

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

April 27, 2020

Due to COVID-19, this meeting will be conducted as a teleconference pursuant to the provisions of the Governor's Executive Orders N-25-20 and N-29-20, which suspend certain requirements of the Ralph M. Brown Act. Members of the public may not attend this meeting in person.

Participation by members of the Board of Directors will be from remote locations. Public access and participation will only be available telephonically/electronically.

To virtually attend the meeting and to be able to view any presentations or additional materials provided at the meeting, please join online via Webex using the link and information below:

Via Web:

<https://irwd.my.webex.com/irwd.my/j.php?MTID=m257ce67e924916b07f23281883b4f439>

Meeting Number (Access Code):	626 121 455
Meeting Password:	95324224

After joining the meeting, in order to ensure all persons can participate and observe the meeting, please select the "Call in" option and use a telephone to access the audio for the meeting by using the call-in information and attendee identification number provided.

As courtesy to the other participants, please mute your phone when you are not speaking.

PLEASE NOTE: Participants joining the meeting will be placed into the WebEx lobby when the Board enters closed session. Participants who remain in the "lobby" will automatically be returned to the open session of the Board once the closed session has concluded. Participants who join the meeting while the Board is in closed session will receive a notice that the meeting has been locked. They will be able to join the meeting once the closed session has concluded.

CALL TO ORDER 5:00 p.m.

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

PUBLIC COMMENT NOTICE

If you wish to address the Board of Directors on any item, please submit a request to speak via the "chat" feature available when joining the meeting virtually. Remarks are limited to three minutes per speaker on each subject. You may also submit a public comment in advance of the meeting by emailing comments@irwd.com before 12:00 p.m. on Monday, April 27, 2020.

COMMUNICATIONS TO THE BOARD

1. A. Written:

B. Oral:

2. ITEMS RECEIVED TOO LATE TO BE AGENDIZED

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

CONSENT CALENDAR

Resolution No. 2020-10

Items 3-10

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

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

4. BOARD MEETING MINUTES

Recommendation: That the minutes of the April 13, 2020 Regular Board meeting be approved as presented.

5. RESOLUTION COMMENDING JOSEPH "JOE" COSTANTINO FOR HIS DEDICATED SERVICE TO IRWD

Recommendation: That the Board adopt a resolution commending Joe Constantino for 29 years of dedicated service to IRWD.

Reso. No. 2020-

6. REVISED SCHEDULE OF POSITIONS AND SALARY RATE RANGES

Recommendation: That the Board adopt a resolution superseding Resolution No. 2019-33 and adopting a Revised Schedule of Positions and Salary Rate Ranges.

Reso. No. 2020-

7. IRVINE RANCH WATER DISTRICT STRATEGIC MEASURES

Recommendation: Receive and file.

8. ADDENDUM TO AMENDED AND RESTATED LICENSE FOR USE OF THE SAN JOAQUIN MARSH PROPERTY

Recommendation: That the Board approve Addendum No. 1 to the Third Amended and Restated License between Irvine Ranch Water District and the San Joaquin Wildlife Sanctuary.

CONSENT CALENDAR – Continued

Items 3-10

9. MARCH 2020 TREASURY REPORT

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Summary of Fixed and Variable Rate Debt, and Disclosure Report of Reimbursements to Board members and staff, approve the March 2020 Summary of Payroll ACH payments in the total amount of \$2,070,423, and approve the March 2020 Accounts Payable Disbursement Summary of Warrants 406723 through 407456, Workers' Compensation Distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$11,084,819.

10. 2020 REGULAR LAFCO SPECIAL DISTRICTS SEAT ELECTION

Recommendation: That the Board authorize the District Secretary to submit the "Declaration of Qualification to Vote" form designating President Mary Aileen Matheis as IRWD's authorized voting member and Vice President Douglas Reinhart as IRWD's alternate voting member for the Orange County Special District Selection Committee Election.

ACTION CALENDAR

11. MID-CYCLE CAPITAL BUDGET UPDATE FOR FISCAL YEARS 2019-20 AND 2020-21

Recommendation: That the Board receive and file the Mid-Cycle Capital Budget Update for Fiscal Years 2019-20 and 2020-21 and approve the Fiscal Years 2019-20 and 2020-21 Mid-Cycle Capital Budget Project additions.

12. SANTIAGO RESERVOIR IMPROVEMENTS BUDGET INCREASE AND CONSULTANT SELECTION

Recommendation: That the Board authorize a budget increase for Project 01813 in the amount of \$123,890,000, from \$15,417,000 to \$139,307,000, and authorize the General Manager to execute a Professional Services Agreement with AECOM in the amount of \$4,989,380 for engineering design services for the Santiago Reservoir Improvements, Project 01813.

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.

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

Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the above-named Board in connection with a matter subject to discussion or consideration at an open meeting of the Board 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 electronically via the Webex meeting noted. Upon request, the District will provide for written agenda materials in appropriate alternative formats, and reasonable disability-related modification or accommodation to enable individuals with disabilities to participate in and provide comments at public meetings. Please submit a request, including your name, phone number and/or email address, and a description of the modification, accommodation, or alternative format requested at least two days before the meeting. Requests should be emailed to comments@irwd.com. Requests made by mail must be received at least two days before the meeting. Requests will be granted whenever possible and resolved in favor of accessibility.

April 27, 2020
Prepared and
submitted by: K. Swan
Approved by: Paul A. Cook



CONSENT CALENDAR

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

SUMMARY:

Pursuant to Resolution 2006-29 adopted on August 28, 2006, the following events and meetings require approval by the Board of Directors:

Steven LaMar

April 27 Southern California Water Coalition Recycled Water Task Force Meeting,
Virtual Format
May 12-13 California Environmental Dialogue Plenary, Virtual Format

Mary Aileen Matheis

April 30 Southern California Water Coalition Quarterly, Virtual Format

Douglas Reinhart

April 30 Southern California Water Coalition Quarterly, Virtual Format

Peer Swan

April 30 Southern California Water Coalition Quarterly, Virtual Format

John Withers

April 30 Southern California Water Coalition Quarterly, Virtual Format

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.

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April 27, 2020
Prepared and
submitted by: L. Bonkowski
Approved by: Paul A. Cook



CONSENT CALENDAR

BOARD MEETING MINUTES

SUMMARY:

Provided are the minutes of the April 13, 2020 Regular Board meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE APRIL 13, 2020 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – April 13, 2020 Minutes

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EXHIBIT "A"

MINUTES OF REGULAR MEETING – April 13, 2020

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:05 p.m. by President Matheis on April 13, 2020 via teleconference pursuant to the provisions of the Governor's Executive Orders N-25-20 and N-29-20 due to COVID-19. Members of the public did not attend this meeting in person.

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

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Technical Services Burton, Executive Director of Water Policy Weghorst, Executive Director of Finance and Administration Clary, Director of Treasury and Risk Management Jacobson, Executive Director of Operations Chambers, General Counsel Collins, Director of Public Affairs Beeman, Director of Human Resources Roney, Director of Water Quality and Regulatory Compliance Colston, Director of Recycling Operations Zepeda, Director of Maintenance Mykitta, Director of Water Operations Roberts, Government Relations Officer/Deputy General Counsel Compton, Secretary Bonkowski, and members of staff and the public.

WRITTEN AND ORAL COMMUNICATIONS: None.

ITEMS TOO LATE TO BE AGENDIZED: None.

CONSENT CALENDAR

Director Reinhart asked that Item No. 9, FEDERAL EMERGENCY MANAGEMENT AGENCY ASSISTANCE FOR DISTRICT-WIDE EMERGENCY EVENTS, be moved to the Action Calendar for discussion. There being no objections, this item was moved accordingly. On MOTION by Withers, seconded by Swan and unanimously carried on a roll call vote (5-0) Withers, Matheis, Reinhart, Swan, and LaMar voting aye, and 0 noes, **CONSENT CALENDAR ITEMS 3 THROUGH 8 AND 10 THROUGH 12 WERE APPROVED AS FOLLOWS:**

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

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

4. BOARD MEETING MINUTES

Recommendation: That the minutes of the March 9, 2020 Regular Board meeting be approved as presented.

CONSENT CALENDAR (CONTINUED)

5. 2020 LEGISLATIVE AND REGULATORY UPDATE

Recommendation: That the Board adopt a “support” position on AB 2095 (Cooper) and ACR 179 (Voepel), and a “support if amended” position on AB 3256 (Garcia).

6. RESOLUTION OF COMMENDATION FOR VAN CADY

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

RESOLUTION NO. 2020-6

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
VAN CADY FOR HER DEDICATED AND
LOYAL SERVICE TO THE DISTRICT

7. RESOLUTION OF COMMENDATION FOR TOM ROBERTS

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

RESOLUTION NO. 2020-7

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
THOMAS “TOM” ROBERTS FOR HIS DEDICATED AND
LOYAL SERVICE TO THE DISTRICT

8. 2020 INDEX TENDER NOTES AMENDMENT

Recommendation: That the Board approve the 2020 Index Tender Notes Second Supplemental Indentures of Trust and adopt the following resolution by title:

RESOLUTION NO. 2020-8

RESOLUTION OF THE BOARD OF DIRECTORS OF
THE IRVINE RANCH WATER DISTRICT APPROVING
SECOND SUPPLEMENTAL INDENTURES OF TRUST
(REFUNDING SERIES 2011A-1 AND REFUNDING SERIES 2011A-2)

10. LADD CANYON ROAD DOMESTIC WATER PIPELINE IMPROVEMENTS
FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Ladd Canyon Road Domestic Water Pipeline Improvements, Project 10102, authorize the General Manager to file a Notice of Completion, and authorize the payment of the retention 35 days after filing the Notice of Completion.

CONSENT CALENDAR (CONTINUED)

11. LANDSCAPE AND IRRIGATION MAINTENANCE THREE-YEAR CONTRACT AWARD

Recommendation: That the Board authorize the General Manager to execute a three-year landscape and irrigation maintenance contract with Tropical Plaza Nursery, Inc. for \$1,727,796.

12. WATERWORKS BUSINESS PARK OFFICE PROPERTY LISTING AGREEMENT EXTENSION

Recommendation: That the Board approve a new listing agreement for the Waterworks Business Park property with the brokerage team of Colliers International under previously agreed-upon commission terms and expiring on February 28, 2021.

ACTION CALENDAR

FEDERAL EMERGENCY MANAGEMENT AGENCY ASSISTANCE FOR DISTRICT-WIDE EMERGENCY EVENTS

General Manager Cook reported that on February 26, 2020, the County of Orange proclaimed a local emergency and the Orange County Health Officer declared a local health emergency due to COVID-19. IRWD is required to submit a Board-adopted resolution to Cal OES to become eligible for reimbursement for costs incurred for current and future emergency disaster events for up to three years following the date of approval.

In response to Director Reinhart's inquiry if a consultant would be necessary to assist with the funding process, General Manager Cook responded that he believed that staff and WEROC have sufficient experience in obtaining funds with past emergency situations, so at this time it will not be necessary to hire additional assistance. There being no further comments, on MOTION by Reinhart, seconded by Withers and unanimously carried on a roll call vote (5-0) Withers, Matheis, Reinhart, Swan, and LaMar voting aye, and 0 noes, **THE BOARD ADOPTED THE FOLLOWING RESOLUTION BY TITLE ALLOWING IRWD TO RECEIVE REIMBURSEMENT FROM THE CALIFORNIA GOVERNOR'S OFFICE OF EMERGENCY SERVICES (CAL OES) FOR EXPENSES INCURRED IN RESPONSE TO STATE-DESIGNATED EMERGENCY DISASTER EVENTS DUE TO THE CORONAVIRUS PANDEMIC.**

RESOLUTION NO. 2020-9

DESIGNATION OF APPLICANT'S AGENT RESOLUTION FOR
NON-STATE AGENCIES
(STATE OF CALIFORNIA, GOVERNOR'S OFFICE OF
EMERGENCY SERVICES – CAL OES 130)

AGREEMENT FOR 1,2,3-TCP COST RECOVERY LITIGATION

General Manager Cook reported that pursuant to the discussion with the IRWD Board of Directors at its meeting on January 27, 2020, staff and general counsel interviewed Robins Borghei LLP in connection with jointly undertaking with Rosedale-Rio Bravo Water Storage District certain cost recovery litigation related to 1,2,3-Trichloropropane (1,2,3-TCP). On MOTION by Reinhart, seconded by LaMar and unanimously carried, on a roll call vote (5-0) Withers, Matheis, Reinhart, Swan, and LaMar voting aye, and 0 noes, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE, JOINTLY WITH ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT, A LEGAL SERVICES AGREEMENT WITH ROBINS BORGHEI, LLP FOR COST RECOVERY RELATED TO 1,2,3-TRICHLOROPROPANE CONTAMINATION OF GROUNDWATER.**

PFAS TREATMENT PROGRAM AGREEMENT

Executive Director of Water Policy Weghorst reported that per-and polyfluoroalkyl substance (PFAS) compounds have emerged as “contaminants of concern” primarily due to human health impacts and that several of these compounds have been detected in significant concentrations in parts of the groundwater basin. He said that the District’s Orange Park Acres (OPA) Well No. 1 is impacted by the PFAS contamination, as are drinking water wells operated by nine other groundwater producer agencies. Mr. Weghorst said that in response to this contamination of the groundwater basin, OCWD is implementing its PFAS Policy that was developed with input from IRWD consistent with IRWD policy principles. OCWD has developed a program to work with the impacted groundwater producer agencies to fund a substantial portion of the design, construction, operation and maintenance of facilities to remove PFAS from water produced from drinking water wells in the affected areas of the Basin.

Mr. Weghorst said that staff and IRWD’s legal counsel have been working with OCWD and nine other affected groundwater producer agencies in the development of a Master Treatment Program Agreement that would allow OCWD to fund 100% of the design and construction of PFAS treatment facilities at Producer drinking water wells as well as 50% of the operation and maintenance costs to operate the facilities over a 30-year period.

Following discussion, Director Reinhart asked that an item be placed on the next Board meeting agenda, if timely, to discuss the design of the well. The Board and staff further complimented Legal Counsel Collins on her efforts to make the agreement fair and equitable. On MOTION by Matheis, seconded by Reinhart, and unanimously carried, on a roll call vote (5-0) Withers, Matheis, Reinhart, Swan, and LaMar voting aye, and 0 noes, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE THE MASTER TREATMENT PROGRAM AGREEMENT IN THE FORM PRESENTED, SUBJECT TO REASONABLE SUBSTANTIVE CHANGES OTHERWISE AGREED UPON BY ALL PARTIES AND APPROVED BY GENERAL COUNSEL, TO FACILITATE THE DESIGN, CONSTRUCTION AND OPERATION OF PFAS TREATMENT FACILITIES AT AFFECTED WELLS INCLUDING IRWD’S ORANGE PARK ACRES WELL NO. 1, CONTINGENT UPON A FUTURE DETERMINATION THAT IRWD WILL PROCEED WITH CONSTRUCTION AND OPERATION OF A PFAS REMOVAL FACILITY.**

COVID-19 RESPONSE – COMMERCIAL INVESTMENT PROPERTIES LEASE
PAYMENT DEFERRALS

Director of Treasury and Risk Management reported that as a result of the impacts on businesses related to COVID-19, and the stay-at-home order, staff has received lease payment deferral requests from five tenants at the Waterworks Business Park and one tenant at the Sand Canyon Professional Center. Mr. Jacobson said that some tenants have contacted their respective insurance providers related to potential relief through their business interruption insurance; however, the general response from insurance companies has been that the coverage does not cover loss of income due to market conditions, a slowdown of economic activity, or suspensions and shutdowns implemented to limit the spread of a virus or bacteria, which would apparently include COVID-19.

Mr. Jacobson said that staff recommends the Board authorize staff to implement a lease payment deferral program for IRWD's commercial investment properties and also recommends the deferral program allow tenants to defer lease payments up to 90 days, with a repayment plan that amortizes the deferred rent over the following 12-month period without incurring late fees or interest, for tenants impacted by COVID-19 who request rent deferral assistance. The deferral amount related to current tenant requests would result in approximately \$227,000 in deferred payments over the 90-day period; this amount could increase if additional requests are received. Based on discussions with industry professionals, similar rent deferral programs are being developed and implemented by other commercial property owners. IRWD's special counsel (Jackson-Tidus) is drafting a proposed lease amendment based on the above parameters that will be executed by tenants and IRWD.

Following discussion, Director Swan said that this item was reviewed by the Finance and Personnel Committee on April 7, 2020, and on MOTION by Swan, seconded by Mathies and unanimously carried on a roll call vote (5-0) Withers, Matheis, Reinhart, Swan, and LaMar voting aye, and 0 noes, **THE BOARD AUTHORIZED STAFF TO IMPLEMENT A LEASE DEFERRAL PROGRAM FOR IRWD'S COMMERCIAL INVESTMENT PROPERTIES FOR A PERIOD OF UP TO 90 DAYS, WITHOUT INCURRING LATE FEES OR INTEREST, AND REPAYMENT OF DEFERRED RENT AMORTIZED FOR A PERIOD NOT TO EXCEED 12 MONTHS FOR TENANTS WHO REQUEST ASSISTANCE DUE TO IMPACTS FROM COVID-19.**

SERRANO SUMMIT / LENNAR PROMISSORY NOTE REQUEST TO EXTEND
MATURITY

Director of Treasury and Risk Management reported that since acquiring the Serrano Summit site from IRWD, Lennar has added significant value to the property by completing installation of all the primary neighborhood infrastructure (streets, utilities, storm drains, etc.), grading of residential lots and recently opening model homes for two neighborhoods. New homes are currently under construction and for sale. Mr. Jacobson said that based on recent discussions, Lennar is prepared to pay off the principal and interest on the scheduled maturity date but did express an interest in extending the maturity date by seven months to December 1, 2020.

Mr. Jacobson reported that during the proposed seven-month extension, it is anticipated that Lennar will begin completing and selling the first homes in the project. He said that based on discussions with the District's legal counsel (Jackson-Tidus), the amended note terms would include the partial release of certain lots secured by the Deed of Trust in order to provide clear title to homeowners. To compensate for the reduction in lots, the amended note terms would provide for a pro rata (total lots released divided by the total approved lots) principal paydown to IRWD of the note balance, plus a 10% premium, prior to any partial releases approved by the District. No other terms of the note will be modified by the recommended amendment.

