR) from October 1 to January 1 of each year. Additionally, AB 1414 proposes changing the reporting date for calculating and complying with the urban water use objective from November 1 of 2023, and each November 1 thereafter, to January 1, 2024, and each January 1

thereafter. Finally, the bill adjusts the compliance deadlines and reporting deadlines for updating Urban Water Management Plans;

- AB 1415 (Friedman) – DWR: Reporting Requirements/Civil Penalties: AB 1415 would establish civil penalties that DWR would be required to impose of any person or entity failing to file certain statutorily required reports with the Department by the dates specified in the statute. Specially, the bill would authorize a \$1,000 civil penalty for failing to file a water loss audit report, urban water management plan, groundwater sustainability plan, and agricultural management plan, among others, by the deadlines prescribed in the statute. The civil penalty would increase to \$250 per day if the reports or plans are not submitted within 60 days of the statutory deadline; and
- AB 1432 (Dahle) – Urban Water Use Objective: Indoor Residential Water Use: AB 1432 is currently a spot bill that would modify Water Code Section 10609.4, which outlines the indoor residential water use standards to be used when calculating an urban water use objective.

AB 510 (Cooley, D-Rancho Cordova) – Local Records: Destruction of Records:

Since 1998, the Government Code has required that public agencies retain any routine video monitoring recordings for a period of one year, and keep radio and telephone recordings for 100 days. Over the past 20 years, video monitoring technology has changed drastically. When the original one year recording provision was enacted, the legislative history shows that the original intent was to store videotapes. However, since that time, technology has advanced while the law has remained unchanged. The vast majority of video monitoring today is now done using digital cameras that record onto DVRs, agency servers, and cloud-based servers.

With the ease of digital storage and decreased cost of digital cameras, public agencies are installing an ever-increasing number of cameras and the cameras are recording in significantly higher resolution. While this has made video monitoring records more useful and effective, the increased number of cameras and picture quality means that the amount of data that must be stored to comply with the current statutory retention requirements is exceptionally high. Additionally, public agencies are more frequently using more cameras for routine video monitoring that is of no value to the public because it is footage of no activity. For example, 24-hour footage from a camera facing the back entrance to an office building where zero incidents have occurred must still be maintained for one year.

In order to address the storage requirements of increased volumes of routine video recordings and in order to modernize the Government Code, Assemblymember Ken Cooley authored AB 510, which is sponsored by the California Special Districts Association (CSDA). The bill seeks to modernize the Government Code to allow local public agencies to adopt records retention policies designed for modern digital recording technologies, while ensuring the proper retention of any records in which an incident may have occurred. Specifically, the bill allows public agencies to set their own records retention policies for routine digital (video, radio and telephone) recordings, provided they maintain routine monitoring records where incidents may have occurred until the incident is fully resolved. Additionally, the bill specifies that in the absence of agencies adopting their own records retention policy, the current one-year (video

recordings) and 100-day (radio and telephone recordings) retention policies would remain in effect.

CSDA has requested that its members consider supporting AB 510. Given the benefit AB 510 would provide the District, staff recommends that the Board adopt a “support” position on AB 510.

AB 1204 (Rubio, D-West Covina) – Primary Drinking Water Standards: Implementation Date:

AB 1204 is a short, but important bill. The bill would provide that the adoption or amendment of a primary drinking water standard for a contaminant in drinking water that is more stringent than federal standards will take effect three years after the date on which the State Water Resources Controls Board adopts or amends the standard. Additionally, the bill would authorize the State Board to delay the effective date of the primary drinking water standard by up to two additional years when capital improvements are needed to comply with meeting the standard.

The bill is sponsored by ACWA and strives to provide water agencies the time needed to comply with new primary drinking water standards. Staff recommends that the Board adopt a “support” position on AB 1204.

AB 1486 (Ting, D-San Francisco) – Local Agencies: Surplus Land:

Assemblymember Phil Ting has introduced AB 1486. AB 1486 would revise the rules related to a local agency’s disposal of surplus land. Specifically, the bill would revise the definition of “surplus land” within the Government Code and would provide that land owned by a local agency is presumed to be surplus land when the local agency takes action to dispose of it regardless of whether the property is actually considered to be surplus property to the agency.

The bill would also define what actions are considered disposing of land. Of interest to IRWD, the bill would define the term “dispose of” to include the sale, lease, transfer, or other conveyance of any interest in real property owned by a local agency.

Under AB 1486, prior to a local agency entering into formal or informal negotiations to dispose of real property it owns, the local agency must issue a written notice of availability to low- and moderate-income housing providers, parks and recreations providers and to school districts. This means that prior to leasing any property owned by a local agency, a local agency would need to offer the property for housing, parks, and education uses.

AB 1486 is a reintroduction of a bill Assemblymember Ting ran last year. A broad coalition of local agencies opposed the bill. Given the bill’s potential impact to IRWD’s real estate investments, staff recommends that the Board adopt an “oppose unless amended” position on the bill and authorize staff to seek amendments, independently or through the coalition, that would protect IRWD’s investments.

SB 307 (Roth, D- Riverside) – Water Conveyance: Use of Facility with Unused Capacity:

Senator Richard Roth (D-Riverside) has introduced SB 307, which is a reintroduction of AB 1000 (2018), authored by Assemblymember Laura Friedman, and SB 210 (2018), authored by Senator Roth. The bill seeks to prohibit water from the Cadiz Valley Water Conservation, Recovery & Storage Project from being placed into an existing water conveyance facility unless the State Lands Commission found that there would be no adverse effect on the natural or cultural resources. IRWD adopted a “watch” position on AB 1000 and SB 120. Staff recommends that the Board adopt a “watch” position on SB 307 this year.

SB 332 (Hertzberg/Wiener, D-San Francisco) – Wastewater Treatment: Recycled Water:

Senator Bob Hertzberg and Senator Scott Wiener (D, San Francisco) introduced SB 332. SB 332 would declare that the discharge of treated wastewater from ocean outfalls is a waste and unreasonable use of water, and would mandate that agencies reduce their ocean discharges by 50 percent by 2030 and by 95 percent by 2040, as compared to average annual wastewater discharges between 2010 and 2020. As currently written, the bill fails to recognize the water use efficiency and high levels of water reuse by agencies like IRWD. IRWD will be working with a coalition of industry associations and reuse agencies to oppose the bill, as currently drafted.

Staff recommends that the Board adopt an “oppose/oppose unless amended” position on SB 332.

2019 State Regulatory Update:

State Water Resources Control Board Proposed Recycled Water Policy Amendments:

In May, the State Board released proposed amendments to the “Policy for Water Quality Control for Recycled Water” (e.g. the Recycled Water Policy). The proposed amendments greatly change the policy from being focused on the use of recycled water for irrigation to a more overarching regulatory/policy document that will govern the terms of permits issued to recycled water producers and purveyors.

On June 19, 2018, the State Board held a public hearing to accept oral comments on the proposed amendments to the Recycled Water Policy. Staff participated in the hearing providing comments on the reporting, permitting and overarching policy goals of the proposed amendments. On June 26, 2018, IRWD submitted formal comments on the proposed amendments.

In late fall 2018, the State Board released a revised version of the proposed amendments. The State Board considered and adopted the final version on December 11, 2018. Many of the changes made in the adopted version addressed the District’s comments and concerns. One of the outstanding issues that was not fully addressed, however, is how environmentally beneficial uses of recycled water support in-stream flows or natural habitat are classified in the annual reporting recycled water purveyors are now required to make to the State Board. Staff has been working with WateReuse California, the California Association of Sanitation Agencies, and Coastkeeper to seek a solution on the classification.

Other Pending State Regulations:

In addition to the regulations discussed above, the following is a list of some of the other state regulations and agency reports staff is monitoring, tracking or planning to engage in over the next three to 12 months. As the next drafts of the regulations or report are released for public review and comment, staff will engage, as appropriate.

The pending regulations and reports actively being tracked include the:

- Building Standards Commission's "2019 California Plumbing Code;"
- DWR and the State Board's implementation of the "Making Water Conservation a California Way of Life" legislation;
- DWR's "The Open and Transparent Water Data Act (AB 1755, Dodd) Implementation Plan;"
- State Board Electronic Annual Report;
- State Board's AB 401 Implementation/Low Income Rate Assistance Report and the Office of Environmental Health Hazard Assessment's "A Framework and Tool for Evaluating California's Progress in Achieving the Human Right to Water;"
- State Board's development of a "Cross Connection Policy Handbook;"
- State Board's proposed "Environmental Laboratory Accreditation Program Regulations;"
- State Board's proposed "Mercury TMDL and Statewide Mercury Control Program for Reservoirs" regulations;
- State Board's proposed regulations on "Prohibiting Wasteful Water Use Practices;"
- State Board's "State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State" regulations;
- State Board's "Water Loss Performance Standards Regulations;" and
- State Board's Water Rights Enforcement Policy;
- State Board's "Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California" and draft "Toxicity Provisions."

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on March 18, 2019.

RECOMMENDATION:

THAT THE BOARD ADOPT A “SUPPORT” AB 510 (COOLEY), AB 1204 (RUBIO), AND SB 414 (CABALLERO); A “WATCH” POSITION ON SB 307 (ROTH); AN “OPPOSE UNLESS AMENDED” POSITION ON AB 1486 (TING); AND AN “OPPOSE/OPPOSE UNLESS AMENDED” POSITION ON SB 332 (HERTZBERG).

LIST OF EXHIBITS:

Exhibit “A” – IRWD Legislative Matrix
Exhibit “B” – 2019 Legislative Update Report Links to Bill Texts
Exhibit “C” – Chairman Eduardo Garcia’s Proposal for AB 217

EXHIBIT “A”
IRWD 2019 LEGISLATIVE MATRIX
Updated 03/11/2019

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 5</u> Gonzalez (D)	Independent Contractors		States the intent of the Legislature to codify the decision in the case of Dynamex Operations West, Inc. v. Superior Court of Los Angeles and clarify its application.	12/03/2018 - INTRODUCED.
<u>AB 11</u> Chiu (D)	Community Redevelopment Law		Authorizes a city or county or two or more cities acting jointly, to propose the formation of an affordable housing and infrastructure agency by adoption of a resolution of intention. Provides for a governing board of the agency. Requires the agency to submit an annual report, and final report of any audit undertaken to its governing body. Requires the governing board of an agency to designate an appropriate official to prepare a proposed redevelopment project plan.	01/17/2019 - To ASSEMBLY Committees on HOUSING AND COMMUNITY DEVELOPMENT and LOCAL GOVERNMENT.
<u>AB 38</u> Wood (D)	Fire Safety		Requires the State Fire Marshal to develop, and the California Building Standards Commission to review, building standards for buildings in very high fire hazard severity zones. Requires all newly constructed buildings and all transferred buildings in very high fire hazard severity zones to comply with the building standards.	01/24/2019 - To ASSEMBLY Committees on GOVERNMENTAL ORGANIZATION and NATURAL RESOURCES.
<u>AB 59</u> Kalra (D)	Elections: Voting Access		Expresses the intent of the Legislature to make a polling place or vote center available on every college and university campus in the state.	12/03/2018 - INTRODUCED.
<u>AB 60</u> Friedman (D)	Water Conservation: Water Meters: Accuracy Standards		Requires the State Energy Resources Conservation and Development Commission to adopt regulations setting standards for the accuracy of water meters. Prohibits any water meter manufactured on or after the effective date of those regulations from being sold or offered for sale in the state, or installed by a water purveyor, unless it is certified by the manufacturer to be in compliance with those standards.	02/25/2019 - From ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS with author's amendments.;02/25/2019 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.

IRWD 2019 LEGISLATIVE MATRIX
Updated 03/11/2019

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 64</u> Fong (R)	State Project Audits		Expresses the intent of the Legislature to require an independent audit of all state projects whose estimated cost exceeds a given threshold.	12/03/2018 - INTRODUCED.
<u>AB 65</u> Petrie-Norris (D)	Coastal Protection: Climate Adaption		Requires specified things of the State Coastal Conservancy when it allocates any funding appropriated pursuant to the Global Warming Solutions Act, including that it prioritize projects that use natural infrastructure to help adapt to climate change. Requires the conservancy to provide information to the Office of Planning and Research on any projects funded to be considered for inclusion into the clearinghouse for climate adaption information.	01/17/2019 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 68</u> Ting (D)	Land Use: Accessory Dwelling Units	WATCH	Prohibits an ordinance from imposing requirements on minimum lot size, lot coverage, or floor area ratio. Prohibits an ordinance from establishing size requirements for accessory dwelling units that that do not permit at least an 800 square feet unit of at least 16 feet in height to be constructed. Provides that, if a local agency imposes an owner-occupancy restriction, the monitoring for compliance shall not be more frequent than annually and be based on specified published documents.	01/17/2019 - To ASSEMBLY Committees on HOUSING AND COMMUNITY DEVELOPMENT and LOCAL GOVERNMENT.
<u>AB 69</u> Ting (D)	Land Use: Accessory Dwelling Units	WATCH	Authorizes the Department of Housing and Community Development to submit written findings to a local agency as to whether the local ordinance complies with state law, and to notify the Attorney General if the ordinance violates state law. Requires a local agency to amend its ordinance to comply with state law. Requires the Department to propose small home building standards governing accessory dwelling units and homes smaller than 800 square feet.	01/17/2019 - To ASSEMBLY Committees on HOUSING AND COMMUNITY DEVELOPMENT and LOCAL GOVERNMENT.
<u>AB 71</u> Melendez (R)	Independent Contractors and Employees		Requires a determination of whether a person is an employee or an independent contractor to be based on a specific multifactor test, including whether the person to whom the service is	02/25/2019 - From ASSEMBLY Committee on LABOR AND EMPLOYMENT with author's

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			rendered has the right to control the manner and means of accomplishing the result desired.	amendments.;02/25/2019 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on LABOR AND EMPLOYMENT.
<u>AB 129</u> Bloom (D)	Waste Management: Plastic Microfiber		Declares the intent of the Legislature to, among other things, enact legislation to recognize the emerging threat that microfibers pose to the environment and water quality and makes related findings and declarations.	12/04/2018 - INTRODUCED.
<u>AB 134</u> Bloom (D)	Safe, Clean, Affordable, and Accessible Drinking Water	WATCH	States findings and declarations relating to the intent of the Legislature to adopt policies to insure that every Californian has the right to safe, clean, affordable, and accessible drinking water.	12/05/2018 - INTRODUCED.
<u>AB 170</u> Gonzalez (D)	Employment: Sexual Harassment: Liability		Requires a client employer to share with a labor contractor all civil legal responsibility and civil liability for harassment for all workers supplied by that labor contractor.	03/06/2019 - From ASSEMBLY Committee on LABOR AND EMPLOYMENT: Do pass to Committee on JUDICIARY.
<u>AB 196</u> Gonzalez (D)	Paid Family Leave		States the Legislature's intent to enact legislation that would expand the paid family leave program in order to provide a 100% wage replacement benefit for workers earning \$100,000 or less annually.	01/10/2019 - INTRODUCED.
<u>AB 202</u> Mathis (R)	Endangered Species: Conservation: Safe Harbor Program		Extends the operation of the California State Safe Harbor Agreement Program Act indefinitely, which encourages landowners to manage their lands voluntarily, by means of state safe harbor agreements approved by the Department of Fish and Wildlife, to benefit endangered, threatened, or candidate species.	02/26/2019 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;02/26/2019 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE.
<u>AB 217</u> E. Garcia (D)	Safe and Affordable Drinking Water Fund.	WATCH	Establishes the Safe and Affordable Drinking Water Fund in the State Treasury and provides that moneys in the fund are available, upon appropriation by the Legislature, to the State Water Resources Control Board to provide a stable source of	02/04/2019 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.

IRWD 2019 LEGISLATIVE MATRIX
Updated 03/11/2019

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			funding to secure access to safe drinking water for all Californians, while also ensuring the long-term sustainability of drinking water service and infrastructure.	
<u>AB 223</u> Stone (D)	California Safe Drinking Water Act: Microplastics		Requires the State Water Resources Control Board, to the extent possible, and where feasible and cost effective, to work with the State Department of Public Health in complying with requirements to adopt a standard methodology to be used in the testing of drinking water for microplastics and requirements for 4 years of testing and reporting of microplastics in drinking water.	02/04/2019 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 231</u> Mathis (R)	Environmental Quality Act: Exemption: Recycled Water		Exempts from the California Environmental Quality Act a project to construct or expand a recycled water pipeline for the purpose of mitigating drought conditions for which a state of emergency was proclaimed by the Governor if the project meets specified criteria.	02/07/2019 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 233</u> Cooley (D)	Insurance: Independent Contractors		Relates to existing case law that creates a presumption that a worker who performs services for a hirer is an employee, and requires a 3-part test to establish that a worker is an independent contractor. Clarifies the application of the case law to persons licensed by the Department of Insurance to transact insurance in specified capacities by providing that those persons are not employees when they have entered into a written agreement with an insurer or organizational licensee.	01/17/2019 - INTRODUCED.
<u>AB 292</u> Quirk (D)	Recycled Water: Raw Water and Groundwater Augmentation	SUPPORT	Eliminates the definition of direct potable reuse and instead substitutes the term groundwater augmentation for indirect potable reuse for groundwater recharge in definitions. Requires the State Water Resources Control Board to adopt uniform water recycling criteria for raw water augmentation.	03/06/2019 - From ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS with author's amendments.;03/06/2019 - In ASSEMBLY. Read second time and amended. Re-referred to

IRWD 2019 LEGISLATIVE MATRIX
Updated 03/11/2019

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
				Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 305</u> Nazarian (D)	Public Facilities: Water Quality: Rate Reduction Bonds		Extends indefinitely the authorization for a joint powers authority to issue rate reduction bonds to finance utility projects subject to certain requirements, and the requirement that the California Pollution Control Financing Authority submit an annual report to the Legislature.	02/11/2019 - To ASSEMBLY Committee on LOCAL GOVERNMENT.
<u>AB 314</u> Bonta (D)	Public Employment: Labor Relations: Release Time		Prescribes requirements relating to release time that would apply to all of the public employers and employees subject to specified labor relations laws. Repeals the provisions relating to release time in those acts. Requires these public employers to grant a reasonable number of employee representatives of the exclusive representative reasonable time off without loss of compensation or other benefits for specified activities.	02/11/2019 - To ASSEMBLY Committee on PUBLIC EMPLOYMENT AND RETIREMENT.
<u>AB 315</u> Garcia (D)	Stationary Sources: Emissions Reporting		Requires, instead of authorizes, the State Air Resources Board to require, as appropriate, a stationary source to verify or certify the accuracy of its annual emissions reports by a third party verifier or certifier that is accredited by the State Board.	02/11/2019 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 322</u> Gallagher (R)	Political Reform Act: Online Filing System		Requires a local government agency to post on its internet website a copy of any specified statement, report, or other document filed with that agency in paper format. Requires that the statement, report, or other document be made available for four years from the date of the election associated with the filing.	02/11/2019 - To ASSEMBLY Committee on ELECTIONS AND REDISTRICTING.
<u>AB 333</u> Eggman (D)	Whistleblower Protection: Independent Contractors		Extends whistleblower protections afforded to employees to independent contractors and contracted entities working for state and local government who are tasked with receiving and investigating complaints from facilities, services, and programs operated by state and local government. Provides that	03/06/2019 - From ASSEMBLY Committee on LABOR AND EMPLOYMENT: Do pass to Committee on APPROPRIATIONS.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			prohibitions against retaliation by an employer apply to the state or local contracting agency under these provisions.	
<u>AB 400</u> Lackey (R)	State Mandates		Amends existing law which authorizes a local agency or school district, by February 15, to file an annual reimbursement claim detailing state-mandated costs. Extends that date to March 1.	02/28/2019 - To ASSEMBLY Committee on LOCAL GOVERNMENT.
<u>AB 402</u> Quirk (D)	Water Resources Control Board: Local Primacy Delegation		Includes enforcement costs as costs covered by the annual Drinking Water Surveillance Program grant. Authorizes any local primacy agency, with the approval of the State Water Resources Control Board, to elect to participate in a funding stabilization program. Requires the State Board, during any fiscal year for which a local primacy agency participates in the program, to establish and collect all fees payable by public water systems for the local primacy agency activities.	03/05/2019 - From ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS with author's amendments.;03/05/2019 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 405</u> Rubio (D)	Sales and Use Taxes: Exemption: Water Treatment		Exempts from the Sales and Use Tax Law the gross receipts from the sale in this state of, and the storage, use, or other consumption in this state of, chemicals used to treat water, recycled water, or wastewater regardless of whether those chemicals or other agents become a component part thereof and regardless of whether the treatment takes place before or after the delivery to consumers.	02/15/2019 - To ASSEMBLY Committee on REVENUE AND TAXATION.
<u>AB 418</u> Kalra (D)	Evidentiary Privileges: Union Agent-Worker Privilege		Establishes a privilege between a union agent and a represented employee or represented former employee to refuse to disclose any confidential communication between the employee or former employee and the union agent made while the union agent was acting in the union agent's representative capacity, except as specified.	02/15/2019 - To ASSEMBLY Committee on JUDICIARY.
<u>AB 441</u> Eggman (D)	Water: Underground Storage		Revises the declaration that the storing of water underground constitutes a beneficial use of water to additionally provide that certain uses of stored water while <u>underground</u> constitute	02/21/2019 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.

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Updated 03/11/2019

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			beneficial use. Provides that the forfeiture periods of a water right do not apply to water being beneficially used, as provided, or being held in storage for later beneficial use.	
<u>AB 448</u> Garcia E (D)	Water Rights: Stockponds		Provides that the owner of a stockpond built prior to a specified date, that does not have a capacity greater than ten acre feet, has a valid water right for the principal purpose of watering livestock if that person files a claim for a water right with the State Water Resources Control Board accompanied by a fee not later than a certain date.	02/21/2019 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 454</u> Kalra (D)	Migratory Birds: Migratory Bird Treaty Act		Makes unlawful the taking or possession of any migratory nongame bird designated in the Migratory Bird Treaty Act as of January 1, 2017, any additional migratory nongame bird that may be designated in the federal act after that date, or any part of those migratory nongame birds, except as provided by any provision of the Fish and Game Code, or any rule, regulation, or order made or adopted pursuant to the code.	02/21/2019 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 456</u> Chiu (D)	Public Contracts: Claim Resolution		Removes the repeal date of a claim resolution process applicable to any claim by a contractor in connection with a public works project against a public entity, thereby making this claim resolution process operative indefinitely.	02/21/2019 - To ASSEMBLY Committee on ACCOUNTABILITY AND ADMINISTRATIVE REVIEW.
<u>AB 487</u> Gallagher (R)	Department of Water Resources: Dams and Reservoirs		Requires notice for the construction, enlargement, alteration, repair, maintenance, operation, and removal of dams and reservoirs be given to the Department of Water Resources at least one month before construction is to be commenced.	02/21/2019 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 508</u> Chu (D)	Drinking Water: Administrator: Services		Makes nonsubstantive changes in provisions of the California Safe Drinking Water Act for the operation of public water systems.	02/13/2019 - INTRODUCED.

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Updated 03/11/2019

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 510</u> Cooley (D)	Local Government Records: Destruction of Records		Exempts the head of a department of a county or city, or the head of a special district from recording retention requirements if the county, city, or special district adopts a records retention policy governing recordings of routine video monitoring and recordings of telephone and radio communications.	02/21/2019 - To ASSEMBLY Committee on LOCAL GOVERNMENT.
<u>AB 520</u> Kalra (D)	Public Works: Public Subsidy		Amends existing law relating to prevailing wages for workers employed on public works. Provides that a public subsidy is de minimis if it is both less than a specified amount and less than certain percentage of the total project cost. Specifies that these provisions do not apply to a project that was advertised for bid, or a contract that was awarded before a specified date.	02/28/2019 - From ASSEMBLY Committee on LABOR AND EMPLOYMENT with author's amendments.;02/28/2019 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on LABOR AND EMPLOYMENT.
<u>AB 533</u> Holden (D)	Income Tax: Exclusion: Water Conservation: Runoff	SUPPORT	Provides an exclusion from gross income for any amount received as a rebate, voucher, or other financial incentive issued by a local water agency or supplier for any water conservation or efficiency program or water runoff management improvement program.	02/21/2019 - To ASSEMBLY Committee on REVENUE AND TAXATION.
<u>AB 557</u> Wood (D)	Atmospheric Rivers: Research and Forecasting Program		Appropriates \$9,250,000 from the General Fund to the Department of Water Resources in the 2019-20 fiscal year to operate the Atmospheric Rivers: Research, Mitigation, and Climate Forecasting Program.	02/25/2019 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 570</u> Aguiar-Curry (D)	Local Agencies: Bonds		Makes a nonsubstantive change to existing law requiring the treasurer to keep a register and to enter specified information on this register upon presentation of an interest coupon of a bond.	02/14/2019 - INTRODUCED.
<u>AB 587</u> Friedman (D)	Accessory Dwelling Units: Sale or Separate Conveyance		Authorizes an accessory dwelling unit that was ministerially approved to be sold or conveyed separately from the primary residence to a qualified buyer if certain conditions are met. Provides that those conditions include that the property was built or developed by a qualified nonprofit corporation that is receiving the welfare exemption, and a recorded contract exists	02/25/2019 - To ASSEMBLY Committees on HOUSING AND COMMUNITY DEVELOPMENT and LOCAL GOVERNMENT.

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			between the qualified buyer and the qualified nonprofit corporation.	
<u>AB 616</u> Patterson (R)	California Forest Carbon Plan: Report		Requires the Department of Forestry and Fire Protection, in collaboration with the Natural Resources Agency and California Environmental Protection Agency, to prepare and submit to the Legislature and appropriate legislative policy and budget committees, on or before January 1, 2021, and by January 1 of each year thereafter, until January 1, 2025, a report on the progress made and policies and resources needed to achieve specified wildland fire prevention goals for fuel treatment and vegetation management.	02/25/2019 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 626</u> Quirk-Silva (D)	Conflicts of Interest		Makes nonsubstantive changes to existing law that excepts certain remote interests of public officers or employees from the conflict of interest prohibition.	02/15/2019 - INTRODUCED.
<u>AB 636</u> Gray (D)	State Water Resources Control Board: Objectives		Prohibits the State Water Resources Control Board from implementing water quality objectives for which the state board makes a certain finding relating to environmental quality until it has submitted the water quality objectives and a statement of that finding to the appropriate policy committees of the Legislature and each committee has held a hearing on these matters.	02/15/2019 - INTRODUCED.
<u>AB 637</u> Gray (D)	State Water Resources Control Board: Drinking Water		Prohibits the State Water Resources Control Board or a regional board from adopting or implementing any policy or plan that results in a direct or indirect reduction to the drinking water supplies that serve a severely disadvantaged community.	02/25/2019 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 638</u> Gray (D)	Dept. of Water Resources: Water Storage Capacity		Requires the Department of water Resources, with updates every 2 years, to identify the statewide water storage capacity, the adverse impacts to the capacity from the effects of climate change, and the mitigation strategies for anticipated adverse	02/25/2019 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.

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			impacts. Requires the department to publish this information on the department's publicly available internet website.	
<u>AB 654</u> Rubio (D)	Public Records: Utility Customers: Personal Information		Authorizes a local agency to disclose the name, utility usage data, and home address of utility customers to an officer or employee of another governmental agency when the disclosure is not necessary for the performance of the other governmental agency's official duties but is to be used for scientific, educational, or research purposes, and the requesting agency receiving the disclosed material agrees to maintain it as confidential in accordance with specified criteria.	02/28/2019 - To ASSEMBLY Committee on JUDICIARY.
<u>AB 658</u> Arambula (D)	Water Rights: Water Management		Authorizes a groundwater sustainability agency or local agency to apply for, and the State water Resources Control Board to issue, a conditional temporary permit for diversion of surface water to underground storage for beneficial use that advances the sustainability goal of a groundwater basin.	02/25/2019 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 661</u> McCarty (D)	Best Available Control Technology		Makes technical, nonsubstantive changes to existing law that requires an air district to review whether the best available control technology or lowest achievable emission rate requirements have been achieved.	02/15/2019 - INTRODUCED.
<u>AB 722</u> Bigelow (R)	Integrated Regional Water Management Plans		Makes a nonsubstantive change to findings and declarations regarding the Integrated Regional Water Management Planning Act.	02/19/2019 - INTRODUCED.
<u>AB 727</u> Flora (R)	Dams and Reservoirs: Inspections and Reporting		Makes nonsubstantive changes to existing law requiring the Division of Safety of Dams to propose amendments to its dam safety inspection and reevaluation protocols to incorporate updated best practices.	02/19/2019 - INTRODUCED.

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<u>AB 756</u> Garcia (D)	Public Water Systems: Perfluorooctanoic Acid Sulfate		Requires a public water system to monitor for perfluorooctanoic acid and perfluorooctane sulfonate.	02/28/2019 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 782</u> Berman (D)	Environmental Quality Act: Exemption: Agencies		Exempts from California Environmental Quality Act (CEQA) the acquisition, sale, or other transfer of property by a public agency for certain purposes, or the funding of that acquisition, sale, or other transfer by a public agency conditions those transactions on compliance with CEQA before making physical changes to the transferred property.	02/28/2019 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 801</u> Levine (D)	Solar Energy Systems		States the intent of the Legislature to enact legislation to remove obstacles to the expansion of community-shared solar electric generation systems as an option for onsite solar electric generation requirements in the State.	02/20/2019 - INTRODUCED.
<u>AB 834</u> Quirk (D)	Freshwater and Estuarine Harmful Algal Bloom Program		Requires the state Water Resources Control Board to establish a Freshwater and Estuarine Harmful Algal Bloom Program to protect water quality and public health from algal blooms. Requires the board in consultation with specified entities to coordinate immediate and long-term algal bloom even incident response and conduct and support algal bloom field assessment and ambient monitoring at the state, regional, watershed, and site-specific waterbody scales.	03/04/2019 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 835</u> Quirk (D)	Safe Recreational Water Use: Harmful Algal Blooms		Requires the Department of Public Health by regulation and in consultation with the Water Resources Control Board, local health officers, and the public, to establish, maintain, and amend as necessary, minimum standards for the safety of freshwater recreational bodies as related to harmful algal blooms, as it determines are reasonably necessary for the protection of the public health and safety.	03/04/2019 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.

