

AGENDA

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

March 26, 2018

PLEDGE OF ALLEGIANCE

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

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

NOTICE

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

COMMUNICATIONS TO THE BOARD

1. A. Written:

 B. Oral:

2. ITEMS RECEIVED TOO LATE TO BE AGENDIZED

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

PRESENTATION

Next. Resolution 2018-8

3. RESOLUTION TO COMMEND DANA WEHR FOR HIS 24 YEARS
OF SERVICE TO THE DISTRICT

Reso. 2018-8

 Recommendation: Adopt a resolution commending Dana Wehr for his dedicated and outstanding service to the District.

WORKSHOP

4. WATER SHORTAGE CONTINGENCY PLAN UPDATE

 Recommendation: That the Board provide input to the revisions that are begin made to IRWD's Water Supply Contingency Plan.

CONSENT CALENDAR

Items 5-11

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

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

6. MINUTES OF BOARD MEETINGS

Recommendation: That the minutes of the March 12, 2018 Special Meeting and March 12, 2018 Regular Board Meeting be approved as presented.

7. UC IRVINE COOLING TOWER RECYCLED WATER CONSERVATION PIPELINE PHASE II BUDGET INCREASE AND CONTRACT CHANGE ORDER

Recommendation: That the Board authorize a budget increase in the amount of \$357,000, from \$1,102,500 to \$1,459,500, for Project 07101, and in the amount of \$110,000, from \$738,100 to \$848,100, for Project 07102; and authorize the General Manager to execute Contract Change Order No. 2 with Sully-Miller Contracting Company in the Amount of \$237,088.70 for the UC Irvine Cooling Tower Recycled Water Conversion Pipeline Phase II, Projects 07101 And 07102.

8. FEBRUARY 2018 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Monthly Interest Rate SWAP Summary for February 2018, and Disclosure Report of Reimbursements to Board members and staff; approve the February 2017 Summary of Payroll ACH payments in the total amount of \$1,816,518 and approve the February 2018 Accounts Payable Disbursement Summary Of Warrants 3888884168 through 385061, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$20,760,983.

9. 3.7 MG ZONE I RESERVOIR PROJECT FINAL INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

Recommendation: That the Board find on the basis of the whole record before it (including the Initial Study/Mitigated Negative Declaration and the comments received), that there is no substantial evidence that the 3.7 MG Zone 1 Reservoir will have a significant effect on the environment and that the Mitigated Negative Declaration reflects IRWD's independent judgment and analysis; adopt the proposed Mitigated Negative Declaration for the 3.7 MG Zone 1 Reservoir and the associated Mitigation Monitoring and Reporting Program; approve the project; authorize staff to post and file a Notice of Determination; and submit payment for the California Department of Fish and Wildlife Service filing fee.

CONSENT CALENDAR - Continued

Items 4-11

10. ADDENDUM NO. 4 TO THE MICHELSON WATER RECYCLING PLANT PHASE 2 AND 3 CAPACITY EXPANSION FINAL ENVIRONMENTAL IMPACT REPORT

Recommendation: That the Board approve the proposed Addendum No. 4 to the Michelson Water Recycling Plant Phase 2 and 3 Capacity Expansion Project's Final Environmental Impact Report, including the determinations set forth in Addendum no. 4, and authorize staff to post and file a Notice of Determination.

11. 2018 REGULAR LAFCO SPECIAL DISTRICTS REGULAR AND ALTERNATE SEAT ELECTION

Recommendation: That the Board authorize the District Secretary to submit the "Declaration of Qualification to Vote" form designating President Doug Reinhart as IRWD's authorized voting member and Vice President Steve Lamar as IRWD's alternate voting member for the Orange County Special District Selection Committee election; and authorize the District's voting member, or his alternate, to cast the District's ballot before the May 25, 2018, deadline.

ACTION CALENDAR

12. MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES CONTRACT CHANGE ORDER NO. 76

Recommendation : That the Board approve Contract Change Order No. 76 in the amount of \$150,690.04 with Filanc/Balfour Beatty for electrical, instrumentation, controls, and structural modifications for the Michelson Water Recycling Plant Biosolids and Energy Recovery Facilities, Project 04286.

13. TECHNOLOGY DRIVE AND LAGUNA CANYON ROAD CAPITAL RECYCLED WATER FACILITIES BUDGET INCREASE AND CONTRACT CHANGE ORDER

Recommendation : That the Board authorize a budget increase in the amount of \$1,736,500, from \$3,223,500 to \$4,960,000, and approve Contract Change Order No. 9 in the amount of \$1,131,065.61 for the Technology Drive and Laguna Canyon Road Recycled Water Facilities, Project 01015.

14. TERMS FOR LONG-TERM EXCHANGE PROGRAM WITH ANTELOPE VALLEY-EAST KERN WATER AGENCY

Recommendation : That the Board approve the proposed terms for a Long-Term Exchange Program between Antelope Valley-East Kern Water Agency and Irvine Ranch Water District and authorize the General Manager to execute an agreement based on the terms, subject to any substantive changes being approved by IRWD's Supply Reliability Programs Committee.

ACTION CALENDAR (CONTINUED)

15. ENTERPRISE ASSET MANAGEMENT IMPLEMENTATION SERVICES

Recommendation : That the Board authorize the General Manager to execute a Professional Services Variance with Total Resource Management for a not-to-exceed cost of \$216,876.80.

16. FISCAL YEAR 2017-18 AND FISCAL YEAR 2018-19 GENERAL COUNSEL AND OTHER LEGAL SERVICES CONTRACTS

Recommendation : That the Board authorize the General Manager to execute a Professional Services Agreement with Lewis Brisbois Bisgaard & Smith LLP for general counsel legal services focused on municipal law, transactional and non-complex issues, and rate-setting with a term of March 23, 2018, to September 30, 2018, and a not-to-exceed value of \$375,000 without additional authorization from the District; authorize the General Manager to execute a variance to the letter of engagement with Alston & Bird for legal services related to complex issues and litigation with a term of April 1, 2018, to June 30, 2019, and a not-to-exceed value of \$1,500,000; and authorize the General Manager to execute a variance to the Professional Services Agreement with Kronick Moskovitz Tiedemann & Girard for legal services related to water resources and policy matters and issues with a term of April 1, 2018, to June 30, 2019, and a not-to-exceed value of \$250,000.

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.

17. A. General Manager's Report
B. Directors' Comments
C. Closed Session

CONFERENCE WITH LEGAL COUNSEL—ANTICIPATED LITIGATION- Significant exposure to litigation pursuant to Government Code Section 54956.9(d)(2). (One potential case.).

- D. Open Session
E. Adjourn

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

March 26, 2018
Prepared and
Submitted by: J. Zepeda
Approved by: Paul A. Cook 

PRESENTATION

COMMENDING DANA WEHR FOR HIS SERVICE TO THE DISTRICT

SUMMARY:

As Mr. Dana Wehr is retiring from the District following 24 years of dedicated and outstanding service, staff has prepared a resolution (provided as Exhibit "A") to honor him at the Board meeting.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2018-

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
DANA WEHR FOR HIS DEDICATED AND
OUTSTANDING SERVICE TO THE DISTRICT

LIST OF EXHIBITS:

Exhibit "A" – Resolution

RESOLUTION NO. 2018-

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
DANA WEHR FOR HIS DEDICATED AND
OUTSTANDING SERVICE TO THE DISTRICT

WHEREAS, Dana Wehr began his career at the Irvine Ranch Water District on February 1, 1994 as an Operator where he performed work related to the collection and treatment of sewage and production of recycled water at the Los Alisos Water Recycling Plant; and

WHEREAS, Dana was promoted to Operations Supervisor in 2004 and Chief Plant Operator in 2011; and

WHEREAS, Dana has provided the District with over 24 years of outstanding service in sewage treatment and water recycling; and

WHEREAS, Dana earned a California State Water Resources Control Board Grade IV Wastewater Treatment Plant Operator certification; and

WHEREAS for the past seven years as the Los Alisos Water Recycling Plant Chief Plant Operator, Dana managed all aspects of plant operations. As part of his job duties and responsibilities, Dana effectively managed an annual budget of \$2 million and managed six staff members; and

WHEREAS, over the past 24 years Dana has been involved in implementation of several plant upgrade projects that provided greater operational efficiency and cost effectiveness. These projects included the addition of a new disinfection facility, pumping station, and various pipelines. Dana provided valuable input and assistance during the design, construction, and start up phases of these critical projects. His leadership and dedication has helped IRWD achieve reliable and regulatory compliant operation of the Los Alisos Water Recycling Plant throughout his career.

WHEREAS, Dana is known for his extensive technical and leadership skills and has mentored many employees throughout his years with thoughtfulness and compassion; and

NOW, THEREFORE, BE IT RESOLVED, the Board of Directors of the Irvine Ranch Water District commends Dana Wehr for his consistent and outstanding service. His dedication and excellent service to the District stands as an example to all employees. On this occasion, the Board extends its best wishes to Dana in his retirement.

SIGNED and APPROVED this 26th day of March 2018.

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

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

March 26, 2018

Prepared by: F. Sanchez

Submitted by: P. Weghorst

Approved by: Paul A. Cook



WORKSHOP

WATER SHORTAGE CONTINGENCY PLAN UPDATE

SUMMARY:

The last significant revision to the IRWD Water Shortage Contingency Plan (WSCP) occurred in 2009. Staff is in the process of revising the WSCP to address changes in IRWD's projected water supplies and anticipated changes in legislative requirements. At the workshop, staff will provide an overview of the revisions that are being made to the WSCP. Staff recommends that the Board provide input to the revisions that are being made to the WSCP.

BACKGROUND:

The Irvine Ranch Water District WSCP allows the District to strategically reduce water use through actions that are staged dependent upon the severity of water shortages. The plan was significantly revised in 2009, and slightly modified in 2014 during the statewide drought in response to State mandated reductions. In 2016, Woodard Curran (formerly RMC) was hired to update the WSCP to make it consistent with new requirements for IRWD's 2015 Urban Water Management Plan (UWMP). The 2015 UWMP and updated WSCP were adopted by the IRWD Board of Directors and submitted to the Department of Water Resources in 2016.

Current Revisions to WSCP:

IRWD's WSCP is currently being revised by staff with the assistance of Woodard Curran. The revisions will address the following:

- Changes to IRWD projected water supplies based on the 2016 Water Supply Reliability Evaluation; and
- Anticipated long-term water efficiency legislation that would substantially modify requirements for water shortage contingency planning.

The updated WSCP will define the level of impact for various levels of shortage conditions. It will include specific correlations to levels of shortages associated with Water Supply Allocations that could be implemented by Metropolitan Water District of Southern California during a regional shortage. The updated WSCP will define a list of voluntary measures, non-rate response measures and potential rate response measures for each level of shortage. Following is an overview of each of the revisions being made to the WSCP. A draft of the WSCP, as revised to date, is provided as Exhibit "A". At the workshop, staff will provide an overview of the revisions that are being made to the WSCP.

Projected Water Supplies:

The WSCP is being updated to reflect changes in IRWD's projected water supplies based on the results of the IRWD 2016 Water Supply Reliability Evaluation. This evaluation quantified the

benefits of IRWD's use of supplies from the Strand Ranch and Stockdale Integrated Banking Projects that will be available for use by IRWD during water shortage events. These water supply benefits will be reflected in revisions being made to the WSCP.

Long-Term Water Efficiency Legislation:

In May 2016, Governor Brown signed Executive Order B-37-16, directing State Agencies to establish a framework for long-term water efficiency and drought planning to build on the conservation achieved during the historic drought of 2014-16 and implementation of the Governor's Water Action Plan. In January 2017, the State Agencies released a framework that resulted in the introduction of several pieces of legislation. It is expected that the State will pass long-term water efficiency legislation in 2018 that is likely to include the following provisions for water shortage contingency planning:

- Requirements and procedures for annual water supply and demand assessments;
- Six standardized shortage stages;
- Anticipated response measures and communication protocols for each shortage stage;
- Requirements for a drought risk assessment and comparison of the total water supply sources available to the total projected water use during a drought period; and
- An assessment of the potential financial impacts associated with a shortage response.

These water shortage contingency planning provisions are being incorporated into the updated WSCP.

Rate Structure Adjustments:

The IRWD Water Budget Based Rate Structure is the primary mechanism for providing revenue stability during periods of reduced demands that occur during periods of water supply shortage. It is also the primary mechanism for reporting and enforcing water conservation within the service area during a shortage. Adjustments to customer water budgets are a key response measure in the WSCP. Reductions to water budgets equitably reduce demands in a shortage period by targeting wasteful use through stronger price signals.

Staff has worked with Woodard and Curran to develop a tool that will evaluate potential rate modifications and anticipated associated demand reductions during different shortage stages. The tool estimates water conservation potential by customer sector based on potential adjustments to customer water budget tiers. In the event of a projected shortage, and depending on the shortage level, staff would use the tool to develop recommended rate adjustments for consideration by the Board.

Proposition 218 requires publicly noticing customers of any proposed rate increases at least 45 days prior to adoption of the rate change, and providing an opportunity for customers to provide written protest letters to the proposed change. Rate responses would only be implemented, as warranted based on the level of shortage, at the discretion of the Board of Directors and subject to complying with the requirements of Proposition 218. IRWD initially would rely upon public outreach and non-rate response measures during a declared shortage.

Next Steps:

Staff will finalize the WSCP based on input received at the workshop. Section 15 of the Rules and Regulations serves as the IRWD “conservation ordinance” and the updated WSCP will serve as the basis for recommended changes to Section 15. Staff expects to present the proposed WSCP and modifications to the Rules and Regulations at the May 14, 2018, Board of Directors meeting. Staff further anticipates recommending adoption of the WSCP and the Rules and Regulations at the May 29, 2018, Board of Directors meeting.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

The proposed actions qualify under Class 7, and Class 8 Categorical Exemptions (Sections 15307 and 15308 of the State California Environmental Quality Act (CEQA) guidelines). In addition, to the extent this plan serves as the basis for the urban water shortage contingency analysis required under Water Code Section 10631 and is incorporated into the IRWD UWMP, its preparation, adoption and implementation are statutorily exempt from CEQA, as set forth in Water Code Section 10652.

COMMITTEE STATUS:

This item was reviewed by the Water Resources and Policy Committee on February 20, 2018.

RECOMMENDATION:

That the Board provide input to the revisions that are being made to IRWD’s Water Supply Contingency Plan.

LIST OF EXHIBITS:

Exhibit “A” – Draft Water Shortage Contingency Plan

Exhibit "A"



DRAFT

**Water
Shortage
Contingency
Plan Update**

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COMMITMENT & INTEGRITY DRIVE RESULTS

**Irvine Ranch Water
District**
March 2018

Exhibit "A"

CONTENTS

1	INTRODUCTION.....	2
1.1	WSCP Requirements.....	2
1.2	Recent Enactment of WSCP	2
1.3	Legal Authority.....	3
1.4	Shortage Response Levels.....	3
2	CHARACTERIZATION OF SHORTAGE CONDITIONS	3
2.1	Supply Reliability Scenario Planning	4
2.2	Catastrophic Interruption	5
2.3	Multiple Dry Year Analysis.....	6
3	IMPLEMENTATION.....	6
3.1	Supply and Demand Assessment.....	6
3.2	Monitoring and Reporting	8
3.3	Re-Evaluation and Improvement Process	8
4	EMERGENCY SUPPLIES	8
5	SHORTAGE RESPONSE ACTIONS.....	9
5.1	Basic Measures Always in Effect.....	9
5.2	Voluntary Reduction Measures.....	10
5.3	Use of Budget Based Rates	10
5.4	End Use Prohibitions	13
5.5	Operational Drought Control Measures	14
6	STAGES OF ACTION.....	14
6.1	Level One (Shortage Warning – up to 10% shortage).....	16
6.2	Level Two (Significant Shortage Condition – up to 20% shortage).....	16
6.3	Level Three (Significant Shortage Condition – up to 30% shortage).....	16
6.4	Level Four (Severe Shortage Condition – up to 40% shortage)	17
6.5	Level Five (Crisis Shortage Condition – up to 50% shortage)	17
6.6	Level Six (Crisis Shortage Condition – exceeding 50% shortage).....	17
7	COMMUNICATION PLAN	17
8	FINANCIAL PLAN	18

Exhibit "A"

1 Introduction

The Irvine Ranch Water District (IRWD) has developed this Water Shortage Contingency Plan (WSCP), in accordance with California regulations, to provide procedures for responding to various levels of supply shortages. Use of local supplies, storage and other supply augmentation measures can mitigate shortages, and will be in use to the maximum extent possible during declared shortage levels. The remaining shortage levels after use of local emergency supplies can be addressed by employing a range of demand reduction measures that will vary in severity depending on the level and duration of the shortage condition. While these measures will be applied incrementally, IRWD's WSCP builds in a level of flexibility to adopt additional measures to ensure the appropriate level of demand reduction.

This WSCP has been prepared to incorporate the lessons learned during the recent California drought, as well as new elements from the state's long-term framework document, *Making Water Conservation a California Way of Life, Implementing Executive Order B-37-16*, which was released in April 2017. It is important to emphasize that every drought or other water supply emergency involves a unique set of challenges. The plan should be thought of as a general framework that will need to be adjusted and refined based on actual conditions.

1.1 WSCP Requirements

The California Code Section 10632 requires IRWD to develop an urban water shortage contingency analysis which includes each of the following elements that are within the authority of the urban water supplier:

- a) Anticipated stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions that would trigger each stage;
- b) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply;
- c) Anticipated actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster;
- d) Additional anticipated mandatory prohibitions against specific water use practices during water shortages;
- e) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply;
- f) Penalties or charges for excessive use, where applicable;
- g) An analysis of the impacts of each of the actions and conditions describe in bullets a) to f), inclusive, on the revenues and expenditures of the urban water supplies, and proposed measure to overcome those impacts, such as the development of serves and rate adjustments;
- h) A draft water shortage contingency resolution or ordinance; and
- i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

1.2 Recent Implementation of WSCP

On January 17, 2014, Governor Brown proclaimed a Drought State of Emergency, which called on Californians to voluntarily reduce water consumption by 20%. In September 2014 IRWD's Board responded to the drought and the Governor's Emergency Proclamation by declaring a Level 1 Shortage Warning. In response to worsening statewide

Exhibit "A"

drought conditions, on April 1, 2015 the Governor issued an Executive Order that mandated a 25% statewide reduction in urban potable water use compared to 2013 water use levels. For IRWD, the State Water Resources Control Board (State Board) mandated a water use reduction target of 16% compared to 2013 levels. In July 2015, IRWD's Board of Directors (Board) declared a Level 2 Shortage Condition aimed at reducing demands by 10-25% in response to the State Board's mandate. Response measures and other lessons learned from this recent enactment of the WSCP have been incorporated into this WSCP update.

1.3 Legal Authority

Under California law, including California Water Code Chapters 3.3 and 3.5 of Division 1, Parts 2.55 and 2.6 of Division 6, Division 13, and Article X, Section 2 of the California Constitution, the Board is authorized to implement the water shortage actions outlined in this WSCP. In all water shortage cases, shortage measures to be implemented, including adjustments to the allocations, tiers and rates, will be at the discretion of the Board and will be based on an assessment of the supply shortage, customer response, and need for demand reductions.

1.4 Shortage Response Levels

The WSCP provides guidelines for responses to varying levels of supply shortages in six standard shortage levels. The WSCP includes actions that can be implemented to reduce demands down to specific levels in accordance with reduced supply availability. The levels of action identified in the WSCP are shown in **Table 1-1**.

Table 1-1: Shortage Levels in Water Shortage Contingency Plan

IRWD Shortage Level	Percent Supply Reduction	Water Supply Condition
Level 1	0% - 10%	Shortage Warning
Level 2	11% to 20%	Significant Shortage
Level 3	21% to 30%	Severe Shortage
Level 4	31% to 40%	Severe Shortage
Level 5	41% to 50%	Crisis Shortage
Level 6	50% +	Crisis Shortage

Levels or stages of the WSCP are declared at the direction of IRWD's Board of Directors depending on the level and duration of the water shortage. The Board evaluates water supply conditions and, if it determines that a shortage exists, declares the corresponding level of the WSCP. As part of the declaration, it is at the discretion of the Board to implement specific water shortage restrictions, prohibitions, and demand management measures.

2 Characterization of Shortage Conditions

In 2008, IRWD's Water Reliability Study forecasted potential water supply gaps due to climate change and environmental restrictions on the State Water Project (SWP). Since that time, IRWD has offset potential water supply gaps by continuing investments in conservation, a diverse mix of drought resilient supplies, and by securing groundwater banking resources. IRWD's 2016 Water Supply Reliability Evaluation is a recent, comprehensive, reliability analysis that provides an updated understanding of how current and future vulnerabilities - such as imported water supply shortages, climate change impacts, and facility outages - impact water supply. The effort was completed in coordination with the 2016 Orange County Water Reliability Study initiated by the Municipal Water District of Orange County (MWDOC).

Exhibit "A"

2.1 Supply Reliability Scenario Planning

IRWD's 2016 Water Reliability Evaluation considered potential scenarios affecting the reliability of IRWD's water supplies. A brief summary of these scenarios are described below.

- a) **Planned Conditions:** Planned conditions are based on existing conditions including water supply projects currently planned by IRWD and imported water supplies currently planned by the Metropolitan Water District of Southern California (MWD), the regional provider of imported water to Southern California. This scenario assumes no new water supply investments.
- b) **Major California Drought:** Increased duration and frequency of major California droughts would impact the availability of Santa Ana River recharge to the Orange County Groundwater Basin and the availability of imported water to MWD from the SWP.
- c) **Colorado River Shortage:** The Colorado River is consistently over-allocated and MWD's imported supply from the Colorado River Aqueduct (CRA) has a lower priority within California's allocation. Ongoing discussions between basin states are addressing to what extent, if any, California would participate in a cutback and under what conditions the cutback would be implemented.
- d) **Climate Change:** Reduction in the total snowpack due to warmer storms could mean reduced imports of Colorado River and SWP water. Salt water intrusion of the San Francisco Bay Delta (Bay Delta) due to sea level rise could pose as the greatest long-term risk to the SWP water supplies. Climate change was also estimated to affect the availability recharge to the Orange County Groundwater Basin.
- e) **Delta Levee Failure:** A seismic event in the Bay Delta causing a levee failure can flood the Bay Delta islands with salt water and interrupt SWP exports due to impaired water quality. The level of impact will depend the extent of damage (i.e. number of levee failures, specific Bay Delta islands, and season).
- f) **Bay Delta Environmental Restrictions:** Restrictions from the Bay Delta to protect local wildlife have reduced SWP allocations. There is potential for future restrictions to protect the environment. The "California WaterFix" currently being planned will help increase the reliability of SWP deliveries by bypassing the Bay Delta and thus reducing environmental impacts on the Bay Delta.
- g) **Facility Outages and Seismic Events:** Local plant outages or seismic events that damage treatment or conveyance facilities may create disruptions to imported and local water supply deliveries. Local seismic events could potentially disrupt services from either the Baker Water Treatment Plant or local groundwater well fields. Potential effects on MWD deliveries could result in outages as long as six months, depending on severity.

To evaluate the overall reliability of IRWD's potable water supply system, these scenarios were run using IRWD's Integrated Resources Planning Distribution System Model (IRPDSM) model, a comprehensive distribution system model which simulates deliveries and storages of imported water through IRWD's distribution system.

Table 2-1 indicates the shortages levels in the WSCP as they correlate with the reliability scenarios described above. The scenarios in Table 2.1 are each single scenarios and not combinations of scenarios unless specifically stated. For example, scenarios that could produce a Level 1 shortage of up to 10 percent are either planned conditions, or a Colorado River shortage or climate change or a Delta levee failure. These identified shortage levels are prior to utilizing emergency supplies from IRWD's Water Banking Program. With use of the Water Banking Program, no supply shortage gaps were identified. A water supply held in reserve by IRWD would be to overdraft the local Orange County Groundwater Basin. Overdrafting the aquifer by pumping above the Basin Production Percentage (BPP) set by the Orange County Water District (OCWD) would be a feasible and available source of water of last resort should IRWD's Water Banking Program not have supplies available in the amounts listed in Table 2-1. As discussed in more detail below, the Water Banking Program would be used in combination with other response actions in this WSCP.

Exhibit "A"

Table 2-1: IRWD Reliability Scenarios, Shortage Levels and Projected Use of Water Banking Supplies

Reliability Scenario	IRWD WSCP Shortage Level	Max Annual Anticipated Water Bank Usage (AFY)
<ul style="list-style-type: none"> • Facility Outages and Seismic Events 	No Shortage Identified	Access may be limited
<ul style="list-style-type: none"> • Planned Conditions • Colorado River Shortage • Climate Change • Delta Levee Failure 	Level One Shortage Warning (up to 10%)	300 to 3,000
<ul style="list-style-type: none"> • Major California Drought 	Level Two Significant Shortage (up to 20%)	7,300 to 11,500
<ul style="list-style-type: none"> • Major California Drought and Bay Delta Environmental Restrictions 	Level Three Significant Shortage (up to 30%)	14,800 to 18,100
<ul style="list-style-type: none"> • Beyond Currently Forecasted Events 	Level Four Severe Shortage (up to 40%)	18,100+ AFY
	Level Five Crisis Shortage (up to 50%)	
	Level Six Crisis Shortage (exceeding 50%)	

2.2 Catastrophic Interruption

Catastrophic interruptions could be the result of regional power outages, earthquakes, floods, water supply interruptions, structural damage from an explosive device, and threat of or possible contamination to the water system. IRWD's response to a catastrophic interruption of water supply would depend on the cause, severity and anticipated duration of the emergency. A potential shortage resulting in a reduction of available supplies can be addressed through a combination of alternative supplies and storage, combined with low level implementation of the WSCP. Since IRWD's major potable water sources include both imported water (including IRWD's groundwater banking) and local groundwater, it is unlikely that outage of both sources would occur simultaneously.

A 2008 USGS Study entitled "The Uniform California Earthquake Rupture Forecast" indicated that there is a 97% probability of an earthquake of magnitude 6.7 or greater in Southern California and a 37% probability of an earthquake greater than 7.5 in magnitude within the next 30 years. Local seismic events have the potential to temporarily disrupt service from either the regional facilities or local well fields. A seismic event could also cause damage to the well field that would permanently limit the production capability of one or more wells. Potential effects of earthquakes on MWD deliveries could result in outages as long as six months, as shown in **Table 2-2**.

Exhibit "A"

Table 2-2: Estimated Outage Durations from Seismic Events

Regional Facilities	Moderate Earthquake (M 6.7)	Extreme Earthquake (>M 7.0)
MWD – Colorado River Aqueduct	1 month	6 months
DWR – State Water Project	Up to 6 months	6+ months
MWD – Conveyance and Distribution	1 week to 2 months	1 week to 3 months
MWD – Treatment Plants	Up to 1 month	Up to 6 months

Local plant outages or seismic events that damage treatment or conveyance facilities may create short term disruptions to imported and local water supply deliveries. Unlike drought conditions, which manifest over a number of years, the response measures available to respond to a catastrophic interruption are limited. During such an event, the IRWD Board, at its discretion, may choose to implement mandatory measures at earlier levels of shortages.

2.3 Multiple Dry Year Analysis

IRWD's 2015 Urban Water Management Plan (UWMP) includes an assessment of IRWD's reliability during normal, dry and multiple dry water years. **Table 2-3** provides total projected supply capacities expected to be available to IRWD through 2035. These future available water supply projections are based on historical groundwater production, planned future supply projects, as well as information from MWD and MWDOC's 2015 UWMPs. Based on its diversified water supply portfolio, the UWMP finds that IRWD's supplies have remained essentially constant between normal, single-dry and multiple dry years. Based on this assessment, IRWD finds that it will be reliable under single-dry and multiple dry years.

Table 2-3: Multiple Dry Years Supply and Demand Comparison

		2020	2025	2030	2035
First Year	Supply totals	142,197	154,549	154,549	154,549
	Demand totals	103,195	113,378	117,091	119,066
	Difference	39,002	41,171	37,458	35,483
Second Year	Supply totals	142,197	154,549	154,549	154,549
	Demand totals	103,195	113,378	113,378	113,378
	Difference	39,002	41,171	37,458	35,483
Third Year	Supply totals	142,197	154,549	154,549	154,549
	Demand totals	103,195	113,378	117,091	119,066
	Difference	39,002	41,171	37,458	35,483

From IRWD 2015 Urban Water Management Plan, Table 7.4.

3 Implementation

3.1 Supply and Demand Assessment

The IRWD Board, in accordance with the provisions of the California Water Code, will determine and declare the shortage level based on an assessment of the available supplies and demands. The evaluation process is conducted to determine if a shortage declaration is needed, and at what level. The regional shortage level is calculated by projecting total short-term water demands within IRWD's service area and comparing these demands to the available water supplies. The supply analysis includes hydrologic and regulatory conditions that impact supplies such as

Exhibit "A"

imported water, groundwater, and surface water. Drought resilient, hydrologically independent supplies, such as recycled water, are considered fully reliable, and can be excluded from the required estimated shortage reduction.

The supply and demand assessment will be initiated in response to triggering events, such as a potential water shortage plan allocation of imported water supplies from MWD, or more frequently as required by the California Water Code. IRWD recognizes that it is best to ask customers to respond to a water shortage as early as possible, at a minimal level, to encourage voluntary conservation and to gain public support and participation and reduce the likelihood of more severe shortage levels later.

3.1.1 Projected Water Demand

To project water demands for a reliability analysis, IRWD uses land use data obtained through the multiple jurisdictions (cities and County) within IRWD's service area, in conjunction with updated water use factors to estimate water requirements using demand forecasting tool. The water use factors are based on average water use and incorporate the effect of IRWD's budget-based rate conservation pricing and its other water conservation programs. For short-term water demand forecasts, applicable to temporary management measures under a potential shortage designation, IRWD will use a recent representative period and assume an equal level of unmitigated use into the upcoming year, and up to 2 years.

It should be noted that recycled water currently meets a large portion of the landscape irrigation demands within IRWD's service area. Furthermore, IRWD has implemented successful water use efficiency and outreach programs since the early 1990's. These efforts combined with the long-term use of budget-based rates, have resulted in somewhat hardened levels of demand and less discretionary water use.

3.1.2 Imported Water Shortage

An imported water supply shortage represents one of the main causes of a potential supply shortage for IRWD. MWD is responsible for importing water into the region through its contract with the State of California for State Water Project supplies and its operation of the Colorado River Aqueduct. Both sources are blended at MWD's Diemer and Weymouth Water Treatment Plants and then distributed to member agencies.

MWD uses its Water Surplus and Drought Management (WSDM) Plan to guide its planning, operations, and water management during both shortage and surplus conditions. In times of shortage, MWD's Board may activate its Water Supply Allocation Plan (WSAP) based on its estimate and forecast of supplies, demands, and reserve levels. If forecasted supplies and demands are determined to put pressure on MWD's storage reserves, its Board may decide to limit the availability of water by implementing its WSAP. The MWD WSAP has 10 levels of water supply allocations, each corresponding to an additional 5 percent reduction of supply.

Under MWD's Regional Shortage Levels shown in **Table 3-1**, IRWD's retail level reliability is high due to IRWD's lower dependency on imported MWD supplies and additional credits and adjustments (primarily from the retail impact adjustment and demand hardening credit). As a comparison, IRWD's retail level reliability (excluding recycled water) remains substantially reliable at a Regional Shortage Level 10, and MWD WSAP allocations can be met with water supplies from IRWD's Water Banking Program or from pumping above OCWD's BPP as a supply of last resort. If MWD implements its WSAP, then supplies stored in IRWD's Water Banking Program qualify as an "extraordinary supply" and IRWD is allowed to take delivery of that supply through MWD's system, which increases IRWD's WSAP allocation from MWD. As previously illustrated in Table 2-1, IRWD would not experience shortage gaps in any IRWD stages with the use of its water banking supplies. The table below assumes normal levels of local hydrology. Refer to Section 2 for a discussion of how combinations of local hydrologic scenarios and imported supply reliability can impact IRWD's reliability.

Exhibit "A"

Table 3-1: MWD WSAP and IRWD Shortage Levels

MWD Regional Shortage Level	Regional Shortage Percentage	IRWD Reliability	IRWD Shortage Level
Level 1	5%	100%	Level 1
Level 2	10%	99%	Level 1
Level 3	15%	98%	Level 1
Level 4	20%	97%	Level 1
Level 5	25%	96%	Level 1
Level 6	30%	95%	Level 1
Level 7	35%	94%	Level 1
Level 8	40%	93%	Level 1
Level 9	45%	92%	Level 1
Level 10	50%	90%	Level 1

3.2 Monitoring and Reporting

IRWD is fully metered, allowing for detailed accounting of water use in the service area. Monthly meter reads provide IRWD with a significant quantity of data for tracking and reporting actual reductions in water use in response to a water shortage. IRWD's budget-based rates are designed to achieve the necessary reductions in water use. Each month during a shortage IRWD determines how much water each customer has used in relation to their budget. This comparison is used to track attainment of water use reduction goals for the agency and is included in the customer's bill to encourage compliance with the water budgets.

3.3 Re-Evaluation and Improvement Process

The WSCP will be re-evaluated at least every five years in coordination with the UWMP update and more frequently at the discretion of the Board. An evaluation on the effectiveness of the water shortage response actions on demand levels will be conducted following future implementation of the WSCP. The evaluation will compare the expected percent demand reduction against actual reductions, and measures in the WSCP will be revised appropriately. IRWD will also assess the effectiveness of the communication plan so that it may be modified as appropriate in the future.

4 Emergency Supplies

IRWD's Water Banking Program provides an important water management tool to improve imported water reliability and protect IRWD customers during potential shortages. This source of supply is in addition to the supplies that IRWD draws upon during non-shortage times and is only used as "extraordinary supply" during shortages triggered by MWD allocations or other conditions.

Water banking is the practice of recharging water to underground storage aquifers during wet periods and recovering this water for later use. IRWD's stated goal in its Policy Position for Water Banking, Transfers and Wheeling (2017) is to provide a cost effective and reliable supplemental source of water that could be called upon during drought conditions or supply interruptions. In the event of a major supply interruption, this water would be available to fulfill IRWD's estimated needs for imported water over extended periods of time. IRWD's Water Banking Program provides IRWD the ability to store and recover this supplemental water to meet long-term supply reliability requirements. IRWD considers dependence on overdrafting the Orange County Groundwater Basin by pumping above OCWD's BPP as a supply of last resort. This is a feasible and available supply that exists as a backup should IRWD's Water Banking Program not have adequate supplies to meet the needs of a shortage condition.

Exhibit "A"

5 Shortage Response Actions

In addition to basic measures, which are always in effect, there are different types of response measures that can be implemented by IRWD in the event of a supply shortage. These response measures represent a "toolbox" with a range of actions that can be used in combination, according to the severity and duration of the shortage.

- a) Voluntary reduction measures through expansion and enhancement of IRWD's conservation and outreach programs
- b) Use of the IRWD's budget-based rate structure
- c) End use prohibitions and use of mandatory enforcement measures
- d) Operational drought control measures.

5.1 Basic Measures Always in Effect

The following basic measures are considered good water management practices and are always in effect in IRWD's service area regardless of whether a shortage level is declared. These measures are contained in IRWD's Rules and Regulations (Section 15).

- a) **Gutter Flooding** - No person shall cause or permit any water furnished to any property within IRWD to run or to escape from any hose, pipe, valve, faucet, sprinkler, or irrigation device into any gutter or otherwise to escape from the property if such running or escaping can reasonably be prevented.
- b) **Leaks** - No person shall permit leaks of water that he has the authority to eliminate.
- c) **Washing Hard Surface Areas** - Washing down hard or paved surfaces, including, but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards.
- d) **Washing of Motor Vehicle** – No person shall wash a motor vehicle with a hose not fitted with a shut-off nozzle or similar functioning device.
- e) **Use of Potable Water in a Fountain** – No person shall use potable water in a fountain or other decorative water feature, except where the water is recirculated.
- f) **Application of Potable Water to Outdoor Landscapes** – No person shall apply potable water to outdoor landscapes during and within 48 hours after measurable rain.
- g) **Irrigation of Street Medians** – No person shall use potable water to irrigate ornamental turf on public street medians.
- h) **Newly Constructed Homes and Buildings** - No person shall use potable water to irrigate landscapes outside of newly constructed homes and buildings in a manner inconsistent with regulations or other requirements established by the California Building Standards Commission and the Department of Housing and Community Development.
- i) **Waste** - No person shall cause or permit water under his control to be wasted.

In addition, IRWD has a budget-based rate structure based on the cost of service, which also limits the amount of water allocated to each customer to an amount that is reasonable for the customer's needs and property characteristics, reducing wasteful use of water. When a declared shortage condition is not in effect, basic allocations established by IRWD are limited to the amount that is reasonable for the customer's needs and property characteristics and exclude wasteful use.

Exhibit "A"

5.2 Voluntary Reduction Measures

IRWD has always taken a proactive approach to water conservation and is looked to as a leader by other water agencies throughout the state and country. IRWD implements a wide-range of conservation programs, designed to target all customer sectors. They are continually evaluated to maximize water savings and modified to integrate the latest water efficient technologies and practices. Specific programs that IRWD currently relies upon to promote water conservation are listed below.

- Free on-site assistance and customized reports for customers in all sectors to help identify opportunities for water savings, eliminate water waste, and to recommend appropriate programs and strategies to reduce water demands.
- Water Smart Reports that provide enhanced customer engagement through multiple communication methods.
- Turf replacement installation and rebate programs.
- Rebates for weather-based irrigation controllers, drip irrigation and rain barrels.
- Direct installation programs and rebates for high efficiency plumbing devices.
- Rebates for high efficiency clothes washers.
- Rebates for commercial and industrial efficiency devices, such as cooling tower conductivity controllers
- Performance based incentive program for commercial, industrial and institutional (CII) customers to upgrade equipment and improve their water processes to provide greater water use efficiency. High use CII accounts are targeted for participation in the program.
- Fix A Leak program.
- Robust system water loss prevention and meter testing programs.

During the recent implementation of the WSCP in 2014 and 2015, IRWD took a proactive approach in expanding and enhancing these conservation and outreach efforts as part of a Drought Action Plan. In the event of a future water shortage, IRWD will develop a similar implementation plan to increase levels of voluntary conservation using an adaptive approach, while taking into account the IRWD's financial stability, and the ease and timing of implementation. Under this action, the following measures will be considered.

- a) **Expand Conservation Programs** – Contracting with a qualified firm or recruiting temporary staff to significantly increase resources to expand existing water use efficiency programs, including the residential survey program, large landscape survey program, and outdoor education and workshops.
- a) **Increased Rebate Funding** – Enhance incentives and rebate programs, such as turf replacement installation, high efficiency clothes washers, and commercial and industrial devices.
- b) **Targeted Outreach** – IRWD will increase ongoing outreach efforts to more aggressively target wasteful tier customers. Additional outreach includes employee training at high use businesses, working with the public sector on raising public awareness, and demonstrating reduced usage at public sites.
- c) **Direct Install Programs** – Implementing direct install programs to retrofit inefficient devices and landscape equipment.

5.3 Use of Budget-Based Rates

IRWD's budget-based rate structure was instituted in 1991 to promote the efficient use of water and is designed to provide customers a significant economic incentive to use the non-wasteful amount of water required to serve indoor, landscape, commercial/industrial and institutional demands. This is accomplished by setting a customized monthly water budget, for each customer account that is based upon a variety of factors such as: irrigated area, daily weather characteristics, number of residents, industrial or commercial business type, and other more unique characteristics such as the presence of a pool, livestock or specialized industrial equipment.

Exhibit "A"

Water is sold to customers under a four-tier structure based upon their monthly water budget, which varies for landscape use relative to weather patterns. Customers using water within budget purchase water in the Low Volume and Base Rate tiers resulting in lower water bills. Customers using in excess of their budget purchase water in the Inefficient and Wasteful Tiers, resulting in higher water bills and a strong pricing signal to curb excessive use. The higher rates for over budget use incorporate the additional cost to IRWD of acquiring water supplies to meet over-budget demand, as well as the additional cost of demand management measures in a shortage. IRWD's 2017-18 domestic residential commodity rates for each of the four tiers are shown in **Table 5-1**.

Table 5-1: Commodity Rates for Residential Customers

Customer Tier	Percent of Budget	Rate Per CCF
Low Volume	0 – 40%	\$1.36
Base Rate	41 – 100%	\$1.70
Inefficient	101 – 140%	\$4.09
Wasteful	141% +	\$12.06

5.3.1 Adjustments to Budget-Based Rates

Application of any or a combination of water budget adjustment strategies will place customers into the higher usage tiers, which acts as a reporting and enforcement mechanism by creating a strong financial incentive for customers to reduce demands by paying their proportional cost of receiving water service. Three types of water budget adjustments can be established and refined based on customer response in such a way that specified uses are discouraged. Adjustments to the water budgets, tiers and rates will be at the discretion of the Board, and subject to public notice and rate hearing process under Proposition 218.

- a) **Adjusting the Tier Thresholds** – This strategy does not adjust the actual water budget formula itself, but rather adjusts the percentage thresholds for the over-budget tiers. The current tiers are thresholds for the various account types. Adjusting the tier thresholds downward would have the effect of shifting more use into the higher tiers. Customers in these tiers would be subject to increased rates depending on the extent of their use (percentage of use over budget). Reducing the tier thresholds incentivizes customers to consume less water.
- b) **Customer Water Budget Adjustments** – An adjustment to the water budget entails refining the water budget formula. This can be done either as a simple percentage adjustment or by adjusting a specific portion of the formula. For example, residential water budgets are made up of an indoor plus an outdoor budget component. It is possible to adjust the outdoor component downward to allow for less outdoor irrigation or eliminate it altogether depending on the need for demand reductions. Water budgets could also be set to levels that would eliminate all outdoor water use including irrigation, car washing, pool filling, agricultural use of non-recycled water etc. Under this scenario the indoor component could be left the same or could be altered as necessary.
- c) **Rate Increases for Over-Budget Use** – This approach entails adopting higher rates for over budget use and would be linked to purchases of imported water at MWD's penalty rates, among other things. The establishment of utility rates is subject to the requirements of Proposition 218, which requires that established rates do not exceed the proportional cost of service to any specific class of customers.

5.3.2 Adjustments to Budget-Based Rates

A detailed analysis of the customer usage by tier, using the most recently available data, is one of the first steps that should be undertaken in developing demand management strategies in response to shortage conditions. IRWD has developed the *Water Shortage Contingency Plan Multiplier Tool* to estimate demands and potential water savings from budget-based rates during shortage conditions. The tool is based on the use of a multiplier to be applied to the

Exhibit "A"

percentage thresholds for customer tiers. An example of a hypothetical 75% multiplier is shown in **Table 5-2**. Note that the tool does safeguard water supplies for uses that meet public health needs by maintaining the current definition of the Low Volume tier.

Table 5-2: Example of Multiplier Applied to Tier Definition

Customer Tier	Current Tier Definition	Multiplier (75%)
Low Volume	0 – 40%	0 – 40%
Base Rate	41 – 100%	41 - 75%
Inefficient	101 – 140%	76 – 106%
Wasteful	141% +	107% +

The use of the *Water Shortage Contingency Plan Multiplier Tool* is based on the following four steps:

Data on Usage by Customer Category – The tool uses the most recent available monthly billing data by tier for Single Family Residential, Multi-Family Residential, Landscape, Commercial, Industrial, and Public Authority customers. All data is for non-recycled water (the tool does include an analysis of recycled water use). For longer term planning, the tool incorporates demand forecasting and estimates future demand hardening from conservation.

Identify Savings Potential – The savings potential in each customer category is defined to discourage specific uses of water. During the early shortage levels, the tool targets the elimination of discretionary (primarily outdoor) uses of water, as defined by water use in the Inefficient and Wasteful tiers. At deeper levels of shortage, the tool targets additional savings, up to the elimination of all outdoor water use beyond what is required to maintain drought-friendly landscaping. During an emergency, the tool targets up to the elimination of all outdoor water use, and up to minimum indoor amount required for public health and safety needs.

Estimate Response Rate – The estimated water use reductions achieved from implementing changes to the budget-based rates is calculated by assessing recent research on customer ability and willingness to comply with rate-based measures, as well as IRWD's experience with use of budget-based rates, and the previous implementation of the WSCP.