Director Swan reported that this item was reviewed by the Finance and Personnel Committee on April 7, 2020, and on MOTION by Swan, seconded by LaMar, and unanimously carried on a roll call vote (5-0) Withers, Matheis, Reinhart, Swan, and LaMar voting aye, and 0 noes, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE AN AMENDMENT TO THE CURRENT PROMISSORY NOTE BETWEEN IRWD AND LENNAR HOMES OF CALIFORNIA FOR A SEVEN-MONTH EXTENSION TO DECEMBER 1, 2020, AT THE CURRENT INTEREST RATE OF 4.00%, TO BE APPLICABLE TO BOTH THE PRINCIPAL AND ACCRUED INTEREST AMOUNT AS OF APRIL 30, 2020, AND INCLUDING PARTIAL RELEASE PROVISIONS AS STATED.**

ELECTRONIC BILL PRESENTMENT AND PAYMENT SOLUTION

General Manager Cook reported that the District is proposing to implement a new Electronic Bill Presentment and Payment Solution (EBPP) that will provide IRWD customers with an updated web portal allowing them to receive bills in an electronic format and provide services for on-line and on-demand electronic payments. The new solution will be integrated with IRWD's current WaterSmart portal and will provide real-time payment functionality and dynamic water usage visibility – thereby increasing operating efficiency and improving customer satisfaction.

Executive Director of Finance and Administration Clary reported that staff provided a Request for Qualifications (RFQ) for an EBPP Solution to four firms, and that staff received and evaluated the responses and identified two firms, Paymentus and Invoice Cloud, to present system functionality demonstrations. Ms. Clary said that it was determined that the best functionality for IRWD was provided by Paymentus, which also integrates well with Oracle Customer Care and Billing, WaterSmart, and other systems and functions necessary for enhanced IRWD customer service and support. She said that an evaluation of the functionality of Paymentus and Invoice Cloud is provided in the exhibit.

Using a PowerPoint presentation, Mr. Ryan Matuska reviewed the current challenges for customers and noted that, in addition to traditional payment methods, customers will have access to enhanced payment options. Additionally, he said that WaterSmart will serve as the official "landing page" for all customers who access their accounts electronically.

Director LaMar said that this item was reviewed by the Water Resources Policy and Communications Committee on April 2, 2020. On MOTION by LaMar, seconded by Reinhart, and unanimously carried, on a roll call vote (5-0) Withers, Matheis, Reinhart, Swan, and LaMar voting aye, and 0 noes, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A FIVE-YEAR AGREEMENT WITH PAYMENTUS FOR ELECTRONIC BILL PRESENTMENT AND PAYMENT SOLUTION FOR IRWD CUSTOMERS FOR THE TRANSACTION RATES STATED IN THE PAYMENTUS PROPOSAL.**

GENERAL MANAGER'S REPORT

General Manager Cook reported on operations of the District noting that the suppliers are intact, and accommodations are being addressed for customers, similar to the past emergency situation in 2008. He said that the Customer Service Department is handling requests, and to date has received approximately three dozen requests from customers asking for accommodations for monthly bills due to the current pandemic causing them financial hardships.

DIRECTORS' COMMENTS

Director Withers reported that he attended his regular meetings including an OCBC Work Force Development Committee meeting, an NWRI officers conference call, and an ISDOC Executive Committee meeting via teleconference.

Director Swan reported that he attended a MWDOC Administration and Finance Committee meeting, a WACO Planning Committee meeting, a MWDOC Planning and Operations Committee meeting, and a MWDOC Administration and Finance Committee meeting.

Director LaMar reported that he attended several ACWA meetings, a Natural Communities Coalition meeting, an SCWC Legislative task force meeting, and an NWRA Board meeting.

Director Reinhart reported that he attended an IRWD-El Toro Water District Issues discussion, an OCWD Water issues Committee meeting, an OCWD Administration Finance Committee meeting, a MWDOC Board Meeting, an OCWD Board meeting, and an OCWD Water Issues Committee meeting.

Director Matheis reported that she attended an IRWD-El Toro Water District Issues discussion, a 2020 State Legislative reception in Sacramento, an ACWA legislative symposium, and an Urban Water Institute Executive Committee meeting.

COMMUNITY UPDATES

General Manager Cook said that he spoke with consultant Newell and he thanked the District for its efforts relative to the improvements in Ladd Canyon where 2,000 feet of PVC pipe was replaced.

RECESS

Legal Counsel Claire Collins announced that President Matheis will be recessing the Board meeting to hold two corporation meetings, and that that upon reconvening the Board meeting, the following Closed Session would be held as follows:

CLOSED SESSION CONFERENCE WITH LEGAL COUNSEL –
ANTICIPATED LITIGATION – Pursuant to Government Code Section 54956.9
(d)(4): initiation of litigation. (*One (1) potential case*).

RECESS AND RECONVENE

President Matheis recessed the Board meeting to hold Special Annual Meetings for Bardeen Partners, Inc. and IRWD Water Service Corporation. Following the Corporation meetings, the meeting was reconvened with Directors Swan, Withers, LaMar, Reinhart, and Matheis present.

CLOSED SESSION

President Matheis recessed the Board meeting to hold a Closed Session as noted by legal counsel.

OPEN SESSION

Following the Closed session, the meeting was reconvened with Directors Swan, Withers, LaMar, Reinhart, and Matheis present. On MOTION by LaMar, seconded by Swan (5-0 vote), the Board authorized the initiation of litigation and General Counsel Collins reported that the particulars of the case will be disclosed to any person upon inquiry once the action has been formally commenced unless doing so would jeopardize the agency's ability to effectuate service of process or jeopardize the agency's ability to conclude settlement negotiations.

ADJOURNMENT

President Matheis adjourned the meeting at 6:56 p.m.

APPROVED and SIGNED this 27th day of April 2020.

President, IRVINE RANCH WATER DISTRICT

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Claire Hervey Collins, General Counsel
Hanson Bridgett LLP

April 27, 2020
Prepared by: J. Zepeda
Submitted by: W. Chambers
Approved by: Paul A. Cook



CONSENT CALENDAR

RESOLUTION COMMENDING JOSEPH “JOE” COSTANTINO FOR HIS
DEDICATED SERVICE TO IRWD

SUMMARY:

As Joseph “Joe” Costantino will be retiring from IRWD, staff recommends the Board adopt a resolution commending him for over 29 years of dedicated service to the District. The resolution is provided as Exhibit “A”.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2020-10

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY,
CALIFORNIA COMMENDING JOE COSTANTINO
FOR OVER 29 YEARS OF DEDICATED AND OUTSTANDING SERVICE TO THE
IRVINE RANCH WATER DISTRICT

LIST OF EXHIBITS:

Exhibit “A” – Resolution

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EXHIBIT "A"
RESOLUTION NO. 2020-10

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
JOSEPH "JOE" COSTANTINO FOR HIS DEDICATED AND
OUTSTANDING SERVICE TO THE DISTRICT

WHEREAS, Joe Costantino began his career at the Irvine Ranch Water District on May 6, 1991, as a Collections System Worker I where he performed work activities related to sewage collections operations and maintenance for the Irvine Ranch Water District; and

WHEREAS, Joe earned a Collections System Maintenance Grade III Certificate with the California Water Environment Association in 1994 and was promoted to Collections System Supervisor in 2010, after demonstrating years of extensive technical competence and expertise; and

WHEREAS, Joe has provided the District with over 29 years of outstanding service in operations and maintenance of the District's sewage collections system; and

WHEREAS, for the past 10 years, as a Collections System Supervisor, Joe directed field staff in operations and maintenance of critical assets of the District's sewer collections system. As part of his job duties and responsibilities, Joe effectively supervised eight IRWD employees and helped supervise the operation of over 1,000 miles of sewer pipeline, 12 sewer lift stations, sewage and urban runoff diversion structures, siphons, and other collections system infrastructure. He has served as an after-hours emergency responder and on the IRWD HazMat team; and

WHEREAS, Joe has been involved in projects implemented to provide greater operational efficiency and cost-effectiveness. He contributed valuable input and assistance during the design, construction, and start-up phases of these critical projects. Joe's leadership and dedication have helped IRWD maintain reliability and regulatory compliance of its sewer collections system, and earn CWEA's 2015 Sewage Collection System of the Year award, and

WHEREAS, Joe 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 Joe Constantino for his consistent and outstanding service. His dedication and excellent service to the District stand as an example to all employees. On this occasion, the Board extends its best wishes to Joe in his retirement.

SIGNED and APPROVED this 27th day of April 2020.

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

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

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April 27, 2020
Prepared by: L. Srader
Submitted by: J. Roney
Approved by: Paul A. Cook



CONSENT CALENDAR

REVISED SCHEDULE OF POSITIONS AND SALARY RATE RANGES

SUMMARY:

Periodic review of current budgeted positions has determined the need for additional adjustments to IRWD's Schedule of Positions and Salary Rate Ranges. Staff recommends the Board adopt a resolution superseding Resolution No. 2019-33 (adopted on December 16, 2019) and adopting a revised Schedule of Positions and Salary Rate Ranges.

BACKGROUND:

Staff recommends the Board adopt a revised Schedule of Positions and Salary Rate Ranges to incorporate the following changes:

- Add a Cybersecurity Analyst position, at salary grade U18.E, to address the increased need for cybersecurity programs and initiatives within IRWD;
- Change the title of the Director of Administrative Services position (U27.E), to Director of Information Services to accurately reflect the focused duties of the position;
- Upgrade the salary range of the Network & Cybersecurity Manager position from U20.E to U22.E to align internal equity due to increase in scope and complexity of duties and responsibilities;
- Upgrade the salary range of the User Support Manager position from U18.E to U20.E to align internal equity due to increase in scope and complexity of duties and responsibilities;
- Change the title of the Director of Water Operations position (U27.E) to Director of Field Operations to accurately reflect a re-alignment of the duties and responsibilities of the position;
- Upgrade the salary range of the Automation Manager position from U18.E to U20.E to align internal equity due to increase in scope and complexity of job duties;
- Upgrade the salary range of the Electrical & Instrumentation Manager from U17.E to U18.E to align internal equity due to increase in scope and complexity of job duties;
- Reclassify the Asset Systems Manager position (U17.E) to Reliability Engineer (U20.E) to accurately address the scope and complexity of IRWD's Asset Management function; and
- Reclassify one Senior Scientist position (32.N) to Water Monitoring Supervisor (S34.N) to maintain an appropriate span of control due to the increased scope of water quality monitoring activities.

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

FISCAL IMPACTS:

IRWD's two-year FY 2019-2020 and FY 2020-2021 Operating Budget, adopted by the Board on April 22, 2019, includes funding sufficient for the proposed changes.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2020 -

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
IRVINE RANCH WATER DISTRICT SUPERSEDING
RESOLUTION NO. 2019-33 AND ADOPTING A REVISED
SCHEDULE OF POSITIONS AND SALARY RATE
RANGES

LIST OF EXHIBITS:

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

EXHIBIT "A"

RESOLUTION NO. 2020 -

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT,
SUPERSEDING RESOLUTION NO. 2019- AND
ADOPTING A REVISED SCHEDULE OF POSITIONS
AND SALARY RATE RANGES

The Board of Directors of Irvine Ranch Water District, by adoption of Resolution No. 2019-33 on December 16, 2019, established a Schedule of Positions and Salary Rate Ranges of the Irvine Ranch Water District; and

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

The Board of Directors of Irvine Ranch Water District does hereby resolve, determine and order as follows:

Section 1. That the Schedule of Positions and Salary Rate Ranges adopted by Resolution No. 2019-33 on December 16, 2019 is hereby superseded effective April 13, 2020.

Section 2. That the Schedule of Positions and Salary Rate Ranges for the Irvine Ranch Water District as set forth in Schedule "I" attached to this Resolution, and as effective April 13, 2020 for all classifications, is hereby approved and adopted.

ADOPTED, SIGNED and APPROVED on April 27, 2020.

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

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

APPROVED AS TO FORM:

Hanson Bridgett LLP

By: _____
District Counsel

Schedule "I"

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

Managers, Exempt Supervisors, Confidential & Exempt Employees

Effective April 27, 2020

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
<u>NON-EXEMPT</u>			
Salary Grade U1.N	\$3,034	\$3,762	\$3,949
Salary Grade U2.N	\$3,100	\$3,865	\$4,059
Salary Grade U3.N	\$3,165	\$3,971	\$4,170
Salary Grade U4.N	\$3,223	\$4,087	\$4,291
Salary Grade U5.N	\$3,297	\$4,200	\$4,410
Salary Grade U6.N	\$3,361	\$4,322	\$4,538
Salary Grade U7.N	\$3,429	\$4,442	\$4,665
Salary Grade U8.N	\$3,503	\$4,569	\$4,797
Salary Grade U9.N	\$3,570	\$4,695	\$4,932
Salary Grade U10.N	\$3,644	\$4,824	\$5,064
Salary Grade U11.N	\$3,715	\$4,947	\$5,192
Salary Grade U12.N	\$3,788	\$5,092	\$5,348
Salary Grade U13.N	\$3,859	\$5,237	\$5,502
Salary Grade U14.N	\$3,946	\$5,386	\$5,656
Salary Grade U15.N	\$4,031	\$5,529	\$5,805
Salary Grade U16.N	\$4,126	\$5,684	\$5,967
Salary Grade U17.N	\$4,214	\$5,826	\$6,117
Salary Grade U18.N	\$4,306	\$5,982	\$6,283
Salary Grade U19.N	\$4,404	\$6,133	\$6,442
Safety Assistant			
Salary Grade U20.N	\$4,521	\$6,332	\$6,649

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U21.N	\$4,650	\$6,523	\$6,852
Salary Grade U22.N	\$4,778	\$6,729	\$7,066
Executive Secretary Human Resources Assistant			
Salary Grade U23.N	\$4,904	\$6,932	\$7,277
Salary Grade U24.N	\$5,043	\$7,148	\$7,506
Salary Grade U25.N	\$5,175	\$7,367	\$7,738
Human Resources Technician			
Salary Grade U26.N	\$5,336	\$7,588	\$7,968
Executive Assistant			
Salary Grade U27.N	\$5,489	\$7,811	\$8,201
Salary Grade U28.N	\$5,649	\$8,042	\$8,446
Salary Grade U29.N	\$5,818	\$8,276	\$8,691
Administrative Assistant Safety Specialist			
Salary Grade U30.N	\$5,994	\$8,521	\$8,948
Salary Grade U31.N	\$6,172	\$8,778	\$9,216
Human Resources Analyst			
Salary Grade U32.N	\$6,349	\$9,037	\$9,489
Salary Grade U33.N	\$6,534	\$9,300	\$9,766
Network Administrator User Support Administrator			
Salary Grade U34.N	\$6,729	\$9,557	\$10,037
Salary Grade U35.N	\$6,931	\$9,844	\$10,337

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
EXEMPT			
Salary Grade U1.E	\$4,879	\$6,268	\$6,581
Salary Grade U2.E	\$5,042	\$6,511	\$6,837
Salary Grade U3.E	\$5,203	\$6,754	\$7,094
Salary Grade U4.E	\$5,365	\$7,014	\$7,363
Salary Grade U5.E	\$5,529	\$7,273	\$7,638
Salary Grade U6.E	\$5,720	\$7,555	\$7,933
Salary Grade U7.E	\$5,903	\$7,835	\$8,225
Salary Grade U8.E	\$6,095	\$8,141	\$8,548
Salary Grade U9.E	\$6,281	\$8,440	\$8,860
Salary Grade U10.E	\$6,490	\$8,759	\$9,197
Asset Systems Analyst Assistant Engineer Customer Service Supervisor Development Services Supervisor Management Analyst Public Affairs Analyst Senior Public Affairs Specialist			
Salary Grade U11.E	\$6,698	\$9,082	\$9,538
Purchasing Supervisor			
Salary Grade U12.E	\$6,915	\$9,432	\$9,901
Financial Analyst Regulatory Compliance Administrator Senior Accountant Senior Water Efficiency Analyst Source Control Program Administrator Water Efficiency Supervisor			
Salary Grade U13.E	\$7,139	\$9,774	\$10,261
GIS Supervisor Legislative Analyst Right of Way Agent Senior Human Resources Analyst Treasury Analyst Water Resources Planner			

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U14.E	\$7,370	\$10,150	\$10,657
Accounting Supervisor			
Associate Engineer			
District Secretary			
QA/QC Compliance Administrator			
Salary Grade U15.E	\$7,605	\$10,530	\$11,055
Applications Analyst			
Automation Programmer			
Laboratory Supervisor			
Senior Regulatory Compliance Administrator			
Senior SCADA Network Administrator			
Senior Network Administrator			
Salary Grade U16.E	\$7,859	\$10,928	\$11,476
Salary Grade U17.E	\$8,109	\$11,330	\$11,895
Construction Inspection Manager			
Customer Service Manager			
Engineer			
Facilities/Fleet Manager			
Purchasing Manager			
Safety Manager			
Salary Grade U18.E	\$8,372	\$11,762	\$12,348
Collection Systems Manager			
Construction Services Manager			
Cybersecurity Analyst			
Electrical and Instrumentation Manager			
Field Services Manager			
Natural Resources Manager			
Public Affairs Manager			
Regulatory Compliance Manager			
Senior Applications Analyst			
Senior Applications Developer			
Senior Database Administrator			
Water Efficiency Manager			
Water Quality Manager			
Salary Grade U19.E	\$8,638	\$12,196	\$12,807
Manager of Risk & Contracts Administration			
Mechanical Services Manager			
Recycled Water Development Manager			
Treasury Manager			
Water Resources Manager			

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U20.E Automation Manager Operations Manager Reliability Engineer Senior Engineer User Support Manager	\$8,907	\$12,648	\$13,280
Salary Grade U21.E Controller Manager of Strategic Planning and Analysis	\$9,178	\$13,105	\$13,761
Salary Grade U22.E Applications Manager Network and Cybersecurity Manager	\$9,473	\$13,592	\$14,273
Salary Grade U23.E Principal Engineer	\$9,773	\$14,084	\$14,789
Salary Grade U24.E Engineering Manager	\$10,038	\$14,652	\$15,382
Salary Grade U25.E Government Relations Officer/Deputy General Counsel	\$10,348	\$15,206	\$15,965
Salary Grade U26.E	\$10,820	\$16,010	\$16,810
Salary Grade U27.E Director of Field Operations Director of Human Resources Director of Information Services Director of Maintenance Director of Public Affairs Director of Recycling Operations Director of Water Quality & Regulatory Compliance Director of Water Resources Treasurer/Director of Risk Management	\$11,315	\$16,859	\$17,700
Salary Grade U28.E	\$11,835	\$17,746	\$18,633
Salary Grade U29.E	\$12,375	\$18,685	\$19,619
Salary Grade U30.E Executive Director of Finance Executive Director of Technical Services Executive Director of Operations Executive Director of Water Policy	\$12,947	\$19,678	\$20,660
Salary Grade U31.E	\$13,591	\$20,793	\$21,832