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<u>AB 841</u> Ting (D)	Drinking Water: contaminants		Requires the Office of Environmental Health Hazard Assessment to adopt and complete a work plan within prescribed timeframes to assess which substances in the class of perfluoroalkyl and polyfluoroalkyl substances should be tested as a risk to human health.	03/04/2019 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 849</u> Bonta (D)	Elections: District Boundaries		Permits the city council to consider existing neighborhoods in establishing the boundaries of council districts.	03/04/2019 - To ASSEMBLY Committee on ELECTIONS AND REDISTRICTING.
<u>AB 868</u> Bigelow (R)	Electric Utilities: Wildfire Mitigation Plans		Provides that the consideration of public safety impacts of the protocols for disabling reclosers and deenergizing portions of the electrical distribution system also include impacts on water and waste water.	03/04/2019 - To ASSEMBLY Committee on UTILITIES AND ENERGY.
<u>AB 877</u> Gabriel (D)	Energy: Solar Energy and Energy Storage Systems		States the intent of the Legislature to authorize the Energy Commission to develop criteria for solar energy systems and energy storage systems.	02/20/2019 - INTRODUCED.
<u>AB 881</u> Bloom (D)	Accessory Dwelling Units		Requires a local agency to designate areas where accessory dwelling units may be permitted based on the adequacy of water and sewer services and the impact of accessory dwelling units on traffic flow and public safety. Deletes the provision authorizing a local agency to require owner-occupancy as a condition of issuing a permit.	03/04/2019 - To ASSEMBLY Committees on HOUSING AND COMMUNITY DEVELOPMENT and LOCAL GOVERNMENT.
<u>AB 883</u> Dahle (R)	Fish and Wildlife: Catastrophic Wildfires: Report		Requires the Department of Fish and Wildlife, in consultation with Department of Forestry and Fire Protection, on or before a certain date, and by certain day of each year and thereafter, to study, investigate, and report to the Legislature on the impacts on wildlife and wildlife habitat resulting from any catastrophic wildfire that occurred during that calendar year.	03/04/2019 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.

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<u>AB 903</u> Levine (D)	Political Reform Act of 1974		Provides that an exclusion from the definition of expenditure under the Political Reform Act does not apply to communications paid for with public moneys by a state or local government. Requires preelection statements to disclose contributions and independent expenditures made to a state, county, or city general purpose committee or made to support or oppose a candidate measure appearing on the ballot as a specified election.	03/04/2019 - To ASSEMBLY Committee on ELECTIONS AND REDISTRICTING.
<u>AB 933</u> Petrie-Norris (D)	Ecosystem Resilience; Watershed Protection		Authorizes the Department of Conservation to the extent funds are available, to establish and administer the Ecosystem Resilience Program to fund watershed coordinator positions, and other necessary costs, throughout the state for the purpose of achieving specified goals, including the goal of developing and implementing watershed improvement plans aligned with multiple statewide and regional objectives across distinct bioregions.	03/07/2019 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 937</u> Rivas R (D)	Waste Discharge Requirements: Produced Water		Authorizes a regional board to approve a waste discharge requirement for the use or reuse of produced water from an oil and gas operation for agricultural purpose or for groundwater recharge, only if, after a public hearing, it finds that the California Council on Science and Technology has reviewed the best available independent scientific evidence and has found the use will not pose a significant risk to the public from contaminants in the produced water.	03/04/2019 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 945</u> McCarty (D)	Local Government: Financial Affairs: Surplus Funds		Authorizes a local agency to invest and deposit the agency's surplus funds in deposits at specified types of financial institutions whether those investments are certificates of deposit or another form, and increases the percentage of the local agency's funds that can be invested to a certain percentage.	03/04/2019 - To ASSEMBLY Committees on LOCAL GOVERNMENT and BANKING AND FINANCE.

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<u>AB 948</u> Kalra (D)	Flood Control or Watershed Protection Projects		Makes nonsubstantive changes to legislative findings and declarations relating to providing for the preservation and enhancement of the state's fish and wildlife resources and recreational opportunities in connection with flood control and watershed protection projects.	02/20/2019 - INTRODUCED.
<u>AB 955</u> Gipson (D)	Water Quality		Makes Nonsubstantive changes to the legislative findings and declarations under The Porter-Cologne Water Quality Control Act.	02/21/2019 - INTRODUCED.
<u>AB 961</u> Reyes (D)	Energy Programs and Projects: Nonenergy Benefits		Requires the Public Utilities Commission to establish common definitions of nonenergy benefits and attempt to determine consistent values for use in all energy programs, meaningfully consider and prioritize producing nonenergy benefits in clean energy programs and projects, give preference to producing nonenergy benefits in clean energy programs and projects in low-income and disadvantaged communities.	03/04/2019 - To ASSEMBLY Committee on UTILITIES AND ENERGY.
<u>AB 966</u> Bonta (D)	Greenhouse Gases: Cement Production		States the intent of the Legislature to enact legislation to reduce the carbon impact of cement production in the State.	02/21/2019 - INTRODUCED.
<u>AB 992</u> Mullin (D)	Open Meetings: Local Agencies: Social Media		Provides that the Ralph M. Brown Act does not apply to the posting, commenting, liking, interaction with, or participation in, internet-based social media platforms that are ephemeral, live, or static, by a majority of the members of a legislative body, provides that a majority of the members do not discuss among themselves the business of a specific nature that is within subject matter jurisdiction of the legislative body.	03/07/2019 - To ASSEMBLY Committee on LOCAL GOVERNMENT.
<u>AB 1013</u> Oberholte (R)	State Agencies: Grant Applications		Prohibits any state agency from selecting as an evaluator of a grant application a representative, former member, or former staff member of an organization or person that is applying to receive grant funding from that state agency.	03/07/2019 - To ASSEMBLY Committee on ACCOUNTABILITY AND ADMINISTRATIVE REVIEW.

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<u>AB 1021</u> Frazier (D)	Groundwater Recharge Facilities Financing		Makes a nonsubstantive change in the legislative findings and declarations of Groundwater Recharge Facilities Act.	02/21/2019 - INTRODUCED.
<u>AB 1026</u> Wood (D)	Electricity: Interconnection Rules		States the intent of the Legislature to enact legislation to ensure that compliance with the codes and construction specifications for the extension of service required by an electrical or gas corporation at the time of the start of construction of a home shall suffice for the extension of service to the home upon the completion of construction.	02/21/2019 - INTRODUCED.
<u>AB 1035</u> Mayes (R)	Personal Information: Data Breaches		Requires a person or business, as defined, that owns or licenses computerized data that includes personal information to disclose any breach of the security of the system within 72 hours following discovery or notification of the breach, subject to legitimate needs of law enforcement.	03/07/2019 - To ASSEMBLY Committee on PRIVACY AND CONSUMER PROTECTION.
<u>AB 1038</u> Muratsuchi (D)	Air Quality Management Districts Review		Authorizes an air district to impose a charge equal to the costs the air district expends in contracting with a third party to review the scientific or engineering information provided to the air district at the air district's request by a facility regulated pursuant to specified provisions in order to verify the information provided is accurate.	03/07/2019 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 1086</u> Bauer-Kahan (D)	Agriculture: Microirrigation Methods		States the intent of the Legislature to reduce the prevalence of eutrophication through agricultural water use by expanding and incentivizing the use of microirrigation methods.	02/21/2019 - INTRODUCED.
<u>AB 1093</u> Rubio (D)	Municipal Separate Storm Sewer Systems		Requires the State Water Resources Control Board by July 1, 2020, to establish financial capability assessment guidelines for municipal separate storm sewer system permittees that are adequate and consistent when considering the costs to local jurisdictions.	03/07/2019 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.

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<u>AB 1130</u> Levine (D)	Personal Information: Data Breaches		Revises the definition of personal information to add specified unique biometric data and government issued identification numbers in addition to those for driver's licenses and California identification.	03/07/2019 - To ASSEMBLY Committee on PRIVACY AND CONSUMER PROTECTION.
<u>AB 1144</u> Friedman (D)	Energy Storage Resources: Report		Requires the Public Utility Commission to prepare and submit to the Legislature and to post on its internet website a report that provides guidance to local publicly owned electric utilities and the Independent System Operator on measures that remove barriers to the participation of energy storage resources in the capacity, energy, and ancillary services markets to assist those utilities and Independent System Operator to comply with the federal order.	03/07/2019 - To ASSEMBLY Committees on UTILITIES AND ENERGY and NATURAL RESOURCES.
<u>AB 1151</u> Daly (D)	Fire Damages: Civil Actions: Public Agencies		Makes nonsubstantive changes to provisions for public agency civil actions to recover damages caused by a fire, pecuniary damages.	02/21/2019 - INTRODUCED.
<u>AB 1157</u> Burke (D)	Public Contracts		Makes nonsubstantive changes to California's Public Contract Law.	02/21/2019 - INTRODUCED.
<u>AB 1180</u> Friedman (D)	Water: Recycled Water	SUPPORT	Requires the State Water Resources Control Board to administer provisions under the California Safe Drinking Water Act relating to the regulation of drinking water to protect the public health. Requires the state board to adopt standards for the backflow protection and cross-connection control through the adoption of a policy handbook.	02/21/2019 - INTRODUCED.
<u>AB 1194</u> Frazier (D)	Sacramento-San Joaquin Delta		Increases the membership of the Delta Stewardship Council to 13 members, including 11 voting members and 2 nonvoting members.	02/21/2019 - INTRODUCED.
<u>AB 1204</u> Rubio (D)	Public Water Systems: Primary Water Standards		Relates to the California Safe Drinking Water Act. Requires the adoption or amendment of a primary drinking water standard	02/21/2019 - INTRODUCED.

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			for a contaminant in drinking water not regulated by a federal primary drinking water standard or that is more stringent than a federal primary drinking water standard to take effect 3 years after the date on which the state board adopts or amends the primary drinking water standard.	
<u>AB 1212</u> Levine (D)	Public Employees' Retirement Pension Fund		Requires a state agency that is responsible for infrastructure projects to produce a list of priority infrastructure projects for funding consideration by the retirement boards, as described, and to provide it to them. Requires a state agency also to provide further project information to a board upon request.	02/21/2019 - INTRODUCED.
<u>AB 1220</u> Garcia (D)	Metropolitan Water Districts		Relates to the Metropolitan Water Districts Act. Authorizes each member public agency to designate and appoint additional representatives pursuant to the greater of that allowed under either the assessed valuation calculation or, on and after January 1, 2021, for each full 5% of the population within the entire district that is within the member public agency.	02/21/2019 - INTRODUCED.
<u>AB 1224</u> Gray (D)	Employee Leave: Limitations		Relates to the Moore Brown Roberti Family Rights Act, or California Family Rights Act (CFRA). Eliminates the requirement for the employee to have at least 1,250 hours of service with the employer within the last 12 months, in order to be eligible for leave under these provisions.	02/21/2019 - INTRODUCED.
<u>AB 1241</u> Quirk-Silva (D)	Contracts Between Public and Private Entities		Requires an agency that contracts with a person or private entity that owns or licenses an electronic database that contains the personal information of individuals for the purpose of hiring and training specified individuals, to do so only if the contract requires the person or private entity to comply with the requirements for disclosure and maintenance of personal information that are applicable to an agency pursuant to the Information Practices Act.	02/21/2019 - INTRODUCED.

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<u>AB 1253</u> Rivas R (D)	Local Agency Formation Commissions: Grant Program		Requires the Strategic Growth Council, until July 31 of 2025, to establish and administer a local agency formation commissions grant program for the payment of costs associated with initiating and completing the dissolution of districts listed as inactive, the payment of costs associated with a study of the services provided within a county by a public agency to a disadvantaged community, as defined, and for other specified purposes, including the initiation of an action, as defined.	02/21/2019 - INTRODUCED.
<u>AB 1276</u> Bonta (D)	Green New Deal		States intent of Legislature to enact legislation to develop and implement a Green New Deal with the objective of reaching specified environmental outcomes within the target window of 10 years from the start of execution of the plan and accomplishing certain social goals.	02/21/2019 - INTRODUCED.
<u>AB 1330</u> Kiley (R)	Personal Information: Privacy: Breach		Makes nonsubstantive changes to existing law that requires any agency that owns or licenses computerized data that includes personal information, as defined, to disclose expeditiously and without unreasonable delay a breach in the security of the data.	02/22/2019 - INTRODUCED.
<u>AB 1347</u> Boerner Horvath (D)	Electricity: Renewable Energy		Establishes the policy of the state that eligible renewable energy resources and zero carbon resources supply a percentage of all retail sales of electricity to state and local government buildings by a certain date, and to all the State end use customers by a certain date.	02/22/2019 - INTRODUCED.
<u>AB 1375</u> Bigelow (R)	Disaster Relief: Dead and Dying Tree Removal		Provides that the state share for removal of dead and dying trees in connection with the Governor's Proclamation of a State of Emergency issued on October 30, 2015, is not more than a certain percentage of total eligible costs.	02/22/2019 - INTRODUCED.
<u>AB 1381</u> Salas (D)	Safe Drinking Water Plan		Makes nonsubstantive changes to the provision requiring submission of a Safe Drinking Water Plan.	02/22/2019 - INTRODUCED.

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<u>AB 1389</u> Eggman (D)	Special Districts: Organization: Revenue Loss		Authorizes the local agency formation commission to propose, as part of the review and approval of a proposal for the establishment of new or different functions or class of services, or the divestiture of the power to provide particular functions or class of services, that the special district, to mitigate any loss of property taxes, franchise fees, and other revenues to any other affected local agency, provide payments to the affected local agency.	02/22/2019 - INTRODUCED.
<u>AB 1414</u> Friedman (D)	Urban Retail Water Suppliers: Reporting		Requires each urban retail water supplier on or before a certain day of each year until a certain date, to submit a completed and validated water loss audit report as prescribed by the Department of Water Resources. Requires on or before a certain date, and on or before a certain day of each year thereafter, each urban retail water supplier to submit a completed and validated water loss audit report for the previous calendar year or previous fiscal year.	02/22/2019 - INTRODUCED.
<u>AB 1415</u> Friedman (D)	Department of Water Resources: Reporting		Requires the Department of Water Resources to impose a civil penalty on any person or entity who fails to file with the Department a specified report or plan by the deadline required for that particular report or plan, as provided. Authorizes the department to reduce or waive the civil penalty under certain circumstances.	02/22/2019 - INTRODUCED.
<u>AB 1432</u> Dahle (R)	Urban Water Use Objectives: Indoor Residential		Makes a nonsubstantive change to provisions to the Department of Water Resources.	02/22/2019 - INTRODUCED.
<u>AB 1439</u> Melendez (R)	Policy for Water Quality Control		Makes nonsubstantive changes to the Porter-Cologne Water Quality Control Act.	02/22/2019 - INTRODUCED.
<u>AB 1445</u> Gloria (D)	Climate Change: Emergency Declaration and Policy		Declares that it is the policy of the State of California to restore an optimal safe climate and to provide maximum protection	02/22/2019 - INTRODUCED.

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			from climate change to all people and species, globally, including the most vulnerable.	
<u>AB 1484</u> Grayson (D)	Mitigation Fee Act: Housing Developments		Prohibits a local agency from imposing a fee on a housing development project unless the type and amount of the exaction is specifically identified on the local agency's website at time of the application for the development project is submitted to the local agency. Requires a local agency to include the location on its website of all the fees imposed upon a housing development project in the list of information provided to a development project.	02/22/2019 - INTRODUCED.
<u>AB 1486</u> Ting (D)	Local Agencies: Surplus Land		Expands the definition of local agency to include sewer, water, utility, and local and regional park districts, joint powers authorities, successor agencies to former redevelopment agencies, housing authorities, and other political subdivisions of this state, and any instrumentality thereof, that is empowered to acquire and hold real property, thereby requiring these entities to comply with requirements for the disposal of surplus land.	02/22/2019 - INTRODUCED.
<u>AB 1574</u> Mullin (D)	Lobbying Expenditures		Requires reports regarding lobbying expenditures to be filed on a monthly basis.	02/22/2019 - INTRODUCED.
<u>AB 1588</u> Gloria (D)	Drinking Water and Wastewater Operator Certification	SUPPORT	Requires operators of complex industrial facilities, including members of the military and military service veterans, to receive full equivalent experience credit and education credit for work and tasks performed that are directly related to the operation of water or wastewater facilities. Relates to water treatment operator certification.	02/22/2019 - INTRODUCED.
<u>AB 1640</u> Boerner Horvath (D)	Local Government Finance: Budget Reserves.		Requires a local government by September 1, 2020, and annually thereafter, to submit a written report to the State Controller's office on how it plans to spend any of its budget reserves, as defined, on specified priorities over a 5-year fiscal	02/22/2019 - INTRODUCED.

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			period, including, among others, mental and behavioral health services and affordable housing.	
<u>AB 1653</u> Frazier (D)	Sacramento San Joaquin Delta		Makes nonsubstantive changes to legislative findings and declarations relating to the Sacramento-San Joaquin Delta and its invaluable and unique resources of major statewide significance.	02/22/2019 - INTRODUCED.
<u>AB 1672</u> Bloom (D)	Product Labeling: Flushable Products		Expresses the intent of the Legislature to enact legislation to prohibit the sale or advertisement of any nonwoven disposable product labeled as flushable or sewer and septic safe if that product fails to meet specified performance standards.	02/22/2019 - INTRODUCED.
<u>AB 1694</u> O'Donnell (D)	Water Supply Improvements		States the intent of the legislature to enact legislation. Relates to water supply improvements.	02/22/2019 - INTRODUCED.
<u>AB 1768</u> Carrillo (D)	Contractors: Subcontractor Withholding		Makes technical, nonsubstantive changes to existing law regulating public works contracts.	02/22/2019 - INTRODUCED.
<u>AB 1819</u> Judiciary Cmt	Public Records Inspection: Use of Requester's Equipment		Grants the requester of a public record the right to use the requester's equipment, without being charged any fees or costs, to photograph or otherwise copy or reproduce any record upon inspection, unless the means of copy or reproduction would damage the record.	03/06/2019 - INTRODUCED.
<u>ACA 3</u> Mathis (R)	Water: Minimum Funding Guarantee	WATCH	Requires not less than a certain percent of specified state revenues to be set apart for the payment of principal and interest on bonds authorized pursuant to the Water Quality, Supply, and Infrastructure Improvement Act. Relates to water supply, delivery, and quality projects administered by the Department of Water Resources and water quality projects administered by the State Water Resources Control Board.	01/16/2019 - INTRODUCED.

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<u>SB 1</u> Atkins (D)	Environmental, Public Health, and Workers Defense Act		Enacts the California Environmental, Public Health, and Workers Defense Act, which prohibits a state or local agency from amending or revising its rules to be less stringent than the federal baseline standards pertaining to environmental protection.	01/16/2019 - To SENATE Committees on ENVIRONMENTAL QUALITY, NATURAL RESOURCES AND WATER, and JUDICIARY.
<u>SB 13</u> Wieckowski (D)	Accessory Dwelling Units	WATCH	Expresses the intent of the Legislature to enact legislation that would reduce impact fees and other existing barriers for homeowners seeking to create accessory dwelling units for the purpose of creating additional residential housing within their neighborhoods.	01/16/2019 - To SENATE Committee on RULES.
<u>SB 15</u> Portantino (D)	Redevelopment		States the intent of the Legislature to enact legislation relating to redevelopment.	01/16/2019 - To SENATE Committee on RULES.
<u>SB 19</u> Dodd (D)	Water Resources: Stream Gages		Requires the Department of Water Resources and the State Water Resources Control Board, upon an appropriation of funds by the Legislature, to develop a plan to deploy a network of stream gages that includes a determination of funding needs and opportunities for modernizing and reactivating existing gages and deploying new gages.	02/28/2019 - From SENATE Committee on NATURAL RESOURCES AND WATER with author's amendments.;02/28/2019 - In SENATE. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES AND WATER.
<u>SB 43</u> Allen (D)	Carbon Taxes		Requires the State Air Resources Board in consultation with the Department of Tax and Fee Administration, to submit a report to the Legislature on the results of a study to propose and determine the feasibility and practicality of a system to replace the tax imposed pursuant to the Sales and Use Tax Law with an assessment on retail products sold or used in the state based on the carbon intensity of the product to encourage the use of less carbon-intensive products.	01/16/2019 - To SENATE Committees on ENVIRONMENTAL QUALITY and GOVERNANCE AND FINANCE.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 44</u> Skinner (D)	Medium and Heavy Duty Vehicles: Comprehensive Strategy		Requires the State Air Resources Board to develop a comprehensive strategy for the deployment of medium and heavy duty vehicles in the state that results in bringing the state into compliance with federal ambient air quality standards and a reduction of motor vehicle greenhouse gas emissions. States that an unspecified amount of the annual proceeds of the Greenhouse Gas Reduction Fund will be appropriated to support the California Clean Truck, Bus, and Off Road Vehicle and Equipment Technology Program.	03/07/2019 - From SENATE Committee on RULES with author's amendments.;03/07/2019 - In SENATE. Read second time and amended. Re-referred to Committee on RULES.
<u>SB 45</u> Allen (D)	Wildfire, Drought, and Flood Protection Bond Act 2020		Enacts the Wildfire, Drought, and Flood Protection Bond Act of 2020, which, if approved by voters, authorizes the issuance of bonds to finance projects to restore fire damaged areas, reduce wildfire risk, create healthy forests and watersheds, reduce climate impacts on urban areas and vulnerable populations, protect water supply and water quality, protect rivers, lakes, and streams, reduce flood risk, protect fish and wildlife from climate impacts, and protect coastal lands and resources.	03/05/2019 - From SENATE Committee on NATURAL RESOURCES AND WATER with author's amendments.;03/05/2019 - In SENATE. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES AND WATER.
<u>SB 46</u> Jackson (D)	Emergency Services: Telecommunications		Expands the types of public utilities that can enter into agreements to access accountholder information by defining public utility to include, a local publicly owned electric utility, wireless telephony services, a public water agency, and an agency responsible for solid waste or recycling services. Authorizes a local government to establish a public warning system. Requires the Public Utilities Commission to collect specified information from telecommunications service providers	03/05/2019 - In SENATE. Read second time and amended. Re-referred to Committee on GOVERNMENTAL ORGANIZATION.
<u>SB 69</u> Wiener (D)	Ocean Resiliency Act		Requires the Department of Fish and Wildlife to undertake projects to improve hatchery management. Names certain streams and watercourses as the state Endangered Rivers List. Requires reporting on coastal and harbor management programs to address the effects of climate change. Imposes certain	03/06/2019 - From SENATE Committee on RULES with author's amendments.;03/06/2019 - In SENATE. Read second time and

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			requirements for timber harvesting plans relating to discharge of waste into water.	amended. Re-referred to Committee on RULES.
<u>SB 70</u> Nielsen (R)	Central Valley Project: State Agency		Makes nonsubstantive changes to the definition of state agency for purposes of the Central Valley Project.	01/16/2019 - To SENATE Committee on RULES.
<u>SB 128</u> Beall (D)	Enhanced Infrastructure Financing Districts: Bonds		Authorizes the public financing authority to issue bonds for purposes of enhanced infrastructure financing districts without submitting a proposal to the voters. Requires specified information related to the issuance of the bonds to be contained in the resolution.	01/24/2019 - To SENATE Committee on GOVERNANCE AND FINANCE.
<u>SB 130</u> Galgiani (D)	Wildfires: Siren Warning System		Provides that it is the intent of the Legislature to enact legislation that would authorize the installation of a siren warning system for wildfires in populated areas and communities in state responsibility areas.	01/24/2019 - To SENATE Committee on RULES.
<u>SB 133</u> Galgiani (D)	Wildfires: Detection		States the intent of the Legislature to enact legislation to create and fund a program for installing remote infrared cameras that can help in detecting wildfires.	01/24/2019 - To SENATE Committee on RULES.
<u>SB 134</u> Hertzberg (D)	Water Conservation: Water Loss Performance Standards	SUPPORT	Prohibits the State water Resources Control Board from imposing liability for a violation of the performance standards for the volume of water losses except as part of the enforcement of an urban water use objective.	01/24/2019 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<u>SB 139</u> Allen (D)	Independent Redistricting Commissions		Requires certain counties to establish an independent redistricting commission to adopt the county's supervisorial districts after each federal decennial census. If a county subject to this requirement does not establish an independent redistricting commission, that county is required to establish a nine member independent redistricting commission pursuant to a specified procedure. Requires such counties to provide for reasonable funding and staffing of the commission.	03/07/2019 - From SENATE Committee on ELECTIONS AND CONSTITUTIONAL AMENDMENTS with author's amendments.;03/07/2019 - In SENATE. Read second time and amended. Re-referred to Committee on ELECTIONS AND