Determine Water Use Reductions – The final step involves balancing water use reductions across customer categories to achieve the desired level of demand management. The multipliers as applied to each customer class will vary due to several factors, including the targeting discretionary uses where appropriate, and avoiding impacts to the economy. **Table 5-3** provides a hypothetical example of multipliers as applied to each customer category.

Exhibit "A"

Table 5-3: Example of Savings Estimate

Customer Sector	Multiplier	Estimated Savings
Single Family	0.75	15%
Multi Family	0.80	12%
Landscape	0.60	30%
Commercial	0.9	5%
Industrial	0.9	5%
Public Authority	0.9	5%
Total Non-Recycled Savings:		12%

5.4 End Use Prohibitions

Through adopted resolutions, IRWD has provisions for mandatory prohibitions of certain end uses, if necessary, based on the water shortage level declared. Examples of consumption reduction measures used by IRWD are summarized as follows.

- a) **Serving of drinking water** – Only to be served upon request in eating or drinking establishments.
- b) **Ban on car-washing and pool-filling** – Demand reductions on car-washing and pool filling that cannot be achieved through voluntary measures and financial incentives related to adjustments in the budget-based rate structure would be attained through a ban on these actions.
- c) **Municipal Uses** – Elimination of specific municipal uses such as unrequired hydrant flushing.
- d) **Construction Activities** – Recycled water shall be required for construction activities, including earthwork, dust control and clean-up. IRWD may, at its discretion, waive this requirement if it can be demonstrated to IRWD's satisfaction that compliance with the requirement imposes undue hardship.
- e) **Street Sweeping** – The use of recycled water shall be required for street sweeping activities. IRWD may, at its discretion, waive this requirement if it can be demonstrated to IRWD's satisfaction that compliance with the requirement imposes undue hardship.
- f) **Commercial Car Washes** – Commercial conveyor and in-bay car wash systems must reuse water if equipped to do so.
- g) **Common Interest Associations** – Common interest associations shall not fine or assess owners of separate interests for reducing or eliminating the watering of vegetation or lawns, unless the association uses only recycled water for irrigation of the association's common areas and recycled water is also available at the irrigated area of the separate interest.

5.4.1 Critical Shortage Measures

In an emergency, the primary function of IRWD's water supply system is to meet essential public health and safety needs. IRWD may determine that it is necessary to use mandatory restrictions and possible discontinuation of non-health and safety related service in order to achieve the necessary demand reductions at crisis level shortages. In addition to the measures implemented in all prior stages, IRWD may impose any combination of the following mandatory measures.

- a) **Potable Irrigation Ban** – Outdoor irrigation would be the initial target for any demand reductions. Demand reductions or eliminations that cannot be met through voluntary measures and financial incentives related to adjustments in the budget-based rate structure, would be attained through a ban on potable irrigation.

Exhibit "A"

- b) **Flow restrictors** – Under extreme conditions of noncompliance, IRWD could install flow restrictors in individual service lines. Thus, water would be available for drinking, cooking, sponge baths, and slow fill of toilet tanks, but showers and other high volume type uses would not be possible. Under these conditions individual customer reaction would be severe. It would probably be necessary to augment the customer service field service staff to maintain surveillance of these services to assure that unauthorized changes are not made by the customer.
- c) **Mandatory Restrictions and Fines** – IRWD's ability to establish restrictions on water use and to possibly discontinue non-health and safety related service in the case of repeat violators is provided for under the California Water Code, Division 1, Chapters 3 and 3.5.

5.4.2 Enforcement

IRWD's Rules and Regulations (Section 15) provide for enforcement and penalties that may apply to violators during a water shortage. An excess use charge based upon the budget-based rate structure, which is always in effect, is sufficient to encourage demand reduction to required levels. Depending on the level of shortage, IRWD may reduce customer billing water budgets, tighten the tiers, increase rates, or some combination of those strategies to obtain the necessary reductions. IRWD also has the ability to establish restrictions on water use or to discontinue service in the case of repeat violators under the Water Code of the State of California.

5.5 Operational Drought Control Measures

Recycled water has proven to be an effective drought resilient reliable supply as a result of the fact that sewage flows remain virtually unaffected by dry years. During a water supply shortage, IRWD will conduct an evaluation that will focus on expanding the authorized use of recycled water where it can replace potable water use. Due to regulatory requirements, conversions and expansions of use may take longer to implement than other actions, but can be expedited when feasible, particularly for projects that are already in process. The following is a list of recycled water customer development programs that can be expanded during a water supply shortage:

- a) Potable Irrigation Conversions
- b) Industrial Process Water Conversions
- c) Cooling Towers Conversions
- d) Street Sweeping/Construction
- e) Agricultural Customers

6 Stages of Action

The levels of shortage are declared at the direction of IRWD's Board depending on the assessment of the available water supplies and demands. As part of the declaration, the Board will implement specific demand management measures. **Table 6-1** provides the levels of shortage that may be declared, and a combination of the potential strategies that are likely to be sufficient to achieve the necessary demand reductions according to the severity and duration of the shortage. It is at the Board's discretion to use a combination of water shortage measures in a way it deems most appropriate.

Exhibit "A"

Table 6-1: Shortage Levels and Response Actions Considered

Shortage Level	Response Type	Supply Shortage Response Actions Considered	Estimated Savings
Level 1	Voluntary	Increase outreach efforts for over-allocation customers and expand leak alert program	10%
Level 2	Voluntary	Expand residential survey program, large landscape survey program, outdoor education programs and workshops, and establish water waste reporting "hotline"	11% - 20%
	Rate Based	Review of allocations and potential adjustments to target discretionary outdoor uses for residential and landscape customers	
	End Use Prohibitions	Discourage filling of fountains, pools, and water features and other discretionary uses	
	Operational Measures	Conduct evaluation on operational measures to reduce potable water use and expand the authorized use of recycled water	
Level 3	Voluntary	Increase rebate amounts, targeted outreach and employee training at high use businesses, implement a public outreach campaign and work with public sector on raising public awareness and demonstrating reduced usage at public sites	21% - 30%
	Rate Based	Review of residential and landscape allocations and target potential adjustments to limit residential and landscape customers to efficient irrigation of low drought tolerant landscaping	
Level 4	Voluntary	Implement direct install programs to retrofit inefficient devices and landscape equipment	31% - 40%
	Rate Based	Review commercial, industrial, and public authority allocations, and consider adjustments to maximize potential savings while minimizing economic impacts	
	End Use Prohibitions	Elimination of specific municipal uses such as hydrant flushing, street cleaning, and water-based recreation	
Level 5	Voluntary	Implement pay to save incentive programs for industrial customers	41% - 50%
	Rate Based	Review residential and landscape allocations and consider adjustments to target the elimination of all non-recycled outdoor uses	
	Mandatory Measures	Eliminate non-recycled water outdoor use (100% reduction)	
Level 6	Rate Based	Review of residential allocations and potential adjustments to target all uses not required for health and safety	51% +
	Mandatory Measures	Use of flow restrictors on severely over-allocation accounts that are non-responsive to outreach, and other mandatory restrictions and enforcement, as necessary	

Exhibit "A"

6.1 Level One (Shortage Warning – up to 10% shortage)

Level 1 is a shortage warning and low-level shortage condition intended to address supply reductions of up to 10%. Measures considered Level 1 would include the following voluntary actions:

- Increase public awareness of water supply situation and conservation opportunities
- Encourage diligent repair of water leaks

The measures used in Level 1 are designed to achieve reductions in outdoor over-irrigation. An enhanced public awareness campaign would be targeted toward customers that use water in excess of their water budget amounts, to help them identify the source of their overuse, and correct the problem. General conservation efforts include dedicated pages on IRWD's website, information provided in the customer newsletter, and drought-related presentations to groups such as city council, community associations, chambers of commerce, business groups, and schools.

6.2 Level Two (Significant Shortage Condition – up to 20% shortage)

Level 2 is a significant shortage condition intended to address supply shortages between 11% and 20%. Measures considered under Level 2 would incorporate the actions taken under Level 1, and would include the following:

- Expand water conservation programs and projects, including residential survey program, large landscape survey program, outdoor education programs and workshops
- Establish water waste reporting "hotline"
- Review of allocations and potential adjustments to target discretionary outdoor uses for residential and landscape customers.
- Prohibitions on filling of fountains, pools, and water features, as well as specific municipal uses.

The measures used in Level 2 are intended to target discretionary uses of water. These measures require shorter lead time to implement, although it should be noted that rate-based measures are subject to public notice and rate hearing process under Proposition 218. Voluntary measures can include short-term expansion of existing programs and may include new programs that can be implemented quickly. Over-budget usage from the changes to tiers would also offset the additional administrative and implementation costs to IRWD including increased staffing to address the expansion of IRWD's water conservation programs and projects.

6.3 Level Three (Significant Shortage Condition – up to 30% shortage)

Level 3 is a severe shortage condition intended to address supply shortages between 21% and 30%. Measures considered under Level 3 would incorporate the actions taken under Level 2, and would include the following:

- Enhance incentives for rebate programs, such as turf replacement installation, high efficiency clothes washers, and commercial and industrial devices.
- Targeted outreach, including employee training at high use businesses, work with public sector on raising public awareness, and demonstrating reduced usage at public sites.
- Implement a public outreach campaign and work with public sector on raising public awareness and demonstrating reduced usage at public sites.
- Conduct analysis of landscape allocations and implement potential adjustments to budget-based rates in order to target elimination of all outdoor water use beyond what is required to maintain drought friendly landscaping.

The measures used in Level 3 are intended to target deeper outdoor use reductions in residential and landscape customers, and additional voluntary reductions from commercial, industrial, and institutional customers. These measures may require a longer time to implement, including coordination workshops, establishing and prioritizing objectives, and Board approval of funding.

Exhibit "A"

6.4 Level Four (Severe Shortage Condition – up to 40% shortage)

Level 4 is a severe shortage condition intended to address supply shortages between 31% and 40%. Measures considered under Level 4 would incorporate the actions taken under Level 3, and would include the following:

- Implement direct install programs to retrofit inefficient devices and landscape equipment.
- Conduct analysis of commercial, industrial, and public authority allocations, and consider adjustments to maximize potential savings while minimizing economic impacts.
- Elimination of specific municipal uses such as hydrant flushing, street cleaning, and water-based recreation.

The measures used in Level 4 are intended to target commercial, industrial, and public authority customers while minimizing negative economic impacts. A Level 4 shortage would require further adjustments to budget-based rates, and new measures that may require longer time for direct install programs to launch and requires board to approval of funding and award of contracts.

6.5 Level Five (Crisis Shortage Condition – up to 50% shortage)

Level 5 is a crisis shortage condition intended to address supply shortages between 41% and 50%. Measures considered under Level 5 would incorporate the actions taken under Level 4, and would include the following:

- Implement pay to save incentive programs for industrial customers.
- Review residential and landscape allocations and consider adjustments to target the elimination of all non-recycled outdoor uses.
- Eliminate non-recycled water outdoor use (100% reduction).

The measures used in Level 5 are intended to eliminate all non-recycled outdoor use. The measures may require policy changes, enforcement mechanism and consequences such as ability to levy fines or penalties for violations.

6.6 Level Six (Crisis Shortage Condition – exceeding 50% shortage)

Level 6 is a crisis shortage condition intended to address supply shortages exceeding 50%. Measures selected under Level 6 would be designed to incorporate the objectives listed under Level 5, and achieve the following further reduction in use:

- Review of residential allocations and potential adjustments to target all uses not required for health and safety.
- Use of flow restrictors on severely over-allocation accounts that are non-responsive to outreach, and other mandatory restrictions and enforcement, as necessary.

At a Level 6, the Board may determine that it is necessary to use mandatory restrictions and possible discontinuation of non-health and safety related service in order to achieve the necessary demand reductions.

7 Communication Plan

IRWD's communication plan includes the various channels IRWD will utilize in order to convey critical messages regarding water shortage allocations and voluntary and mandatory actions. Public outreach programs can help increase awareness of water shortages, while customer services and workshops can encourage rate-payers to actively participate in demand reducing strategies. A strong communication plan will educate IRWD customers, including local leaders and the business community, on the water supply situation; what actions are proposed; what the intended achievements are; and how these actions are to be implemented. While specific types of messaging are deployed at various shortage response levels, the means by which these messages are conveyed to the public are described in this communication plan.

The single most important step IRWD can take in implementing voluntary measures is to inform customers in order to help reduce water demand. IRWD will employ additional strategies to achieve the necessary demand reductions in a

Exhibit "A"

shortage situation. Most of the effort will be focused on providing additional outreach to high usage tier customers. The community will be informed through the website, press releases, billing inserts, water conservation booths, community association meetings, newsletters etc. Literature will be provided on the shortage condition, conservation methods, and water-saving devices and be distributed through various local organizations and communication channels. The communication channels listed below can help convey the need for immediate conservation.

Public Outreach Program and Social Media – IRWD's public outreach is aimed at promoting voluntary water conservation, something which IRWD has always done. Conservation is a constant ethic and goal, promoted throughout the service area, regardless of drought conditions. IRWD makes extensive use of its website and use of social media, including the use of Facebook, Twitter, Instagram and NextDoor to continually remind customers of the conservation message. The IRWD water use efficiency microsite and the IRWD website heavily features conservation and easy to use irrigation scheduling guideline, information on incentives, and efficient irrigation. IRWD also informs its customers through billing inserts, mailers, water conservation booths, newsletters, postcards, community association meetings, and local public events. Outreach is accomplished by having key IRWD personnel present to groups such as the city council, community associations, chambers of commerce, business groups, etc.

Drought Response Center – In order to respond to increased customer requests for on-site assistance, higher call volumes, and new and expanded water efficiency program offerings, additional temporary staff and consultants will be brought on to augment the water efficiency staff. IRWD will also establish a hot line to respond to customer questions and a special email response program. A drought information webpage will also be provided. The webpage will both local and statewide drought information into one easy to access location.

Campaign – A water conservation or shortage response campaign message will be vigorously promoted to influence public attitudes toward water use.

Media – Extensive use of all available forms of media will be employed and coordinated with other agencies. This includes public service messages on local outlets and press releases in local newspapers. The messaging and level of response will be correlated with the need for demand reductions.

Customer Service – Customers will be encouraged to work collaboratively to save water and to call IRWD's water use efficiency experts for assistance in finding water leaks or providing ways to use water more efficiently. IRWD's Customer Service Department can assist in identifying wasteful activities within the IRWD service area. IRWD staff will contact the customer associated with the property and offer on-site assistance and recommendations to address the problem.

Workshops and Tours – IRWD already offers many workshops and tours to its customers as a part of ongoing outreach. During a drought IRWD will hold workshops targeted toward helping customers reduce outdoor water use and be more efficient. These workshops will be held in various locations throughout the service area in order to reach an increased number of customers. A self-guided garden tour will be established to assist customers in identifying drought friendly landscapes.

Targeting Over-Allocation Customers – IRWD will increase ongoing outreach efforts to more aggressively target wasteful tier customers. Customers in the wasteful tier are notified through a variety of methods including mail, email and telephone. IRWD will continue to offer on-site assistance and audits to customers to help identify the source of wasteful tier use and to provide recommendations for reducing water use

Community Events – IRWD will hold large community events that feature workshops, discussions and hands on learning opportunities. These events will be coordinated with the cities within the service area and with the County of Orange.

Exhibit "A"

8 Financial Plan

The California Water Code Section 10632 requires an analysis of the impacts of each of the actions taken for conservation and water restriction on the revenues and expenditures of the water supplier. The WSCP does not provide a detailed analysis of revenue and expenditure impacts of water shortages because IRWD's billing structure is designed to be insulated from revenue swings resulting from deviations between actual and budgeted water sales and from declining or reduced water sales. IRWD's billing structure consists of a fixed meter charge and a commodity charge based on the number of units of water used. Meter charges are set to meet IRWD's fixed costs of operation (e.g. salaries, supplies, etc.). The base commodity charge is set to match the cost of producing, purchasing and delivering water. Therefore, IRWD can recover its fixed costs regardless of the quantity of water sold, whereas the water sales at any level will cover the costs of providing water. This system has proven to be effective in balancing revenue and expenditures. **Table 8-1** and **Table 8-2** show components of revenue and expenditure impacts that were evaluated and found to have either minimal or no significant impacts.

Table 8-1: Actions and Conditions of the Impact Expenditure

Type	Anticipated Revenue Reduction
Reduced Sales	Minimal to No Impact
Development of Reserves	Minimal to No Impact
Impact of Supplier's Higher Rates (Tier 2)	Likely Passed through to Customer
Category	Anticipated Cost
Change in Quantity of Sales	Minimal to No Impact
Increased Staff Salaries/Overtime	Minimal to No Impact
Increased Costs of New Supplies/Transfers/Exchanges	Minimal to No Impact

Table 8-2: Proposed Measures to Overcome Revenue Impacts

Name of Measure	Summary of Effects
Review of Rate Adjustment	IRWD can revise its rate structure during water shortage stages which can increase commodity sale revenues if needed to offset MWD shortage tier rates
Reserves	IRWD maintains reserves that can stabilize water rates during times of reduced water sales
Decreased or Deferred Capital and Maintenance Expenditures	If necessary, IRWD can postpone capital expenditures and defer certain maintenance expenditures

March 26, 2018
Prepared and
Submitted by: K. Swan *KS*
Approved by: Paul A. Cook *PAC*

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

March 13 Water Agencies of the Inland Empire and Orange County State Legislative Reception, Sacramento
March 14 ACWA Legislative Symposium, Sacramento
April 8-11 National Water Resources Association DC Conference, Washington D.C.
April 19 MWDOC 2018 Water Policy Forum, Fountain Valley
April 20 Southern California Water Coalition Quarterly Meeting, Irwindale

Mary Aileen Matheis

March 13 Water Agencies of the Inland Empire and Orange County State Legislative Reception, Sacramento
April 5 OC Forum Honoring Congressman Ed Royce, Irvine
April 5 MWDOC Board & Member Agency Elected Officials' Forum, Fountain Valley
April 12 ACC-OC Business Panel Discussion, Costa Mesa
April 20 Southern California Water Coalition Quarterly Meeting, Irwindale

Douglas Reinhart

February 20 South Orange County Agencies' Group Meeting, Trabuco Canyon
March 30 El Toro Water District's Dedication of Water Wise Demonstration Garden
April 20 Southern California Water Coalition Quarterly Meeting, Irwindale

Peer Swan

April 5 OC Forum Honoring Congressman Ed Royce, Irvine
April 19 MWDOC 2018 Water Policy Forum, Fountain Valley
April 20 Southern California Water Coalition Quarterly Meeting, Irwindale

John Withers

March 13	Great Park Groundbreaking on Wildlife Corridor
March 29	Independent Special Districts of Orange County Quarterly Luncheon Meeting
March 30	El Toro Water District's Dedication of Water Wise Demonstration Garden
April 12	ACC-OC Business Panel Discussion, Costa Mesa
April 19	MWDOC 2018 Water Policy Forum, Fountain Valley
April 20	Southern California Water Coalition Quarterly Meeting, Irwindale

RECOMMENDATION:

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


LIST OF EXHIBITS:

None.

March 26, 2018

Prepared and

Submitted by: L. Bonkowski 

Approved by: P. Cook 

CONSENT CALENDAR

MINUTES OF BOARD MEETINGS

SUMMARY:

Provided are the minutes of the March 12, 2018 Special Board Meeting and the March 12, 2018 Regular Board meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE MARCH 12, 2018 SPECIAL BOARD MEETING AND THE MARCH 12, 2018 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – March 12, 2018 Minutes of Special Board Meeting
Exhibit "B" – March 12, 2018 Minutes of Regular Board Meeting

EXHIBIT "A"

MINUTES OF SPECIAL BOARD OF DIRECTORS MEETING – MARCH 12, 2018

The special meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 1:00 p.m. by Vice President LaMar on March 12, 2018 at the Multi-Purpose Room, 15600 Sand Canyon Avenue Irvine, California.

Directors Present: Matheis, Withers, LaMar and Swan.

Directors Absent: Reinhart.

Also Present: General Manager Cook, Executive Director of Finance Clary, Executive Director of Water Policy Weghorst, Executive Director of Engineering and Water Quality Burton, and Government Relations Officer Compton

Written and Oral Communications: None.

Items too later to be agendized: None.

OTHER BUSINESS

CLOSED SESSION

Vice President LaMar said that the following Closes Sessions would be held:

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

OPEN SESSION

The meeting convened with Directors LaMar, Wither, Swan, and Matheis present. Vice President LaMar said that there was no action to report.

ADJOURNMENT

There being no further discussion, Vice President LaMar adjourned the meeting. at 4:54 p.m.

APPROVED and SIGNED this 26th day of March, 2018.

President, IRVINE RANCH WATER DISTRICT

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Claire Hervey Collins, Legal Counsel – Lewis Brisbois

EXHIBIT "B"

MINUTES OF REGULAR MEETING – MARCH 12, 2018

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by Vice President LaMar on March 12, 2018 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: LaMar, Reinhart (arrived at 5:30 p.m.), Matheis, Swan, and Withers.

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Water Policy Weghorst, Executive Director of Engineering and Water Quality Burton, Executive Director of Finance and Administration Clary, Director of Public Affairs Beeman, Public Affairs Manager Fabris, Director of Human Resources Roney, Director of Treasury and Risk Management Jacobson, Director of Water Operations Zepeda, Director of Maintenance Drake, Director of Water Operations Roberts, Government Relations Officer Compton, Principle Engineer Cortez, Principle Engineer Akiyoshi, Ms. Kelly Welch, Mr. John Dayer, Mr. Dane Johnson, Mr. Ian Swift, Legal Counsel Smith, Legal Counsel DeMayo, Secretary Bonkowski, Assistant Secretary Swan, Mr. Dan Burmaster and members of the public.

WRITTEN COMMUNICATIONS: None.

ORAL COMMUNICATIONS:

ITEMS TOO LATE TO BE AGENDIZED: General Manager Cook said that last week the District's General Counsel, Nossaman LLP, sent a letter to the Board and staff suggesting a withdrawal from representation from the District. Mr. Cook said additionally, he received confirmation from Nossaman's Managing Partner, Mr. George Joseph, that this letter sent could be characterized as a request for mutual separation. He further said that due to the timing of when this clarification was received after the agenda was posted, he recommends adding an item to the agenda as Item No. 16A on the Action Calendar to consider this request. On MOTION by Swan, seconded and carried (4-0) (Withers, Swan, Withers and Matheis voting aye and Reinhart absent), IT WAS DETERMINED THERE WAS A NEED TO TAKE IMMEDIATE ACTION TO CONSIDER THE REQUEST FOR A MUTUAL SEPARATION WITH NOSSAMAN LLP AS THE DISTRICT'S GENERAL COUNSEL, AND THIS MATTER WAS ADDED TO THE AGENDA AS ITEM NO. 16A (see page 5).

CONSENT CALENDAR

Director Matheis asked that a correction be made to her list of meetings. There being no further comments, on MOTION by Matheis, seconded and carried (4-0) (Withers, Swan, Withers and Matheis voting aye and Reinhart absent), CONSENT CALENDAR ITEMS 3 THROUGH 11 WERE APPROVED AS FOLLOWS:

CONSENT CALENDAR (CONTINUED)

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

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

4. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the February 12, 2018 Regular Board Meeting be approved as presented.

5. 2018 LEGISLATIVE AND REGULATORY UPDATE

Recommendation: That the Board adopt an "OPPOSE/OPPOSE UNLESS AMENDED" position on the "Safe and Affordable Drinking Water Act" budget trailer bill and a "SUPPORT IN CONCEPT" position on AB 2050 (Caballero, D-Salina).

6. CULVER DRIVE RECYCLED WATER PIPELINE REPLACEMENT CONSULTANT SELECTION

Recommendation: That the Board authorize the addition of project 10588 in the amount of \$717,000 to the FY 2017-18 Capital Budget and authorize the General Manager to execute a Professional Services Agreement in the amount \$149,850.50 with RCE Consultants to provide design engineering services for the Culver Drive Recycled Water Pipeline Replacement, project 10588.

7. MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES CONTRACT CHANGE ORDER NO. 73

Recommendation: That the Board approve Contract Change Order No. 73 in the amount of \$150,755.29 with Filanc/Balfour Beatty for additional electrical conduits and circuits for control of the dewatering centrifuges for the Michelson Water Recycling Plant Biosolids and Energy Recovery Facilities, project 04286.

8. MICHELSON WATER RECYCLING PLANT ASPHALT REPLACEMENT CONTRACT AWARD

Recommendation: That the Board authorize the General Manager to execute a construction contract with Sanders Paving, Inc. in the amount of \$376,133.35 for replacement of approximately 127,350 square feet of asphalt at the Michelson Water Recycling Plant.

CONSENT CALENDAR (CONTINUED)

9. 2017 SEWER REHABILITATION FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the 2017 Sewer Rehabilitation, project 07100, 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.

10. BAKER WATER TREATMENT PLANT FINAL ACCEPTANCE

Recommendation: That the Board authorize the General Manager to accept construction of Baker Water Treatment Plant, project 05027, authorize the General Manager to file a Notice of Completion, and authorize the release of retention 35 days after filing of the Notice of Completion.

11. ADDENDUM NO. 3 TO THE BAKER WATER TREATMENT PLANT PROJECT FINAL ENVIRONMENTAL IMPACT REPORT

Recommendation: That the Board approve the proposed Addendum No. 3 to the Baker Water Treatment Plant project final Environmental Impact Report, including the determinations set forth in Addendum No. 3, and authorize staff to post and file a Notice of Determination.

ACTION CALENDAR

SEAWATCH RECYCLED WATER MAIN REHABILITATION CONSTRUCTION AWARD BACKGROUND:

General Manager Cook reported that a 10-inch Seawatch recycled water pipeline supplies the Crystal Cove development in Newport Beach. Mr. Cook said that a total of 17 leaks have been repaired on the pipeline since its installation in 2003 which have been determined to be crack-type failures occurring from the PVC pipe bells. He said that staff recommends the replacement of 4,500 feet of cured in place (CIPP) pipe and 140 feet of PVC pipe to rehabilitate the pipeline.

Executive Director of Engineering and Water Quality Burton reported that this project was advertised for construction bidding to a select list of 17 pipeline and CIPP specialty contractors. Mr. Burton said that five contractors attended the pre-bid meeting; the bid opening was held on February 27, 2018 with two bids received from Paulus Engineering and T.E. Roberts. He said that due to the specialized CIPP process of lining pressure pipelines, many contractors elected not to bid. He further said that T.E. Roberts is the apparent low bidder with a bid amount of \$1,071,100; the engineer's estimate was \$1,245,000.

Mr. Burton said that in the District's contract, General Provisions Section 6.6.2 states, "CONTRACTOR shall not award work to Subcontractors in excess of fifty (50) percent of the Contract Price without prior written approval of DISTRICT." He said that however, in the Statements by Bidder sections of the contract documents, both T.E. Roberts and Paulus Engineering noted that their CIPP subcontractors would perform more than 50% of the work. He said with the concurrence of legal counsel, staff recommends waiving this requirement and awarding the construction contract to T.E. Roberts.

On MOTION by Swan, seconded and carried (4-0) (Withers, Swan, Withers and Matheis voting aye and Reinhart absent), THE BOARD AUTHORIZED A BUDGET INCREASE IN THE AMOUNT OF \$640,000, FROM \$720,500 TO \$1,360,500, FOR PROJECT 07099; WAIVED THE REQUIREMENT THAT T.E. ROBERTS SHALL NOT AWARD WORK TO SUBCONTRACTORS IN EXCESS OF 50% OF THE CONTRACT PRICE WITHOUT PRIOR WRITTEN APPROVAL OF THE DISTRICT; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH T.E. ROBERTS IN THE AMOUNT OF \$1,071,940 FOR THE SEAWATCH RECYCLED WATER MAIN REHABILITATION, PROJECT 07099.

WITHDRAWAL FROM SOUTH ORANGE COUNTY WASTEWATER AUTHORITY RECYCLED WATER MASTER PERMIT (PROJECT COMMITTEE 12)

The District's service area overlies portions of both the Santa Ana (Region 8) and San Diego (Region 9) Regional Water Quality Control Boards. South Orange County Wastewater Authority (SOCWA) currently administers the Recycled Water Master Permit for Region 9 for its member agencies. As of May 2018, IRWD's recycled water deliveries within the Region 9 boundary will be regulated under IRWD's existing Region 8 discharge order and IRWD will have no continuing financial obligations to SOCWA for recycled water permitting. Staff therefore recommends that the Board authorize the General Manager to notify SOCWA of its intent to withdraw from the Recycled Water Master Permit (Project Committee 12) effective July 1, 2018. On MOTION by Swan, seconded and carried (4-0) (Withers, Swan, LaMar, Withers and Matheis voting aye and Reinhart absent), THE BOARD AUTHORIZED THE GENERAL MANAGER TO NOTIFY THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY OF ITS INTENT TO WITHDRAW FROM THE RECYCLED WATER MASTER PERMIT (PROJECT COMMITTEE 12) EFFECTIVE JULY 1, 2018.

LANDSCAPE AND IRRIGATION CONTRACT TWO-YEAR CONTRACT EXTENSION

General Manager Cook reported that the landscape and irrigation contract for the District's properties expires on March 31, 2018 which allows for two one-year extensions at the discretion of the District. Since the scope of work for the 2015 contract was defined, the District has also added nine locations which require regular maintenance including: 1) San Joaquin Reservoir Standby House, 2) Peters Canyon Pump Station, 3) Bee Canyon Pump Station, 4) Hidden Hills Pump Station, 5) Cienega pilot site, 6) Baker Water Treatment Plant, 7) Bonita Canyon Pump Station, 8) Operation's monument signage area, and 9) Dyer Road Well No. 16. Director Withers said that this item was reviewed by the Engineering and Operations Committee on February 20, 2018, and the Committee concurs with the extension of the current contract. On MOTION by Swan, seconded and carried (4-0) (Withers, Swan, LaMar and Matheis voting aye and Reinhart absent), THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A TWO-YEAR CONTRACT EXTENSION WITH TROPICAL PLAZA NURSERY, INC. FOR A TOTAL OF \$985,856.28, EFFECTIVE APRIL 1, 2018.

SAN JOAQUIN MARSH AND NATURAL TREATMENT SYSTEM FACILITIES THREE-YEAR LANDSCAPE MAINTENANCE SERVICES CONTRACT

General Manager Cook reported that current operation and maintenance needs within the San Joaquin Marsh, San Joaquin Marsh Campus, Peters Canyon Water Capture and Reuse Pipeline (Peters Canyon), and Natural Treatment System (NTS) facilities require landscape maintenance contract services to control and remove native and non-native vegetation along with landscape

and irrigation maintenance. Mr. Cook said that the contract includes 10 new NTS sites that the District acquired since the previous contract of 32 sites encompassing a total area of 523 acres. He said that staff initiated the competitive bid process and based on the bids received, staff recommends that the Board authorize the General Manager to execute the landscape maintenance contract with LandCare for three years for the NTS and the San Joaquin Marsh, and with Habitat Restoration Sciences for Peters Canyon.

Director Withers said that this item was reviewed and approved by the Engineering and Operations Committee on February 20, 2018. On MOTION by Swan, seconded and carried (4-0) (Withers, Swan, LaMar and Matheis voting aye and Reinhart absent), THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONTRACT WITH LANDCARE IN THE AMOUNT OF \$2,616,874.33 AND WITH HABITAT RESTORATION SCIENCES IN THE AMOUNT OF \$42,792 FOR LANDSCAPE MAINTENANCE CONTRACT SERVICES FOR A THREE-YEAR TERM.

CALIFORNIA WATERFIX PARTICIPATION THROUGH DUDLEY RIDGE WATER DISTRICT

General Manager Cook reported that IRWD owns approximately 883 acres of land within Dudley Ridge Water District (DRWD). Associated with this land, IRWD has the right to the use of 1,748 acre-feet per year (AFY) of State Water Project (SWP) Table A water. DRWD has requested that its landowners make a selection of their desired level of participation in the proposed California WaterFix (WaterFix), which will upgrade infrastructure associated with the SWP. DRWD will use the selections made by its landowners to negotiate DRWD's multi-level participation in the project. Staff has prepared a hydrologic and economic analysis of the various options that are being offered to DRWD landowners for participation in the WaterFix. Using a PowerPoint presentation, Mr. Dane Johnson presented the results of the analysis for IRWD's participation in the WaterFix. He reviewed four options for participation, a description of the analysis performed, expected water supplies, expected cost of water, alternative cost comparison, and recommendations. President Reinhart arrived at 5:30 p.m.

Director Swan said that he and Director LaMar reviewed the item late last week, and recommended Option 3. On MOTION by Swan, seconded and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO SUBMIT AN ELECTION TO FULLY PARTICIPATE IN THE CALIFORNIA WATERFIX THROUGH DUDLEY RIDGE WATER DISTRICT AT THE 100% LEVEL, WHICH WILL BE SUBJECT TO CHANGE BY IRWD AT A LATER DATE BASED ON NEW SUBSTANTIVE INFORMATION.

GENERAL COUNSEL REQUEST FOR MUTUAL SEPARATION

General Manager Cook reported that on March 6, 2018, IRWD General Counsel Nossaman sent a letter to the IRWD Board and staff suggesting withdrawal from its representation of IRWD as General Counsel. Mr. Cook said that this letter also outlined a number of "transitional items" as the District moves to new legal counsel. He said that Nossaman has offered to work with IRWD staff during this transition to address these items. The Professional Services Agreement between IRWD and Nossaman includes a 10-day notification to end this agreement. On MOTION by Swan, seconded and unanimously carried, THE BOARD ACCEPTED NOSSAMAN LLP'S OFFER FOR MUTUAL SEPARATION, WITH SEPARATION EFFECTIVE MARCH 23, 2018.

OTHER BUSINESS

GENERAL MANAGER'S REPORT

General Manager Cook reported that the permit amendment for MWRP is moving forward as planned.

Mr. Cook said that the agreement with the City of Newport Beach relative to the diversion of recycled water to the San Diego Creek watershed was executed. He thanked both Ms. Lyndy Lewis and Mr. Ian Swift for their efforts.

Mr. Cook said that Ms. Leslie Bonkowski celebrated her 40th anniversary at the District last week.

DIRECTORS' COMMENTS

Director Matheis reported on her attendance at an ACWA Summit in Sacramento and a Public Policy group meeting.

Director Withers reported on his attendance at an ISDOC Quarterly luncheon meeting with Director Matheis where they discussed Special District funding. He said he also attended an OCSD Committee meeting, and last Friday, a Federal Affairs meeting at MWD. He reported that tomorrow he will be attending an OCSD Legislative and Public Affairs Committee meeting, and this Thursday, a LAFCO Commissioners' meeting.

Director Swan reported on his attendance at an OCWD Board meeting and Committee meeting, an ACWA energy meeting in Sacramento, an ACC-OC Chapter meeting, a meeting he and Director Reinhart attended with MNWD, and a CASA and ACWA conference in Washington, DC. He noted the passing of Mr. Bill Steele, a former employee of the Bureau of Reclamation, and asked that the Board meeting be adjourned in his memory.

Director Reinhart reported on his attendance at SOCWA meetings, a South County meeting, and MWDOC meetings.

DIRECTORS' COMMENTS (CONTINUED)

Director LaMar reported on his attendance at an ACWA conference in Washington, DC and an ACWA Board Strategic Planning Session.

CLOSED SESSION

Vice President LaMar said the following Closed Sessions will be held this evening:

CONFERENCE WITH LEGAL COUNSEL—ANTICIPATED LITIGATION -
Significant exposure to litigation pursuant to Government Code Section 54956.9(d)(2).
(One (1) potential case);

PUBLIC EMPLOYEE PERFORMANCE EVALUATION — Pursuant to
Government Code Section 54957(b)

Title: Legal Counsel;

PUBLIC EMPLOYEE DISCIPLINE/DISMISSAL/RELEASE — Pursuant to Government Code Section 54957(b); and

PUBLIC EMPLOYEE APPOINTMENT — Pursuant to Government Code Section 54957(b)

Title: Legal Counsel

OPEN SESSION

Following the Closed Session, the meeting was reconvened with three Directors present. Vice President LaMar said that relative to CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION - Significant exposure to litigation pursuant to Government Code Section 54956.9(d)(2). (One (1) potential case), there was no action to report.

Vice President LaMar said that relative to PUBLIC EMPLOYEE PERFORMANCE EVALUATION - Pursuant to Government Code Section 54957(b) Title: Legal Counsel, there was no action to report.

Vice President LaMar said that relative to PUBLIC EMPLOYEE DISCIPLINE/DISMISSAL/RELEASE - Pursuant to Government Code Section 54957(b), there was no action to report.

Vice President LaMar said that a Closed Session was held relative to PUBLIC EMPLOYEE APPOINTMENT pursuant to Government Code Section 54957(b) Title: Legal Counsel. He said that by a MOTION by Swan, seconded by LaMar, and carried (Swan, LaMar, Matheis, and Reinhart voting aye and Withers voting no (4-1), THE FIRM OF LEWIS BRISBOIS WAS APPOINTED AS GENERAL COUNSEL FOR THE IRVINE RANCH WATER DISTRICT EFFECTIVE MARCH 12, 2018.

ADJOURNMENT

Vice President LaMar adjourned the meeting in memory of Mr. Bill Steele, long-time former employee of the Bureau of Reclamation.

APPROVED and SIGNED this 26th day of March, 2018.

President, IRVINE RANCH WATER DISTRICT

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Claire Hervey Collins, Legal Counsel – Lewis Brisbois

March 26, 2018

Prepared by: H. Cho/M. Cortez

Submitted by: K. Burton *KLB*

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

CONSENT CALENDAR

UC IRVINE COOLING TOWER RECYCLED WATER CONVERSION PIPELINE PHASE II BUDGET INCREASE AND CONTRACT CHANGE ORDER

SUMMARY:

The UC Irvine Cooling Tower Recycled Water Conversion Pipeline Phase II project will construct approximately 3,000 feet of 12- and 16-inch recycled water pipeline from the intersection of University Drive and California Avenue to Mesa Road. The project encountered significant challenges during construction including unknown utility conflicts and extremely hard soil conditions causing major changes. Staff recommends that the Board:

- Authorize a budget increase in the amount of \$357,000, from \$1,102,500 to \$1,459,500, for project 07101, and in the amount of \$110,000, from \$738,100 to \$848,100, for project 07102, and
- Authorize the General Manager to execute Contract Change Order (CCO) No. 2 with Sully-Miller Contracting Company in the amount of \$237,088.70 for the UCI Cooling Tower Recycled Water Conversion Pipeline Phase II project.

BACKGROUND:

The UCI Cooling Tower Conversion Recycled Water Pipeline Phase II project will construct approximately 3,000 feet of 12- and 16-inch pipe to convert the water supply of the UCI Cooling Tower system from domestic to recycled water, as well as provide recycled water to the planned growth in the University Research Park area. The conversion of the cooling tower will save up to 50 million gallons of domestic water annually. This pipeline will connect to an existing 16-inch pipe in California Avenue just south of the street intersection with University Drive. The District awarded the construction contract to Sully-Miller Contracting Company on September 11, 2017 and the pipeline is currently under construction. The project site is shown in Exhibit "A".

Contract Change Order:

During pipe installation activities, Sully-Miller encountered incorrectly marked and unknown utilities that belonged to UC Irvine in the intersection of Academy Way and Peltason Drive. The utilities conflicted with the designed pipeline alignment and include three electrical concrete encased duct banks, a 12-inch water pipe, a 6-inch gas main, and a 15-inch sewer. The proposed recycled water pipeline was required to cross each of these utilities in succession. During trench excavation, the center electrical duct bank was found to be five feet wide and over 64 inches tall, not three feet wide by 36 inches tall as the other two electrical duct banks. Vertically, the top of the large duct bank is only 18 inches below finished pavement surface and the bottom is roughly seven feet below grade; the 15-inch sewer is located approximately 18 inches below the large

duct bank. Due to the series of utilities and the lowest utility (15-inch sewer) being over 12 feet below ground, the pipeline cannot be safely constructed by the open trench method in the design alignment.

To verify an alternative pipeline alignment, staff directed Sully-Miller to complete potholes in the intersection. Sully-Miller encountered a large concrete structure just below the surface of the asphalt, which appeared to be covering the numerous utilities in the intersection. A fourth electrical duct bank was also in the vicinity. Consequently, staff asked Sully-Miller to provide a proposal to install the pipeline via jack and bore method beneath the existing utilities. Staff negotiated a cost of \$70,980 for the bore and pipe-jacking portion of the work, while the excavation and backfilling of the boring and receiving pits would be performed on a time and materials basis. CCO No. 2 also includes additional construction work as described in the staff report shown in Exhibit “B”. Staff recommends the approval of CCO No. 2 in the amount of \$237,088.70 with Sully-Miller, which is attached as Exhibit “C”. Due to the size and depth of the bore pit, UC Irvine is requiring the work to be performed during spring break, March 24 to April 1. UC Irvine will also allow the full closure of the street intersection to traffic for bore and jack construction activities. Staff anticipates that construction of the entire project will be completed by April 25.

FISCAL IMPACTS:

Projects 07101 and 07102 are included in the FY 2017-18 Capital Budget. A budget increase is required to fund the construction and engineering support services for the project as shown in the table below.

Project No.	Current Budget	Addition <Reduction>	Total Budget
07101	\$1,102,500	\$357,000	\$1,459,500
07102	\$738,100	\$110,000	\$848,100
Total	\$1,840,600	\$467,000	\$2,307,600

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, Section 15303, which states new, small facilities or structures; installation of small new equipment and facilities in small structures; water main, sewage, electrical, gas and other utility extensions, including street improvements of reasonable length to serve such construction, are exempt. As the lead agency, UC Irvine filed a Notice of Exemption with the California State Clearinghouse on February 17, 2017.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 20, 2018.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE IN THE AMOUNT OF \$357,000, FROM \$1,102,500 TO \$1,459,500, FOR PROJECT 07101, AND IN THE AMOUNT OF \$110,000, FROM \$738,100 TO \$848,100, FOR PROJECT 07102; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE CONTRACT CHANGE ORDER NO. 2 WITH SULLY-MILLER CONTRACTING COMPANY IN THE AMOUNT OF \$237,088.70 FOR THE UC IRVINE COOLING TOWER RECYCLED WATER CONVERSION PIPELINE PHASE II, PROJECTS 07101 AND 07102.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Staff Report
- Exhibit "C" – Contract Change Order No. 2

EXHIBIT "A"



EXHIBIT “B”

Staff Report For UC Irvine Cooling Tower Recycled Water Conversion Pipeline Phase II Contract Change Order No. 2

March 20, 2018

This staff report summarizes Sully-Miller Contracting Company Contract Change Order No. 2 documenting the work added and deleted to the project scope of work. Contract Change Order No. 2 includes the following items:

1. Repair of UCI’s 12-inch Domestic Water Pipe and Additional Potholing: UCI’s 12-inch domestic water pipe in Peltason Drive was hit during pipeline installation because the pipeline was mismarked nine feet from its actual location by UCI’s utility locator. The cost to repair the pipe is \$16,558. Due to uncertainty of the USA markings in Peltason, staff asked the contractor to pothole the utility crossings on Peltason Drive near the walking path to Mesa Road. After the many utilities were encountered at the intersection of Peltason and Academy, staff asked the contractor to pothole further into the intersection to see if there is a better pipeline alignment, but there was not. Each night of potholing was \$8,078. The total cost of the additional work is \$32,714. The additional time required for the work is three calendar days. During project planning, IRWD and UCI agreed that IRWD will pay for the cost of the pipeline to the Cooling Tower connection points and UCI will pay for the cost of the on-site conversion to recycled water. After the unknown utilities were encountered, IRWD and UCI met to review the utilities and costs for repair and re-routing the pipe, and both parties agreed that IRWD will pay for the cost of the pipeline.
2. Bore and Jack at the Intersection of Peltason and Academy: A 65-foot bore and jack pipeline installation is required due to the many conflicting utilities in the pipeline alignment and the 15-foot depth of the proposed pipeline. The carrier pipe is 12-inch PVC C900, and the casing pipe is 20-inch steel. UCI is requiring the work to be performed during its spring break, March 24 to April 30; UCI will also allow the full closure of the street intersection to traffic for bore and jack construction activities. Staff negotiated a cost of \$70,980 for the bore and jack. This price excludes the cost of excavating and backfilling the bore and receiving pits, which will be completed on a time and materials basis and included in the project’s final CCO. The additional time required for the work is seven calendar days.
3. Additional Work in Peltason Drive Due to Hard Soil Conditions and Conflicting Utilities: Sully-Miller encountered hard soil and rock conditions in Peltason Drive, which slowed production down to 20 feet of pipe per day. Work on the street was extended by two weeks. In addition, the original pipeline alignment required re-routing due to the conflicting utilities. Additional work was required to sawcut and grind the asphalt for the new pipe alignment when the utility conflicts were encountered. The additional cost is \$69,998.78. The additional time required for the work is 10 calendar days.