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U32.E	\$14,272	\$21,977	\$23,076
Salary Grade U33.E	\$14,982	\$23,225	\$24,386
Salary Grade U34.E General Manager	\$15,734	\$24,543	\$27,148

IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE
Non-Exempt Supervisors Unit
Effective April 27, 2020

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
<u>NON-EXEMPT</u>			
Salary Grade S26.N	\$5,336	\$7,588	\$7,968
Salary Grade S27.N	\$5,489	\$7,811	\$8,201
Salary Grade S28.N	\$5,649	\$8,042	\$8,446
Salary Grade S29.N	\$5,818	\$8,276	\$8,691
Salary Grade S30.N	\$5,994	\$8,521	\$8,948
Salary Grade S31.N Facilities Services Supervisor Fleet Supervisor	\$6,172	\$8,778	\$9,216
Salary Grade S32.N Collection Systems Supervisor Mechanical Services Supervisor	\$6,349	\$9,037	\$9,489
Salary Grade S33.N Cross Connection Supervisor Water Maintenance Supervisor	\$6,534	\$9,300	\$9,766
Salary Grade S34.N Construction Inspection Supervisor Automation Supervisor Electrical Supervisor Instrumentation Supervisor Water Monitoring Supervisor	\$6,729	\$9,557	\$10,037
Salary Grade S35.N Operations Supervisor	\$6,931	\$9,844	\$10,337

IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE
General Employees Unit
Effective April 27, 2020

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
<u>NON-EXEMPT</u>			
Salary Grade 1.N	\$3,028	\$3,755	\$3,942
Salary Grade 2.N	\$3,093	\$3,857	\$4,050
Salary Grade 3.N	\$3,160	\$3,964	\$4,162
Salary Grade 4.N	\$3,217	\$4,078	\$4,282
Salary Grade 5.N	\$3,289	\$4,192	\$4,402
Salary Grade 6.N	\$3,355	\$4,314	\$4,529
	Office Assistant Mail Coordinator		
Salary Grade 7.N	\$3,420	\$4,433	\$4,655
Salary Grade 8.N	\$3,497	\$4,561	\$4,788
Salary Grade 9.N	\$3,565	\$4,686	\$4,920
Salary Grade 10.N	\$3,636	\$4,813	\$5,052
Salary Grade 11.N	\$3,707	\$4,938	\$5,183
	Maintenance Apprentice Material Control Clerk I Utility Worker		
Salary Grade 12.N	\$3,781	\$5,081	\$5,338
Salary Grade 13.N	\$3,851	\$5,228	\$5,488
	Customer Service Specialist I Support Specialist		
Salary Grade 14.N	\$3,938	\$5,374	\$5,643
Salary Grade 15.N	\$4,023	\$5,518	\$5,795
	Collection Systems Technician I Office Specialist		
Salary Grade 16.N	\$4,117	\$5,673	\$5,955
	Accounting Clerk Customer Service Field Technician		

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Metering Systems Technician I Water Maintenance Technician I			
Salary Grade 17.N	\$4,205	\$5,813	\$6,103
Customer Service Specialist II			
Salary Grade 18.N	\$4,296	\$5,971	\$6,268
Material Control Clerk II Senior Support Specialist Water Efficiency Field Technician			
Salary Grade 19.N	\$4,395	\$6,122	\$6,428
Development Services Specialist Purchasing Coordinator Senior Office Specialist			
Salary Grade 20.N	\$4,512	\$6,318	\$6,635
Collection Systems Technician II Engineering Technician I GIS Technician I Operator I Senior Accounting Clerk			
Salary Grade 21.N	\$4,640	\$6,509	\$6,837
Collection Systems CCTV Technician Customer Service Specialist III Senior Customer Service Field Technician			
Salary Grade 22.N	\$4,768	\$6,715	\$7,052
Facilities Services Technician Maintenance Mechanic Metering Systems Technician II Risk Assistant Senior Purchasing Coordinator Vehicle/Equipment Mechanic Water Maintenance Technician II			
Salary Grade 23.N	\$4,893	\$6,918	\$7,263
Senior Water Efficiency Field Technician			
Salary Grade 24.N	\$5,032	\$7,135	\$7,491
Buyer Public Affairs Assistant Recycled Water Specialist Water Loss Prevention Specialist Wetlands Specialist			

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade 25.N Engineering Technician II GIS Technician II Senior Collection Systems CCTV Technician Senior Collection Systems Technician	\$5,164	\$7,354	\$7,723
Salary Grade 26.N Cross Connection Specialist Metering Systems Technician III Water Efficiency Specialist Water Maintenance Technician III Water Resources Specialist	\$5,323	\$7,573	\$7,950
Salary Grade 27.N Accountant Operator II Senior Facilities Services Technician Senior Maintenance Mechanic Senior Water Loss Prevention Specialist Senior Vehicle/Equipment Maintenance Mechanic	\$5,478	\$7,794	\$8,184
Salary Grade 28.N Automation Technician Construction Inspector Electrical Technician Instrumentation Technician Landscape Contracts Administrator Scientist	\$5,639	\$8,027	\$8,429
Salary Grade 29.N Engineering Technician III GIS Technician III Lead Maintenance Mechanic Operator III Public Affairs Specialist Senior Buyer Senior Recycled Water Specialist Senior Wetlands Specialist	\$5,806	\$8,261	\$8,672
Salary Grade 30.N Graphic Design Specialist Risk Analyst Senior Electrical Technician Senior Instrumentation Technician	\$5,982	\$8,504	\$8,931

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade 31.N Information Services Coordinator Payroll Administrator Recycled Water Project Specialist Senior Construction Inspector Senior Water Efficiency Specialist	\$6,158	\$8,761	\$9,197
Salary Grade 32.N Asset Maintenance Coordinator Automation Specialist Environmental Compliance Specialist Process Specialist Senior Scientist Wetlands Scientist	\$6,336	\$9,019	\$9,471
Salary Grade 33.N Operations Coordinator Water Efficiency Analyst	\$6,521	\$9,282	\$9,745
Salary Grade 34.N	\$6,715	\$9,538	\$10,016
Salary Grade 35.N	\$6,917	\$9,824	\$10,316

April 27, 2020

Prepared by: D. Pardee / C. Smithson

Submitted by: C. Clary

Approved by: Paul A. Cook



CONSENT CALENDAR

IRVINE RANCH WATER DISTRICT STRATEGIC MEASURES

SUMMARY:

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

BACKGROUND:

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

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

RECEIVE AND FILE.

LIST OF EXHIBITS:

Exhibit “A” – March 2020 Strategic Measures

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Exhibit "A"

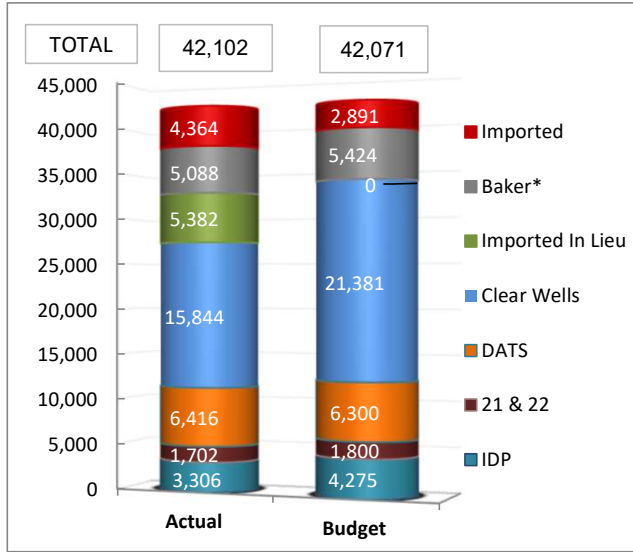
IRVINE RANCH WATER DISTRICT

Operational Performance Measures

Data as of March 31, 2020

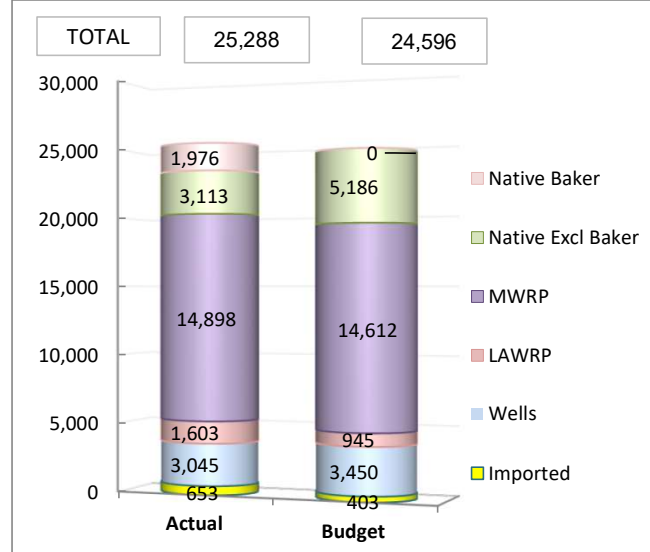
Potable Water Production FYTD

(AF)



Non-Potable Water Production FYTD

(AF)

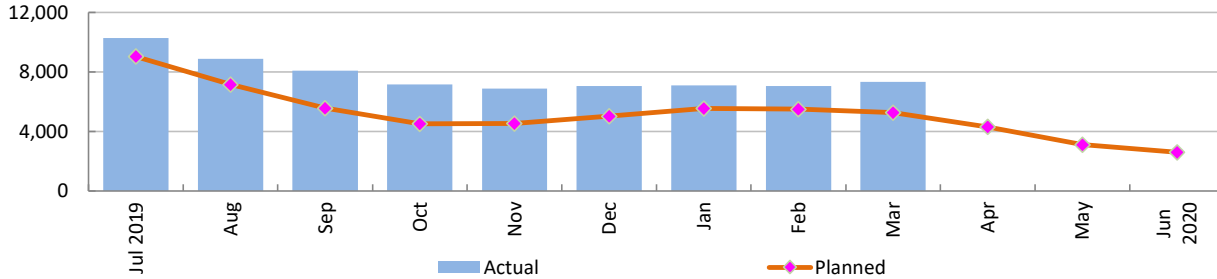


* Baker used 1,976 AF of native water (Non-Potable graph) and the District's allocation of 24% is 507 AF (Potable graph).

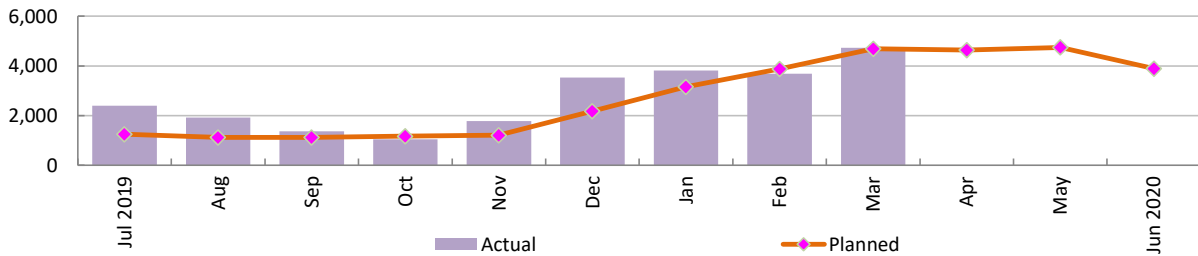
Non-Potable Reservoir Storage

(AF)

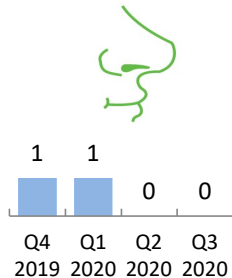
Irvine Lake



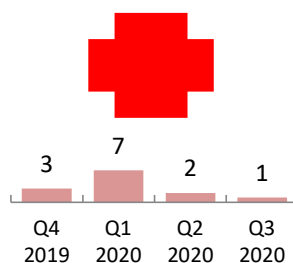
Recycled



Odor Complaints (FY by quarter)



OSHA Recordables Incidents



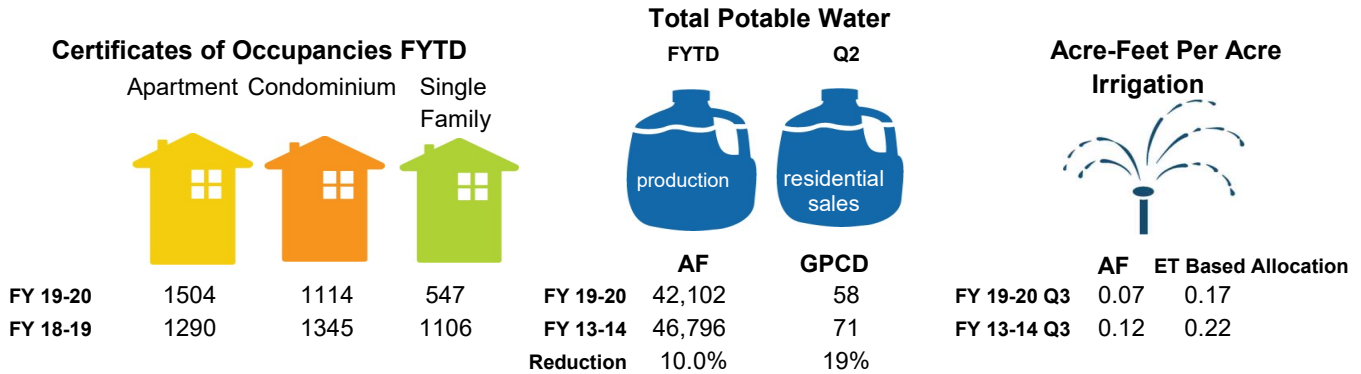
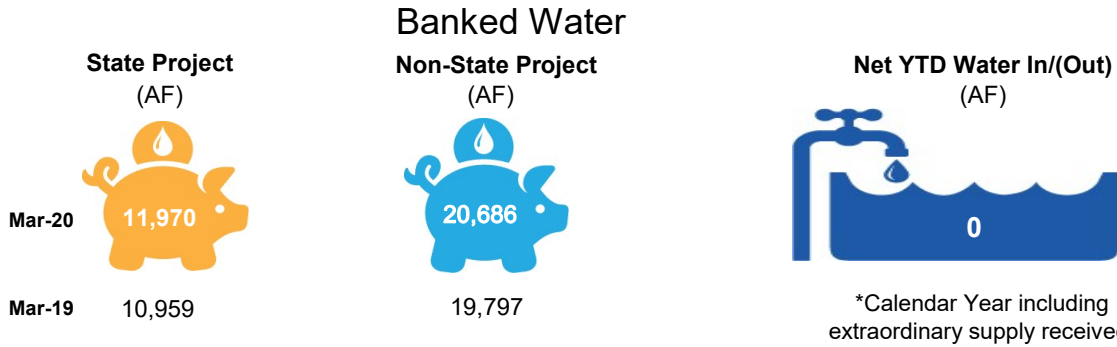
Regulatory Compliance Incidents

AQMD	0	0	1	2
Plants	0	0	1	2
Sewer Spills	0	1	2	0
	Q4 2019	Q1 2020	Q2 2020	Q3 2020

IRVINE RANCH WATER DISTRICT

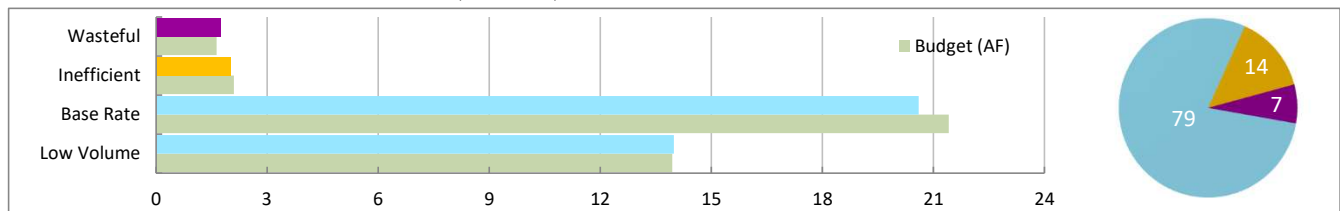
Other Statistical Information

Data as of March 31, 2020

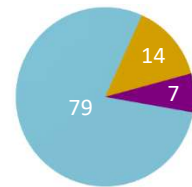


Potable Sales by Tier FYTD

(in thousands)

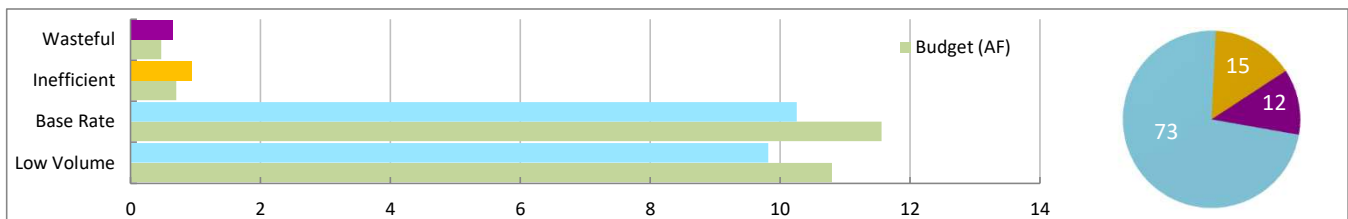


% of Customers by Tier

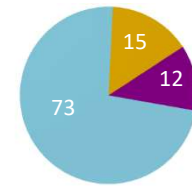


Non-Potable Sales by Tier FYTD

(in thousands)

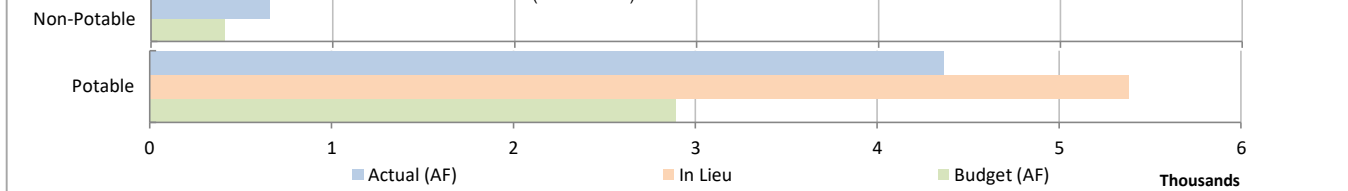


% of Customers by Tier



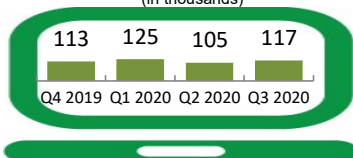
Imported Water Purchases FYTD

(in thousands)

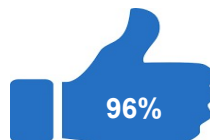


Website Hits

(in thousands)



Customer Satisfaction Index**



** 12 month rolling average

No surveys were returned in February or March 2020

April 27, 2020
Prepared by: R. Jacobson
Submitted by: C. Clary
Approved by: Paul A. Cook



CONSENT CALENDAR

ADDENDUM TO AMENDED AND RESTATED LICENSE FOR USE OF THE SAN JOAQUIN MARSH PROPERTY

SUMMARY:

The current license agreements permitting the use of the San Joaquin Marsh property by the San Joaquin Wildlife Sanctuary, Inc. and the Sea and Sage Audubon Society, Inc. are scheduled to expire July 5, 2020. The Third Amended and Restated License between the Irvine Ranch Water District and the Sanctuary and the Third Amended and Restated Sublicense between the Sea and Sage Audubon Society, Inc. and the Sanctuary include a three-year option to extend, with no changes to any other terms. On April 20, 2020, the Sanctuary Board approved both Addendum No. 1 to the Third Amended and Restated License between the Irvine Ranch Water District and the Sanctuary and the Addendum No. 1 to the Third Amended and Restated Sublicense between the Sanctuary and Sea and Sage Audubon Society, Inc.