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
				CONSTITUTIONAL AMENDMENTS.
<u>SB 143</u> Skinner (D)	Junk Dealers/Recyclers: Nonferrous Material: Payment		Authorizes a junk dealer or recycler to pay for nonferrous material by general use prepaid card in accordance with specified requirements.	01/31/2019 - To SENATE Committee on BUSINESS, PROFESSIONS AND ECONOMIC DEVELOPMENT.
<u>SB 166</u> Wiener (D)	Process Water Treatment Systems: Breweries and Wineries		Requires the State Water Resources Control Board, in consultation with the State Department of Public Health - Food and Drug Branch, to adopt regulations for microbiological, chemical, and physical water quality and treatment requirements for the onsite treatment and reuse of process water in breweries and wineries. Requires breweries and wineries to submit a report containing specified information and to terminate any process water treatment systems.	02/06/2019 - To SENATE Committee on ENVIRONMENTAL QUALITY.
<u>SB 190</u> Dodd (D)	Fire Safety: Building Standards		Requires the Office of the State Fire Marshal to develop, in consultation with representatives from local, state, and federal fire services, local government, building officials, utility companies, the building industry, and the environmental community, a model defensible space program. Requires the Office to make available on their website a Wildland Urban Interface Fire Safety Building Standards Compliance training manual for the training of local building officials, builders, and firefighters.	03/05/2019 - From SENATE Committee on GOVERNMENTAL ORGANIZATION with author's amendments.;03/05/2019 - In SENATE. Read second time and amended. Re-referred to Committee on GOVERNMENTAL ORGANIZATION.
<u>SB 200</u> Monning (D)	Safe and Affordable Drinking Water Fund	WATCH	Establishes the Safe and Affordable Drinking Water Fund in the State Treasury and provides that moneys in the fund are available, upon appropriation by the Legislature, to the State Water Resources Control Board to provide a stable source of funding to secure access to safe drinking water for all Californians, while also ensuring the long-term sustainability of drinking water service and infrastructure.	02/13/2019 - To SENATE Committees on ENVIRONMENTAL QUALITY and NATURAL RESOURCES AND WATER.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 204</u> Dodd (D)	State Water Project: Contracts	OPPOSE UNLESS AMENDED	Requires the Department of Water Resources to provide at least 10 days' notice to the Joint Legislative Budget Committee and relevant policy and fiscal committees of the Legislature before holding public sessions to negotiate any potential amendment of a long-term water supply contract that is of projectwide significance with substantially similar terms intended to be offered to all contractors, or that would permanently transfer a contractual water amount between contractors.	02/13/2019 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<u>SB 209</u> Dodd (D)	California Wildfire Warning Center: Weather Monitoring		Establishes the California Wildfire Warning Center, a statewide network of automated weather and environmental monitoring stations conducting fire weather forecasting and threat assessment to aid in wildfire prevention and response. Comprises the center of representatives from the Public Utilities Commission, the Office of Emergency Services, and the Department of Forestry and Fire Protection.	02/13/2019 - To SENATE Committees on GOVERNMENTAL ORGANIZATION and ENERGY, UTILITIES AND COMMUNICATIONS.
<u>SB 210</u> Leyva (D)	Heavy-Duty Vehicle Inspections and Maintenance Program		Authorizes the State Air Resources Board to develop and implement a Heavy-Duty Vehicle Inspection and Maintenance Program for nongasoline heavy-duty onroad motor vehicles. Authorizes fee assessment and penalties as part of the program. Creates the Truck Emission Check Fund, with all the moneys deposited in the fund to be available upon appropriation.	02/14/2019 - To SENATE Committees on ENVIRONMENTAL QUALITY and TRANSPORTATION.
<u>SB 212</u> Allen (D)	Elections: Local Voting Methods		Authorizes a city, county, or local educational agency to conduct an election using ranked choice voting, in which voters rank the candidates for office in order of preference.	02/13/2019 - To SENATE Committee on ELECTIONS AND CONSTITUTIONAL AMENDMENTS.
<u>SB 216</u> Galgiani (D)	Carl Moyer Memorial Air Quality Standards Attainment		Adds as an eligible project under the Carl Moyer Memorial Air Quality Standards Attainment Program, a used heavy-duty truck exchange.	02/13/2019 - To SENATE Committees on ENVIRONMENTAL QUALITY and TRANSPORTATION.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 226</u> Nielsen (R)	Watershed Restoration: Grant Program		Requires the Natural Resources Agency to develop and implement a watershed restoration grant program for purposes of awarding grants to private property land owners to assist them with watershed restoration on watersheds that have been affected by wildfire. Requires the agency to provide technical resources to the private property land owners seeking assistance with watershed restoration.	02/21/2019 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<u>SB 241</u> Moorlach (R)	Public Agencies: Joint Powers Authorities: Contracts		Relates to the Joint Powers Act. Requires the governing body of each member agency of an agency established pursuant to a joint powers agreement to approve and ratify each memorandum of understanding negotiated between the joint powers agency and its employees. Requires each member agency to approve and ratify each contract for municipal services or functions, as defined, negotiated between the joint powers agency and the entity providing the services or functions.	02/21/2019 - To SENATE Committees on GOVERNANCE AND FINANCE and LABOR, PUBLIC EMPLOYMENT AND RETIREMENT.
<u>SB 247</u> Dodd (D)	Wildland Fire Prevention: Vegetation: Management		Provides that it is the intent of the Legislature to enact legislation that would require the Department of Forestry and Fire Protection to identify trees that should be trimmed or removed to protect against contact between trees and electric power lines that could cause a fire.	02/21/2019 - To SENATE Committee on RULES.
<u>SB 266</u> Leyva (D)	Public Employees Retirement: Disallowed Compensation		Establishes new procedures under the Public Employee Retirement Law for cases in which PERS determines that the benefits of a member or annuitant are, or would be, based on compensation that conflicts with the Public Employees Pension Reform Act, and other specified laws and thus impermissible under PERL. Applies procedures retroactively to determinations made on or after a certain date, if an appeal has been filed and the employee member, survivor, or beneficiary has not exhausted specified remedies.	02/21/2019 - To SENATE Committee on LABOR, PUBLIC EMPLOYMENT AND RETIREMENT.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 287</u> Nielsen (R)	Commission on State Mandates: Test Claims: Filing Date		Relates to the filing date on test claims for the Commission on State Mandates. Specifies that for purposes of filing a test claim based on the date of incurring increased costs, "within 12 months" means by June 30 of the fiscal year following the fiscal year in which increased costs were first incurred by the test claimant.	02/21/2019 - To SENATE Committee on GOVERNANCE AND FINANCE.
<u>SB 288</u> Wiener (D)	Electricity: Self-Generation and Storage		Requires the PUC and the governing board of each local publicly owned electric utility to create one or more tariffs that offer fair compensation for customer-sited energy storage systems that export electricity to the electrical grid and to consider one or more tariffs for customer-sited energy storage and renewable energy systems to support grid reliability and community resiliency in the event of emergencies or grid outages.	02/21/2019 - To SENATE Committee on ENERGY, UTILITIES AND COMMUNICATIONS.
<u>SB 307</u> Roth (D)	Water Conveyance: Use of Facility with Unused Capacity		Prohibits a transferor of water from using a water conveyance facility that has unused capacity to transfer water from a groundwater basin underlying desert lands that is in the vicinity of specified federal lands or state lands to outside of the groundwater basin unless the State Lands Commission, in consultation with the Department of Fish and Wildlife, finds that the transfer of the water will not adversely affect the natural or cultural resources of those federal and state lands.	02/28/2019 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<u>SB 324</u> Rubio (D)	Local Government: Meetings		Clarifies that the list of entities subject to the Ralph M. Brown Act includes infrastructure financing districts, enhanced infrastructure financing districts, affordable housing authorities, and community revitalization and investment authorities.	02/28/2019 - To SENATE Committee on GOVERNANCE AND FINANCE.
<u>SB 332</u> Hertzberg (D)	Wastewater Treatment: Recycled Water		Declares, except in compliance with the bill's provisions, that the discharge of treated wastewater from ocean outfalls is a waste and unreasonable use of water. Requires each wastewater treatment facility that discharges through an ocean outfall and	02/28/2019 - To SENATE Committees on ENVIRONMENTAL QUALITY and JUDICIARY.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			affiliated water suppliers to reduce the facility's annual flow as compared to the average annual wastewater discharge baseline volume, as prescribed, by at least 50% on or before January 1, 2030, by at least 95% on or before January 1, 2040.	
<u>SB 335</u> Hurtado (D)	Provision of Sewer Service: Onsite Treatment System		Authorizes the property owner of an affected residence to opt out of the provision of sewer service for a maximum of 5 years if the adequate onsite sewage treatment system was installed no more than 5 years prior to the issuance of the order.	02/28/2019 - To SENATE Committees on ENVIRONMENTAL QUALITY and GOVERNANCE AND FINANCE.
<u>SB 341</u> Morrell (R)	Public Employment and Retirement		Requires the Board of Administration of the Public Employees' Retirement System to report a calculation of liabilities based on a discount rate equal to the yield on a 10-year United States Treasury note in the year prior to the report. Requires the Teacher's Retirement Board to provide a description of the discount rate the board uses for reporting liabilities, a calculation of liabilities based on a discount rate that is 2% below the long-term rate of return.	02/28/2019 - To SENATE Committee on LABOR, PUBLIC EMPLOYMENT AND RETIREMENT.
<u>SB 355</u> Portantino (D)	Joint Powers Agencies: Meetings		Relates to The Joint Exercise of Powers Act. Relates to The Ralph M. Brown Act. Eliminates the requirement that the designated alternate member of the legislative body of the joint powers agency also be a member of the legislative body of a member local agency.	02/28/2019 - To SENATE Committee on GOVERNANCE AND FINANCE.
<u>SB 370</u> Umberg (D)	Discovery: Response to Inspection Demands		Eliminates the option to produce documents as they are kept in the usual course of business, thereby requiring documents produced in response to a demand for inspection, copying, testing, or sampling to be organized and labeled to correspond with the categories in the demand made under the Civil Discovery Act.	02/28/2019 - To SENATE Committee on JUDICIARY.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 379</u> Governance and Finance Cmt	Validations		Enacts the First Validating Act of 2019 validating organization, boundaries, acts, proceedings, and bonds of the state and counties, cities and specified districts, agencies, and entities.	02/28/2019 - To SENATE Committee on GOVERNANCE AND FINANCE.
<u>SB 380</u> Governance and Finance Cmt	Validations		Enacts the Second Validating Act of 2019 validating organization, boundaries, acts, proceedings, and bonds of the state and counties, cities and specified districts, agencies, and entities.	02/28/2019 - To SENATE Committee on GOVERNANCE AND FINANCE.
<u>SB 381</u> Governance and Finance Cmt	Validations		Enacts the Third Validating Act of 2019 validating organization, boundaries, acts, proceedings, and bonds of the state and counties, cities and specified districts, agencies, and entities.	02/28/2019 - To SENATE Committee on GOVERNANCE AND FINANCE.
<u>SB 386</u> Caballero (D)	State Renewables Portfolio Standard Program		Provides that hydroelectric generation that is owned by one or more irrigation districts is an eligible renewable energy resource for purposes of the State Renewables Portfolio Standard Program if it has a first point of interconnection with a State balancing authority or has a first point of interconnection with distribution facilities used to serve end users within a State balancing authority area.	02/28/2019 - To SENATE Committee on ENERGY, UTILITIES AND COMMUNICATIONS.
<u>SB 414</u> Caballero (D)	Small System Water Authority Act of 2019	SUPPORT IN CONCEPT	Creates the Small System Water Authority Act of 2019 and states legislative findings and declarations relating to authorizing the creation of small system water authorities that will have powers to absorb, improve, and competently operate noncompliant public water systems.	02/28/2019 - To SENATE Committees on GOVERNANCE AND FINANCE and ENVIRONMENTAL QUALITY.
<u>SB 454</u> Caballero (D)	Water Resources Control Board: Administrative Hearing		Authorizes the State Water Resources Control Board an Administrative hearings Office to be supported in full or in part by fees assessed against parties that participate in a hearing conducted by the office and prohibits the fees from being in an amount more than necessary to cover the reasonable costs of the burden imposed on the office by the individual fee payor.	03/07/2019 - To SENATE Committee on NATURAL RESOURCES AND WATER.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 474</u> Stern (D)	Department Of Water Resources: Appropriations Of Water		Eliminates the exemption from application of water diligence provisions under the State Water Resources Control Board.	03/07/2019 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<u>SB 487</u> Caballero (D)	Department Of Water Resources: Aerial Snow Survey		Requires the Department of Water Resources California snow survey program to conduct aerial surveys of the snowpack in the Trinity Alps and Sierra Nevada Mountains, including hydrologic areas that drain or supply water to certain major reservoirs and lakes. Requires the department to collect the aerial survey data up to 10 times per year in each hydrologic area and to summarize and make publicly available the data obtained.	03/07/2019 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<u>SB 518</u> Wieckowski (D)	Public Records: Disclosure: Court Costs and Attorney		Relates to court costs and attorney's fees disclosure for purposes of the award of those costs specifically notwithstanding a provision of existing law that prescribes the withholding or augmentation of costs if an offer is made before judgment or award in a trial or arbitration.	03/07/2019 - To SENATE Committees on JUDICIARY and APPROPRIATIONS.
<u>SB 530</u> Galgiani (D)	Construction: Discrimination and Harassment Policy		Requires the Division of Labor Standards Enforcement to develop recommendations for an industry-specific harassment and discrimination prevention policy and training standard for use by employers in the construction industry. Requires the department to convene an advisory committee consisting of specified representatives from the construction industry and state agencies to assist the division in developing the policy.	03/07/2019 - To SENATE Committee on LABOR, PUBLIC EMPLOYMENT AND RETIREMENT.
<u>SB 532</u> Portantino (D)	Redevelopment: Bond Proceeds: Affordable Housing		Authorizes a successor agency, of a dissolved redevelopment agency, to use the remaining bond proceeds for the purposes of increasing, improving, and preserving affordable housing, as defined.	03/07/2019 - To SENATE Committees on GOVERNANCE AND FINANCE and HOUSING.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 535</u> Moorlach (R)	Global Warming Solutions Act: Scoping Plan		Requires the State Air Resources Board to prepare and approve a scoping plan for achieving the maximum technologically feasible and and cost-effective reductions in greenhouse gas emissions and to update the scoping plan at least once every five years. Requires the state board to include greenhouse gas emissions from wildfires and forest fires in the scoping plan.	03/07/2019 - To SENATE Committee on ENVIRONMENTAL QUALITY.
<u>SB 559</u> Hurtado (D)	Department of Water Resources Grant		Appropriates funds to the Department of Water Resources for the purposes of restoring the Friant Kern Canal to its full capacity.	03/07/2019 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<u>SB 576</u> Umberg (D)	State Coastal Conservancy: Coastal Climate Change		Requires the State Coastal Conservancy to develop and implement a coastal climate adaption, infrastructure, and readiness program designed to, among other things, improve the climate change resiliency of the state's coastal communities, infrastructure, and habitat, as prescribed, and host an international conference on coastal climate change not less than once every 2 years.	03/07/2019 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<u>SB 608</u> Glazer (D)	Architects: Contracts		Relates to existing law requiring an architect to use a written contract when contracting to provide professional services. Requires the written contract to include a description of the project, a description of the procedure that will be used to accommodate contract changes, the project address, a statement identifying the ownership and use of instruments of service prepared by the architect.	02/22/2019 - INTRODUCED.
<u>SB 629</u> McGuire (D)	Air Districts: Hearing Boards: Notice Requirements		Relates to the Ralph M. Brown Act. Requires a hearing board to send a notice of hearing not less than a specified number of hours before the hearing to any person who requests the notice.	02/22/2019 - INTRODUCED.
<u>SB 641</u> Allen (D)	Special Elections: Ranked Choice Voting		Authorizes the Governor to require that a special election to fill a vacancy in a congressional or legislative office be conducted by ranked choice voting, as defined, if the affected jurisdiction	02/22/2019 - INTRODUCED.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			is capable of using this voting method and the Secretary of State has approved the specific ranked choice voting method to be used.	
<u>SB 646</u> Morrell (R)	Local Agency Utility Services: Service Extensions		Requires a local agency formation commission to authorize a city or district to extend a service outside its jurisdiction boundary, but within its sphere of influence, if no city, district, or privately owned public utility provides that service, irrespective of whether a change of organization is anticipated.	02/22/2019 - INTRODUCED.
<u>SB 668</u> Rubio (D)	Fire Hydrants: Water Suppliers: Regulations		Requires the State Water Resources Control Board, by December 1, 2021, to develop and adopt regulations for reporting and inspections regarding public water suppliers. Requires that the regulations adopted by the board ensure water suppliers' compliance with local standards for fire safety.	02/22/2019 - INTRODUCED.
<u>SB 669</u> Caballero (D)	Water Quality: Safe Drinking Water Fund	SUPPORT	Establishes the Safe Drinking Water Fund in the State Treasury. Provides that moneys in the fund are continuously appropriated to the state board. Requires the state board to administer the fund to assist community water systems in disadvantaged communities that are chronically noncompliant relative to the federal and state drinking water standards and do not have the financial capacity to pay for operation and maintenance costs comply with those standards.	02/22/2019 - INTRODUCED.
<u>SB 690</u> Hueso (D)	California Regional Water Quality Control Boards		Makes a nonsubstantive change to the State Water Resources Control Board and the 9 California regional water quality control boards.	02/22/2019 - INTRODUCED.
<u>SB 693</u> Borgeas (R)	State Water Resources Control Board		Makes nonsubstantive changes in the State Water Resources Control Board an administrative Hearings Office.	02/22/2019 - INTRODUCED.
<u>SB 699</u> Hill (D)	Director of Water Resources		Makes nonsubstantive changes relating to the powers of the Director of Water Resources.	02/22/2019 - INTRODUCED.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 762</u> Jones (R)	Groundwater Storage		Makes a nonsubstantive change in provisions relating to groundwater storage.	02/22/2019 - INTRODUCED.
<u>SB 772</u> Bradford (D)	Long Duration Bulk Energy Storage: Procurement		Requires the Independent System Operator to complete a competitive solicitation process for the procurement of one or more long duration energy storage projects.	02/22/2019 - INTRODUCED.
<u>SB 779</u> Nat Resour & Water Cmt	Appropriation of Water: Change of Point of Diversion		Authorizes an applicant, permittee, or licensee, for purposes of appropriating water, to change any other provision or condition from that specified in the application, permit, or license upon permission of the State Water Resources Control Board. Authorizes the board to make a minor change to an application, permit, or license without requiring the filing of a petition for change if it makes specified findings.	02/27/2019 - INTRODUCED.
<u>SB 780</u> Governance and Finance Cmt	Local Government Omnibus Act		Requires the Secretary of State and each county clerk to establish and maintain an indexed Registry of Public Agencies containing a specified statement of facts about the agency.	02/28/2019 - INTRODUCED.

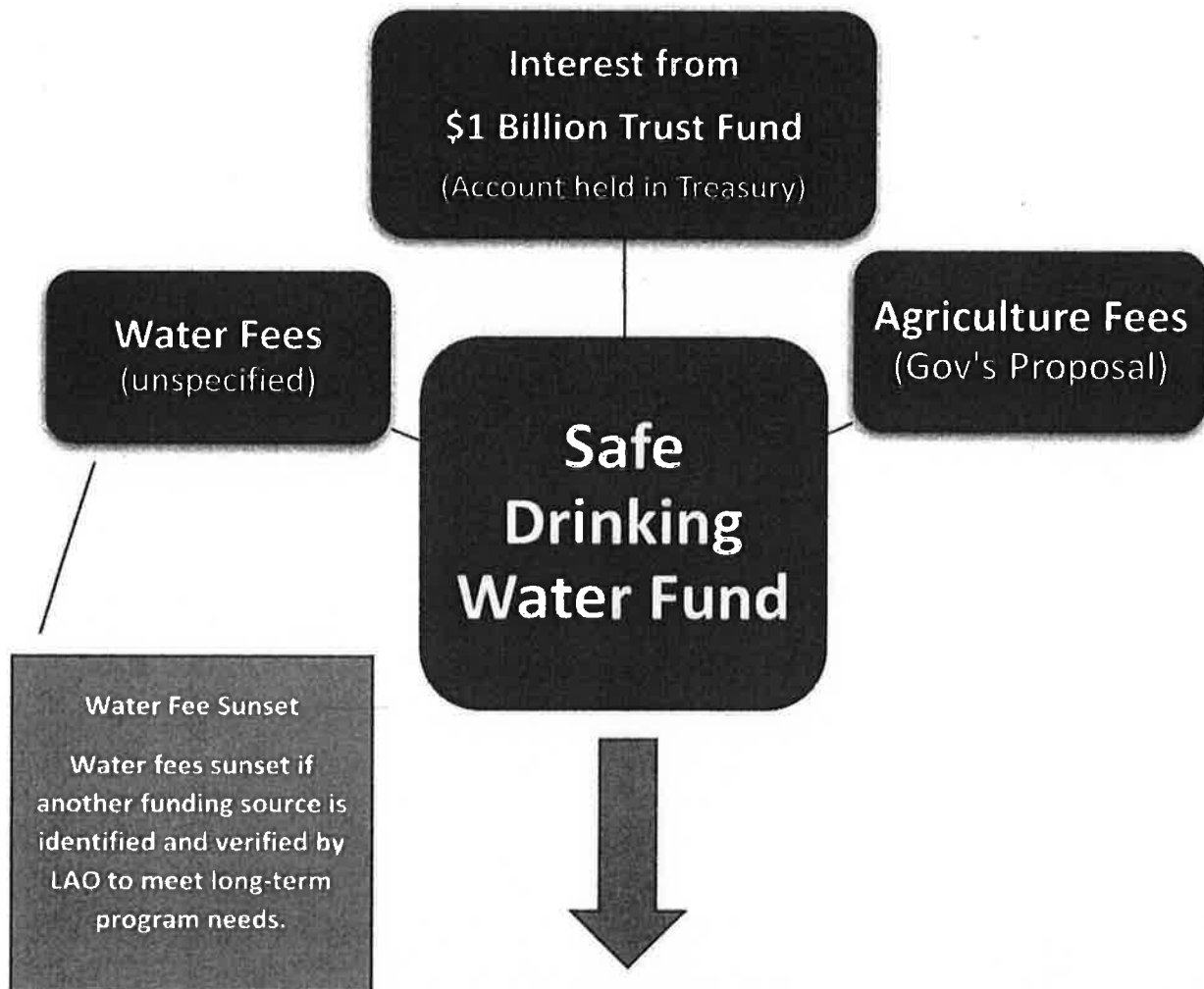
Exhibit “B”

2019 Legislative Update Report:
Links to Bill & Regulatory Texts
(as of March 11, 2019)

Bill Number/Version Date	Link to Bill Text
Safe and Affordable Drinking Water Budget Trailer Bill	http://www.dof.ca.gov/Budget/Trailer_Bill_Language/documents/SafeandAffordableDrinkingWaterandExideCleanup.pdf
AB 134 (Bloom), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB134
AB 217 (Garcia), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB217
AB 510 (Cooley), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB510
AB 1204 (Rubio), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB1204
AB 1414 (Friedman), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB1414
AB 1415 (Friedman), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB1415
AB 1432 (Dahle), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB1432
AB 1486 (Ting), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB1486

ACA 3 (Mathis/Garcia), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200ACA3
SB 134 (Hertzberg), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB134
SB 200 (Monning), as amended	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB200
SB 307 (Roth), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB307
SB 332 (Hertzberg/Wiener), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB332
SB 414 (Caballero), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB414
SB 669 (Caballero), as introduced	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB669

EXHIBIT "C"



80% for Statewide Needs

- Prioritizes disadvantaged communities, operations and maintenance, and identified failing water systems. May be used for individual wells (only where serving community water systems), lead, etc.

20% for Regional Needs

- May be used within regions for similar purposes, rate affordability, lead, etc.

March 25, 2019

Prepared by: S. Malloy

Submitted by: K. Burton (KLB)

Approved by: Paul A. Cook 

ACTION CALENDAR

MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES CHANGE ORDER, VARIANCES, AND BUDGET INCREASE

SUMMARY:

Filanc/Balfour-Beatty (FBB) is constructing the Michelson Water Recycling Plant (MWRP) Biosolids and Energy Recovery Facilities (Biosolids Project). The Biosolids Project is scheduled to be extended to June 30, 2020. The services of various consultants are needed to supplement the construction management team of the Biosolids project through this time extension. Additionally, staff has resolved several change requests and recommends approval for Change Order No. 99. Staff recommends that the Board:

- Approve Change Order No. 99 in the amount of \$330,609.60 for items including hardscaping, soil remediation, paving, mechanical and electrical changes, and SCADA programming modifications;
- Authorize the General Manager to execute Variance No. 8 with Black & Veatch in the amount of \$2,865,066 for supplemental construction contract administration, start-up, and commissioning services;
- Authorize the General Manager to execute Variance No. 3 with Arcadis, Inc. in the amount of \$664,138 for supplemental construction inspection, construction management, and document control system services;
- Authorize the General Manager to execute Variance No. 3 with EI&C Engineering, Inc. in the amount of \$835,860 for supplemental process control system (PCS) services, construction management services, start-up testing, and various engineering support tasks; and
- Authorize a budget increase in the amount of \$10,969,000, from \$227,573,100 to \$238,542,100, to the FY 2018-19 Capital Budget for the Michelson Water Recycling Plant Biosolids and Energy Recovery Facilities, Project 04286.

BACKGROUND:

Construction of the Biosolids Project was awarded to FBB in March 2013 in the amount of \$163,465,940. The Biosolids Project will provide biosolids digestion, dewatering, energy production, and on-site sludge drying. The project includes excavation for subsurface structures; installation of 3,009 foundation piles; three egg-shaped digesters; a state-of-the-art odor control system; a biogas conditioning system and power generation using micro-turbines; a fats, oil and grease receiving station; and new utility services. These facilities are being constructed on the land north of IRWD's existing Operations Center, maintenance shops, water quality laboratory, and warehouse.

Change Order No. 99

Staff negotiated with FBB and agrees to the labor and material costs contained in Change Order No. 99 in the amount of \$330,609.60. Change Order No. 99 includes the following items:

- *Regenerative Thermal Oxidizer (RTO) Stack Bypass Re-route in the amount of \$42,305.48* – So that the dryer off-gasses can be treated, the RTO stack bypass was re-routed to the odor control system of the Solids Handling Building. As originally designed the gasses would have been exhausted to atmosphere. This item is for the labor and material to re-route the bypass to the odor control system.
- *Additional Soil Remediation on the South Road of Biosolids Site in the amount of \$43,444.97* – Upon the recommendation of the design geotechnical engineer, a portion of the South Road of the Biosolids site was over-excavated and re-compacted to provide more stability in an area that has experienced settlement in the past. This item is for the labor and equipment to perform the remediation.
- *Additional Base and Paving in the amount of \$21,619.30* – An additional area on the south side of the Biosolids site of about 2,900 square feet required base and paving from the original design. This item is for the labor and materials to install additional base and paving.
- *Odor Scrubber Recirculation Piping and Pipe Support Modifications in the amount of \$103,308.35* – The recirculation piping and pipe support for the odor scrubber needed to be modified. The piping needed to be upgraded to larger sized diameter pipes. More valves, fittings, and appurtenances were also required. This item is for the labor and materials to make the necessary modifications.
- *Electrical Modifications in the Control Room of the Solids Handling Building in the amount of \$9,371.28* – To meet operational needs, electrical modifications in the Operations Control Room of the Solids Handling Building were necessary. These modifications included additional lighting, receptacles, and power conduits. This item is for the labor and material to make these modifications.
- *Modifications to the Acoustical Panels in the Solids Handling Building in the amount of \$14,704.14* – Modifications to various acoustical panels in the Solids Handling Building were necessary due to installation of large heating and ventilation ducts directly in front of the acoustical panels. This item is for the labor and material to relocate these acoustical panels to more effective locations.
- *New 480 V Power Source for Vacuum System in the Dryer Room in the amount of \$9,995.96* – To provide electrical power to the vacuum system in the dryer room, a 480V power source is necessary. The power source was not shown in the Contract Documents. This item is for the labor and material to install the new power source.

- *Explosion Proof Duct Smoke Detector in the Digester Control Building Gas Room in the amount of \$25,719.23* – An explosion proof duct smoke detector is required in the Digester Control Building Gas Room. This change request is for the labor and materials to install the explosion proof duct detector.
- *SCADA Programming Update to the Centrate Treatment Area in the amount of \$38,467.14* – This item modifies the control logic to synchronize the operation of the centrate basins so that one basin is accepting flow at all times. This modification makes the system easier to operate and prevents the operator from making an error when setting up the time durations for each phase of the process. This request is for the labor to make the necessary changes to the SCADA programming.
- *SCADA Programming Update to Digester Gas System in the amount of \$21,673.75* – This item is for programming changes to add backup control based on pressure for the digester gas system in the event of a loss of signal from the level transmitter at the Digester Gas Holder. This backup control enhances the reliability of the digester gas system. This item is for labor to make the necessary SCADA programming changes.

Staff recommends approval of Change Order No. 99 with FBB in the amount of \$330,609.60. Change Order No. 99 is attached as Exhibit “A” and the Change Order Log is attached as Exhibit “B”.

Variance No. 8 with Black & Veatch:

Black & Veatch (B&V) has provided contract administration, construction inspection, and construction management services since 2013. The scope of Variance No. 8 is summarized below:

- Additional Submittal Reviews – It is anticipated that 3,600 submittals will be reviewed by the completion of the project. The original estimate was 2,400 submittals.
- Additional Review of Requests for Information (RFIs) – It is anticipated that 3,300 RFIs will be reviewed and processed by the completion of the project. The original estimate was 2,500 RFIs.
- Additional Schedule Review
- Claims Review and Dispute Resolution
- Supplemental Onsite Design Team Representative, electrical and instrumentation/controls inspections, and civil/mechanical field engineering
- Electronic O&M Manual Development
- Pre-Start-Up Process Overview Training
- Start-Up Testing Coordination
- Post-Start-Up Services

Black & Veatch staff is being extended on a case-by-case basis based upon its need to be involved on the project on various tasks. Staff has reviewed this staff utilization plan to support project startup and closeout activities. Variance No. 8, shown as Exhibit “C”, with Black &

Veatch in the amount of \$2,865,066 is for supplemental contract administration, construction phase, and start-up and commissioning services.

Variance No. 3 with Arcadis, Inc.:

Arcadis has provided construction inspection, construction management, and document control system services since the start of the Biosolids project. Through Variance No. 3, Arcadis will negotiate and prepare change orders, provide as-needed construction management support, assist with resolving project claims and delays submitted by FBB, and assist in project close-out activities. These services will be provided through June 30, 2020. Arcadis will also provide document control services until June 30, 2020, including assistance with the archiving of vital project documents. Variance No. 3 with Arcadis, Inc., attached as Exhibit “D”, is for construction management and document control support in the amount of \$664,138.

Variance No. 3 with EI&C Engineering, Inc.:

EI&C Engineering has provided technical oversight of the process control system (PCS) development and will continue in this role through June 30, 2020. Additionally, EI&C will provide additional automation staff to support start-up testing when it is anticipated that multiple start-up tests are scheduled simultaneously. Also, EI&C will provide engineering support for air permitting, start-up testing, and other engineering tasks. Variance No. 3, shown as Exhibit “E”, with EI&C Engineering, Inc. in the amount of \$835,860 is for supplemental PCS construction management services, start-up testing, development of PCS operations manuals, and associated PCS training presentations.

Additional Budget:

With the extension of the project to June 30, 2020, an increase in the capital budget for the Biosolids Project is required. Additional budget is being requested to fund the future change orders, consultants, Construction Management staff, legal and claims staff to resolve more complex construction items, Operations and Maintenance staff during start-up and training, landscaping, and the MWRP Construction Trailer and supplies.

The estimated expenses are itemized below:

Future Change Orders	\$1,250,000
Consultants	\$4,167,000
Legal	\$3,600,000
IRWD Staff	\$1,741,000
Start-Up Chemicals	\$200,000
Landscape	\$700,000
<u>Contingency</u>	<u>\$1,000,000</u>
Total Expenses	\$12,658,000

There is currently approximately \$1,689,000 left in the existing Biosolids budget. Staff is requesting a budget increase of \$10,969,000 to cover the estimated expenses.

Schedule:

The estimated phasing schedule of the consultants is attached as Exhibit “F”.

FISCAL IMPACTS:

The MWRP Biosolids and Energy Recovery Facilities, Project 04286 is included in the FY 2018-19 Capital Budget. Staff requests a budget increase in the amount of \$10,969,000, for the reasons stated above, as shown in the table below:

Project No.	Current Budget	Addition <Reduction>	Total Budget
04286	\$227,573,100	\$10,969,000	\$238,542,100

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 19, 2019.

RECOMMENDATION:

THAT THE BOARD APPROVE CHANGE ORDER NO. 99 IN THE AMOUNT OF \$330,609.60, WITH FILANC/BALFOUR BEATTY FOR ITEMS INCLUDING HARDSCAPING, SOIL REMEDIATION, PAVING, MECHANICAL AND ELECTRICAL CHANGES, AND SCADA PROGRAMMING MODIFICATIONS; AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 8 WITH BLACK & VEATCH IN THE AMOUNT OF \$2,865,066 FOR SUPPLEMENTAL CONTRACT ADMINISTRATION, CONSTRUCTION PHASE, START-UP, AND COMMISSIONING SERVICES; AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 3 WITH ARCADIS, INC. IN THE AMOUNT OF \$664,138 FOR SUPPLEMENTAL CONSTRUCTION MANAGEMENT AND DOCUMENT CONTROL SYSTEM SERVICES; AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 3 WITH EI&C ENGINEERING, INC. IN THE AMOUNT OF \$835,860 FOR SUPPLEMENTAL PROCESS CONTROL SYSTEM (PCS) OVERSITE, CONSTRUCTION MANAGEMENT SERVICES, START-UP TESTING, AND VARIOUS ENGINEERING TASKS; AND AUTHORIZE A BUDGET INCREASE IN THE AMOUNT OF \$10,969,000 FROM \$227,573,100 TO \$238,542,100, TO THE FY 2018-19 CAPITAL BUDGET FOR THE MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES, PROJECT 04286.

LIST OF EXHIBITS:

- Exhibit “A” – Change Order No. 99 with Filanc/Balfour-Beatty
- Exhibit “B” – Change Order Log
- Exhibit “C” – Variance No. 8 with Black & Veatch
- Exhibit “D” – Variance No. 3 with Arcadis, Inc.
- Exhibit “E” – Variance No. 3 with EI&C Engineering, Inc.
- Exhibit “F” – Estimated Phasing Schedule of Consultants

EXHIBIT "A"

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. 99

☐ Final

Project No. 04286

MWRP Biosolids and Energy Recovery Facilities

Project Title

Date: 03/06/2019

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
1. Regenerative Thermal Oxidizer Stack Bypass Re-route (CR-153) PR 04286 Task 5.31	\$42,305.48	\$0.00	See Notes
2. Additional Soil Remediation on the South Road of Biosolids Site (CR-327) PR 04286 Task 5.29	\$43,444.97	\$0.00	See Notes
3. Additional Base and Paving (CR-331C) PR 04286 Task 5.29	\$21,619.30	\$0.00	See Notes
4. Odor Scrubber Recirculation Piping and Pipe Support Modifications (CR-402/CR-402A) Task 5.31	\$103,308.35	\$0.00	See Notes
5. Electrical Modifications in the Control Room of the Solids Handling Building (CR-453A) PR 04286 Task 5.30	\$9,371.28	\$0.00	See Notes
6. Modifications to the Acoustical Panels in the Solids Handling Building (CR-723) PR 04286 Task 5.30	\$14,704.14	\$0.00	See Notes
7. New 480 V Power Source for Vacuum System in the Dryer Room (CR-733) PR 04286 Task 5.30	\$9,995.96	\$0.00	See Notes
8. Explosion Proof Duct Detector in the Digester Control Building Gas Room (CR-744) PR 04286 Task 5.30	\$25,719.23	\$0.00	See Notes
9. SCADA Programming Update to the Centrate Treatment Area (CR-748) PR 04286 Task 5.29	\$38,467.14	\$0.00	See Notes
10. SCADA Programming Update to Digester Gas System (CR-754) PR 04286 Task 5.29	\$21,673.75	\$0.00	See Notes
Notes: 1. For all items noted above, the Contractor reserves the right to compensable and/or excusable time extensions provided that time impacts to the Project's critical path are demonstrated to be beyond the Contractor's control. 2. Contractor reserves any and all rights it has and otherwise does not waive or release any claims it may have for additional compensation related to impact, including but not limited to the cumulative effect of the number, nature, or extent of any changes or design clarifications. 3. The project completion date of October 31, 2017 per CCO No. 45 is unchanged by this Change Order.			
TOTAL	\$330,609.60	\$0.00	0

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.