**Staff Report For UC Irvine Cooling Tower Recycled Water Conversion Pipeline Phase II
Contract Change Order No. 2**

March 20, 2018

Page 2

4. Two 11-degree Bends on Pipe Alignment in California: The addition of two 11-1/4-degree bends were required and installed on the 16-inch pipe in California. The additional cost was \$2,860.00. No additional work days are required for this item.
5. Two 45-degree Bends on Pipe Alignment in Peltason: Two 45-degree bends were installed on the 12-inch pipe in Peltason due to utility conflicts. The additional cost was \$3,515. No additional work days are required for this item.
6. 8-inch Cooling Tower Connection Pipe Extension: The pipe connection to the UCI Cooling Tower at Station 45+48 was extended 25 feet to the chain link fence. The unit price is the bid price of \$332/foot. The additional cost was \$8,300. The additional work time required for the work is two calendar days.
7. Additional Hard Soil Conditions on February 11, 2018: Hard soil conditions were encountered on February 11, 2018 slowing production down to 40 feet of pipe installed per day. The additional cost was \$6,118.92. One additional work day was required for this item.
8. Additional Pipe Installation Costs in California: Additional work was required to re-install the 16-inch PVC pipe in California. The pipe was installed with the pipe joints inserted past the over insertion line on the pipe. The inspector did not report this until after the pipe was backfilled. The contractor agreed to excavate the pipe and correct the pipe installation. The contractor estimated three weeks of additional work to complete the correction which is estimated to cost approximately \$150,000. Staff agreed to a cost sharing with IRWD contributing \$42,602 to complete the work. Fifteen additional work days were required for this item.

The total amount of Contract Change Order No. 2 is \$237,088.70. The total additional work time required is 38 calendar days revising the project completion date from March 8, 2018 to April 15, 2018.

CONTRACT CHANGE ORDER

EXHIBIT "C"



Irvine Ranch Water District

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

C.O. No. 2

Final

Project No. 07101 & 07102

UCI Cooling Tower RW Conversion Pipeline Phase 2

Project Title

Date: March 13, 2018

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
1. See attached staff report for additional work items	\$237,088.70	\$-0-	38
2. Non-compensatory contract time extension due to rain on 1/8/18, 1/9/18, 2/12/18	\$-0-	\$-0-	3
Project completion date is revised from March 8, 2018 to April 15, 2018.			
TOTAL	\$237,088.70	\$-0-	41

DAYS ±

1. NET AMOUNT THIS CHANGE ORDER	=	\$237,088.70	41
2. ORIGINAL CONTRACT AMOUNT	=	\$1,117,500.00	150
3. TOTAL PREVIOUS CHANGE ORDER(S)	=	\$66,675.97	14
4. TOTAL BEFORE THIS CHANGE ORDER (2+ 3)	=	\$1,184,175.97	164
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4)	=	\$1,421,264.67	205

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

Two Hundred Thirty Seven Thousand Eighty Eight and 70/100 ----- **Dollars**

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

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

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

March 26, 2018

Prepared by: J. Davis/T. Fournier

Submitted by: R. Jacobson/C. Clary

Approved by: Paul A. Cook

CONSENT CALENDAR

FEBRUARY 2018 TREASURY REPORTS

SUMMARY:

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

- A. The Investment Summary Report for February 2018. This Investment Summary Report is in conformity with the 2018 Investment Policy and provides sufficient liquidity to meet estimated expenditures during the next six months, as outlined in Exhibit "A".
- B. The Summary of Fixed and Variable Debt as of February 28, 2018, as outlined in Exhibit "B".
- C. The Monthly Interest Rate Swap Summary as of February 28, 2018, as outlined in Exhibit "C".
- D. The February 28, 2018 Disbursement Summary of warrants 384168 through 385061, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$20,760,983 as outlined in Exhibit "D".
- E. The Summary of Payroll ACH payments in the total amount of \$1,816,518, as outlined in Exhibit "E".
- F. The Disclosure Report of Reimbursements to Board Members and Staff for February 2018, detailing payments or reimbursements for individual charges of \$100.00 or more per transaction, as outlined in Exhibit "F".

FISCAL IMPACTS:

As of February 28, 2018, the book value of the investment portfolio was \$380,122,168, with a 1.24% rate of return and a market value of \$376,809,083. Based on the District's December 31, 2017 quarterly real estate investment rate of return of 8.49%, the weighted average return for the fixed income and real estate investments was 3.31%.

As of February 28, 2018, the outstanding principal amount of fixed and variable rate debt was \$684,735,000. The monthly weighted average all-in variable rate was 1.20%. 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 3.55%.

As of February 28, 2018, the total notional amount of the interest rate swap portfolio was \$130 million of fixed payer swaps. Cash accrual in February from all swaps was negative \$421,066.

Payroll ACH payments totaled \$1,816,518, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for February totaled \$20,760,983.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

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

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE TREASURER'S INVESTMENT SUMMARY REPORT, THE SUMMARY OF FIXED AND VARIABLE RATE DEBT, THE MONTHLY INTEREST RATE SWAP SUMMARY FOR FEBRUARY 2018, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF; APPROVE THE FEBRUARY 2018 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$1,816,518 AND APPROVE THE FEBRUARY 2018 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 384168 THROUGH 385061 WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$20,760,983.

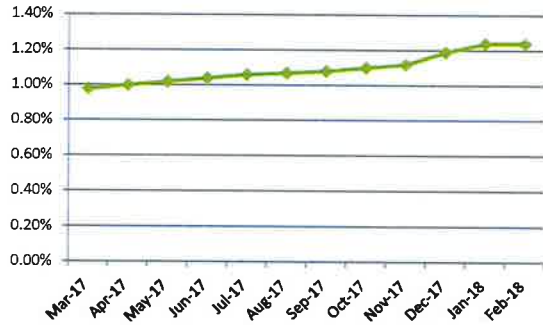
LIST OF EXHIBITS:

- 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

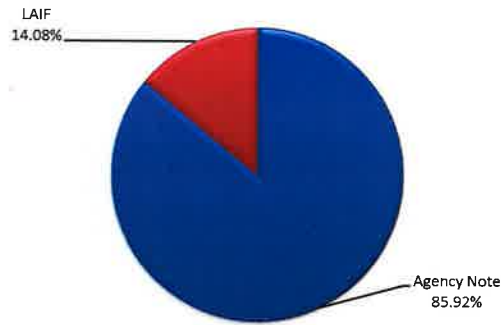
Exhibit "A"

Irvine Ranch Water District
Investment Portfolio Summary
February 2018

Monthly Fixed Income Yield



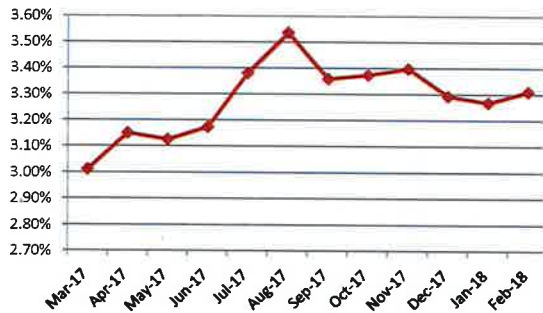
Portfolio Distribution



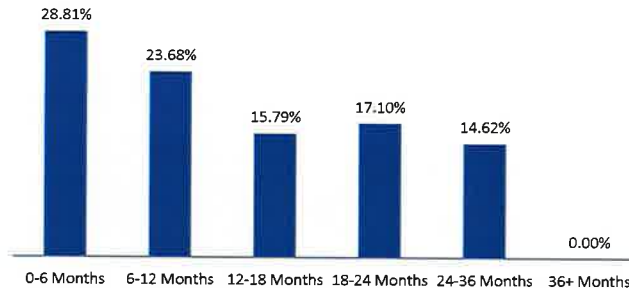
Investment Summary

Type	PAR	Book Value	Market Value
Agency Note	326,550,000	326,622,168	323,353,170
LAIF	53,500,000	53,500,000	53,455,913
Grand Total	380,050,000	380,122,168	376,809,083

Weighted Average Return Including Real Estate Portfolio



Maturity Distribution



Top Issuers

Issuer	PAR	% Portfolio
Fed Home Loan Bank	101,000,000	26.58%
Fed Natl Mortgage Assoc	80,550,000	21.19%
Fed Home Loan Mortgage Corp	80,000,000	21.05%
Fed Farm Credit Bank	65,000,000	17.10%
State of California Treasury - LAIF	53,500,000	14.08%
Grand Total	380,050,000	100%

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

02/28/18

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE ⁽¹⁾ 2/28/2018	UNREALIZED ⁽²⁾ GAIN/(LOSS)
08/23/17			03/01/18		LAIF	State of California Tsy.	\$53,500,000		1.200%	\$53,500,000.00	\$53,500,000.00	53,455,913.38	(44,086.62)
03/23/16	N/A	N/A	03/23/18	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.100%	0.908%	5,019,000.00	5,000,572.60	4,999,100.00	(1,472.60)
04/07/16	N/A	N/A	04/09/18	NA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.750%	0.790%	4,996,000.00	4,999,786.89	4,996,300.00	(3,486.89)
05/16/16	N/A	N/A	05/16/18	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.750%	0.801%	4,995,000.00	4,999,479.45	4,990,950.00	(8,529.45)
05/13/16	N/A	N/A	05/21/18	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.875%	0.768%	5,010,700.00	5,001,174.39	4,991,650.00	(9,524.39)
05/24/16	N/A	N/A	06/08/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	11,000,000	1.250%	0.995%	11,056,540.00	11,007,513.37	10,984,050.00	(23,463.37)
06/29/16	N/A	N/A	06/29/18	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	10,000,000	1.000%	0.679%	10,016,000.00	10,002,630.14	9,975,600.00	(27,030.14)
09/01/16	N/A	N/A	07/27/18	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.750%	0.928%	4,983,250.00	4,996,427.95	4,978,750.00	(17,677.95)
12/21/16	N/A	N/A	08/15/18	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.000%	1.245%	4,980,000.00	4,994,451.83	4,979,850.00	(14,601.83)
09/01/16	One Time	02/28/17	08/28/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.000%	1.000%	5,000,000.00	5,000,000.00	4,978,200.00	(21,800.00)
09/01/16	NA	NA	09/14/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.125%	0.916%	5,021,000.00	5,005,567.97	4,977,150.00	(28,417.97)
12/28/16	NA	NA	09/14/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.125%	1.225%	4,991,500.00	4,997,320.80	4,977,150.00	(20,170.80)
10/12/16	N/A	N/A	09/27/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	0.900%	0.952%	9,990,000.00	9,996,783.22	9,945,900.00	(50,883.22)
10/12/16	N/A	N/A	09/28/18	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.880%	0.942%	4,994,000.00	4,998,064.25	4,970,750.00	(27,314.25)
09/01/16	NA	NA	10/01/18	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.030%	0.925%	5,010,750.00	5,003,026.97	4,975,400.00	(27,626.97)
10/12/16	N/A	N/A	10/12/18	Aaa/NR/NR	FFCB - Note	Fed Farm Credit Bank	10,000,000	1.000%	1.041%	9,992,000.00	9,997,315.07	9,937,100.00	(60,215.07)
10/12/16	N/A	N/A	11/27/18	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	10,000,000	1.625%	0.956%	10,140,360.00	10,052,635.00	9,968,500.00	(84,135.00)
12/21/16	N/A	N/A	12/05/18	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.100%	1.319%	4,978,900.00	5,031,528.06	4,968,750.00	(62,778.06)
09/01/16	NA	NA	12/14/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.750%	0.941%	5,091,300.00	5,016,684.00	4,988,950.00	(27,734.00)
12/27/16	NA	NA	12/14/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.750%	1.320%	5,041,536.20	4,991,755.04	4,988,950.00	(2,805.04)
09/01/16	One Time	07/30/18	01/30/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.950%	1.009%	4,993,000.00	4,997,338.25	4,946,050.00	(51,288.25)
10/26/16	One Time	07/30/18	01/30/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.950%	1.035%	4,990,500.00	4,996,078.09	4,946,050.00	(50,028.09)
10/26/16	One Time	07/30/18	01/30/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.950%	1.040%	4,990,000.00	4,995,871.67	4,946,050.00	(49,821.67)
10/12/16	Continuous after	02/12/18	02/12/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	1.050%	1.093%	9,990,000.00	9,995,685.81	9,886,000.00	(109,685.81)
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	5,026,947.71	4,968,200.00	(58,747.71)
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	4,999,977.00	4,942,650.00	(57,327.00)
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	10,015,414.21	9,886,900.00	(128,514.21)
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	4,999,418.41	4,937,200.00	(62,218.41)
09/01/16	One Time	08/28/17	05/28/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.030%	1.048%	4,997,550.00	4,998,889.04	4,930,650.00	(68,239.04)
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	5,040,431.10	4,964,100.00	(76,331.10)
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	5,034,433.62	4,964,100.00	(70,333.62)
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	4,984,225.52	4,909,750.00	(74,475.52)
09/01/16	NA	NA	07/26/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.150%	1.180%	4,995,700.00	4,997,919.09	4,927,350.00	(70,569.09)
09/01/16	One Time	08/28/17	08/28/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.150%	1.160%	4,998,500.00	4,999,250.69	4,922,000.00	(77,250.69)
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	4,999,500.46	4,916,850.00	(82,650.46)
09/28/16	Quarterly	03/09/17	09/09/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.125%	1.142%	4,997,500.00	4,998,702.50	4,912,350.00	(86,352.50)
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	5,000,788.39	4,918,150.00	(82,638.39)
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	9,994,344.18	9,820,700.00	(173,644.18)
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	9,986,083.18	9,812,300.00	(173,783.18)

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

02/28/18

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE ⁽¹⁾ 2/28/2018	UNREALIZED ⁽²⁾ GAIN/(LOSS)	
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	5,000,422.60	4,905,650.00	(94,772.60)	
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	4,994,550.09	4,928,050.00	(66,500.09)	
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	4,991,291.21	4,919,450.00	(71,841.21)	
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	5,000,861.52	4,926,800.00	(74,061.52)	
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	4,989,374.47	4,931,550.00	(57,824.47)	
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	4,957,866.09	4,929,350.00	(28,516.09)	
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	4,989,065.00	4,918,800.00	(70,265.00)	
12/20/17	NA	NA	03/13/20	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	4.125%	1.940%	5,237,200.00	5,229,040.79	5,173,550.00	(55,490.79)	
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	4,973,420.81	4,902,850.00	(70,570.81)	
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	4,971,350.79	4,945,000.00	(26,350.79)	
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	4,989,023.05	4,909,050.00	(79,973.05)	
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	4,925,236.51	4,881,350.00	(43,886.51)	
12/12/17	One Time	09/28/18	09/28/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	2.000%	2.000%	5,000,000.00	5,000,000.00	4,940,950.00	(59,050.00)	
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	5,452,320.00	(97,680.00)	
12/13/17	Continuous after	08/23/17	11/23/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.770%	2.060%	4,958,750.00	4,959,823.42	4,896,800.00	(63,023.42)	
12/13/17	Quarterly	05/24/18	11/24/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.900%	2.023%	4,982,500.00	4,982,954.97	4,918,950.00	(64,004.97)	
11/30/17	NA	NA	11/24/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.850%	1.964%	4,983,550.00	4,984,923.35	4,917,850.00	(67,073.35)	
12/20/17	NA	NA	12/28/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.875%	2.023%	4,978,400.00	4,978,947.83	4,924,400.00	(54,547.83)	
SUB-TOTAL							<u>\$380,050,000</u>			<u>\$380,390,059.98</u>	<u>\$380,122,168.42</u>	<u>\$376,809,083.38</u>	<u>(\$3,313,085.04)</u>	
Petty Cash										3,400.00				
Ck Balance										(1,648,170.42)				
										<u>\$378,745,289.56</u>				

⁽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	\$284,200,000
Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps)	\$154,200,000
Investment Balance:	\$378,745,290
Investment to Variable Rate Debt Ratio:	246%
Portfolio - Average Number of Days To Maturity ⁽⁴⁾	391

	Investment Portfolio	Real Estate ⁽³⁾ Portfolio	Weighted Avg. Return
February	1.24%	8.49%	3.31%
January	1.24%	8.49%	3.28%
Change			0.03%

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

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

MATURITIES/SALES/CALLS

PURCHASES

DATE	SECURITY TYPE	PAR	YIELD	Settlement Date	Maturity Date	SECURITY TYPE	PAR	YIELD TO MATURITY
2/26/2018	FHLMC - NOTE	\$5,000,000	1.05%					

IRVINE RANCH WATER DISTRICT
SUMMARY OF MATURITIES

02/28/18

DATE	TOTAL	%	LAIF	Agency Notes	Agency Discount Notes	Collateral Deposit	US Treasury
03/18	\$58,500,000	15.39%	\$53,500,000	5,000,000			
04/18	5,000,000	1.32%		5,000,000			
05/18	10,000,000	2.63%		10,000,000			
06/18	21,000,000	5.53%		21,000,000			
07/18	5,000,000	1.32%		5,000,000			
08/18	10,000,000	2.63%		10,000,000			
09/18	25,000,000	6.58%		25,000,000			
10/18	15,000,000	3.95%		15,000,000			
11/18	10,000,000	2.63%		10,000,000			
12/18	15,000,000	3.95%		15,000,000			
01/19	15,000,000	3.95%		15,000,000			
02/19	10,000,000	2.63%		10,000,000			
SUB-TOTAL	\$199,500,000	52.49%	\$53,500,000	\$146,000,000			
13 Months - 3 YEARS							
3/01/19 - 5/31/2019	30,000,000	7.89%		30,000,000			
6/01/19 - 8/31/2019	30,000,000	7.89%		30,000,000			
9/01/2019 - 11/30/19	45,000,000	11.84%		45,000,000			
12/01/19 - 2/28/2020	20,000,000	5.26%		20,000,000			
3/01/2020 - 5/31/2020	15,000,000	3.95%		15,000,000			
6/01/2020 - 8/31/2020	10,000,000	2.63%		10,000,000			
9/01/2020 -12/31/2020	30,550,000	8.04%		30,550,000			
1/01/2021 -2/28/2021	-						
	-						
TOTALS	\$380,050,000	100.00%	\$53,500,000	\$326,550,000			

% OF PORTFOLIO

14.08%

85.92%

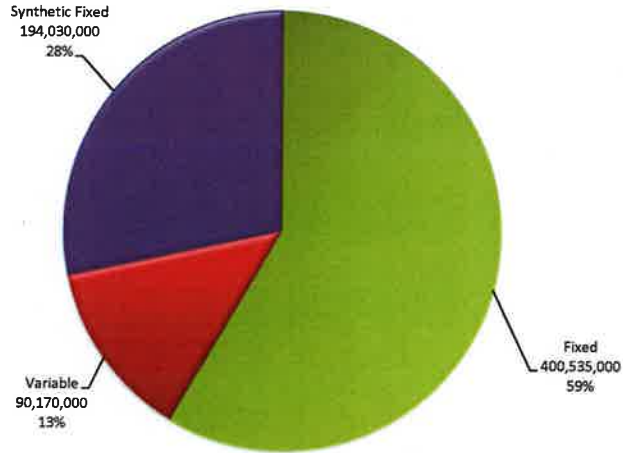
Irvine Ranch Water District
Summary of Real Estate - Income Producing Investments
12/31/2017

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

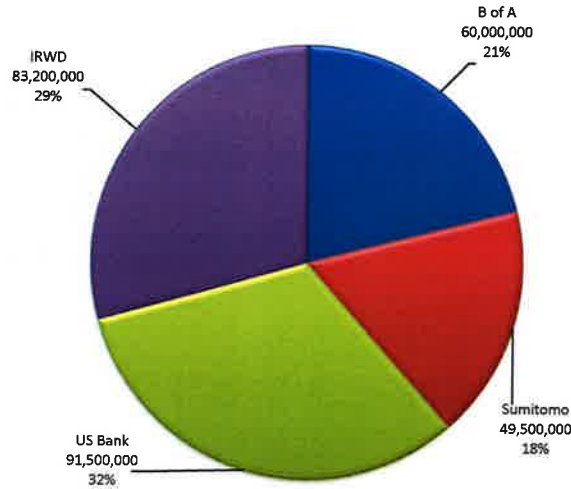
Exhibit "B"

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

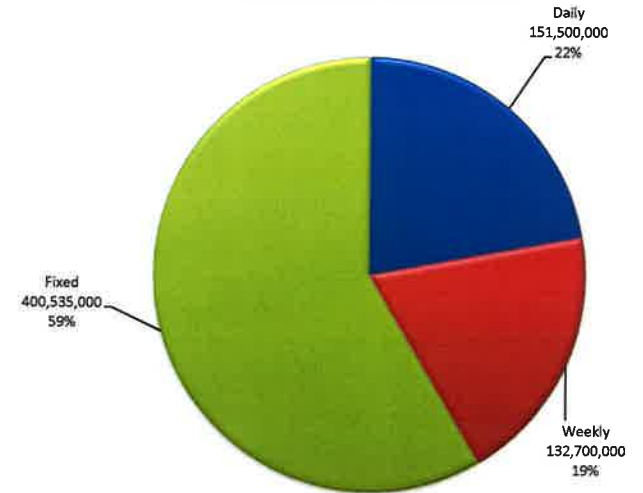
Current Debt Mix By Type



Letters of Credit / Support



Current Debt Rate Reset



Outstanding Par by Series

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

**IRVINE RANCH WATER DISTRICT
SUMMARY OF FIXED & VARIABLE RATE DEBT**

February-18

ITN
Daily
Weekly

GENERAL BOND INFORMATION							LETTER OF CREDIT INFORMATION						TRUSTEE INFORMATION											
VARIABLE RATE ISSUES	Issue Date	Maturity Date	Principal Payment Date	Payment Date	Original Par Amount	Remaining Principal	Letter of Credit	Reimbursement Agreement Date	L/C Exp. Date	MOODYS	S&P	FITCH	LOC Stated Amount	LOC Fee	Annual LOC Cost	Rmkt Agent	Reset	Rmkt Fees	Annual Cost	Trustee				
SERIES 1993	05/19/93	04/01/33	APR 1 (2014)	5th Bus. Day	\$38,300,000	\$31,500,000	US BANK	05/07/15	11/07/18	Aa3/VMIG1	AA-/A-1+	N/R	\$31,924,603	0.3300%	\$105,351	BAML	DAILY	0.10%	\$31,500	BANK OF NY				
SERIES 2008-A Refunding	04/24/08	07/01/35	JUL 1	5th Bus. Day	\$60,215,000	\$49,500,000	SUMITOMO	04/01/11	07/21/21	A1/P-1	A/A-1	A/F1	\$50,232,329	0.3150%	\$158,232	BAML	WED	0.07%	\$34,650	BANK OF NY				
SERIES 2011-A-1 Refunding	04/15/11	10/01/37	Oct 1	1st Bus. Day	\$60,545,000	\$49,920,000	N/A	N/A	N/A	Aa1/VMIG1	A-1+	AAA/F1+	N/A	N/A	N/A	Goldman	WED	0.13%	\$62,400	BANK OF NY				
SERIES 2011-A-2 Refunding	04/15/11	10/01/37	Oct 1	1st Bus. Day	\$40,370,000	\$33,280,000	N/A	N/A	N/A	Aa1/VMIG1	A-1+	AAA/F1+	N/A	N/A	N/A	Morgan S.	WED	0.13%	\$41,600	BANK OF NY				
SERIES 2009 - A	06/04/09	10/01/41	Oct 1	1st Bus. Day	\$75,000,000	\$60,000,000	US BANK	04/01/11	12/22/20	Aa2/VMIG 1	AA-/A-1+	AA/F1+	\$60,670,685	0.4100%	\$248,750	US Bank	DAILY	0.07%	\$42,000	US BANK				
SERIES 2009 - B	06/04/09	10/01/41	Oct 1	1st Bus. Day	\$75,000,000	\$60,000,000	B of A	04/01/11	07/15/19	A1/VMIG 1	A/A-1	A1/F1+	\$60,670,685	0.4000%	\$242,683	Goldman	DAILY	0.10%	\$60,000	US BANK				
\$349,430,000						\$284,200,000	SUB-TOTAL VARIABLE RATE DEBT						\$203,498,301			0.3711%		\$755,016		0.10%			\$272,150	
													(Wt. Avg)					(Wt. Avg)						
FIXED RATE ISSUES																								
2010 REFUNDING COPS	02/23/10	03/01/20	Mar -1	MAR/SEPT	\$85,145,000	\$5,390,000	N/A	N/A	N/A	Aa1	AAA	AAA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	BANK OF NY				
2010 GO Build America Taxable Bonds	12/16/10	05/01/40	MAY (2025)	MAY/NOV	\$175,000,000	\$175,000,000	N/A	N/A	N/A	Aa1	AAA	NR	N/A	N/A	N/A	N/A	N/A	N/A	N/A	US BANK				
2016 COPS	09/01/16	03/01/46	Mar -1	MAR/SEPT	\$116,745,000	\$116,745,000	N/A	N/A	N/A	NR	AAA	AAA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	US BANK				
SERIES 2016	10/12/16	02/01/46	Feb -1	FEB/AUG	\$103,400,000	\$103,400,000	N/A	N/A	N/A	NR	AAA	AAA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	BANK OF NY				
\$480,290,000						\$400,535,000	SUB-TOTAL FIXED RATE DEBT																	
\$829,720,000						\$684,735,000	TOTAL - FIXED & VARIABLE RATE DEBT																	

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

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

IRVINE RANCH WATER DISTRICT
SUMMARY OF DEBT RATES
Feb-18

Rmkt Agent	GOLDMAN		MORGAN STANLEY		MERRILL LYNCH		US BANK	
Mode	DAILY	WEEKLY	WEEKLY		DAILY	WEEKLY	DAILY	
Bond Issue	2009 - B	2011 A-1	2011 A-2		1993	2008-A	2009-A	
Par Amount	60,000,000	49,920,000	33,280,000		31,500,000	49,500,000	60,000,000	
Bank	BOFA	(SIFMA+7) (SIFMA -1 on 02/08)	(SIFMA+7) (SIFMA -1 on 02/08)		US BANK	Sumitomo	US BANK	
Reset		Wednesday	Wednesday			Wednesday		
2/1/2018	0.66%	1.15%		1.15%		0.64%	0.96%	0.70%
2/2/2018	0.59%	1.15%		1.15%		0.59%	0.96%	0.66%
2/3/2018	0.59%	1.15%		1.15%		0.59%	0.96%	0.66%
2/4/2018	0.59%	1.15%		1.15%		0.59%	0.96%	0.66%
2/5/2018	0.54%	1.15%		1.15%		0.54%	0.96%	0.60%
2/6/2018	0.49%	1.15%		1.15%		0.52%	0.96%	0.52%
2/7/2018	0.46%	1.15%		1.15%		0.47%	0.96%	0.49%
2/8/2018	0.48%	0.97%		0.97%		0.52%	0.87%	0.49%
2/9/2018	0.53%	0.97%		0.97%		0.58%	0.87%	0.53%
2/10/2018	0.53%	0.97%		0.97%		0.58%	0.87%	0.53%
2/11/2018	0.53%	0.97%		0.97%		0.58%	0.87%	0.53%
2/12/2018	0.63%	0.97%		0.97%		0.60%	0.87%	0.60%
2/13/2018	0.67%	0.97%		0.97%		0.61%	0.87%	0.67%
2/14/2018	0.72%	0.97%		0.97%		0.65%	0.87%	0.72%
2/15/2018	0.76%	0.99%		0.99%		0.71%	0.89%	0.77%
2/16/2018	0.78%	0.99%		0.99%		0.71%	0.89%	0.79%
2/17/2018	0.78%	0.99%		0.99%		0.71%	0.89%	0.79%
2/18/2018	0.78%	0.99%		0.99%		0.71%	0.89%	0.79%
2/19/2018	0.78%	0.99%		0.99%		0.71%	0.89%	0.79%
2/20/2018	0.79%	0.99%		0.99%		0.77%	0.89%	0.81%
2/21/2018	0.81%	0.99%		0.99%		0.79%	0.89%	0.82%
2/22/2018	0.83%	1.08%		1.08%		0.79%	0.95%	0.85%
2/23/2018	0.85%	1.08%		1.08%		0.79%	0.95%	0.86%
2/24/2018	0.85%	1.08%		1.08%		0.79%	0.95%	0.86%
2/25/2018	0.85%	1.08%		1.08%		0.79%	0.95%	0.86%
2/26/2018	0.86%	1.08%		1.08%		0.80%	0.95%	0.86%
2/27/2018	0.83%	1.08%		1.08%		0.83%	0.95%	0.86%
2/28/2018	0.82%	1.08%		1.08%		0.83%	0.95%	0.86%
Avg Interest Rates	0.69%	1.05%		1.05%		0.67%	0.92%	0.71%
Rmkt Fee	0.10%	0.13%		0.13%		0.10%	0.07%	0.07%
LOC Fee	0.40%					0.33%	0.32%	0.41%
All-In Rate	1.19%	1.17%		1.17%		1.10%	1.30%	1.20%
Par Amount		109,920,000		33,280,000		81,000,000		60,000,000

Interest Rate Mode	Percent of Total Variable Rate Debt	Par Outstanding	Weighted All-In Average Rate	Base Rate Average
Daily	53.31%	151,500,000	1.17%	0.70%
Weekly	46.69%	132,700,000	1.22%	1.00%
Fixed	100.00%	\$ 284,200,000	1.20%	0.84%
COPS 2010	1.35%	5,390,000	3.82%	
COPS 2016	29.15%	116,745,000	2.90%	
BABS 2010	43.69%	175,000,000	4.46%	(1)
SERIES 2016	25.82%	103,400,000	3.32%	
	100.00%	\$ 400,535,000	3.70%	
All-In Debt Rate Including \$130 Million Notional Amount of Swaps				3.55%

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

**IRVINE RANCH WATER DISTRICT
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL
February 28, 2018**

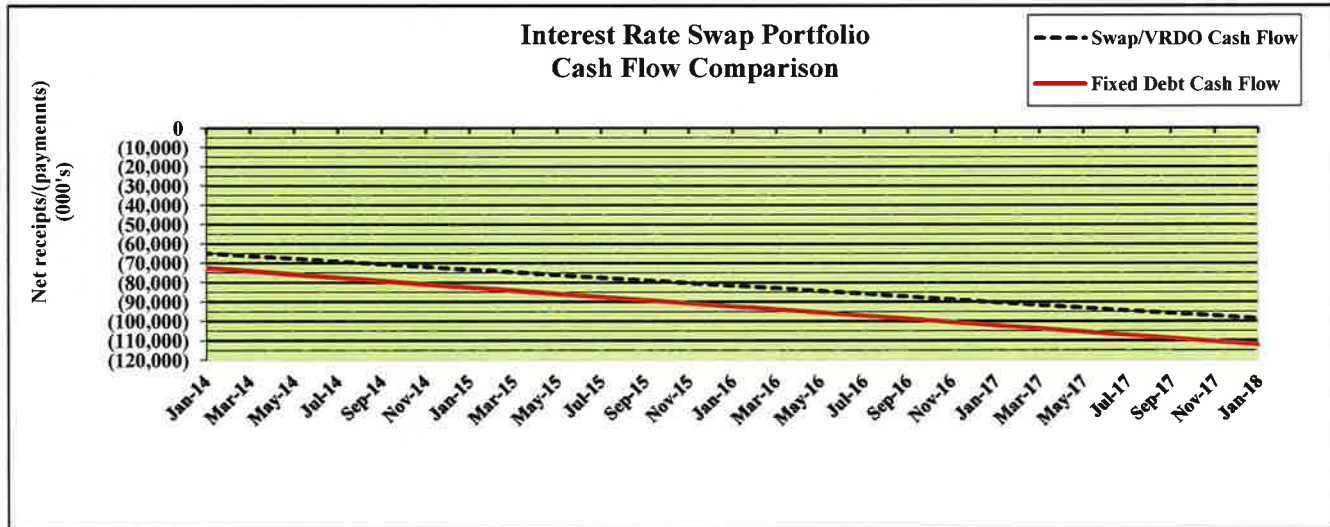
Exhibit "C"

	Prior Mo.	Current Mo.	12-Mo Avg
LIBOR Avg %	1.56%	1.60%	1.25%

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	1.3	ML	\$ 20,000,000	FXP	LIBOR	6.200%	(82,223)	(68,470)	\$ (641,062)	\$ (11,564,355)	\$ 19,007,568	\$ (992,432)	
6/4/2006	6/4/2019	1.3	CG	20,000,000	FXP	LIBOR	6.200%	(82,223)	(68,470)	(641,062)	(11,564,355)	19,008,277	(991,723)	
6/17/2006	6/17/2019	1.3	CG	30,000,000	FXP	LIBOR	6.140%	(121,975)	(101,530)	(949,494)	(17,152,151)	28,496,840	(1,503,160)	
3/10/2007	3/10/2029	11.0	ML	30,000,000	FXP	LIBOR	5.687%	(110,144)	(91,298)	(860,422)	(15,466,229)	21,808,451	(8,191,549)	
3/10/2007	3/10/2029	11.0	CG	30,000,000	FXP	LIBOR	5.687%	(110,144)	(91,298)	(860,422)	(15,466,229)	21,805,300	(8,194,700)	
Totals/Weighted Avgs		5.8		\$ 130,000,000			5.949%	\$ (506,709)	\$ (421,066)	\$ (3,952,461)	\$ (71,213,317)	\$ 110,126,436	\$ (19,873,564)	
Total Current Year Active Swaps				\$ 130,000,000				\$ (506,709)	\$ (421,066)	\$ (3,952,461)	\$ (71,213,317)	\$ 110,126,436	\$ (19,873,564)	

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

Current Fiscal Year - Total Swaps								Cash Flow				Mark to Market	
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				\$ 130,000,000				\$ (506,709)	\$ (421,066)	\$ (3,952,461)	\$ (71,213,317)	\$ 110,126,436	\$ (19,873,564)



Cash Flow Comparison	
Synthetic Fixed vs. Fixed Rate Debt	
Cash Flow to Date	
Synthetic Fixed =	\$99,233,257
Fixed Rate =	\$112,726,169
Assumptions:	
- Fixed rate debt issued at 5.10% in Jun-06, and 4.93% in Mar-07 (estimated TE rates - Bloomberg)	
- 'Synthetic' includes swap cash flow + interest + fees to date	

Exhibit "D"

IRWD Ledger Upgrade

Void Payment Register

Report Date: 28-FEB-2018 13:49

Include Zero Amount Payments: Yes
 Display Payee Address: No

Period From: 01-FEB-18

Page: 1
 To: 28-FEB-18
 Date: Void Date

Bank: Bank of America N.A.

Branch: Los Angeles

Account: Checking AP and PR

Bank Account Currency: USD

Payment Currency: USD (US Dollar)

Payment Number	Date	Payee Name	Site	Address	Payment Amount	Void Date

Payment Document: IRWD CHECK						
380890	05-OCT-17	CHUNG, MARK	PAY		50.00	05-FEB-18
380902	05-OCT-17	DAN FRANCES LEANO	PAY		26.45	15-FEB-18
380987	05-OCT-17	PARK, SOHYON	PAY		12.69	15-FEB-18
381004	05-OCT-17	SADRI, SAASAAN	PAY		1.15	15-FEB-18
381039	05-OCT-17	WHITE, STEPHEN	PAY		15.70	05-FEB-18
381200	19-OCT-17	Sheilds, Patrick	HOME		6.00	20-FEB-18
381269	19-OCT-17	GAINQUICK LLC	PAY		74.82	15-FEB-18
382714	14-DEC-17	CENTRAL COAST POWER SERVICE	TEMPLETON		1,635.00	05-FEB-18

Payment Document Subtotal 1,821.81

Bank Account Subtotal 1,821.81

Report Count: 8

Report Total 1,821.81

Voids

*** End of Report ***

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 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								
384168		01-FEB-18	Bonkowski, Thomas J (Thomas)		27.30	05-FEB-18	27.30	Reconciled
384169		01-FEB-18	Fike, Ethan O (Ethan)		280.00	06-FEB-18	280.00	Reconciled
384170		01-FEB-18	Gomez, Braulio		105.00	02-FEB-18	105.00	Reconciled
384171		01-FEB-18	Hatch, Lauren		280.00			Negotiable
384172		01-FEB-18	LaMar, Steven E		768.71	12-FEB-18	768.71	Reconciled
384173		01-FEB-18	Matheis, Mary Aileen		1,796.93	06-FEB-18	1,796.93	Reconciled
384174		01-FEB-18	Oldewage, Lars D (Lars)		126.47	05-FEB-18	126.47	Reconciled
384175		01-FEB-18	Phuong, Sophia		111.33	06-FEB-18	111.33	Reconciled
384176		01-FEB-18	Reyes, Jennifer Russell		280.00	02-FEB-18	280.00	Reconciled
384177		01-FEB-18	Shinbashi, Allen		46.30	01-FEB-18	46.30	Reconciled
384178		01-FEB-18	Silva, Jose A (Jose)		90.00	12-FEB-18	90.00	Reconciled
384179		01-FEB-18	Withers, John B		106.64	06-FEB-18	106.64	Reconciled
384180		01-FEB-18	ACWA		1,500.00	05-FEB-18	1,500.00	Reconciled
384181		01-FEB-18	ADT SECURITY SERVICES INC		412.47	07-FEB-18	412.47	Reconciled
384182		01-FEB-18	AFLAC		7,358.06	05-FEB-18	7,358.06	Reconciled
384183		01-FEB-18	AFLAC		203.12	05-FEB-18	203.12	Reconciled
384184		01-FEB-18	AIR TECHNOLOGY LABORATORIES		503.00	09-FEB-18	503.00	Reconciled
384185		01-FEB-18	AM LEONARD INC		438.00	05-FEB-18	438.00	Reconciled
384186		01-FEB-18	AMAZON CAPITAL SERVICES, INC.		350.97	05-FEB-18	350.97	Reconciled
384187		01-FEB-18	ANTHONY N. LARSEN		400.00	06-FEB-18	400.00	Reconciled
384188		01-FEB-18	APEX LIFE SCIENCES, LLC		1,519.88	05-FEB-18	1,519.88	Reconciled
384189		01-FEB-18	AQUA BEN CORPORATION		8,401.26	05-FEB-18	8,401.26	Reconciled
384190		01-FEB-18	AQUA-METRIC SALES COMPANY		2,124.56	05-FEB-18	2,124.56	Reconciled
384191		01-FEB-18	ARCADIS U.S., INC.		81,502.96	09-FEB-18	81,502.96	Reconciled
384192		01-FEB-18	ARIZONA INSTRUMENT LLC		1,025.00	05-FEB-18	1,025.00	Reconciled
384193		01-FEB-18	AT&T		247.26	06-FEB-18	247.26	Reconciled
384194		01-FEB-18	AT&T		10.22	06-FEB-18	10.22	Reconciled
384195		01-FEB-18	AT&T		54.34	09-FEB-18	54.34	Reconciled
384196		01-FEB-18	ATHENS SERVICES		977.25	05-FEB-18	977.25	Reconciled
384197		01-FEB-18	AUTOZONE PARTS, INC.		48.24	05-FEB-18	48.24	Reconciled
384198		01-FEB-18	BANK OF AMERICA		25,139.55	07-FEB-18	25,139.55	Reconciled

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 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								
384199		01-FEB-18	BIG CANYON COAST, INC.		977.99	12-FEB-18	977.99	Reconciled
384200		01-FEB-18	BILL'S SWEEPING SERVICE INC		750.00	06-FEB-18	750.00	Reconciled
384201		01-FEB-18	BIOMAGIC INC		16,357.26	06-FEB-18	16,357.26	Reconciled
384202		01-FEB-18	BIOMERIEUX INC		119.64	05-FEB-18	119.64	Reconciled
384203		01-FEB-18	BLACK & VEATCH CORPORATION		257,071.20	09-FEB-18	257,071.20	Reconciled
384204		01-FEB-18	BOYD & ASSOCIATES		348.00	06-FEB-18	348.00	Reconciled
384205		01-FEB-18	BRITHINEE ELECTRIC		14,715.22	05-FEB-18	14,715.22	Reconciled
384206		01-FEB-18	BURTON, CANDACE		13.12	07-FEB-18	13.12	Reconciled
384207		01-FEB-18	CAGGIANO, KRISTEN		53.83	21-FEB-18	53.83	Reconciled
384208		01-FEB-18	CALATLANTIC HOMES		31.07	09-FEB-18	31.07	Reconciled
384209		01-FEB-18	CALIFORNIA BARRICADE RENTAL, INC.		9,320.66	08-FEB-18	9,320.66	Reconciled
384210		01-FEB-18	CANON FINANCIAL SERVICES, INC		4,602.59	05-FEB-18	4,602.59	Reconciled
384211		01-FEB-18	CANON SOLUTIONS AMERICA, INC.		2,311.38	05-FEB-18	2,311.38	Reconciled
384212		01-FEB-18	CENTRAL COAST POWER SERVICES, LLC		2,245.00	05-FEB-18	2,245.00	Reconciled
384213		01-FEB-18	CHEN, FANGI		69.86	06-FEB-18	69.86	Reconciled
384214		01-FEB-18	CHIEN, JAY		28.82	26-FEB-18	28.82	Reconciled
384215		01-FEB-18	CIRCUIT ASSEMBLY CORP		164.64	27-FEB-18	164.64	Reconciled
384216		01-FEB-18	CIRCUIT ASSEMBLY		24.57	27-FEB-18	24.57	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
384217	01-FEB-18		CORPORATION					
384218	01-FEB-18		CITY OF IRVINE		1,875.20	05-FEB-18	1,875.20	Reconciled
384219	01-FEB-18		CITY OF LAKE FOREST		15,000.00	12-FEB-18	15,000.00	Reconciled
384220	01-FEB-18		CITY OF NEWPORT BEACH		1,147.99	07-FEB-18	1,147.99	Reconciled
384221	01-FEB-18		CLARIS STRATEGY INC.		1,325.00	06-FEB-18	1,325.00	Reconciled
384222	01-FEB-18		COAST PLUMBING HEATING AND AIR, INC.		89.00	05-FEB-18	89.00	Reconciled
384223	01-FEB-18		COASTLINE EQUIPMENT COMPANY		1,469.71	05-FEB-18	1,469.71	Reconciled
384224	01-FEB-18		COLONIAL LIFE & ACCIDENT INSURANCE CO.		1,230.32	08-FEB-18	1,230.32	Reconciled
384224	01-FEB-18		COUNTY OF ORANGE		1,515.38	07-FEB-18	1,515.38	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-18 To 28-FEB-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 28-FEB-2018 13:47
 Page: 3