Staff recommends that the IRWD Board approve Addendum No. 1 to the Third Amended and Restated License between Irvine Ranch Water District and the San Joaquin Wildlife Sanctuary.

BACKGROUND:

In 1999, IRWD entered into a license for use of site, facilities and accessways with the San Joaquin Wildlife Sanctuary, which was extended by subsequent agreements. The most recent license, the Third Amended and Restated License, was executed in May 2016 and extended the term of use to July 5, 2020. The Sanctuary, in turn, has entered into sublicense agreements with Sea and Sage Audubon Society, including most recently the Third Amended and Restated Sublicense in May 2016 that extended the term of use to July 5, 2020.

Section 3 of both the license and the sublicense provides for an option to extend the term for an additional three-year period, with no changes to any other terms, upon mutually executing an addendum. The proposed Addendum No. 1 to the Third Amended and Restated License between IRWD and the San Joaquin Wildlife Sanctuary is attached as Exhibit "A".

On April 20, 2020, the Sanctuary Board approved both Addendum No. 1 to the Third Amended and Restated License between the Irvine Ranch Water District and the Sanctuary and the Addendum No. 1 to the Third Amended and Restated Sublicense between the Sanctuary and Audubon, subject to non-substantive modifications.

FISCAL IMPACTS:

The annual payment from the Sanctuary to the District under the Addendum will remain at \$1.00.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD APPROVE ADDENDUM NO. 1 TO THE THIRD AMENDED AND RESTATED LICENSE BETWEEN IRVINE RANCH WATER DISTRICT AND THE SAN JOAQUIN WILDLIFE SANCTUARY.

LIST OF EXHIBITS:

Exhibit “A” – Addendum No. 1 to the Third Amended and Restated License between Irvine Ranch Water District and the San Joaquin Wildlife Sanctuary

EXHIBIT "A"

ADDENDUM NO. 1
TO
THIRD AMENDED AND RESTATED
LICENSE FOR USE OF
SITE, FACILITIES AND ACCESSWAYS

THIS ADDENDUM NO. 1 TO THIRD AMENDED AND RESTATED LICENSE FOR USE OF SITE, FACILITIES AND ACCESSWAYS, dated as of April __, 2020, is entered into by and between the IRVINE RANCH WATER DISTRICT, a California water district organized and existing under Section 34000 et seq. of the California Water Code, as licensor (the "Licensor") and the SAN JOAQUIN WILDLIFE SANCTUARY, INC., a non-profit public benefit corporation, organized and existing under the laws of the State of California, as licensee (the "Licensee").

R E C I T A L S:

- A. Licensor owns certain land and improvements located within the San Joaquin Marsh (the "Premises") which Licensor operates and maintains in conjunction with its adjacent Michelson Water Reclamation Plant.
- B. Licensor and Licensee have entered into that certain Third Amended and Restated License for Use of Site, Facilities and Accessways, dated May 23, 2016 (the "License") (superseding the Second Amended and Restated License for Use of Site, Facilities and Accessways, dated August 23, 2010, as amended and as extended by Addenda Nos. 1 through 7), to provide to Licensee an exclusive license as to the Licensed Buildings (subject to the reservations set forth in the License) and a non-exclusive license as to the License Area other than the Licensed Buildings (such capitalized terms having the definitions given them in the License), in carrying out activities in furtherance of its educational purposes related to the San Joaquin Marsh ecology, environment, natural history, birds and wildlife. The term of the License has not previously been extended and presently terminates on July 5, 2020.
- C. Licensee's proposed activities and use of the License Area will benefit Licensor, who has an interest in promoting education, awareness and understanding of the marsh environment of which its properties and facilities are a part, as well as water conservation and reclamation.
- D. The proposed activities and uses of Licensee can be carried out on the License Area in a manner consistent with Licensor's operations within the Premises.
- E. Licensor and Licensee may renew the term of the License by executing an addendum pursuant to Section 3 of the License.

NOW, THEREFORE, in consideration of the above premises and of the mutual covenants hereinafter contained and for other good and valuable consideration, the parties hereto agree as follows:

Section 1. Renewal of License Term. The term of the License shall be extended hereby, to end on July 5, 2023, unless further extended or unless terminated prior to that date pursuant to the License.

Section 2. Compensation. Licensee shall pay to Licensor, upon execution and delivery of this Addendum and upon each anniversary of the date of the License until its termination, the sum of One Dollar (\$1.00) as and for compensation to Licensor for the use of the License Area. As additional consideration the Licensee shall perform all of its promises, covenants and obligations under the License.

Section 3. Miscellaneous. Except as expressly set forth herein, all terms and provisions of the License shall remain unmodified and in full force and effect. This Addendum No. 1 may be executed in counterparts, each of which, when taken together, shall constitute one fully executed original. Facsimile, .pdf, or other electronically-transmitted signatures shall be binding for all purposes of this Addendum No. 1.

IN WITNESS WHEREOF, this Addendum No. 1 has been executed by Licensor and Licensee as of the date first hereinabove written.

Licensor:

IRVINE RANCH WATER DISTRICT

By: _____
President

By: _____
Secretary

Licensee:

SAN JOAQUIN WILDLIFE SANCTUARY, INC.

By: _____
President

By: _____
Secretary

April 27, 2020

Prepared by: J. Davis / T. Fournier

Submitted by: R. Jacobson / C. Clary

Approved by: Paul A. Cook



CONSENT CALENDAR

MARCH 2020 TREASURY REPORT

SUMMARY:

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

- A. The March 2020 Investment Summary Report. This Investment Summary Report conforms with the 2020 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 Rate Debt as of March 31, 2020, as outlined in Exhibit "B";
- C. The Monthly Interest Rate Swap Summary as of March 31, 2020, as outlined in Exhibit "C";
- D. The March 31, 2020 Disbursement Summary of warrants 406723 through 407456, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$11,084,819 as outlined in Exhibit "D";
- E. The Summary of Payroll ACH payments in the total amount of \$2,070,423 as outlined in Exhibit "E"; and
- F. The Disclosure Report of Reimbursements to Board Members and staff for March 2020, detailing payments or reimbursements for individual charges of \$100.00 or more per transaction, as outlined in Exhibit "F".

FISCAL IMPACTS:

As of March 31, 2020, the book value of the investment portfolio was \$355,097,370, with a 1.96% rate of return and a market value of \$359,986,380. Based on the District's March 31, 2020 quarterly real estate investment rate of return of 9.03%, the weighted average return for the fixed income and real estate investments was 4.18%.

As of March 31, 2020, the outstanding principal amount of fixed and variable rate debt was \$657,445,000. The monthly weighted average all-in variable rate was 3.03%. Including the District's weighted average fixed rate bond issues of 3.69% 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 3.75%.

Payroll ACH payments totaled \$2,070,423, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for March totaled \$11,084,819.

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 debt reports are submitted to the Finance and Personnel Committee on a monthly basis.

RECOMMENDATION:

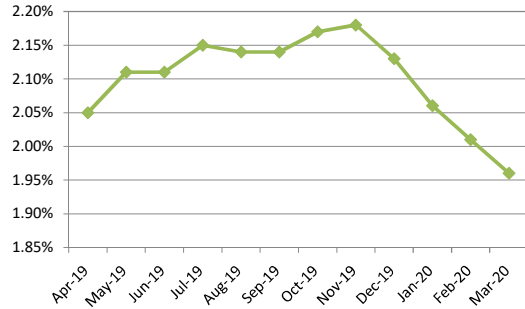
THAT THE BOARD RECEIVE AND FILE THE TREASURER'S INVESTMENT SUMMARY REPORT, THE SUMMARY OF FIXED AND VARIABLE RATE DEBT, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF; APPROVE THE MARCH 2020 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$2,070,423; AND APPROVE THE MARCH 2020 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 406723 THROUGH 407456, WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$11,084,819.

LIST OF EXHIBITS:

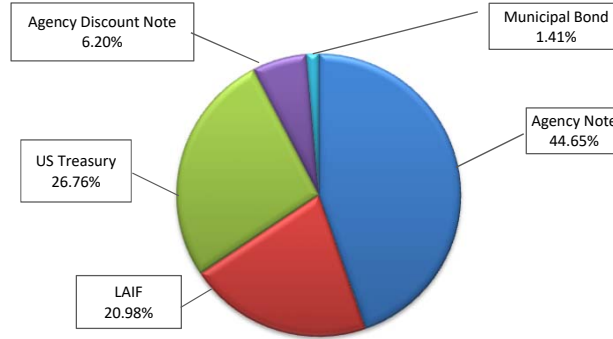
- Exhibit "A" – Investment Summary Report
- Exhibit "B" – Summary of Fixed and Variable Debt
- Exhibit "C" – Monthly Interest Rate Swap Summary
- Exhibit "D" – Monthly Summary of District Disbursements
- Exhibit "E" – Monthly Payroll ACH Summary
- Exhibit "F" – Disclosure of Reimbursements to Board Members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

Exhibit "A"
Irvine Ranch Water District
Investment Portfolio Summary
March 2020

Monthly Fixed Income Yield



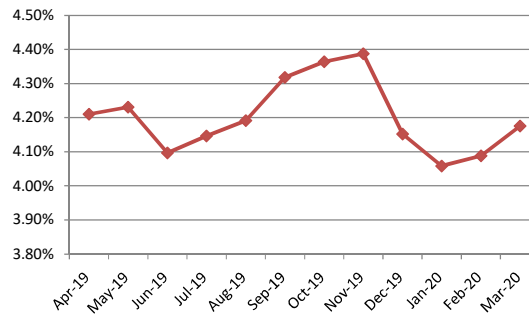
Portfolio Distribution



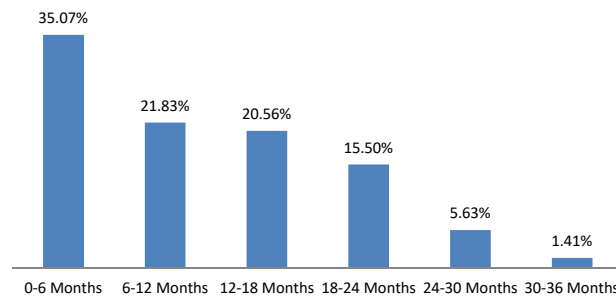
Investment Summary

Type	PAR	Book Value	Market Value
Agency Note	158,550,000	158,537,784	160,557,411
US Treasury	95,000,000	95,107,147	97,393,250
LAIF	74,500,000	74,500,000	75,057,336
Agency Discount Note	22,000,000	21,952,439	21,978,383
Municipal Bond	5,000,000	5,000,000	5,000,000
Grand Total	355,050,000	355,097,370	359,986,380

Weighted Average Return Including Real Estate Portfolio



Maturity Distribution



Top Issuers

Issuer	PAR	% Portfolio
US Treasury	95,000,000	26.76%
State of California Tsy.	74,500,000	20.98%
Fed Home Loan Bank	57,000,000	16.05%
Fed Farm Credit Bank	55,000,000	15.49%
Fed Natl Mortgage Assoc	38,550,000	10.86%
Fed Home Loan Mortgage Corp	30,000,000	8.45%
EASWTR	5,000,000	1.41%
Grand Total	355,050,000	100.00%

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

03/31/20

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE ⁽¹⁾ 3/31/2020	UNREALIZED ⁽²⁾ GAIN/(LOSS)
08/23/17			04/01/20		LAIF	State of California Tsy.	\$74,500,000		1.800%	\$74,500,000.00	\$74,500,000.00	75,057,335.62	557,335.62
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	4,999,353.39	5,002,400.00	3,046.61
06/29/18	NA	NA	04/23/20	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	2.500%	2.544%	4,996,000.00	4,999,987.58	5,006,500.00	6,512.42
06/29/18	NA	NA	05/15/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.550%	2.566%	4,998,450.00	4,999,900.58	5,011,800.00	11,899.42
12/04/19	NA	NA	05/28/20	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	2.625%	1.582%	5,025,000.00	5,008,096.59	5,017,800.00	9,703.41
06/11/18	NA	NA	06/11/20	Aaa/NR/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.550%	2.570%	4,997,100.00	4,999,718.33	5,021,350.00	21,631.67
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	4,999,478.59	5,014,050.00	14,571.41
04/19/18	NA	NA	07/30/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.500%	2.535%	4,886,000.00	4,983,577.43	5,021,700.00	38,122.57
06/08/18	NA	NA	07/30/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.500%	2.559%	4,890,100.00	4,983,157.09	5,021,700.00	38,542.91
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	4,981,389.00	5,004,650.00	23,261.00
09/14/18	NA	NA	08/24/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.680%	2.789%	4,989,700.00	4,997,896.48	5,054,400.00	56,503.52
09/14/18	NA	NA	09/04/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.690%	2.794%	4,990,050.00	4,997,847.16	5,047,250.00	49,402.84
03/13/20	NA	NA	09/16/20	NR	HLB - Discount Not	Fed Home Loan Bank	5,000,000	0.480%	0.489%	4,987,533.35	4,988,800.01	4,996,950.00	8,149.99
12/12/17	NA	NA	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	5,026,650.00	26,650.00
10/31/17	NA	NA	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	5,578,971.00	28,971.00
03/31/20	NA	NA	10/30/20	NR	HLB - Discount Not	Fed Home Loan Bank	5,000,000	0.150%	0.153%	4,995,562.50	4,995,583.33	4,995,900.00	316.67
09/28/18	NA	NA	10/31/20	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	1.750%	2.847%	4,889,453.13	4,809,726.26	5,048,450.00	238,723.74
03/16/20	NA	NA	11/18/20	NR	HLB - Discount Not	Fed Home Loan Bank	7,000,000	0.530%	0.540%	6,974,545.28	6,976,194.17	6,993,700.00	17,505.83
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	4,996,423.26	5,051,800.00	55,376.74
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	4,992,702.17	5,054,050.00	61,347.83
11/09/18	NA	NA	12/31/20	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.375%	2.958%	4,939,843.75	4,978,949.15	5,086,350.00	107,400.85
03/31/20	NA	NA	01/19/21	NR	HLB - Discount Not	Fed Home Loan Bank	5,000,000	0.200%	0.204%	4,991,833.33	4,991,861.11	4,991,833.33	(27.78)
10/12/18	NA	NA	01/31/21	Aaa/NR/AAA	Treasury - Note	US Treasury	10,000,000	1.375%	2.890%	9,664,843.76	9,878,595.42	10,109,400.00	230,804.58
12/14/18	NA	NA	02/16/21	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	2.375%	2.806%	4,954,750.00	4,980,704.72	5,083,700.00	102,995.28
12/14/18	NA	NA	02/28/21	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.000%	2.755%	4,919,515.95	4,964,993.93	5,087,900.00	122,906.07
02/12/19	NA	NA	03/12/21	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	2.500%	2.516%	9,996,500.00	9,998,409.09	10,210,100.00	211,690.91
02/25/19	NA	NA	03/12/21	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	2.375%	2.549%	4,982,700.00	4,991,999.33	5,096,500.00	104,500.67
06/17/19	NA	NA	03/17/21	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.950%	1.938%	5,001,050.00	5,000,575.12	5,066,450.00	65,874.88
02/28/20	NA	NA	04/13/21	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	3,000,000	2.500%	1.185%	3,043,950.00	3,040,626.95	3,066,840.00	26,213.05
06/14/19	NA	NA	04/30/21	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.750%	1.913%	4,985,000.00	4,991,384.84	5,064,200.00	72,815.16
12/05/19	NA	NA	04/30/21	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.250%	1.650%	5,041,406.25	5,031,863.40	5,116,000.00	84,136.60
09/13/19	NA	NA	05/15/21	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.625%	1.757%	5,071,093.75	5,047,667.78	5,140,050.00	92,382.22
03/02/20	NA	NA	05/31/21	Aaa/NR/AAA	Treasury - Note	US Treasury	10,000,000	2.125%	1.186%	10,115,711.10	10,108,081.80	10,234,400.00	126,318.20
09/18/19	NA	NA	06/11/21	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	2.250%	1.786%	5,039,300.00	5,027,112.03	5,110,150.00	83,037.97
01/16/20	NA	NA	06/30/21	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	1.125%	1.594%	4,966,406.25	4,971,214.40	5,063,650.00	92,435.60
07/26/19	NA	NA	07/19/21	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.875%	1.927%	4,995,000.00	4,996,726.52	5,098,150.00	101,423.48
12/12/19	One Time	05/27/20	08/27/21	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.750%	1.712%	5,003,200.00	5,002,625.24	5,010,150.00	7,524.76
08/01/19	NA	NA	08/31/21	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	1.125%	1.816%	4,929,687.50	4,952,231.85	5,066,400.00	114,168.15
10/11/19	NA	NA	10/15/21	Aaa/AA+/NR	Treasury - Note	US Treasury	5,000,000	2.875%	1.540%	5,131,640.63	5,100,655.83	5,205,300.00	104,644.17
10/22/19	NA	NA	10/15/21	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.400%	1.642%	4,976,500.00	4,981,758.29	5,076,150.00	94,391.71
11/05/19	NA	NA	11/15/21	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.875%	1.610%	5,125,585.94	5,100,502.65	5,216,600.00	116,097.35
11/08/19	NA	NA	11/30/21	Aaa/AA+/NR	Treasury - Note	US Treasury	5,000,000	1.750%	1.680%	5,007,031.25	5,005,677.29	5,128,700.00	123,022.71
11/25/19	NA	NA	12/31/21	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.000%	1.619%	5,039,062.50	5,032,543.60	5,155,450.00	122,906.40
11/25/19	NA	NA	01/13/22	Aaa/NA/NR	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	2.375%	1.635%	5,077,250.00	5,064,573.08	5,175,350.00	110,776.92
03/08/19	NA	NA	01/15/22	Aaa/AA+/NR	Treasury - Note	US Treasury	5,000,000	2.500%	2.460%	5,005,468.75	5,003,425.83	5,203,900.00	200,474.17
01/15/20	One Time	7/10/20	01/10/22	Aaa/NA/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.625%	1.625%	5,000,000.00	5,000,000.00	5,017,100.00	17,100.00
12/19/19	NA	NA	01/31/22	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	1.875%	1.641%	5,024,218.75	5,020,964.55	5,151,750.00	130,785.45
03/21/19	NA	NA	02/03/22	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.030%	2.361%	4,954,350.00	4,970,740.52	5,140,550.00	169,809.48
12/19/19	NA	NA	02/15/22	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.500%	1.652%	5,089,453.13	5,077,662.10	5,213,500.00	135,837.90
03/08/19	NA	NA	03/11/22	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	2.500%	2.549%	5,002,750.00	5,001,774.11	5,207,600.00	205,825.89
12/19/19	NA	NA	03/31/22	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	1.875%	1.645%	5,025,585.94	5,022,391.54	5,165,450.00	143,058.46
02/21/20	NA	NA	04/14/22	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.400%	1.414%	4,998,500.00	4,998,559.39	5,084,450.00	85,890.61