DAYS +

1. NET AMOUNT THIS CHANGE ORDER	=	\$330,609.60	0
2. ORIGINAL CONTRACT AMOUNT	=	\$163,465,940.00	1,278
3. TOTAL PREVIOUS CHANGE ORDER(S)	=	\$20,449,700.30	368
4. TOTAL BEFORE THIS CHANGE ORDER (2+ 3)	=	\$183,915,640.30	1,646
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4)	=	\$184,246,249.90	1,646

We hereby agree to make the above change subject to the terms of this change order for the sum of: _____
 -----Three Hundred Thirty Thousand Six Hundred and 60/100 -----Dollars

Filanc/Balfour-Beatty

Date

Contractor

By: Omar Rodea, President

SIGNATURE	DATE	APPROVAL LEVEL REQUIRED
IRWD Engineer or Consulting Engineer <i>Steve Malloy</i>	Date 3-11-19	Department Director Approval Required <input type="checkbox"/>
Principal Engineer <i>Kevin L. Butler</i>	Date 3-12-19	Executive Director Approval Required <input type="checkbox"/>
Executive Director of Engineering & Water Quality	Date	General Manager Approval Required <input type="checkbox"/>
General Manager	Date	Board Approval Required <input checked="" type="checkbox"/>
		Purchase Order No.

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

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

EXHIBIT "B"

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

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

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

A - District Convenience/Initiation - Project Related
B - Differing Site Conditions
C - Design Oversight
D - District Convenience/Initiation - Non-Project Related
E - Contractor Convenience/Initiation
F - Contractor Requested Inspection Overtime

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
7	Approved by Exe Dir of Eng & Water Quality Approved on April 21, 2014 7.1 Meter Shop Discharge Pipe Leak Investigation and Repair (CR-013) PR 21146 (4286) Task 3505 7.2 Additional Reinforcement and Lifting Eyes for Removable Slabs at Solids Handling Building (CR-021) PR 21146 (4286) Task 3505 7.3 Increased Grating Thickness at Solids Handling Facility (CR-041) PR 21146 (4286) Task 3505 Additional Conductance Probe Materials for Relay Level Switches for Various Sumps Located at the Microturbine Area PR 21146 (4286) Task 3510	B C C	IRWD FBB FBB	 \$2,542.00 \$14,059.00 \$8,124.00	\$24,725.00	\$857,876.45	\$882,601.45	0.54%	\$164,348,541.45	0 0 0	0 0 0	0 0 0	1,278	10/28/2016
8	Approved by General Manager Approved on April 21, 2014 8.1 Cost Sharing for Project Partnering (CR- Credit for Primavera 7.0 Project Portfolio Management Software (CR-002) PR 21146 (4286) Task 3235 8.2 8.3 Deletion of Concrete Pad near Development Area (CR-004A) PR 21146 (4286) Task 3235 8.4 Deletion of Ground Test Device (CR-034) PR 21146 (4286) Task 3210 8.5 Deletion of Existing T-4 Switchgear Level Indicating Switch (CR-035) PR 21146 (4286) Task 3210 8.6 Change to NEMA 4X Panels and Modification to NEMA 4X Bar Graph Display (CR-046) PR 21146 (4286) Task 3210	A A A A A A	IRWD IRWD IRWD IRWD IRWD IRWD	 (\$14,611.00) (\$2,700.00) (\$3,865.00) (\$15,579.00) (\$9,167.00) (\$4,068.00)	(\$49,990.00)	\$882,601.45	\$832,611.45	0.51%	\$164,298,551.45	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	1,278	10/28/2016
9	Approved by Exe. Director of Eng. & Water Quality Approved on May 31, 2014 9.1 Additional Circuits for Gas Monitors and Re-route of Conduits in Solids Handling Facility (CR-028) PR 21146 (4286) Task 3510 9.2 Cantilevered Beam Support Modifications in the Solids Handling Facility (CR-049) PR 21146 (4286) Task 3505 9.3 Additional Ethernet Switches (CR-062) PR 21146 (4286) Task 3510	C C C	FBB FBB IRWD	 \$1,187.49 \$4,605.30 \$19,047.38	\$24,840.17	\$832,611.45	\$857,451.62	0.52%	\$164,323,391.62	0 0 0	0 0 0	0 0 0	1,278	10/28/2016
10	Approved by Exe. Director of Eng. & Water Quality Approved on May 31, 2014 10.1 Additional Grace Ports for Various PLCs (CR-030) PR 21146 (4286) Task 3510 10.2 Provide H-20 Rated Hatches at WAS Pump Station and Valve Vault (CR-061) PR 21146 (4286) Task 3505	C C	IRWD IRWD	 \$8,580.62 \$12,818.37	\$21,398.99	\$857,451.62	\$878,850.61	0.54%	\$164,344,790.61	0 0 0	0 0 0	0 0 0	1,278	10/28/2016

A - District Convenience/Initiation - Project Related
B - Differing Site Conditions
C - Design Oversight
D - District Convenience/Initiation - Non-Project Related
E - Contractor Convenience/Initiation
F - Contractor Requested Inspection Overtime

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum Total C.O. days	Revised Total Contract Days	Revised Completion Date
11	Approved by Exe. Director of Eng. & Water Quality Approved on June 4, 2014				\$24,739.76	\$878,850.61	\$903,590.37	0.55%	\$164,369,530.37	#REF!	0	#REF!	#REF!	10/28/2016
11.1	Waste Activated Sludge (WAS) Pump Station Structural Modifications (CR-023) PR 21146 (4286) Task 3505	C	IRWD	\$12,905.49						0				
11.2	Removable Slab Modifications on the Second Floor of Solids Handling Building (CR-064) PR 21146 (4286) Task 3505	C	IRWD	\$11,834.27						0				
12	Approved by Board of Directors Approved on July 21, 2014				\$156,580.22	\$903,590.37	\$1,060,170.59	0.65%	\$164,526,110.59	0	0	0	1,278	10/28/2016
12.1	Final Bid Quantity Adjustment for Bid Item No. 5.2 - Undocumented Fill (suitable) - Remedial Grading - Remove and Re-compact a net increase of 8,104.7 CY from 51,700 CY to 59,804.7 CY at \$5/CY. PR 21146 (4286) Task 3505	B	N/A	\$40,523.37						0				
12.2	Final Bid Quantity Adjustment for Bid Item No. 5.5 - Undocumented Fill (not suitable) - Remedial Grading - Remove and Export Offsite, a net increase of 60 CY, from 1,800 CY to 1,860 CY at \$25 /CY. PR 21146 (4286) Task 3505	B	N/A	\$1,500.00						0				
12.3	Final Bid Quantity Adjustment for Bid Item No. 5.6 - Geotextile Fabric - Remedial Grading, a net decrease of 5,414 SF, from 181,500 SF to 176,086 SF at \$0.40/SF. PR 21146 (4286) Task 3505	B	N/A	(\$2,165.60)						0				
12.4	Final Bid Quantity Adjustment for Bid Item No. 5.6 - Geotextile Fabric - Remedial Grading, a net decrease of 5,414 SF, from 181,500 SF to 176,086 SF at \$0.40/SF. PR 21146 (4286) Task 3505	B	N/A	(\$6,523.33)						0				
12.5	Final Bid Quantity Adjustment for Bid Item No. 5.8 - Undocumented Fill - Deep Foundations - Removal, a net increase of 966 CY, from 21,650 CY to 22,616 CY at \$5.50/CY. PR 21146 (4286) Task 3505	B	N/A	\$5,313.00						0				
12.6	Final Bid Quantity Adjustment for Bid Item No. 5.9 - Alluvium - Remedial Grading - Removal and Export Offsite, a net increase of 2,076 CY, from 28,154 CY to 30,230 CY at \$35/CY. PR 21146 (4286) Task 3505	B	N/A	\$72,665.98						0				
12.7	Final Bid Quantity Adjustment for Bid Item No. 5.10 - Undocumented Fill Deep Foundations - Compaction of stockpiled materials, a net increase of 3,117 CY, from 11,400 CY to 14,517 CY at \$15/CY. PR 21146 (4286) Task 3505	B	N/A	\$46,755.00						0				
12.8	Final Bid Quantity Adjustment for Bid Item No. 5.11 - Undocumented Fill - Deep Foundations - Export excess offsite a net decrease of 2,151 CY, from 10,250 CY to 8,099 CY PR 21146 (4286) Task 3505	B	N/A	(\$30,114.00)						0				

A - District Convenience/Initiation - Project Related
B - Differing Site Conditions
C - Design Oversight
D - District Convenience/Initiation - Non-Project Related
E - Contractor Convenience/Initiation
F - Contractor Requested Inspection Overtime

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

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

				Contract Amount						Contract Days				Original Completion Date:	
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016	
Change Order		Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
	12.9	Final Bid Quantity Adjustment for Bid Item No. 5.12 - Geotextile Fabric - Deep Foundations, a net increase of 9,218 SF, from 51,500 SF to 60,718 SF at \$0.60/SF. PR 21146 (4286) Task 3505	B	N/A	\$5,530.80						0				
	12.10	Final Bid Quantity Adjustment for Bid Item No. 5.13 - Aggregate Base - Deep Foundations, a net increase of 513.2 CY, from 2,860 CY to 3,373.2CY at \$45/CY. PR 21146 (4286) Task 3505	B	N/A	\$23,095.00						0				
13		Approved by Exe. Director of Engineering & Water Quality Approved on July 10, 2014				\$10,129.18	\$1,060,170.59	\$1,070,299.77	0.65%	\$164,536,239.77	0	0	0	1,278	10/28/2016
	13.1	Modifications to Switchgear 16 (CR-070) PR 21146 (4286) Task 3510	A	FBB	\$10,129.18						0				
14		Approved by General Manager Approved on June 24, 2014				\$44,543.19	\$1,070,299.77	\$1,114,842.96	0.68%	\$164,580,782.96	0	0	0	1,278	10/28/2016
	14.1	Slide Gates Clarification Regarding Actuators (CR-039) PR 21146 (4286) Task 3520	A	IRWD	\$44,543.19						0				
15		Approved by General Manager Approval on July 31, 2014				\$45,214.40	\$1,114,842.96	\$1,160,057.36	0.71%	\$164,625,997.36	0	0	0	1,278	10/28/2016
	15.1	Provide Masonry Shelf Angle at Digester Control Building (CR-031) PR 21146 (4286) Task 3505	C	FBB	\$27,543.19						0				
	15.2	Beam Size Increase for Monorail Runway in Solids Handling Building - (CR-074) PR 21146 (4286) Task 3505	C	FBB	\$1,200.47						0				
	15.3	Upsize Odor Control Circulation Pump Motor Disconnects (CR-082) PR 21146 (4286) Task 3510	B	FBB	\$1,184.83						0				
	15.4	Additional Deck Support for the Solids Handling Building Roof (CR-044) PR 21146 (4286) Task 3505	C	FBB	\$15,285.91						0				
16		Approved by E&O Committee Approved on August 19, 2014				\$62,037.10	\$1,160,057.36	\$1,222,094.46	0.75%	\$164,688,034.46	0	0	0	1,278	10/28/2016
	16.1	Installation of Level 3 Diesel Particulate Filter (DPF) on the Standby Generator - (CR-073) PR 21146 (4286) Task 3520	B	IRWD	\$62,037.10						0				
17		Approved by Board of Directors Approved on August 25, 2014				(\$106,241.99)	\$1,222,094.46	\$1,115,852.47	0.68%	\$164,581,792.47	0	0	0	1,278	10/28/2016
	17.1	Modifications to Switchgear 16 (CR-070A) PR 21146 (4286) Task 3510	A	FBB	(\$106,241.99)						0				
18		Approved by Board of Directors Approved on August 25, 2014				\$108,087.55	\$1,115,852.47	\$1,223,940.02	0.75%	\$164,689,880.02	0	0	0	1,278	10/28/2016
	18.1	Stormwater Drainage System Modification (CR-017) PR 21146 (4286)	A	IRWD	\$108,087.55						0				

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PR 21146 (4286)
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Design Engineer: Black & Veatch

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19	Approved by Executive Director of Engineering & Water Quality Approved on September 30, 2014				\$72,572.86	\$1,223,940.02	\$1,296,512.88	0.79%	\$164,762,452.88	0	0	0	1,278	10/28/2016
19.1	Modification to Switchgear 16 (CR-070B) PR 21146 (4286) Task 3510	A	IRWD	\$1,125.75						0				
19.2	Alluvium Removal Due to 36-inch Storm Drain Installation (CR-085) PR 21146 (4286) Task 3520	B	N/A	\$14,140.00						0				
19.3	Additional Structural Support for Fats, Oils, and Grease (FOG) Grinders (CR-081) PR 21146 (4286) Task 3505	C	FBB	\$8,323.99						0				
19.4	Portable Lift Truck for 480V ABB Breakers (CR-108) PR 21146 (4286) Task 3510	A	IRWD	\$2,625.12						0				
19.5	Retaining Wall North and West of Biosolids Site (CR-010) PR 21146 (4286) Task 3505	B	IRWD	\$46,358.00						0				
20	Approved by Executive Director of Engineering & Water Quality Approved on November 19, 2014				\$54,485.63	\$1,296,512.88	\$1,350,998.51	0.83%	\$164,816,938.51	0	0	0	1,278	10/28/2016
20.1	Nitrogen Slab Modifications (CR-052) PR 21146 (4286) Task 3505	A	IRWD	\$24,855.80						0				
20.2	Additional Conduits and Circuits for the Access Control Systems for the Solids Handling Building and the Digester Control Building (CR-082) PR 21146	A	IRWD	\$3,412.13						0				
20.3	Digital Power Meters Change for SWGR-14 and SWGR-15 (CR-109) PR 21146 (4286) Task 3510	A	IRWD	\$3,863.22						0				
20.4	Truck Unloading Panel Modifications (CR-115) PR 21146 (4286) Task 3510	A	IRWD	\$12,843.50						0				
20.5	Switchgear SWGR-14 Modifications (CR-116) PR 21146 (4286) Task 3510	A	IRWD	\$9,510.98						0				
21	Approved by General Manager Approved on January 30, 2015				\$ 98,506.19	\$1,350,998.51	\$1,449,504.70	0.89%	\$164,915,444.70	0	0	0	1,278	10/28/2016
21.1	Additional Anchorage for Methane Digesters (CR-051A) PR 21146 (4286) Task 3520	B	FBB	\$92,367.44						0				
21.2	Additional Input/Outputs Review of Master I/O List (CR-136) PR 21146 (4286) Task 3510	C	FBB	\$6,138.75						0				

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Design Engineer: Black & Veatch

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22	Approved by Board of Directors Approved on February 9, 2015				\$964,324.51	\$1,449,504.70	\$2,413,829.21	1.48%	\$165,879,769.21	0	0	0	1,278	10/28/2016
22.1	Electrical Conduit Overfill (CR-055) PR 21146 (4286) Task 3510	C	FBB	\$485,250.28						0				
22.2	Heat Dryer Equipment Escalation Costs (CR-057) PR 21146 (4286) Task 3520	B	FBB	\$333,477.50						0				
22.3	Glass-lining Sludge Density Meters (CR-067) PR 21146 (4286) Task 3510	A	IRWD	\$71,010.74						0				
22.4	Switchgear-16 Enclosure (CR-040) PR 21146 (4286) Task 3510	C	FBB	\$56,882.30						0				
22.5	Propane Gas Tank Foundation Demolition (CR-084) PR 21146 (4286) Task 3505	C	IRWD	\$2,004.98						0				
22.6	Credit for travel costs related to inspection of centrifuges in Germany (CR-091) PR 21146 (4286) Task 3520	A	IRWD	(\$5,573.42)						0				
22.7	Deletion of MMC Switchgear-14 Breaker (CR-092) PR 21146 (4286) Task 3510	A	IRWD	(\$5,032.00)						0				
22.8	Increase of Fiber Optic Conduit Size (CR-097) PR 21146 (4286) Task 3510	C	IRWD	\$23,269.61						0				
22.9	Overtime to perform work in the Solids Handling electrical room (CR-103) PR 21146 (4286) Task 3510	A	IRWD	\$1,384.47						0				
22.10	Credit for modification to the Uninterruptible Power System (CR-118) PR 21146 (4286) Task 3510	A	IRWD	(\$9,771.72)						0				
22.11	Addition of Low Voltage Compartment in SCE Switch "C" (CR-160) PR 21146 (4286) Task 3510	A	IRWD	\$2,156.20						0				
22.12	Addition of input/output points relating to sump pumps located at the Solids Handling Building (CR-161) PR 21146 (4286) Task 3510	A	FBB	\$9,265.57						0				

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**MWRP Biosolids and Energy Recovery Facilities
PR 21146 (4286)
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Design Engineer: Black & Veatch

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23		Approved by General Manager Approved on February 26, 2015				\$97,005.10	\$2,413,829.21	\$2,510,834.31	1.54%	\$165,976,774.31	0	0	0	1,278	10/28/2016
	23.1	Additional Steel Reinforcement the Pellet Storage Silos Anchor Bolts (CR-094) PR 21146 (4286) Task 3505	B	FBB	\$5,514.57						0				
	23.2	Differential Pressure Transmitter (CR-094) PR 21146 (4286) Task 3510	A	IRWD	\$2,535.33						0				
	23.3	Additional Aluminum Trench Grating in Digester Control Building (CR-107) PR 21146 (4286) Task 3520	A	IRWD	\$7,552.11						0				
	23.4	Light Weight Concrete for Electrical Conduits Underneath the Solids Handling Building Electrical Room (CR-113) PR 21146 (4286) Task 3510	A	IRWD	\$30,535.94						0				
	23.5	Adding Energyjets Weir Plates to Dewatering Centrifuges – (CR-124) PR 21146 (4286) Task 3520	A	IRWD	\$11,139.25						0				
	23.6	Provide Angle Supports for the Removable Slabs at the Solids Handling Building – (CR-137) PR 21146 (4286) Task 3520	A	IRWD	\$20,671.61						0				
	23.7	Structural Modification at Solids Handling Building – (CR-140) PR 21146 (4286) Task 3520	C	FBB	\$1,109.42						0				
	23.8	Increase of Fiber Optic Conduit Size (CR-097) PR 21146 (4286) Task 3510	A	IRWD	\$5,516.45						0				
	23.9	Steel Joist Framing Modifications at Digester Control Building (CR-151) PR 21146 (4286) Task 3505	C	FBB	\$2,286.29						0				
	23.10	WAS Valve Vault and Piping Modifications (CR-100) PR 21146 (4286) Task 3520	A	IRWD	\$10,144.13						0				
24		Approved by General Manager Approved on March 6, 2015				\$99,122.95	\$2,510,834.31	\$2,609,957.26	1.60%	\$166,075,897.26	0	0	0	1,278	10/28/2016
	24.1	Coating of WAS/Primary Sludge Pump Stations & Sludge Wetwells per RFI-0612A (CR-127) PR 21146 (4286) Task 3505	A	FBB	\$99,122.95						0				
25		Approved by Board of Directors Approved on March 23, 2015				\$280,575.97	\$2,609,957.26	\$2,890,533.23	1.77%	\$166,356,473.23	0	0	0	1,278	10/28/2016
	25.1	Lightning Protection for the Methane Digesters (CR-121) PR 21146 (4286) Task 3505	C	FBB	\$158,259.68						0				
	25.2	Deflagration Quench Tubes outside of the Dryer Room (CR-143) PR 21146 (4286) Task 3505	B	FBB	\$122,316.29						0				

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26	Approved by Exe. Dir. Of Engineering & Water Quality Approved on April 14, 2015				\$74,815.79	\$2,890,533.23	\$2,965,349.02	1.81%	\$166,431,289.02	0	0	0	1,278	10/28/2016
26.1	UPS and Power Fail Alarms per RFI 357 (CR-056) PR 21146 (4286) Task 3510	C	FBB	\$3,646.82						0				
26.2	I/O Points for Methane Digester Sump Pumps per RFI-356 (CR-077) PR 21146 (4286) Task 3510	C	FBB	\$6,489.00						0				
26.3	Loss of Power Alarms to the SCADA Network per RFI-0393B (CR-093) PR 21146 (4286) Task 3510	A	FBB	\$20,297.16						0				
26.4	FOG Flushing and Rock Trap Modifications per RFI-0534 (CR-101) PR 21146 (4286) Task 3510	A	IRWD	\$18,093.61						0				
26.5	Install Grounding Pig Tails in Solids Handling Building Area Electrical Room per RFI 0594 (CR-105) PR 21146 (4286) Task 3510	A	IRWD	\$1,593.10						0				
26.6	Additional Pushbuttons, Light and Relays for the FOG Receiving Control Panel (CR-114) PR 21146 (4286) Task 3510	A	IRWD	\$6,892.40						0				
26.7	Changes to the HMI Enclosures at the Sludge Receiving Area (CR-133) PR 21146 (4286) Task 3510	A	IRWD	\$7,114.17						0				
26.8	Provide Storage Shelf for Keyboard and Mouse to the HMI Enclosures at the Sludge Receiving Area (CR-135) PR 21146 (4286) Task 3510	A	IRWD	\$1,163.26						0				
26.9	Dewatering Feed Pump Station Guardrail Additions (CR-142) PR 21146 (4286) Task 3520	C	FBB	\$4,204.00						0				
26.10	Additional I/O Points for PLC-4300 (CR-156) PR 21146 (4286) Task 3510	C	FBB	\$3,035.28						0				
26.11	Shoring Revision to Roof Slab of Dewatering Feed Pump Station (CR-189) PR 21146 (4286) Task 3510	B	FBB	\$1,286.99						0				
26.12	Coating of the Sludge Receiving Bins (CR-199) PR 21146 (4286) Task 3520	A	FBB	\$1,000.00						0				
27	Approved by Board of Directors Approved on April 27, 2015				\$107,253.26	\$2,965,349.02	\$3,072,602.28	1.88%	\$166,538,542.28	0	0	0	1,278	10/28/2016
27.1	Modifications to Human-Machine Interface (HMI) for the Microturbine Area (CR-078) PR 21146 (4286) Task 3510	A	IRWD	\$29,744.43						0				
27.2	Modifications to the Piping and Automation Features at Fats, Oils, and Grease (FOG) Facility (CR-129) PR 21146 (4286) Task 3510	A	IRWD	\$35,771.81						0				
27.3	Structural Support to the Monorail at the Dewatering Feed Pump Station (CR-152) PR 21146 (4286) Task 3505	C	FBB	\$13,697.51						0				
27.4	Two Additional Magnetic Flowmeters at Polymer Feed System (CR-158) PR 21146 (4286) Task 3510	A	IRWD	\$9,522.81						0				
27.5	Modifications to PLCs at Sludge Receiving Area (CR-180) PR 21146 (4286) Task 3510	A	IRWD	\$18,516.70						0				

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28	Approved by Exe. Dir. Of Eng. & Water Quality Approved on May 15, 2015				\$74,550.35	\$3,072,602.28	\$3,147,152.63	1.93%	\$166,613,092.63	0	0	0	1,278	10/28/2016
28.1	Decanter Control Panel Modifications (CR-215) Task 3520	C	FBB	\$22,451.01						0				
28.2	Additional Structural Support in the Solids Handling Building (CR-075) Task 3505	C	FBB	\$12,028.44						0				
28.3	Additional Sump Pump Drain Line in the Bulk Polymer Storage Area (CR-119) Task 3520	C	FBB	\$1,433.86						0				
28.4	Install Three 5-inch conduits on Southwest Side of the Biosolids Site (CR-120) Task 3510	C	FBB	\$16,033.58						0				
28.5	Provide Power to Several Instruments Located at the Solids Handling Building and Digester Control Building (CR-154) Task 3520	C	FBB	\$3,454.91						0				
28.6	Install Foam Separator Drain at Digester Control Building (CR-167) Task 3520	C	FBB	\$11,013.75						0				
28.7	Install Support for 14-inch Plug Valve at Centrate Treatment Wetwell (CR-197) Task 3520	C	FBB	\$1,715.20						0				
28.8	Trench Modifications at the Sludge Cake Load-Out Area of the Solids Handling Building (CR-123) Task 3505	C	FBB	\$6,419.60						0				
29	Approved by Board of Directors Approved on June 22, 2015				\$225,971.77	\$3,147,152.63	\$3,373,124.40	2.06%	\$166,839,064.40	0	0	0	1,278	10/28/2016
29.1	Foul Air Pipe Supports in the Solids Handling Building Basement (CR-106) PR 21146 (4286) Task 3520	C	FBB	\$119,937.87						0				
29.2	Secondary Circuit Breaker for Transformer T-14 (CR-185) PR 21146 (4286) Task 3510	A	IRWD	\$106,033.90						0				

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30	Approved by Board of Directors Approved on July 27, 2015				(\$47,976.59)	\$3,373,124.40	\$3,325,147.81	2.03%	\$166,791,087.81	0	0	0	1,278	10/28/2016
30.1	Credit for Changing Storm Drain line from Ductile Iron to PVC (CR-042) PR 21146 (4286) Task 3520	A	IRWD	(\$1,890.92)						0				
30.2	Installation of Additional Digester Anchorage (CR-051B) PR21146 (4286) Task 3505	B	FBB	\$118,335.54						0				
30.3	Huber Screens I/O Modifications per RFI-0391 and RFI-0525A (CR-068) PR 21146 (4286) Task 3510	A	IRWD	\$12,579.20						0				
30.4	Credit for FBB's Portion of Partnering (CR-090) PR 21146 (4286) Task Deletion of Waterstops at Methane Digester Complex (CR-102) PR 21146 (4286) Task 3505	E	FBB	(\$81,948.33)						0				
30.5	Deletion of Bid Item No. 18 4 - Computers and Networking Hardware for the Control System (CR-138) PR 21146 (4286) Task 3510	A	IRWD	(\$200,000.00)						0				
30.6	Electrical and Gas Modifications (CR-146) PR 21146 (4286) Task 3510	C	IRWD	\$363,978.41						0				
30.8	Credit for Changing Heat Dryer Wet Material Mixer from A24 Steel to A36 Steel (CR-157) PR 21146 (4286) Task 3520	E	FBB	(\$2,392.66)						0				
30.9	Credit for Travel Cost of On-Site Inspection for Acid Phase Digester (CR-175) PR 21146 (4286) Task 3520	B	IRWD	(\$683.39)						0				
30.1	Heat Dryer I/O Modifications per RFI-0626 (CR-179) PR 21146 (4286) Task 3510	A	IRWD	\$11,191.41						0				
30.11	Decant Trough I/O Modifications per RFI-0979 (CR-202) PR 21146 (4286) Task 3510	A	IRWD	\$9,960.55						0				
30.12	Deletion of Interior Coating of Methane Digesters (CR-188) PR 21146 (4286) Task 3520	A	IRWD	(\$398,571.00)						0				
30.13	Piping Modifications and Addition of Carbon Canisters (CR-218) PR 21146 (4286) Task 3520	A	IRWD	\$88,076.01						0				
30.14	Pickling and Passivation of Sludge Mixers (CR-248) PR 21146 (4286) Task 3520	C	IRWD	\$73,997.23						0				
30.15	IRWD Costs Associated to Repairing the Pile and Installing Couplers (CR-139) PR 21146 (4286) Task 3505	E	FBB	(\$38,102.85)						0				

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31	Approved by Exe. Dir. Of Eng. & Water Quality Approved on July 28, 2015				\$74,999.74	\$3,325,147.81	\$3,400,147.55	2.08%	\$166,866,087.55	0	0	0	1,278	10/28/2016
31.1	Provide Circuit and Breaker for Standby Generator in the Microturbine Area (CR-170) PR 21146 (4286) Task 3510	C	FBB	\$4,296.86						0				
31.2	Additional Pipe Support for 14-inch Air Line at the Centrate Facility (CR-226) PR 21146 (4286) Task 3520	C	FBB	\$893.78						0				
31.3	Addition of E-stops (CR-128) PR 21146 (4286) Task 3510	A	FBB	\$57,916.71						0				
31.4	Structural Support of Jib Crane at Dewatering Feed Pump Station Stairwell (CR-243) PR 21146 (4286) Task 3520	C	FBB	\$11,892.39						0				
32	Approved by Exe. Dir. Of Eng. & Water Quality Approved on August 31, 2015				\$74,682.96	\$3,400,147.55	\$3,474,830.51	2.13%	\$166,940,770.51	0	0	0	1,278	10/28/2016
32.1	Additional Conduits and Circuits for Fire Alarm in the Solids Handling Building	A	IRWD	\$21,637.57						0				
32.2	Additional Davit Bases at Centrate Treatment Facility (CR-111) PR 21146 (4286) Task 3520	A	IRWD	\$1,809.77						0				
32.3	Additional Fire Alarm Panel in Digester Control Building (CR-169) PR 21146 (4286) Task 3510	A	IRWD	\$25,153.79						0				
32.4	Modifications to FOG Sump Pumps Controls (CR-177) PR 21146 (4286) Task 3510	A	IRWD	\$5,690.83						0				
32.5	Additional Truck Load-out Conveyor Input and Output (CR-201) PR 21146 (4286) Task 3510	A	IRWD	\$2,220.12						0				
32.6	Additional Spare Conduits in the Microturbine Area (CR-229) PR 21146 (4286) Task 3510	A	FBB	\$14,602.41						0				
32.7	Conduits for Electrical Disconnect Switch for Roll-Up Doors of the Digester Control Building (CR-230) PR 21146 (4286) Task 3510	A	IRWD	\$3,568.47						0				
33	Approved by Executive Director of Engineering & Water Quality Approved on September 30, 2015				\$58,247.75	\$3,474,830.51	\$3,533,078.26	2.16%	\$166,999,018.26	0	0	0	-	1/0/1900
33.1	Realignment of 8-inch Reclaimed Water Line at Gare 2 (CR-225) PR 21146 (4286) Task 3520	B	FBB	\$24,017.48						0				
33.2	Additional Conduits and Wires for Lighting Circuits to Minimize Voltage Drop (CR-228) PR 21146 (4286) Task 3510	C	IRWD	\$32,399.41						0				
33.3	Cable and Conduit Changes at Solids Handling Building and Dewatering Feed Pump Station (CR-231) PR 21146 (4286) Task 3510	C	IRWD	\$1,830.86						0				