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
384225	01-FEB-18		COX COMMUNICATIONS, INC.		376.36	06-FEB-18	376.36	Reconciled
384226	01-FEB-18		CR & R INCORPORATED		91.03	06-FEB-18	91.03	Reconciled
384227	01-FEB-18		D & G SIGNS		883.55	09-FEB-18	883.55	Reconciled
384228	01-FEB-18		DETECTION INSTRUMENTS CORP		8,766.19	07-FEB-18	8,766.19	Reconciled
384229	01-FEB-18		DIRECTV INC		118.53	08-FEB-18	118.53	Reconciled
384230	01-FEB-18		DMS FACILITY SERVICES, INC.		18,251.93	07-FEB-18	18,251.93	Reconciled
384231	01-FEB-18		DOUGLAS ENVIRONMENTAL GROUP INC		1,250.00	05-FEB-18	1,250.00	Reconciled
384232	01-FEB-18		ECKERT, JUDITH		47.95	05-FEB-18	47.95	Reconciled
384233	01-FEB-18		ECO SERVICES LLC		20,303.54	08-FEB-18	20,303.54	Reconciled
384234	01-FEB-18		EI&C ENGINEERING INC		48,593.00	22-FEB-18	48,593.00	Reconciled
384235	01-FEB-18		ELITE EQUIPMENT, INC.		261.66	07-FEB-18	261.66	Reconciled
384236	01-FEB-18		ENTERPRISE RIDESHARE		14,925.98	12-FEB-18	14,925.98	Reconciled
384237	01-FEB-18		ENTERPRISE SECURITY, INC		200.00	05-FEB-18	200.00	Reconciled
384238	01-FEB-18		ENVIRONMENTAL RESOURCE ASSOCIATES		212.87	07-FEB-18	212.87	Reconciled
384239	01-FEB-18		EXCHANGE CLUB OF IRVINE		250.00	27-FEB-18	250.00	Reconciled
384240	01-FEB-18		EXECUTIVE LIGHTING & ELECTRIC		6,058.68	06-FEB-18	6,058.68	Reconciled
384241	01-FEB-18		FEDEX		361.86	05-FEB-18	361.86	Reconciled
384242	01-FEB-18		FIERRO, SERGIO D		3,324.99	05-FEB-18	3,324.99	Reconciled
384243	01-FEB-18		FIRST CHOICE SERVICES		609.52	07-FEB-18	609.52	Reconciled
384244	01-FEB-18		FISERV		17,663.71	07-FEB-18	17,663.71	Reconciled
384245	01-FEB-18		FISHER SCIENTIFIC COMPANY LLC		2,448.12	05-FEB-18	2,448.12	Reconciled
384246	01-FEB-18		FRONTIER CALIFORNIA INC.		271.26	09-FEB-18	271.26	Reconciled
384247	01-FEB-18		FUSCOE ENGINEERING, INC.		3,632.00	05-FEB-18	3,632.00	Reconciled
384248	01-FEB-18		GANAHL LUMBER CO.		197.99	09-FEB-18	197.99	Reconciled
384249	01-FEB-18		GAO, NA		9.52			Negotiable
384250	01-FEB-18		GE GRID SOLUTIONS, LLC		806.31	05-FEB-18	806.31	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-18 To 28-FEB-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 28-FEB-2018 13:47
 Page: 4

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
384251	01-FEB-18		GEI CONSULTANTS INC		12,841.77	08-FEB-18	12,841.77	Reconciled
384252	01-FEB-18		GJ AUTOMOTIVE EQUIPMENT CO INC		266.97	09-FEB-18	266.97	Reconciled
384253	01-FEB-18		GRAINGER		4,661.68	05-FEB-18	4,661.68	Reconciled
384254	01-FEB-18		GUIDA SURVEYING INC.		2,732.80	06-FEB-18	2,732.80	Reconciled
384255	01-FEB-18		HACH COMPANY		2,681.68	05-FEB-18	2,681.68	Reconciled
384256	01-FEB-18		HARDY & HARPER, INC.		24,558.00	06-FEB-18	24,558.00	Reconciled

384257	01-FEB-18	HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY	72.30	05-FEB-18	72.30	Reconciled
384258	01-FEB-18	HDR ENGINEERING INC	11,878.62	12-FEB-18	11,878.62	Reconciled
384259	01-FEB-18	HELPMATES STAFFING SERVICES	7,352.03	05-FEB-18	7,352.03	Reconciled
384260	01-FEB-18	HERNANDEZ, JUAN	48.18	06-FEB-18	48.18	Reconciled
384261	01-FEB-18	HILL BROTHERS CHEMICAL COMPANY	64,103.27	08-FEB-18	64,103.27	Reconciled
384262	01-FEB-18	HOLT, ANDY	217.21	05-FEB-18	217.21	Reconciled
384263	01-FEB-18	HOME DEPOT USA INC	19.36	06-FEB-18	19.36	Reconciled
384264	01-FEB-18	HOPKINS TECHNICAL PRODUCTS INC	6,435.16	06-FEB-18	6,435.16	Reconciled
384265	01-FEB-18	HORIZON TECHNOLOGY INC	385.23	06-FEB-18	385.23	Reconciled
384266	01-FEB-18	HYDROTECH ELECTRIC	350.00	05-FEB-18	350.00	Reconciled
384267	01-FEB-18	IBM CORPORATION	4,126.00	06-FEB-18	4,126.00	Reconciled
384268	01-FEB-18	IRVINE PACIFIC	190.59	13-FEB-18	190.59	Reconciled
384269	01-FEB-18	IRVINE PIPE & SUPPLY INC	3,315.56	05-FEB-18	3,315.56	Reconciled
384270	01-FEB-18	IRWD EMPLOYEES ASSOCIATION	1,400.00	09-FEB-18	1,400.00	Reconciled
384271	01-FEB-18	KAPIC, MAJA	23.66	05-FEB-18	23.66	Reconciled
384272	01-FEB-18	KATZ & ASSOCIATES, INC.	2,772.76	05-FEB-18	2,772.76	Reconciled
384273	01-FEB-18	KAYUGA SOLUTION INC	3,760.00	06-FEB-18	3,760.00	Reconciled
384274	01-FEB-18	KB HOMES	18.07	26-FEB-18	18.07	Reconciled
384275	01-FEB-18	KEAR, LAUREN	182.18	06-FEB-18	182.18	Reconciled
384276	01-FEB-18	KENNEDY/JENKS CONSULTANTS INC	31,839.40	09-FEB-18	31,839.40	Reconciled
384277	01-FEB-18	KENNY THE PRINTER	150.06	05-FEB-18	150.06	Reconciled
384278	01-FEB-18	KENT & AMY DAHLBERG	39,123.00	07-FEB-18	39,123.00	Reconciled

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 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								
384279	01-FEB-18	01-FEB-18	LA HABRA FENCE COMPANY INC		4,628.00	06-FEB-18	4,628.00	Reconciled
384280	01-FEB-18	01-FEB-18	LEE, LOUIS		60.74	14-FEB-18	60.74	Reconciled
384281	01-FEB-18	01-FEB-18	LEE, THOMAS		21.31	09-FEB-18	21.31	Reconciled
384282	01-FEB-18	01-FEB-18	LENNAR HOMES		596.05	06-FEB-18	596.05	Reconciled
384283	01-FEB-18	01-FEB-18	LI, LIANG		119.62	05-FEB-18	119.62	Reconciled
384284	01-FEB-18	01-FEB-18	LI, RUNKAI		14.80			Negotiable
384285	01-FEB-18	01-FEB-18	LITTLEJOHN, EDWARD		38.45	05-FEB-18	38.45	Reconciled
384286	01-FEB-18	01-FEB-18	LIU, XIZHI		56.08	05-FEB-18	56.08	Reconciled
384287	01-FEB-18	01-FEB-18	LO, CARRIE		10.19	23-FEB-18	10.19	Reconciled
384288	01-FEB-18	01-FEB-18	LSA ASSOCIATES INC		3,023.77	05-FEB-18	3,023.77	Reconciled
384289	01-FEB-18	01-FEB-18	LUBRICATION ENGINEERS, INC.		6,735.19	05-FEB-18	6,735.19	Reconciled
384290	01-FEB-18	01-FEB-18	MA, YIWEN		27.61	13-FEB-18	27.61	Reconciled
384291	01-FEB-18	01-FEB-18	MALONE, KIRI		48.34	22-FEB-18	48.34	Reconciled
384292	01-FEB-18	01-FEB-18	MC MASTER CARR SUPPLY CO		572.98	05-FEB-18	572.98	Reconciled
384293	01-FEB-18	01-FEB-18	MEL UNDERWOOD WATER TRUCKS & EQUIPMENT		845.00	06-FEB-18	845.00	Reconciled
384294	01-FEB-18	01-FEB-18	MICHAEL BAKER INTERNATIONAL, INC.		18,795.00	08-FEB-18	18,795.00	Reconciled
384295	01-FEB-18	01-FEB-18	MILLER, JUSTIN		51.58	08-FEB-18	51.58	Reconciled
384296	01-FEB-18	01-FEB-18	MISSION COMMUNICATIONS, LLC		227.40	06-FEB-18	227.40	Reconciled
384297	01-FEB-18	01-FEB-18	MO, QIRONG		36.13	16-FEB-18	36.13	Reconciled
384298	01-FEB-18	01-FEB-18	MOBILE MODULAR MANAGEMENT CORPORATION		1,018.24	06-FEB-18	1,018.24	Reconciled
384299	01-FEB-18	01-FEB-18	MODERN WATER INC		636.10	20-FEB-18	636.10	Reconciled
384300	01-FEB-18	01-FEB-18	MONTBURY HOA		980.00			Negotiable
384301	01-FEB-18	01-FEB-18	MSC INDUSTRIAL SUPPLY CO		739.49	09-FEB-18	739.49	Reconciled
384302	01-FEB-18	01-FEB-18	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		294.90	05-FEB-18	294.90	Reconciled
384303	01-FEB-18	01-FEB-18	NATURALWELL, LLC		1,210.00	05-FEB-18	1,210.00	Reconciled
384304	01-FEB-18	01-FEB-18	NATURES IMAGE INC		7,796.42	06-FEB-18	7,796.42	Reconciled
384305	01-FEB-18	01-FEB-18	NCH CORPORATION		1,427.55	07-FEB-18	1,427.55	Reconciled
384306	01-FEB-18	01-FEB-18	NINYO & MOORE		3,150.00	05-FEB-18	3,150.00	Reconciled
384307	01-FEB-18	01-FEB-18	NORTHERN SAFETY CO INC		233.08	05-FEB-18	233.08	Reconciled
384308	01-FEB-18	01-FEB-18	O'HAREN GOVERNMENT RELATIONS		6,500.00	06-FEB-18	6,500.00	Reconciled

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 6
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)

Payment Type: All

Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
384309		01-FEB-18	OLIN CORPORATION		6,459.54	05-FEB-18	6,459.54	Reconciled
384310		01-FEB-18	ONESOURCE		11,452.88	07-FEB-18	11,452.88	Reconciled
384311		01-FEB-18	DISTRIBUTORS LLC ORANGE COUNTY AUTO PARTS CO		47.94	05-FEB-18	47.94	Reconciled
384312		01-FEB-18	ORANGE COUNTY SANITATION DISTRICT		69,859.35	06-FEB-18	69,859.35	Reconciled
384313		01-FEB-18	ORANGE COUNTY SHERIFF'S OFFICE		62.50	08-FEB-18	62.50	Reconciled
384314		01-FEB-18	ORANGE COAST INTERFAITH SHELTER		37.25	12-FEB-18	37.25	Reconciled
384315		01-FEB-18	PAN, HUI		12.40	05-FEB-18	12.40	Reconciled
384316		01-FEB-18	PANDIT, RAKESH		54.21			Negotiable
384317		01-FEB-18	PARKHOUSE TIRE INC		215.50	06-FEB-18	215.50	Reconciled
384318		01-FEB-18	PARKWAY LAWNMOWER SHOP		120.21	06-FEB-18	120.21	Reconciled
384319		01-FEB-18	PAYNE & FEARS LLP		5,189.50	05-FEB-18	5,189.50	Reconciled
384320		01-FEB-18	PERKINELMER HEALTH SCIENCES INC		6,972.00	05-FEB-18	6,972.00	Reconciled
384321		01-FEB-18	PERS LONG TERM CARE		675.35	08-FEB-18	675.35	Reconciled
384322		01-FEB-18	PHENOVA, INC.		253.68	02-FEB-18	253.68	Reconciled
384323		01-FEB-18	PIVOT INTERIORS INC		69,036.32	07-FEB-18	69,036.32	Reconciled
384324		01-FEB-18	PRAXAIR DISTRIBUTION INC		896.20	05-FEB-18	896.20	Reconciled
384325		01-FEB-18	PRE-PAID LEGAL SERVICES INC		1,284.64	08-FEB-18	1,284.64	Reconciled
384326		01-FEB-18	PRESTIGE AUTO BODY EXPRESS		1,514.79	06-FEB-18	1,514.79	Reconciled
384327		01-FEB-18	PRO MOBILE AUTO DETAILLING		350.00	05-FEB-18	350.00	Reconciled
384328		01-FEB-18	PTI SAND & GRAVEL INC		548.54	08-FEB-18	548.54	Reconciled
384329		01-FEB-18	RESPONSE ENVELOPE, INC		2,618.33	06-FEB-18	2,618.33	Reconciled
384330		01-FEB-18	RINGCLEAR LLC		135.84	06-FEB-18	135.84	Reconciled
384331		01-FEB-18	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT		65,922.82	16-FEB-18	65,922.82	Reconciled
384332		01-FEB-18	RS HUGHES COMPANY, INC.		1,255.29	06-FEB-18	1,255.29	Reconciled
384333		01-FEB-18	S & J SUPPLY CO INC		11,545.62	07-FEB-18	11,545.62	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-18 To 28-FEB-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 28-FEB-2018 13:47
 Page: 7

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
384334		01-FEB-18	SANTA ANA BLUE PRINT		1,371.95	06-FEB-18	1,371.95	Reconciled
384335		01-FEB-18	SANTA MARGARITA FORD		67.31	06-FEB-18	67.31	Reconciled
384336		01-FEB-18	SCHINDLER ELEVATOR CORPORATION		202.95	07-FEB-18	202.95	Reconciled
384337		01-FEB-18	SHEA HOMES, LIMITED PARTNERSHIP		46.36			Negotiable
384338		01-FEB-18	SHERMAN, RICHARD M		20.58			Negotiable
384339		01-FEB-18	SIGMA-ALDRICH INC		380.83	06-FEB-18	380.83	Reconciled
384340		01-FEB-18	SITMATIC		1,465.47	05-FEB-18	1,465.47	Reconciled
384341		01-FEB-18	SMARTCOVER SYSTEMS		1,427.01	05-FEB-18	1,427.01	Reconciled
384342		01-FEB-18	SMOG TIME		59.75	06-FEB-18	59.75	Reconciled
384343		01-FEB-18	SOUTH BAY FOUNDRY, INC		3,431.84			Negotiable
384344		01-FEB-18	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT		1,011.48	13-FEB-18	1,011.48	Reconciled
384345		01-FEB-18	SOUTH COAST ANSWERING SERVICE		942.53	06-FEB-18	942.53	Reconciled
384346		01-FEB-18	SOUTH COAST WATER DISTRICT		2,842.39	07-FEB-18	2,842.39	Reconciled
384347		01-FEB-18	SOUTH ORANGE COUNTY WASTEWATER AUTHORITY		54,311.00	07-FEB-18	54,311.00	Reconciled
384348		01-FEB-18	SOUTHERN CALIFORNIA EDISON COMPANY		196,282.66	05-FEB-18	196,282.66	Reconciled
384349		01-FEB-18	SOUTHERN CALIFORNIA EDISON		123.15	02-FEB-18	123.15	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
384350	01-FEB-18		COMPANY SOUTHERN CALIFORNIA SECURITY CENTERS, INC.		1,186.18	14-FEB-18	1,186.18	Reconciled
384351	01-FEB-18		SOUTHERN COUNTIES LUBRICANTS LLC		2,686.81	05-FEB-18	2,686.81	Reconciled
384352	01-FEB-18		SPRESS, CHRISTY		35.38	07-FEB-18	35.38	Reconciled
384353	01-FEB-18		STANDARD PACIFIC HOMES		606.59	09-FEB-18	606.59	Reconciled
384354	01-FEB-18		STETSON ENGINEERS INC.		27,733.63	09-FEB-18	27,733.63	Reconciled
384355	01-FEB-18		SYNERGY COMPANIES		223,464.60	09-FEB-18	223,464.60	Reconciled
384356	01-FEB-18		TAKUSHI, MYRON		34.85	07-FEB-18	34.85	Reconciled
384357	01-FEB-18		TALLEY INC		225.78	05-FEB-18	225.78	Reconciled

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 8
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
384358	01-FEB-18		TESTAMERICA LABORATORIES, INC		420.00	08-FEB-18	420.00	Reconciled
384359	01-FEB-18		THE IRVINE COMPANY LLC		901.60	14-FEB-18	901.60	Reconciled
384360	01-FEB-18		TOLL BROS., INC.		37.42	20-FEB-18	37.42	Reconciled
384361	01-FEB-18		TRINIDAD, MARITHEL		48.30	08-FEB-18	48.30	Reconciled
384362	01-FEB-18		TROPICAL PLAZA NURSERY INC		7,738.00	05-FEB-18	7,738.00	Reconciled
384363	01-FEB-18		TRUCPARCO		1,071.35	12-FEB-18	1,071.35	Reconciled
384364	01-FEB-18		TYLER SABER AND RYAN TOWNLEY		82.08	16-FEB-18	82.08	Reconciled
384365	01-FEB-18		ULTRA SCIENTIFIC		1,921.50	06-FEB-18	1,921.50	Reconciled
384366	01-FEB-18		UNITED PARCEL SERVICE INC		66.89	05-FEB-18	66.89	Reconciled
384367	01-FEB-18		UNITED SITE SERVICES OF CALIFORNIA INC		630.35	08-FEB-18	630.35	Reconciled
384368	01-FEB-18		URBAN WATER INSTITUTE INC		1,125.00	09-FEB-18	1,125.00	Reconciled
384369	01-FEB-18		VERIZON WIRELESS SERVICES LLC		9,128.71	05-FEB-18	9,128.71	Reconciled
384370	01-FEB-18		VWR INTERNATIONAL, LLC		2,998.20	05-FEB-18	2,998.20	Reconciled
384371	01-FEB-18		WALTERS WHOLESAL ELECTRIC		581.91	06-FEB-18	581.91	Reconciled
384372	01-FEB-18		WARD, WILLIAM P JR.		615.56	05-FEB-18	615.56	Reconciled
384373	01-FEB-18		WAXIE'S ENTERPRISES, INC		2,131.52	05-FEB-18	2,131.52	Reconciled
384374	01-FEB-18		WESTERN EXTERMINATOR COMPANY		9,352.50	12-FEB-18	9,352.50	Reconciled
384375	01-FEB-18		WIRELESS WATCHDOGS, LLC		824.00	08-FEB-18	824.00	Reconciled
384376	01-FEB-18		WONDERLY, BILL		58.54	07-FEB-18	58.54	Reconciled
384377	01-FEB-18		XUE, HAN		47.59	06-FEB-18	47.59	Reconciled
384378	01-FEB-18		YONG, MARJORIE		76.67	06-FEB-18	76.67	Reconciled
384379	01-FEB-18		YORK INSURANCE SERVICES GROUP INC - CA		7,786.25	05-FEB-18	7,786.25	Reconciled
384380	01-FEB-18		YU, HAORAN		826.13			Negotiable
384381	01-FEB-18		ZHOU, YUJIE		541.14			Negotiable
384382	02-FEB-18		URBAN WATER INSTITUTE INC	LAKE FOREST	1,500.00	09-FEB-18	1,500.00	Reconciled
384383	02-FEB-18		TIMOTHY W. HOGAN PURCHASE_P AY		4,162.09	06-FEB-18	4,162.09	Reconciled

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 9
 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								
384384	06-FEB-18		JCI JONES CHEMICALS INC	TAMPA	5,466.49	12-FEB-18	5,466.49	Reconciled
384385	08-FEB-18		Bennett, Ray R (Ray)		357.42	13-FEB-18	357.42	Reconciled
384386	08-FEB-18		Borowski, Michael (Mike)		210.00	14-FEB-18	210.00	Reconciled
384387	08-FEB-18		Brown, Morgan		170.89	12-FEB-18	170.89	Reconciled
384388	08-FEB-18		Compton, Christine A		7.49	20-FEB-18	7.49	Reconciled
384389	08-FEB-18		Cortez, Malcolm A (Malcolm)		65.95	26-FEB-18	65.95	Reconciled
384390	08-FEB-18		Davis, Jennifer R		174.03	09-FEB-18	174.03	Reconciled

384391	08-FEB-18	(Jennifer) Dillhoefer, Edwin J (Ed)	50.00	12-FEB-18	50.00	Reconciled
384392	08-FEB-18	Moeder, Jacob J (Jacob)	35.00	20-FEB-18	35.00	Reconciled
384393	08-FEB-18	Nash, Joel	101.37	16-FEB-18	101.37	Reconciled
384394	08-FEB-18	Reed, James W (James)	33.49	21-FEB-18	33.49	Reconciled
384395	08-FEB-18	Reed, Megan A	1,584.13	12-FEB-18	1,584.13	Reconciled
384396	08-FEB-18	Reyes, Jennifer Russell	100.00	14-FEB-18	100.00	Reconciled
384397	08-FEB-18	Richardson, Kyle	107.74	16-FEB-18	107.74	Reconciled
384398	08-FEB-18	Robinson, Mitchell S	102.90	08-FEB-18	102.90	Reconciled
384399	08-FEB-18	Sosa, Ives (Ives)	80.00	13-FEB-18	80.00	Reconciled
384400	08-FEB-18	Velardes, Mattias J (Matt)	80.00	23-FEB-18	80.00	Reconciled
384401	08-FEB-18	Weghorst, Paul A (Paul)	74.68	12-FEB-18	74.68	Reconciled
384402	08-FEB-18	A.J. KLEIN, INC. T. DENATALE, B. GOLDNER	474.00	13-FEB-18	474.00	Reconciled
384403	08-FEB-18	ACCUSOURCE, INC.	504.80	20-FEB-18	504.80	Reconciled
384404	08-FEB-18	ADAM'S FALCONRY SERVICE, LLC	1,320.00	12-FEB-18	1,320.00	Reconciled
384405	08-FEB-18	ADS LLC	2,160.00	13-FEB-18	2,160.00	Reconciled
384406	08-FEB-18	AGILENT TECHNOLOGIES, INC.	3,087.85	12-FEB-18	3,087.85	Reconciled
384407	08-FEB-18	AIRGAS, INC.	1,097.59	12-FEB-18	1,097.59	Reconciled
384408	08-FEB-18	ALEXANDER'S CONTRACT SERVICES, INC.	116,161.39	15-FEB-18	116,161.39	Reconciled
384409	08-FEB-18	ALEXANDER, TODD	139.87			Negotiable
384410	08-FEB-18	ALL STAR GLASS	276.51	12-FEB-18	276.51	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-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 Account: Checking AP and PR Page: 10
 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								
384411	08-FEB-18	08-FEB-18	ALPHA TRAFFIC SERVICES, INC.		570.00	12-FEB-18	570.00	Reconciled
384412	08-FEB-18	08-FEB-18	ALSTON & BIRD LLP		1,111.50	13-FEB-18	1,111.50	Reconciled
384413	08-FEB-18	08-FEB-18	AM LEONARD INC		491.99	12-FEB-18	491.99	Reconciled
384414	08-FEB-18	08-FEB-18	AMAZON CAPITAL SERVICES, INC.		1,129.09	13-FEB-18	1,129.09	Reconciled
384415	08-FEB-18	08-FEB-18	APEX LIFE SCIENCES, LLC		1,519.88	13-FEB-18	1,519.88	Reconciled
384416	08-FEB-18	08-FEB-18	ASKEW, MARTHA		58.21	21-FEB-18	58.21	Reconciled
384417	08-FEB-18	08-FEB-18	ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA		34,364.22	20-FEB-18	34,364.22	Reconciled
384418	08-FEB-18	08-FEB-18	AT&T		3,947.42	13-FEB-18	3,947.42	Reconciled
384419	08-FEB-18	08-FEB-18	AUTOZONE PARTS, INC.		258.53	14-FEB-18	258.53	Reconciled
384420	08-FEB-18	08-FEB-18	AYERS, KARL		103.49	20-FEB-18	103.49	Reconciled
384421	08-FEB-18	08-FEB-18	AZTEC CONTAINER		8,566.13	12-FEB-18	8,566.13	Reconciled
384422	08-FEB-18	08-FEB-18	BATTERIES PLUS AND BATTERIES PLUS BULBS		1,116.83	14-FEB-18	1,116.83	Reconciled
384423	08-FEB-18	08-FEB-18	BAVCO BACKFLOW APPARATUS & VALVE COMPANY		180.17	13-FEB-18	180.17	Reconciled
384424	08-FEB-18	08-FEB-18	BECK, ZAWER		87.66	20-FEB-18	87.66	Reconciled
384425	08-FEB-18	08-FEB-18	BEHNKE, JERRY		58.96			Negotiable
384426	08-FEB-18	08-FEB-18	BELLEWICK COMMUNITY ASSOCIATION		200.00	21-FEB-18	200.00	Reconciled
384427	08-FEB-18	08-FEB-18	BERTHA HENRY REALTORS		45.23	20-FEB-18	45.23	Reconciled
384428	08-FEB-18	08-FEB-18	BIOMAGIC INC		17,019.12	23-FEB-18	17,019.12	Reconciled
384429	08-FEB-18	08-FEB-18	BIOQUIP PRODUCTS INC		659.00	13-FEB-18	659.00	Reconciled
384430	08-FEB-18	08-FEB-18	BOWIE, ARNESON, WILES & GIANNONE		375.00			Negotiable
384431	08-FEB-18	08-FEB-18	BROOKFIELD RESIDENTIAL		41.20	23-FEB-18	41.20	Reconciled
384432	08-FEB-18	08-FEB-18	BROWNING, SYLVIA		24.04			Negotiable
384433	08-FEB-18	08-FEB-18	BURKE, WILLIAMS & SORENSEN, LLP		2,120.95	13-FEB-18	2,120.95	Reconciled
384434	08-FEB-18	08-FEB-18	BUSINESS CNTR DR PARTNERS LP		11,802.68	15-FEB-18	11,802.68	Reconciled
384435	08-FEB-18	08-FEB-18	C WELLS PIPELINE MATERIALS INC		2,138.84	15-FEB-18	2,138.84	Reconciled
384436	08-FEB-18	08-FEB-18	CALATLANTIC HOMES		561.00			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-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 Account: Checking AP and PR Page: 11
 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								
384437		08-FEB-18	CALIFORNIA BARRICADE RENTAL, INC.		21,647.61	15-FEB-18	21,647.61	Reconciled
384438		08-FEB-18	CANON FINANCIAL SERVICES, INC		2,555.85	13-FEB-18	2,555.85	Reconciled
384439		08-FEB-18	CANON SOLUTIONS AMERICA, INC.		140.62	13-FEB-18	140.62	Reconciled
384440		08-FEB-18	CARPENTER, JOHN		293.80	14-FEB-18	293.80	Reconciled
384441		08-FEB-18	CCL CONTRACTING INC.		537,846.11	16-FEB-18	537,846.11	Reconciled
384442		08-FEB-18	CENTRAL COAST POWER SERVICES, LLC		12,435.00	15-FEB-18	12,435.00	Reconciled
384443		08-FEB-18	CERNIUS, WILLIAM		22.20	20-FEB-18	22.20	Reconciled
384444		08-FEB-18	CHAN, SAMUEL		41.71	13-FEB-18	41.71	Reconciled
384445		08-FEB-18	CHEM TECH INTERNATIONAL INC		18,271.44	20-FEB-18	18,271.44	Reconciled
384446		08-FEB-18	CHO DESIGN ASSOCIATES, INC		2,600.00	12-FEB-18	2,600.00	Reconciled
384447		08-FEB-18	CITY OF IRVINE		181.50	13-FEB-18	181.50	Reconciled
384448		08-FEB-18	CITY OF LAKE FOREST		4,521.29	27-FEB-18	4,521.29	Reconciled
384449		08-FEB-18	CITY OF TUSTIN		250.00	12-FEB-18	250.00	Reconciled
384450		08-FEB-18	CITY OF TUSTIN		33,091.60	14-FEB-18	33,091.60	Reconciled
384451		08-FEB-18	CIVIL SOURCE, INC.		23,895.00	22-FEB-18	23,895.00	Reconciled
384452		08-FEB-18	COMMERCIAL DOOR OF ORANGE COUNTY, INC.		4,212.59	12-FEB-18	4,212.59	Reconciled
384453		08-FEB-18	CONDINO, VINCENT		41.97			Negotiable
384454		08-FEB-18	CONSOLIDATED CONTRACTING SERVICES, INC.		483.20	22-FEB-18	483.20	Reconciled
384455		08-FEB-18	CONSUMERS PIPE & SUPPLY CO.		1,043.23	12-FEB-18	1,043.23	Reconciled
384456		08-FEB-18	COUNTY OF ORANGE		418.50	23-FEB-18	418.50	Reconciled
384457		08-FEB-18	CRESCENT CHEMICAL CO.		237.36	12-FEB-18	237.36	Reconciled
384458		08-FEB-18	CULLIGAN OF SANTA ANA		4,011.40	14-FEB-18	4,011.40	Reconciled
384459		08-FEB-18	DATASITE INC		6,832.00	20-FEB-18	6,832.00	Reconciled
384460		08-FEB-18	DDB ENGINEERING, INC.		1,527.63	13-FEB-18	1,527.63	Reconciled
384461		08-FEB-18	DELL MARKETING LP		22,000.29	15-FEB-18	22,000.29	Reconciled
384462		08-FEB-18	DENALI WATER SOLUTIONS LLC		5,124.82	15-FEB-18	5,124.82	Reconciled
384463		08-FEB-18	DOUGLAS, ANDREW		68.26			Negotiable
IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 12 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar) Payment Type: All Display Supplier Address: No								

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
384464		08-FEB-18	DUZMAN, CHERYL		46.46			Negotiable
384465		08-FEB-18	EAGLE COMMUNITY CREDIT UNION		415.99	15-FEB-18	415.99	Reconciled
384466		08-FEB-18	EAGLE PRINT DYNAMICS		5,827.23	12-FEB-18	5,827.23	Reconciled
384467		08-FEB-18	ECO SERVICES LLC		5,235.06	14-FEB-18	5,235.06	Reconciled
384468		08-FEB-18	ELFSTEN, CHARLES		346.84	13-FEB-18	346.84	Reconciled
384469		08-FEB-18	EMPLOYEE BENEFIT SPECIALISTS, INC.		1,165.00	13-FEB-18	1,165.00	Reconciled
384470		08-FEB-18	ENVIRONMENTAL RESOURCE ASSOCIATES		257.48	14-FEB-18	257.48	Reconciled
384471		08-FEB-18	EVANTEC CORPORATION		708.93	15-FEB-18	708.93	Reconciled
384472		08-FEB-18	EXECUTIVE LIGHTING & ELECTRIC		349.52	12-FEB-18	349.52	Reconciled
384473		08-FEB-18	FAIRBANK, MASLIN, MAULLIN, METZ & ASSOC. INC.		21,080.00	16-FEB-18	21,080.00	Reconciled
384474		08-FEB-18	FARIZAR, KATTI		34.33	26-FEB-18	34.33	Reconciled
384475		08-FEB-18	FARRELL & ASSOCIATES		215.70	16-FEB-18	215.70	Reconciled
384476		08-FEB-18	FEDEX		354.66	12-FEB-18	354.66	Reconciled
384477		08-FEB-18	FIDELITY SECURITY LIFE INSURANCE COMPANY		6,821.69	13-FEB-18	6,821.69	Reconciled
384478		08-FEB-18	FIRST CHOICE SERVICES		307.27	15-FEB-18	307.27	Reconciled
384479		08-FEB-18	FISHER SCIENTIFIC COMPANY LLC		10,726.07	16-FEB-18	10,726.07	Reconciled
384480		08-FEB-18	FLUID CONSERVATION SYSTEMS INC		279.36	12-FEB-18	279.36	Reconciled

384481	08-FEB-18	FUSCOE ENGINEERING, INC.		17,514.00	15-FEB-18	17,514.00	Reconciled
384482	08-FEB-18	GARCIA, LEONEL B		89.02	16-FEB-18	89.02	Reconciled
384483	08-FEB-18	GAREB, HAIFA		8.72	22-FEB-18	8.72	Reconciled
384484	08-FEB-18	GENERAL MONITORS INC.		21,474.19	16-FEB-18	21,474.19	Reconciled
384485	08-FEB-18	GHD INC.		8,410.75	12-FEB-18	8,410.75	Reconciled
384486	08-FEB-18	GRAINGER		3,147.76	12-FEB-18	3,147.76	Reconciled
384487	08-FEB-18	GRAVITEC SYSTEMS, INC		14,030.00	16-FEB-18	14,030.00	Reconciled
384488	08-FEB-18	GREAT PACIFIC EQUIPMENT INC		389.41	12-FEB-18	389.41	Reconciled
384489	08-FEB-18	GRIFFIN, MICKEY		56.51	21-FEB-18	56.51	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-18 To 28-FEB-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Report Date: 28-FEB-2018 13:47
 Page: 13
 Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
384490		08-FEB-18	H2O INNOVATION USA INC		2,633.65	13-FEB-18	2,633.65	Reconciled
384491		08-FEB-18	HACH COMPANY		36,870.88	20-FEB-18	36,870.88	Reconciled
384492		08-FEB-18	HARRINGTON INDUSTRIAL PLASTICS LLC		2,773.91	12-FEB-18	2,773.91	Reconciled
384493		08-FEB-18	HAZEN AND SAWYER HELP/SYSTEMS, LLC		1,126.13	14-FEB-18	1,126.13	Reconciled
384494		08-FEB-18	HELPMATES STAFFING SERVICES		11,804.31	16-FEB-18	11,804.31	Reconciled
384495		08-FEB-18	HELPMATES STAFFING SERVICES		22,417.00	14-FEB-18	22,417.00	Reconciled
384496		08-FEB-18	HIDDEN CANYON COMMUNITY ASSOCIATION		275.31	14-FEB-18	275.31	Reconciled
384497		08-FEB-18	HILL BROTHERS CHEMICAL COMPANY		21,257.51	16-FEB-18	21,257.51	Reconciled
384498		08-FEB-18	HOME DEPOT USA INC		435.89	14-FEB-18	435.89	Reconciled
384499		08-FEB-18	HSUEH, MICHELLE		451.85			Negotiable
384500		08-FEB-18	HUMANA INSURANCE COMPANY		73.80	13-FEB-18	73.80	Reconciled
384501		08-FEB-18	HUYNH, THUY LIEN		67.83			Negotiable
384502		08-FEB-18	HWANG, JUNG YOUNG		39.02			Negotiable
384503		08-FEB-18	HYDROTECH ELECTRIC		38,294.00	15-FEB-18	38,294.00	Reconciled
384504		08-FEB-18	IRVINE PACIFIC		294.72	13-FEB-18	294.72	Reconciled
384505		08-FEB-18	IRVINE PIPE & SUPPLY INC		2,347.65	12-FEB-18	2,347.65	Reconciled
384506		08-FEB-18	JIG CONSULTANTS		1,050.05	20-FEB-18	1,050.05	Reconciled
384507		08-FEB-18	JOHN MICHAEL COVAS		208.70			Negotiable
384508		08-FEB-18	K. HOVNIANIAN		141.74	14-FEB-18	141.74	Reconciled
384509		08-FEB-18	KAYUGA SOLUTION INC		13,600.00	16-FEB-18	13,600.00	Reconciled
384510		08-FEB-18	KENEFICK, DONNA		37.99	14-FEB-18	37.99	Reconciled
384511		08-FEB-18	KENT & AMY DAHLBERG		76,470.40	15-FEB-18	76,470.40	Reconciled
384512		08-FEB-18	KENT, OLGA		294.53	12-FEB-18	294.53	Reconciled
384513		08-FEB-18	KIM, JOHN		23.22	16-FEB-18	23.22	Reconciled
384514		08-FEB-18	KIM, YOUNGSUN		45.47	20-FEB-18	45.47	Reconciled
384515		08-FEB-18	KONECRANES INC		402.50	13-FEB-18	402.50	Reconciled
384516		08-FEB-18	KOU, KUNHAI		46.39			Negotiable
384517		08-FEB-18	LAGUNA BEACH COUNTY WATER DISTRICT		3,066.86	13-FEB-18	3,066.86	Reconciled
384518		08-FEB-18	LAND-LORD MANAGEMENT CO		40.13	13-FEB-18	40.13	Reconciled
384519		08-FEB-18	LANDCARE HOLDINGS, INC.		17,989.16	20-FEB-18	17,989.16	Reconciled
384520		08-FEB-18	LENNAR HOMES		81.32	13-FEB-18	81.32	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-18 To 28-FEB-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Report Date: 28-FEB-2018 13:47
 Page: 14
 Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
384521		08-FEB-18	LEONARD CHAIDEZ TREE SERVICE		775.00	13-FEB-18	775.00	Reconciled
384522		08-FEB-18	LGBD INVESTMENTS, INC		43.92	16-FEB-18	43.92	Reconciled
384523		08-FEB-18	LI, BOYU		474.68			Negotiable
384524		08-FEB-18	LIN, HUEY C		236.71	22-FEB-18	236.71	Reconciled
384525		08-FEB-18	MAAS, BRIAN		38.46	16-FEB-18	38.46	Reconciled
384526		08-FEB-18	MAILFINANCE INC		10,909.74	20-FEB-18	10,909.74	Reconciled
384527		08-FEB-18	MARSHALL, PHYLLIS A		73.50	15-FEB-18	73.50	Reconciled
384528		08-FEB-18	MC MASTER CARR SUPPLY CO		715.69	13-FEB-18	715.69	Reconciled
384529		08-FEB-18	MCCARRELL, KATHY		127.85	20-FEB-18	127.85	Reconciled
384530		08-FEB-18	MCR TECHNOLOGIES		23,454.98	16-FEB-18	23,454.98	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
384531	08-FEB-18	08-FEB-18	INC MECSOFT CORPORATION		400.00	14-FEB-18	400.00	Reconciled
384532	08-FEB-18	08-FEB-18	MENDES, PARI		162.57			Negotiable
384533	08-FEB-18	08-FEB-18	MOEEL, GULHAN		41.12			Negotiable
384534	08-FEB-18	08-FEB-18	MR CRANE INC		1,984.50	12-FEB-18	1,984.50	Reconciled
384535	08-FEB-18	08-FEB-18	MSC INDUSTRIAL SUPPLY CO		547.58	15-FEB-18	547.58	Reconciled
384536	08-FEB-18	08-FEB-18	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		149,216.70	14-FEB-18	149,216.70	Reconciled
384537	08-FEB-18	08-FEB-18	NAJAFI, MEHRAN		45.75	15-FEB-18	45.75	Reconciled
384538	08-FEB-18	08-FEB-18	NATIONAL READY MIXED CONCRETE CO.		1,791.54	12-FEB-18	1,791.54	Reconciled
384539	08-FEB-18	08-FEB-18	NATURALWELL, LLC		1,402.50	12-FEB-18	1,402.50	Reconciled
384540	08-FEB-18	08-FEB-18	NATURES IMAGE INC		8,944.00	12-FEB-18	8,944.00	Reconciled
384541	08-FEB-18	08-FEB-18	NCH CORPORATION		699.81	14-FEB-18	699.81	Reconciled
384542	08-FEB-18	08-FEB-18	NCL OF WISCONSIN INC		93.70	14-FEB-18	93.70	Reconciled
384543	08-FEB-18	08-FEB-18	NEOPOST USA INC.		310.25	14-FEB-18	310.25	Reconciled
384544	08-FEB-18	08-FEB-18	NINYO & MOORE		8,470.25	12-FEB-18	8,470.25	Reconciled
384545	08-FEB-18	08-FEB-18	NORMAN A. OLSSON CONSTRUCTION, INC.		190,902.50	16-FEB-18	190,902.50	Reconciled
384546	08-FEB-18	08-FEB-18	O.C. SUPERIOR CUSTOM CLEANING SERVICES		4,640.00	12-FEB-18	4,640.00	Reconciled
384547	08-FEB-18	08-FEB-18	OLIN CORPORATION		9,695.55	13-FEB-18	9,695.55	Reconciled
384548	08-FEB-18	08-FEB-18	ONESOURCE DISTRIBUTORS LLC		129.26	12-FEB-18	129.26	Reconciled
384549	08-FEB-18	08-FEB-18	ORACLE AMERICA, INC.		14,067.90	15-FEB-18	14,067.90	Reconciled

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 15
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
384550	08-FEB-18	08-FEB-18	ORANGE COUNTY AUTO PARTS CO		834.10	12-FEB-18	834.10	Reconciled
384551	08-FEB-18	08-FEB-18	ORANGE COUNTY COASTKEEPER		750.00	27-FEB-18	750.00	Reconciled
384552	08-FEB-18	08-FEB-18	ORANGE COUNTY SANITATION DISTRICT		2,275,920.25	15-FEB-18	2,275,920.25	Reconciled
384553	08-FEB-18	08-FEB-18	ORANGE COUNTY TREASURER		66.95	13-FEB-18	66.95	Reconciled
384554	08-FEB-18	08-FEB-18	PACIFIC PARTS & CONTROLS INC		5,140.08	12-FEB-18	5,140.08	Reconciled
384555	08-FEB-18	08-FEB-18	PACRIM ENGINEERING INC.		2,835.00	12-FEB-18	2,835.00	Reconciled
384556	08-FEB-18	08-FEB-18	PAPER DEPOT DOCUMENT DESTRUCTION LLC		973.35	22-FEB-18	973.35	Reconciled
384557	08-FEB-18	08-FEB-18	PARKHOUSE TIRE INC		11,218.76	16-FEB-18	11,218.76	Reconciled
384558	08-FEB-18	08-FEB-18	PASCAL & LUDWIG CONSTRUCTORS		7,417.63	12-FEB-18	7,417.63	Reconciled
384559	08-FEB-18	08-FEB-18	PASCAL & LUDWIG CONSTRUCTORS		136,397.57	15-FEB-18	136,397.57	Reconciled
384560	08-FEB-18	08-FEB-18	PELLETIER & ASSOCIATES, INC.		400.00	13-FEB-18	400.00	Reconciled
384561	08-FEB-18	08-FEB-18	PENSKE TRUCK LEASING CO., L.P.		158.25	12-FEB-18	158.25	Reconciled
384562	08-FEB-18	08-FEB-18	PERKINELMER HEALTH SCIENCES INC		96,219.64	20-FEB-18	96,219.64	Reconciled
384563	08-FEB-18	08-FEB-18	PMC ENGINEERING LLC.		2,490.75	12-FEB-18	2,490.75	Reconciled
384564	08-FEB-18	08-FEB-18	POLLARDWATER.COM		859.84	13-FEB-18	859.84	Reconciled
384565	08-FEB-18	08-FEB-18	PRAXAIR DISTRIBUTION INC		686.50	13-FEB-18	686.50	Reconciled
384566	08-FEB-18	08-FEB-18	QUALITY ENVIRONMENTAL CONTAINERS		297.12	14-FEB-18	297.12	Reconciled
384567	08-FEB-18	08-FEB-18	QUINN RENTAL SERVICES		555.00	12-FEB-18	555.00	Reconciled
384568	08-FEB-18	08-FEB-18	RAM AIR ENGINEERING INC		27,059.12	14-FEB-18	27,059.12	Reconciled
384569	08-FEB-18	08-FEB-18	RANCHO MARIPOSA APTS		304.54			Negotiable
384570	08-FEB-18	08-FEB-18	RANCHO TIERRA APTS		361.36			Negotiable
384571	08-FEB-18	08-FEB-18	RAZIN, DAVID		59.58	20-FEB-18	59.58	Reconciled
384572	08-FEB-18	08-FEB-18	REACH EMPLOYEE ASSISTANCE INC		991.20	16-FEB-18	991.20	Reconciled