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

03/31/20

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE ⁽¹⁾ 3/31/2020	UNREALIZED ⁽²⁾ GAIN/(LOSS)
01/15/20	NA	NA	07/15/22	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.600%	1.594%	5,000,750.00	5,000,686.68	5,114,900.00	114,213.32
03/20/20	NA	NA	07/01/35	NR/AA+/AA+	Municipal - Bond	EASWTR	5,000,000	5.080%	5.080%	5,000,000.00	5,000,000.00	5,000,000.00	
TOTAL INVESTMENTS							\$355,050,000			\$354,590,732.79	\$355,097,369.54	\$359,986,379.95	\$4,889,010.41

Petty Cash		3,400.00
Ck Balance	Bank of America	1,645,796.00
		<u>\$356,239,928.79</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	\$262,300,000
Net Outstanding Variable Rate Debt (Less \$60 million fixed-payer swaps)	\$202,300,000
Investment Balance:	\$356,239,929
Investment to Variable Rate Debt Ratio:	176%
Portfolio - Average Number of Days To Maturity	292

	Investment Portfolio	Real Estate ⁽³⁾ Portfolio	Weighted Avg. Return
March	1.96%	9.03%	4.18%
February	2.01%	8.67%	4.09%
Change	-0.05%		0.09%

This Investment Summary Report is in conformity with the 2020 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures.

*S - Step up

Irvine Ranch Water District
Summary of Real Estate - Income Producing Investments
3/31/2020

	ACQUISITION DATE	PROPERTY TYPE	OWNERSHIP INTEREST	ORIGINAL COST	MARKET VALUE 3/31/2020	ANNUALIZED RATE OF RETURN QUARTER ENDED 3/31/2020
Sycamore Canyon	Dec-92	Apartments	Fee Simple	\$ 43,550,810	\$ 148,625,000	19.73%
Wood Canyon Villas	Jun-91	Apartments	Limited Partner	\$ 6,000,000	\$ 28,710,327	8.30%
ITC (230 Commerce)	Jul-03	Office Building	Fee Simple	\$ 5,739,845	\$ 11,730,000	10.20%
Waterworks Business Pk.	Nov-08	Research & Dev.	Fee Simple	\$ 8,630,577	\$ 9,180,000	5.88%
Sand Canyon Professional Center	Jul-12	Medical Office	Fee Simple	\$ 8,648,594	\$ 11,220,000	9.30%
Total - Income Properties				\$ 72,569,826	\$ 209,465,327	15.14%
OTHER REAL ESTATE DESCRIPTION						
Serrano Summit - Promissory Note	Sep-17	NA	NA	\$ 88,128,000	\$ 88,128,000	4.00%
Total - Income Producing Real Estate Investments				\$ 160,697,826	\$ 297,593,327	9.03%

IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT
INVESTMENT ACTIVITY
Mar-20

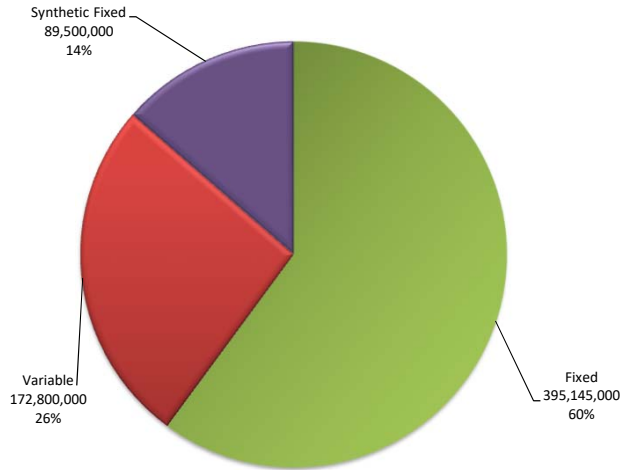
MATURITIES/SALES/CALLS

PURCHASES

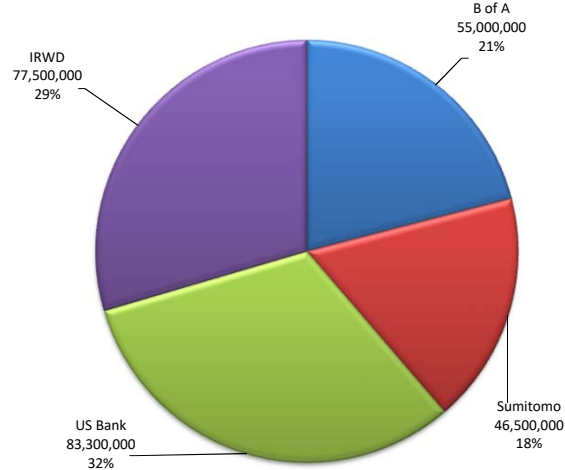
DATE	SECURITY TYPE	PAR	YIELD	Settlement Date	Maturity Date	SECURITY TYPE	PAR	YIELD TO MATURITY
3/2/2020	Treasury - Note	\$10,000,000	2.67%	3/2/2020	5/31/2021	Treasury Note	\$10,000,000	1.19%
3/13/2020	FHLB - Note	\$5,000,000	1.95%	3/13/2020	9/16/2020	FHLB - Discount Note	\$5,000,000	0.49%
3/16/2020	FFCB - Note	\$7,000,000	1.73%	3/16/2020	11/18/2020	FHLB - Discount Note	\$7,000,000	0.54%
3/31/2020	Treasury - Note	\$10,000,000	2.67%	3/20/2020	7/1/2035	EASWTR - Muni Bond	\$5,000,000	5.08%*
				3/31/2020	10/30/2020	FHLB - Discount Note	\$5,000,000	0.15%
				3/31/2020	1/19/2021	FHLB - Discount Note	\$5,000,000	0.20%

Exhibit "B"
Irvine Ranch Water District
Summary of Fixed and Variable Rate Debt
March 2020

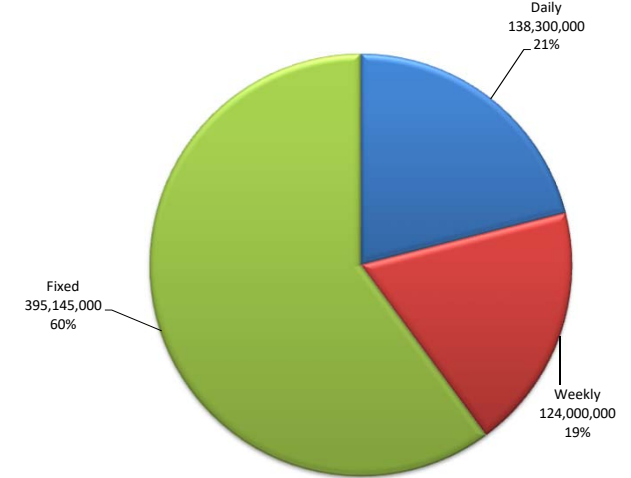
Current Debt Mix By Type



Letters of Credit / Support



Current Debt Rate Reset



Outstanding Par by Series

Series	Issue Date	Maturity Date	Remaining Principal	Percent	Letter of Credit/Support	Rmkt Agent	Mode	Reset
Series 1993	05/19/93	04/01/33	\$28,300,000	4.30%	US Bank	BAML	Variable	Daily
Series 2008-A Refunding	04/24/08	07/01/35	\$46,500,000	7.07%	Sumitomo	BAML	Variable	Weekly
Series 2011-A-1 Refunding	04/15/11	10/01/37	\$46,500,000	7.07%	IRWD	Goldman	Variable	Weekly
Series 2011-A-2 Refunding	04/15/11	10/01/37	\$31,000,000	4.72%	IRWD	Goldman	Variable	Weekly
Series 2009 - A	06/04/09	10/01/41	\$55,000,000	8.37%	US Bank	US Bank	Variable	Daily
Series 2009 - B	06/04/09	10/01/41	\$55,000,000	8.37%	B of A	Goldman	Variable	Daily
2016 COPS	09/01/16	03/01/46	\$116,745,000	17.76%	N/A	N/A	Fixed	Fixed
2010 Build America Taxable Bond	12/16/10	05/01/40	\$175,000,000	26.62%	N/A	N/A	Fixed	Fixed
Series 2016	10/12/16	02/01/46	\$103,400,000	15.73%	N/A	N/A	Fixed	Fixed
Total			\$657,445,000	100.00%				

IRVINE RANCH WATER DISTRICT
SUMMARY OF FIXED & VARIABLE RATE DEBT

March-20

ITN
Daily
Weekly

GENERAL BOND INFORMATION							LETTER OF CREDIT INFORMATION										TRUSTEE INFORMATION											
VARIABLE RATE ISSUES	Issue Date	Maturity Date	Principal Payment Date	Payment Date	Original Par Amount	Remaining Principal	Letter of Credit	Reimbursement Agreement Date	L/C Exp. Date	MOODY'S	S&P	FITCH	LOC Stated Amount	LOC Fee	Annual LOC Cost	Rmkt Agent	Reset	Rmkt Fees	Annual Cost	Trustee								
SERIES 1993	05/19/93	04/01/33	Apr 1	5th Bus. Day	\$38,300,000	\$28,300,000	US BANK	05/07/15	12/15/21	Aa3/VMIG1	AA-/A-1+	N/R	\$28,681,468	0.3300%	\$94,649	BAML	DAILY	0.10%	\$28,300	BANK OF NY								
SERIES 2008-A Refunding	04/24/08	07/01/35	Jul 1	5th Bus. Day	\$60,215,000	\$46,500,000	SUMITOMO	04/01/11	07/21/21	A1/P-1	A/A-1	A/F1	\$47,187,945	0.3150%	\$148,642	BAML	WED	0.07%	\$32,550	BANK OF NY								
SERIES 2011-A-1 Refunding	04/15/11	10/01/37	Oct 1	1st Bus. Day	\$60,545,000	\$46,500,000	N/A	N/A	N/A	Aa1/VMIG1	A-1+	AAA/F1+	N/A	N/A	N/A	Goldman	WED	0.13%	\$58,125	BANK OF NY								
SERIES 2011-A-2 Refunding	04/15/11	10/01/37	Oct 1	1st Bus. Day	\$40,370,000	\$31,000,000	N/A	N/A	N/A	Aa1/VMIG1	A-1+	AAA/F1+	N/A	N/A	N/A	Goldman	WED	0.13%	\$38,750	BANK OF NY								
SERIES 2009 - A	06/04/09	10/01/41	Oct 1	1st Bus. Day	\$75,000,000	\$55,000,000	US BANK	04/01/11	12/15/21	Aa2/VMIG 1	AA-/A-1+	AA/F1+	\$55,614,795	0.3300%	\$183,529	US Bank	DAILY	0.07%	\$38,500	US BANK								
SERIES 2009 - B	06/04/09	10/01/41	Oct 1	1st Bus. Day	\$75,000,000	\$55,000,000	B of A	04/01/11	05/16/22	Aa2/VMIG 1	A/A-1	A1/F1+	\$55,614,795	0.3000%	\$166,844	Goldman	DAILY	0.10%	\$55,000	US BANK								
\$349,430,000							\$262,300,000							SUB-TOTAL VARIABLE RATE DEBT					\$187,099,003		0.3173%		\$593,664		0.10%		\$251,225	
																			(Wt. Avg)				(Wt. Avg)					
FIXED RATE ISSUES																												
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 (2021)	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 (2022)	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								
\$395,145,000							\$395,145,000							SUB-TOTAL FIXED RATE DEBT														
\$744,575,000							\$657,445,000							TOTAL- FIXED & VARIABLE RATE DEBT														

Remarketing Agents			GO VS COP's		
Goldman	132,500,000	51%	GO:	540,700,000	82%
BAML	74,800,000	29%	COPS:	116,745,000	18%
US Bank	55,000,000	21%	Total	<u>657,445,000</u>	
	<u>262,300,000</u>				

LOC Banks		Breakdown Between Variable & Fixed Rate Mode	
SUMITOMO	46,500,000	Daily Issues	138,300,000 21%
BANK OF AMERICA	55,000,000	Weekly Issues	46,500,000 7%
US BANK	83,300,000	ITN Issues	77,500,000 12%
	<u>184,800,000</u>	Sub-Total	<u>262,300,000</u>
		Fixed Rate Issues	\$395,145,000 60%
		Sub-Total - Fixed	<u>395,145,000</u>
		TOTAL DEBT	
		FIXED & VAR.	<u>657,445,000</u> 100%

IRVINE RANCH WATER DISTRICT
SUMMARY OF DEBT RATES
Mar-20

Rmkt Agent Mode	GOLDMAN DAILY	GOLDMAN WEEKLY	GOLDMAN WEEKLY	MERRILL LYNCH DAILY	MERRILL LYNCH WEEKLY	US BANK DAILY
Bond Issue	2009 - B	2011 A-1	2011 A-2	1993	2008-A	2009-A
Par Amount	55,000,000	46,500,000	31,000,000	28,300,000	46,500,000	55,000,000
Bank	BOFA	(SIFMA -6)	(SIFMA -6)	US BANK	Sumitomo	US BANK
Reset		Wednesday	Wednesday		Wednesday	
3/1/2020	1.00%	1.09%	1.09%	1.00%	1.06%	1.00%
3/2/2020	0.99%	1.09%	1.09%	1.08%	1.06%	1.00%
3/3/2020	0.94%	1.09%	1.09%	1.20%	1.06%	1.13%
3/4/2020	1.15%	1.09%	1.09%	1.32%	1.06%	1.13%
3/5/2020	1.30%	1.19%	1.19%	1.25%	1.15%	1.18%
3/6/2020	1.03%	1.19%	1.19%	1.02%	1.15%	1.04%
3/7/2020	1.03%	1.19%	1.19%	1.02%	1.15%	1.04%
3/8/2020	1.03%	1.19%	1.19%	1.02%	1.15%	1.04%
3/9/2020	0.80%	1.19%	1.19%	0.97%	1.15%	0.85%
3/10/2020	0.85%	1.19%	1.19%	0.85%	1.15%	0.85%
3/11/2020	1.07%	1.19%	1.19%	0.96%	1.15%	0.91%
3/12/2020	1.18%	1.22%	1.22%	1.18%	1.19%	0.95%
3/13/2020	1.42%	1.22%	1.22%	1.39%	1.19%	1.40%
3/14/2020	1.42%	1.22%	1.22%	1.39%	1.19%	1.40%
3/15/2020	1.42%	1.22%	1.22%	1.39%	1.19%	1.40%
3/16/2020	2.20%	1.22%	1.22%	1.72%	1.19%	1.82%
3/17/2020	3.25%	1.22%	1.22%	3.04%	1.19%	3.90%
3/18/2020	4.85%	1.22%	1.22%	5.39%	1.19%	4.90%
3/19/2020	7.95%	5.14%	5.14%	9.89%	5.72%	7.90%
3/20/2020	7.80%	5.14%	5.14%	9.89%	5.72%	9.00%
3/21/2020	7.80%	5.14%	5.14%	9.89%	5.72%	9.00%
3/22/2020	7.80%	5.14%	5.14%	9.89%	5.72%	9.00%
3/23/2020	6.25%	5.14%	5.14%	5.89%	5.72%	6.25%
3/24/2020	4.00%	5.14%	5.14%	3.89%	5.72%	4.50%
3/25/2020	2.00%	5.14%	5.14%	2.89%	5.72%	2.75%
3/26/2020	1.55%	4.65%	4.65%	1.64%	4.67%	2.05%
3/27/2020	0.95%	4.65%	4.65%	1.09%	4.67%	1.40%
3/28/2020	0.95%	4.65%	4.65%	1.09%	4.67%	1.40%
3/29/2020	0.95%	4.65%	4.65%	1.09%	4.67%	1.40%
3/30/2020	0.80%	4.65%	4.65%	0.70%	4.67%	1.00%
3/31/2020	0.52%	4.65%	4.65%	0.55%	4.67%	0.80%
Avg Interest Rates	2.46%	2.80%	2.80%	2.76%	2.86%	2.69%
Rmkt Fee	0.10%	0.13%	0.13%	0.10%	0.07%	0.07%
LOC Fee	0.30%			0.33%	0.32%	0.33%
All-In Rate	2.86%	2.93%	2.93%	3.19%	3.25%	3.09%
Par Amount	101,500,000		31,000,000	74,800,000		55,000,000