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

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

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				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
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34	Approved by Board of Directors Approved on October 26, 2015				\$164,775.28	\$3,533,078.26	\$3,697,853.54	2.26%	\$167,163,793.54	0	0	0	1,278	10/28/2016
34.1	Credit for Third Submittal Review Through 05/31/2015 (CR-088) PR 21146 (4286) Task 1065	B	IRWD	(\$39,502.50)						0				
34.2	Credit for Overtime Inspection Hours Through 05/31/2015 (CR-089) PR 21146 (4286) Task 3520	F	FBB	(\$80,850.00)						0				
34.3	Credit for Special Inspections for Structural Anchors and Geotechnical Investigation (CR-295) PR 21146 (4286) Task 1065	A	IRWD	(\$27,500.00)						0				
34.4	Change in Knife Gate Valve Manufacturer (CR-187) PR 21146 (4286) Task 3520	E	FBB	\$275,954.90						0				
34.5	Credit for Changes in Low Voltage SWGR-14 Circuit Breaker (CR-163) PR 21146 (4286) Task 3510	A	IRWD	(\$1,978.00)						0				
34.6	Change to Addressable Smoke Detectors (CR-220) PR 21146 (4286) Task 3510	B	IRWD	\$38,650.88						0				
35	Approved by General Manager Approved on November 25, 2015				\$97,980.57	\$3,697,853.54	\$3,795,834.11	2.32%	\$167,261,774.11	0	0	0	1,278	10/28/2016
35.1	Change in Naming Convention for Storm Water Pump Station (Area 1500) SCADA Programming (CR-181) PR 21146 (4286) Task 3510	E	FBB	\$9,027.03						0				
35.2	Valve Status Override Functionality (CR-182) PR 21146 (4286) Task 3510	E	FBB	\$38,999.08						0				
35.3	Control Changes for Primary Sludge and Waste Activated Pump Stations (Area 1900) SCADA Programming (CR-184) PR 21146 (4286) Task 3510	A	IRWD	\$36,772.78						0				
35.4	Motor Protection Relay (CR-239) PR 21146 (4286) Task 3510	A	IRWD	\$13,181.68						0				
36	Approved by General Manager Approved on December 3, 2015				\$86,007.50	\$3,795,834.11	\$3,881,841.61	2.37%	\$167,347,781.61	0	0	0	1,278	10/28/2016
36.1	Light Weight Concrete for Underslab Conduits at Microturbine Area (CR-253) PR 21146 (4286) Task 3510	A	FBB	\$21,117.50						0				
36.2	Outstanding CB&I Items (CR-099A) PR 21146 (4286) Task 3520 – This change order includes: CR-098 (Guard Rail at Biogas Storage Tank); CR-099 (Tube Steel Supports); additional Off-Site Storage Costs; and credit for Use of SS 308 in Lieu of SS 316L Welds.	B	FBB	\$64,890.00						0				

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37		Approved by Exe. Director of Engineering and Water Quality Approved on January 21, 2016				\$47,446.49	\$3,881,841.61	\$3,929,288.10	2.40%	\$167,395,228.10	0	0	0	1,278	10/28/2016
	37.1	Additional Pressure Relief Valves in the Digester Control Building Slab (CR-112) PR 21146 (4286) Task 3520	C	IRWD	\$1,065.72						0				
	37.2	Change Feeder Circuit Breaker Size in MCC-4102 (CR-165) PR 21146 (4286) Task 3510	C	IRWD	\$4,157.60						0				
	37.3	Change Feeder Circuit Breaker Size for the Primary Sludge Pump Variable Frequency Drive (CR-233) PR 21146 (4286) Task 3510	C	IRWD	\$2,430.59						0				
	37.4	SCADA Programming Changes Due to Change to Schweitzer Power Quality	A	FBB	\$16,814.00						0				
	37.5	Additional Labeling of Parallel Conduits and Cables (CR-262) PR 21146 (4286) Task 3510	A	IRWD	\$8,410.00						0				
	37.6	Change in Sludge Receiving Entrance Beacon Operation CR-263) PR 21146 (4286) Task 3510	A	IRWD	\$5,382.19						0				
	37.7	Anodize Aluminum Light Fixture Stanchions/Sun Shades (CR-283) PR 21146 (4286) Task 3510	A	IRWD	\$5,911.61						0				
	37.8	Hot Tap 8-Inch ACP Potable Water Line (CR-311) PR 21146 (4286) Task 3520	A	FBB	\$3,274.78						0				

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38	Approved by General Manager Approved on February 29, 2016				\$83,345.07	\$3,929,288.10	\$4,012,633.17	2.45%	\$167,478,573.17	0	0	0	1,278	10/28/2016
38.1	Software Control Block Revision for Area 4300 – Dewatering (CR-211) PR 4286 Task 3510	C	FBB	\$18,908.76						0				
38.2	Revised Master List of SCADA Templates (CR-247) PR 4286 Task 3510	C	FBB	\$47,274.54						0				
38.3	Additional Overflow Alarms at Sludge Holding Tanks (CR-280) PR 4286 Task 3510	A	IRWD	\$9,654.54						0				
38.4	Leak Detection at Sulfuric Acid Facility (CR-290) PR 21146 (4286) Task 3510	A	IRWD	\$5,499.97						0				
38.5	Insulation for Acid Phase Gas Piping (CR-218A) PR 21146 (4286) Task 3520	A	IRWD	\$2,007.26						0				
39	Approved by General Manager Approved on March 7, 2016				\$98,006.46	\$4,012,633.17	\$4,110,639.63	2.51%	\$167,576,579.63	0	0	0	1,278	10/28/2016
39.1	SCE Installation - Final Accounting of Work Items Between Negotiated Change Order and Actual Work (CR-146E) PR 4286 Task 3510	B	FBB	\$7,809.51						0				
39.2	Installation of Southern California Gas (SCG) Boxes (CR-146F) PR 4286 Task 3510	A	FBB	\$3,479.81						0				
39.3	Schweitzer SEL-735 Power Monitors for Centrifuge Panels (CR-207) PR 4286 Task 3510	A	IRWD	\$34,274.40						0				
39.4	Hirschmann Ethernet Switches for Centrifuge Panels (CR-208) PR 4286 Task 3510	A	IRWD	\$9,569.15						0				
39.5	Addition of Sample Pump Variable Frequency Drives for Thickening Centrifuges (CR-237) PR 4286 Task 3520	E	IRWD	\$24,496.55						0				
39.6	Upgrade of Exit Signs and Ceiling Lights in the Gas Room of the Digester Control Building to NEC Class I Division 1 (CR-313) PR 4286 Task 352	A	IRWD	\$18,377.04						0				
40	Approved by General Manager Approved on April 20, 2016				\$97,287.05	\$4,110,639.63	\$4,207,926.68	2.57%	\$167,673,866.68	0	0	0	1,278	10/28/2016
40.1	Brace Plates in Solids Handling Building (CR-069) PR 4286 Task 3505	C	FBB	\$40,216.76						0				
40.2	Relocation of RIO-50 Panel (CR-186) PR 4286 Task 3510	B	FBB	\$4,818.64						0				
40.3	Addition of Two Doors at the bases of the stairways at Methane Digesters Nos. 1 and No. 2 (CR-232) PR 4286 Task 3505	C	FBB	\$52,251.65						0				

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41	Approved By Board of Directors Approved on May 23, 2016				\$1,103,650.56	\$4,207,926.68	\$5,311,577.24	3.25%	\$168,777,517.24	0	0	0	1,278	10/28/2016
41.1	Additional SCE and SCG Modifications (CR-146A) PR 4286 Task 3510	B	FBB	\$51,238.69						0				
41.2	Additional Potholing Due to SCE and SCG Realignment (CR-146B) PR 4286 Task 3510	B	FBB	\$36,706.57						0				
41.3	Additional Cameras at the Unloading/Loading Area of the Solids Handling Facility (CR-164) PR 4286 Task 3505	A	IRWD	\$61,731.96						0				
41.4	Fire Sprinkler System Modifications – Mechanical (CR-174) PR 4286 Task 3520	B	IRWD	\$154,592.08						0				
41.5	Fire Sprinkler System Modifications – Electrical (CR-166) PR 4286 Task 3510	B	IRWD	\$13,730.06						0				
41.6	Fiber Optic System Modifications (CR-172/CR-306/CR-314) PR 4286 Task 3510	A	IRWD	\$178,879.46						0				
41.7	T-15, T-16, and T-17 Secondary Breakers (CR-185A, CR-185B, and CR-185C) PR 4286 Task 3510	A	IRWD	\$254,941.66						0				
41.8	Cable and Conduit Changes at the Sludge Receiving Area of the Solids Handling Building (CR-203) PR 4286 Task 3510	C	FBB	\$14,338.94						0				
41.9	Concrete Surface Treatment (CR-222) PR 4286 Task 3505	A	IRWD	\$68,714.34						0				
41.1	Heating Water Boiler Control Modifications (CR-246) PR 4286 Task 3510	A	IRWD	\$71,379.00						0				
41.11	SCADA Control Modifications for the Acid Phase Digesters, Methane Digesters, and Sludge Holding Tank (CR-252) PR 4286 Task 3510	A	IRWD	\$50,540.23						0				
41.12	Ambient Gas Analyzer Wiring Modification (CR-264) PR 4286 Task 3510	B	IRWD	\$19,734.51						0				
41.13	Disconnect Switches for Flow Valves in the Solids Handling Building (CR-272) PR 4286 Task 3510	C	IRWD	\$25,550.26						0				
41.14	Centrifuge Pedestal Modifications (CR-301) PR 4286 Task 3505	C	IRWD	\$30,603.14						0				
41.15	SCADA, Instrumentation, and Electrical Modifications (CR-287, CR-294, and CR-322) PR 4286 Task 3510	A	IRWD	\$70,969.66						0				

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42	Approved By Board of Directors Approved on May 23, 2016				(\$199,771.09)	\$5,311,577.24	\$5,111,806.15	3.13%	\$168,577,746.15	0	0	0	1,278	10/28/2016
42.1	Value Engineering of Chemical Pump Systems (CR-054) PR 4286 Task 3520	E	FBB	(\$48,549.90)						0				
42.2	Change in Lightning Protection Installation for Egg-Shaped Digesters (CR-121A) PR 4286 Task 3510	E	FBB	(\$97,141.74)						0				
42.3	Deletion of Seal Water Stations and Seal Water Piping (CR-214) PR 4286 Task 3520	A	IRWD	(\$10,557.28)						0				
42.4	Deletion of Low Pressure Switches for Centrate Pumps (CR-257) PR 4286 Task 3510	A	IRWD	(\$1,748.17)						0				
42.5	Centrifuge Seismic Restraint Design Costs (CR-345) PR 4286 Task 1065	A	IRWD	(\$24,064.00)						0				
42.6	Credit for Overtime Inspection Hours From 6/1/2015 to Through 12/31/2015 (CR-089B) PR 4286 Task 1065	F	FBB	(\$17,710.00)						0				
43	Approved by Exe. Director of Engineering and Water Quality Approved on May 31, 2016				\$74,731.69	\$5,111,806.15	\$5,186,537.84	3.17%	\$168,652,477.84	0	0	0	1,278	10/28/2016
43.1	Combustible Gas Detection System (CR-234) PR 21146 (4286) Task 3510	E	FBB	\$18,843.39						0				
43.2	Additional Wires and Cables Between MCC-4102 and PLC-4000 (CR-278) PR 21146 (4286) Task 3510	C	FBB	\$1,775.13						0				
43.3	SCADA Programming Modifications (CR-282) PR 21146 (4286) Task 3510	E	FBB	\$49,679.02										
43.4	Change of Waste Gas Burner Feeder Circuit Breaker (CR-344) PR 21146 (4286) Task 3510	B	FBB	\$4,434.15						0				
44	Approved by Exe. Director of Engineering and Water Quality Approved on June 29, 2016				\$74,912.99	\$5,186,537.84	\$5,261,450.83	3.22%	\$168,727,390.83	0	0	0	1,278	10/28/2016
44.1	Electrical and Telephonic Modifications for Elevators for Solids Handling Building and Digester Control Building (CR-037A) PR 4286 Task 3510	C	FBB	\$38,882.06						0				
44.2	Odor Control Recirculation Pump Selector Switch SCADA Modifications (CR-343) PR 4286 Task 3510	A	IRWD	\$9,294.71						0				
44.3	SCADA Valve Matrix Tables Animation Clarification for Milestone 1 (CR-353) PR 4286 Task 3510	A	IRWD	\$9,195.86						0				
44.4	PLC Status Object Update (CR-234) PR 4286 Task 3510	B	FBB	\$4,783.14						0				
44.5	Elevator Safety Beam in the Digester Control Building (CR-302) PR 4286 Task 3505	C	FBB	\$3,830.95						0				
44.6	Masonry Changes to the North Retaining Wall (CR-365) PR 4286 Task 3505	B	IRWD	\$8,926.27						0				

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45	Approved by Board of Directors Approved on July 25, 2016/December 20, 2016 Recovery Plan PR 4286 Task 3510	B	FBB	\$9,250,000.00	\$9,250,000.00	\$5,261,450.83	\$14,511,450.83	8.88%	\$177,977,390.83	368	0	368	1,646	10/31/2017
46	Approved by General Manager Approved on January 27, 2017				\$94,696.76	\$14,511,450.83	\$14,606,147.59	8.94%	\$178,072,087.59	0	368	368	1,646	10/31/2017
46.1	Additional Masonry Anchor in the Solids Handling Building (CR-200) PR 4286	C	IRWD	\$1,457.22						0				
46.2	Additional Auto Dialer (CR-234A) PR 4286 Task 3510	A	IRWD	\$6,081.90						0				
46.3	Grating and Handrail Modifications at Bulk Polymer Storage Platform (CR-300) PR 4286 Task 3505	A	IRWD	\$5,568.83						0				
46.4	SCADA IP Address Update (CR-309) PR 4286 Task 3510	A	IRWD	\$1,227.96						0				
46.5	Masonry Modifications at Solids Handling Building Stairwell (CR-324) PR 4286 Task 3505	C	FBB	\$5,939.45						0				
46.6	Change in Valve Operator at the Centrate Treatment Facility (CR-329) PR 4286 Task 3520	A	IRWD	\$4,824.29						0				
46.7	Boot Wash Landing Addition (CR-349) PR 4286 Task 3505	C	FBB	\$1,834.60						0				
46.8	Updating Valve Analog SCADA Template (CR-354) PR 4286 Task 3510	A	IRWD	\$692.72						0				
46.9	Additional Light Fixtures and Lamps (CR-355A) PR 4286 Task 3510	A	IRWD	\$8,508.46						0				
46.10	Addition of Rebate Angle in the FOG Unloading Sump Area (CR-363) PR 4286 Task 3505	A	IRWD	\$763.62						0				
46.11	MCC-4103 Hot Water Circulation Pump Breakers Change (CR-366) PR 4286 Task 3510	B	IRWD	\$2,316.03						0				
46.12	MCC-4100/4101 Cake Transfer Pump Breakers Change (CR-370) PR 4286 Task 3510	B	IRWD	\$23,720.61						0				
46.13	MCC-4102 Breaker Change (CR-374) PR 4286 Task 3510	B	IRWD	\$2,316.03						0				
46.14	SCADA Programming Modifications During Benchtest No.1 for Areas 1900 and 2000 (CR-376) PR 4286 Task 3510	A	IRWD	\$24,092.32						0				
46.15	Additional Light Fixture Above Door in Digester Control Building Gas Room (CR-399) PR 4286 Task 3510	A	IRWD	\$1,478.19						0				
46.16	Change in Size of Disconnect Switches for Digested Sludge Mixers (CR-408) PR 4286 Task 3510	B	FBB	\$1,290.10						0				
46.17	Additional Thickening Feed Grinder Control Panel Circuits (CR-438) PR 4286 Task 3510	B	IRWD	\$1,286.63						0				
46.18	Thickness and Glazing Change for Windows (CR-438) PR 4286 Task 3510	C	IRWD	\$1,297.80						0				

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47	Approved by General Manager Approved on February 28, 2017				\$96,414.36	\$14,606,147.59	\$14,702,561.95	8.99%	\$178,168,501.95	0	368	368	1,646	10/31/2017
47.1	Relocation of Neutralization Tank Drainage Piping PR 4286 Task 3520	B	FBB	\$2,312.08						0				
47.2	Modifications to Digester Control Building Door and Piping Due to Heating Water Expansion Tank Pad Adjustment (CR-221) PR 4286 Task 3505	C	FBB	\$5,500.74						0				
47.3	PLC-3100 Changes (CR-284) PR 4286 Task 3510	C	FBB	\$1,070.38						0				
47.4	Additional Angle Support to Acid Phase Digester Bridges (CR-298) PR 4286 Task 3505	C	FBB	\$4,986.21						0				
47.5	Additional Potable Water Gate Valves (CR-332) PR 4286 Task 3520	A	IRWD	\$3,892.44						0				
47.6	T-4 Kirk Key Interlock Installation (CR-335) PR 4286 Task 3510	B	IRWD	\$6,924.69						0				
47.7	Solids Handling Building Dumpster Room Channel Frames Modifications (CR-338) PR 4286 Task 3505	C	FBB	\$5,093.87						0				
47.8	PCS Server Configuration Clarification (CR-352) PR 4286 Task 3510	A	IRWD	\$6,824.35						0				
47.9	Additional Anchorage Support for Ledgers of the Digester Control Building Roof (CR-361) PR 4286 Task 3505	C	FBB	\$13,794.95						0				
47.10	Change of MCC-4103 Hot Water Circulation Pump Breakers (CR-366B) PR 4286 Task 3510	A	IRWD	\$1,336.13						0				
47.11	Centrate Treatment Facility Pull Boxes Duct Bank Settlement (CR-383) PR 4286 Task 3510	B	FBB	\$3,300.13						0				
47.12	Modifications to the MCC-4100/4101/4102/4103 (CR-405) PR 4286 Task 3510	B	FBB	\$7,418.52						0				
47.13	Cake Storage Hopper Modifications (CR-421) PR 4286 Task 3510	C	FBB	\$2,250.67						0				
47.14	Removing Installed Lighting in the Solids Handling Building (CR-427) PR 4286 Task 3510	A	IRWD	\$8,947.37						0				
47.15	Electrical Changes for Generator MPC (CR-430) PR 4286 Task 3510	A	IRWD	\$10,950.14						0				
47.16	Electrical Modifications to MCC-4100 and 4103 (CR-431) PR 4286 Task 3510	A	FBB	\$4,500.00						0				
47.17	Occupancy Sensors in the Solids Handling Building Shower Areas (CR-444) PR 4286 Task 3510	C	FBB	\$1,601.36						0				
47.18	Digester Gas Pre-Treatment In-Slab Conduit Size Change (CR-454) PR 4286 Task 3510	C	FBB	\$5,710.33						0				

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
48	Approved by Board of Directors				\$728,237.74	\$14,702,561.95	\$15,430,799.69	9.44%	\$178,896,739.69	0	368	368	1,646	10/31/2017
	Approved on March 13, 2017													
48.1	Structural Modifications of the Elevator Shafts (CR-037) PR 4286 Task 3505200) PR 4286 Task 3505	B	FBB	\$58,705.90						0				
48.2	SCADA Programming Update of Polymer Feed and Storage System (CR-148A) PR 4286 Task 3510	A	FBB	\$23,685.14						0				
48.3	Stairs and Platform at SHB Load-Out Area (CR-149) PR 4286 Task 3505	C	FBB	\$39,622.65						0				
48.4	Additional Polymer Dilution Flow Meters and Associated Conduits and Cables (CR-159B) PR 4286 Task 3510	A	IRWD	\$38,978.70						0				
48.5	Miscellaneous Andritz Items (CR-205) PR 4286 Task 3520	A	IRWD	\$41,246.71						0				
48.6	RIO-4001 Changes (CR-286) PR 4286 Task 3510	A	IRWD	\$27,889.74						0				
48.7	RIO-3102 Changes (CR-310) PR 4286 Task 3510	A	IRWD	\$18,280.62						0				
48.8	Mini Power Center - Additional Outlet and Data Locations in the SHB (CR-419) PR 4286 Task 3510	A	IRWD	\$13,261.60						0				
48.9	New Lighting in the SHB First Floor Area (CR-427A) PR 4286 Task 3510	A	IRWD	\$102,503.46						0				
48.10	Additional Conduits and Cables for Thermocouples for Several Pumps (CR-424, CR-424A through CR-424F) PR 4286 Task 3510	B	FBB	\$54,982.68						0				
48.11	Additional Wall Panel Framework at the SHB (CR-445) PR 4286 Task 3505	C	FBB	\$128,000.00						0				
48.12	Changes in Uninterruptible Power Supply Units (CR-162/CR-162A) PR 4286 Task 3510	A	IRWD	\$128,052.94						0				
48.13	Addition of Circuit Breaker at Transformer T-14 (CR-474) PR 4286 Task 3510	A	IRWD	\$53,027.60						0				

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**MWRP Biosolids and Energy Recovery Facilities
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Design Engineer: Black & Veatch

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49	Approved by Board of Directors Approved on March 13, 2017				(\$47,099.20)	\$15,430,799.69	\$15,383,700.49	9.41%	\$178,849,640.49	0	368	368	1,646	10/31/2017
49.1	Related Mechanical Piping Modifications Due to Change in Chemical Pumps in CCO No. 42 (CR-054A) PR 4286 Task 3520	E	FBB	(\$23,897.73)						0				
49.2	Changing the Solids Handling Building Roofing from EPDM to PVC (CR-255) PR 4286 Task 3505	E	FBB	(\$9,000.00)						0				
49.3	Net Reduction of Scope of Work in CR-353 – SCADA Valve Matrix Tables Animation Clarifications (CR-353B/353C) PR 4286 Task 3510	A	IRWD	(\$4,429.09)						0				
49.4	Change in Starters for MCC-4100/4101 Cake Transfer Pump Breakers (CR-370A) PR 4286 Task 3510	A	IRWD	(\$4,047.43)						0				
49.5	Deletion of Insulation for the Solids Handling Building Foundation (CR-393) PR 4286 Task 3505	A	IRWD	(\$5,724.95)						0				
50	Approved by Executive Director of Engineering & Water Quality Approved on March 31, 2017				\$72,150.89	\$15,383,700.49	\$15,455,851.38	9.46%	\$178,921,791.38	0	368	368	1,646	10/31/2017
50.1	Electrical Modifications to FOG Local Control Panel 70-LCP-0710 (CR-304) PR 4286 Task 5.30	A	IRWD	\$6,614.77						0				
50.2	Condensate Modifications at Digester Gas Pre-Treatment Area (CR-312) PR 4286 Task 5.31	C	FBB	\$9,826.09						0				
50.3	Installation of Lindapters Instead of Eye Bolts (CR-413) PR 4286 Task 5.29	A	FBB	\$13,346.01						0				
50.4	T-5 Connection to Biosolids Switch-14 (CR-480) PR 4286 Task 5.30	A	IRWD	\$35,170.26						0				
50.5	Polymer Feeder Blender Skids Flow Element Grounding Conductor (CR-482) PR 4286 Task 5.30	C	IRWD	\$7,193.76						0				
51	Approved by Executive Director of Engineering & Water Quality Approved on March 31, 2017				(\$126,390.00)	\$15,455,851.38	\$15,329,461.38	9.38%	\$178,795,401.38	0	368	368	1,646	10/31/2017
51.1	Credit for Overtime Inspection Hours From 1/1/2016 to Through 12/31/2016 (CR-089C) PR 4286 Task 4.0	F	IRWD	(\$97,570.00)						0				
51.2	Credit for Overtime Inspection Hours From 1/1/2017 to Through 03/31/2017 (CR-089D) PR 4286 Task 4.0	E	IRWD	(\$28,820.00)						0				

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

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

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				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
52	Approved by General Manager Approved on April 28, 2017				\$98,342.16	\$15,329,461.38	\$15,427,803.54	9.44%	\$178,893,743.54	0	368	368	1,646	10/31/2017
52.1	Removal of Unsuitable Alluvium (CR-146H) PR 4286 Task 5.29	B	FBB	\$3,564.32						0				
52.2	Polymer Dilution Water Flowmeters (CR-159A) PR 4286 Task 5.31	A	IRWD	\$14,090.39						0				
52.3	Aluminum Handrail and Guardrail Modifications at Liquid Chemical and Polymer Areas (CR-171) PR 4286 Task 5.30	A	IRWD	\$13,765.20						0				
52.4	Modifications Due to Solids Handling Building Electrical Room Equipment Clearance Issues (CR-196) PR 4286 Task 5.30	C	FBB	\$9,382.01						0				
52.5	Data and Telephone Outlets in Solids Handling Building (CR-261) PR 4286 Task 5.30	A	IRWD	\$27,620.21						0				
52.6	HVAC Duct Modifications in Dewatering Feed Pump Station (CR-268) PR 4286 Task 5.31	C	FBB	\$16,023.50						0				
52.7	Coating of 8 Roll-up doors (CR-358) PR 4286 Task 5.29	A	IRWD	\$5,710.32						0				
52.8	Upsizing Wire Size of Dewatering Feed Pump Station Main Breaker Light Panel LP-3501 (CR-390) PR 4286 Task 5.30	A	IRWD	\$1,449.75						0				
52.9	Modifications to the Roofs of the Solids Handling Building and Digester Control Building (CR-528) PR 4286 Task 5.29	A	IRWD	\$6,736.46						0				
53	Exe. Director of Water Quality and Engineering Approved on June 5, 2017				\$42,281.96	\$15,427,803.54	\$15,470,085.50	9.46%	\$178,936,025.50	0	368	368	1,646	10/31/2017
53.1	Modifications to Regenerative Thermal Oxidizer (RTO) Drainage and Utility Water Piping (CR-267) PR 4286 Task 5.31	C	IRWD	\$33,814.80						0				
53.2	Modifications to Liquid Chemical Feed Control Panel Wiring (CR-396) per RFI-1602 PR 4286 Task 5.30	C	FBB	\$8,467.16						0				
54	Approved by General Manager Approved on June 19, 2017				\$44,210.51	\$15,470,085.50	\$15,514,296.01	9.49%	\$178,980,236.01	0	368	368	1,646	10/31/2017
54.1	Modifications to Thickening and Dewatering Platforms (CR-195) PR 4286 Task 5.29	C	FBB	\$44,210.51						0				
55	Approved by General Manager Approved on July 3, 2017				\$94,352.43	\$15,514,296.01	\$15,608,648.44	9.55%	\$179,074,588.44	0	368	368	1,646	10/31/2017
55.1	Additional Pipe Supports of 54-Inch Fiberglass Reinforced Air Duct (CR-106A) PR 4286 Task 5.29	C	FBB	\$14,211.18						0				
55.2	Natural Gas Step Down Manifolds and Gas Transition Piping (CR-146G) PR	B	IRWD	\$20,489.32						0				
55.3	Modifications to the West End Stair Landing of the Solids Handling Building (CR-315) PR 4286 Task 5.29	B	IRWD	\$5,622.11						0				

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

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

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				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
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55.4	Regenerative Thermal Oxidizer (RTO) Pad Modifications (CR-400) PR 4286 Task 5.29	C	FBB	\$8,471.16						0				
55.5	Addition of Thin Client at the Dryer Facility (CR-485) PR 4286 Task 5.30	A	IRWD	\$36,874.10						0				
55.6	Change in Size to 2 Check Valves in the Digester Control Building (CR-514) PR 4286 Task 5.31	C	FBB	\$8,684.56						0				
56	Approved by Board Approved on July 24, 2017				\$201,744.33	\$15,608,648.44	\$15,810,392.77	9.67%	\$179,276,332.77	0	368	368	1,646	10/31/2017
56.1	Addition Of Stairs and Platform to RTO (CR-266) PR 4286 Task 5.29	A	IRWD	\$101,744.33						0				
56.2	Microturbine CLC (ESC Capstone) per RFI 1141 (CR-277) PR 4286 Task 5.30	B	FBB	\$100,000.00						0				
57	Approved by General Manager Approval on August 5, 2017				\$98,886.90	\$15,810,392.77	\$15,909,279.67	9.73%	\$179,375,219.67	0	368	368	1,646	10/31/2017
57.1	Additional Support at Digester Control Building (CR-342) PR 04286 Task 5.29	C	IRWD	\$2,522.47						0				
57.2	Pipe and Duct Hanger Modifications (CR-362) PR 04286 Task 5.29	C	IRWD	\$4,083.12						0				
57.3	Increase Wire Size of Main Breaker PP-3501 (CR-418) PR 04286 Task 5.30	C	FBB	\$696.66						0				
57.4	Roof Vent at DCB Elevator/Stair Tower (CR-437) PR 04286 Task 5.29	B	IRWD	\$8,563.72						0				
57.5	T-14 Fixed Type Manual Operator per Submittal 16443-0016A (CR-540) PR 04286 Task 5.31	C	IRWD	\$1,945.62						0				
57.6	Area Classification at Methane Digesters to meet NFPA Table 6.2(a) - Plug Valves Limit Switches (CR-557) PR 04286 Task 5.30	C	FBB	\$64,195.15						0				
57.7	Area Classification at Methane Digesters to meet NFPA Table 6.2(a) - Sump Pump Cable Retrofit PR 04286 Task 5.30	C	FBB	\$16,880.16						0				

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

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

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58	Approved by Board of Directors Approval on August 28, 2017				\$182,938.94	\$15,909,279.67	\$16,092,218.61	9.84%	\$179,558,158.61	0	368	368	1,646	10/31/2017
58.1	Concrete Cap over Shallow Pipe Crossings (CR-348) PR 04286 Task 5.31	B	FBB	\$7,923.00						0				
58.2	Additional Conduit and Wiring for Sludge Screen Moisture Sensors (CR-381) PR 04286 Task 5.30	C	FBB	\$8,355.32						0				
58.3	SCADA Programming Modifications (CR-433/476/546/547/551) PR 04286 Task 5.30	A	IRWD	\$15,758.38						0				
58.4	Polymer Storage Power Panels Wire and Breaker Modifications (CR-456) PR 04286 Task 5.30	C	FBB	\$24,238.65						0				
58.5	Odor Control Starter Modifications (CR-466) PR 04286 Task 5.30	B	FBB	\$41,436.09						0				
58.6	Odor Control Fan Remote Temperature Device Revisions (CR-522) PR 04286 Task 5.30	A	IRWD	\$52,484.50						0				
58.7	Re-location of Digester Control Building Gas Room Local Control Panels (CR-534) PR 04286 Task 5.30	A	FBB	\$32,743.00						0				
59	Approved by Exe. Director of Water Quality and Engineering Approval on September 6, 2017				\$98,988.68	\$16,092,218.61	\$16,191,207.29	9.90%	\$179,657,147.29	0	368	368	1,646	10/31/2017
59.1	Modifications to Building 101 (CR-212) PR 04286 Task 5.30	E	FBB	\$26,500.00										
59.2	Change in Conduit Size in Area 20 (CR-292) PR 04286 Task 5.10	C	FBB	\$1,946.70						0				
59.3	Centrifuge Discharge Cake Conveyors Schematic Modifications (CR-422) PR 04286 Task 5.10	C	FBB	\$6,410.04						0				
59.4	Power Monitor Programming Modifications (CR-539) PR 04286 Task 5.10	A	IRWD	\$2,595.60						0				
59.5	SCADA Programming Modifications (CR-547A) PR 04286 Task 5.10	A	IRWD	\$1,574.86						0				
59.6	Change in Area Classification at Methane Digesters to meet NFPA Standards - MOVs (CR-557B) PR 04286 Task 5.10	C	FBB	\$54,736.73						0				
59.7	FOG Heating Disconnect Switch Relocation (CR-559) PR 04286 Task 5.10	C	FBB	\$5,224.75						0				
60	Approved by Exe. Director of Water Quality and Engineering Approval on September 5, 2017				(\$34,540.00)	\$16,191,207.29	\$16,156,667.29	9.88%	\$179,622,607.29	0	368	368	1,646	10/31/2017
60.1	Credit for Overtime Inspection Hours From 4/1/2017 Through 6/30/2017 (CR-089E) PR 04286 Task 4.0	F	FBB	(\$34,540.00)						0				