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 16
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
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Payment Document : IRWD CHECK							
384573	08-FEB-18	REFRIGERATION SUPPLIES DISTRIBUTOR	15.89	12-FEB-18	15.89	Reconciled	
384574	08-FEB-18	REGENCY CENTERS	611.35			Negotiable	
384575	08-FEB-18	RELIANCE SAFETY CONSULTANTS, INC.	16,297.84	20-FEB-18	16,297.84	Reconciled	
384576	08-FEB-18	RESILIENT COMMUNICATIONS INC.	22,800.00			Negotiable	
384577	08-FEB-18	RICHMOND AMERICAN HOMES OF MARYLAND, INC	38.74			Negotiable	
384578	08-FEB-18	RICHMOND AMERICAN HOMES OF MARYLAND, INC	174.70			Negotiable	
384579	08-FEB-18	RINCON TRUCK CENTER INC.	607.33	13-FEB-18	607.33	Reconciled	
384580	08-FEB-18	RINGCLEAR LLC	191.40	14-FEB-18	191.40	Reconciled	
384581	08-FEB-18	ROGERS, JOHN W	45.72	15-FEB-18	45.72	Reconciled	
384582	08-FEB-18	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT	113,625.00	23-FEB-18	113,625.00	Reconciled	
384583	08-FEB-18	ROYALTY CARPET MILLS	115.65	15-FEB-18	115.65	Reconciled	
384584	08-FEB-18	RS HUGHES COMPANY, INC.	1,255.29	13-FEB-18	1,255.29	Reconciled	
384585	08-FEB-18	SAN CARLO APARTMENTS	36.05			Negotiable	
384586	08-FEB-18	SAN MARCO APARTMENTS	36.05			Negotiable	
384587	08-FEB-18	SAN MARINO APTS	487.36			Negotiable	
384588	08-FEB-18	SAN REMO APTS	211.47			Negotiable	
384589	08-FEB-18	SANTA ANA BLUE PRINT	928.92	20-FEB-18	928.92	Reconciled	
384590	08-FEB-18	SANTA MARGARITA FORD	449.56	13-FEB-18	449.56	Reconciled	
384591	08-FEB-18	SAWAYA, TINA	35.02	15-FEB-18	35.02	Reconciled	
384592	08-FEB-18	SCHWARTZ, NICHOLE	519.59			Negotiable	
384593	08-FEB-18	SEAL ANALYTICAL INC	1,231.48	12-FEB-18	1,231.48	Reconciled	
384594	08-FEB-18	SHAMROCK SUPPLY CO INC	32.19	13-FEB-18	32.19	Reconciled	
384595	08-FEB-18	SHEA HOMES, LIMITED PARTNERSHIP	20.60			Negotiable	
384596	08-FEB-18	SHIEH, WOJI-KANG	350.73	14-FEB-18	350.73	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-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 Account: Checking AP and PR Page: 17
 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								
384597		08-FEB-18	SIEMENS INDUSTRY INC		3,300.00	12-FEB-18	3,300.00	Reconciled
384598		08-FEB-18	SILVA, THERESA		71.78			Negotiable
384599		08-FEB-18	SIMI VALLEY LANDFILL AND RECYCLING CENTER		1,020.26	13-FEB-18	1,020.26	Reconciled
384600		08-FEB-18	SIMON VENTURES LLC		155.23	13-FEB-18	155.23	Reconciled
384601		08-FEB-18	SINGH, DALWINDER		65.82	22-FEB-18	65.82	Reconciled
384602		08-FEB-18	SIRIUS COMPUTER SOLUTIONS INC		40,230.85	20-FEB-18	40,230.85	Reconciled
384603		08-FEB-18	SITMATIC		688.49	12-FEB-18	688.49	Reconciled
384604		08-FEB-18	SOUTH COAST WATER CO.		40.00	12-FEB-18	40.00	Reconciled
384605		08-FEB-18	SOUTHERN CALIFORNIA EDISON COMPANY		190,652.18	13-FEB-18	190,652.18	Reconciled
384606		08-FEB-18	SOUTHERN CALIFORNIA SECURITY CENTERS, INC.		9.70	14-FEB-18	9.70	Reconciled
384607		08-FEB-18	SOUTHERN COUNTIES LUBRICANTS LLC		1,583.65	23-FEB-18	1,583.65	Reconciled
384608		08-FEB-18	SPARLING INSTRUMENTS LLC		1,311.18	12-FEB-18	1,311.18	Reconciled
384609		08-FEB-18	SPX CORP		169.57	13-FEB-18	169.57	Reconciled
384610		08-FEB-18	ST JOHN KNITS		581.90	13-FEB-18	581.90	Reconciled
384611		08-FEB-18	STANDARD REGISTER, INC.		2,566.87	13-FEB-18	2,566.87	Reconciled
384612		08-FEB-18	STANFORD COURT APARTMENTS		14.67			Negotiable
384613		08-FEB-18	STATE FARM INSURANCE		22.54			Negotiable
384614		08-FEB-18	STEIN, ROBERT		39.39			Negotiable
384615		08-FEB-18	STREAKWAVE WIRELESS, INC.		1,081.20	13-FEB-18	1,081.20	Reconciled

384616	08-FEB-18	SULLY-MILLER CONTRACTING CO.	202,557.31	15-FEB-18	202,557.31	Reconciled
384617	08-FEB-18	SUNSHINE SUPPLY COMPANY, INC.	5,469.39	12-FEB-18	5,469.39	Reconciled
384618	08-FEB-18	SWAINS ELECTRIC MOTOR SERVICE	6,681.60	21-FEB-18	6,681.60	Reconciled
384619	08-FEB-18	TALLEY INC	523.61	13-FEB-18	523.61	Reconciled
384620	08-FEB-18	TAMURA, R GRIFFIN	41.57			Negotiable
384621	08-FEB-18	TASSIN SCIENTIFIC SERVICES, LLC.	1,987.50	14-FEB-18	1,987.50	Reconciled
384622	08-FEB-18	TEKDRAULICS	9,188.28	22-FEB-18	9,188.28	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-18 To 28-FEB-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 28-FEB-2018 13:47
 Page: 18

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
384623		08-FEB-18	TESTAMERICA LABORATORIES, INC		3,104.85	14-FEB-18	3,104.85	Reconciled
384624		08-FEB-18	TETRA TECH, INC		9,037.00	13-FEB-18	9,037.00	Reconciled
384625		08-FEB-18	THE NEW HOME COMPANY SOUTHERN CALIFORNIA LLC		655.41			Negotiable
384626		08-FEB-18	THEIRRIEN, BRIAN		163.17			Negotiable
384627		08-FEB-18	THYSSENKRUPP ELEVATOR CORPORATION		191.94	12-FEB-18	191.94	Reconciled
384628		08-FEB-18	TRAN, YEN		51.26	15-FEB-18	51.26	Reconciled
384629		08-FEB-18	TRENCH SHORING COMPANY		873.99	14-FEB-18	873.99	Reconciled
384630		08-FEB-18	TRI COUNTY PUMP COMPANY		19,287.13	16-FEB-18	19,287.13	Reconciled
384631		08-FEB-18	TROPICAL PLAZA NURSERY INC		2,400.00	12-FEB-18	2,400.00	Reconciled
384632		08-FEB-18	TRUCPARCO		2,382.77	16-FEB-18	2,382.77	Reconciled
384633		08-FEB-18	TYCO INTEGRATED SECURITY, LLC		53.82	12-FEB-18	53.82	Reconciled
384634		08-FEB-18	ULTRA SCIENTIFIC		73.57	21-FEB-18	73.57	Reconciled
384635		08-FEB-18	UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA		1,693.00	16-FEB-18	1,693.00	Reconciled
384636		08-FEB-18	UNITED HEALTHCARE INSURANCE COMPANY		245.85	13-FEB-18	245.85	Reconciled
384637		08-FEB-18	UNITED PARCEL SERVICE INC		43.33	13-FEB-18	43.33	Reconciled
384638		08-FEB-18	UNITED WATER WORKS, INC.		58,063.97	20-FEB-18	58,063.97	Reconciled
384639		08-FEB-18	UTICK, LEIANNA		71.66	26-FEB-18	71.66	Reconciled
384640		08-FEB-18	VALLEY CREST LANDSCAPE COMPANIES		1,662.41			Negotiable
384641		08-FEB-18	VALMONT COMPOSITE STRUCTURES, INC.		994.41	13-FEB-18	994.41	Reconciled
384642		08-FEB-18	VERIZON WIRELESS SERVICES LLC		3,106.03	13-FEB-18	3,106.03	Reconciled
384643		08-FEB-18	VILLEGAS, MIRELLA		306.47	15-FEB-18	306.47	Reconciled
384644		08-FEB-18	VULCAN MATERIALS COMPANY		2,796.18	12-FEB-18	2,796.18	Reconciled
384645		08-FEB-18	VWR INTERNATIONAL, LLC		545.21	13-FEB-18	545.21	Reconciled
384646		08-FEB-18	WACO FILTERS CORPORATION		8,549.53	15-FEB-18	8,549.53	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-18 To 28-FEB-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 28-FEB-2018 13:47
 Page: 19

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
384647		08-FEB-18	WANG, NAN		34.27			Negotiable
384648		08-FEB-18	WANG, SPRING		20.42	23-FEB-18	20.42	Reconciled
384649		08-FEB-18	WARMINGTON HOMES		57.16			Negotiable
384650		08-FEB-18	WASTE MANAGEMENT OF ORANGE COUNTY		5,315.50	13-FEB-18	5,315.50	Reconciled
384651		08-FEB-18	WATERSMART SOFTWARE, INC		13,597.50	16-FEB-18	13,597.50	Reconciled
384652		08-FEB-18	WAXIE'S ENTERPRISES, INC		39.74	12-FEB-18	39.74	Reconciled
384653		08-FEB-18	WEAVER, LARRY W		35.44			Negotiable
384654		08-FEB-18	WECK LABORATORIES INC		89.00	15-FEB-18	89.00	Reconciled
384655		08-FEB-18	WESTAMERICA COMMUNICATIONS, INC.		450.00	12-FEB-18	450.00	Reconciled
384656		08-FEB-18	WILLIAMS, RONALD		1,000.00	13-FEB-18	1,000.00	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
384657	08-FEB-18	08-FEB-18	WILMINGTON INSTRUMENT COMPANY INC		7,597.48	13-FEB-18	7,597.48	Reconciled
384658	08-FEB-18	08-FEB-18	WINDWOOD GLEN		133.11			Negotiable
384659	08-FEB-18	08-FEB-18	WONDERLAND BRANDS CALIFORNIA, LLC		1,950.00	16-FEB-18	1,950.00	Reconciled
384660	08-FEB-18	08-FEB-18	WOODBRIIDGE WILLOWS APARTMENTS		79.78			Negotiable
384661	08-FEB-18	08-FEB-18	YIN'S INC		25.00	16-FEB-18	25.00	Reconciled
384662	13-FEB-18	13-FEB-18	UNITED STATES POSTIRVINE OFFICE		25,000.00	16-FEB-18	25,000.00	Reconciled
384663	15-FEB-18	15-FEB-18	Garcia, Alejandro (Alex)		200.00	21-FEB-18	200.00	Reconciled
384664	15-FEB-18	15-FEB-18	Hjorth, Charles O (Charles)		90.00	26-FEB-18	90.00	Reconciled
384665	15-FEB-18	15-FEB-18	La, Jason (Jason)		262.00	16-FEB-18	262.00	Reconciled
384666	15-FEB-18	15-FEB-18	Lin, Eileen (Eileen)		120.00	20-FEB-18	120.00	Reconciled
384667	15-FEB-18	15-FEB-18	Moore, Rory M (Rory)		180.00			Negotiable
384668	15-FEB-18	15-FEB-18	Sanchez, Fiona M (Fiona)		20.12			Negotiable
384669	15-FEB-18	15-FEB-18	Sciabica, Joseph		218.27	21-FEB-18	218.27	Reconciled
384670	15-FEB-18	15-FEB-18	Toland, Scott Andrew		210.02	23-FEB-18	210.02	Reconciled
384671	15-FEB-18	15-FEB-18	A STITCH ON TIME.COM		68.13	22-FEB-18	68.13	Reconciled
384672	15-FEB-18	15-FEB-18	A&A WIPING CLOTH CO		1,249.90	21-FEB-18	1,249.90	Reconciled
384673	15-FEB-18	15-FEB-18	ABLAN, AGNES		82.08	26-FEB-18	82.08	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-18 To 28-FEB-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 28-FEB-2018 13:47
 Page: 20

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
384674	15-FEB-18	15-FEB-18	ACI		1,351.11	21-FEB-18	1,351.11	Reconciled
384675	15-FEB-18	15-FEB-18	ADS LLC		8,776.00	22-FEB-18	8,776.00	Reconciled
384676	15-FEB-18	15-FEB-18	AGAHI, SAEED		37.57	22-FEB-18	37.57	Reconciled
384677	15-FEB-18	15-FEB-18	ALPHA TRAFFIC SERVICES, INC.		620.00	20-FEB-18	620.00	Reconciled
384678	15-FEB-18	15-FEB-18	ANDRADE, MAGDALENA		92.44	26-FEB-18	92.44	Reconciled
384679	15-FEB-18	15-FEB-18	ANSON, CRYSTAL		66.01			Negotiable
384680	15-FEB-18	15-FEB-18	APEX LIFE SCIENCES, LLC		1,543.50	22-FEB-18	1,543.50	Reconciled
384681	15-FEB-18	15-FEB-18	ASHRAS, MOHAMMED		137.60	22-FEB-18	137.60	Reconciled
384682	15-FEB-18	15-FEB-18	AT&T		1,834.98	20-FEB-18	1,834.98	Reconciled
384683	15-FEB-18	15-FEB-18	AT&T		49.20	21-FEB-18	49.20	Reconciled
384684	15-FEB-18	15-FEB-18	AT&T		1,094.20	21-FEB-18	1,094.20	Reconciled
384685	15-FEB-18	15-FEB-18	ATHENS SERVICES		6,510.16	20-FEB-18	6,510.16	Reconciled
384686	15-FEB-18	15-FEB-18	ATHENS SERVICES		1,653.60	21-FEB-18	1,653.60	Reconciled
384687	15-FEB-18	15-FEB-18	AUTOZONE PARTS, INC.		1,243.73	23-FEB-18	1,243.73	Reconciled
384688	15-FEB-18	15-FEB-18	BARATI, PARSHAW		38.46			Negotiable
384689	15-FEB-18	15-FEB-18	BAVARIAN, ALI		39.93	22-FEB-18	39.93	Reconciled
384690	15-FEB-18	15-FEB-18	BELL PIPE & SUPPLY CO		7,180.45	21-FEB-18	7,180.45	Reconciled
384691	15-FEB-18	15-FEB-18	BELSHIRE ENVIRONMENTAL SERVICES, INC.		3,640.00	22-FEB-18	3,640.00	Reconciled
384692	15-FEB-18	15-FEB-18	BLAIRS TOWING INC		375.00			Negotiable
384693	15-FEB-18	15-FEB-18	BORCHARD SURVEYING & MAPPING, INC.		2,580.00			Negotiable
384694	15-FEB-18	15-FEB-18	BRENNTAG PACIFIC INC		639.25	20-FEB-18	639.25	Reconciled
384695	15-FEB-18	15-FEB-18	BRITHINEE ELECTRIC		36,467.99	22-FEB-18	36,467.99	Reconciled
384696	15-FEB-18	15-FEB-18	BROWN AND CALDWELL		1,439.00	20-FEB-18	1,439.00	Reconciled
384697	15-FEB-18	15-FEB-18	BRUCE CLARK		7,500.00	21-FEB-18	7,500.00	Reconciled
384698	15-FEB-18	15-FEB-18	CALIFORNIA BARRICADE RENTAL, INC.		6,701.25	21-FEB-18	6,701.25	Reconciled
384699	15-FEB-18	15-FEB-18	CALIFORNIA NATIVE PLANT SOCIETY		500.00			Negotiable
384700	15-FEB-18	15-FEB-18	CAO, HONGWEI		16.02			Negotiable
384701	15-FEB-18	15-FEB-18	CDW GOVERNMENT LLC		3,128.54	22-FEB-18	3,128.54	Reconciled
384702	15-FEB-18	15-FEB-18	CHANG, LENA		15.59	26-FEB-18	15.59	Reconciled
384703	15-FEB-18	15-FEB-18	CHANG, LIN		36.63			Negotiable
384704	15-FEB-18	15-FEB-18	CHARLES P CROWLEY COMPANY INC		20,546.66	26-FEB-18	20,546.66	Reconciled
384705	15-FEB-18	15-FEB-18	CHEN, NATALIA		68.56	26-FEB-18	68.56	Reconciled
384706	15-FEB-18	15-FEB-18	CHENG, CHUNIEI		40.67			Negotiable
384707	15-FEB-18	15-FEB-18	CHUNG, WAYNE		100.73			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-18 To 28-FEB-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 28-FEB-2018 13:47
 Page: 21

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

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
384708		15-FEB-18	CITY OF SANTA ANA		171.44	20-FEB-18	171.44	Reconciled
384709		15-FEB-18	CIVIL SOURCE, INC.		18,880.00			Negotiable
384710		15-FEB-18	CLA-VAL COMPANY		288.61	21-FEB-18	288.61	Reconciled
384711		15-FEB-18	CLARK, CHRIS		55.59	21-FEB-18	55.59	Reconciled
384712		15-FEB-18	CR & R INCORPORATED		384.48	21-FEB-18	384.48	Reconciled
384713		15-FEB-18	CS-AMSCO		1,505.06	20-FEB-18	1,505.06	Reconciled
384714		15-FEB-18	CULLIGAN OF SANTA ANA		7,019.95	21-FEB-18	7,019.95	Reconciled
384715		15-FEB-18	D & H WATER SYSTEMS INC.		517.71	21-FEB-18	517.71	Reconciled
384716		15-FEB-18	DATASITE INC		810.00			Negotiable
384717		15-FEB-18	DAVIDSON, TARYN		103.70			Negotiable
384718		15-FEB-18	DAVIS FARR LLP		5,000.00	21-FEB-18	5,000.00	Reconciled
384719		15-FEB-18	DELL MARKETING LP		97,803.52	21-FEB-18	97,803.52	Reconciled
384720		15-FEB-18	DIORIO, ELAINE		21.73			Negotiable
384721		15-FEB-18	DISCOUNT COURIER SERVICE		158.50	21-FEB-18	158.50	Reconciled
384722		15-FEB-18	DUDEK		7,977.50	23-FEB-18	7,977.50	Reconciled
384723		15-FEB-18	EAST ORANGE COUNTY WATER DISTRICT		49,855.55	26-FEB-18	49,855.55	Reconciled
384724		15-FEB-18	ELITE AUTOMOTIVE SERVICE, LLC		550.00	23-FEB-18	550.00	Reconciled
384725		15-FEB-18	ELITE EQUIPMENT, INC.		129.10	22-FEB-18	129.10	Reconciled
384726		15-FEB-18	ENDRESS AND HAUSER INC		6,370.48	21-FEB-18	6,370.48	Reconciled
384727		15-FEB-18	ESPINOZA, CHRISTOPHER		15.15			Negotiable
384728		15-FEB-18	EXECUTIVE LIGHTING & ELECTRIC		7,149.27	21-FEB-18	7,149.27	Reconciled
384729		15-FEB-18	FALLIS, GARY		64.80			Negotiable
384730		15-FEB-18	FARWEST CORROSION CONTROL COMPANY		3,561.14	20-FEB-18	3,561.14	Reconciled
384731		15-FEB-18	FEDEX		557.69	21-FEB-18	557.69	Reconciled
384732		15-FEB-18	FERLING, DONALD C		24.70			Negotiable
384733		15-FEB-18	FINISTERRA CORPORATION		85.00	21-FEB-18	85.00	Reconciled
384734		15-FEB-18	FISHER SCIENTIFIC COMPANY LLC		1,371.71	20-FEB-18	1,371.71	Reconciled
384735		15-FEB-18	FLEET SOLUTIONS LLC		4,871.00	21-FEB-18	4,871.00	Reconciled
384736		15-FEB-18	FORTRESS RESOURCES, LLC.		236.19	20-FEB-18	236.19	Reconciled
384737		15-FEB-18	FRONTIER CALIFORNIA INC.		51.69	23-FEB-18	51.69	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-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 Account: Checking AP and PR Page: 22
 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								
384738		15-FEB-18	FUN, BAOLONG		354.09			Negotiable
384739		15-FEB-18	FUSCOE ENGINEERING, INC.		1,756.00	20-FEB-18	1,756.00	Reconciled
384740		15-FEB-18	GEI CONSULTANTS INC		12,117.75	23-FEB-18	12,117.75	Reconciled
384741		15-FEB-18	GEORGE HILLS COMPANY, INC.		68.00	22-FEB-18	68.00	Reconciled
384742		15-FEB-18	GHD INC.		16,055.86	23-FEB-18	16,055.86	Reconciled
384743		15-FEB-18	GOBRAN, DOMINIQUE		28.42			Negotiable
384744		15-FEB-18	GRAINGER		2,790.86	20-FEB-18	2,790.86	Reconciled
384745		15-FEB-18	HACH COMPANY		2,415.51	22-FEB-18	2,415.51	Reconciled
384746		15-FEB-18	HAN, CHANGCHENG		28.04			Negotiable
384747		15-FEB-18	HE, XINTAO		595.96			Negotiable
384748		15-FEB-18	HELPMATES STAFFING SERVICES		16,711.22	22-FEB-18	16,711.22	Reconciled
384749		15-FEB-18	HILL BROTHERS CHEMICAL COMPANY		21,842.75	22-FEB-18	21,842.75	Reconciled
384750		15-FEB-18	HOME DEPOT USA INC		2,078.80	20-FEB-18	2,078.80	Reconciled
384751		15-FEB-18	HOPKINS TECHNICAL PRODUCTS INC		9,903.73			Negotiable
384752		15-FEB-18	HOYA OPTICAL LABS OF AMERICA, INC.		133.71	22-FEB-18	133.71	Reconciled
384753		15-FEB-18	HUSTEDT, HAYLEY		65.34			Negotiable
384754		15-FEB-18	IBM CORPORATION		925.00	20-FEB-18	925.00	Reconciled
384755		15-FEB-18	IDEXX DISTRIBUTION, INC		8,671.26	20-FEB-18	8,671.26	Reconciled
384756		15-FEB-18	IRON MOUNTAIN INFORMATION MANAGEMENT INC		1,422.61	21-FEB-18	1,422.61	Reconciled
384757		15-FEB-18	IRVINE PIPE & SUPPLY INC		2,761.93	20-FEB-18	2,761.93	Reconciled
384758		15-FEB-18	IRVINE PROPERTY MANAGEMENT		154.92	23-FEB-18	154.92	Reconciled
384759		15-FEB-18	IRWD EMPLOYEES ASSOCIATION		1,400.00			Negotiable

384760	15-FEB-18	IRWD-PETTY CASH CUSTODIAN	1,163.13	16-FEB-18	1,163.13	Reconciled
384761	15-FEB-18	JADDAO, SHIRLEY	33.64	22-FEB-18	33.64	Reconciled
384762	15-FEB-18	JCI JONES CHEMICALS INC	3,327.37	22-FEB-18	3,327.37	Reconciled
384763	15-FEB-18	JOHNSTONE SUPPLY	1,844.77	20-FEB-18	1,844.77	Reconciled
384764	15-FEB-18	JONES, AMIE	10.81			Negotiable
384765	15-FEB-18	KHAN, SHAFIQ R	160.00	22-FEB-18	160.00	Reconciled
384766	15-FEB-18	KHOSRAVI, FARHAD	41.02	27-FEB-18	41.02	Reconciled
384767	15-FEB-18	KIMBALL MIDWEST	1,063.26	20-FEB-18	1,063.26	Reconciled
384768	15-FEB-18	KITONGAN, NIMITZ	253.19			Negotiable

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 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								
384769	15-FEB-18	15-FEB-18	KLEINFELDER, INC.		1,747.50			Negotiable
384770	15-FEB-18	15-FEB-18	KRUSSEFF, GEORGE W		38.46	21-FEB-18	38.46	Reconciled
384771	15-FEB-18	15-FEB-18	LANCER SALES USA, INC.		505.90	22-FEB-18	505.90	Reconciled
384772	15-FEB-18	15-FEB-18	LANDCARE HOLDINGS, INC.		4,500.00	21-FEB-18	4,500.00	Reconciled
384773	15-FEB-18	15-FEB-18	LBA REALTY BPCC, LLC		351.76			Negotiable
384774	15-FEB-18	15-FEB-18	LEE & RO, INC.		10,093.81	26-FEB-18	10,093.81	Reconciled
384775	15-FEB-18	15-FEB-18	LENZINGER, JARED		500.46	23-FEB-18	500.46	Reconciled
384776	15-FEB-18	15-FEB-18	LEWIS BRISBOIS BISGAARD AND SMITH, LLP		120.00	23-FEB-18	120.00	Reconciled
384777	15-FEB-18	15-FEB-18	MALONE, TERESA		121.16	21-FEB-18	121.16	Reconciled
384778	15-FEB-18	15-FEB-18	MARLO, JOHN		52.84			Negotiable
384779	15-FEB-18	15-FEB-18	MBF CONSULTING, INC.		22,270.00	26-FEB-18	22,270.00	Reconciled
384780	15-FEB-18	15-FEB-18	MC FADDEN-DALE INDUSTRIAL		52.72	22-FEB-18	52.72	Reconciled
384781	15-FEB-18	15-FEB-18	MC MASTER CARR SUPPLY CO		3,721.96	20-FEB-18	3,721.96	Reconciled
384782	15-FEB-18	15-FEB-18	MICHAEL BAKER INTERNATIONAL, INC.		20,115.00			Negotiable
384783	15-FEB-18	15-FEB-18	MORGAN, STEWART		50.00			Negotiable
384784	15-FEB-18	15-FEB-18	MSC INDUSTRIAL SUPPLY CO		256.19	26-FEB-18	256.19	Reconciled
384785	15-FEB-18	15-FEB-18	MULTIQUIP INC		893.03	21-FEB-18	893.03	Reconciled
384786	15-FEB-18	15-FEB-18	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		1,211.01	22-FEB-18	1,211.01	Reconciled
384787	15-FEB-18	15-FEB-18	NATIONAL READY MIXED CONCRETE CO.		2,248.24	21-FEB-18	2,248.24	Reconciled
384788	15-FEB-18	15-FEB-18	NINYO & MOORE		3,862.00	20-FEB-18	3,862.00	Reconciled
384789	15-FEB-18	15-FEB-18	OLIN CORPORATION		32,175.99	26-FEB-18	32,175.99	Reconciled
384790	15-FEB-18	15-FEB-18	ORANGE COUNTY AUTO PARTS CO		1,055.96	20-FEB-18	1,055.96	Reconciled
384791	15-FEB-18	15-FEB-18	ORANGE COUNTY FIRE PROTECTION		4,370.79	20-FEB-18	4,370.79	Reconciled
384792	15-FEB-18	15-FEB-18	ORANGE COUNTY SHERIFF'S OFFICE		62.50	23-FEB-18	62.50	Reconciled
384793	15-FEB-18	15-FEB-18	OSTER, EDWIN		27.23			Negotiable
384794	15-FEB-18	15-FEB-18	OUTSOURCE TECHNICAL LLC		20,825.00	22-FEB-18	20,825.00	Reconciled
384795	15-FEB-18	15-FEB-18	PACIFIC COAST BOLT CORP		2,014.94	22-FEB-18	2,014.94	Reconciled

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 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								
384796	15-FEB-18	15-FEB-18	PACIFIC HYDROTECH CORPORATION		84,655.30	23-FEB-18	84,655.30	Reconciled
384797	15-FEB-18	15-FEB-18	PACIFIC HYDROTECH CORPORATION		4,455.54	21-FEB-18	4,455.54	Reconciled
384798	15-FEB-18	15-FEB-18	PANAHI, AMIR		22.95	23-FEB-18	22.95	Reconciled
384799	15-FEB-18	15-FEB-18	PASCAL & LUDWIG CONSTRUCTORS		21,076.70	22-FEB-18	21,076.70	Reconciled
384800	15-FEB-18	15-FEB-18	PASCAL & LUDWIG CONSTRUCTORS		435,053.98	22-FEB-18	435,053.98	Reconciled
384801	15-FEB-18	15-FEB-18	PASCAL & LUDWIG CONSTRUCTORS		1,820.88	20-FEB-18	1,820.88	Reconciled
384802	15-FEB-18	15-FEB-18	PATRICIA COPPA		537.90			Negotiable
384803	15-FEB-18	15-FEB-18	PERS LONG TERM CARE		675.35	21-FEB-18	675.35	Reconciled
384804	15-FEB-18	15-FEB-18	PIPELINE PRODUCTS INC		443.08	20-FEB-18	443.08	Reconciled

384805	15-FEB-18	PLUMBERS DEPOT INC.		228.43	20-FEB-18	228.43	Reconciled
384806	15-FEB-18	POLLARDWATER.COM		2,785.80	21-FEB-18	2,785.80	Reconciled
384807	15-FEB-18	PRAXAIR DISTRIBUTION INC		388.41	21-FEB-18	388.41	Reconciled
384808	15-FEB-18	PRESTIGE AUTO BODY EXPRESS		3,300.00	21-FEB-18	3,300.00	Reconciled
384809	15-FEB-18	PROBOLSKY RESEARCH LLC		46,075.00	26-FEB-18	46,075.00	Reconciled
384810	15-FEB-18	PRUDENTIAL OVERALL SUPPLY		5,402.47	20-FEB-18	5,402.47	Reconciled
384811	15-FEB-18	PRUFTECHNIK INC		1,550.49	20-FEB-18	1,550.49	Reconciled
384812	15-FEB-18	PTI SAND & GRAVEL INC		2,012.84	23-FEB-18	2,012.84	Reconciled
384813	15-FEB-18	R & S SOIL PRODUCTS INC		840.45			Negotiable
384814	15-FEB-18	RADICIC, ASHA		29.07	23-FEB-18	29.07	Reconciled
384815	15-FEB-18	RAM AIR ENGINEERING INC		3,973.73	20-FEB-18	3,973.73	Reconciled
384816	15-FEB-18	RANDY LE AND PAULA LE		113.07	22-FEB-18	113.07	Reconciled
384817	15-FEB-18	RICHMOND AMERICAN HOMES OF MARYLAND, INC		78.98			Negotiable
384818	15-FEB-18	RINCON TRUCK CENTER INC.		192.17	20-FEB-18	192.17	Reconciled
384819	15-FEB-18	ROCKFORCE CONSTRUCTION, LLC		7,184.13	21-FEB-18	7,184.13	Reconciled
384820	15-FEB-18	ROHLOFF, GLORIA		43.57			Negotiable

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 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								
384821		15-FEB-18	ROYALTY CARPET MILLS		718.66			Negotiable
384822		15-FEB-18	SANDERS PAVING INC		26,756.00	22-FEB-18	26,756.00	Reconciled
384823		15-FEB-18	SANTA ANA BLUE PRINT		208.59	22-FEB-18	208.59	Reconciled
384824		15-FEB-18	SANTA MARGARITA FORD		416.56	21-FEB-18	416.56	Reconciled
384825		15-FEB-18	SANTA MARGARITA WATER DISTRICT		34,091.39	26-FEB-18	34,091.39	Reconciled
384826		15-FEB-18	SEPARATION PROCESSES INC		703.50	20-FEB-18	703.50	Reconciled
384827		15-FEB-18	SHAMROCK SUPPLY CO INC		2,071.98	21-FEB-18	2,071.98	Reconciled
384828		15-FEB-18	SHORT, STANLEY		45.31	27-FEB-18	45.31	Reconciled
384829		15-FEB-18	SMITH SYSTEM DRIVER IMPROVEMENT INSTITUTE, INC.		2,899.59	21-FEB-18	2,899.59	Reconciled
384830		15-FEB-18	SOFTWAREONE INC		8,305.00	21-FEB-18	8,305.00	Reconciled
384831		15-FEB-18	SOUTH COAST WATER CO.		151.66	21-FEB-18	151.66	Reconciled
384832		15-FEB-18	SOUTH COAST WATER DISTRICT		1,022.61	20-FEB-18	1,022.61	Reconciled
384833		15-FEB-18	SOUTHERN CALIFORNIA EDISON COMPANY		304,643.37	20-FEB-18	304,643.37	Reconciled
384834		15-FEB-18	SPARKLETT'S		277.92	22-FEB-18	277.92	Reconciled
384835		15-FEB-18	STANTEC CONSULTING SERVICES INC.		5,745.00	22-FEB-18	5,745.00	Reconciled
384836		15-FEB-18	STATE BOARD OF EQUALIZATION		895.00	22-FEB-18	895.00	Reconciled
384837		15-FEB-18	STATE WATER RESOURCES CONTROL BOARD		13,385.05	26-FEB-18	13,385.05	Reconciled
384838		15-FEB-18	SUMMIT CHEMICAL SPECIALTY PRODUCTS		11,890.56			Negotiable
384839		15-FEB-18	SUN-STAR ELECTRIC, INC.		31,424.74	27-FEB-18	31,424.74	Reconciled
384840		15-FEB-18	TANG, SAMUAL		58.36			Negotiable
384841		15-FEB-18	TAYLOR MORRISON		23.91	27-FEB-18	23.91	Reconciled
384842		15-FEB-18	TESTAMERICA LABORATORIES, INC		21.00	23-FEB-18	21.00	Reconciled
384843		15-FEB-18	THE GAS COMPANY		9,472.44	27-FEB-18	9,472.44	Reconciled
384844		15-FEB-18	TIC-IPG-COMMON		803.96	21-FEB-18	803.96	Reconciled
384845		15-FEB-18	TIC-OFFICE PROPERTIES		485.33	21-FEB-18	485.33	Reconciled
384846		15-FEB-18	TOLL BROS., INC.		1,639.98			Negotiable

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 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
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Payment Document : IRWD CHECK

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
384847		15-FEB-18	TONG, JEANNIE		110.50			Negotiable
384848		15-FEB-18	TOTALFUNDS		5,010.00	23-FEB-18	5,010.00	Reconciled
384849		15-FEB-18	TRI POINTE HOMES, INC.		274.80	27-FEB-18	274.80	Reconciled
384850		15-FEB-18	TRIPAC MARKETING INC		1,464.77	21-FEB-18	1,464.77	Reconciled
384851		15-FEB-18	TROPICAL PLAZA NURSERY INC		3,987.62	20-FEB-18	3,987.62	Reconciled
384852		15-FEB-18	TRUCPARCO		607.32	26-FEB-18	607.32	Reconciled
384853		15-FEB-18	TURTLE ROCK CANYON APTS		73.31			Negotiable
384854		15-FEB-18	UNITED STATES POST OFFICE		25,000.00	22-FEB-18	25,000.00	Reconciled
384855		15-FEB-18	VILLA CORONADO APTS		1,098.15			Negotiable
384856		15-FEB-18	VWR INTERNATIONAL, LLC		3,154.97	21-FEB-18	3,154.97	Reconciled
384857		15-FEB-18	WALKER, MATT		50.00			Negotiable
384858		15-FEB-18	WALTON MOTORS & CONTROLS INC		2,845.88	20-FEB-18	2,845.88	Reconciled
384859		15-FEB-18	WATERLINE TECHNOLOGIES INC		2,840.00	20-FEB-18	2,840.00	Reconciled
384860		15-FEB-18	WEST YOST ASSOCIATES, INC		1,374.60	21-FEB-18	1,374.60	Reconciled
384861		15-FEB-18	WIRELESS WATCHDOGS, LLC		844.00	22-FEB-18	844.00	Reconciled
384862		15-FEB-18	WOODBURY COMMUNITY ASSOCIATION		1,028.97			Negotiable
384863		15-FEB-18	XU, WALLICE		52.60	22-FEB-18	52.60	Reconciled
384864		15-FEB-18	YAN, TING		83.12			Negotiable
384865		15-FEB-18	YAVARI, HAMED		32.29			Negotiable
384866		15-FEB-18	YP LLC		91.00	22-FEB-18	91.00	Reconciled
384867		22-FEB-18	Castaneda, Natalie N (Natalie)		43.37	23-FEB-18	43.37	Reconciled
384868		22-FEB-18	Martinez, Jose A IV (Jose)		64.90	27-FEB-18	64.90	Reconciled
384869		22-FEB-18	Rock, Douglas T (Douglas)		141.95			Negotiable
384870		22-FEB-18	Schreiner, Terrance M Jr (Terrance)		27.79			Negotiable
384871		22-FEB-18	Sheilds, Patrick		6.00			Negotiable
384872		22-FEB-18	Sidlin, Wayne		150.00			Negotiable
384873		22-FEB-18	Ruiz, Ricky (Ricky)	HOME	157.68	27-FEB-18	157.68	Reconciled
384874		22-FEB-18	AAF INTERNATIONAL		771.78	27-FEB-18	771.78	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-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 Account: Checking AP and PR Page: 27
 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								
384875		22-FEB-18	ABS PRODUCTS INC		1,105.18			Negotiable
384876		22-FEB-18	ACCUSTANDARD INC		399.01			Negotiable
384877		22-FEB-18	ADVANCED INDUSTRIAL SOLUTIONS INC		8,183.03	26-FEB-18	8,183.03	Reconciled
384878		22-FEB-18	AEGIS ENGINEERING MANAGEMENT, INC.		12,324.00			Negotiable
384879		22-FEB-18	AFLAC		3,442.96			Negotiable
384880		22-FEB-18	AFLAC		101.56			Negotiable
384881		22-FEB-18	AIRGAS, INC.		331.90	26-FEB-18	331.90	Reconciled
384882		22-FEB-18	ALL AMERICAN SEWER TOOLS		1,298.95			Negotiable
384883		22-FEB-18	ALPHA TRAFFIC SERVICES, INC.		200.00	26-FEB-18	200.00	Reconciled
384884		22-FEB-18	ALSTON & BIRD LLP		67,241.45			Negotiable
384885		22-FEB-18	AM CONSERVATION GROUP, INC.		469.26	27-FEB-18	469.26	Reconciled
384886		22-FEB-18	AMAZON CAPITAL SERVICES, INC.		163.62	26-FEB-18	163.62	Reconciled
384887		22-FEB-18	ANTHEM BLUE CROSS		546.33			Negotiable
384888		22-FEB-18	ANTHEM BLUE CROSS		214.68			Negotiable
384889		22-FEB-18	ANTHEM BLUE CROSS		290.43			Negotiable
384890		22-FEB-18	ANTHEM BLUE CROSS		546.33			Negotiable
384891		22-FEB-18	APEX LIFE SCIENCES, LLC		2,791.70			Negotiable
384892		22-FEB-18	AT&T		7,599.41			Negotiable
384893		22-FEB-18	AT&T		8,132.76	27-FEB-18	8,132.76	Reconciled
384894		22-FEB-18	AUTOZONE PARTS, INC.		38.99			Negotiable
384895		22-FEB-18	AVISTA TECHNOLOGIES, INC		2,000.00	27-FEB-18	2,000.00	Reconciled
384896		22-FEB-18	BATTERIES PLUS AND BATTERIES PLUS BULBS		764.76	26-FEB-18	764.76	Reconciled
384897		22-FEB-18	BDC SPECIAL WASTE		207.20	27-FEB-18	207.20	Reconciled
384898		22-FEB-18	BILL'S SWEEPING		460.00			Negotiable

384899	22-FEB-18	SERVICE INC BLACK & VEATCH CORPORATION		274,730.67			Negotiable
384900	22-FEB-18	BOOT WORLD, INC.		3,290.46			Negotiable
384901	22-FEB-18	BRENNTAG PACIFIC INC		1,128.50	26-FEB-18	1,128.50	Reconciled
384902	22-FEB-18	BRITHINEE ELECTRIC		3,012.07	26-FEB-18	3,012.07	Reconciled
384903	22-FEB-18	BUSH & ASSOCIATES INC		1,984.00			Negotiable

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 28
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
384904		22-FEB-18	CALIFORNIA BARRICADE RENTAL, INC.		5,422.50	27-FEB-18	5,422.50	Reconciled
384905		22-FEB-18	CALTROL, INC.		6,403.53	26-FEB-18	6,403.53	Reconciled
384906		22-FEB-18	CANON FINANCIAL SERVICES, INC		8,996.59			Negotiable
384907		22-FEB-18	CANON SOLUTIONS AMERICA, INC.		778.84			Negotiable
384908		22-FEB-18	CHEM TECH INTERNATIONAL INC		15,563.28			Negotiable
384909		22-FEB-18	CITY OF TUSTIN		1,347.71	26-FEB-18	1,347.71	Reconciled
384910		22-FEB-18	CIVIL SOURCE, INC.		52,178.00			Negotiable
384911		22-FEB-18	CLARIS STRATEGY INC.		3,697.50	27-FEB-18	3,697.50	Reconciled
384912		22-FEB-18	COMMERCIAL DOOR OF ORANGE COUNTY, INC.		4,298.23	26-FEB-18	4,298.23	Reconciled
384913		22-FEB-18	COX COMMUNICATIONS, INC.		3,250.67	27-FEB-18	3,250.67	Reconciled
384914		22-FEB-18	CULLIGAN OF SANTA ANA		3,008.55	26-FEB-18	3,008.55	Reconciled
384915		22-FEB-18	CYBERNETICS		1,494.00	26-FEB-18	1,494.00	Reconciled
384916		22-FEB-18	DATA CLEAN CORPORATION		830.00	27-FEB-18	830.00	Reconciled
384917		22-FEB-18	DATASITE INC		4,983.00			Negotiable
384918		22-FEB-18	DEE JASPAR & ASSOCIATES, INC.		2,400.21			Negotiable
384919		22-FEB-18	DIRECTV INC		129.98			Negotiable
384920		22-FEB-18	ENVIRONMENTAL SCIENCE ASSOCIATES		3,468.75	27-FEB-18	3,468.75	Reconciled
384921		22-FEB-18	EXECUTIVE LIGHTING & ELECTRIC		16,352.07			Negotiable
384922		22-FEB-18	FARRELL & ASSOCIATES		185.37	26-FEB-18	185.37	Reconciled
384923		22-FEB-18	FEDEX		469.38	27-FEB-18	469.38	Reconciled
384924		22-FEB-18	FERGUSON ENTERPRISES, INC.		9,154.45	26-FEB-18	9,154.45	Reconciled
384925		22-FEB-18	FIRE EXTINGUISHING SAFETY & SERVICE		711.93			Negotiable
384926		22-FEB-18	FIREHOSEDIRECT.COM		1,833.80			Negotiable
384927		22-FEB-18	FIRST CHOICE SERVICES		696.77			Negotiable
384928		22-FEB-18	FISERV		21,102.90			Negotiable
384929		22-FEB-18	FISHER SCIENTIFIC COMPANY LLC		1,480.53	26-FEB-18	1,480.53	Reconciled

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 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								
384930		22-FEB-18	FRONTIER CALIFORNIA INC.		477.70			Negotiable
384931		22-FEB-18	FULLER TRUCK ACCESSORIES		1,103.36	26-FEB-18	1,103.36	Reconciled
384932		22-FEB-18	GENERAL MONITORS INC.		812.29			Negotiable
384933		22-FEB-18	GENTERRA CONSULTANTS INC		7,052.00	26-FEB-18	7,052.00	Reconciled
384934		22-FEB-18	GEORGE YARDLEY CO., INC.		1,484.36	26-FEB-18	1,484.36	Reconciled
384935		22-FEB-18	GJ AUTOMOTIVE EQUIPMENT CO INC		187.50			Negotiable
384936		22-FEB-18	GLADWELL GOVERNMENTAL SERVICES, INC.		250.00	26-FEB-18	250.00	Reconciled
384937		22-FEB-18	GOLDMAN, SACHS & CO. LLC		15,123.29			Negotiable
384938		22-FEB-18	GRAINGER		2,489.53	27-FEB-18	2,489.53	Reconciled

384939	22-FEB-18	GUO, HAOXIANG		32.21				Negotiable
384940	22-FEB-18	H2O INNOVATION USA INC		3,292.06				Negotiable
384941	22-FEB-18	HAAKER EQUIPMENT COMPANY		204.25	27-FEB-18		204.25	Reconciled
384942	22-FEB-18	HACH COMPANY		10,728.20				Negotiable
384943	22-FEB-18	HANANO, DEAN		43.74	26-FEB-18		43.74	Reconciled
384944	22-FEB-18	HARMSWORTH ASSOCIATES		1,081.00				Negotiable
384945	22-FEB-18	HARP, ROBERT		64.72				Negotiable
384946	22-FEB-18	HARRINGTON INDUSTRIAL PLASTICS LLC		1,694.47	26-FEB-18		1,694.47	Reconciled
384947	22-FEB-18	HAYASHI, TAKAYUKI		1,009.92	26-FEB-18		1,009.92	Reconciled
384948	22-FEB-18	HEINZ, RALPH		77.83				Negotiable
384949	22-FEB-18	HELPMATES STAFFING SERVICES		14,164.25				Negotiable
384950	22-FEB-18	HILL BROTHERS CHEMICAL COMPANY		2,630.00	27-FEB-18		2,630.00	Reconciled
384951	22-FEB-18	HOME DEPOT USA INC		231.48				Negotiable
384952	22-FEB-18	IC & KY LLC		36.05	27-FEB-18		36.05	Reconciled
384953	22-FEB-18	INDUSTRIAL METAL SUPPLY CO		690.07	27-FEB-18		690.07	Reconciled
384954	22-FEB-18	INSITUFORM TECHNOLOGIES INC		190,142.50				Negotiable
384955	22-FEB-18	IRVINE PIPE & SUPPLY INC		2,460.21	26-FEB-18		2,460.21	Reconciled
384956	22-FEB-18	JAISWAL, NATASHA		44.78				Negotiable