Interest Rate Mode	Percent of Total Variable Rate Debt	Par Outstanding	Weighted All-In Average Rate	Base Rate Average
Daily	52.73%	138,300,000	3.02%	2.61%
Weekly	47.27%	124,000,000	3.05%	2.82%
	100.00%	\$ 262,300,000	3.03%	2.71%
Fixed				
COPS 2016	29.54%	116,745,000	2.90%	
BABS 2010	44.29%	175,000,000	4.44%	(1)
SERIES 2016	26.17%	103,400,000	3.32%	
	100.00%	\$ 395,145,000	3.69%	
All-In Debt Rate Including \$60 Million Notional Amount of Swaps				3.75%

(1) Rate adjusted up from 4.35% as a result of sequestration reducing BAB's subsidy by 5.9%

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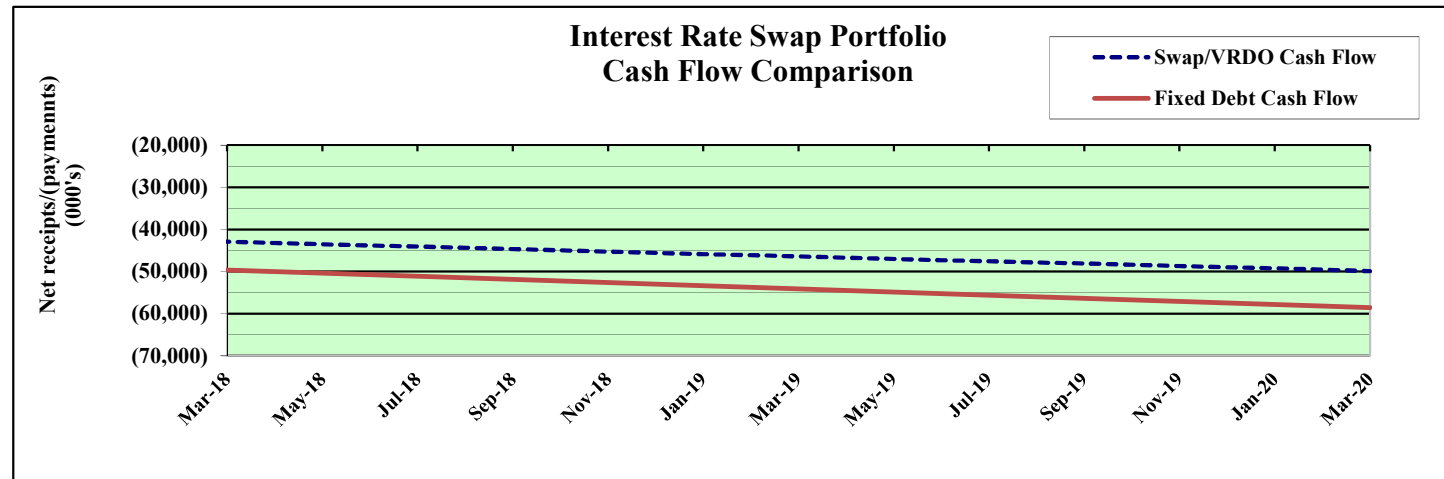
**IRVINE RANCH WATER DISTRICT
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL
March 31, 2020**

LIBOR Avg %	Prior Mo.	Current Mo.	12-Mo Avg
	1.67%	1.64%	1.73%

Current Fiscal Year Active Swaps								Cash Flow				(Since 3/07)	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 Net Accrual	Current Mark to Market	Notional Difference	
Fixed Payer Swaps - By Effective Date														
3/10/2007	3/10/2029	8.9	ML	30,000,000	FXP	LIBOR	5.687%	(88,918)	(84,426)	(794,210)	(17,639,937)	16,579,008	(13,420,992)	
3/10/2007	3/10/2029	8.9	CG	30,000,000	FXP	LIBOR	5.687%	(88,918)	(84,426)	(794,210)	(17,639,937)	16,575,450	(13,424,550)	
Totals/Weighted Avgs		8.9		\$ 60,000,000			5.687%	\$ (177,836)	\$ (168,852)	\$ (1,588,420)	\$ (35,279,873)	\$ 33,154,458	\$ (26,845,542)	
Total Current Year Active Swaps				\$ 60,000,000				\$ (177,836)	\$ (168,852)	\$ (1,588,420)	\$ (35,279,873)	\$ 33,154,458	\$ (26,845,542)	

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 Net Accrual	Current Mark to Market	Notional Difference
Total Current Year Terminated Swaps								\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Current Fiscal Year - Total Swaps								Cash Flow				Mark to Market	
Prior Month	Current Month	Fiscal YTD	Cumulative Net Accrual	Current Mark to Market	Notional Difference								
\$ (177,836)	\$ (168,852)	\$ (1,588,420)	\$ (35,279,873)	\$ 33,154,458	\$ (26,845,542)								



Cash Flow Comparison Synthetic Fixed vs. Fixed Rate Debt	
<u>Cash Flow to Date</u>	
Synthetic Fixed =	\$49,927,661
Fixed Rate =	\$59,724,129
Assumptions:	
- Fixed rate debt issued at 4.93% in Mar-07 (estimated TE rate - Bloomberg)	
- 'Synthetic' includes swap cash flow + interest + fees to date	

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Exhibit "D"
IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR MARCH 2020

CHECK OR ELECTRONIC #	SUPPLIERS	PAYMENT DATE	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
406723	SCADA AND CONTROL SYSTEMS, INC.	2-Mar-20	50,000.00	IRWD Check	Reconciled
406724	Bennett, Ray R (Ray)	5-Mar-20	186.42	IRWD Check	Reconciled
406725	Calderon, Alfonso	5-Mar-20	450.00	IRWD Check	Reconciled
406726	Cook, Nicholas	5-Mar-20	466.87	IRWD Check	Reconciled
406727	Fabris, John	5-Mar-20	22.20	IRWD Check	Reconciled
406728	Grier, Corey	5-Mar-20	72.43	IRWD Check	Reconciled
406729	Guzman, Juan (Juan)	5-Mar-20	156.23	IRWD Check	Reconciled
406730	Ho, Connie	5-Mar-20	34.46	IRWD Check	Reconciled
406731	Hufana, Mr. Eugenio D II (Gino)	5-Mar-20	117.31	IRWD Check	Reconciled
406732	Johnson, Dane	5-Mar-20	429.39	IRWD Check	Reconciled
406733	Karpan, Casey L (Casey)	5-Mar-20	466.87	IRWD Check	Reconciled
406734	Kulick, Michael	5-Mar-20	192.00	IRWD Check	Reconciled
406735	Martinez, Diego	5-Mar-20	488.67	IRWD Check	Reconciled
406736	Moeder, Jacob J (Jacob)	5-Mar-20	30.00	IRWD Check	Negotiable
406737	Sanchez, George (George)	5-Mar-20	312.00	IRWD Check	Reconciled
406738	Shapiro, Matthew	5-Mar-20	450.00	IRWD Check	Reconciled
406739	Srader, Lisa	5-Mar-20	82.57	IRWD Check	Reconciled
406740	Compton, Christine A	5-Mar-20	110.78	IRWD Check	Reconciled
406741	Richardson, Kyle	5-Mar-20	450.00	IRWD Check	Reconciled
406742	ABSOLUTE STANDARDS, INC.	5-Mar-20	227.50	IRWD Check	Reconciled
406743	AECOM TECHNICAL SERVICES, INC.	5-Mar-20	860,988.75	IRWD Check	Reconciled
406744	AFLAC	5-Mar-20	6,787.10	IRWD Check	Reconciled
406745	AFLAC	5-Mar-20	148.74	IRWD Check	Reconciled
406746	AIR TECHNOLOGY LABORATORIES	5-Mar-20	717.00	IRWD Check	Negotiable
406747	AIRGAS, INC.	5-Mar-20	1,988.77	IRWD Check	Reconciled
406748	ALL AMERICAN ASPHALT	5-Mar-20	769.74	IRWD Check	Reconciled
406749	ALLIANCE RESOURCE CONSULTING LLC	5-Mar-20	6,625.00	IRWD Check	Reconciled
406750	APEX SYSTEMS, LLC	5-Mar-20	3,484.00	IRWD Check	Reconciled
406751	ARCHROCK SERVICES, L.P.	5-Mar-20	127.00	IRWD Check	Reconciled
406752	ARROYO, NICOLAS	5-Mar-20	34.75	IRWD Check	Reconciled
406753	AT&T	5-Mar-20	4,620.53	IRWD Check	Reconciled
406754	AT&T	5-Mar-20	704.67	IRWD Check	Reconciled
406755	AT&T	5-Mar-20	54.79	IRWD Check	Reconciled
406756	AUTOZONE PARTS, INC.	5-Mar-20	68.64	IRWD Check	Reconciled
406757	AZTEC CONTAINER	5-Mar-20	3,210.95	IRWD Check	Reconciled
406758	B & H PHOTO & VIDEO	5-Mar-20	1,200.59	IRWD Check	Reconciled
406759	BARLOW, SCOTT	5-Mar-20	12.40	IRWD Check	Negotiable
406760	BATTERIES PLUS AND BATTERIES PLUS BULBS	5-Mar-20	1,860.87	IRWD Check	Reconciled
406761	BAVCO BACKFLOW APPARATUS & VALVE COMPANY	5-Mar-20	24.65	IRWD Check	Reconciled
406762	BAY AREA TRENCHERS, INC.	5-Mar-20	721.22	IRWD Check	Reconciled
406763	BCM, LLC	5-Mar-20	69.69	IRWD Check	Negotiable
406764	BIGWIG MONSTER, LLC	5-Mar-20	10,200.00	IRWD Check	Reconciled
406765	BIOMAGIC INC	5-Mar-20	19,149.67	IRWD Check	Reconciled
406766	BLECKSMITH, KAREN	5-Mar-20	29.80	IRWD Check	Reconciled
406767	BOSWORTH, JASON	5-Mar-20	61.33	IRWD Check	Negotiable
406768	HOMISCO, INC. AND SUBSIDIARY	5-Mar-20	9,826.04	IRWD Check	Reconciled
406769	BSI SERVICES AND SOLUTIONS (WEST) INC.	5-Mar-20	6,055.00	IRWD Check	Reconciled
406770	CALIFORNIA BARRICADE RENTAL, INC.	5-Mar-20	27,111.01	IRWD Check	Reconciled
406771	CANON SOLUTIONS AMERICA, INC.	5-Mar-20	37.92	IRWD Check	Reconciled
406772	CANTADA COMMUNITY ASSOCIATION	5-Mar-20	5,895.00	IRWD Check	Reconciled
406773	CAPTIVE AUDIENCE MARKETING INC.	5-Mar-20	79.00	IRWD Check	Reconciled
406774	CHARLES WILLIAM ROBLE, JR.	5-Mar-20	112.50	IRWD Check	Reconciled
406775	CHEM TECH INTERNATIONAL INC	5-Mar-20	16,781.70	IRWD Check	Reconciled
406776	CHEN, WEIPING	5-Mar-20	46.01	IRWD Check	Negotiable
406777	CHEVROLET OF IRVINE	5-Mar-20	404.56	IRWD Check	Reconciled
406778	CLA-VAL COMPANY	5-Mar-20	7,953.97	IRWD Check	Reconciled
406779	CLARKE MOSQUITO CONTROL PRODUCTS, INC.	5-Mar-20	2,527.86	IRWD Check	Reconciled
406780	CLIFFORD MORIYAMA	5-Mar-20	4,000.00	IRWD Check	Reconciled
406781	COMMUNITY EMERGENCY MANAGEMENT, INC	5-Mar-20	3,000.00	IRWD Check	Reconciled
406782	CONSTELLATION NEWENERGY, INC.	5-Mar-20	29,425.23	IRWD Check	Reconciled
406783	CORELOGIC INC	5-Mar-20	6.83	IRWD Check	Reconciled
406784	COUNTY OF ORANGE	5-Mar-20	67,110.75	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR MARCH 2020**

CHECK OR ELECTRONIC #	SUPPLIERS	PAYMENT DATE	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
406785	COX COMMUNICATIONS, INC.	5-Mar-20	270.13	IRWD Check	Reconciled
406786	CUELLAR, RAUL	5-Mar-20	59.19	IRWD Check	Reconciled
406787	CULLIGAN OF SANTA ANA	5-Mar-20	22,000.00	IRWD Check	Reconciled
406788	DIVERSIFIED COMMUNICATIONS SERVICES, INC.	5-Mar-20	2,736.10	IRWD Check	Negotiable
406789	EAST ORANGE COUNTY WATER DISTRICT	5-Mar-20	3,678.95	IRWD Check	Reconciled
406790	ENDEMIC ENVIRONMENTAL SERVICES, INC.	5-Mar-20	7,329.44	IRWD Check	Reconciled
406791	ENVIRONMENTAL RESOURCE ASSOCIATES	5-Mar-20	446.22	IRWD Check	Reconciled
406792	EVERETT DOREY LLP	5-Mar-20	4,235.89	IRWD Check	Reconciled
406793	FARRELL & ASSOCIATES	5-Mar-20	1,548.52	IRWD Check	Reconciled
406794	FEDEX	5-Mar-20	158.12	IRWD Check	Reconciled
406795	FERGUSON ENTERPRISES, LLC	5-Mar-20	4,067.56	IRWD Check	Reconciled
406796	FERREIRA CONSTRUCTION COMPANY, INC.	5-Mar-20	19,766.65	IRWD Check	Reconciled
406797	FIREHOSEDIRECT.COM	5-Mar-20	142.79	IRWD Check	Reconciled
406798	FIRST CHOICE SERVICES	5-Mar-20	390.18	IRWD Check	Reconciled
406799	FISHER SCIENTIFIC COMPANY LLC	5-Mar-20	8,330.52	IRWD Check	Reconciled
406800	FLEET SOLUTIONS LLC	5-Mar-20	5,503.88	IRWD Check	Reconciled
406801	FO, PAM	5-Mar-20	55.10	IRWD Check	Reconciled
406802	FORESTRY SUPPLIERS INC	5-Mar-20	780.62	IRWD Check	Reconciled
406803	FOUGHT, CYNTHIA J.	5-Mar-20	1,277.86	IRWD Check	Reconciled
406804	FRONTIER CALIFORNIA INC.	5-Mar-20	355.98	IRWD Check	Reconciled
406805	FU, FRANK	5-Mar-20	60.87	IRWD Check	Reconciled
406806	FUSCOE ENGINEERING, INC.	5-Mar-20	237.00	IRWD Check	Reconciled
406807	GRAINGER	5-Mar-20	1,988.00	IRWD Check	Reconciled
406808	GRANICUS, LLC	5-Mar-20	1,732.10	IRWD Check	Reconciled
406809	GUO, ZEJIN	5-Mar-20	42.98	IRWD Check	Negotiable
406810	HAAKER EQUIPMENT COMPANY	5-Mar-20	92.85	IRWD Check	Reconciled
406811	HACH COMPANY	5-Mar-20	7,986.97	IRWD Check	Reconciled
406812	HALL GRIFFIN LLP	5-Mar-20	841.50	IRWD Check	Reconciled
406813	HARRINGTON INDUSTRIAL PLASTICS LLC	5-Mar-20	7,583.24	IRWD Check	Reconciled
406814	HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY	5-Mar-20	72.30	IRWD Check	Reconciled
406815	HARVARD COURT APARTMENTS	5-Mar-20	105.56	IRWD Check	Reconciled
406816	HAZEN AND SAWYER	5-Mar-20	10,480.00	IRWD Check	Reconciled
406817	HDR ENGINEERING INC	5-Mar-20	2,340.00	IRWD Check	Reconciled
406818	HELPMATES STAFFING SERVICES	5-Mar-20	17,146.22	IRWD Check	Reconciled
406819	HERC RENTALS INC.	5-Mar-20	478.90	IRWD Check	Reconciled
406820	HI-LINE INC	5-Mar-20	298.18	IRWD Check	Reconciled
406821	HILL BROTHERS CHEMICAL COMPANY	5-Mar-20	6,025.53	IRWD Check	Reconciled
406822	HOME DEPOT USA INC	5-Mar-20	230.12	IRWD Check	Reconciled
406823	HYDROTECH ELECTRIC	5-Mar-20	16,325.80	IRWD Check	Reconciled
406824	INDUSTRIAL METAL SUPPLY CO	5-Mar-20	1,265.92	IRWD Check	Reconciled
406825	INLAND EMPIRE UTILITIES AGENCY	5-Mar-20	160.00	IRWD Check	Reconciled
406826	INTRACORP SOUTHERN CALIFORNIA, LLC	5-Mar-20	111.19	IRWD Check	Negotiable
406827	IRVINE PIPE & SUPPLY INC	5-Mar-20	5,728.56	IRWD Check	Reconciled
406828	IRVINE UNIFIED SCHOOL DISTRICT	5-Mar-20	161.41	IRWD Check	Reconciled
406829	IRWD-PETTY CASH CUSTODIAN	5-Mar-20	863.59	IRWD Check	Reconciled
406830	KAN VENTURES, INC	5-Mar-20	6,500.00	IRWD Check	Reconciled
406831	KLEIN PROPERTY MANAGEMENT	5-Mar-20	14.84	IRWD Check	Reconciled
406832	KONECRANES INC	5-Mar-20	1,562.50	IRWD Check	Reconciled
406833	LAGUNA BEACH COUNTY WATER DISTRICT	5-Mar-20	3,270.06	IRWD Check	Reconciled
406834	LANDCARE HOLDINGS, INC.	5-Mar-20	34,100.00	IRWD Check	Reconciled
406835	LANDSEA HOLDINGS CORPORATION	5-Mar-20	70.14	IRWD Check	Negotiable
406836	LIU, YIJING	5-Mar-20	70.06	IRWD Check	Negotiable
406837	LSA ASSOCIATES INC	5-Mar-20	10,901.25	IRWD Check	Reconciled
406838	MADISON & COMPANY	5-Mar-20	64.81	IRWD Check	Reconciled
406839	MARK ENTERPRISES TECHNOLOGIES LLC	5-Mar-20	61,136.49	IRWD Check	Reconciled
406840	MARK ENTERPRISES, INC.	5-Mar-20	5,693.10	IRWD Check	Reconciled
406841	MARK KADESH	5-Mar-20	10,000.00	IRWD Check	Reconciled
406842	MC FADDEN-DALE INDUSTRIAL	5-Mar-20	243.01	IRWD Check	Reconciled
406843	MC MASTER CARR SUPPLY CO	5-Mar-20	120.03	IRWD Check	Reconciled
406844	MCGLOTHLIN, TERRI	5-Mar-20	46.90	IRWD Check	Negotiable
406845	MCR TECHNOLOGIES INC	5-Mar-20	4,115.45	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR MARCH 2020**