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**MWRP Biosolids and Energy Recovery Facilities
PR 21146 (4286)
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61	Approved by Exe. Director of Water Quality and Engineering Approved on September 6, 2017 61.1 Credit for Bulk Polymer Storage Changes per RFI-0863 and Submittal 15140-013B (CR-168) PR 04286 Task 5.16	E	FBB	(\$1,752.39)	(\$1,752.39)	\$16,156,667.29	\$16,154,914.90	9.88%	\$179,620,854.90	0	368	368	1,646	10/31/2017
62	Approved by Board of Directors Approved on October 9, 2017 62.1 Fats, Oil, and Grease (FOG) Modifications (CR-223A) PR 04286 Task 5.30 62.2 Density Meter Conduit and Cabling Modifications (CR-326) PR 04286 Task 5.30 62.3 Fiber Optic Modifications (CR-356) PR 04286 Task 5.30 62.4 Sludge Screen Pneumatic Control Panel Conduit and Cabling (CR-380) PR 04286 Task 5.30 62.5 Additional Circuits for Control of the Thickening Centrifuges (CR-386) PR 04286 Task 5.30 62.6 Upsize of Power Panel PP-8001 Circuit Breaker (CR-414) PR 04286 Task 5.30 62.7 Electrical Power Feeders to Electric Water Heater (CR-426) PR 04286 Task 5.30 62.8 Chemical Sump Pump Control Panel Space Heater Wiring Modifications (CR-461) PR 04286 Task 5.30 62.9 Relocate Electrical Feeders to Generator Bus (CR-462) PR 04286 Task 5.30 62.10 Electrical and Instrumentation Related Components for the Installation of Thin Client at Dryer Facility (CR-485A) PR 04286 Task 5.30 62.11 Polymer Room Eye Wash Station Flow Switches (CR-535) PR 04286 Task 5.30 62.12 Chemical Storage and Feed Modifications (CR-563) PR 04286 Task 5.30 62.13 PLC Redundancy Hot Standby Status Register (CR-568) PR 04286 Task 5.30	A	IRWD	\$52,174.90	\$708,162.72	\$16,154,914.90	\$16,863,077.62	10.32%	\$180,329,017.62	0	368	368	1,646	10/31/2017
		A	IRWD	\$52,518.11						0				
		A	IRWD	\$20,607.14						0				
		C	IRWD	\$8,859.95						0				
		C	FBB	\$376,674.08						0				
		A	IRWD	\$50,135.26						0				
		B	FBB	\$16,551.27						0				
		A	IRWD	\$12,822.26						0				
		A	IRWD	\$22,785.74						0				
		A	IRWD	\$49,908.43						0				
		A	IRWD	\$24,567.89						0				
		A	IRWD	\$13,055.18						0				
		A	IRWD	\$7,502.51						0				

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PR 21146 (4286)
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63	Approved by General Manager Approved on October 2, 2017				\$91,766.09	\$16,863,077.62	\$16,954,843.71	10.37%	\$180,420,783.71	0	368	368	1,646	10/31/2017
63.1	Electrical Modifications to RIO-2001 (CR-269) PR 04286 Task 5.30	C	IRWD	\$30,563.48						0				
63.2	Modifications to RIO-4002 (CR-285) PR 04286 Task 5.30	C	FBB	\$14,563.39						0				
63.3	Cap for 12-Inch Storm Drain (CR-351) PR 04286 Task 5.16	B	FBB	\$2,394.54						0				
63.4	Access Hatch for Regenerative Thermal Oxidizer Pipe Chase (CR-473) PR 04286 Task 5.31	C	FBB	\$3,958.91						0				
63.5	Electrical Upgrades to RIO-4002 (CR-447) PR 04286 Task 5.30	A	FBB	\$40,285.77						0				
64	Approved by Board of Directors Approved on October 23, 2017				\$231,100.22	\$16,954,843.71	\$17,185,943.93	10.51%	\$180,651,883.93	0	368	368	1,646	10/31/2017
64.1	Modifications to Centrate Treatment Facility Stairs (CR-379) PR 04286 Task 5.29	B	FBB	\$9,758.16						0				
64.2	Modifications to Ductwork in Solids Handling Building (CR-401) PR 04286 Task 5.31	C	FBB	\$9,537.05						0				
64.3	Electrical Conduits and Wires for Additional Bridge Breakers for Cake Receiving Pumps (CR-416) PR 04286 Task 5.30	B	FBB	\$21,678.83						0				
64.4	Handrail Modifications at the Methane Digesters (CR-472) PR 04286 Task 5.29	B	FBB	\$22,154.53						0				
64.5	Electrical and Instrumentation Related Components for the Installation of Thin Client at Dryer Facility (CR-485B) PR 04286 Task 5.30	A	IRWD	\$53,090.84						0				
64.6	Electrical Modifications at the Motor Control Centers for the Acid Phase Sludge Heating Recirculation Pumps (CR-517) PR 04286 Task 5.30	A	IRWD	\$47,611.11						0				
64.7	FOG Receiving Pumps Thermocouple and Thermostat Wiring (CR-525) PR 04286 Task 5.30	C	FBB	\$37,826.58						0				
64.8	SCADA Programming Changes (CR-537/570/573/573A) PR 04286 Task 5.30	A	IRWD	\$23,694.13						0				
64.9	Change of Limit Switches for Buried Service (CR-560) PR 04286 Task 5.30	C	FBB	\$5,748.99						0				

A - District Convenience/Initiation - Project Related
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**MWRP Biosolids and Energy Recovery Facilities
PR 21146 (4286)
Construction Change Order Summary**

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum Total C.O. days	Revised Total Contract Days	Revised Completion Date
65	Approved by Board of Directors Approved on October 23, 2017				\$149,591.14	\$17,185,943.93	\$17,335,535.07	10.60%	\$180,801,475.07	0	368	368	1,646	10/31/2017
65.1	Additional Conduits and Wires for the Engine Generator, Switchgear-16, and Switchgear-16 Programmable Logic Controller (CR-204) PR 04286 Task 5.30	C	FBB	\$100,000.00						0				
65.2	Modifications to Spirac Conveyor in the Solids Handling Building (CR-409) PR 04286 Task 5.31	B	FBB	\$13,641.00						0				
65.3	Additional Metal Bridge Walkway Structural Support Angles (CR-420) PR 04286 Task 5.29	B	FBB	\$35,950.14						0				
66	Approved by General Manager Approved on November 30, 2017				\$98,201.20	\$17,335,535.07	\$17,433,736.27	10.67%	\$180,899,676.27	0	368	368	1,646	10/31/2017
66.1	SCADA Programming Modifications and Updates (CR-247A/CR-469/CR-485C/CR-571/CR-575A/CR-579/CR-580/CR-585) PR 04286 Task 5.30	A	IRWD	\$61,734.78						0				
66.2	Installation of Sump Pump Floats (CR-452) PR 04286 Task 5.31	A	IRWD	\$17,228.56						0				
66.3	Electrical Work Associated with Air Handling/Heating Units, Recycle Bin Feed Conveyor, and Recycle Bucket Elevator in the Solids Handling Building (CR-457/CR-529) PR 04286 Task 5.30	B	IRWD	\$11,003.85						0				
66.4	Additional Wires and Conduits for FOG Receiving Valves (CR-565) PR 04286 Task 5.30	B	FBB	\$6,368.21						0				
66.5	Additional Door Cover Plates for MCC-4100 and MCC-4101	B	IRWD	\$1,865.80						0				
67	Approved by Exe. Dir of Engineering and Water Quality Approved on November 30, 2017				(\$53,626.83)	\$17,433,736.27	\$17,380,109.44	10.63%	\$180,846,049.44	0	368	368	1,646	10/31/2017
67.1	Credit for Overtime Inspection Hours from 07/1/2017 to 09/30/2017 (CR-089F) PR 04286 Task 4.0	F	FBB	(\$19,140.00)						0				
67.2	Credit for Additional Conduits and Wires for the Engine Generator, Switchgear-16, and Switchgear-16 Programmable Logic Controller (CR-204A) PR 04286 Task 5.30	E	FBB	(\$13,591.83)						0				
67.3	Deletion of Pavement Prime Coat (CR-331D) PR 04286 Task 5.29	A	IRWD	(\$20,895.00)						0				

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
68	Approved by Board of Directors Approved on December 11, 2017				\$569,553.19	\$17,380,109.44	\$17,949,662.63	10.98%	\$181,415,602.63	0	368	368	1,646	10/31/2017
68.1	Fats, Oil, and Grease (FOG) Modifications (CR-223) PR 04286 Task 5.30	A	IRWD	\$83,648.47						0				
68.2	Additional Electrical Outlets and Circuits in the Solids Handling Building (CR-453) PR 04286 Task 5.30	A	IRWD	\$44,054.83						0				
68.3	Control Panel Modifications in the Methane Digester Complex (CR-545) PR 04286 Task 5.30	C	IRWD	\$55,414.03						0				
68.4	Additional Electrical, Instrumentation, and Controls for the Heat Dryer System (CR-270 and CR-471A through CR-471G, CR-496, and CR-555) PR 04286 Task 5.30	B	FBB	\$386,435.86						0				
69	Approved by General Manager Approved on December 20, 2017				\$90,846.69	\$17,949,662.63	\$18,040,509.32	11.04%	\$181,506,449.32	0	368	368	1,646	10/31/2017
69.1	Power Supply Failure Alarms for Acid Gas Boosters (CR-477) PR 04286 Task	A	IRWD	\$10,965.90						0				
69.2	Addition of Waste Gas Burner Instrument Air Compressor System (Electrical) (CR-484A) PR 04286 Task 5.30	C	IRWD	\$8,046.52						0				
69.3	Circuit Breaker for MOC-2034 (CR-541) PR 04286 Task 5.30	B	IRWD	\$2,389.56						0				
69.4	Change in Limit Switches Located in the Methane Digester Complex Due Electrical Classification Change (CR-557D) PR 04286 Task 5.30	C	IRWD	\$37,744.12						0				
69.5	Change in Limit Switches Located in the Methane Digester Complex Due Electrical Classification Change (CR-582) PR 04286 Task 5.30	C	IRWD	\$16,228.03						0				
69.6	SCADA Programming Changes – Totalizers (CR-590) PR 04286 Task 5.30	A	IRWD	\$7,830.90						0				
69.7	Control Panel Modifications in the Methane Digester Complex (CR-592) PR 04286 Task 5.30	A	IRWD	\$7,641.66						0				

A - District Convenience/Initiation - Project Related
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D - District Convenience/Initiation - Non-Project Related
E - Contractor Convenience/Initiation
F - Contractor Requested Inspection Overtime

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
70	Approved by Exe. Dir of Engineering and Water Quality Approved on January 23, 2018				\$73,972.77	\$18,040,509.32	\$18,114,482.09	11.08%	\$181,580,422.09	0	368	368	1,646	10/31/2017
70.1	Addition of Limit Switches on Gas Dryer Heat Exchanger (CR-303) PR 04286 Task 5.30	A	IRWD	\$17,367.32						0				
70.2	Change of Electrical Classification of Valve Limit Switches at Acid Phase Digester Complex (CR-415) PR 04286 Task 5.30	C	IRWD	\$24,018.04						0				
70.3	Power Source to the Solids Handling Building Bridge Cranes (CR-574) PR 04286 Task 5.30	C	IRWD	\$27,479.58						0				
70.4	Investigation of Street Lights, South side of Biosolids Site (CR-613) PR 04286 Task 5.30	A	IRWD	\$1,204.20						0				
70.5	Additional Switches in the Solids Handling Building (CR-625) PR 04286 Task 5.30	A	IRWD	\$3,903.63						0				
71	Approved by Exe. Dir of Engineering and Water Quality Approved on January 31, 2018				(\$12,210.00)	\$18,114,482.09	\$18,102,272.09	11.07%	\$181,568,212.09	0	368	368	1,646	10/31/2017
71.1	Credit for Overtime Inspection Hours from 10/1/2017 to 12/31/2017 (CR-089G) PR 04286 Task 4.0	F	IRWD	(\$12,210.00)						0				
72	Approved by General Manager Approved on January 25, 2018				\$25,256.29	\$18,102,272.09	\$18,127,528.38	11.09%	\$181,593,468.38	0	368	368	1,646	10/31/2017
72.1	Installation of Breakers for Power Panel PP-8001 (CR-414A) PR 04286 Task 5.30	A	IRWD	\$25,256.29						0				
73	Approved by Board of Directors Approved on March 12, 2018				\$150,755.29	\$18,127,528.38	\$18,278,283.67	11.18%	\$181,744,223.67	0	368	368	1,646	10/31/2017
73.1	Additional Circuits for Control of the Dewatering Centrifuges (CR-386B) PR 04286 Task 5.30	B	FBB	\$150,755.29						0				

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum Total C. O. days	Revised Total Contract Days	Revised Completion Date
74	Approved by General Manager Approved on February 22, 2018				\$99,467.47	\$18,278,283.67	\$18,377,751.14	11.24%	\$181,843,691.14	0	368	368	1,646	10/31/2017
74.1	Access Platform to Heat Dryer Acid Scrubber (CR-485D) PR 04286 Task 5.30	A	IRWD	\$14,637.02						0				
74.2	Modifications to the FRP Ducting in the Solids Handling Building (CR-491) PR 04286 Task 5.31	A	IRWD	\$20,171.39						0				
74.3	Power to Air Compressors and Pre-Action Panels of the Fire Sprinkler System (CR-526) PR 04286 Task 5.30	B	IRWD	\$24,442.16						0				
74.4	Electrical and Instrumentation Revisions to the FOG System (CR-578) PR 04286 Task 5.30	A	IRWD	\$13,035.52						0				
74.5	Addition of Centrate Air Purge System (CR-581) PR 04286 Task 5.30	A	IRWD	\$17,777.95						0				
74.6	Addition of Flame Checks on Foam Separator Digested Sludge Line (CR-587) PR 04286 Task 5.3	A	IRWD	\$3,038.27						0				
74.7	Modifications to 10-Ton Crane Stops (CR-589) PR 04286 Task 5.31	C	FBB	\$6,365.16						0				

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum Total C.O. days	Revised Total Contract Days	Revised Completion Date
75	Approved by General Manager Approved on March 2, 2018				\$98,698.78	\$18,377,751.14	\$18,476,449.92	11.30%	\$181,942,389.92	0	368	368	1,646	10/31/2017
75.1	Electrical Modifications to the Acid Phase Digester and Methane Phase Digester System (CR-252C) PR 04286 Task 5.30	A	IRWD	\$31,492.38						0				
75.2	Modifications to the Odor Control Panels (CR-382) PR 04286 Task 5.30	A	IRWD	\$12,726.70						0				
75.3	Additional Lock-Out Switch for the Bridge Breaker (CR-384A) PR 04286 Task 5.30	B	IRWD	\$14,276.72						0				
75.4	Additional On/Off Switch for Duct Fans (CR-384B) PR 04286 Task 5.30	A	IRWD	\$12,100.47						0				
75.5	Aeration Blower MCC Modifications (CR-481) PR 04286 Task 5.30	C	IRWD	\$14,441.86						0				
75.6	Addition of Level Switches and Solenoid Valves for Gas/Foam Separator Tanks (CR-566) PR 04286 Task 5.30	B	IRWD	\$7,568.99						0				
75.7	SCADA Template Update (CR-622) PR 04286 Task 5.30	A	IRWD	\$2,775.05						0				
75.8	Additional Lights in the Shower Stalls of the Solids Handling Building (CR-628) PR 04286 Task 5.30	C	FBB	\$1,639.80						0				
75.9	Relocation of Flow Switch in Sample Analysis Room (CR-637) PR 04286 Task 5.30	A	IRWD	\$1,676.81						0				
76	Approved by Board of Directors Approved on March 26, 2018				\$150,690.04	\$18,476,449.92	\$18,627,139.96	11.40%	\$182,093,079.96	0	368	368	1,646	10/31/2017
76.1	Power Feed to Microturbine PLCs (CR-289) PR 04286 Task 5.30	B	FBB	\$49,534.35						0				
76.2	Upsizing of Electrical Cables related to the Heat Drying System (CR-510) PR 04286 Task 5.30	B	FBB	\$4,670.94						0				
76.3	Additional Cables to MCC-1 (CR-538) PR 04286 Task 5.30	B	FBB	\$5,679.24						0				
76.4	Electrical Code Area Classification Change in the Digester Control Building Gas Room (CR-582A) PR 04286 Task 5.30	C	IRWD	\$8,804.31						0				
76.5	Addition of Water Source for the Foam Separator (CR-583) PR 04286 Task 5.31	C	FBB	\$8,418.23						0				
76.6	SCADA Modifications on Solids Handling Polymer System (CR-620) PR 04286 Task 5.30	A	IRWD	\$7,761.00						0				
76.7	3-Way Valve Graphical Modifications to SCADA (CR-621) PR 04286 Task 5.30	A	IRWD	\$22,540.18						0				
76.8	SCADA Modifications on FOG System (CR-623) PR 04286 Task 5.30	A	IRWD	\$7,970.58						0				
76.9	SCADA Modifications on the Digested Tank Level (CR-626) PR 04286 Task 5.30	A	IRWD	\$8,898.86						0				
76.10	Solids Handling Building Stair Modifications (CR-634) PR 04286 Task 5.29	C	FBB	\$26,412.35						0				

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

Contractor: Filane/Balfour-Beatty
Design Engineer: Black & Veatch

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
77	Approved by General Manager Approved on April 30, 2018				\$94,371.12	\$18,627,139.96	\$18,721,511.08	11.45%	\$182,187,451.08	0	368	368	1,646	10/31/2017
77.1	Modifications of Notching Shear Lugs - Solids Handling Building (CR-299A) PR 04286 Task 5.29	C	FBB	\$1,269.23						0				
77.2	Cake Storage Hopper Conveyor Control Changes (CR-384C) PR 04286 Task 5.30	A	IRWD	\$30,869.71						0				
77.3	Electrical Testing for Manual Transfer Switchgear SWGR-14 (CR-474A) PR 04286 Task 5.30	C	FBB	\$5,891.73						0				
77.4	Additional HVAC Fan Coil Power Circuits (CR-593) PR 04286 Task 5.30	B	FBB	\$16,053.47						0				
77.5	Modifications to Digester Control Building Roof Guardrail and Bridge Steps (CR-617) PR 04286 Task 5.29	B	IRWD	\$10,147.48						0				
77.6	Electrical Modifications to the Condensing Unit and Heat Pumps in the Solids Handling Building (CR-635) PR 04286 Task 5.30	A	FBB	\$9,551.13						0				
77.7	SCADA Control Logic Change in the Acid Phase Digester Area (CR-668) PR 04286 Task 5.30	A	IRWD	\$9,741.22						0				
77.8	SCADA Control Logic Change in the Polymer Thickening Tank Area (CR-669) PR 04286 Task 5.30	A	IRWD	\$8,144.54						0				
77.9	Hot Water Circuit Breaker (CR-366A) PR 04286 Task 5.30	A	IRWD	\$2,702.61						0				
78	Approved by Board of Directors Approved on April 26, 2018				\$344,006.55	\$18,721,511.08	\$19,065,517.63	11.66%	\$182,531,457.63	0	368	368	1,646	10/31/2017
78.1	Operator Interface Terminal (OIT) Indusoft Licensing Cost (CR-244) PR 04286 Task 5.30	A	IRWD	\$4,618.13						0				
78.2	Retaining Wall Modifications at Solids Handling Building (CR-331E) PR 04286 Task 5.29	C	IRWD	\$26,508.00						0				
78.3	Andritz Air Compressor Equipment Pad Modifications (CR-550) PR 04286 Task 5.31	C	FBB	\$6,729.00						0				
78.4	Waste Activated Sludge (WAS), Digested Sludge (DS), and Primary Sludge (PS) Piping Modifications (CR-594) PR 04286 Task 5.31	A	IRWD	\$28,967.68						0				
78.5	Modifications to MWRP Biosolids Hardscape (CR-331K) PR 04286 Task 5.29	A	IRWD	\$277,183.74						0				

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
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79	Approved by General Manager Approved on May 17, 2018				\$89,123.41	\$19,065,517.63	\$19,154,641.04	11.72%	\$182,620,581.04	0	368	368	1,646	10/31/2017
79.1	Addition of High Temperature Switches for the Primary Sludge/Waste Activated Sludge Wet Well Mixers (CR-377A) PR 04286 Task 5.30	C	FBB	\$12,145.12						0				
79.2	Utility Line Modifications in the Solids Handling Building (CR-521) PR 04286 Task 5.31	A	IRWD	\$2,163.21						0				
79.3	SCADA Programming Changes in the Methane Digester Area (CR-542) PR 04286 Task 5.30	A	IRWD	\$7,191.02						0				
79.4	MCC-4100 Bridge Breaker Modifications in the Bulk Polymer Storage Area (CR-562) PR 04286 Task 5.30	B	IRWD	\$9,905.77						0				
79.5	Electrical Modifications of Exhaust Air Unit in the Solids Handling Building (CR-618) PR 04286 Task 5.30	B	FBB	\$6,391.05						0				
79.6	SCADA Programming Changes on the Biosolids Conveyor Distribution System (CR-630) PR 04286 Task 5.30	A	IRWD	\$7,226.35						0				
79.7	Electrical Modifications to the Dewatering Conveyors in the Solids Handling Building (CR-672) PR 04286 Task 5.30	B	FBB	\$21,239.15						0				
79.8	Additional Space Heater for Regenerative Thermal Oxidizer Draft Fan (CR-675) PR 04286 Task 5.30	A	FBB	\$9,351.07						0				
79.9	SCADA Programming Update on the Acid Phase Sludge Transfer Pumps (CR-689) PR 04286 Task 5.30	A	IRWD	\$13,510.67						0				

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

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

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				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
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80	Approved by Board of Directors Approved on May 29, 2018				\$313,076.14	\$19,154,641.04	\$19,467,717.18	11.91%	\$182,933,657.18	0	368	368	1,646	10/31/2017
80.1	Modifications to MCC-4100, MCC-4101 and MCC-4102 (CR-384) PR 04286 Task 5.30	C	FBB	\$36,158.66						0				
80.2	Modifications to MCC-4102 and MCC-4103 (CR-384D) PR 04286 Task 5.30	C	FBB	\$63,388.51						0				
80.3	Separate Air Compressor System Electrical Panel for Waste Gas Burner (CR-484B) PR 04286 Task 5.3	B	FBB	\$50,723.04						0				
80.4	Additional Power Monitoring Equipment for Self-Generation Incentive Program (CR-577) PR 04286 Task 5.30	A	IRWD	\$34,887.16						0				
80.5	Electrical Modifications for the Gas Compressor Detector and Enclosure Fire Alarm Panel (CR-629) PR 04286 Task 5.30	A	IRWD	\$13,215.42						0				
80.6	Additional Power Circuits for the Solids Handling Building Roll-Up Doors (CR-631) PR 04286 Task 5.30	C	IRWD	\$24,446.58						0				
80.7	Modifications to Digested Sludge Line (CR-648) PR 04286 Task 5.31	C	FBB	\$17,023.42						0				
80.8	Relocation of Local Control Panel in the Solids Handling Building (CR-676) PR 04286 Task 5.30	C	FBB	\$34,619.35						0				
80.9	Additional Manual Valves and Components for Heat Dryer System (CR-683) PR 04286 Task 5.30	C	FBB	\$38,614.00						0				
81	Approved by Executive Director of Engineering and Water Quality Approved on June 1, 2018				\$2,566.55	\$19,467,717.18	\$19,470,283.73	11.91%	\$182,936,223.73	0	368	368	1,646	10/31/2017
81.1	Modifications to Duct and Cable Tray Support in Dryer Room (CR-125) PR 04286 Task 5.30	A	FBB	\$2,566.55						0				
82	Approved by Executive Director of Engineering and Water Quality Approved on June 1, 2018				(\$75,950.64)	\$19,470,283.73	\$19,394,333.09	11.86%	\$182,860,273.09	0	368	368	1,646	10/31/2017
82.1	Credit for Overtime Inspection Hours from 01/01/2018 to 3/31/2018 (CR-089H) PR 04286 Task 4.0	F	FBB	(\$3,740.00)						0				
82.2	Odor Control Fan Platform Modifications (CR-334) PR 04286 Task 5.31	A	IRWD	(\$8,498.82)						0				
82.3	Chemical Piping Modifications Between Chemical Storage and Odor Control Areas (CR-387) PR 04286 Task 5.31	A	IRWD	(\$20,197.71)						0				
82.4	Ferric Chloride Piping Modifications in the Thickened Sludge Area (CR-388) PR 04286 Task 5.31	A	IRWD	(\$26,067.00)						0				
82.5	Ferric Chloride Piping Re-Route South of the Solids Handling Building (CR-423) PR 04286 Task 5.31	A	IRWD	(\$17,447.11)						0				

A - District Convenience/Initiation - Project Related
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D - District Convenience/Initiation - Non-Project Related
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F - Contractor Requested Inspection Overtime

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
83	Approved by General Manager Approved on June 21, 2018				\$81,901.09	\$19,394,333.09	\$19,476,234.18	11.91%	\$182,942,174.18	0	368	368	1,646	10/31/2017
83.1	Andritz Pellet Silo Structure Conflict (CR-554) PR 04286 Task 5.29	C	FBB	\$4,963.98						0				
83.2	Additional Power Circuits for the Solids Handling Building Roll-Up Doors (CR-631A) PR 04286 Task 5.30	C	FBB	\$32,998.95						0				
83.3	SCADA Programming Update – Gas Booster System (CR-670) PR 04286 Task 5.30	A	IRWD	\$14,981.13						0				
83.4	Electrical Receptacles for Deionized Water System (CR-692A) PR 04286 Task 5.30	A	IRWD	\$4,546.34						0				
83.5	Cable Work Related in MCC-1 to Harmonic Filters (CR-694) PR 04286 Task 5.30	A	IRWD	\$6,932.07						0				
83.6	SCADA Update to Sludge Heat Transfer System Valve Matrix (CR-699) PR 04286 Task 5.30	A	IRWD	\$17,478.62						0				
84	Approved by Board of Directors Approved on June 25, 2018				\$105,492.90	\$19,476,234.18	\$19,581,727.08	11.98%	\$183,047,667.08	0	368	368	1,646	10/31/2017
84.1	Electrical Modifications Due to the Addition of Grease Pumps (CR-619) PR 04286 Task 5.30	B	FBB	\$105,492.90						0				
85	Approved by Executive Director of Engineering and Water Quality Approved on July 30, 2018				(\$39,914.23)	\$19,581,727.08	\$19,541,812.85	11.95%	\$183,007,752.85	0	368	368	1,646	10/31/2017
85.1	Credit for Overtime Inspection Hours from 04/01/2018 to 6/30/2018 (CR-0891) PR 04286 Task 4.0	F	FBB	(\$29,150.00)						0				
85.2	Replacement of Network Communication Switches in the Solids Handling Building and Digester Control Building Server Rooms (CR-713) PR 04286 Task 5.30	B	IRWD	(\$10,764.23)						0				

A - District Convenience/Initiation - Project Related
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**MWRP Biosolids and Energy Recovery Facilities
PR 21146 (4286)
Construction Change Order Summary**

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C. O. days	Revised Total Contract Days	Revised Completion Date
86	Approved by General Manager				\$99,320.53	\$19,541,812.85	\$19,641,133.38	12.02%	\$183,107,073.38	0	368	368	1,646	10/31/2017
	Approved on July 30, 2018													
86.1	Addition of Waste Gas Burner Instrument Air Compressor System (Material Cost Only) (CR-484) PR 04286 Task 5.31	C	IRWD	\$5,357.20						0				
86.2	Modifications to Piping at the Bulk Liquid Chemical Area (CR-567) PR 04286 Task 5.31	A	IRWD	\$10,248.65						0				
86.3	Modifications to 5-Ton Crane Stops (CR-589A) PR 04286 Task 5.31	C	IRWD	\$6,264.07						0				
86.4	Additional Electrical Conduits and Wires to Connect Andritz Drum Motor (CR-691) PR 04286 Task 5.30	B	IRWD	\$4,419.83						0				
86.5	SCADA Programming Changes to the Digester Gas Final Treatment System (CR-697) PR 04286 Task 5.30	A	IRWD	\$2,374.92						0				
86.6	SCADA Programming Modifications to the Dewatering Feed and Conveyance Systems (CR-700) PR 04286 Task 5.30	A	IRWD	\$29,203.07						0				
86.7	SCADA Programming Modifications to the Heating Water System (CR-703) PR 04286 Task 5.30	A	IRWD	\$22,303.18						0				
86.8	SCADA Programming Modifications to the Centrate Treatment System (CR-705) PR 04286 Task 5.30	A	IRWD	\$17,197.62						0				
86.9	Relocation of 6-Inch CRW Clean-out (CR-716) PR 04286 Task 5.31	A	IRWD	\$1,367.87						0				
86.10	Modifications to Approach Curb in Microturbine Area (CR-718) PR 04286 Task 5.31	A	IRWD	\$584.12						0				

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
87	Approval by General Manager Approved on August 31, 2018				\$98,063.60	\$19,541,133.38	\$19,739,196.98	12.08%	\$183,205,136.98	0	368	368	1,646	10/31/2017
87.1	Electrical Work Related to Commissioning of the Solids Handling Building Elevator (CR-037C) PR 04286 Task 5.30	B	IRWD	\$8,180.42						0				
87.2	Excavation Activities to Install Autodialer (CR-234B) PR 04286 Task 5.30	A	IRWD	\$951.88						0				
87.3	Installation of Monitoring Ports for 54-Inch Foul Air Pipe in Solids Handling Building (CR-446) PR 04286 Task 5.31	B	IRWD	\$1,197.96										
87.4	Additional Cladding for Methane Digesters (CR-584) PR 04286 Task 5.29	A	IRWD	\$4,893.64						0				
87.5	SCADA Programming Changes to the Dewatering Centrifuge System (CR-677) PR 04286 Task 5.30	A	IRWD	\$21,537.93						0				
87.6	Water Filter Drain Connections (CR-678) PR 04286 Task 5.31	C	IRWD	\$7,711.86						0				
87.7	Additional Circuits for Dewatering Conveyor (CR-680) PR 04286 Task 5.30	A	IRWD	\$12,268.17						0				
87.8	Dryer Cake Relief Line (CR-693) PR 04286 Task 5.31	A	IRWD	\$4,834.06						0				
87.9	Filling of Abandoned Pipe Sleeves in SHB Elevator Mechanical Room (CR-701) PR 04286 Task 5.31	A	IRWD	\$1,166.06						0				
87.10	FOG Receiving Pump Temperature Switch Modifications (CR-706) PR 04286 Task 5.30	A	IRWD	\$11,775.89						0				
87.11	Temporary Natural Gas Piping to Flare (CR-709) PR 04286 Task 5.31	A	IRWD	\$6,536.47						0				
87.12	SCADA Update to Acid Phase Digesters and Heating Water Loop Controls (CR-719) PR 04286 Task 5.30	A	IRWD	\$17,009.26						0				