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 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								
384957		22-FEB-18	KAESER COMPRESSORS, INC.		2,131.92	26-FEB-18	2,131.92	Reconciled
384958		22-FEB-18	KANTAMNENI, MANOJ		42.76			Negotiable
384959		22-FEB-18	KEC ENGINEERING		1,414.99			Negotiable
384960		22-FEB-18	KENT & AMY DAHLBERG		1,492.92	27-FEB-18	1,492.92	Reconciled
384961		22-FEB-18	KILL-N-BUGS TERMITES AND PEST CONTROL SERVICES		3,870.00	26-FEB-18	3,870.00	Reconciled
384962		22-FEB-18	KLEINFELDER, INC.		3,268.50	26-FEB-18	3,268.50	Reconciled
384963		22-FEB-18	KPRS CONSTRUCTION SERVICES, INC		1,246.97	27-FEB-18	1,246.97	Reconciled
384964		22-FEB-18	LADHA, SHARMIN		88.95			Negotiable
384965		22-FEB-18	LANDCARE HOLDINGS, INC.		2,320.65	27-FEB-18	2,320.65	Reconciled
384966		22-FEB-18	LCS TECHNOLOGIES, INC.		7,695.00	27-FEB-18	7,695.00	Reconciled
384967		22-FEB-18	LI, TAN		1,540.34			Negotiable
384968		22-FEB-18	LUBRICATION ENGINEERS, INC.		7,797.16	27-FEB-18	7,797.16	Reconciled
384969		22-FEB-18	MAGLIARDITI, DOMINIC		60.00			Negotiable
384970		22-FEB-18	MARVIN GARDENS LLC		2,765.60	22-FEB-18	2,765.60	Reconciled
384971		22-FEB-18	MBK ENGINEERS		11,559.50			Negotiable
384972		22-FEB-18	MC FADDEN-DALE INDUSTRIAL		46.98	27-FEB-18	46.98	Reconciled
384973		22-FEB-18	MCR TECHNOLOGIES INC		227.46			Negotiable
384974		22-FEB-18	MERITAGE HOMES OF CALIFORNIA, INC		141,950.49			Negotiable
384975		22-FEB-18	MERRILL LYNCH, PIERCE, FENNER & SMITH INCORPORATED		16,673.43			Negotiable
384976		22-FEB-18	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		27,139.61			Negotiable
384977		22-FEB-18	NAGARAJAN, KARTHIGEYA		33.30			Negotiable
384978		22-FEB-18	NATIONAL WATER RESEARCH INSTITUTE		2,500.00			Negotiable
384979		22-FEB-18	NEW PIG CORPORATION		1,193.96	27-FEB-18	1,193.96	Reconciled
384980		22-FEB-18	NEWPORT BAY CONSERVANCY		35.00			Negotiable
384981		22-FEB-18	NGUYEN, VAN		716.43			Negotiable
384982		22-FEB-18	OLIN CORPORATION		17,672.71			Negotiable

IRWD Ledger Upgrade Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 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								

384983	22-FEB-18	OLSON, HAGEL & FISHBURN, LLP	102.50	27-FEB-18	102.50	Reconciled
384984	22-FEB-18	ORANGE COUNTY AUTO PARTS CO	80.20	26-FEB-18	80.20	Reconciled
384985	22-FEB-18	ORDONEZ, MELANIE	45.06			Negotiable
384986	22-FEB-18	ORR, DAVID	3,619.44	26-FEB-18	3,619.44	Reconciled
384987	22-FEB-18	PACE ADVANCED WATER ENGINEERING, INC.	5,920.00			Negotiable
384988	22-FEB-18	PACIFIC PARTS & CONTROLS INC	1,484.08	26-FEB-18	1,484.08	Reconciled
384989	22-FEB-18	PARKHOUSE TIRE INC	3,085.32	27-FEB-18	3,085.32	Reconciled
384990	22-FEB-18	PERKINELMER HEALTH SCIENCES INC	416.99			Negotiable
384991	22-FEB-18	PILLSBURY WINTHROP SHAW PITTMAN LLP	3,596.00	26-FEB-18	3,596.00	Reconciled
384992	22-FEB-18	PINNACLE TOWERS LLC	720.39	27-FEB-18	720.39	Reconciled
384993	22-FEB-18	PIPE LINE SE CONSTRUCTION	1,345.74			Negotiable
384994	22-FEB-18	PITTS, MARIA MICHELLE	42.88			Negotiable
384995	22-FEB-18	PIVOT INTERIORS INC	1,129.38	27-FEB-18	1,129.38	Reconciled
384996	22-FEB-18	PRAXAIR	232.14	27-FEB-18	232.14	Reconciled
384997	22-FEB-18	DISTRIBUTION INC PRIME CONTROLS COMPANY INC	2,547.38	26-FEB-18	2,547.38	Reconciled
384998	22-FEB-18	PRO MOBILE AUTO DETAILING	950.00	27-FEB-18	950.00	Reconciled
384999	22-FEB-18	PROCARE WORK INJURY CENTER	2,430.00	27-FEB-18	2,430.00	Reconciled
385000	22-FEB-18	PROMINENCE ENTERPRISES, LLC	1,111.34			Negotiable
385001	22-FEB-18	PRUFTECHNIK INC	6,838.00	27-FEB-18	6,838.00	Reconciled
385002	22-FEB-18	PSOMAS	13,682.50			Negotiable
385003	22-FEB-18	RAFTELIS FINANCIAL CONSULTANTS INC.	3,260.65	26-FEB-18	3,260.65	Reconciled
385004	22-FEB-18	RAINBOW DISPOSAL CO INC	757.36			Negotiable
385005	22-FEB-18	RAM AIR ENGINEERING INC	2,720.27	27-FEB-18	2,720.27	Reconciled
385006	22-FEB-18	RANCHO TIERRA APTS	33.64			Negotiable
385007	22-FEB-18	REAL WATER CONSULTANTS INC.	19,671.00			Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Payment Register For 01-FEB-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 32
 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								
385008		22-FEB-18	REFRIGERATION SUPPLIES DISTRIBUTOR		52.00	26-FEB-18	52.00	Reconciled
385009		22-FEB-18	RICHMOND AMERICAN HOMES OF MARYLAND, INC		1,996.10			Negotiable
385010		22-FEB-18	RINCON TRUCK CENTER INC.		662.87	27-FEB-18	662.87	Reconciled
385011		22-FEB-18	ROYAL WHOLESALE ELECTRIC		749.60	26-FEB-18	749.60	Reconciled
385012		22-FEB-18	SAN CARLO APARTMENTS		36.05			Negotiable
385013		22-FEB-18	SAN MARINO APTS		39.27			Negotiable
385014		22-FEB-18	SAN REMO APTS		111.98			Negotiable
385015		22-FEB-18	SANCHEZ, CAROLINE		183.81			Negotiable
385016		22-FEB-18	SANDERS PAVING INC		3,218.75			Negotiable
385017		22-FEB-18	SANTA MARGARITA FORD		8.07	26-FEB-18	8.07	Reconciled
385018		22-FEB-18	SECURITAS SECURITY SERVICES USA, INC.		54,255.15			Negotiable
385019		22-FEB-18	SHAMROCK SUPPLY CO INC		222.35	27-FEB-18	222.35	Reconciled
385020		22-FEB-18	SHENDELMAN, STEVE		376.14			Negotiable
385021		22-FEB-18	SHOETERIA		125.00			Negotiable
385022		22-FEB-18	SITMATIC		1,436.22	27-FEB-18	1,436.22	Reconciled
385023		22-FEB-18	SKORUZ TECHNOLOGIES INC		19,224.00			Negotiable
385024		22-FEB-18	SMITH, CHRISTINA		27.12	27-FEB-18	27.12	Reconciled
385025		22-FEB-18	SOUTH BAY FOUNDRY, INC		1,847.92			Negotiable
385026		22-FEB-18	SOUTH COAST ANSWERING SERVICE		156.08	26-FEB-18	156.08	Reconciled
385027		22-FEB-18	SOUTH COAST WATER CO.		151.66			Negotiable
385028		22-FEB-18	SOUTHERN CALIFORNIA EDISON COMPANY		17.90	26-FEB-18	17.90	Reconciled
385029		22-FEB-18	SOUTHERN		169,450.53	27-FEB-18	169,450.53	Reconciled

385030	22-FEB-18	CALIFORNIA EDISON COMPANY SOUTHERN CALIFORNIA SECURITY CENTERS, INC.	256.87		Negotiable
385031	22-FEB-18	SOUTHLAND WATER TECHNOLOGIES LLC	1,121.88		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-18 To 28-FEB-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 28-FEB-2018 13:47
 Page: 33

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
385032		22-FEB-18	SPARKLETTES		133.87			Negotiable
385033		22-FEB-18	STANTEC CONSULTING SERVICES INC.		9,859.00			Negotiable
385034		22-FEB-18	STRADLING YOCCA CARLSON & RAUTH		700.00	27-FEB-18	700.00	Reconciled
385035		22-FEB-18	SUKLE ADVERTISING INC.		40,275.32			Negotiable
385036		22-FEB-18	SWAINS ELECTRIC MOTOR SERVICE		6,635.28			Negotiable
385037		22-FEB-18	SWSH SHABU SHABU		357.55			Negotiable
385038		22-FEB-18	TAYLOR MORRISON		5,409.56	27-FEB-18	5,409.56	Reconciled
385039		22-FEB-18	TELEDYNE INSTRUMENTS, INC.		1,072.11			Negotiable
385040		22-FEB-18	THE FURMAN GROUP, INC.		12,540.00			Negotiable
385041		22-FEB-18	THE GAS COMPANY		135.19			Negotiable
385042		22-FEB-18	THOMPSON INDUSTRIAL SUPPLY		3,863.94			Negotiable
385043		22-FEB-18	TOLL BROTHERS, INC		42.20			Negotiable
385044		22-FEB-18	TROPICAL PLAZA NURSERY INC		1,207.73	26-FEB-18	1,207.73	Reconciled
385045		22-FEB-18	TRUCPARCO		409.56			Negotiable
385046		22-FEB-18	TURTLE ROCK CANYON APTS		38.46			Negotiable
385047		22-FEB-18	TYCO INTEGRATED SECURITY, LLC		928.04			Negotiable
385048		22-FEB-18	TYLER SABER AND RYAN TOWNLEY		74.68			Negotiable
385049		22-FEB-18	ULTRA SCIENTIFIC		102.58			Negotiable
385050		22-FEB-18	UNITED PARCEL SERVICE INC		84.62	27-FEB-18	84.62	Reconciled
385051		22-FEB-18	UNITED WATER WORKS, INC.		2,960.97	27-FEB-18	2,960.97	Reconciled
385052		22-FEB-18	US BANK NAT'L ASSOC N.DAKOTA		10,586.30			Negotiable
385053		22-FEB-18	US BANK NAT'L ASSOC N.DAKOTA		1,800.00	27-FEB-18	1,800.00	Reconciled
385054		22-FEB-18	WALTERS WHOLESALE ELECTRIC		106.75	27-FEB-18	106.75	Reconciled
385055		22-FEB-18	WAXIE'S ENTERPRISES, INC		1,694.41	26-FEB-18	1,694.41	Reconciled
385056		22-FEB-18	WESTERN EXTERMINATOR COMPANY		1,804.50			Negotiable
385057		22-FEB-18	WESTERN NATIONAL CONTRACTORS		95.79			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-18 To 28-FEB-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 28-FEB-2018 13:47
 Page: 34

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
385058		22-FEB-18	YORKE ENGINEERING LLC		2,215.25			Negotiable
385059		22-FEB-18	ZEE MEDICAL SERVICE CO		162.96			Negotiable
385060		22-FEB-18	JCI JONES CHEMICALS INC	TAMPA	5,255.25			Negotiable
385061		28-FEB-18	CALIFORNIA DEPARTMENT OF TAX AND FEE ADMINISTRATION	P.O. BOX 942879	224.00			Negotiable
Payment Document Subtotal:					10,079,150.21		8,779,026.05	

Payment Document : IRWD Wire								
12449		06-FEB-18	INTERNAL REVENUE SERVICE	FRESNO	201,580.38			Negotiable
12450		06-FEB-18	FRANCHISE TAX	SACRAMENTO	54,706.84			Negotiable

12451	06-FEB-18	BOARD EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	13,855.95	Negotiable
12452	06-FEB-18	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	230.77	Negotiable
12453	06-FEB-18	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	1,993.83	Negotiable
12454	06-FEB-18	WORKTERRA	PAY	13,335.27	Negotiable
12455	06-FEB-18	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	DENVER	127,321.98	Negotiable
12456	06-FEB-18	YORK INSURANCE SERVICES GROUP INC - CA	PAY	77,268.03	Negotiable
12457	12-FEB-18	EMPLOYEE BENEFIT SPECIALISTS, INC.	PO BOX 11657	23,839.27	Negotiable
12458	13-FEB-18	YORK INSURANCE SERVICES GROUP INC - CA	PAY	23,482.14	Negotiable
12459	13-FEB-18	CALPERS	SACRAMENTO 1	480,844.62	Negotiable
12460	13-FEB-18	CALPERS	SACRAMENTO 1	2,805.07	Negotiable
12461	16-FEB-18	CALPERS	SACRAMENTO 1	181,123.82	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-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 Account: Checking AP and PR Page: 35
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
12462		16-FEB-18	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	5,638.88			Negotiable
12463		16-FEB-18	Beeman, Beth M (Beth)	HOME	36.00			Negotiable
12464		16-FEB-18	BURK, ROBERT	PAY	96.67			Negotiable
12465		20-FEB-18	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	95,075.95			Negotiable
12466		20-FEB-18	U.S. BANK NATIONALST. ASSOCIATION	LOUIS	48,575.34			Negotiable
12467		20-FEB-18	BANK OF AMERICA	SAN FRANCISCO	47,865.82			Negotiable
12468		20-FEB-18	SUMITOMO MITSUI BANKING CORPORATION	NEW YORK	50,652.74			Negotiable
12469		20-FEB-18	U.S. BANK NATIONALST. ASSOCIATION	LOUIS	24,302.47			Negotiable
12470		20-FEB-18	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	11,009.75			Negotiable
12471		20-FEB-18	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	7,339.84			Negotiable
12472		20-FEB-18	GOLDMAN, SACHS & CO. LLC	PO BOX 9081	62,400.00			Negotiable
12473		20-FEB-18	MORGAN STANLEY & CO LLC	SAN FRANCISCO	41,600.00			Negotiable
12474		20-FEB-18	MUNICIPAL WATER DISTRICT OF ORANGEVALLEY COUNTY	FOUNTAIN	862,780.17			Negotiable
12475		20-FEB-18	U.S. BANK NATIONALST. ASSOCIATION	LOUIS	7,930.90			Negotiable
12476		21-FEB-18	FILANC-BALFOUR BEATY JV	ACT 4427724347	1,308,715.51			Negotiable
12477		26-FEB-18	INTERNAL REVENUE SERVICE	FRESNO	173,114.33			Negotiable
12478		26-FEB-18	FRANCHISE TAX BOARD	SACRAMENTO	54,231.90			Negotiable
12479		26-FEB-18	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	13,892.64			Negotiable
12480		26-FEB-18	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	230.77			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-18 To 28-FEB-18 Report Date: 28-FEB-2018 13:47
 Account: Checking AP and PR Page: 36
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
12481		26-FEB-18	CALIFORNIA DEPARTMENT OF	SACRAMENTO	1,993.83			Negotiable

12482	26-FEB-18	CHILD SUPPORT SERVICES	EMPLOYEE BENEFIT PO BOX	14,019.25	Negotiable
12483	26-FEB-18	SPECIALISTS, INC. 11657	GREAT-WEST LIFE & DENVER	128,506.87	Negotiable
12484	27-FEB-18	ANNUITY INSURANCE COMPANY	FRANCHISE TAX SACRAMENTO	694.55	Negotiable
12485	27-FEB-18	BOARD	INTERNAL REVENUE FRESNO	470.50	Negotiable
12486	27-FEB-18	SERVICE	YORK INSURANCE PAY	4,706.75	Negotiable
12487	27-FEB-18	SERVICES GROUP INC - CA	YORK INSURANCE PAY	8,004.24	Negotiable
12488	27-FEB-18	SERVICES GROUP INC - CA	ORANGE COUNTY FOUNTAIN	1,656,763.42	Negotiable
12489	27-FEB-18	SANITATION DISTRICT	CALPERS SACRAMENTO	911.76	Negotiable
12490	27-FEB-18	CALPERS	CALPERS SACRAMENTO	181,403.95	Negotiable
12491	27-FEB-18	BANK OF NEW YORK	MELLON TRUST NEWARK	1,749,677.10	Negotiable
12492	27-FEB-18	COMPANY NA	U.S. BANK NATIONALST. LOUIS	2,918,625.00	Negotiable
		ASSOCIATION			

Payment Document Subtotal: 10,683,654.87

Bank Account Subtotal : 20,762,805.08 8,779,026.05

Report Count : 938 Report Total: 20,762,805.08 8,779,026.05

Disbursements

*** End of Report ***

\$ 20,762,805.08 Disbursements
<1,821.81> Voids
 \$ 20,760,983.27 Total voids and disbursements

Exhibit "E"

MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS

**February
2018**

	AMOUNT	VENDOR	PURPOSE
2/2/2018	894,316.58	BANK OF AMERICA	ACH Payments for Payroll
2/16/2018	922,201.65	BANK OF AMERICA	ACH Payments for Payroll
	<u><u>\$1,816,518.23</u></u>		

Exhibit "F"

IRWD Gov Code 53065.5 Disclosure Report

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

01-FEB-18 to 28-FEB-18

NAME	CHECK NO.	CHECK	AMOUNT	ITEM DESCRIPTION	EXPENSE JUSTIFICATION
Bennett, Ray	384385	8-Feb-18	163.71	Mileage	Rosedale Rio Bravo monthly progress, Bakersfield, CA - November 2017
Bennett, Ray	384385	8-Feb-18	163.71	Mileage	Rosedale Rio Bravo monthly progress, Bakersfield, CA - December 2017
Borowski, Michael	384386	8-Feb-18	210.00	Certification Renewal	CWEA - Electrical/Instrumentation Technician Grade IV
Brown, Morgan	384387	8-Feb-18	170.89	Other(Misc)	Safety shoe allowance
Davis, Jennifer	384390	8-Feb-18	129.29	Other(Misc)	Operating supplies
Fike, Ethan	384169	1-Feb-18	280.00	Certification Renewal	CWEA - Electrical/Instrumentation Technician Grade IV
Garcia, Alex	384663	15-Feb-18	200.00	Other(Misc)	Safety shoe allowance
Gomez, Braulio	384170	1-Feb-18	105.00	Certification Renewal	SWRCB Water Distribution Operator Grade IV
Hatch, Lauren	384171	1-Feb-18	280.00	Certification Renewal	Backflow Tester fee reimbursement
La, Jason	384665	15-Feb-18	262.00	Membership Renewal	AWWA annual membership
LaMar, Steven E	384172	1-Feb-18	236.47	Lodging	California Environmental Dialogue, Sacramento, CA - Dec. 15, 2017
LaMar, Steven E	384172	1-Feb-18	171.64	Lodging	ACWA Board of Directors meeting, Sacramento, CA - Nov. 17, 2017
Lin, Eileen	384666	15-Feb-18	120.00	Other(Misc)	CPA license renewal
Matheis, Mary Aileen	384173	1-Feb-18	115.31	Lodging	Colorado River Symposium, Santa Fe, NM - Sept. 28, 2017
Matheis, Mary Aileen	384173	1-Feb-18	115.31	Lodging	Colorado River Symposium, Santa Fe, NM - Sept. 29, 2017
Matheis, Mary Aileen	384173	1-Feb-18	194.80	Lodging	Water Education Foundation's 40th Anniversary, Sacramento, CA - Oct. 27, 2017
Matheis, Mary Aileen	384173	1-Feb-18	229.23	Lodging	ACWA Fall Conference, Anaheim, CA - Nov. 28, 2017
Matheis, Mary Aileen	384173	1-Feb-18	229.23	Lodging	ACWA Fall Conference, Anaheim, CA - Nov. 29, 2017
Matheis, Mary Aileen	384173	1-Feb-18	229.23	Lodging	ACWA Fall Conference, Anaheim, CA - Nov. 30, 2017
Matheis, Mary Aileen	384173	1-Feb-18	229.23	Lodging	ACWA Fall conference, Anaheim, CA - Dec. 1, 2017
Moore, Rory	384667	15-Feb-18	180.00	Membership Renewal	CWEA membership fee
Phuong, Sophia	384175	1-Feb-18	111.33	Other(Misc)	Meeting supplies
Reyes, Jennifer	384396	8-Feb-18	100.00	Certification Renewal	Cross Connection Specialist certification fee
Reyes, Jennifer	384176	1-Feb-18	280.00	Certification Renewal	Backflow Tester fee
Richardson, Kyle	384397	8-Feb-18	107.74	Other(Misc)	Wireless device reimbursement
Rock, Douglas	384869	22-Feb-18	141.95	Other(Misc)	Wireless device reimbursement
Ruiz, Ricky	384873	22-Feb-18	157.68	Other(Misc)	Safety shoe allowance
Sciabica, Joseph	384669	15-Feb-18	218.27	Other(Misc)	Operating supplies
Sidlin, Wayne	384872	22-Feb-18	150.00	Certification Renewal	SWRCB Wastewater Treatment Plant Operator Grade V
Toland, Scott	384670	15-Feb-18	210.02	Other(Misc)	OCFA Inspection Fee - Baker Water Treatment Plant
Total Amount:			\$5,492.04		

March 26, 2018

Prepared by: J. Corey/K. Welch

Submitted by: F. Sanchez/P. Weghorst

Approved by: Paul A. Cook

CONSENT CALENDAR

3.7 MG ZONE 1 RESERVOIR PROJECT FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

SUMMARY:

A Final Initial Study/Mitigated Negative Declaration (Final IS/MND) has been prepared for the proposed 3.7 million gallon (MG) Zone 1 Reservoir Project (Project) to be located adjacent to the existing IRWD 15 MG Zone 1 Reservoir. The Project would provide essential storage reliability and operational flexibility within the IRWD Zone 1 domestic water system. Environmental review has been completed for the proposed Project. Staff recommends that the Board:

- Adopt the Final IS/MND and the associated Mitigation Monitoring and Reporting Program for the Project, and
- Approve the Project and authorize staff to file a Notice of Determination and submit payment for the California Department of Fish and Wildlife Service filing fee.

BACKGROUND:

IRWD currently operates a 15 MG domestic water reservoir located off Sand Canyon Avenue, between Trabuco Road and Elysian, in Irvine. This 15 MG reservoir serves as the primary storage for the Zone 1 domestic water system, and also serves as the forebay for IRWD's East Zone 1-3 booster and South County Zone 1-3 booster pump stations. The Zone 1 system is the largest pressure zone in the District's domestic water system. If the 15 MG reservoir were out of service, it would leave the Zone 1 system without a water source to regulate pressures.

The construction of a new Zone 1 system reservoir would provide the District with additional operational flexibility and storage redundancy. To provide these additional benefits, a new 3.7 MG reservoir would be constructed at the northwest corner of the existing 15 MG Zone 1 Reservoir site. A Project location map is provided as Exhibit "A". The new reservoir would connect to existing utilities at the project site. An overview of the proposed Project is described below.

3.7 MG Zone 1 Reservoir Project:

The Project would include construction of a new aboveground pre-stressed circular concrete tank. In order to maintain the inflow and outflow capabilities of all facilities, the tank inlet and outlet piping would be sized to match the existing 36-inch inlet pipe to the 15 MG reservoir. The following features would also be included in the Project:

- Overflow and Drain Piping;
- Valve and Drain Vaults; and
- Reservoir Management System

The proposed tank would be located on top of an existing access road. Prior to tank construction, a new access road would be constructed. The proposed Project will also include several retaining walls, modifications to the existing electrical service and a new motorized, double-swing access gate installed at the existing site entry off Sand Canyon Avenue.

Environmental Review:

A Draft Initial Study/Mitigated Negative Declaration (Draft IS/MND) for the Project was prepared by environmental consultants at Psomas. On January 18, 2018, the Draft IS/MND was circulated for a 30-day public review period pursuant to the California Environmental Quality Act (CEQA). Six letters providing comments on the Draft IS/MND were received during the public review period that concluded on February 16, 2018. The agencies that provided comments were:

- California Department of Fish and Wildlife;
- State Water Resources Control Board;
- Governor's Office of Planning and Research;
- Orange County Public Works;
- City of Irvine; and
- California Cultural Resource Preservation Alliance.

IRWD reviewed all comments received and worked with Psomas to prepare responses to comments, which are included in the Final IS/MND. The Final IS/MND contains necessary minor corrections and additions and includes a Mitigation and Monitoring and Reporting Plan. A copy of the Final IS/MND is attached as Exhibit "B".

FISCAL IMPACTS:

The cost for the environmental review of the proposed 3.7 MG Zone 1 Reservoir Project is included for project 0641 in the FY 2017-18 Capital Budget. The existing budget and Expenditure Authorizations are sufficient at this time.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act and in conformance with California Code of Regulations Title 14, Chapter 3, Article 6. A Notice of Intent to adopt a Mitigated Negative Declaration was filed with the County of Orange on January 18, 2018. Pursuant to State Guideline §15073, the IS/MND was made available for public review for a period of 30 days from January 18, 2018, through February 16, 2018.

COMMITTEE STATUS:

This item has not been reviewed by Committee. Environmental compliance items are not taken to Committee prior to submission for Board approval.

RECOMMENDATION:

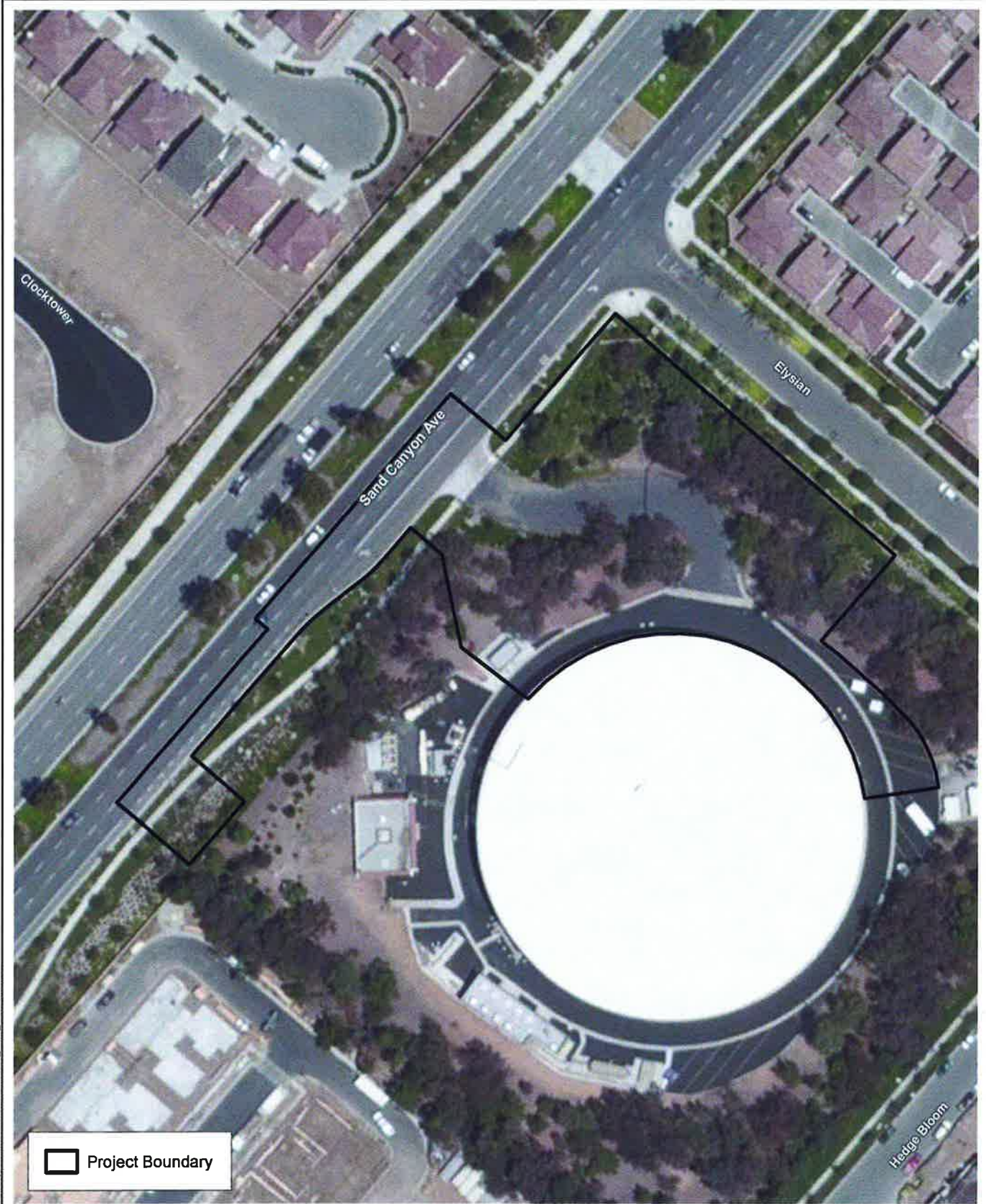
THAT THE BOARD FIND ON THE BASIS OF THE WHOLE RECORD BEFORE IT (INCLUDING THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION AND THE COMMENTS RECEIVED), THAT THERE IS NO SUBSTANTIAL EVIDENCE THAT THE 3.7 MG ZONE 1 RESERVOIR WILL HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AND THAT THE MITIGATED NEGATIVE DECLARATION REFLECTS IRWD'S INDEPENDENT JUDGMENT AND ANALYSIS; ADOPT THE PROPOSED MITIGATED NEGATIVE DECLARATION FOR THE 3.7 MG ZONE 1 RESERVOIR AND THE ASSOCIATED MITIGATION MONITORING AND REPORTING PROGRAM; APPROVE THE PROJECT; AUTHORIZE STAFF TO POST AND FILE A NOTICE OF DETERMINATION; AND SUBMIT PAYMENT FOR THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE SERVICE FILING FEE.

LIST OF EXHIBITS:

Exhibit "A" – 3.7 MG Zone 1 Reservoir Project Location Map

Exhibit "B" – 3.7 MG Zone 1 Reservoir Final Initial Study/Mitigated Negative Declaration

EXHIBIT "A"



D:\Projects\SRV\0009\MND\ex_aerial_20180103.mxd

Aerial Photograph

3.7 MG Zone 1 Reservoir Project

Exhibit 2-3



(Rev: 1-03-2018 MMD) R:\Projects\IRW_IRWD\IRW00901\Graphics\MND\ex2-3_aerial.pdf

**A COPY OF
EXHIBIT “B” CAN BE
OBTAINED FROM THE
DISTRICT SECRETARY**

March 26, 2018

Prepared by: J. Corey / K. Welch

Submitted by: F. Sanchez / P. Weghorst

Approved by: Paul A. Cook 

CONSENT CALENDAR

ADDENDUM NO. 4 TO THE MICHELSON WATER RECYCLING PLANT PHASE 2 AND 3 CAPACITY EXPANSION FINAL ENVIRONMENTAL IMPACT REPORT

SUMMARY:

Irvine Ranch Water District proposes minor modifications to the Michelson Water Recycling Plant (MWRP) Phase 2 and 3 Capacity Expansion Project. The proposed modifications will facilitate the diversion of disinfected and dechlorinated tertiary-treated recycled water to San Diego Creek that would provide critical operational flexibility under emergency conditions. Environmental review has been completed for the proposed modifications. Staff recommends that the Board approve Addendum No. 4 to the MWRP Phase 2 and 3 Capacity Expansion Final Environmental Impact Report (FEIR).

BACKGROUND:

In February 2006, IRWD certified the FEIR for the MWRP Phase 2 and Phase 3 Capacity Expansion Project. This FEIR analyzed the consequences associated with the expansion of the then existing MWRP capacity to meet projected future IRWD recycled water needs.

Previous Addendums:

In March 2008, the IRWD Board approved Addendum No. 1 to the FEIR that evaluated the environmental effects of potential flooding risks and permanent floodwall improvements. The Board approved Addendum No. 2 in August 2009, which analyzed the environmental effects of improvements to the access road between Campus Drive and the IRWD San Joaquin Marsh Campus. In April 2010, the Board approved Addendum No. 3 to the FEIR that provided for the evaluation of the environmental effects of the flood channel road, located near Riparian View at Campus Drive.

Permitted Distribution Options:

Currently, IRWD has several options for the distribution of recycled water produced at MWRP. Under an existing Santa Ana Regional Water Quality Control Board permit, recycled water produced at MWRP is permitted to be distributed directly to customers for their use or to be stored in storage tanks and reservoirs for future use. Additionally, IRWD has the ability to send a limited amount of recycled water to Orange County Water District's Green Acres Project (GAP). IRWD's existing permit prohibits the direct diversion of its recycled water to surface waters, except from storage reservoirs during specified rain events or when the California Division of Safety of Dams requires the release through emergency valves for dam safety or other reasons. IRWD also currently has the ability to divert sewage to the Orange County Sanitation District (OCSD).

Recycled Water Diversion under Emergency Conditions:

IRWD utilizes best management practices to balance recycled water supplies to meet its customer's demands. IRWD manages the storage of recycled water in its reservoir facilities while taking into consideration projected recycled water demands, supplemental water needs and potential rainfall amounts. Despite employing all available best management practices, some extreme weather events may occur in the future which could impact IRWD's ability to manage recycled water supplies. Additionally, when the IRWD Biosolids and Energy Recovery Facilities become operational at MWRP, IRWD's ability to divert sewage from MWRP to OCSO may be limited. These conditions illustrate the need for IRWD to have the ability to divert permit compliant disinfected and dechlorinated tertiary-treated recycled water from MWRP to an adjacent reach of San Diego Creek under emergency conditions. The proposed modifications that would be required to facilitate such diversions are analyzed in Addendum No. 4 to the FEIR.

Proposed Modifications:

IRWD proposes to install facilities to divert up to 33.0 million gallons per day (MGD) of dechlorinated recycled water to San Diego Creek under emergency conditions. Recycled water would initially be diverted through a new 24-inch diameter pipeline to the existing Stormwater Pump Station (SPS) No. 1, which discharges via an existing 24-inch pipeline into San Diego Creek. The proposed pipeline would be installed at grade (i.e., highline), located inside of the MWRP property boundary and associated floodwall. The diversion system would include a 24-inch valve for flow isolation, a pressure reducing valve, a flow meter, a dechlorination system, a potential nutrient (phosphorus) removal system and associated sampling and chlorine residual monitoring. When the MWRP is expanded to its ultimate capacity of 33 MGD, the emergency diversions may be routed to a new outlet structure in San Diego Creek adjacent to the MWRP. The diversion system would include the same isolation valve, pressure reducing valve, flow meter, automated dechlorination system, and nutrient removal system as described in the diversion system as needed. A project location map is attached as Exhibit "A".

Addendum No. 4:

Addendum No. 4 to the FEIR has been prepared pursuant to the California Environmental Quality Act (CEQA). This addendum analyzes the environmental consequences associated with diverting disinfected and dechlorinated tertiary-treated recycled water to San Diego Creek during certain emergency conditions.

Findings:

These proposed modifications to the MWRP Phase 2 and 3 Capacity Expansion Project, as described above, would not change the regulatory framework, impact discussion, mitigation measures or significant conclusions as described in the MWRP Phase 2 and 3 Capacity Expansion FEIR. Environmental review has been completed of the proposed modifications to the MWRP Phase 2 and 3 Capacity Expansion Project and Addendum No. 4 to the FEIR has been prepared. Based on information and analysis in the proposed Addendum No. 4, the Determination section of the Addendum sets forth the proposed determinations by the District

that no conditions described in CEQA calling for the preparation of a subsequent EIR have occurred. A copy of Addendum No. 4 is attached as Exhibit "B".

FISCAL IMPACTS:

The cost for the environmental review associated with Addendum No. 4 is included in project 10093 in the FY 2017-18 Capital Budget. The existing budget and Expenditure Authorizations are sufficient at this time.

ENVIRONMENTAL COMPLIANCE:

Section 15164 of the CEQA Guidelines provides for the preparation of an addendum to a previously certified Environmental Impact Report (EIR) by a lead agency or a responsible agency if some changes or additions to the project are necessary but none of the conditions described in CEQA calling for preparation of a subsequent EIR have occurred. Based on the information and analysis in the proposed Addendum No. 4, the Determination section of the Addendum sets forth the proposed determinations by the District that none of such conditions have occurred.

COMMITTEE STATUS:

This item has not been reviewed by a Committee. Addendums to EIRs typically are not taken to Committee prior to submittal for Board approval.

RECOMMENDATION:

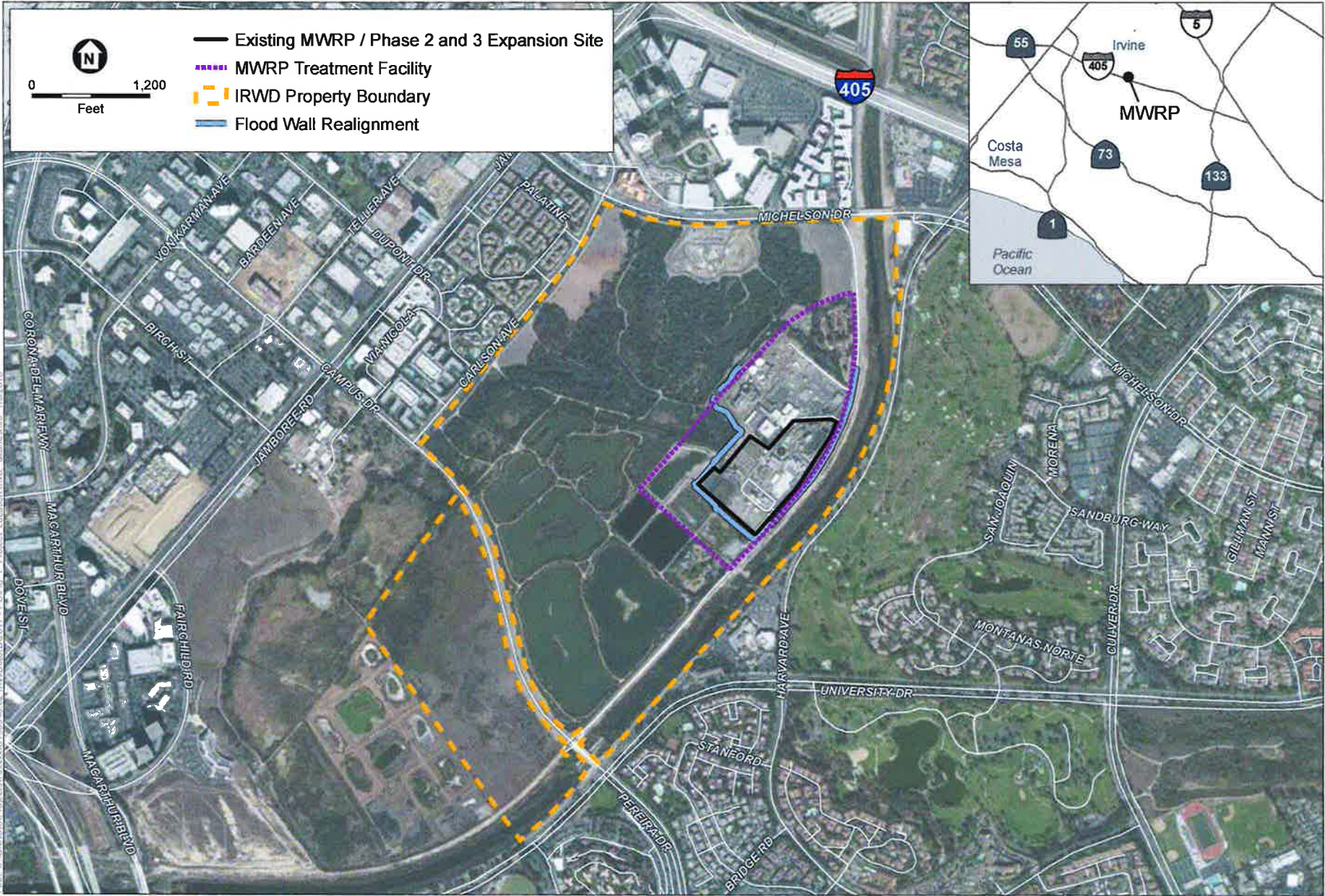
THAT THE BOARD APPROVE THE PROPOSED ADDENDUM NO. 4 TO THE MICHELSON WATER RECYCLING PLANT PHASE 2 AND 3 CAPACITY EXPANSION PROJECT'S FINAL ENVIRONMENTAL IMPACT REPORT, INCLUDING THE DETERMINATIONS SET FORTH IN ADDENDUM NO. 4, AND AUTHORIZE STAFF TO POST AND FILE A NOTICE OF DETERMINATION.

LIST OF EXHIBITS:

Exhibit "A" – Project Area Location Map

Exhibit "B" – Addendum No. 4 to the Michelson Water Recycling Plant Phase 2 and 3 Capacity Expansion Project Final Environmental Impact Report

EXHIBIT "A"



SOURCE: ESA, 2012.

Figure 1
Project Location



**A COPY OF
EXHIBIT “B” CAN BE
OBTAINED FROM THE
DISTRICT SECRETARY**

March 26, 2018

Prepared and

submitted by: C. Compton

Approved by: Paul A. Cook



CONSENT CALENDAR

2018 REGULAR LAFCO SPECIAL DISTRICTS REGULAR AND ALTERNATE SEAT ELECTION

SUMMARY:

The current term of office for one of the two Regular Special District seats on the Orange County Local Agency Formation Commission (LAFCO) and the Alternate Special District seat will expire on June 30, 2018. As a result, the Independent Special Districts Selection Committee has begun the nomination and election process for the LAFCO seats currently held by IRWD Director and LAFCO Commissioner John Withers and LAFCO Alternate Jim Fisler, a Director at the Mesa Water District. Commissioner Withers has indicated that he will be stepping down from his seat at LAFCO and will not be running for re-election.

As part of the election process, the Executive Officer of LAFCO is now accepting nominations for the positions and “Declaration of Qualification to Vote” forms designating the voting member and alternate for each special district seeking to vote in the election. The deadline for submitting nominations and the “Declaration of Qualification to Vote” is Monday, April 9, 2018, at 3:00 p.m. If more than one candidate is nominated for an open seat, ballots for election of the Special District LAFCO members will be mailed on April 17, 2018, and must be returned prior to May 25, 2018, at 3:00 p.m.

Staff recommends that the Board:

- Authorize the District Secretary to submit the “Declaration of Qualification to Vote” form designating President Doug Reinhart as IRWD’s authorized voting member and Vice President Steve LaMar as IRWD’s alternate voting member for the Orange County Special District Selection Committee election; and
- Authorize the District’s designated voting member, or his alternate, to cast the District’s ballot by the May 25, 2018, deadline.

BACKGROUND:

In April of even numbered years, the Independent Special Districts Selection Committee (Selection Committee) begins the nomination and election process for the LAFCO Special District seats expiring June 30 of that year. On March 5, the Executive Director of LAFCO, on behalf of the Selection Committee, sent a letter to each of Orange County’s special districts notifying them of this year’s nomination and election process for the Regular LAFCO Special District seat currently held by IRWD Director and LAFCO Commissioner John Withers, and the LAFCO Special District Alternate seat currently held by LAFCO Commission Jim Fisler. A copy of the letter is attached as Exhibit “A”.