CHECK OR ELECTRONIC #	SUPPLIERS	PAYMENT DATE	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
406846	MERRIMAC PETROLEUM, INC.	5-Mar-20	25,695.23	IRWD Check	Reconciled
406847	METZEN, CHRIS	5-Mar-20	162.81	IRWD Check	Negotiable
406848	MICHAEL BAKER INTERNATIONAL, INC.	5-Mar-20	6,214.96	IRWD Check	Reconciled
406849	MICHELE CHAVIS-LOVING	5-Mar-20	984.48	IRWD Check	Reconciled
406850	MORCOS, NABIL	5-Mar-20	27.64	IRWD Check	Reconciled
406851	MRO ELECTRIC & SUPPLY CO.	5-Mar-20	625.00	IRWD Check	Reconciled
406852	NASHBAN, JAY	5-Mar-20	78.00	IRWD Check	Reconciled
406853	NATIONAL READY MIXED CONCRETE SALES, LLC	5-Mar-20	1,260.29	IRWD Check	Reconciled
406854	NATURES IMAGE INC	5-Mar-20	12,829.00	IRWD Check	Reconciled
406855	NCH CORPORATION	5-Mar-20	595.42	IRWD Check	Reconciled
406856	NEMETH, HAL	5-Mar-20	13.97	IRWD Check	Reconciled
406857	NEPTUNE TECHNOLOGY GROUP, INC.	5-Mar-20	81,135.75	IRWD Check	Reconciled
406858	NEWPORT BAY CONSERVANCY	5-Mar-20	35.00	IRWD Check	Negotiable
406859	NMG GEOTECHNICAL INC	5-Mar-20	2,440.00	IRWD Check	Reconciled
406860	NORTHWOOD PLACE APTS	5-Mar-20	616.48	IRWD Check	Reconciled
406861	NOVOBILSKY, MICHAEL	5-Mar-20	32.85	IRWD Check	Reconciled
406862	O.C. SUPERIOR CUSTOM CLEANING	5-Mar-20	832.00	IRWD Check	Reconciled
406863	OLIN CORPORATION	5-Mar-20	16,634.12	IRWD Check	Reconciled
406864	OLIVER, LAURENCE	5-Mar-20	607.26	IRWD Check	Reconciled
406865	OLSON REMCHO LLP	5-Mar-20	632.50	IRWD Check	Reconciled
406866	ORANGE COUNTY AUTO PARTS CO	5-Mar-20	1,293.11	IRWD Check	Reconciled
406867	ORANGE COUNTY HOSE	5-Mar-20	91.50	IRWD Check	Reconciled
406868	ORANGE COUNTY SANITATION DISTRICT	5-Mar-20	2,210.00	IRWD Check	Reconciled
406869	OSTS, INC	5-Mar-20	1,150.00	IRWD Check	Reconciled
406870	PACIFIC COAST BOLT CORP	5-Mar-20	400.32	IRWD Check	Reconciled
406871	PAULUS ENGINEERING INC	5-Mar-20	69,499.66	IRWD Check	Reconciled
406872	PCL CONSTRUCTION, INC.	5-Mar-20	25,914.10	IRWD Check	Reconciled
406873	PCP MOTORSPORTS	5-Mar-20	20,563.25	IRWD Check	Reconciled
406874	PELLETIER & ASSOCIATES, INC.	5-Mar-20	390.00	IRWD Check	Reconciled
406875	PORTOLA SPRINGS COMM ASSOC	5-Mar-20	8,176.19	IRWD Check	Reconciled
406876	PRAXAIR DISTRIBUTION INC	5-Mar-20	561.71	IRWD Check	Reconciled
406877	PRE-PAID LEGAL SERVICES INC	5-Mar-20	1,160.04	IRWD Check	Reconciled
406878	PULTE GROUP 2009	5-Mar-20	311.20	IRWD Check	Negotiable
406879	PUREWORKS, INC.	5-Mar-20	61,300.00	IRWD Check	Reconciled
406880	QU, JUNYI	5-Mar-20	12.67	IRWD Check	Reconciled
406881	RED WING SHOE STORE	5-Mar-20	1,107.20	IRWD Check	Reconciled
406882	RICHARD C. SLADE & ASSOCIATES LLC	5-Mar-20	10,694.56	IRWD Check	Reconciled
406883	RINCON TRUCK CENTER INC.	5-Mar-20	42.93	IRWD Check	Reconciled
406884	RLG ENTERPRISES, INC	5-Mar-20	918.80	IRWD Check	Reconciled
406885	ROBERTS ROOFING INC	5-Mar-20	2,500.00	IRWD Check	Reconciled
406886	RONDON, KIM	5-Mar-20	79.02	IRWD Check	Reconciled
406887	SAFETY-KLEEN SYSTEMS, INC	5-Mar-20	3,082.46	IRWD Check	Reconciled
406888	SAN DIEGO FLUID SYSTEM TECH	5-Mar-20	111.42	IRWD Check	Reconciled
406889	SAN LEON APTS	5-Mar-20	76.90	IRWD Check	Reconciled
406890	SANTA ANA BLUE PRINT	5-Mar-20	4,168.62	IRWD Check	Reconciled
406891	SEAL ANALYTICAL INC	5-Mar-20	1,348.17	IRWD Check	Reconciled
406892	SHAMROCK SUPPLY CO INC	5-Mar-20	2,327.40	IRWD Check	Reconciled
406893	SHEA HOMES LIMITED PARTNERSHIP	5-Mar-20	2,600.00	IRWD Check	Reconciled
406894	SHERWIN WILLIAMS COMPANY	5-Mar-20	1,184.22	IRWD Check	Reconciled
406895	SHOETERIA	5-Mar-20	876.77	IRWD Check	Reconciled
406896	SIRIUS COMPUTER SOLUTIONS INC	5-Mar-20	31,315.60	IRWD Check	Reconciled
406897	SOUTH ORANGE COUNTY WASTEWATER AUTHORITY	5-Mar-20	67,317.00	IRWD Check	Reconciled
406898	SOUTHERN CALIFORNIA EDISON COMPANY	5-Mar-20	369,575.00	IRWD Check	Reconciled
406899	SOUTHERN CALIFORNIA EDISON COMPANY	5-Mar-20	64.02	IRWD Check	Reconciled
406900	SOUTHWEST PRODUCTS CORPORATION	5-Mar-20	380.01	IRWD Check	Reconciled
406901	SPARKLETTS	5-Mar-20	152.79	IRWD Check	Reconciled
406902	SS MECHANICAL CONSTRUCTION CORP	5-Mar-20	35,686.75	IRWD Check	Reconciled
406903	STANTEC CONSULTING SERVICES INC.	5-Mar-20	74,631.74	IRWD Check	Reconciled
406904	STERIS CORPORATION	5-Mar-20	5,222.73	IRWD Check	Reconciled
406905	STETSON ENGINEERS INC.	5-Mar-20	4,699.23	IRWD Check	Reconciled
406906	STRADLING YOCCA CARLSON & RAUTH	5-Mar-20	784.00	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR MARCH 2020**

CHECK OR ELECTRONIC #	SUPPLIERS	PAYMENT DATE	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
406907	STREAKWAVE WIRELESS, INC.	5-Mar-20	44.04	IRWD Check	Reconciled
406908	TESCO CONTROLS, INC.	5-Mar-20	6,750.00	IRWD Check	Reconciled
406909	TETRA TECH, INC	5-Mar-20	20,122.60	IRWD Check	Reconciled
406910	THOMPSON INDUSTRIAL SUPPLY	5-Mar-20	161.15	IRWD Check	Reconciled
406911	THYSSENKRUPP ELEVATOR CORPORATION	5-Mar-20	204.74	IRWD Check	Reconciled
406912	TIC-OFFICE PROPERTIES	5-Mar-20	33.76	IRWD Check	Reconciled
406913	TOLL BROS., INC.	5-Mar-20	37.56	IRWD Check	Reconciled
406914	TRAN, HUONG	5-Mar-20	41.31	IRWD Check	Reconciled
406915	TRESCOTT, BONNIE	5-Mar-20	46.08	IRWD Check	Reconciled
406916	TRI COUNTY PUMP COMPANY	5-Mar-20	53,301.15	IRWD Check	Reconciled
406917	TROPICAL PLAZA NURSERY INC	5-Mar-20	5,956.20	IRWD Check	Reconciled
406918	U.S. GAIN - A DIVISION OF U.S. VENTURE, INC.	5-Mar-20	398.12	IRWD Check	Reconciled
406919	UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA	5-Mar-20	2,222.60	IRWD Check	Reconciled
406920	UNITED PARCEL SERVICE INC	5-Mar-20	308.22	IRWD Check	Reconciled
406921	V&A CONSULTING ENGINEERS	5-Mar-20	7,427.41	IRWD Check	Reconciled
406922	VERIZON WIRELESS SERVICES LLC	5-Mar-20	15,911.89	IRWD Check	Reconciled
406923	VERTECH INDUSTRIAL SYSTEMS, LLC	5-Mar-20	3,929.32	IRWD Check	Reconciled
406924	VULCAN MATERIALS COMPANY	5-Mar-20	1,473.15	IRWD Check	Reconciled
406925	WARE MALCOMB	5-Mar-20	6,524.71	IRWD Check	Reconciled
406926	WASTE MANAGEMENT OF CALIFORNIA, INC.	5-Mar-20	2,345.90	IRWD Check	Reconciled
406927	WATER MANAGEMENT GROUP	5-Mar-20	5,030.00	IRWD Check	Reconciled
406928	WAXIE'S ENTERPRISES, INC	5-Mar-20	2,302.01	IRWD Check	Reconciled
406929	WECK LABORATORIES INC	5-Mar-20	1,409.00	IRWD Check	Reconciled
406930	WEST COAST SAND & GRAVEL INC.	5-Mar-20	1,347.21	IRWD Check	Reconciled
406931	WEST YOST & ASSOCIATES	5-Mar-20	11,063.63	IRWD Check	Reconciled
406932	WILLIAMS, GARY	5-Mar-20	42.78	IRWD Check	Reconciled
406933	WORKFORCE SAFETY LLC	5-Mar-20	3,000.00	IRWD Check	Reconciled
406934	XIE, ZEHONG	5-Mar-20	25.73	IRWD Check	Negotiable
406935	YP LLC	5-Mar-20	91.00	IRWD Check	Reconciled
406936	V&A CONSULTING ENGINEERS	10-Mar-20	11,241.26	IRWD Check	Reconciled
406937	STERIS CORPORATION	10-Mar-20	2,838.00	IRWD Check	Reconciled
406938	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	10-Mar-20	615.88	IRWD Check	Reconciled
406939	Alfaro, Alvaro (Alvaro)	12-Mar-20	60.00	IRWD Check	Negotiable
406940	Barboza, Armando	12-Mar-20	372.00	IRWD Check	Reconciled
406941	Gallegos, Adriel	12-Mar-20	185.73	IRWD Check	Reconciled
406942	Hatch, Lauren	12-Mar-20	118.81	IRWD Check	Negotiable
406943	Korneff, Nicholas	12-Mar-20	466.87	IRWD Check	Reconciled
406944	Oldewage, Lars D (Lars)	12-Mar-20	71.27	IRWD Check	Reconciled
406945	Perez, Rodolfo (Rudy)	12-Mar-20	286.00	IRWD Check	Reconciled
406946	Real, Omar	12-Mar-20	105.00	IRWD Check	Reconciled
406947	Robinson, Mitchell S	12-Mar-20	94.24	IRWD Check	Reconciled
406948	Rutherford, Allan	12-Mar-20	185.00	IRWD Check	Reconciled
406949	Silva, Jose A (Jose)	12-Mar-20	286.00	IRWD Check	Reconciled
406950	A & R CORPORATION INC	12-Mar-20	1,514.22	IRWD Check	Negotiable
406951	ABM INDUSTRY GROUPS, LLC	12-Mar-20	21,614.59	IRWD Check	Reconciled
406952	ADS LLC	12-Mar-20	2,250.00	IRWD Check	Reconciled
406953	AGILENT TECHNOLOGIES, INC.	12-Mar-20	2,437.31	IRWD Check	Reconciled
406954	AIRGAS, INC.	12-Mar-20	1,230.94	IRWD Check	Reconciled
406955	AL/KATHLEEN PUSKAS	12-Mar-20	645.00	IRWD Check	Reconciled
406956	ALEXANDER'S CONTRACT SERVICES, INC.	12-Mar-20	122,695.84	IRWD Check	Reconciled
406957	ALL AMERICAN ASPHALT	12-Mar-20	1,605.33	IRWD Check	Reconciled
406958	ALSTON & BIRD LLP	12-Mar-20	241,101.70	IRWD Check	Reconciled
406959	AMAZON CAPITAL SERVICES, INC.	12-Mar-20	705.51	IRWD Check	Reconciled
406960	APEX SYSTEMS, LLC	12-Mar-20	1,872.00	IRWD Check	Reconciled
406961	AQUA-METRIC SALES COMPANY	12-Mar-20	10,064.95	IRWD Check	Reconciled
406962	ARCADIS U.S., INC.	12-Mar-20	38,819.57	IRWD Check	Reconciled
406963	ARIZONA PIPELINE COMPANY	12-Mar-20	1,333.17	IRWD Check	Reconciled
406964	ARMORCAST PRODUCTS COMPANY	12-Mar-20	3,617.73	IRWD Check	Reconciled
406965	ASHFORD, WALT	12-Mar-20	125.32	IRWD Check	Reconciled
406966	AT&T	12-Mar-20	64.80	IRWD Check	Reconciled
406967	AT&T	12-Mar-20	1,096.92	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR MARCH 2020**

CHECK OR ELECTRONIC #	SUPPLIERS	PAYMENT DATE	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
406968	AT&T	12-Mar-20	1,666.07	IRWD Check	Reconciled
406969	AUTOZONE PARTS, INC.	12-Mar-20	125.47	IRWD Check	Reconciled
406970	AVISTA TECHNOLOGIES, INC	12-Mar-20	5,550.22	IRWD Check	Reconciled
406971	BACHMAN, JOSH	12-Mar-20	22.17	IRWD Check	Negotiable
406972	BIGWIG MONSTER, LLC	12-Mar-20	4,350.00	IRWD Check	Reconciled
406973	BILL'S SWEEPING SERVICE INC	12-Mar-20	1,365.00	IRWD Check	Reconciled
406974	C L OLSON & ASSOCIATES, INC.	12-Mar-20	3,507.27	IRWD Check	Reconciled
406975	C WELLS PIPELINE MATERIALS INC	12-Mar-20	10,020.76	IRWD Check	Reconciled
406976	CALIFORNIA ASSOCIATION OF LOCAL AGENCY FORMATION COMMISSIONS (CALAFCO)	12-Mar-20	250.00	IRWD Check	Negotiable
406977	CALIFORNIA BARRICADE RENTAL, INC.	12-Mar-20	24,846.32	IRWD Check	Reconciled
406978	CANON SOLUTIONS AMERICA, INC.	12-Mar-20	11,284.36	IRWD Check	Reconciled
406979	CHAIREL CUSTOM HAY, INC.	12-Mar-20	4,153.49	IRWD Check	Reconciled
406980	CHEM TECH INTERNATIONAL INC	12-Mar-20	30,532.86	IRWD Check	Reconciled
406981	CHOI, KUYONG	12-Mar-20	34.28	IRWD Check	Reconciled
406982	CITY OF LAKE FOREST	12-Mar-20	10,000.00	IRWD Check	Reconciled
406983	CITY OF ORANGE	12-Mar-20	164.64	IRWD Check	Reconciled
406984	CLARIS STRATEGY INC.	12-Mar-20	4,060.00	IRWD Check	Reconciled
406985	CLEAN ENERGY	12-Mar-20	4,976.33	IRWD Check	Reconciled
406986	COAST SHEET METAL, INC.	12-Mar-20	1,679.50	IRWD Check	Reconciled
406987	COLONIAL LIFE & ACCIDENT INSURANCE CO.	12-Mar-20	1,103.26	IRWD Check	Reconciled
406988	COLUMBIA COURT APTS	12-Mar-20	27.77	IRWD Check	Reconciled
406989	COMMERCIAL COATING RESOURCE INC	12-Mar-20	430.00	IRWD Check	Negotiable
406990	CONSTELLATION NEWENERGY, INC.	12-Mar-20	43,696.29	IRWD Check	Reconciled
406991	CRC FACILITY CONSULTING, INC.	12-Mar-20	2,945.00	IRWD Check	Reconciled
406992	CULLIGAN OF SANTA ANA	12-Mar-20	20,000.00	IRWD Check	Reconciled
406993	DANA POINT CHAMBER OF COMMERCE	12-Mar-20	1,000.00	IRWD Check	Negotiable
406994	DELL MARKETING LP	12-Mar-20	26,718.33	IRWD Check	Reconciled
406995	DENALI WATER SOLUTIONS LLC	12-Mar-20	7,429.56	IRWD Check	Reconciled
406996	DISCOVERY SCIENCE CENTER OF ORANGE COUNTY	12-Mar-20	8,293.80	IRWD Check	Reconciled
406997	DOWNSTREAM SERVICES, INC.	12-Mar-20	36,795.00	IRWD Check	Reconciled
406998	DUN, INC	12-Mar-20	32,109.50	IRWD Check	Reconciled
406999	EI&C ENGINEERING INC.	12-Mar-20	48,452.00	IRWD Check	Reconciled
407000	EKI ENVIRONMENT & WATER, INC.	12-Mar-20	34,356.92	IRWD Check	Reconciled
407001	ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC.	12-Mar-20	18,405.00	IRWD Check	Reconciled
407002	ENVIRONMENTAL EQUIPMENT SUPPLY	12-Mar-20	382.79	IRWD Check	Reconciled
407003	ENVIRONMENTAL SCIENCE ASSOCIATES	12-Mar-20	5,200.00	IRWD Check	Reconciled
407004	EUROFINS CALSCIENCE, LLC	12-Mar-20	1,581.30	IRWD Check	Reconciled
407005	EVERETT DOREY LLP	12-Mar-20	4,859.41	IRWD Check	Reconciled
407006	EXECUTIVE LIGHTING & ELECTRIC	12-Mar-20	9,170.07	IRWD Check	Reconciled
407007	FALSONE, JANENE	12-Mar-20	13.58	IRWD Check	Negotiable
407008	FEDEX	12-Mar-20	252.53	IRWD Check	Reconciled
407009	FEDEX NATIONAL LTL, INC	12-Mar-20	978.89	IRWD Check	Reconciled
407010	FERGUSON ENTERPRISES, LLC	12-Mar-20	9,358.09	IRWD Check	Reconciled
407011	FIONA HUTTON & ASSOCIATES, INC.	12-Mar-20	15,370.00	IRWD Check	Reconciled
407012	FIRE EXTINGUISHING SAFETY & SERVICE	12-Mar-20	717.06	IRWD Check	Reconciled
407013	FISERV	12-Mar-20	295.75	IRWD Check	Reconciled
407014	FISHER SCIENTIFIC COMPANY LLC	12-Mar-20	2,882.47	IRWD Check	Reconciled
407015	FLEET SOLUTIONS LLC	12-Mar-20	1,014.26	IRWD Check	Reconciled
407016	FOOTHILL/EASTERN TRANSPORTATION	12-Mar-20	9,300.00	IRWD Check	Reconciled
407017	FOUGHT, CYNTHIA J.	12-Mar-20	1,341.14	IRWD Check	Reconciled
407018	FRONTIER CALIFORNIA INC.	12-Mar-20	57.54	IRWD Check	Reconciled
407019	FUEL SERV	12-Mar-20	1,495.93	IRWD Check	Reconciled
407020	FULLER TRUCK ACCESSORIES	12-Mar-20	2,931.88	IRWD Check	Reconciled
407021	GAO, JINREN	12-Mar-20	27.32	IRWD Check	Negotiable
407022	GARZA INDUSTRIES, INC	12-Mar-20	1,448.16	IRWD Check	Reconciled
407023	GEI CONSULTANTS INC	12-Mar-20	20,283.50	IRWD Check	Reconciled
407024	GEIST, STEVE	12-Mar-20	120.89	IRWD Check	Reconciled
407025	GEOCON WEST, INC.	12-Mar-20	1,280.00	IRWD Check	Reconciled
407026	GLENN LUKOS ASSOCIATES, INC.	12-Mar-20	6,670.62	IRWD Check	Reconciled
407027	GRAINGER	12-Mar-20	4,339.16	IRWD Check	Reconciled
407028	GRAVITEC SYSTEMS, INC	12-Mar-20	11,235.00	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR MARCH 2020**