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
88	Approved by General Manager Approved on September 26, 2018				\$98,601.54	\$19,739,196.98	\$19,837,798.52	12.14%	\$183,303,738.52	0	368	368	1,646	10/31/2017
88.1	Additional Pipe Supports for 24-Inch Foul Air Ducting in the Solids Handling Building (CR-520) PR 04286 Task 5.31	B	IRWD	\$11,140.47						0				
88.2	Electrical Modifications for Waste Gas Burner Control Panel (CR-524) PR 04286 Task 5.30	B	IRWD	\$9,840.13						0				
88.3	Waste Activated Sludge (WAS), Digested Sludge (DS), and Primary Sludge (PS) Piping Modifications (CR-594A) PR 04286 Task 5.31	A	IRWD	\$24,216.24						0				
88.4	Relocation of Scrubber Pipe and Pipe Support (CR-644) PR 04286 Task 5.31	B	IRWD	\$6,390.20						0				
88.5	Update to SCADA Pipe Color Requirements (CR-704A) PR 04286 Task 5.30	C	IRWD	\$4,819.15						0				
88.6	Routing of Microturbine Conduits (CR-711) PR 04286 Task 5.30	A	IRWD	\$6,420.74						0				
88.7	Electrical Power to Heat Trace Panels and Truck Exhaust Fans (CR-714) PR	C	IRWD	\$22,038.62						0				
88.8	HVAC Duct Modifications in the Digester Control Building Basement (CR-715) PR 04286 Task 5.31	C	IRWD	\$6,507.45						0				
88.9	Revised Light Fixtures Types Located in Solids Handling Building Second Floor (CR-731) PR 04286 Task 5.30	A	IRWD	\$7,228.54						0				
89	Approved by General Manager Approved on October 17, 2018				\$96,405.88	\$19,837,798.52	\$19,934,204.40	12.19%	\$183,400,144.40	0	368	368	1,646	10/31/2017
89.1	Additional Pipe Cake Pipe Supports (CR-596) PR 04286 Task 5.31	C	IRWD	\$39,259.76						0				
89.2	New Railings at the Solids Handling Building, Bulk Polymer Storage Facility, and Centrate Treatment Facility (CR-707) PR 04286 Task 5.29	A	IRWD	\$17,330.67						0				
89.3	Modifications to Programmable Control Panels Controlling Digester Gas Treatment Process and Liquid Chemicals (CR-710) PR 04286 Task 5.30	A	IRWD	\$11,570.41						0				
89.4	SCADA Modifications to the Acid Gas Boosters System (CR-721) PR 04286	A	IRWD	\$8,047.39						0				
89.5	Miscellaneous Time and Materials Items (CR-725) PR 04286 Task 5.31	B	IRWD	\$2,955.65						0				
89.6	SCADA Modifications to the Cake Receiving Bins (CR-734) PR 04286 Task	A	IRWD	\$17,242.00						0				

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

Contractor: Filane/Balfour-Beatty
Design Engineer: Black & Veatch

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
90	Approved by Board of Directors Approved on October 22, 2018				\$259,999.33	\$19,934,204.40	\$20,194,203.73	12.35%	\$183,660,143.73	0	368	368	1,646	10/31/2017
90.1	Biosolids Site Modifications (CR-331L) PR 04286 Task 5.29	C	IRWD	\$40,726.48						0				
90.2	Modifications to the Cake Receiving Bin LCP (CR-597) PR 04286 Task 5.30	A	IRWD	\$75,524.26						0				
90.3	Architectural Modifications in the Centrifuge Area in the Solids Handling Building (CR-681) PR 04286 Task 5.29	A	IRWD	\$10,468.65						0				
90.4	Modifications to the Bulk Polymer Access Platform (CR-708) PR 04286 Task 5.31	B	IRWD	\$53,407.62						0				
90.5	Addition of Cake Hopper Platform (CR-720) PR 04286 Task 5.31	A	IRWD	\$59,714.23						0				
90.6	Modifications to the Dryer System (CR-728) PR 04286 Task 5.30	A	IRWD	\$14,724.76						0				
90.7	Modifications to the Cake Storage System (CR-730) PR 04286 Task 5.30	A	IRWD	\$5,433.33						0				
91	Approved by Executive Director of Engineering and Water Quality Approved on October 18, 2018				(\$20,460.00)	\$20,194,203.73	\$20,173,743.73	12.34%	\$183,639,683.73	0	368	368	1,646	10/31/2017
91.1	Credit for Overtime Inspection Hours from 07/01/2018 to 9/30/2018 (CR-0891) PR 04286 Task 4.0	F	IRWD	(\$20,460.00)						0				

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
92	Approved by Executive Director of Engineering and Water Quality Approved on November 12, 2018				\$73,782.76	\$20,173,743.73	\$20,247,526.49	12.39%	\$183,713,466.49	0	368	368	1,646	10/31/2017
92.1	Addition of Oil Leak Detection Sensor at Nitrogen and Mineral Oil Area (CR-471H) PR 04286 Task 5.30	A	IRWD	\$1,989.71						0				
92.2	Modifications at the Centrate Treatment Decant Wet Well (CR-576) PR 04286 Task 5.31	B	IRWD	\$4,285.46						0				
92.3	Modifications to the Methane Digester Gas Line (CR-664) PR 04286 Task 5.31	A	IRWD	\$2,573.91						0				
92.4	Addition of Cladding at Digester Control Building and Bridge to Methane Digester No. 1 (CR-674) PR 04286 Task 5.31	A	IRWD	\$15,067.18						0				
92.5	Conduits and Wires for Hand Dryers in Solids Handling Building Restrooms (CR-724) PR 04286 Task 5.30	C	IRWD	\$6,617.91						0				
92.6	Miscellaneous IRWD-Directed Work Items (CR-725B/725E) PR-04286 Task 5.30	A	IRWD	\$6,295.31						0				
92.7	Additional Devices for Silo Dust Collector System (CR-729) PR 04286 Task 5.30	A	IRWD	\$8,208.65						0				
92.8	SCADA Modifications to the Cake Storage System (CR-730A) PR 04286 Task 5.30	A	IRWD	\$1,561.76						0				
92.9	Relocation of 2 Gas Lines (CR-732) PR 04286 Task 5.30	A	IRWD	\$5,117.41										
92.10	Pipe Support Pedestal Modifications (CR-483) PR 04286 Task 5.29	C	IRWD	\$12,025.46										
92.11	Removal of Installed Buried Valves at Centrate Facility (CR-560A) PR 04286 Task 5.31	A	IRWD	\$10,040.00						0				
93	Approved by Executive Director of Engineering and Water Quality Approved on November 12, 2018				(\$35,240.94)	\$20,247,526.49	\$20,212,285.55	12.36%	\$183,678,225.55	0	368	368	1,646	10/31/2017
93.1	Deletion of Insulation on Selected Digester Gas Lines (CR-558) PR 04286 Task 5.31	A	IRWD	(\$30,454.98)						0				
93.2	Deletion of Insulation on Selected Air Piping at Centrate Treatment Facility (CR-736) PR 04286 Task 5.31	A	IRWD	(\$4,785.96)						0				

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
94	Approved by General Manager Approved on January 14, 2019				\$99,830.69	\$20,212,285.55	\$20,312,116.24	12.43%	\$183,778,056.24	0	368	368	1,646	10/31/2017
94.1	Biosolids Site Paving Modifications (CR-331M) PR 04286 Task 5.29	A	IRWD	\$0.00						0				
94.2	Addition of Waste Gas Burner Instrument Air Compressor System (Labor and Equipment Cost) (CR-484C) PR 04286 Task 5.31	C	IRWD	\$13,222.97						0				
94.3	SCADA Programming Modifications to Programmable Control Panels Controlling Digester Gas Treatment Process and Liquid Chemicals (CR-710A) PR 04286 Task 5.3	A	IRWD	\$47,459.22						0				
94.4	Additional Electrical Outlets in the Solids Handling Building and Digester Control Building (CR-717) PR 04286 Task 5.29	A	IRWD	\$2,877.70						0				
94.5	Changes to Aeration Blower Control Panel Circuits (CR-722) PR 04286 Task 5.30	B	IRWD	\$5,998.43						0				
94.6	Relocation of Conduit in the Dryer Area (CR-725D) PR 04286 Task 5.30	A	IRWD	\$1,784.08						0				
94.7	SCADA Programming Modifications to Acid Gas Bypass Valve (CR-738) PR 04286 Task 5.30	A	IRWD	\$10,269.19						0				
94.8	SCADA Programming Modifications to Valve Configuration Logic of the Dewatering Feed System (CR-740) PR 04286 Task 5.30	A	IRWD	\$18,219.10						0				
95	Approved by Exe. Dir. of Engineering and Water Quality Approved on January 15, 2019				(\$2,640.00)	\$20,312,116.24	\$20,309,476.24	12.42%	\$183,775,416.24	0	368	368	1,646	10/31/2017
95.1	Biosolids Site Paving Modifications (CR-331M) PR 04286 Task 5.29	F	IRWD	(\$2,640.00)						0				
96	Approved by General Manager Approved on February 28, 2019				\$96,442.55	\$20,309,476.24	\$20,405,918.79	12.48%	\$183,871,858.79	0	368	368	1,646	10/31/2017
96.1	Additional Recycled Pipe near the Methane Digester Area (CR-441) PR 04286	A	IRWD	\$30,547.94						0				
96.2	Thickening Centrifuge Piping Modifications (CR-488) PR 04286 Task 5.31	B	IRWD	\$9,769.47						0				
96.3	SCADA Control Logic Change in the Polymer Thickening Tank Area (CR-669A) PR 04286 Task 5.30	A	IRWD	\$17,462.04						0				
96.4	Miscellaneous IRWD-Directed Work Items (CR-725G/725H/725I/725J/725K) PR 04286 Task 5.31	A	IRWD	\$25,706.09						0				
96.5	Changes to Heat Dryer System Circuits (CR-737) PR 04286 Task 5.30	B	IRWD	\$4,099.24						0				
96.6	Additional Circuit for Heat Dryer Equipment (CR-743) PR 04286 Task 5.30	B	IRWD	\$2,655.01						0				
96.7	SCADA Programming Changes for Dewatering Biosolids Distribution System (CR-745) PR 04286 Task 5.30	A	IRWD	\$6,202.76						0				

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

Contractor: Filane/Balfour-Beatty
Design Engineer: Black & Veatch

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
97	Approved by Exe Dir of Eng and Water Quality Approved on February 28, 2019				(\$56,137.59)	\$20,405,918.79	\$20,349,781.20	12.45%	\$183,815,721.20	0	368	368	1,646	10/31/2017
97.1	Deletion of CR-232 Addition of Two Doors at the bases of the stairways at Methane Digesters Nos. 1 and No. 2 (CR-232A) PR 04286 Task 5.29	A	IRWD	(\$52,251.65)						0				
97.2	Deletion of Cables for Truck Load-Out Control Panels (CR-685) PR 04286 Task 5.30	B	IRWD	(\$3,885.94)						0				
98	Pending Approval by General Manager Pending Approval on March 15, 2019				\$99,919.10	\$20,349,781.20	\$20,449,700.30	12.51%	\$183,915,640.30	0	368	368	1,646	10/31/2017
98.1	Provide Hollow Metal Door at Digester Control Building (CR-037D) PR 04286 Task 5.29	E	FBB	\$1,747.70						0				
98.2	Modifications to Truck Scale Ramp Area (CR-331A) PR 04286 Task 5.29	E	FBB	\$32,634.50						0				
98.3	Sample Ports for AQMD Monitoring (CR-478) PR 04286 Task 5.31	B	IRWD	\$5,871.96						0				
98.4	Modification of FRP Foul Air Line (CR-638/638A) PR 04286 Task 5.31	B	IRWD	\$14,067.70						0				
98.5	New 208 V Power Source in the Solids Handling Building Sampling Room (CR-725F) PR 04286 Task 5.30	B	IRWD	\$17,725.27						0				
98.6	Test Ports for Southern California Gas (CR-725L) PR 04286 Task 5.31	B	IRWD	\$7,947.83						0				
98.7	Electrical Modifications for Conveyors in the Solids Handling Building (CR-742) PR 04286 Task 5.30	B	IRWD	\$6,903.78						0				
98.8	Additional Light Fixtures in the Digester Control Building and Solids Handling Building (CR-747) PR 04286 Task 5.30	A	IRWD	\$12,425.53						0				
98.9	Offset Saddles for Door Openings in the Solids Handling Building (CR-753) PR 04286 Task 5.29	B	FBB	\$594.83						0				

A - District Convenience/Initiation - Project Related
B - Differing Site Conditions
C - Design Oversight
D - District Convenience/Initiation - Non-Project Related
E - Contractor Convenience/Initiation
F - Contractor Requested Inspection Overtime

B - 41

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
99	Pending approval by Board of Directors Pending Approval on March 25, 2019				\$330,609.60	\$20,449,700.30	\$20,780,309.90	12.71%	\$184,246,249.90	0	368	368	1,646	10/31/2017
99.1	Regenerative Thermal Oxidizer Stack Bypass Re-route (CR-153) PR 04286 Task 5.31	A	IRWD	\$42,305.48						0				
99.2	Additional Soil Remediation on the South Road of Biosolids Site (CR-327) PR 04286 Task 5.29	B	IRWD	\$43,444.97						0				
99.3	Additional Base and Paving (CR-331C) PR 04286 Task 5.29	B	IRWD	\$21,619.30						0				
99.4	Odor Scrubber Recirculation Piping and Pipe Support Modifications (CR-402/CR-402A) Task 5.31	B	IRWD	\$103,308.35						0				
99.5	Electrical Modifications in the Control Room of the Solids Handling Building (CR-453A) PR 04286 Task 5.30	A	IRWD	\$9,371.28						0				
99.6	Modifications to the Acoustical Panels in the Solids Handling Building (CR-733) PR 04286 Task 5.30	A	IRWD	\$14,704.14						0				
99.7	New 480 V Power Source for Vacuum System in the Dryer Room (CR-733) PR 04286 Task 5.30	C	IRWD	\$9,995.96						0				
99.8	Explosion Proof Duct Detector in the Digester Control Building Gas Room (CR-744) PR 04286 Task 5.30	C	IRWD	\$25,719.23						0				
99.9	SCADA Programming Update to the Centrate Treatment Area (CR-748) PR 04286 Task 5.29	A	IRWD	\$38,467.14						0				
99.10	SCADA Programming Update to Digester Gas System (CR-754) PR 04286 Task 5.29	A	IRWD	\$21,673.75						0				

A - District Convenience/Initiation - Project Related
B - Differing Site Conditions
C - Design Oversight
D - District Convenience/Initiation - Non-Project Related
E - Contractor Convenience/Initiation
F - Contractor Requested Inspection Overtime

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

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

				Contract Amount						Contract Days				Original Completion Date:
				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
Change Order	Description	Category	IRWD or FBB	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum Total C.O. days	Revised Total Contract Days	Revised Completion Date

Category	Total Amount	% of Original Contract
A - District Convenience/Initiation - Project Related	\$ 4,074,004.30	2.49%
B - Differing Site Conditions	\$ 13,095,723.37	8.01%
C - Design Oversight	\$ 3,795,907.49	2.32%
D - District Convenience/Initiation - Non-Project Related	\$ -	0.00%
E - Contractor Convenience/Initiation	\$ 132,684.74	0.08%
F - Contractor Requested Inspection Overtime	\$ (318,010.00)	-0.19%
TOTAL (A + B + C + D + E + F)	\$ 20,780,309.90	12.71%

Category	Total Amount	% of Original Contract
IRWD-Initiation/Driven	\$ 5,638,111.24	3.45%
FBB-Initiation/Driven	\$ 14,971,478.44	9.16%
N/A	\$ 170,720.22	0.10%
TOTAL	\$ 20,780,309.90	12.71%

A - District Convenience/Initiation - Project Related
B - Differing Site Conditions
C - Design Oversight
D - District Convenience/Initiation - Non-Project Related
E - Contractor Convenience/Initiation
F - Contractor Requested Inspection Overtime

IRVINE RANCH WATER DISTRICT

EXHIBIT "C"

PROFESSIONAL SERVICES VARIANCE

Project Title: MWRP Biosolids & Energy Recovery Facilities – Construction Phase ServicesProject No.: 04286 (21146)Date: March 8, 2019Purchase Order No.: 609918Variance No.: 8Originator: ☒ IRWD ☐ ENGINEER/CONSULTANT ☐ Other (Explain) _____

Description of Variance (attach any back-up material): At the request of IRWD provide additional services associated with (1) project management, (2) submittal reviews, (3) RFI reviews, (4) claims avoidance, (5) onsite design representative, (6) electrical inspections, (8) I&C inspections, and (9) startup testing coordination. See attached detailed scope of work description.

Engineering & Management Cost Impact:

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
See attached summary level of effort						
Total \$ =						2,865,066

Schedule Impact:

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
All		April 30, 2019	14 months	June 30, 2020

Required Approval Determination:

Total Original Contract	\$ <u>12,509,031</u>	<input type="checkbox"/> Director: Cumulative total of Variances less than or equal to \$50,000.
Previous Variances \$ <u>9,016,568</u>		<input type="checkbox"/> Executive Director: Cumulative total of Variances less than or equal to \$75,000.
This Variance \$ <u>2,865,066</u>		<input type="checkbox"/> General Manager: Cumulative total of Variances less than or equal to \$100,000.
Total Sum of Variances	\$ <u>11,881,634</u>	<input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$100,000.
New Contract Amount	\$ <u>24,390,665</u>	
Percentage of Total Variances to Original Contract	<u>95.0%</u>	

ENGINEER/CONSULTANT: Black & Veatch Corp.

IRVINE RANCH WATER DISTRICT

Company Name

Project Engineer/Manager

March 8, 2019
Date

Department Director

3/12/19
Date

Engineer's/Consultant's Management

March 8, 2019
Date

General Manager/Board

Date

IRVINE RANCH WATER DISTRICT

PROFESSIONAL SERVICES VARIANCE REGISTER

Project Title: <u>MWRP Biosolids and Energy Recovery Facilities – Construction Phase Services</u>				
Project No.: <u>04286 (21146)</u> Project Manager: <u>Steve Malloy</u>				
Variance No.	Description	Dates		Variance Amount
		Initiated	Approved	
1	Add a Field Electrical & Automation Engineer	02-05-14	03-25-14	\$664,600
2	Prepare an Odor Control Maintenance and Monitoring Program (OCMMP)	04-29-14	05-28-14	\$112,665
3	Add a Field Civil/Mechanical Engineer	10-06-14	11-10-14	\$899,000
4	Additional Startup Monitoring Activities	10-09-15	11-03-15	\$370,570
5	Additional Services for: (1) project management, (2) submittal reviews, (3) RFI reviews, (4) schedule reviews, (5) electrical inspections, (6) electrical/automation field engineering, (7) civil/mechanical field engineering, and (8) air quality permitting services.	04-07-16	09-27-16	\$3,564,215
6	Additional services for Standard Operating Procedures: (1) convert "existing" 60 SOPs from process summary type to individual equipment type, (2) expand the scope of the "existing" SOPs, and (3) prepare 70 new SOPs.	02-09-17	04-11-17	\$215,500

7	Additional Services for: (1) project management, (2) submittal reviews, (3) RFI reviews, (4) schedule reviews, (5) structural observations, (6) claims avoidance, (7) onsite design representative (8) electrical inspections, (9) I&C inspections, (10) electrical/automation field engineering, (11)civil/mechanical field engineering, (12) EOM development, (13) startup testing coordination, and (14) record drawings	10-18-17	11-28-17	\$3,190,018
8	Additional Services for: (1) project management, (2) submittal reviews, (3) RFI reviews, (4) claims avoidance, (5) onsite design representative, (6) electrical inspections, (7) I&C inspections, (8) electrical/automation field engineering, and (9) startup testing coordination	03-08-19	Pending	\$2,865,066

MEMORANDUM

Irvine Ranch Water District
MWRP Biosolids & Energy Recovery Facilities
Proposed Variance #8 – Additional Field and Construction Phase Services

179900
March 8, 2019

To: Steve Malloy – Principle Engineer

From: Mark Wilson – Project Manager

Thank you for the opportunity to submit **Proposed Variance #8** to IRWD to accommodate the anticipated time extension for FBB (Contractor), extending our construction phase services completion schedule from April 30, 2019 to June 30, 2020 (14 month time extension). The amount of this **Proposed Variance #8** is **\$2,865,066**. Attached are the following documents that make up our proposal to IRWD.

- IRWD Professional Services Variance Form – Proposed Variance #8
- Scope of Services
- Budget Projection Worksheet
- Proposed Level of Effort and Engineering Fee Spreadsheet

We hope that the above information is satisfactory for you to review our proposal, approve the proposed engineering fee, and to submit for Board approval. As always, we are ready to discuss any of the items described above, or anything else that is of concern in support of moving your approval process forward.

Thank you once again for offering this opportunity to the Black & Veatch.

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

**VARIANCE #8
March 8, 2019**

SCOPE OF WORK

BACKGROUND

The Irvine Ranch Water District (IRWD) owns and operates the Michelson Water Recycling Plant (MWRP). New biosolids and energy recovery facilities are currently under construction by Filanc-Balfour Beatty (FBB), the construction contractor. The current FBB Project Schedule Update shows a Final Construction Completion Date of March 1, 2019. However, FBB appears to be showing excessive time for completing their startup activities such that Black & Veatch recommends assuming a Final Completion Date of March 31, 2020 for this variance. This results in a time extension for the contract completion date, from April 2019 (assumed date for Variance #7) to June 2020 (a 14 month time extension). At the request of IRWD Black & Veatch will furnish additional project management; construction administration support; construction field support; electronic O&M manual; and training, commissioning, and start-up services to cover the additional time period and also cover out of scope work requested by IRWD.

BASIS FOR VARIANCE

The MWRP Biosolids & Energy Recovery Facilities Project (Biosolids Project) is currently under construction. The following events have occurred that resulted in this proposed variance for Black & Veatch:

- ***Contract Time Extension*** - It is anticipated that the project completion date will be extended from the current date of April 2019 to June 2020 (14 month time extension). This time extension directly affects the following scope of work tasks by extending the number of months that Black & Veatch services are required:
 - Task 1 - Project Management
 - Task 2.4 – Schedule Review
 - Task 2.7 – Claims Avoidance and Dispute Resolution Assistance
 - Task 3.1 thru 3.8 – On-Site Design Team Representative
 - Task 3.9 – Electrical Inspection
 - Task 3.10 – Instrumentation and Control Inspections
 - Task 3.14 – Electrical/Automation Field Engineering
 - Task 3.15 – Civil/Mechanical Field Engineering

- **Scope Task 1 – Construction Phase Project Management (B&V Phase 101)** - Due to delays by FBB, this task will experience a budget overrun. Assuming a completion date of June, 2020, a budget overrun of approximately \$161,000 is anticipated.
- **Submittal Reviews (Scope Task 2.1 – B&V Phase 201)** – The number of submittals (2,776) through October 16, 2017 has significantly exceeded the estimated number of submittals (2,400). A total of 3,600 submittals (including approximately 200 new and 100 record copy submittals) are now anticipated for the project. As of February 8, 2019, the actual expenditures were at approximately 101.4% of the budget allowance and a variance is necessary. Black & Veatch believes that the increase in the number of submittals is primarily due to the large number of re-submittals that have occurred. To date, 1,734 re-submittals have occurred compared with 1,676 initial submittals – this represents a very high re-submittal rate of 97% for FBB. B&V assumed a resubmittal rate of about 20% during the scope/fee development for this project and a re-submittal rate of about 20-40% is typical on projects. At the estimated 3,600 submittals we anticipated an overrun of approximately \$225,000.
- **RFIs (Scope Task 2.2 – B&V Phase 202)** – The current number of RFIs (3,206) has exceeded the estimated number of RFIs (2,500). A total of 3,300 RFIs are now anticipated for the project. As of February 8, 2019, the actual expenditures were at 106.6% of budget allowance and a variance is necessary. Following are several reasons for the number of RFIs exceeding the estimated number.
 - IRWD has initiated a number of owner generated RFIs. This provides excellent documentation but is beyond what we normally experience on our projects.
 - There are a large number of programming/configuration RFIs required for this project due to the very detailed specifications and specific IRWD standards – much higher than a normal B&V project.
 - In some cases, RFIs were submitted by the contractor just to clarify what was in the contract documents or request additional design information and did not represent a design change.
 - The contractor has initiated changes to the work due to his lack of proper coordination of suppliers and subcontractors.
 - The contractor has initiated additional RFIs because he has proceeded at risk with fabrication of some electrical/I&C equipment without complete approved mechanical shop drawings, resulting in revisions.

We estimate a total of 3,300 submittals for the project and a cost overrun of approximately \$87,300.

- **Scope Task 2.4 – Schedule Review (B&V Phase 204)** – This task has exceeded the budget amount due to FBB delays. Schedule reviews were completed through the end of the anticipated completion of construction in March 2019, we estimate an overrun of approximately \$68,800.

- ***Claims Avoidance and Dispute Resolution (Scope Task 2.7 – B&V Phase 207 –***
The contractor (FBB) has made several claims for extra cost and delays on this project. B&V anticipates these contractor claims to continue throughout this project and we are recommending an increase in the budget for this task to accommodate responding to the anticipated increase in activity by FBB. Also, IRWD has been making requests from Black & Veatch to support the work of the District's third-party claims consultant, HKA. Assuming a completion date of June, 2020, a budget overrun of approximately \$123,000 is anticipated.
- ***Scope Tasks 3.1 thru 3.8 – Onsite Design Team Representative (B&V Phase 301)***
- Due to delays by FBB, this task will experience a budget overrun. Assuming on-site representation through the end of September, 2019, a budget overrun of approximately \$276,000 is anticipated.
- ***Scope Task 3.9 – Electrical Inspections (B&V Phase 302)*** - Due to delays by FBB, this task will experience a budget overrun. Assuming a staff on-site through the end of December 2019, and an additional 2 months at the completion of the project, a budget overrun of approximately \$458,000 is anticipated. This was included in draft Proposed Variance #8 submitted to IRWD.
- ***Scope Task 3.10 – I&C Inspections (B&V Phase 303)*** - Due to delays by FBB, this task will experience a budget overrun. Assuming a completion of this task at the end of May, 2020, a budget overrun of approximately \$328,000 is anticipated. This was included in draft Proposed Variance #8 submitted to IRWD.
- ***Scope Task 3.14 – Electrical/Automation Field Engineering (B&V Phase 307)*** - Due to delays by FBB, this task will experience a budget overrun. Assuming a completion date for this task in the end of May, 2020, a budget overrun of approximately \$616,000 is anticipated. This was included in Proposed Variance #8 submitted to IRWD.
- ***Scope Task 3.15 – Civil/Mechanical Field Engineering (B&V Phase 308)*** - IRWD requested that Black & Veatch provide temporary field inspection services for the period April 26 thru May 18, 2018 while John Walker was on vacation. Ramiro Ojeda has completed this work for B&V at a total cost of \$22,165. This work was previously approved by IRWD and the additional fee will be included in future Variance #8. Due to delays by FBB, this task will experience a budget overrun. Assuming a completion date for this task of August, 2019, a total budget overrun of approximately \$306,000 is anticipated (including Ramiro Ojeda time). This was included in draft Proposed Variance #8 submitted to IRWD.
- ***Scope Task 4.1 thru 4.2 – Electronic O&M Manual Development (B&V Phase 401)*** - At the request of IRWD, the preventive maintenance lists written for the major process equipment will be replaced with a list of the equipment and links to the vendor operations and maintenance manuals for the equipment within in each chapter. Also, additional appendices will be added to the electronic O&M manuals for items deemed by IRWD staff necessary to put into the electronic manual. These

items include spare parts list from the contractor, electrical shutdown plan, and training PowerPoint presentations. A budget overrun of approximately \$50,000 is anticipated due to out of scope work.

- ***Scope Task 5.2 – Pre-Startup Process Overview Training*** – Due to delays from the contractor, pre-startup process overview training activities have stretched from 2016 to 2019. Since the start of process training, there has been some turnover of IRWD staff and extensive time between training of existing operators. It will be necessary to have repeat sessions with operators over material that have been covered in previous sessions to train new IRWD staff and provide refresher training for the existing IRWD staff. IRWD requested additional services to repeat all process training sessions for all seven milestones due to the 11-month delay by FBB. A budget overrun of approximately \$104,000 is anticipated due to out of scope work.
- ***Start-Up Testing Coordination (Scope Task 5.3 – B&V Phase 503)*** – Due to contractor (FBB) delays, startup coordination is needed to engage the IRWD staff and contractor with startup and commissioning activities. This requires additional monthly meetings, technical transfer sessions, and additional assistance to FBB for startup activities such as combining Milestone 4A/4B and Milestone 5 and reviewing the Milestone 2 System Operational Test document.

Additional process evaluations have been performed that were not included in the original scope of the startup services. These include:

- a) additional process evaluation for digester startup without seed sludge, and
- b) additional process evaluation for return ammonia loads from centrate treatment.

The process evaluation for the digester startup without seeding was performed using Biowin model to provide information for IRWD staff to establish a plan on whether hauling seed from Orange County Sanitation District (OCS D) would be worth the any extra benefit in commissioning the digesters.

The other process evaluation includes Biowin modelling to predict return ammonia loads from the biosolids return from the centrate treatment to the liquid process. The IRWD staff wanted an estimate of ammonia concentration to determine return stream management strategies that may be necessary to treat the ammonia from the centrate treatment system.

A budget overrun of approximately \$205,000 is anticipated due to out of scope work.

- ***Scope Task 6.1 – Post Start-up Services (B&V Phase 601)*** – IRWD requested additional services for the development of ECPs, SOPs, eO&M set-up, additional operations training not identified in other tasks as well as completion of and asset

management tasks. A budget overrun of approximately \$48,000 is anticipated due to out of scope work.

- ***Reallocation of Budget*** – We are proposing a reallocation of engineering fee from Task 2.5 – Structural Observations (\$995) and from Task 3.11 – Edison Savings by Design Grant Application Support (\$20,198) to Task 4.5 – Asset Management Data Collection (\$21,193). Task 2.5 and Task 3.11 are complete and these tasks may be closed. Task 4.5 experienced a cost overrun and at that time Black & Veatch proposed waiting to see if other phases came in under budget such that an engineering fee reallocation could be implemented. Black & Veatch is proposing to implement this fee reallocation as part of Variance #8. All work is complete for Task 4.5 and after this fee reallocation, this task will be closed.