As part of the nomination and election process, each special district must designate its presiding officer to serve as its designated voting member and must designate a board member to serve as the alternate in the event the designated voting member is not available. The Selection Committee requires that each special district file the "Declaration of Qualification to Vote" form designating the voting member and alternate by April 9, 2018, at 3:00 p.m. Staff recommends that the Board authorize the District Secretary to submit the "Declaration of Qualification to Vote" form designating President Doug Reinhart as IRWD's authorized voting member and Vice President Steve LaMar, as IRWD's alternate voting member, for the Orange County Special District Selection Committee election prior to the April 9 deadline.

The deadline for submitting nominations for the open seat is also April 9. If more than one candidate is nominated for the open seat, ballots for election for the Special District LAFCO member will be mailed on April 17 and must be returned prior to May 25 at 3:00 p.m. In accordance with Government Code Section 56332(c)(1) and the Bylaws of the Orange County Special District Selection Committee, "if only one candidate is nominated for a vacant seat, that candidate shall be deemed selected, with no further proceedings" (Bylaws Article III, Section F). Staff recommends that the Board authorize the District's voting member, or his alternate, to cast the District's ballot before the May 25, 2018, deadline.

FISCAL IMPACTS:

None.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

THE BOARD AUTHORIZE THE DISTRICT SECRETARY TO SUBMIT THE "DECLARATION OF QUALIFICATION TO VOTE" FORM DESIGNATING PRESIDENT DOUG REINHART AS IRWD'S AUTHORIZED VOTING MEMBER AND VICE PRESIDENT STEVE LAMAR AS IRWD'S ALTERNATE VOTING MEMBER FOR THE ORANGE COUNTY SPECIAL DISTRICT SELECTION COMMITTEE ELECTION; AND AUTHORIZE THE DISTRICT'S VOTING MEMBER, OR HIS ALTERNATE, TO CAST THE DISTRICT'S BALLOT BEFORE THE MAY 25, 2018, DEADLINE.

LIST OF EXHIBITS:

Exhibit "A" – Nomination Process for OC LAFCO Regular and Alternate Special District Member Seats



EXHIBIT "A"

LOCAL AGENCY FORMATION COMMISSION

ORANGE COUNTY

March 5, 2018

CHAIR
DEREK J. MCGREGOR
Representative of
General Public

VICE CHAIR
CHERYL BROTHERS
Councilmember
City of Fountain Valley

LISA BARTLETT
Supervisor
5th District

DOC ALLAN BERNSTEIN
Councilmember
City of Tustin

TODD SPITZER
Supervisor
3rd District

CHARLEY WILSON
Director
Santa Margarita Water District

JOHN WITHERS
Director
Irvine Ranch Water District

ALTERNATE
WENDY BUCKNUM
Councilmember
City of Mission Viejo

ALTERNATE
JAMES FISLER
Director
Mesa Water District

ALTERNATE
LOU PENROSE
Representative of
General Public

ALTERNATE
MICHELLE STEEL
Supervisor
2nd District

CAROLYN EMERY
Executive Officer

TO: Independent Special Districts Presiding Officers

FROM: Carolyn Emery, Executive Officer

SUBJECT: **Nomination Process for OC LAFCO Regular and Alternate Special District Member Seats**

The terms of office for one of the OC LAFCO Regular Special District Members and the Alternate Special District Member seats expire on June 30, 2018. These two seats are currently held by John Withers, Board Member of Irvine Ranch Water District and James Fidler, Director of Mesa Water District, respectively. The appointment process for special district seats is governed by Government Code Section 56332 and the Independent Special District Selection Committee By-Laws. In accordance with the Committee's bylaws, attached to this notification you will find the following:

- (1) The "**Declaration of Qualification to Vote Form**" for designating the voting member (and alternate voting member) of your district, who is authorized to vote in the appointment process. This form must be returned to OC LAFCO no later than **3 PM on Monday, April 9, 2018**. Please note that if OC LAFCO does not receive the form by that date, your district will be ineligible to vote.
- (2) The "**2018 Nomination Form**" for submitting candidate names for the Regular and Alternate Special District seat appointment. If your district is nominating a candidate for the OC LAFCO Regular and/or Alternate Special District Member seat, the form(s) must be filled out completely and returned to OC LAFCO no later than **3 PM on Monday, April 9, 2018**. Candidate resumes, or other supplemental information may also be included and will be distributed with the ballots.

Both forms may be returned to OC LAFCO by any of the following:

Email: ccarter-benjamin@oclafco.org
Attn: Carolyn Emery, Executive Officer

Mail: Orange County LAFCO
 2677 North Main Street, Suite 1050
 Santa Ana, CA 92705
 Attn: Carolyn Emery, Executive Officer

FAX: (714) 640-5139
 Attn: Carolyn Emery, Executive Officer

For your reference a timeline of key dates for the appointment process is below:

<i>Appointment Process for OC LAFCO Regular and Alternate Special District Member Seats</i>	
DATE	EVENT
March 5, 2018	OC LAFCO Executive Officer emails notification letters with nomination forms and Declaration of Qualification to Vote to independent special district presiding officers, special district general managers, and OC LAFCO chair.
April 9, 2018 (3 PM)	Deadline for submitting nominations and Declaration of Qualification to Vote for regular and alternate special district member to OC LAFCO by 3:00 p.m.*
April 9 - 16, 2018	OC LAFCO develops ballot form.
April 17, 2018	Ballots emailed to all special district presiding officers/designees.
May 25, 2018 (3 PM)	Ballots due to OC LAFCO by 3:00 p.m.
May 31, 2018	OC LAFCO staff (or designee) tabulates ballots and announces results.
July 11, 2018	Oath of office administered (Commission Hearing).
* Pursuant to Government Code §56332 (c)(1), if only one candidate is nominated for a vacant seat, that candidate shall be deemed selected, with no further proceedings.	

Should you have any questions regarding the appointment process, please contact me or our Commission Clerk, Cheryl-Carter Benjamin at (714) 640-5100.

Sincerely,



Carolyn Emery
 Executive Officer

Attachments:

- A. Declaration of Qualification to Vote
- B. 2018 Nomination Forms - Regular and Alternate Special District Member

cc: Special District General Managers
Special District Board Clerks
OC LAFCO Chair

DECLARATION OF QUALIFICATION TO VOTE

Doug Reinhart, Presiding Officer
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618-3102
boardmail@irwd.com

I, _____,* hereby attest that
_____**has been authorized by the Board of
_____to vote in the Orange County Special
District Selection Committee election (regular and alternate
member).

The Board also designated _____***as the alternate
voting member.

Name and Title*: _____

Signature*: _____

Date: _____

**Must be signed by either Board President or Board Secretary*

*** Must be a member of the Board*

****Must be a member of the Board*

Completed forms must be received by OC LAFCO prior to 3 PM, Monday, April 9, 2018. Forms must be delivered to OC LAFCO by:

- (1) Email at: cemery@oclafco.org, or
- (2) Mail at: Orange County LAFCO
2677 North Main Street, Suite 1050
Santa Ana, CA 92705
Attn: Carolyn Emery, or
- (3) FAX at: (714) 640-5139, Attn: Carolyn Emery

2018 NOMINATION FORM

Candidate for the Orange County Local Agency Formation Commission (OCLAFCO)

CANDIDATE INFORMATION FOR REGULAR SPECIAL DISTRICT MEMBER:

NAME: _____

TITLE: _____

DISTRICT: _____

Check box if resume or statement of qualifications is attached.

SPECIAL DISTRICT SELECTION COMMITTEE MEMBER SUBMITTING NOMINATION (Must be the presiding officer or a designated alternate board member.)

NAME: _____ DATE: _____

SIGNATURE: _____

TITLE: _____

DISTRICT: _____

A resume or other supplemental information about the candidate may be included and will be distributed with the election ballots. All completed nomination forms and any supplemental information must be returned to Orange County LAFCO by:

1. Email at: cemery@oclafco.org or
2. Mail at: Orange County LAFCO
2677 North Main Street, Suite 1050
Santa Ana, CA 92705; or
3. Fax at: (714) 640-5139, Attn: Carolyn Emery

All forms and supplemental information must be received by OC LAFCO prior to 3:00 p.m. on Monday, April 9, 2018. Nomination forms or candidate information received after that deadline will not be considered.

2018 NOMINATION FORM

Candidate for the Orange County Local Agency Formation Commission (OCLAFCO)

CANDIDATE INFORMATION FOR ALTERNATE SPECIAL DISTRICT MEMBER:

NAME: _____

TITLE: _____

DISTRICT: _____

Check box if resume or statement of qualifications is attached.

SPECIAL DISTRICT SELECTION COMMITTEE MEMBER SUBMITTING NOMINATION (Must be the presiding officer or a designated alternate board member.)

NAME: _____ DATE: _____

SIGNATURE: _____

TITLE: _____

DISTRICT: _____

A resume or other supplemental information about the candidate may be included and will be distributed with the election ballots. All completed nomination forms and any supplemental information must be returned to Orange County LAFCO by:

1. Email at: cemery@oclafco.org or
2. Mail at: Orange County LAFCO
2677 North Main Street, Suite 1050
Santa Ana, CA 92705; or
3. Fax at: (714) 640-5139, Attn: Carolyn Emery

All forms and supplemental information must be received by OC LAFCO prior to 3:00 p.m. on Monday, April 9, 2018. Nomination forms or candidate information received after that deadline will not be considered.

March 26, 2018

Prepared by: W. Stewart/S. Malloy

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

Approved by: Paul A. Cook *(P.A.C.)*

CONSENT CALENDAR

MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES CONTRACT CHANGE ORDER NO. 76

SUMMARY:

Filanc/Balfour-Beatty (FBB) is constructing the Michelson Water Recycling Plant (MWRP) Biosolids and Energy Recovery Facilities (Biosolids Project). Contract Change Order (CCO) No. 76 includes costs for several structural, electrical, instrumentation, and controls items. Staff recommends that the Board approve CCO No. 76 in the amount of \$150,690.04 with FBB.

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 foundation piles; three egg-shaped digesters; a state-of-the-art odor control system; a biogas conditioning system and power generation using microturbines; a fats, oil and grease (FOG) receiving station; and new utility services. These facilities are being constructed on the land north of IRWD's Operations Center, maintenance shops, water quality laboratory, and warehouse.

CCO No. 76:

Staff negotiated with FBB and agrees to the labor and material costs contained in CCO No. 76, in the amount of \$150,690.04, which contains the following items:

- *Power Feed to Microturbine Capstone Logic Controllers in the amount of \$49,534.35* – Additional electrical conduits and cables are required for the Capstone Logic Controllers (CLCs). The single CLC replaces the five individual controllers and was added by the microturbine manufacturer after the bid to allow for better monitoring of the microturbines. This item is for the labor and material to install the additional conduits and cables.
- *Upsizing of Electrical Cables related to the Heat Drying System in the amount of \$4,670.94* – Electrical cables that service the heat drying system were required to be upsized due to changes made by the dryer supplier during the submittal process. This item is for the labor and material to install the upsized the electrical cables.
- *Additional Cables to MCC-1 in the amount of \$5,679.24* – To conform with the heat dryer's electrical requirements, several modifications to the electrical cabling are required. These modifications include additional cables for the motor space heaters on

the RTO air combustion fans and the pellet bin activator. This item is for the labor and material costs to add the additional cables.

- *Electrical Code Area Classification Change at the Digester Gas Foam Separator in the amount of \$8,804.31* – To comply with fire code requirements, it was concluded that all electrical equipment on the biogas foam separator be changed to Class 1, Division 1. This will increase the safety in the area outside the acid gas booster room of the Digester Control Building. This item is for the labor and material to make the necessary classification change.
- *Addition of Water Source for the Foam Separator in the amount of \$8,418.23* – A water source for the biogas foam separator outside the Digester Control Building was required. This item is for the labor and material to add the one-inch copper line.
- *SCADA Modifications in Various Process Areas in the amount of \$47,170.62* – For better monitoring and control, SCADA modifications were made in various process areas based on discussions during programming workshops. The modifications allow for more flexibility for MWRP Operations. The modifications were made in the Solids Handling Polymer Systems, Dewatering Centrifuges, Sludge Holding Tanks, and the FOG System. This item is for the additional SCADA programming and documentation.
- *Solids Handling Building Stair Modifications in the amount of \$26,412.35* – Modifications are required to a stair in the Solids Handling Building to resolve conflicts with the heat dryer pellet silo structure. This item is for the labor to make the necessary changes.

Staff recommends that the Board approve CCO No. 76 in the amount of \$150,690.04, which is attached as Exhibit “A”. Items that do not claim or grant additional time are considered full compensation for those items. If items require additional time, the items included in this change order are full compensation except for time impacts. The Contractor reserves the right to claim time impacts, but the Contractor must show any time impacts to the project's critical path and how IRWD is responsible for these time impacts. Resolution of these time impacts is scheduled for a later date. CCO No. 76 does not extend any of the milestone completion dates.

The construction change order summary is attached as Exhibit “B”. The following is a summary of the change order categories:

Category	Total Amount	% of Original Contract
A - District Convenience/Initiation - Project Related	\$ 2,955,375.78	1.81%
B - Differing Site Conditions	\$12,544,596.80	7.67%
C - Design Oversight	\$ 3,290,994.84	2.01%
D - District Convenience/Initiation - Non-Project Related	\$ -	0.00%
E - Contractor Convenience/Initiation	\$ 98,302.54	0.06%
F - Contractor Requested Inspection Overtime	\$ (262,020.00)	-0.16%
TOTAL (All Items A - F)	\$18,6278,239.96	11.40%

FISCAL IMPACTS:

The MWRP Biosolids and Energy Recovery Facilities Project 04286 is included in the FY 2017-18 Capital Budget. The existing budget is sufficient to fund the change order.

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 (SEIR), SCH # 2011031091, was certified by IRWD at its October 22, 2012 meeting. The City of Irvine Planning Commission approved a conditional use permit for the IRWD Biosolids Project at its December 6, 2012 meeting.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 20, 2018.

RECOMMENDATION:

THAT THE BOARD APPROVE CONTRACT CHANGE ORDER NO. 76 IN THE AMOUNT OF \$150,690.04 WITH FILANC/BALFOUR BEATTY FOR ELECTRICAL, INSTRUMENTATION, CONTROLS, AND STRUCTURAL MODIFICATIONS FOR THE MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES, PROJECT 04286.

LIST OF EXHIBITS:

Exhibit "A" – Contract Change Order No. 76 with FBB
Exhibit "B" – Construction Change Order Summary

CONTRACT CHANGE ORDER

EXHIBIT "A"



Irvine Ranch Water District

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

C.O. No. 76
 Final
 Project No. 04286

MWRP Biosolids and Energy Recovery Facilities

Project Title

Date: 03/01/2018

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
1. Power Feed to Microturbine CLC (CR-289) PR 04286 Task 5.30	\$49,534.35	\$0.00	See Notes
2. Upsizing of Electrical Cables related to the Heat Drying System (CR-510) PR 04286 Task 5.30	\$4,670.94	\$0.00	See Notes
3. Additional Cables to MCC-1 (CR-538) PR 04286 Task 5.30	\$5,679.24	\$0.00	See Notes
4. Electrical Code Area Classification Change at the Digester Gas Foam Separator (CR-582A) PR 04286 Task 5.30	\$8,804.31	\$0.00	See Notes
5. Addition of Water Source for the Foam Separator (CR-583) PR 04286 Task 5.31	\$8,418.23	\$0.00	See Notes
6. SCADA Modifications on Solids Handling Polymer System (CR-620) PR 04286 Task 5.30	\$7,761.00	\$0.00	See Notes
7. 3-Way Valve Graphical Modifications to SCADA (CR-621) PR 04286 Task 5.30	\$22,540.18	\$0.00	See Notes
8. SCADA Modifications on FOG System (CR-623) PR 04286 Task 5.30	\$7,970.58	\$0.00	See Notes
9. SCADA Modifications on the Digested Sludge Tank Level (CR-626) PR 04286 Task 5.30	\$8,898.86	\$0.00	See Notes
10. Solids Handling Building Stair Modifications (CR-634) PR 04286 Task 5.20	\$26,412.35	\$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	\$150,690.04	\$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	=	\$150,690.04	0
2. ORIGINAL CONTRACT AMOUNT	=	\$163,465,940.00	1,278
3. TOTAL PREVIOUS CHANGE ORDER(S)	=	\$18,476,449.92	368
4. TOTAL BEFORE THIS CHANGE ORDER (2+ 3)	=	\$181,942,389.92	1,646
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4)	=	\$182,093,079.96	1,646

We hereby agree to make the above change subject to the terms of this change order for the sum of: _____
 -----One Hundred Fifty Thousand Six Hundred Ninety and 04/100 -----Dollars

Date		Contractor <u>Filanc/Balfour-Beatty</u>		By: <u>Harry Cosmos, President</u>	
SIGNATURE		DATE		APPROVAL LEVEL REQUIRED	
_____		_____		Department Director Approval Required <input type="checkbox"/>	
IRWD Engineer or Consulting Engineer		Date		Executive Director Approval Required <input type="checkbox"/>	
_____		_____		General Manager Approval Required <input type="checkbox"/>	
Principal Engineer		Date		Board Approval Required <input checked="" type="checkbox"/>	
_____		_____		_____	
Executive Director of Engineering & Water Quality		Date		_____	
_____		_____		Purchase Order No. _____	
General Manager		Date		_____	
_____		_____		_____	

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.

CSG-02

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

EXHIBIT "B"

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

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B - 1

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

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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
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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B - 4

**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
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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**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
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)
Construction Change Order Summary**

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

Contractor: Filano/Balfour-Beatty
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				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
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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	A	FBB	\$20,297.16						0				
26.4	FOG Flushing and Rock Trap Modifications per RFI-0534 (CR-101) PR 21146	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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**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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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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**MWRP Biosolids and Energy Recovery Facilities
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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				
30.7	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				
30.8	Credit for Travel Cost of On-Site Inspection for Acid Phase Digester (CR-175) PR 21146 (4286) Task 3520	B	IRWD	(\$683.39)						0				
30.9	Heat Dryer I/O Modifications per RFI-0626 (CR-179) PR 21146 (4286) Task 3510	A	IRWD	\$11,191.41						0				
30.10	Decant Trough I/O Modifications per RFI-0979 (CR-202) PR 21146 (4286) Task 3510	A	IRWD	\$9,960.55						0				
30.11	Deletion of Interior Coating of Methane Digesters (CR-188) PR 21146 (4286) Task 3520	A	IRWD	(\$398,571.00)						0				
30.12	Piping Modifications and Addition of Carbon Canisters (CR-218) PR 21146 (4286) Task 3520	A	IRWD	\$88,076.01						0				
30.13	Pickling and Passivation of Sludge Mixers (CR-248) PR 21146 (4286) Task 3520	C	IRWD	\$73,997.23						0				
30.14	IRWD Costs Associated to Repairing the Pile and Installing Couplers (CR-139) PR 21146 (4286) Task 3505	E	FBB	(\$38,102.85)						0				
30.15														

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**MWRP Biosolids and Energy Recovery Facilities
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Construction Change Order Summary**

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

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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 Gate 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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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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PR 21146 (4286)
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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 Additional Labeling of Parallel Conduits and Cables (CR-262) PR 21146 (4286) Task 3510	A	FBB	\$16,814.00						0				
37.5	Change in Sludge Receiving Entrance Beacon Operation CR-263 PR 21146 (4286) Task 3510	A	IRWD	\$8,410.00						0				
37.6	Anodize Aluminum Light Fixture Stanchions/Sun Shades (CR-283) PR 21146 (4286) Task 3510	A	IRWD	\$5,382.19						0				
37.7	Hot Tap 8-Inch ACP Potable Water Line (CR-311) PR 21146 (4286) Task 3520	A	IRWD	\$5,911.61						0				
37.8		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 1 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				

- 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

B - 15

**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
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						0				
	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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**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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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: 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
48	Approved by Board of Directors Approved on March 13, 2017				\$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
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
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
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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B - 20

**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
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 4286 Task 5.29	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				
	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 Three Panels at the Dryer Facility (CR-485) PR 4286 Task 5.30	A	IRWD	\$36,874.10						0				

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B - 21

**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
	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						0				
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)
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
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				

A - District Convenience/Initiation - Project Related
B - Differing Site Conditions
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F - Contractor Requested Inspection Overtime

**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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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				

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B - 25

**MWRP Biosolids and Energy Recovery Facilities
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Construction Change Order Summary**

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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

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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				

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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

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				Original Contract Amount: \$163,465,940.00						Original Days: 1,278				10/28/2016
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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				
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	Pending Approval by Board of Directors Pending Approval on March 26, 2018				\$150,690.04	\$18,476,449.92	\$18,627,139.96	11.40%	\$182,093,079.96	0	368	368	-	1/0/1900
	76.1 Power Feed to Microturbine CLCs (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				

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76.5	Addition of Water Source for the Foam Separator (CR-583) PR 04286 Task 5.31	C	FBB	\$8,418.23										
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 5.20	C	FBB	\$26,412.35						0				

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Category				Total Amount	% of Original Contract									
A - District Convenience/Initiation - Project Related				\$ 2,955,375.78	1.81%									
B - Differing Site Conditions				\$ 12,544,596.80	7.67%									
C - Design Oversight				\$ 3,290,884.84	2.01%									
D - District Convenience/Initiation - Non-Project Related				\$ -	0.00%									
E - Contractor Convenience/Initiation				\$ 98,302.54	0.06%									
F - Contractor Requested Inspection Overtime				\$ (262,020.00)	-0.16%									
TOTAL (A + B + C + D + E + F)				\$ 18,627,139.96	11.40%									
Category				Total Amount	% of Original Contract									
IRWD-Initiation/Driven				\$ 3,962,198.64	2.42%									
FBB-Initiation/Driven				\$ 14,494,221.10	8.87%									
N/A				\$ 170,720.22	0.10%									
TOTAL				\$ 18,627,139.96	11.40%									

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March 26, 2018

Prepared by: C. Kessler/K. Lew

Submitted by: K. Burton 

Approved by: Paul A. Cook 

ACTION CALENDAR

TECHNOLOGY DRIVE AND LAGUNA CANYON ROAD CAPITAL RECYCLED WATER FACILITIES BUDGET INCREASE AND CONTRACT CHANGE ORDER

SUMMARY:

Irvine Community Development Company (ICDC) has completed the Technology Drive Extension project which includes the construction of streets, storm drains, domestic water, and recycled water improvements. As part of the project, ICDC constructed IRWD capital recycled water facilities within Technology Drive and Laguna Canyon Road. The project encountered significant challenges during construction causing major changes. Staff recommends that the Board:

- Authorize a budget increase in the amount of \$1,736,500, from \$3,223,500 to \$4,960,000, and
- Approve Contract Change Order No. 9 in the amount of \$1,131,065.61 for tasks related to changes to the construction scope of work for the Technology Drive and Laguna Canyon Road Recycled Water Facilities.

BACKGROUND:

ICDC has constructed the Technology Drive and Laguna Canyon Road Zone B Recycled Water pipeline as part of its Technology Drive Extension project under Master and Supplemental Reimbursement Agreements executed in May 1997 and December 2014, respectively. The project consists of approximately 6,000 feet of 24-inch cement mortar lined and coated steel pipeline (CMLC) within Laguna Canyon Road and the new Technology Drive extension. Construction of the pipeline began in March 2016 and was completed in December 2017. The improvements are shown in Exhibit "A".

Contract Change Order No. 9:

The project encountered numerous field issues that had substantial impacts to the schedule and budget. Contract Change Order (CCO) No. 9 comprises several Change Requests (CR) that represent added scope of work resulting from field issues and are summarized as follows.

Utility Conflicts in the amount of \$632,997.49 - Southern California Edison (SCE) and IRWD were simultaneously designing projects within Laguna Canyon Road. SCE's project, which included installing a conduit bank on the east side of Laguna Canyon between Irvine Center Drive and Technology, started construction prior to the beginning of construction of ICDC's project. As a result, the profile of IRWD's 24-inch steel pipe was required to be lowered to avoid conflicts with the recently-constructed SCE conduit bank (CR No. 7) and air vacuum valve lateral profiles were modified (CR No. 9). In addition, CR No. 11 represents additional construction and construction support tasks associated with various

conflicts throughout the pipe alignment. These costs include labor, equipment and material costs associated with:

- Resolving a conflict with a six-inch recycled water pipeline. The conflict was a result of lowering the 24-inch recycled water pipeline and the six-inch recycled water pipeline not being shown accurately on record drawings;
- Identifying and resolving conflicts with Department of Navy (DON)-owned facilities that were not shown on any record drawings. DON required hand digging to locate its facilities at the northern segment of the project; and
- Additional potholing throughout the alignment required to resolve various conflicts.

Brine Line Relocation in the amount of \$238,801.07 - The pipeline connection location at Laguna Canyon Road and Irvine Center Drive has numerous underground facilities that made it very difficult to connect to the existing 24-inch pipeline within Irvine Center Drive. To simplify the connection, IRWD decided to lower the existing 12-inch brine line serving IRWD's Potable Treatment Plant (PTP). Adjacent to the DON facilities, the 24-inch recycled water pipeline crossed the brine line in a second location. Unfortunately, a thrust block for the brine line was significantly larger than shown on the record drawing. CR No. 8 represents the costs associated with lowering the brine line at the Irvine Center Drive point of connection and resolving the Shallow Groundwater Unit thrust block conflict. This change order also includes work done to replace a valve on the brine line in order to facilitate a good shutdown for the brine line relocation.

Recycled Water System Shutdown in the amount of \$107,505.32 - The shutdown of the recycled water system to facilitate the connection of the 24-inch recycled water pipeline was significantly more complex than originally anticipated. Several commercial centers in the area are dual plumbed, utilizing recycled water for restrooms and cooling towers. In general, the recycled water system is not subject to redundant source of water requirements similar to IRWD's domestic system. To keep the customers in service during the shutdown, customers were temporarily converted over to domestic water. CR No. 12 represents the additional costs associated with the shutdown.

Miscellaneous Issues in the amount of \$151,761.73 - CR No. 13 represents the cost of additional labor, equipment and material for the following items that were not included in the original bid:

- Additional asphalt concrete grind and overlay;
- Replacement of concrete due to added appurtenances;
- Delivery of unused materials to IRWD due to material type changes;
- Replacement of traffic loops damaged during construction;
- Additional project overhead due to extended contract time driven by changes to scope; and
- Final bond adjustment cost.

A detailed summary of the project design and construction change orders is summarized in the Staff Report attached as Exhibit "B". Staff has reviewed CCO No. 9, negotiated costs where

applicable, and found the amounts to be acceptable. No other CCOs are anticipated for the project.

FISCAL IMPACTS:

Project 01015 is included in the FY 2017-18 Capital Budget. Staff requests a budget increase in the amount of \$1,736,500 as shown in the table below:

Project No.	Current Budget	Addition <Reduction>	Total Budget
01015	\$3,223,500	\$1,736,500	\$4,960,000

ENVIRONMENTAL COMPLIANCE:

Construction of capital recycled water facilities as a part of the Technology Drive Extension project is subject to California Environmental Quality Act. In conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, an Environmental Impact Report was certified by the County of Orange on August 11, 1992 (920-31007).

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 20, 2018.

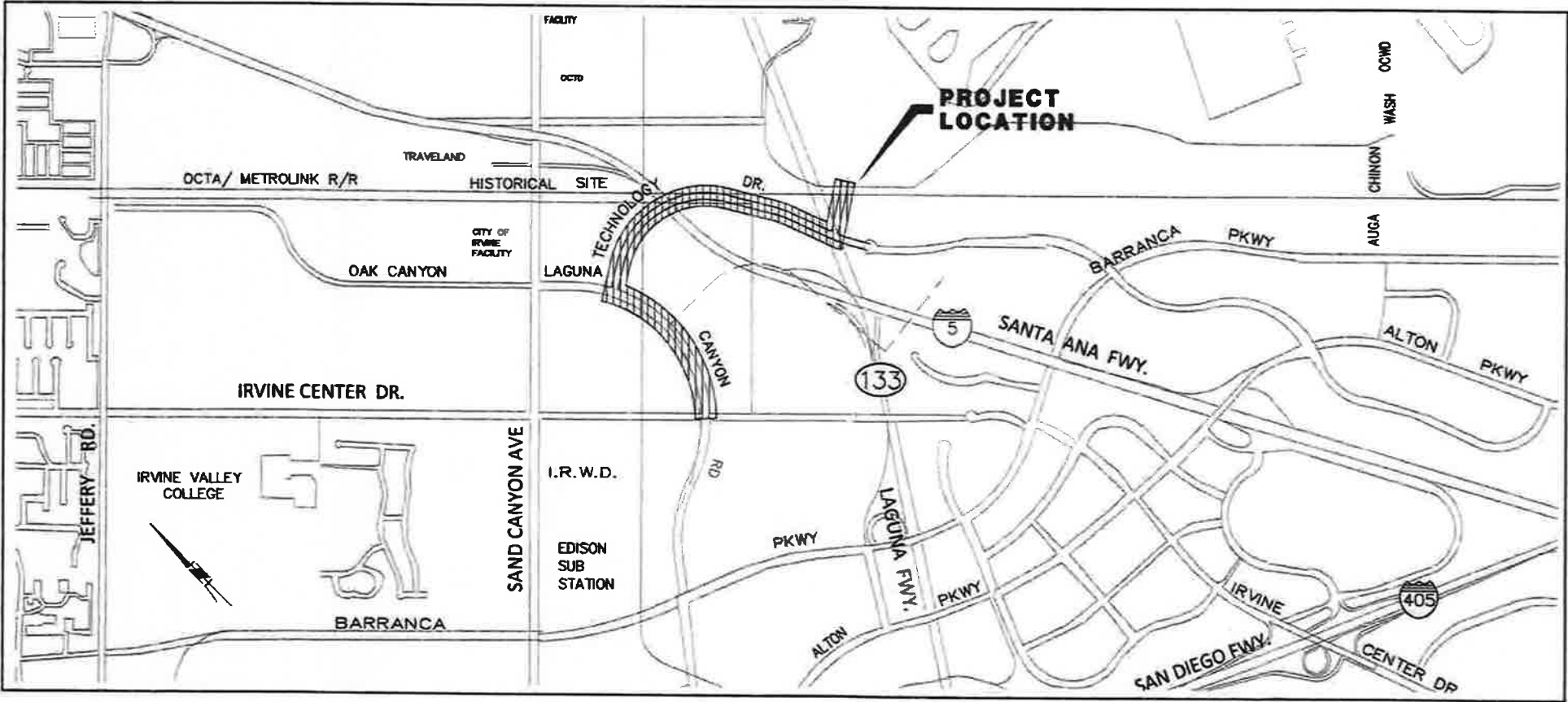
RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE IN THE AMOUNT OF \$1,736,500, FROM \$3,223,500 TO \$4,960,000, AND APPROVE CONTRACT CHANGE ORDER NO. 9 IN THE AMOUNT \$1,131,065.61 FOR THE TECHNOLOGY DRIVE AND LAGUNA CANYON ROAD RECYCLED WATER FACILITIES, PROJECT 01015.

LIST OF EXHIBITS:

- Exhibit "A" – Project Location Map
- Exhibit "B" – Staff Report – Summary of Design and Construction Change Orders

EXHIBIT "A"



LOCATION MAP

**Technology Drive and Laguna Canyon Road Capital Recycled Water Facilities
Summary of Design and Construction Change Orders**

Michael Baker International Design Contract				
Contract Change Order No.	Date	Description	Amount	Status
Original Design	Dec 2014	The original design contract was authorized in December 2014.	\$288,680	Approved
Design CCO No. 0	Nov 2015	Pipeline diameter increased from 20-inch to 24-inch and material from PVC to steel.	\$40,777	Approved
Design CCO No. 8	Mar 2018	Design Change Order 2 includes 60 additional hours for Pre-Construction and Field Meetings, 288 hours for Field Support Services and 120 hours Plan Revision processing during construction for a total of 468 additional. The additional hours were used to complete tasks including weekly coordination meetings at the ICDC's field office, utility conflict coordination field meetings, and RFI and submittal review that exceeded hours estimated within the original design contract and deltas 1 through 7.	\$71,797	Approved
DESIGN CONTRACT TOTAL			\$401,254	
Sukut Construction Contract				
Contract Change Order No.	Date	Description	Amount	Status
Original Construction Contract	Nov 2015	Original Construction Contract was authorized November 23, 2015.	\$2,344,000	Approved
Construction CCO No. 1	Mar 2017	Railroad Insurance Premium. Additional insurance requirements for construction within railroad right-of-way	\$30,976.25	Approved
Construction CCO No. 2	Mar 2017	Added Ductile Iron Spools. Correction to plan per RFI 18. Per specification, IRWD requested DI spools to be changed from CLMC to ductile iron and be installed on both sides of butterfly valves. Increased quantity by 7.	\$10,486.48	Approved
Construction CCO No. 3	Mar 2017	AC Street Sections. While potholing existing facilities it was discovered that the existing roadway structural sections were vastly different than how it was shown on plans. Approved plans show standard cover of 4-inch asphalt over 6-inch rock base. Due to poor soil conditions, actual street sections were designed and installed as much as 8-inch asphalt over 22-inch rock base. This change order includes additional costs related to additional removal and replacement.	\$382,074.72	Approved
Construction CCO No. 4	Mar 2017	Approved Plans Bid Adjustment. Deduction of \$1,109,400 and addition of items 1 thru 7 for in the total amount of \$1,225,950.97	\$116,550.97	Approved
Construction CCO No. 5	Mar 2017	Added Potholing Costs. 1) Potholing of existing utilities as identified by USA/Dig alert. 2) An SCE encasement was located during potholing that had not made it to SCE's record drawings. The SCE encasement ran entire length of Laguna Canyon and as a result required substantial potholing to redesign around conflicts. 3) At the Irvine Center Drive point of connection (POC), numerous utility crossings hindered constructability. As a result additional potholing was required in order to design a siphon to the Irvine Desalter Project's brine line.	\$78,052.67	Approved

Construction CCO No. 6	Feb 2017	Utility Conflicts and Relocations. Additional cost associated with slower production/additional shoring due to crossing existing 4-inch RW at STA 30+70 that was not identified on plans. Additional cost to modify AV at STA 40+22 to maintain min. clearance to adjacent utilities.	\$4,334.64	Approved
Construction CCO No. 7	Feb 2018	Injection Well Realignment. This change order includes all labor, equipment, and material costs associated realigning the 24-inch pipeline around the Shallow Ground Water Unit (SGU) Injection Well Site (station 65+60) per Delta 6 Plan revision.	\$48,176.76	Approved
Construction CCO No. 7	Feb 2018	Cost involved with slow production for CCOs 1 and 3 was duplicated. This CCO is a deduction to correct for the duplication.	<\$4,334.64>	Approved
Construction CCO No. 7	Feb 2018	Additional Survey MBI	\$3,687.50	Approved
Construction CCO No.7	Feb 2018	Additional Soils GMU	\$15,400.00	Approved
Construction CCO No. 9	Mar 2018	Delta 4 Plan Changes. This change order includes all added labor, equipment and material cost associated with modifying the pipeline profile in order to avoid conflict with an existing SCE duct bank within the Irvine Center Drive and Laguna Canyon Road intersection. The pipeline profile was deepened in order to avoid conflict with numerous other existing utilities. Plan changes also added an air vac assembly in the Irvine Center Drive intersection, modified connection details and added ductile iron spools, as well as added a detail to remove portions of an existing waterline at station 60+22. (CR 7)	\$305,831.00	Currently Requested
Construction CCO No. 9	Mar 2018	Delta 5 Plan Changes This change order request includes all estimated labor, equipment, materials, and subcontractor costs required to construct the revised air vac appurtenances per the approved Delta 5 Plan Revisions. (CR 9)	\$28,511.06	Currently Requested
Construction CCO No. 9	Mar 2018	Utility Conflicts and Relocations This change order request includes all added labor, equipment, and material costs associated with various conflicts and/or relocations including a 6-inch recycled water line, a 2-inch domestic service, various irrigation lines and relocation of an air vac. This change order request also includes labor, equipment and material costs associated with additional potholing that was required by the project. Additional potholing was required due to utility conflicts not shown on the plans, revised alignments of appurtenances due to delta 5 and 6 plans, hand digging to expose Navy-Owned utilities not shown on plans, and excavation of new "windows" for gas and fuel utilities. (CR 11)	\$298,655.43	Currently Requested
Construction CCO No. 9	Mar 2018	Brine Line Relocations This change order request includes all added labor, equipment, and material cost associated with the relocation of the existing Shallow Ground Water Unit (SGU) 12" brine in Irvine Center Drive. The work on the brine relocation started on 1/24/17 and on 1/26/17 when the line was to be drained, it was determined that the existing valves on the line would not hold and the shutdown was abandoned. Sukut had to install a tapping sleeve and valve to close the line while a new plan was developed. Ultimately the brine line was relocated and a new plug valve was installed in the intersection of Irvine Center Drive to facilitate the shutdown and complete the relocation. This change order also includes all labor, equipment, and material costs associated with the brine line relocation work north of the railroad tracks near Marine Way. The proposed 24" recycled waterline alignment was too close to the existing thrust blocks of the 6" brine line. In order to install the 24" waterline, a portion of the existing brine line had to be relocated. (CR 8)	\$238,801.07	Currently Requested

Construction CCO No. 9	Mar 2018	<p><u>Tie-in and Interconnects</u> This change order request includes all added labor, equipment, and materials required to complete the tie-in of the 24" recycled waterline in the Irvine Center Drive intersection. The actual field conditions encountered during the tie-in were not as they were originally designed. The deviation from the plan resulted in additional crew time that increased the cost of the tie-in work. A temporary back-feed assembly had to be constructed and removed in order to facilitate the shut down of the existing 24" RW.</p> <p>This change order request also includes all added labor, equipment, and material costs associated with the construction of the 24" to 4" RW interconnection as shown on the Approved Delta 7 plan revisions. (CR 12)</p>	\$107,505.32	Currently Requested
Construction CCO No. 9	Mar 2018	<p><u>Project Close-out and Punch List</u> This change order request includes all added labor, equipment, materials, and subcontractor costs associated with the increase in cost for the 2" AC grind and cap. Due to the significant delays to the project, the original bid pricing for the 2" AC grind and cap expired. This request includes the additional traffic control required to grind and cap the southbound lanes of Laguna Canyon Road where the air vac was redesigned and rerouted to the west of the intersection. This change order request also accounts for the added quantity of 2" grind and cap that was performed within Irvine Center Drive, Laguna Canyon Road, and the Technology Drive intersection.</p> <p>This change order request also includes all labor, equipment, and material costs associated with the removal and replacement of concrete street improvements impacted by the modified design of the 24" recycled waterline. Additional street improvements were damaged due to the construction of added appurtenances or the concrete was damaged due to potholing of items that were later deleted.</p> <p>This change order request also includes all labor and subcontractor costs required to replace traffic signal loops on Irvine Center Drive, Laguna Canyon Road, and Discovery. Modifications to the pipelines appurtenances required removal and replacement of traffic signal loops.</p> <p>This change order request includes all added labor and rental charges associated due to extended project duration. This request is for the extended overhead for 22 working days added to the contract schedule resulting from the 22 full shifts of T&M work conducted for the brine relocation in Irvine Center Drive, the 6" RW conflict, the brine relocation at Marine Way, additional potholing, additional time for the tie-in, and the 24" to 4" interconnect.</p> <p>This change order request includes all added bond premium costs for all added change order work performed during the contract. (CR 13)</p>	\$151,761.73	Currently Requested
CONSTRUCTION CONTRACT CHANGE			\$1,888,407.96	
ORDER TOTAL				

March 26, 2018

Prepared by: K. Welch

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

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

ACTION CALENDAR

TERMS FOR LONG-TERM EXCHANGE PROGRAM WITH ANTELOPE VALLEY-EAST KERN WATER AGENCY

SUMMARY:

On December 21, 2017, the Supply Reliability Programs Committee approved proposed terms for a Long-Term Exchange Program with Antelope Valley-East Kern Water Agency (AVEK). These terms would allow AVEK to deliver State Water Project (SWP) water into storage at the Stockdale Integrated Banking Project (Stockdale Water Bank) on a 2-for-1 basis. AVEK would be able to deliver up to 20,000 acre feet (AF) multiple times between now and year 2035. On March 13, 2018, AVEK's Board of Directors approved the proposed terms. Staff recommends that the Board approve the proposed terms and authorize the general manager to execute an agreement based on the terms, subject to any substantive changes being approved by the Supply Reliability Programs Committee.

BACKGROUND:

AVEK is a SWP Contractor that has Table A supplies of water in excess of its demands and that also exceed the recharge capacity of its water banking facilities in the Antelope Valley. On November 28, 2017, staff met with the General Manager of AVEK to discuss implementing a mutually beneficial long-term exchange program that would allow AVEK to deliver SWP water into storage at the Stockdale Water Bank on a 2-for-1 basis. As a result of this meeting, staff prepared proposed draft terms for a Long-Term Exchange Program between IRWD and AVEK. These terms were reviewed with the Supply Reliability Programs Committee on December 21, 2017. Staff made non-substantive revisions based on feedback from the Committee and submitted the terms to AVEK for its review.

On March 1, 2018 AVEK staff reviewed the proposed draft terms with AVEK's Water Resources and Operations Committee. AVEK's Committee then submitted the terms to the full AVEK Board of Directors for its consideration on March 13. AVEK's Board of Directors approved the terms and authorized AVEK's General Manager to work with IRWD to prepare an agreement based upon the terms. The approved terms are provided as Exhibit "A".

Overview of Exchange Program Terms:

The proposed terms for the Long-Term Exchange Program would allow AVEK to deliver SWP water for recharge at the Stockdale Water Bank on a 2-for-1 basis. AVEK would be allowed to deliver water into storage multiple times between now and 2035. The total amount of storage that would be dedicated to the exchange program would be 20,000 AF. IRWD would return half of the water, less a proportional share of losses, to AVEK by the end of the seventh full year after each associated recharge event. IRWD and AVEK would each pay for their respective share of recharge and recovery costs. It is expected that AVEK would be able to deliver water to

the water bank when the SWP allocation is at or above average conditions. If AVEK does not exercise its rights to deliver water into storage, then IRWD would have the discretion to use AVEK's unused storage capacity for other IRWD programs or to reduce the total storage capacity allocated to AVEK.

Required Approvals:

Implementation of the Long-Term Exchange Program would require approval by the California Department of Water Resources (DWR), Metropolitan Water District of Southern California (Metropolitan), and the Kern County Water Agency (KCWA) through the execution of an Exchange and Point of Delivery Agreement that would be prepared by DWR. Metropolitan's consent is required for IRWD to secure SWP water as specified in IRWD's Coordinated Operating and Exchange Agreement with Metropolitan (Coordinated Agreement). The execution of the Long-Term Exchange Program Agreement between IRWD and AVEK, with Metropolitan providing its signed consent, would initiate the process for DWR to develop the Exchange and Point of Delivery Agreement.

Staff recommends that the Board approve the proposed terms and authorize the General Manager to execute an agreement for a Long-Term Exchange Program between Irvine Ranch Water District and Antelope Valley-East Kern Water Agency, subject to substantive changes approved by the Supply Reliability Programs Committee. Upon approval of the terms, staff and IRWD legal counsel will work with AVEK and its legal counsel in the preparation of the agreement.

FISCAL IMPACTS:

Under the terms of the proposed Long-Term Exchange Program, IRWD would pay approximately \$42 per AF for the recharge of its share of AVEK's SWP Table A water delivered into storage. Recovery of IRWD's share of the water would cost approximately \$79 per AF. IRWD and AVEK would equally share the cost of administration fees charged by the Kern County Water Agency, which are expected to be \$5 per AF for the water delivered into storage. Consistent with the Coordinated Agreement, IRWD would pay Metropolitan the full service Tier-1 rate for either treated or untreated water delivered to IRWD's service area.

ENVIRONMENTAL COMPLIANCE:

Final Environmental Impact Reports for the Strand Ranch and Stockdale Integrated Banking Projects were prepared, certified and approved in compliance with the California Environmental Quality Act (CEQA) of 1970 as amended, codified at California Public Resources Code Sections 21000 et seq., and the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3. Rosedale, as lead agency, filed Notice of Determinations for both the Strand Ranch and Stockdale Integrated Banking Projects with the County of Kern. IRWD, as a responsible agency, filed Notice of Determinations with the County of Orange and with the County of Kern.

COMMITTEE STATUS:

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

RECOMMENDATION:

THAT THE BOARD APPROVE THE PROPOSED TERMS FOR A LONG-TERM EXCHANGE PROGRAM BETWEEN ANTELOPE VALLEY-EAST KERN WATER AGENCY AND IRVINE RANCH WATER DISTRICT AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE AN AGREEMENT BASED ON THE TERMS, SUBJECT TO ANY SUBSTANTIVE CHANGES BEING APPROVED BY IRWD'S SUPPLY RELIABILITY PROGRAMS COMMITTEE.

LIST OF EXHIBITS:

Exhibit "A" – Proposed Terms for a Long-Term Exchange Program Between Irvine Ranch Water District and Antelope Valley-East Kern Water Agency

Exhibit "A"

DRAFT

Proposed Terms for a Long-Term Exchange Program
Between Irvine Ranch Water District and
Antelope Valley-East Kern Water Agency (AVEK)
December 21, 2018

Parties	Irvine Ranch Water District (IRWD); and Antelope Valley-East Kern Water Agency (AVEK)
Description	IRWD and AVEK would implement a Long-Term Exchange Program (Exchange Program) that would allow AVEK to deliver State Water Project (SWP) water into storage at IRWD's Stockdale Integrated Banking Project (Water Bank) on a 2-for-1 basis. Recharge and recovery facilities at both the Strand Ranch and Stockdale Integrated Banking Projects could be used to deliver water in and out of storage at the Water Bank.
Term	The Exchange Program would end on December 31, 2035.
Storage Capacity	Up to 20,000 AF of storage capacity in the Water Bank would be dedicated to the Exchange Program. The maximum account balance to be allocated for the storage of AVEK's share of the water stored in the Water Bank would be 10,000 AF. IRWD at its sole discretion could increase the total storage capacity allocated to the Exchange Program with a proportional increase in AVEK's maximum account balance. Should AVEK provide notice to IRWD that it will not deliver Exchange Water in years with State Water Project allocations at or above 60 percent, then IRWD at its discretion would have the ability to use the Exchange Program storage capacity for other IRWD programs or reduce the total storage capacity and maximum account balance allocated to AVEK.
Exchange Water	AVEK will supply SWP water to the Water Bank available to AVEK through its SWP Contract with the Department of Water Resources (DWR). One-half of the Exchange Water delivered into storage would be deemed transferred to IRWD.
Return Water	<p>Water shall be returned, when requested by AVEK, at an annual rate of no more than one-third of the maximum account balance allocated to AVEK, after losses and not to exceed 3,333 AF per year. IRWD could allow AVEK to recover more water in a year, should IRWD determine that the use of additional recovery capacity by AVEK would not infringe on IRWD's ability to recover water for itself and/or IRWD's other partners.</p> <p>AVEK's share of the water recharged and stored may not remain in storage beyond the end of the 7th calendar year after the delivery of water into storage in the Water Bank. For example, if 10,000 AF of water (after losses) is delivered by AVEK into storage in year 1, then AVEK's 5,000 AF share must be returned by the end of year 8. If another 10,000 AF of water (after losses) is delivered by AVEK into storage in year 3, then AVEK's 5,000 AF share must be returned by the end of year 10.</p>
Losses	Water Banking losses shall be shared equally between IRWD and AVEK (between 11 and 15%). AVEK and IRWD each may incur additional conveyance losses of 1% to 2% in the Cross Valley Canal (CVC) for conveyance of each agencies share of the water, as measured and assessed by Kern County Water Agency.

Recharge Costs	IRWD and AVEK would each be responsible for one-half of all costs assessed to IRWD by Rosedale-Rio Bravo Water Storage District (Rosedale) for recharging water at the Water Bank. These costs may include Rosedale's administrative charge, charges assessed by the Kern County Water Agency (KCWA), Cross Valley Canal (CVC) Standby, applicable CVC pumping and O&M costs, and applicable fixed and variable O&M Water Bank costs.
SWP Fixed and Variable Costs	<p>IRWD and AVEK would each be responsible for one-half of all SWP related variable costs incurred with making the Exchange Water available for recharge at the Water Bank.</p> <p>AVEK shall pay all fixed SWP costs associated with making the water available for recharge, including water that will be allocated to IRWD.</p>
Recovery Costs	<p>IRWD and AVEK would each be responsible for actual costs of recovery for each agency's respective share of the water either through well pumping or by exchange. These costs may include Rosedale's administrative charge, charges assessed by the KCWA, CVC Standby, O&M, and applicable CVC pumping costs, and applicable fixed and variable O&M Water Bank costs.</p> <p>AVEK will pay all conveyance costs in the Aqueduct associated with the delivery of recovered water to AVEK's service area or other AVEK delivery points.</p> <p>IRWD and AVEK would each share any costs assessed by Rosedale under its Long Term Operations Plan for implementing provisions of the MOUs to prevent impacts from operations. It is expected that banking projects, such as the Water Bank, will be required to contribute \$2.00/AF for recovered water to a fund, which may be used to meet mitigation obligations.</p>
Agency Coordination	IRWD and AVEK would cooperate with DWR and Metropolitan Water District of Southern California in preparing all necessary agreements to facilitate the Exchange Program.
Environmental Compliance	Both parties shall comply with California Environmental Quality Act (CEQA) and cooperate with one another with respect to CEQA compliance that may be required by the DWR for the proposed Exchange Program. IRWD has already conducted environmental review under CEQA for the Strand and Stockdale Integrated Banking Projects that takes into consideration the delivery, storage and recovery of SWP water. Rosedale certified and IRWD and approved the CEQA documents for the Strand and Stockdale Integrated Banking Projects. IRWD and AVEK will share equally any additional costs associated with environmental review or permitting deemed necessary for delivering AVEK water into storage (however, none are expected). Both IRWD and AVEK shall each be responsible for any other environmental review or permitting necessary to implement the Exchange Program within their own respective service areas.
General Expenses	Each Party would be responsible for its own fees and expenses arising out of the negotiation and execution of the Exchange Program Agreement, obtaining necessary approvals and the like.

March 26, 2018

Prepared by: B. Meserlian

Submitted by: K. Drake

Approved by: Paul A. Cook 

ACTION CALENDAR

ENTERPRISE ASSET MANAGEMENT IMPLEMENTATION SERVICES

SUMMARY:

Following a successful implementation of the Maximo Enterprise Asset Management (EAM) software, IRWD is now seeking to maximize the use of Maximo among various District functions. Staff recommends that the Board authorize the General Manager to execute a Professional Services Variance with Total Resource Management (TRM) for a not-to-exceed cost of \$216,876.80 to implement the Maximo Scheduler module, and extend the use of Maximo to the Fleet Services Department.

BACKGROUND:

The term “Enterprise Asset Management” refers to the lifecycle management of assets through its various states: planning, design, construction, commissioning, operation, maintenance, and decommissioning. An EAM system records the state and criticality of assets, identifies rehabilitation and replacement needs, and enhances the planning and scheduling of maintenance activities.

EAM Program Status:

The District’s EAM program is subdivided into multiple phases and milestones. Phase 1 of the program included pre-implementation activities that primarily focused on asset database development. Phase 2 of the program involved the implementation of the software, divided into three parts as illustrated in Table 1 below. The stepped approach outlined in Table 1 was adopted to expedite the development of a maintenance platform for the District’s “vertical” facilities (treatment plants, pump stations, lift stations, wells, reservoirs, and valve stations). Subsequently, the focus of the EAM program now shifts to other types of District functions and assets.

The core component of the EAM software, known as “Work and Asset Management”, is complete. As of October 26, 2017, District employees can initiate, plan, schedule, track, and complete work orders within Maximo. Maximo is now capable of logging work and asset history on approximately 29,000 pieces of equipment that make-up the District’s “vertical asset” portfolio. To establish Maximo as the sole work-order system, staff will need to implement supplementary Maximo modules, while continuing to incorporate other types of District assets into the system. The next set of assets to be incorporated into Maximo include IRWD’s two administration buildings, natural treatment system (NTS), siphon structures, District vehicles, the Biosolids Facility, and the thousands of pipeline segments, manholes, and laterals that make up the District’s linear asset portfolio.

Table 1: EAM Program Phases and Milestones

EAM Program Milestones	Target Completion	Current Status
Phase 1: Pre-Implementation		
Asset Identification/ Inventory	August 2016	Complete
EAM Software Selection	May 2016	Complete
Implementer Selection Process	October 2016	Complete
Phase 2: Implementation		
EAM Software Procurement	December 2016	Complete
Part 1: Work & Asset Management – Go Live 1	October 2017	Complete
Material Inventory/ Planning – Go Live 2	April 2018	Ongoing
HQ & Ops Building Assets (including Lab)	April 2018	Ongoing
NTS/ Siphon Assets	May 2018	Ongoing
Maximo Scheduler,	June 2018	-
Maximo for Fleet Assets,	October 2018	-
Biosolids Facility Assets	December 2018	Ongoing
Part 2: Linear Assets	June 2019	-
Part 3: Info. Services & SCADA integration	December 2019	-

EAM Implementation Services:

In November 2016, the District entered into a Professional Services Agreement with TRM to implement Maximo’s Work & Asset Management system. TRM’s services began in late December 2016 with an aggressive schedule to complete the first Go-Live milestone within 10 months. This first milestone was achieved on time and budget. Staff is currently working towards completing the second Go-Live milestone by April 2018.

Moving forward, staff is seeking to extend TRM’s services through October 2018 to implement a robust work planning/scheduling tool known as Maximo Scheduler, and to enable the use of Maximo for fleet assets. TRM’s scope will generally include:

1. Design, configuration, testing, and training services for the implementation of Maximo Scheduler by June 2018. The Scheduler module focuses on two graphical features that are designed to streamline the work order scheduling and assignment process. The graphical scheduling feature includes a Gantt chart view of open work orders that promotes proactive scheduling of multi-functional work. The graphical assignment feature illustrates scheduled labor needs versus staff availability, streamlining the assigning of work orders to staff.
2. Development, integration, testing, and training services to enable fleet assets in Maximo by October 2018. TRM and staff reviewed current business procedures at the Fleet Services Department and concluded that there are no compelling requirements to justify the expense of implementing Maximo’s Transportation module. Instead, staff has elected to utilize the existing Maximo system to manage fleet work and assets, with the least amount of modifications to the current configurations.

Staff recommends the execution of a Professional Services Variance in the amount of \$216,876.80 with TRM for these services. TRM's proposal is attached as Exhibit "A".

FISCAL IMPACTS:

Projects 03566 and 03567 are included in the FY 2017-18 Capital Budget, and the existing budget is sufficient to fund the consulting services described above.

Project No.	Current Budget	Addition <Reduction>	Total Budget
03566	\$2,682,100	\$-0-	\$2,682,100
03567	\$2,682,100	\$-0-	\$2,682,100
Total	\$5,364,200	\$-0-	\$5,364,200

ENVIRONMENTAL COMPLIANCE:

This activity is not subject to the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15060 (c)(1) Preliminary Review. An activity is not subject to CEQA if the activity will not result in a direct reasonably foreseeable indirect physical change to the environment.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 20, 2018.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES VARIANCE WITH TOTAL RESOURCE MANAGEMENT FOR A NOT-TO-EXCEED COST OF \$216,876.80.

LIST OF EXHIBITS:

Exhibit "A" – Total Resource Management Proposal



Irvine Ranch Water District

Technical Consulting Services Proposal

Submitted to:

Irvine Ranch Water District
Ken Drake
Assistant Director of Maintenance Irvine Ranch Water District
3512 Michelson Dr.
Irvine, CA 92612

Maximo Implementation Project – Variance 01

Prepared by:

Total Resource Management
510 King Street, Suite 200
Alexandria, Virginia 22314
(703) 548-4285



February 13, 2018

- 1. Maximo Implementation Project- Supplemental Activities..... 2**
 - 1.1 Maximo Scheduler Implementation Schedule..... 2
 - 1.2 Maximo Scheduler Requirements Workshop..... 3
 - 1.3 Maximo Scheduler Development..... 3
 - 1.4 Maximo Scheduler UAT 4
 - 1.5 Maximo Scheduler Training 4
 - 1.6 Maximo Scheduler Go-Live and Post Go-Live Support 5
 - 1.7 Fleet Implementation Schedule 6
 - 1.8 Fleet Implementation Workshop 6
 - 1.9 Fleet Development..... 7
 - 1.10 Fleet UAT 8
 - 1.11 Fleet Training 9
 - 1.12 Fleet Go-Live and Data Entry 9
 - 1.13 Proposed Cost..... 10

1. Maximo Implementation Project- Supplemental Activities

The following tasks/activities around the **Implementation of Maximo Scheduler Graphical Scheduling and Graphical Assignment applications** and the implementation of **Fleet Assets** are being requested for addition to the scope of Part 1 of the Maximo Implementation Project. These requirements were identified as being necessary to meet business needs and support business processes.

General Assumptions:

- TRM will own Dev, SAND and QA during the functional implementations
- TRM will only patch to fix a defect related to the scheduler or fleet implementation
- IRWD will implement patches, perform backups, and troubleshoot existing integrations, configurations, and rules.
- PM Status calls will be conducted every other week.

1.1 Maximo Scheduler Implementation Schedule

Task Name	Start	Finish
Scheduler and Graphical Assignment Rollout	Mon 2/19/18	Fri 6/8/18
33 - Workshop	Mon 2/19/18	Fri 3/16/18
Prep	Mon 2/19/18	Thu 3/1/18
Conduct Onsite Workshop	Mon 3/5/18	Fri 3/9/18
Requirements Documentation	Mon 3/12/18	Fri 3/16/18
Project Management	Fri 3/2/18	Tue 3/6/18
34 - Scheduler and Graphical Assignment Development	Mon 3/19/18	Thu 4/19/18
Configuration	Mon 3/19/18	Fri 3/30/18
Documentation of Configuration	Mon 3/19/18	Fri 3/23/18
Unit Testing	Mon 4/2/18	Tue 4/3/18
Move to QA	Wed 4/18/18	Thu 4/19/18
Project Management	Mon 3/19/18	Wed 3/21/18
35 -Scheduler and Graphical Assignment UAT	Mon 4/2/18	Mon 5/21/18
Create UAT Scripts	Fri 4/20/18	Thu 4/26/18
Retest with UAT Scripts	Fri 4/27/18	Thu 5/3/18
Conduct UAT on QA	Tue 5/8/18	Mon 5/21/18
Project Management	Mon 4/2/18	Tue 4/3/18
36 - Scheduler and Graphical Assignment Training	Wed 4/4/18	Fri 6/1/18
Develop Training Documentation	Wed 4/4/18	Tue 4/24/18
Deliver Training - First 3 days	Tue 5/29/18	Fri 6/1/18
Project Management	Tue 5/22/18	Wed 5/23/18
37 - Go-Live	Mon 6/4/18	Fri 6/8/18
Post Go-Live Support	Mon 6/4/18	Fri 6/8/18

1.2 Maximo Scheduler Requirements Workshop

TRM will conduct a 2-day workshop to understand and document IRWD requirements for the Maximo Scheduler Graphical Scheduling and Graphical Assignment applications. This includes workshop prep, delivery, and follow-up deliverables.

Workshop Activities:

- Determine level of Labor Availability required
- Define Labor Availability Business Process
- Define Scheduling Business Process
- Define Assignments Business Process
- Define Business Process for the end of the week
- Define Schedule Set Up: Work Orders and PM Forecasting
- Define Assignments Set Up
- Define/Update Security Groups
- Define Start Centers (new and/or changes)

Deliverables:

- Deliver 3-day workshop
- Documented workshop notes
- Requirements and Design documentation
- Updated business process flows

Assumptions:

- Maximo Scheduler software is enabled during Part 1, Go Live 2
- Labor is correctly associated to crafts
- Two TRM consultants, Maren Norell & Janice Colbeth will conduct the workshop
- TRM Requirements Matrix in Excel will be utilized for the requirements and design document

1.3 Maximo Scheduler Development

Based on the requirements documented during the workshop, TRM will configure the Graphical Scheduling, Availability and Graphical Assignment applications. Activities will include configuration, documentation of the configuration, unit testing, and moving the configurations/changes to QA and ultimately promote to PROD.

Deliverables:

- Configured Development environment. Configuration will include (but not limited to) utilizing rules to populate the Owner field via Graphical Assignment.
- Documented configurations
- Unit testing results

Assumptions:

- TRM Configuration Details done in Excel will be utilized to document the configurations and unit testing results.

1.4 Maximo Scheduler UAT

TRM will prepare for and conduct/lead User Acceptance Testing (UAT) for the IRWD Maximo system. Unit tested configurations will be migrated to the QA environment for functional testing and UAT. TRM will perform the functional testing using the prepared test scripts as part of preparations for UAT.

There will be two days of onsite UAT testing sessions using test scripts that TRM will develop. Areas of testing will include the following: Graphical Scheduling Work Order & PM Forecasting Schedules, Graphical Assignment Work Lists, Calendars, Labor, and Availability.

The TRM consultant leading UAT will track issues encountered during testing and will coordinate resolutions and retesting where necessary.

Deliverables:

- Build to QA
- UAT Test Scripts
- Two-day UAT session
- Log of Identified Issues

Assumptions:

- One TRM consultant will be onsite for UAT
- IRWD will print hardcopies of the UAT test scripts
- IRWD will setup PCs for UAT

1.5 Maximo Scheduler Training

TRM will promote the approved configurations from UAT to the QA environment. TRM will provide training documentation and deliver training on the QA environment for the use of the Maximo Scheduler Graphical Scheduling and the Graphical Assignment applications.

Training classes will include:

- 3 (1) day Graphical Scheduling class
- 3 (½) day Graphical Assignment class
- 1 (1) day Scheduler Administration class

Deliverables:

- Build to QA environment
- Six days of delivered training
- Training manuals

Assumptions

- IRWD will provide a Maximo SME to attend and assist with the classes
- TRM will have delivered planning and scheduling refresher training as part of Go-live 2
- IRWD will print training manuals
- TRM will provide training laptops (50/3) ~ 18 Laptops

1.6 Maximo Scheduler Go-Live and Post Go-Live Support

TRM will promote the approved configurations from UAT to the PROD environment for Go Live. TRM will provide support during and after the Go-live of Maximo Scheduler Graphical Scheduling and Graphical Assignment.

Deliverables:

- Go-live build
- One person on-site for 4 days for Post Go-live support

1.7 Fleet Implementation Schedule

Task Name	Duration	Start	Finish
IRWD Fleet Implementation	84 days	Mon 6/13/11	Thu 10/6/11
Contract Awarded	0 days	Mon 6/13/11	Mon 6/13/11
Project Planning	5 days	Mon 6/13/11	Fri 6/17/11
Fleet	79 days	Mon 6/20/11	Thu 10/6/11
38 - Fleet Implementation Work Shop	26 days	Mon 6/20/11	Mon 7/25/11
Research and Prepare for meetings	2 wks	Mon 6/20/11	Fri 7/1/11
Prepare and Conduct Process Identification Meetings for Asset & Meters	5 days	Mon 7/11/11	Fri 7/15/11
Generate Documentation from the Meeting	5 days	Mon 7/18/11	Fri 7/22/11
PM Status	1 day	Mon 7/25/11	Mon 7/25/11
39 - Fleet Development	21 days	Mon 7/25/11	Mon 8/22/11
Load Asset Data, Locations, Classification & Failure Reporting	10 days	Mon 7/25/11	Fri 8/5/11
Configure Maximo - Start centers, Email Notifications, etc	5 days	Mon 8/8/11	Fri 8/12/11
Configuration Integration	3 days	Mon 8/15/11	Wed 8/17/11
Document Configuration Changes and generate IDD for interface	3 days	Thu 8/18/11	Mon 8/22/11
40 - Promote Changes to QA and Conduct UAT	11 days	Tue 8/23/11	Tue 9/6/11
Promote Changes	2 days	Tue 8/23/11	Wed 8/24/11
Create UAT scripts for process	3 days	Tue 8/23/11	Thu 8/25/11
Conduct UAT	3 days	Tue 8/30/11	Thu 9/1/11
Make adjustments / fix issues	3 days	Fri 9/2/11	Tue 9/6/11
41 - Fleet Training	13 days	Wed 9/7/11	Fri 9/23/11
Promote Changes to Training	2 days	Wed 9/7/11	Thu 9/8/11
Create Quick Reference Guides	3 days	Wed 9/7/11	Fri 9/9/11
Conduct 3 days of training using existing guides with supplemental Quick Reference Guides	4 days	Tue 9/20/11	Fri 9/23/11
42 - Fleet Data Entry and Go-Live	9 days	Mon 9/26/11	Thu 10/6/11
Promote Changes to Prod	2 days	Mon 9/26/11	Tue 9/27/11
On-site Lead the entry of Job plan and PM and meter data	3 days	Wed 9/28/11	Fri 9/30/11
Test Integration with Prod and Generate PM's	1 day	Mon 10/3/11	Mon 10/3/11
Support End-User - On-Site 3 days	3 days	Tue 10/4/11	Thu 10/6/11

1.8 Fleet Implementation Workshop

IRWD has reviewed the Maximo Fleet vertical and in comparison with their requirements and the current configuration of Maximo there are no compelling requirements that justify the expense of additional fleet licenses and the expense of implementing a new suite of applications with the overhead of maintaining separate training classes, training material, system patches, etc. Therefore, the Fleet group will utilize the existing configuration of Maximo with the least changes to the current configurations.

TRM will conduct a 2-day workshop to further elaborate on the business and functional requirements, demoing and verifying the proposed design and configuration requirements of the system. TRM will prepare for the workshop by configuring the IRWD development environment with a visual representation of how the system will be utilized for fleet based on the business/application requirements listed below. Upon the completion of the workshop the final design and the expected business process should be identified.

Business / Application Requirements

- Work Orders will be created through the existing work order application
- Work Order Classifications will be utilized to categorize work similar to the VRMS code function. This will allow the work orders to be categorized and the description to be uniformed

- Failure Hierarchy will be designed for fleet to record component and work accomplished
- PM's will be utilized to generate weekly standing work orders – Shop, Drive Up and Road Call
- Emergency Work Type will be utilized if a vehicle comes in and has to be repaired that day
- Job Plans need to be built out for typical recurring corrective work, this will populate work order description and planned hours.
- Prefix existing asset numbers with an F to keep current asset number and not duplicate asset numbers in the system.
- Spare parts will be identified for each fleet asset
- Under Warranty function will be available for the fleet assets
- One new interface point will be established to import Mileage information from the new Fuel Master application
- Fleet Manager Start Center will be created to monitor additional items such as mileage that has exceeded a set tolerance, list of Vehicles due in for PM
- People Locations or Custodian will be utilized to identify who will be contacted for PM service
- PM's and Job Plan sequencing will be utilized to identify proper service per mileage
- Emails will be sent to users when it is necessary to bring in their vehicle
- PM Alerts will be utilized to identify if a vehicle that is in the shop for a corrective has a PM due within the set tolerance.
- Mechanics will utilize quick reporting to record, labor hours, parts used, log notes, failure reporting and current mileage
- Every Vehicle will have a meter record

Deliverables:

- Deliver 2-day workshop
- Documented workshop notes
- Requirements and Design documentation
- Write and Update business process flows

Assumptions

- Fleet will utilize existing processes, application and training documentation.
- All business / application requirements are identified in this document
- Inventory Management will not be implemented for Fleet
- No modifications to existing integrations will be executed
- TRM Requirements Matrix done in Excel will be utilized for the requirements and design document

1.9 Fleet Development

Application Configuration

Once the workshop is complete TRM will configure the development system based on the final decisions that were made during the workshop. Additionally, TRM will create the agreed upon failure hierarchy, location hierarchy for persons and work order classifications. TRM will review the history of issued spare parts and load the item spare parts list as non-stock and attach them as spares to the appropriate asset record. TRM will create a fleet management start center to address the additional information needed for the fleet implementation and make the appropriate security group changes.

Interface Development

TRM will also configure the inbound interface for the Fuel Master Integration to record mileage. The interface will be a daily process to import the exported mileage information from Fuel Master.

Deliverables:

- Configured Development environment
- Create Supporting data
 - Work Order Classifications
 - Failure Hierarchy
- Load Static Data
 - Assets with Odometer Meter
 - Spare Parts
- Working inbound Fuel Master Import
- Documented configurations
- Unit testing results

Assumptions:

- TRM Configuration Design Specs Excel document will be utilized to document the configurations and unit testing results
- TRM IDD will be used to document the interface configurations

Assumptions:

- IRWD will be responsible for establishing the fuel Master file generation and the transfer of that file to a shared fold accessible by the Maximo MIF.
- Fuel Master Integration is to support the proper execution of the preventative maintenance schedule. Any requirement to analyze fuel or fluid consumption will be executed with in the Fuel Master system
- No historic or transactional data will be loaded – IRWD will review RTA for historic information
- IRWD will make any report modifications or new reports requested by the client

1.10 Fleet UAT

TRM will promote all changes to the IRWD QA environment. TRM will create UAT test scripts that reflect the agreed upon business process. The UAT does not contain training so it is important that the UAT participants also participated in the workshop. UAT will include interface testing.

Deliverables:

- UAT Scripts
- 2-Day UAT
- Issues Log
- Resolution of Issues

Assumptions

- No new requirements will be incorporated during this phase.

1.11 Fleet Training

TRM will promote all changes to the IRWD training environment. TRM create role based quick reference guides that identify the specific fleet process. These documents will be supplemental to the existing training guides.

Deliverables:

- 2 (1) day class - for Work Order creation and completion

Assumptions:

- IRWD will print manuals
- TRM will provide training laptops

1.12 Fleet Go-Live and Data Entry

Upon the completion of training TRM will promote all changes to the production environment. TRM will conduct further sessions for entering and establishing the PM program and job plans for the fleet assets. TRM will provide 3 days of on-site support to enter the current meter readings, enter the PM's and job plans for the fleet assets with in the production system. Once the information has been established in Maximo. TRM will provide a 4th on-site day to assist with the entry of outstanding open work orders. Upon the completion of the 4th data entry day, the PM's will be generated and the mechanics will begin to use Maximo to complete their work orders.

Deliverables:


- 4 days of on-site support to support data entry
- 3 days of on-site support to support go-live

Assumptions:

- IRWD will provide at least 4 people to participate in the on-site data entry task
- IRWD with TRM lead will enter 300 PM's with supporting job plans into the live system

1.13 Proposed Cost

Scheduler Implementation		
Task	Scheduler Billing Milestones	FFP Amount
33.1	Prepare and Conduct On-Site WorkShop	\$21,964.80
33.2	Submit Documentation from Workshop	\$9,920.00
34.1	Configuration and Documentation	\$27,200.00
34.2	Complete Unit Testing and Promote to QA	\$8,000.00
35	Complete UAT and Issue Resolution	\$30,925.80
36.1	Submit Training Documentation for Printing	\$14,400.00
36.2	Deliver Remaining Scheduler Training	\$0.00
37	Go-Live Promotion and On-site Support	\$11,848.80
	Total Cost	\$124,259.40
Fleet Implementation		
Task	Fleet Billing Milestones	FFP Amount
38.1	Prepare and Conduct On-Site WorkShop	\$19,603.00
38.2	Submit Documentation from Workshop	\$6,840.00
39.1	Static Data Load	\$9,600.00
39.2	Configuration and Documentation	\$13,360.00
40	Complete UAT and Issue Resolution	\$13,685.80
41	Deliver Training	\$11,817.00
42	Establish PM Program & Go-Live	\$17,711.60
	Total Cost	\$92,617.40

March 26, 2018
Prepared and
submitted by: C. Compton
Approved by: Paul A. Cook 

ACTION CALENDAR

FISCAL YEAR 2017-2018 AND FISCAL YEAR 2018-2019 GENERAL COUNSEL AND OTHER LEGAL SERVICES CONTRACTS

SUMMARY:

The District has elected to adopt a team approach to the procurement of legal services. The approach divides legal service responsibility for regular issues and matters across multiple law firms. In order to implement the District's chosen approach, staff recommends that the Board authorize the General Manager to enter into an agreement and execute two variances for legal services as follows:

- A Professional Services Agreement with Lewis Brisbois Bisgaard & Smith LLP for general counsel legal services focused on municipal law, transactional and non-complex issues, and rate-setting with a term of March 23, 2018, to September 30, 2018, and a not-to-exceed amount of \$375,000;
- A variance to the letter of engagement with Alston & Bird for legal services related to complex issues and litigation with a term of April 1, 2018, to June 30, 2019, and a not-to-exceed amount of \$1,500,000; and
- A variance to the Professional Services Agreement with Kronick Moskovitz Tiedemann & Girard for legal services related to water resources and policy matters with a term of April 1, 2018, to June 30, 2019, and a not-to-exceed amount of \$250,000.

BACKGROUND:

The District has recently changed its structure for the provision of general legal services, and has adopted a team approach that divides legal service responsibility for regular issues and matters among several law firms. The approach utilizes an outside general counsel who will provide legal services related to municipal law, transactional and non-complex issues, rate-setting, and other routine general counsel matters. The general counsel will also provide coordination among the District's various legal counsel. Additionally, the approach utilizes at least two different law firms to provide legal services related to complex issues, complex litigation, and legal matters related to water resources and policy issues. Staff will provide legal services management and legal service continuity along with having other duties.

In order to implement the District's adopted approach to general legal services, the District needs to enter into an agreement with the selected general counsel and modify the agreements it already has with two law firms. Staff recommends that the Board authorize the General Manager to enter into an agreement for legal services with Lewis Brisbois Bisgaard & Smith LLP (Lewis Brisbois), and modify the District's agreements with Alston & Bird and Kronick Moskovitz Tiedemann & Girard (Kronick). The services to be provided by each firm, along with proposed contract terms, are discussed in more detail below.

Services to be Provided by and Proposed Contract with Lewis Brisbois Bisgaard & Smith LLP:

Lewis Brisbois was appointed by the Board as IRWD's general counsel on March 23, 2018. Claire Hervey Collins will serve as the primary point of contact for the District and will serve in the role of general counsel for IRWD. While Ms. Collins will be providing the vast majority of the services required by IRWD, Paul Beck will have responsibility for assisting Ms. Collins and will serve as an assistant general counsel for the District in order to ensure continuity of service should Ms. Collins become unavailable.

As general counsel, Ms. Collins, and on occasion other members of the Lewis Brisbois firm, will provide general counsel legal services for the District focused on municipal law, transactional and non-complex issues, and rate-setting. A more complete description of the scope of work along with select terms of the proposed contract and the hourly rates proposed by the firm are provided in Exhibit "A".

Staff recommends that the Board authorize the General Manager to enter into a six-month Professional Services Agreement with Lewis Brisbois Bisgaard & Smith LLP, effective March 23, 2018 – the date on which the Board appointed the firm as IRWD's general counsel. The proposed contract term would run from March 23, 2018, until September 30, 2018, at which time the Board will evaluate the general counsel's performance and may consider extending the term of the contract.

The recommended not-to-exceed value of the agreement with Lewis Brisbois is proposed at \$375,000. The proposed not-to-exceed value is based on the hourly rates proposed in Exhibit "A". The number of billable hours estimated for this six-month period include time for the District's new general counsel to build the knowledge base required to provide general legal services to IRWD; the estimated amount of time required to represent, advise, and counsel IRWD with regard to matters related to municipal law, transactional and non-complex issues and rate-setting; and the estimated amount of time required to coordinate with the District's other legal counsel over the next six months. The terms of the agreement would be governed largely by IRWD's Professional Services Agreement being altered only as necessary in order to ensure that the agreement meets the legal requirements for contracts between attorneys and their clients.

Services to be Provided by and Proposed Contract with Alston & Bird:

Alston & Bird currently provides legal services to the District related to complex matters and complex litigation under a letter of engagement. The services, representation, and counsel provided by the firm have been of a good quality. As a result, Alston & Bird is again being proposed as the firm to provide legal services to IRWD related to complex issues and litigation matters. A more complete description of the scope of work along with the hourly rates proposed by the firm are provided in Exhibit "B".

Staff recommends that the Board authorize the General Manager to enter into a variance to the Letter of Engagement with Alston & Bird, establishing a new not-to-exceed value for a 15-month period effective April 1, 2018, and clarifying the scope of work for the firm. The proposed variance term would run from April 1, 2018, until June 30, 2019, at which time the

Board will evaluate legal counsel's performance and may consider extending the term of the contract.

The recommended not-to-exceed value of the variance with Alston & Bird is proposed at \$1,500,000 without additional authorization from the District. The proposed not-to-exceed value is based on the hourly rates proposed in Exhibit "B", and the estimated amount of time required for legal counsel to represent, advise, and counsel IRWD with regard to complex matters and litigation matters over the next 15 months.

Services to be Provided by and Proposed Contract with Kronick Moskowitz Tiedemann & Girard:

Kronick currently provides legal services to the District related to water resources and policy-related matters under a Professional Services Agreement. The services, representation, and counsel provided by the firm have been of a good quality. As a result, Kronick is again being proposed as the firm to provide legal services to IRWD related to water resources and policy-related matters including matters related to water banking, water transfers, environmental compliance and other regulatory issues. A more complete description of the scope of work and the hourly rates proposed by the firm are provided in Exhibit "C".

Staff recommends that the Board authorize the General Manager to enter into a variance to the Professional Services Agreement with Kronick, establishing a new not-to-exceed value for a 15-month period effective April 1, 2018, and clarifying the scope of work for the firm. The proposed variance term would run from April 1, 2018, until June 30, 2019, at which time the Board will evaluate legal counsel's performance and may consider extending the term of the contract.

The recommended not-to-exceed value of the variance with Kronick is proposed at \$250,000. The proposed not-to-exceed value is based in the hourly rates proposed in Exhibit "C", and estimated amount of time required for legal counsel to represent, advise, and counsel IRWD with regard to water resources and policy-related matters over the next 15 months.

Legal Resource Management:

Under the adopted team approach, staff will provide legal services management and legal service continuity along with having other duties for IRWD. Christine Compton will also serve in this role as an assistant general counsel for the District.

FISCAL IMPACTS:

The total not-to-exceed amount for the one contract and two variances is \$2,125,000. If approved by the Board, the new contract and variances will be charged against the Fiscal Year 2017-2018 and Fiscal Year 2018-2019 Operating Budgets, as appropriate. Legal services related to capital projects will be billed to the capital budgets, as appropriate.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Due to timing, this item was not reviewed by a committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH LEWIS BRISBOIS BISGAARD & SMITH LLP FOR GENERAL COUNSEL LEGAL SERVICES FOCUSED ON MUNICIPAL LAW, TRANSACTIONAL AND NON-COMPLEX ISSUES, AND RATE-SETTING WITH A TERM OF MARCH 23, 2018, TO SEPTEMBER 30, 2018, AND A NOT-TO-EXCEED VALUE OF \$375,000 WITHOUT ADDITIONAL AUTHORIZATION FROM THE DISTRICT; AUTHORIZE THE GENERAL MANAGER TO EXECUTE A VARIANCE TO THE LETTER OF ENGAGEMENT WITH ALSTON & BIRD FOR LEGAL SERVICES RELATED TO COMPLEX ISSUES AND LITIGATION WITH A TERM OF APRIL 1, 2018, TO JUNE 30, 2019, AND A NOT-TO-EXCEED VALUE OF \$1,500,000; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A VARIANCE TO THE PROFESSIONAL SERVICES AGREEMENT WITH KRONICK MOSKOVITZ TIEDEMANN & GIRARD FOR LEGAL SERVICES RELATED TO WATER RESOURCES AND POLICY MATTERS AND ISSUES WITH A TERM OF APRIL 1, 2018, TO JUNE 30, 2019, AND A NOT-TO-EXCEED VALUE OF \$250,000.

LIST OF EXHIBITS:

- Exhibit "A" – Description of the Scope of Work, Select Contract Terms, and Proposed Hourly Rates for the Proposed Professional Services Agreement with Lewis Brisbois Bisgaard & Smith LLP
- Exhibit "B" – Description of the Scope of Work and Proposed Hourly Rate for Alston & Bird
- Exhibit "C" – Description of the Scope of Work and Proposed Hourly Reate for Kronick Moskowitz Tiedemann & Girard

EXHIBIT “A”

DESCRIPTION OF THE SCOPE OF WORK, SELECT CONTRACT TERMS, AND PROPOSED HOURLY RATES FOR THE PROPOSED PROFESSIONAL SERVICES AGREEMENT WITH LEWIS BRISBOIS BISGAARD & SMITH LLP

Summary of Proposed Scope of Work:

Lewis Brisbois Bisgaard & Smith LLP (Lewis Brisbois) will provide general counsel legal services and representation to IRWD and its subsidiaries, and other affiliates. The firm will perform the work, duties, and responsibilities consistent with the position of general counsel for IRWD and its subsidiaries and other affiliates with an understanding that the firm’s roles as general counsel will be to:

1. Provide expert legal advice to IRWD and its subsidiaries and other affiliates;
2. Independently represent IRWD and its subsidiaries and other affiliates in a variety of matters and forums; and
3. Develop and implement proactive legal strategies to position IRWD and its subsidiaries and other affiliates to best meet its legal, regulatory, and policy objectives.

The scope of the general counsel services provided by Lewis Brisbois to IRWD will consist of a broad range of legal services including regulatory and public policy tracking, interpretation, advice, counsel, legal representation and other services with respect to a variety of legal areas such as:

A. TYPICAL AREAS OF MUNICIPAL LAW, INCLUDING:

1. Agenda and Agenda Item Review;
2. Board Meetings;
3. Basic CEQA and Other Environmental Document Review;
4. Brown Act and Open Meeting Compliance;
5. Claims Processing;
6. Collections;
7. Cortese-Knox-Hertzberg Local Government Reorganization Act;
8. Election Procedures and Challenges;
9. Fair Political Practices Commission Regulations and Political Reform Act;
10. Joint Powers Authorities;
11. Non-complex Litigation;
12. Ordinance Creation and Adoption;
13. Public Contracting and Prevailing Wage;
14. Public Records Act;
15. Public Works Bidding;

16. Real Property;
17. Records Retention and Destruction;
18. Review of Contracts and Other Legal Documents; and
19. Tort Claims.

B. LAWS AND REGULATIONS GOVERNING CALIFORNIA WATER DISTRICTS, INCLUDING:

1. California Government Code;
2. California Health and Safety Code;
3. California Water Code;
4. California Water District Code;
5. Clean Water Act;
6. Porter-Cologne Water Quality Control Act;
7. Sustainable Groundwater Management Act;
8. Safe Drinking Water Act;
9. Urban Water Management Planning Act; and
10. Other Water and Wastewater Laws and Regulations.

C. LAWS AND REGULATIONS RELATED TO WATER AND SEWER SERVICE RATE SETTING, INCLUDING:

1. Case law related to water and sewer service rates;
2. Proposition 26; and
3. Proposition 218.

D. COORDINATION AND MANAGEMENT OF SPECIAL COUNSEL

Select Contract Terms:

The following terms are proposed for inclusion in the contract with Lewis Brisbois:

- 1) General counsel would physically attend Board meetings and, when requested, the Board's committee meetings.
- 2) General counsel would develop and facilitate the implementation of a proactive legal strategy to better position IRWD to meet its legal, regulatory and policy objectives;
- 3) General counsel would minimize potential conflicts of interest and prioritize representation of IRWD and its subsidiaries and other affiliates within her workload;
- 4) General counsel would quickly obtain a heightened familiarity with IRWD's legal needs and day-to-day operations;
- 5) Lewis Brisbois will not staff any matters or work by others members of the firm not serving in the general counsel or assistant general counsel role unless the District has

consent to the use of the staff.

Proposed Hourly Rates:

Claire Hervey Collins:	\$335.00 per hour
Other Partners:	\$300.00 per hour
Associates:	\$265.00 per hour
Paralegals & Law Clerks:	\$145.00 per hour
Word Processing	\$35.00 per hour

EXHIBIT “B”

DESCRIPTION OF THE SCOPE OF WORK AND PROPOSED HOURLY RATES FOR THE PROPOSED VARIANCE WITH ALSTON & BIRD

Summary of Proposed Scope of Work:

Alston & Bird will provide legal services and representation to IRWD and its subsidiaries, and other affiliates. The firm will perform the work, duties, and responsibilities consistent with the position of special counsel for IRWD and its subsidiaries and other affiliates with an understanding that the firm’s roles as special counsel will be to:

1. Provide expert legal advice to IRWD and its subsidiaries and other affiliates;
2. Independently represent IRWD and its subsidiaries and other affiliates in a variety of matters and forums; and
3. Develop and implement proactive legal strategies to position IRWD and its subsidiaries and other affiliates to best meet its legal, regulatory, and policy objectives.

The scope of the legal counsel services provided by Alston & Bird to IRWD will consist of a broad range of legal services including interpretation, advice, counsel, legal representation and other services with respect to complex issues and litigation including matters related to the California Water District Code, construction, public benefit corporations, public works bidding and contract disputes, complex tort claims, Irvine Lake, water rights, complex regulatory matters and other complex matters.

Proposed Hourly Rates:

Maximum Blended Rate for Senior Partners:	\$585.00 per hour
Maximum Blended Rate for Non-Senior Partners:	\$520.00 per hour
Maximum Blended Rate for Associates:	\$435.00-\$450.00 per hour

Alston & Bird has agreed to evaluate a volume discount on a case-by-case basis for complex litigation services, and to primarily use associates on matters that do not require Partner attention in order to reduce the District’s fees. On matters where associates are providing the majority of the service, a Partner would be assigned to provide oversight of the work and to address any District concerns. This management would be provided free of charge. Additionally, all rates are subject to an annual 3% increase.

EXHIBIT “C”

DESCRIPTION OF THE SCOPE OF WORK AND PROPOSED HOURLY RATES FOR THE PROPOSED VARIANCE WITH KRONICK MOSKOVITZ TIEDEMANN & GIRARD

Summary of Proposed Scope of Work:

Kronick Moskovitz Tiedemann & Girard (Kronick) will provide legal services and representation to IRWD and its subsidiaries, and other affiliates. The firm will perform the work, duties, and responsibilities consistent with the position of special counsel for IRWD and its subsidiaries and other affiliates with an understanding that firm’s roles as special counsel will be to:

1. Provide expert legal advice to IRWD and its subsidiaries and other affiliates;
2. Independently represent IRWD and its subsidiaries and other affiliates in a variety of matters and forums; and
3. Develop and implement proactive legal strategies to position IRWD and its subsidiaries and other affiliates to best meet its legal, regulatory, and policy objectives.

The scope of the legal counsel services provided by Kronick to IRWD will consist of a broad range of legal services including interpretation, advice, counsel, legal representation and other services with respect to complex issues and litigation including matters related to water resources and policy matters and issues. Water resources and policy matters and issues includes matters and issues such as water banking; water transfers and exchanges; the Sustainable Groundwater Management Act; environmental compliance; energy management and power purchase agreements; and other similar environmental and regulatory matters with which IRWD requires legal assistance.

Proposed Hourly Rates for 2018:

Eric Robinson:	\$340.00 per hour
Scott Morris:	\$340.00 per hour
Hanspeter Walter	\$335.00 per hour
Maggie Stern	\$325.00
Stanley Powell:	\$310.00 per hour
Holly Roberson	\$275.00

Rebecca Harms	\$250.00
Andreas Booher	\$250.00
Other Shareholders/Of Counsel/Senior Counsel:	\$300.00-\$525.00 per hour
Senior Associates:	\$245.00-\$395.00 per hour
Associate Attorneys:	\$210.00-\$300.00 per hour
Paralegals:	\$100.00-\$170.00 per hour
Law Clerk/Document Clerk:	\$100.00-\$170.00 per hour

Proposed Hourly Rates for 2019:

Eric Robinson:	\$350.00 per hour
Scott Morris:	\$350.00 per hour
Hanspeter Walter	\$345.00 per hour
Maggie Stern	\$335.00
Stanley Powell:	\$330.00 per hour
Holly Roberson	\$285.00
Rebecca Harms	\$260.00
Andreas Booher	\$260.00
Other Shareholders/Of Counsel/Senior Counsel:	\$300.00-\$525.00 per hour
Senior Associates:	\$245.00-\$395.00 per hour
Associate Attorneys:	\$210.00-\$300.00 per hour
Paralegals:	\$100.00-\$170.00 per hour
Law Clerk/Document Clerk:	\$100.00-\$170.00 per hour