SCHEDULE AND LEVEL OF EFFORT

The level of effort has been estimated by projecting expenditures through the end of the new contract completion date of June 30, 2020 (a 14 month time extension) for the tasks identified above – see Attachment A. The assumptions made for these projections are given in the attachment. The cumulative costs for each task on this project are shown for the thirty-three (33) total project tasks. Nineteen (19) tasks are not affected by the time extension since the work effort is the same regardless of the timing of the work. Fourteen (14) tasks are affected by the time extension or IRWD requests for out of scope work. These tasks are listed above and shaded in pink color in the attachment.

The following B&V field staff and key team members will continue in their current role on this project through June 30, 2020 unless otherwise approved by IRWD:

- Jim Clark – Project Director.
- Mark Wilson– Project Manager.
- Neil Massart – Commissioning Manager.
- Jon Hay – Onsite Design Team Representative.
- Keene Matsuda – Electrical Field Inspector.
- Marc Zamora – I&C Inspector.
- Mark Lowe – Structural Field Engineer.
- Nick Pailma - Civil/Mechanical Field Engineer.
- Shawn Rohr – Electrical/Automation Field Engineer.
- Sheila Moredó - Electrical/Automation Field Engineer.
- Thomas Cherian – Schedule Reviewer.

LEVEL OF EFFORT FOR VARIANCE #8 - March 8, 2019	Project Director/VP	Project Manager 3	Engineer 7	Engineer 6	Engineer 4	Construction Manager 7	Construction Manager 5	Construction Manager 4	O&M Specialist 6	O&M Specialist 4	Engineer 2	Clerical	Technician 3	Manhours	Miscellaneous Expenses and Travel Costs	Variance #8 Fees
Hourly Rate	\$315	\$260	\$220	\$210	\$175	\$225	\$170	\$155	\$175	\$140	\$120	\$100	\$100			
Variance #8 Tasks																
Task 1 - Project Management	112	320										280		712	\$15,411	\$161,891
Task 2.1 - Submittal Reviews		96	165	320					120		480	46		1,227	\$13,501	\$225,161
Task 2.2 - RFI Reviews		40	70	120					40		165	40		475	\$5,500	\$87,300
Task 2.3 - Meetings/Technical Site Visits																(\$79,755)
Task 2.4 - Schedule Reviews							380							380	\$4,189	\$68,789
Task 2.5 - Structural Observations (reallocate fee to Task 4.5)																(\$995)
Task 2.6 - Contractor Change Orders																(\$113,688)
Task 2.7 - Claims Avoidance and Dispute Resolution	50	110	136	80		100						38		514	\$5,349	\$122,719
Task 3.1 thru Task 3.8 - Onsite Design Team Representative				1,220										1,220	\$20,368	\$276,568
Task 3.9 - Electrical Inspection			1,970											1,970	\$24,762	\$458,162
Task 3.10 - I&C Inspections					1,750									1,750	\$22,171	\$328,421
Task 3.11 - Edison Savings by Design Grant Application Assistance (reallocate fee to Task 4.5)																(\$20,199)
Task 3.14 - Electrical/Automation Field Engineering				1,460	1,460									2,920	\$54,327	\$616,427
Task 3.15 - Civil/Mechanical Field Engineering						1,200			128					1,328	\$13,639	\$306,039
Task 4.1 thru Task 4.2 - Electronic O&M Manual Development, Installation, and Training									140	120				260	\$8,301	\$49,601
Task 4.5 - Asset Mangement Data Collection (reallocate fee from Task 2.5 and Task 3.11)																\$21,194
Task 5.2 - Pre-Startup Overview Training									350	200				550	\$14,490	\$103,740
Task 5.3 - Startup Testing Coordination Services						350			415	250				1,015	\$18,941	\$205,316
Task 6.1 - Post Start-up Services									80	200				280	\$6,375	\$48,375
Total - Variance #8	162	566	2,341	3,200	3,210	1,650	380		1,193	570	645	404	0	14,321	\$220,949	\$2,865,066

Variance 8 - Attachment A

B&V Phase/Task Description	Projected Future Costs through Final Completion (beyond 9-10-18)	Projected Total Costs through Final Completion	Current Approved Task Budget	Current Approved Budget Minus Projected Total Costs	Adjustment for O&B/EI&C	Proposed Variance \$8 Amount to Cover Deficit	Comments Regarding Remaining Work Assumptions
Task 1 - Construction Phase Project Management (including Variances #6 and #7)	\$273,787.32	\$1,293,142.06	\$1,131,251.55	(\$161,890.51)		(\$161,890.51)	Assume current burn rate thru March 31, 2019 and 60% of current burn rate thru March 31, 2020. Added 3 months at 60% of current burn rate.
Task 2.1 - Submittal Reviews (including Variances #5 and #7)	\$219,697.00	\$4,638,543.12	\$4,413,381.77	(\$225,161.35)		(\$225,161.35)	Projected cost overrun based on 3,600 submittals.
Task 2.2 - Requests for Information (RFIs) - (including Variances #5 and #7)	\$30,083.51	\$1,719,146.73	\$1,631,846.73	(\$87,300.00)		(\$87,300.00)	Projected cost overrun based on 3,300 RFIs.
Task 2.3 - Meetings/Technical Site Visits	\$130,672.13	\$799,364.72	\$608,400.00	\$190,935.28	\$29,280.00	\$79,755.28	Assume current burn rate thru December 31, 2019.
Task 2.4 - Schedule Review (including Variances #5 and #7)	\$67,980.94	\$642,499.02	\$573,710.27	(\$68,788.75)		(\$68,788.75)	Assume current burn rate thru December 31, 2018.
Task 2.5 - Structural Observations (including Variance #7)	\$995.21	\$311,725.84	\$311,725.84	\$0.00		\$0.00	Propose reallocating from Task 2.5/Phase 205 to Task 4.5/Phase 405 and close this phase.
Task 2.6 - Proposed Contractor Change Orders	\$78,961.88	\$359,622.31	\$473,310.00	\$113,687.69		\$113,687.69	Assume current burn rate thru December 31, 2019.
Task 2.7 - Claims Avoidance and Dispute Resolution Assistance (including Variance #7)	\$287,691.68	\$474,778.56	\$300,220.00	(\$174,558.56)	\$51,840.00	(\$122,718.56)	Assume current burn rate thru December 31, 2019.
Task 2.8 - Final Walk-Through	\$112,560.00	\$112,560.00	\$112,560.00	\$0.00		\$0.00	No cost overrun.
Task 2 - Construction Administration Support Services							
Tasks 3.1 thru 3.8 - On-Site Design Team Representative & Document Control (including Variance #7)	\$514,836.00	\$2,486,399.34	\$2,309,831.09	(\$176,568.25)		(\$176,568.25)	Assume 100% for Jan-May thru Sept 31, 2019 thru completion of as-built drawings.
Task 3.9 - Electrical Inspection (including Variance #7)	\$512,941.80	\$1,442,353.05	\$984,191.04	(\$458,162.01)		(\$458,162.01)	Assume 85% for Keene Maizorda thru June 30, 2019 (thru as-built drawings) and 50% June thru Oct (startup). Added 2 additional months at 80% and 2 months at 50% at completion.
Task 3.10 - Instrumentation and Control Inspections (including Variance #7)	\$525,907.20	\$1,297,785.54	\$969,344.43	(\$328,441.11)		(\$328,441.11)	Assume 60% for Marc Zamora thru December 31, 2019. Added 5 months at 60% utilization.
Task 3.11 - Edison Savings by Design Grant Application Support	\$0.00	\$19,801.25	\$19,801.25	\$0.00		\$0.00	No further costs anticipated. Propose closing this phase and reallocating \$20,198.75 to Phase 4.5/Task 404.
Task 3.12 - Mechanical Inspections	\$12,941.35	\$38,160.00	\$38,160.00	\$0.00		\$0.00	Closed.
Task 3.14 - Electrical/Automation Field Engineering (Variances #1, #5, and #7)	\$612,558.95	\$1,862,315.71	\$1,245,888.47	(\$616,427.24)		(\$616,427.24)	Assume current burn rate thru March 31, 2019 (Shawn Rohr and Sheila Morado), then 65% of current burn rate thru December 31, 2019. Added 5 additional months at 65% of current burn rate.
Task 3.15 - Civil/Mechanical Field Engineering (Variances #3 and #7)	\$244,430.00	\$1,513,981.28	\$1,207,941.89	(\$306,039.39)		(\$306,039.39)	Assume 100% for Nick Pallina thru December 31, 2018 plus 50% thru August 31, 2019 plus \$21,300 for Ramiro Oyeda subbing for NP.
Task 3 - Construction Field Support Services							
Tasks 4.1 thru 4.2 - Electronic O&M Manual Develop, Install, and Training (including Variances #5 and #7)	\$205,715.66	\$532,593.00	\$482,993.00	(\$49,600.00)		(\$49,600.00)	Additional scope of work for links to vendor O&Ms and new appendices for (a) spare parts, (b) electrical shutdown plans, and (c) training presentations.
Task 4.3 - Energy Control Procedures (ECPs)	\$40,903.49	\$203,156.00	\$203,156.00	\$0.00		\$0.00	No cost overrun.
Task 4.4 - Job Safety Analysis (JSA) Documents	\$317,411.36	\$420,857.00	\$420,857.00	\$0.00		\$0.00	No cost overrun.
Task 4.5 - Asset Management Data Collection (including Variance #5)	\$0.00	\$304,198.75	\$304,198.75	\$0.00		\$0.00	Propose reallocating from Task 3.11/Phase 305 and Task 2.5/Phase 205 to Task 4.5/Phase 404 and close phase.
Task 4.6 - Odor Control Maintenance & Monitoring Program (Variance #2)	\$47,651.41	\$112,665.00	\$112,665.00	\$0.00		\$0.00	No cost overrun.
New Task 4.7 - Prepare Summary Standard Operating Procedures (SOPs) (Variance #5 and Variance #6)	\$270,353.30	\$321,653.00	\$321,653.00	\$0.00		\$0.00	No cost overrun.
Task 4 - Electronic O&M Manual							
Task 5.1 - Contractor/Vendor Training & Commissioning Meetings	\$81,454.00	\$81,454.00	\$81,454.00	\$0.00		\$0.00	No cost overrun.
Task 5.2 - Pre-Startup Process Overview Training	\$150,944.13	\$313,848.00	\$210,108.00	(\$103,740.00)		(\$103,740.00)	Additional scope of work to repeat all training sessions for all seven milestones due to 11 month delay by FBE.
Task 5.3 - Start-Up Testing Coordination (including Variances #4, #5, and #7)	\$376,600.00	\$1,172,903.81	\$967,586.92	(\$205,316.89)		(\$205,316.89)	Additional monthly meetings, technical transfer sessions, and additional coordination with FBE to combine milestones - due to 11 month delay by FBE. Also, two additional process evaluations: (a) compare digester startup with and without seed sludge and (b) evaluation of return ammonia loads.
Task 5.4 - Factory Equipment and Air Source Witness Testing	\$65,495.67	\$124,504.00	\$124,504.00	\$0.00	\$14,530.00	\$0.00	No cost overrun.
Task 5.5 - S&B - Commissioning & Process Optimization Services	\$666,932.64	\$788,896.00	\$788,896.00	\$0.00	\$26,700.00	\$0.00	No cost overrun.
Task 5.7 - Air Quality Permit Services (including Variance #5 and FR #1)	\$15,602.60	\$133,419.00	\$133,419.00	\$0.00	\$4,320.00	\$0.00	No cost overrun.
Task 6 - Training, Commissioning and Start-Up Services							
Task 6.1 - Post Start-Up Services	\$102,475.00	\$102,475.00	\$54,100.00	(\$48,375.00)		(\$48,375.00)	Added time for post startup development of ECPs, SOPs, eO&M set-up & training, and asset management.
Task 6.2 - Update Electronic O&M Manual	\$21,013.75	\$22,300.00	\$22,300.00	\$0.00		\$0.00	No cost overrun.
Task 6.3 - Record Drawings & Atlas Update (including Variance #7)	\$435,733.87	\$470,792.00	\$470,792.00	\$0.00		\$0.00	No cost overrun.
Task 6.4 - Project Closeout	\$43,712.00	\$43,712.00	\$43,712.00	\$0.00		\$0.00	No cost overrun.
Task 6 - Post Construction Services							
Total:	\$6,469,724.66	\$24,413,725.00	\$21,525,599.00	(\$2,887,624.00)	\$126,660.00	(\$2,885,064.00)	~ B&V Variance #8 Cost

EXHIBIT "D"
IRVINE RANCH WATER DISTRICT
PROFESSIONAL SERVICES VARIANCE

Project Title: MWRP Biosolids and Energy Recovery Facilities

Project No.: 04286

Date: March 19, 2019

Purchase Order No.: 609917

Variance No.: 02

Originator: ☐ IRWD ☒ ENGINEER/CONSULTANT ☐ Other (Explain) _____

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

Provide supplemental construction management services through June 30, 2020

Engineering & Management Cost Impact:

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
Sr. Construction Manager 2	2324	\$235-247	\$559,112			\$559,112
Document Control System			\$44,650			\$44,650
Administration/ODCs						\$60,376
Total \$ =						\$664,138

Schedule Impact:

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
	CM and Inspection Services	October 31, 2016	+12 months	June 30, 2020

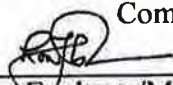
Required Approval Determination:

Total Original Contract	<u>\$ 2,931,368.00</u>	<input type="checkbox"/> Director: Cumulative total of Variances less than or equal to \$50,000.
Previous Variances	<u>\$ 2,796,928</u>	
This Variance	<u>\$ 664,138</u>	<input type="checkbox"/> Executive Director: Cumulative total of Variances less than or equal to \$75,000.
Total Sum of Variances	<u>\$ 3,461,066</u>	
New Contract Amount	<u>\$ 6,392,434</u>	<input type="checkbox"/> General Manager: Cumulative total of Variances less than or equal to \$100,000.
Percentage of Total Variances to Original Contract	<u>118%</u>	<input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$100,000.

ENGINEER/CONSULTANT: Arcadis

Company Name

IRVINE RANCH WATER DISTRICT


Project Engineer/Manager

Date


Department Director

Date

Engineer's/Consultant's Management

Date

General Manager/Board

Date

IRVINE RANCH WATER DISTRICT

PROFESSIONAL SERVICES VARIANCE REGISTER

Project Title: MWRP Biosolids and Energy Recovery Facilities

Project No.: 04286 Project Manager: Ron Esmilla

Variance No.	Description	Dates		Variance Amount
		Initiated	Approved	
01	Supplemental CM & Inspection Services	8/29/2016	10/29/2016	\$1,345,755
02	Supplemental CM & Inspection Services	10/18/2017	10/18/2017	\$1,451,173
03	Supplemental CM & Inspection Services	3/1/2019		\$664,138

Steve Malloy
Principal Engineer – MWRP Construction
Michelson Water Recycling Plant
3512 Michelson Drive
Irvine, CA 92612

Arcadis U.S., Inc.
320 Commerce
Suite 200
Irvine
California 92602
Tel 714 730 9052
Fax 714 730 9345
www.arcadis.com

Subject:
MWRP Biosolids and Heat Recovery Facilities PR 04286
Variance No. 3 – Service Extension to June 2020

Water - Construction

Dear Steve:

Date:
March 7, 2019

We are submitting Variance No. 3 to our scope of work to account for extended project duration.

Contact:
Ron Esmilla

We have organized and listed the tasks below to follow the contract task numbering. This variance seeks to reconcile all remaining work items to arrive at a final project scope and budget based on the terms set forth in this letter.

Phone:
714-488-7677

The requested fee for Variance 3 is \$664,138 and is summarized in the attached Variance No. 3 Fee Summary. These attachments supplement the summary and descriptions below. I will provide the construction management services.

Email:
Ron.Esmilla@arcadis.com

Our ref:
01120038.0000

TASK 10000 – CONSTRUCTION MANAGEMENT SUPPORT SERVICES

I will provide construction management support services through June 30, 2020. I will negotiate and prepare change orders and provide as-needed construction management support, assist with resolving project claims and delays submitted by the Contractor, and assist in project close-out activities. My 2019 hourly rate is \$235 and 2020 hourly rate is \$247.

TASK 20000 – CONSTRUCTION INSPECTION SERVICES

This task is not included in this Variance.

TASK 30000 – DOCUMENT CONTROL SYSTEM SUPPORT

Provide DCS support through June 30, 2020 including help with the archiving of vital project documents. This effort will also be for project close-out activities, coordinating with IRWD's information services and engineering library on capturing project documentation.

Malloy
March 1, 2019

TASK 00000 – CONTRACT ADMINISTRATION/OTHER DIRECT COSTS

The ODCs also include the maintenance of computers and servers that store the document control system.

Sincerely,

Arcadis U.S., Inc.



Ron J. Esmilla, PE
Sr. Construction Manager

Copies:

Jon Westervelt, PE

Enclosures:

Attachments

- 1 Variance No. 3
- 2 Variance No. 3 Fee Summary

Irvine Ranch Water District
MWRP Biosolids and Heat Recovery Facilities
PR 04286
Variance No. 3 Fee Summary

Task	Description	Effort (Hrs)		Fee, Dollars		Fee, Dollars
		05/1/2019 to 12/31/2019	01-2020 thru 06- 2020	05/1/2019 to 12/31/2019	01-2020 thru 06-2020	Total
10000	Construction Management	1220	1104	\$ 286,700	\$ 272,412	\$ 559,112
20000	Inspection					
	Regular Time	0	0	\$ -	\$ -	\$ -
	Overtime (25%) (1.5 X Regular)	0	0	\$ -	\$ -	\$ -
30000	DCS Support	50	140	\$ 11,750	\$ 32,900	\$ 44,650
	Subtotal			\$ 298,450	\$ 305,312	\$ 603,762
00000	Administration/ODCs (10%)			\$ 29,845	\$ 30,531	\$ 60,376
	Variance No. 3 Request			\$ 328,295	\$ 335,843	\$ 664,138

EXHIBIT "E"
IRVINE RANCH WATER DISTRICT
PROFESSIONAL SERVICES VARIANCE

Project Title: MWRP Biosolids & Energy Recovery Facilities

Project No.: 4286 Date: February 25, 2019

Purchase Order No.: 609963 (formerly 518742) Variance No.: 3

Originator: ☐ IRWD ☒ ENGINEER/CONSULTANT ☐ Other (Explain) _____

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

Extend contractor for Construction Management Services due to project schedule extension. For detailed explanation of

Scope of Work see attached.

Engineering & Management Cost Impact:

Classification	Hours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
Associate Automation Engineer	1040	135	140,400			\$ 140,400
Start-up Test Engineer	1040	138	143,520			\$ 143,520
Senior Civil Engineer	672	150	100,800			\$ 100,800
Principal Civil Engineer	592	180	106,560	20,100		\$ 126,660
Principal Start-up Engineer	1040	177	184,080			\$ 184,080
Associate Automation Engineer	1040	135	140,400			\$ 140,400
Total \$ =						\$ 835,860

Schedule Impact:

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
1	Construction Management Support	May 2014 – December 2017	February 2019 - June 2020	May 2014 – June 2020

Required Approval Determination:

Total Original Contract	\$ <u>1,239,007</u>	<input type="checkbox"/> Director: Cumulative total of Variances less than or equal to \$50,000.
Previous Variances \$	<u>1,693,320</u>	<input type="checkbox"/> Executive Director: Cumulative total of Variances less than or equal to \$75,000.
This Variance \$	<u>835,860</u>	<input type="checkbox"/> General Manager: Cumulative total of Variances less than or equal to \$100,000.
Total Sum of Variances	\$ <u>2,529,180</u>	<input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$100,000.
New Contract Amount	\$ <u>3,768,187</u>	
Percentage of Total Variances to Original Contract	<u>204%</u>	

ENGINEER/CONSULTANT: El&C Engineering Inc.
 Company Name

IRVINE RANCH WATER DISTRICT

Saura Thomas Feb 25, 2019

Sam Kim + Bob 3/12/19
 Date Department Director

Project Engineer/Manager

Saura Thomas Feb 25, 2019

General Manager/Board Date

Engineer's/Consultant's Management Date

IRVINE RANCH WATER DISTRICT

PROFESSIONAL SERVICES VARIANCE REGISTER

Project Title: MWRP Biosolids & Energy Recovery Facilities

Project No.: 4286 Project Manager: Steve Malloy

Variance No.	Description	Dates		Variance Amount
		Initiated	Approved	
1	Expansion of Construction Management Support	8/16/2016		\$734,600
2	Expansion of Construction Management Support	9/08/2017		\$958,720
3	Expansion of Construction Management Support	2/20/2019		\$835,860

February 25, 2019

Irvine Ranch Water District
Steve L. Malloy, PE
Principal Engineer, MWRP Construction
15600 Sand Canyon Avenue
Irvine, CA 92618-3101

Re: Proposal for Variance 3 for Purchase Order No. 609963 (formerly 518742)
for the MWRP Biosolids and Energy Recovery Facilities Project

Dear Steve,

Enclosed is a proposal for a variance for EI&C Engineering Inc. to furnish additional engineering services to support construction management team for the Michelson Water Recycling Plant (MWRP) Biosolids and Energy Recovery Facilities Project to support an accelerated start-up test schedule and added support services. The period of service for additional engineering is February 1, 2019 through June 30, 2020 based on the anticipated completion of FBB startup activities by December 31, 2019.

Task	Role	Year	Hours	Rate	Fee
1a	Associate Automation Engineer	2019	1040	\$135	\$140,400
1b	Start-up Test Engineer	2019	1040	\$138	\$143,520
1c	Senior Civil Engineer	2019	672	\$150	\$100,800
1d	Principal Civil Engineer	2019	592	\$180	\$106,560
1e	Principal Start-up Engineer	2020	1040	\$177	\$184,080
1f	Associate Automation Engineer	2020	1040	\$135	\$140,400
Expenses					\$20,100
					\$835,860

Enclosed is the scope of work, the schedule and fee breakdown for your consideration. If you have any questions or need additional information please call me at 714-334-8912 or email me at lthomas@eiceinc.com.

Sincerely,

Laura Thomas

Laura Thomas, PE
CEO, Principal Engineer

Enclosure

Section 1

Scope of Work

Scope of Work

The schedule for the Biosolids and Energy Recovery Facilities Project (Biosolids Project) has been extended to the end of August 2020. EI&C Engineering Inc. will provide additional engineering resources to support an accelerated start-up test schedule for an earlier project completion of December 31, 2019. In addition this variance provides budget to extend resources currently working on the project an additional six months to June 30, 2020. The duties and responsibilities of staff are described herein.

- **Task 1: Additional Construction Management support staff to December 31, 2019 and extension current staff for the project until June 20, 2020.**
 - 1a: Associate Automation Engineer
 - 1b: Start-up Test Engineer
 - 1c: Senior Civil Engineer
 - 1d: Principal Civil Engineer
 - 1e: Principal Start-up Engineer
 - 1f: Associate Automation Engineer

Task 1a: Associate Automation Engineer

The Associate Automation Engineer will have the following duties:

- Witness start-up testing of the Process Control System including loop checks, equipment functional tests and Process Control systems tests.
- Witness communication network validation.
- Enforce IRWD cyber security requirements.
- Enforce IRWD software development standards.
- Review start-up submittals including test procedures and test schedules.
- Develop test procedures for Systems Operational and Reliability Tests.
- Witness Systems Operational and Reliability Tests.
- Produce and maintain daily logs of test issues.
- Produce and maintain deficiency and punch lists.

Task 1b: Start-up Test Engineer

The Start-up Test Engineer will have the following duties:

- Witness the field testing including loop checks, equipment functional tests for live mechanical equipment, local control panels, and instrumentation.

IRWD MWRP Biosolids and Energy Recovery Facilities Project
Variance 3 for PO 518742
EI&C Engineering Inc.

- Witness functional acceptance testing of Process Control System where multiple systems are tested together under process conditions.
- Witness Systems Operational and Reliability Tests.
- Produce and maintain daily logs of test issues.
- Produce and maintain deficiency and punch lists.

Task 1c: Senior Civil Engineer

The Senior Civil Engineer will have the following duties:

- Review and respond to Requests for Information (RFIs) from the General Contractor with regard to civil site issues including mechanical piping, process requirements for equipment and calculations.
- Review and respond to Change Requests (CRs) from the General Contractor with regard to civil site issues including mechanical piping, process requirements for equipment and calculations.
- Coordinate with IRWD Operations and Maintenance personnel during start-up testing.
- Review temporary piping plans to support start-up testing.

Task 1d: Principal Civil Engineer

The Principal Civil Engineer will have the following duties:

- Meetings and Technical Site Visits – Visit the site once per month for two days each trip. Attend relevant meetings and provide input to IRWD regarding ongoing construction and startup activities being performed by FBB while on site.
- Claims Avoidance and Dispute Resolution Support – Provide input to IRWD regarding any ongoing claims by FBB against IRWD. No site trips are anticipated for this task.
- Air Permit Source Testing Statement of Qualifications (SOQ) Preparation – Prepare the final SOQ for qualified firms to perform the onsite source testing as required by the South Coast Air Quality Management District (SCAQMD) permit to construct. No site trips are anticipated for this task.
- Air Permit Source Witness Testing – Conduct a site walk for qualified and interested source testing contractors prior to the submittal of proposals by the contractors to identify source testing locations, inspect the sample ports available, and review the requirements of the contract. Assist IRWD with contractor proposal review and selection. Witness onsite source testing by the contractor. Three site visits are anticipated for this task with a duration of two days each.
- Commissioning and Process Optimization Services – Provide engineering support services to IRWD during the commissioning and process optimization phase of the

project regarding the centrifuge thickening and centrifuge dewatering facilities. This includes witnessing the performance testing by GEA-Westfalia for the thickening and dewatering centrifuges. Three site visits are anticipated for this task with a duration of five days each.

Task 1e: Principal Start-up Engineer

The role of Process Control Start-up Engineer would extend beyond software development to control system start-up testing and coordination. This role allows the construction management team to retain the institutional knowledge in order to perform project close-out activities.

The Process Control Start-up Engineer will have the following duties:

- Participate in “Start-up testing” including but not limited to witnessed Process Control System field checks, communication network validation, and system functional testing.
- Attend project meetings.
- Coordinate key decisions with IRWD staff including operations and the CM team.
- Coordinate start-up testing with CM team members
- Review start-up submittals including test procedures and test schedules.
- Develop SCADA training program for operators including SCADA Operations and Maintenance Manual developed with as-built Process Control Descriptions, SCADA Operations and Maintenance training presentations and training videos showing operation of live SCADA screens.
- Develop test procedures for Systems Operational Testing and Systems Reliability Testing.
- Witness Systems Operational Testing and Systems Reliability Testing.
- Participate in project close-out activities including validation of final punch lists, verification of as-built documentation and support of construction cost assessments.

Task 1f: Associate Automation Engineer

The Associate Automation Engineer will have the following duties:

- Witness the field testing for the Process Control System with live mechanical equipment, local control panels, and instrumentation.

**IRWD MWRP Biosolids and Energy Recovery Facilities Project
Variance 3 for PO 518742
EI&C Engineering Inc.**

- Witness functional acceptance testing of Process Control System where multiple systems are tested together under process conditions.
- Witness Systems Operational Testing and Systems Reliability Testing.
- Produce and maintain daily logs of test issues.
- Produce and maintain deficiency and punch lists for PCS related issues.
- Support SCADA training program for operators including SCADA Operations and Maintenance Manual, SCADA Operations and Maintenance training presentations and training videos showing operation of live SCADA screens.
- Configure and maintain trending software to support reporting of process variables during System Operability and Reliability acceptance tests as well as performance testing.

Section 2

Schedule and Fee Breakdown

Schedule and Fee Breakdown

This variance includes the cost to provide additional engineering support services to augment the construction management team as well as an extension of current staff for an additional 6 months to support project close-out activities. The Associate Automation Engineer and Start-up Test Engineer will be full time on-site for six months. The Senior Civil Engineer will be part time at 60% utilization for seven months. The Principal Civil Engineer will be part time at 30% utilization for 11 months. The extended staff of Principal Start-Up Engineer and Associate Automation Engineer will be full time for 6 months.

Table 1: Schedule

Task	Role	Start	Finish	Weeks
1a	Associate Automation Engineer	April 1, 2019	October 1, 2019	26
1b	Start-up Test Engineer	April 1, 2019	October 1, 2019	26
1c	Senior Civil Engineer	February 1, 2019	September 1, 2019	28
1d	Principal Civil Engineer	February 1, 2019	December 31, 2019	48
1e	Principal Start-up Engineer	January 1, 2020	June 30, 2020	26
1f	Associate Automation Engineer	January 1, 2020	June 30, 2020	26

Table 2: Hourly Estimate

Task	Role	Weeks	Utilization	Hours
1a	Associate Automation Engineer	26	100%	1040
1b	Start-up Test Engineer	26	100%	1040
1c	Senior Civil Engineer	28	60%	672
1d	Principal Civil Engineer	48	30%	592
1e	Principal Start-up Engineer	26	100%	1040
1f	Associate Automation Engineer	26	100%	1040

**IRWD MWRP Biosolids and Energy Recovery Facilities Project
Variance 3 for PO 518742
EI&C Engineering Inc.**

Table 3: Fee Estimate for Variance 3

Task	Role	Year	Hours	Rate	Fee
1a	Associate Automation Engineer	2019	1040	\$135	\$140,400
1b	Start-up Test Engineer	2019	1040	\$138	\$143,520
1c	Senior Civil Engineer	2019	672	\$150	\$100,800
1d	Principal Civil Engineer	2019	592	\$180	\$106,560
1e	Principal Start-up Engineer	2020	1040	\$177	\$184,080
1f	Associate Automation Engineer	2020	1040	\$135	\$140,400
Expenses					\$20,100
					\$835,860

EXHIBIT "F"

BIOSOLIDS COMPLETION SCHEDULE FOR FY 2018/19 CAPITAL BUDGET

Milestone	Description	Finish	FY 2018/19					FY 2019/20												FY 2020/21												
			2019												2020																	
			1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12						
2	Thickening Centrifuges	5/31/2019																														
3	FOG	12/31/2019																														
4	Digestion	12/31/2019																														
5	Dewatering and Loadout	12/31/2019																														
6	Microturbines	2/28/2020																														
7	Dryer	4/30/2020																														
	Final Completion	5/31/2020																														
	IRWD CM																															
	IRWD O&M																															
	Black & Veatch																															
	Proj Mgmt (MW)	\$ to 3/2020																														
	Electrical (KM)	\$ to 10/2019																														
	Mechanical (NP)	\$ to 8/2019																														
	Controls (SR, SM, MZ)	\$ to 12/2019																														
	Startup (NM)																															
	Office (JH)	\$ to 6/2019																														
	HDR - Insp.	\$ to 5/2020																														
	Arcadis - CM	\$ to 4/2020																														
	Arcadis - Insp.																															
	EI&C	\$ to 3/2020																														

Legend: ***** Indicates where additional consultant support is required by variances.