CHECK OR ELECTRONIC #	SUPPLIERS	PAYMENT DATE	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
407029	HAAKER EQUIPMENT COMPANY	12-Mar-20	818.85	IRWD Check	Reconciled
407030	HACH COMPANY	12-Mar-20	775.34	IRWD Check	Reconciled
407031	HAIGH BUILDERS, INC.	12-Mar-20	908.31	IRWD Check	Reconciled
407032	HARMSWORTH ASSOCIATES	12-Mar-20	3,160.00	IRWD Check	Reconciled
407033	HAZEN AND SAWYER	12-Mar-20	7,928.07	IRWD Check	Reconciled
407034	HELPMATES STAFFING SERVICES	12-Mar-20	23,835.14	IRWD Check	Reconciled
407035	HENKELS & MCCOY, INC.	12-Mar-20	357.39	IRWD Check	Negotiable
407036	HI-LINE INC	12-Mar-20	292.99	IRWD Check	Reconciled
407037	HILL BROTHERS CHEMICAL COMPANY	12-Mar-20	9,209.06	IRWD Check	Reconciled
407038	HO, HARRY	12-Mar-20	44.45	IRWD Check	Negotiable
407039	HOME DEPOT USA INC	12-Mar-20	490.72	IRWD Check	Reconciled
407040	HUANG, WEI	12-Mar-20	219.71	IRWD Check	Reconciled
407041	INDUSTRIAL METAL SUPPLY CO	12-Mar-20	200.06	IRWD Check	Reconciled
407042	INDUSTRIAL NETWORKING SOLUTIONS	12-Mar-20	1,004.66	IRWD Check	Reconciled
407043	INFOSEND, INC.	12-Mar-20	37,136.25	IRWD Check	Reconciled
407044	INFOSYS LIMITED	12-Mar-20	26,880.00	IRWD Check	Reconciled
407045	IRON MOUNTAIN INFORMATION MANAGEMENT INC	12-Mar-20	1,661.25	IRWD Check	Reconciled
407046	IRVINE PIPE & SUPPLY INC	12-Mar-20	1,045.45	IRWD Check	Reconciled
407047	IRWD-PETTY CASH CUSTODIAN	12-Mar-20	1,079.41	IRWD Check	Reconciled
407048	JAMES LEE AND FENPING WANG	12-Mar-20	230.11	IRWD Check	Reconciled
407049	JURAI, LAMA	12-Mar-20	31.82	IRWD Check	Negotiable
407050	KAYUGA SOLUTION INC	12-Mar-20	5,760.00	IRWD Check	Reconciled
407051	KENT DAHLBERG	12-Mar-20	33,713.87	IRWD Check	Reconciled
407052	KIMBALL MIDWEST	12-Mar-20	475.35	IRWD Check	Reconciled
407053	KONECRANES INC	12-Mar-20	4,748.00	IRWD Check	Reconciled
407054	KOURY ENGINEERING & TESTING, INC.	12-Mar-20	5,422.00	IRWD Check	Reconciled
407055	KRONICK MOSKOVITZ TIEDEMANN & GIRARD	12-Mar-20	1,292.53	IRWD Check	Reconciled
407056	L & G CABLE CONSTRUCTION	12-Mar-20	1,087.51	IRWD Check	Reconciled
407057	LANCER SALES USA, INC.	12-Mar-20	450.23	IRWD Check	Reconciled
407058	LANDCARE HOLDINGS, INC.	12-Mar-20	55,490.76	IRWD Check	Reconciled
407059	LENNAR HOMES	12-Mar-20	560.61	IRWD Check	Reconciled
407060	LEWIS BRISBOIS BISGAARD AND SMITH, LLP	12-Mar-20	1,497.16	IRWD Check	Reconciled
407061	LSA ASSOCIATES INC	12-Mar-20	10,541.70	IRWD Check	Reconciled
407062	LU'S LIGHTHOUSE, INC.	12-Mar-20	2,481.29	IRWD Check	Reconciled
407063	MARTINEZ, EDGAR	12-Mar-20	50.82	IRWD Check	Reconciled
407064	MBC AQUATIC SCIENCES, INC.	12-Mar-20	4,050.00	IRWD Check	Reconciled
407065	MC FADDEN-DALE INDUSTRIAL	12-Mar-20	45.73	IRWD Check	Reconciled
407066	MC MASTER CARR SUPPLY CO	12-Mar-20	234.29	IRWD Check	Reconciled
407067	MPULSE MOBILE, INC	12-Mar-20	70.79	IRWD Check	Reconciled
407068	MR CRANE INC	12-Mar-20	3,504.60	IRWD Check	Reconciled
407069	MRO ELECTRIC & SUPPLY CO.	12-Mar-20	625.00	IRWD Check	Reconciled
407070	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY	12-Mar-20	68.00	IRWD Check	Reconciled
407071	MUTUAL PROPANE	12-Mar-20	123.72	IRWD Check	Reconciled
407072	NGUYEN, DENISE	12-Mar-20	57.56	IRWD Check	Reconciled
407073	NINYO & MOORE	12-Mar-20	7,485.50	IRWD Check	Reconciled
407074	NMG GEOTECHNICAL INC	12-Mar-20	11,288.40	IRWD Check	Reconciled
407075	NORTHWOOD PLACE APTS	12-Mar-20	41.82	IRWD Check	Reconciled
407076	O.C. SUPERIOR CUSTOM CLEANING	12-Mar-20	3,600.00	IRWD Check	Reconciled
407077	OCEAN BLUE ENVIRONMENTAL SERVICES INC	12-Mar-20	5,297.97	IRWD Check	Reconciled
407078	OLIN CORPORATION	12-Mar-20	20,205.29	IRWD Check	Reconciled
407079	ONESOURCE DISTRIBUTORS LLC	12-Mar-20	7,950.87	IRWD Check	Reconciled
407080	ORACLE AMERICA, INC.	12-Mar-20	20,749.19	IRWD Check	Reconciled
407081	ORANGE COUNTY AUTO PARTS CO	12-Mar-20	2,164.89	IRWD Check	Reconciled
407082	ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT	12-Mar-20	4,515.06	IRWD Check	Reconciled
407083	ORANGE COUNTY SANITATION DISTRICT	12-Mar-20	2,210.00	IRWD Check	Reconciled
407084	PACIFIC PARTS & CONTROLS INC	12-Mar-20	21,975.83	IRWD Check	Reconciled
407085	PALACIOS, KRISTINA	12-Mar-20	41.62	IRWD Check	Negotiable
407086	PAPER DEPOT DOCUMENT DESTRUCTION LLC	12-Mar-20	360.00	IRWD Check	Reconciled
407087	PARKHOUSE TIRE INC	12-Mar-20	7,651.83	IRWD Check	Reconciled
407088	PAYNE & FEARS LLP	12-Mar-20	544.50	IRWD Check	Reconciled
407089	PENN ARCHIVE SERVICES	12-Mar-20	47.50	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR MARCH 2020**

CHECK OR ELECTRONIC #	SUPPLIERS	PAYMENT DATE	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
407090	PEREZ, DUSTIN	12-Mar-20	124.50	IRWD Check	Reconciled
407091	PETRUSSE-NORRIS PAINTING, INC.	12-Mar-20	19,159.00	IRWD Check	Reconciled
407092	PILAR ONATE	12-Mar-20	15,000.00	IRWD Check	Negotiable
407093	PLUMBERS DEPOT INC.	12-Mar-20	2,413.06	IRWD Check	Reconciled
407094	PRAXAIR DISTRIBUTION INC	12-Mar-20	1,288.98	IRWD Check	Reconciled
407095	PROCARE WORK INJURY CENTER	12-Mar-20	370.00	IRWD Check	Reconciled
407096	QUADIENT LEASING USA, INC.	12-Mar-20	3,265.46	IRWD Check	Reconciled
407097	QUINTANA, WATTS & HARTMANN, LLC	12-Mar-20	5,000.00	IRWD Check	Reconciled
407098	R.J. NOBLE COMPANY	12-Mar-20	310.34	IRWD Check	Reconciled
407099	RAM AIR ENGINEERING INC	12-Mar-20	14,124.41	IRWD Check	Reconciled
407100	RCE CONSULTANTS, INC.	12-Mar-20	11,160.66	IRWD Check	Reconciled
407101	REAL WATER CONSULTANTS INC.	12-Mar-20	2,607.00	IRWD Check	Reconciled
407102	REAL WATER CONSULTANTS INC.	12-Mar-20	200.00	IRWD Check	Reconciled
407103	RED WING SHOE STORE	12-Mar-20	200.00	IRWD Check	Reconciled
407104	REFRIGERATION SUPPLIES DISTRIBUTOR	12-Mar-20	390.88	IRWD Check	Reconciled
407105	RINCON TRUCK CENTER INC.	12-Mar-20	1,556.39	IRWD Check	Reconciled
407106	ROBERTS ROOFING INC	12-Mar-20	10,693.00	IRWD Check	Reconciled
407107	ROLL RITE	12-Mar-20	727.83	IRWD Check	Reconciled
407108	ROSE PAVING LLC	12-Mar-20	27,108.76	IRWD Check	Reconciled
407109	SANTA ANA BLUE PRINT	12-Mar-20	405.23	IRWD Check	Reconciled
407110	SANTA MARGARITA FORD	12-Mar-20	53.06	IRWD Check	Reconciled
407111	SECURITAS SECURITY SERVICES USA, INC.	12-Mar-20	61,607.38	IRWD Check	Reconciled
407112	SEPARATION PROCESSES, INC.	12-Mar-20	731.50	IRWD Check	Reconciled
407113	SHAMROCK SUPPLY CO INC	12-Mar-20	1,151.45	IRWD Check	Reconciled
407114	SHEN, STEVE	12-Mar-20	707.10	IRWD Check	Reconciled
407115	SKORUZ TECHNOLOGIES	12-Mar-20	16,280.00	IRWD Check	Reconciled
407116	SOUTH COAST WATER CO.	12-Mar-20	90.00	IRWD Check	Reconciled
407117	SOUTHERN CALIFORNIA EDISON COMPANY	12-Mar-20	4,850.49	IRWD Check	Reconciled
407118	SOUTHERN CALIFORNIA GAS COMPANY	12-Mar-20	2,585.92	IRWD Check	Reconciled
407119	SOUTHERN CALIFORNIA SECURITY CENTERS, INC.	12-Mar-20	146.90	IRWD Check	Reconciled
407120	SOUTHWEST PRODUCTS CORPORATION	12-Mar-20	708.78	IRWD Check	Reconciled
407121	SPARKLETTS	12-Mar-20	71.82	IRWD Check	Reconciled
407122	SUEZ TREATMENT SOLUTIONS INC.	12-Mar-20	8,410.43	IRWD Check	Reconciled
407123	SUMMIT CHEMICAL SPECIALTY PRODUCTS	12-Mar-20	22,967.68	IRWD Check	Reconciled
407124	SUPPORT PRODUCT SERVICES, INC	12-Mar-20	406.75	IRWD Check	Reconciled
407125	TAYLOR MORRISON OF CALIFORNIA, LLC	12-Mar-20	68.74	IRWD Check	Reconciled
407126	THOMPSON INDUSTRIAL SUPPLY	12-Mar-20	689.60	IRWD Check	Reconciled
407127	TOTAL RESOURCE MANAGEMENT, INC.	12-Mar-20	5,286.44	IRWD Check	Reconciled
407128	TRANSCAT, INC	12-Mar-20	289.64	IRWD Check	Reconciled
407129	TRUCK CRANE RENTAL	12-Mar-20	1,490.40	IRWD Check	Reconciled
407130	TRUKSPECT, INC	12-Mar-20	2,711.88	IRWD Check	Reconciled
407131	TUTT, STACEY	12-Mar-20	21.93	IRWD Check	Negotiable
407132	TUTTLE-CLICK FORD LINCOLN	12-Mar-20	34,891.74	IRWD Check	Reconciled
407133	UNITED SITE SERVICES OF CALIFORNIA INC	12-Mar-20	320.57	IRWD Check	Reconciled
407134	UNIVAR SOLUTIONS USA INC.	12-Mar-20	9,216.00	IRWD Check	Reconciled
407135	VAUGHAN'S INDUSTRIAL REPAIR CO INC	12-Mar-20	10,225.00	IRWD Check	Reconciled
407136	VWR INTERNATIONAL, LLC	12-Mar-20	598.40	IRWD Check	Reconciled
407137	WARD, WILLIAM P JR.	12-Mar-20	1,291.46	IRWD Check	Reconciled
407138	WARRIOR CUSTOM GOLF	12-Mar-20	215.52	IRWD Check	Reconciled
407139	WASTE MANAGEMENT OF CALIFORNIA, INC.	12-Mar-20	3,481.99	IRWD Check	Reconciled
407140	WATERSMART SOFTWARE, INC	12-Mar-20	13,547.22	IRWD Check	Negotiable
407141	WAXIE'S ENTERPRISES, INC	12-Mar-20	2,785.29	IRWD Check	Reconciled
407142	WECK LABORATORIES INC	12-Mar-20	2,395.00	IRWD Check	Reconciled
407143	WEST YOST & ASSOCIATES	12-Mar-20	13,351.00	IRWD Check	Reconciled
407144	WOODARD & CURRAN INC	12-Mar-20	75,815.13	IRWD Check	Reconciled
407145	XIAOYING WU AND XINAN YAN	12-Mar-20	69.80	IRWD Check	Negotiable
407146	YORKE ENGINEERING, LLC	12-Mar-20	8,605.00	IRWD Check	Reconciled
407147	ORANGE COUNTY BUSINESS COUNCIL	16-Mar-20	2,500.00	IRWD Check	Reconciled
407148	JOHN MICHAEL COVAS	16-Mar-20	210.20	IRWD Check	Reconciled
407149	ORANGE COUNTY SHERIFF'S OFFICE	16-Mar-20	174.50	IRWD Check	Negotiable
407150	FRANCHISE TAX BOARD	16-Mar-20	371.70	IRWD Check	Negotiable

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407151	STATE OF CALIFORNIA, EDD	16-Mar-20	75.00	IRWD Check	Reconciled
407152	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 47	16-Mar-20	2,716.78	IRWD Check	Reconciled
407153	PERS LONG TERM CARE	16-Mar-20	538.89	IRWD Check	Reconciled
407154	CASA EDUCATION FOUNDATION	16-Mar-20	2,000.00	IRWD Check	Negotiable
407155	JCI JONES CHEMICALS INC	16-Mar-20	5,505.50	IRWD Check	Reconciled
407156	STATE WATER RESOURCES CONTROL BOARD	17-Mar-20	260.00	IRWD Check	Reconciled
407157	Irey, Craig M (Craig)	19-Mar-20	278.28	IRWD Check	Negotiable
407158	Mitchem, Dennis	19-Mar-20	117.05	IRWD Check	Reconciled
407159	Prewoznik, Frank	19-Mar-20	129.92	IRWD Check	Reconciled
407160	Spangenberg, Carl W (Carl)	19-Mar-20	24.15	IRWD Check	Reconciled
407161	Torres, Richard P (Richard)	19-Mar-20	291.00	IRWD Check	Reconciled
407162	Zanetti, Enrique	19-Mar-20	77.60	IRWD Check	Negotiable
407163	A&A WIPING CLOTH CO	19-Mar-20	835.07	IRWD Check	Reconciled
407164	AIR TECHNOLOGY LABORATORIES	19-Mar-20	289.00	IRWD Check	Negotiable
407165	AIRGAS, INC.	19-Mar-20	72.37	IRWD Check	Reconciled
407166	ALSTON & BIRD LLP	19-Mar-20	68,565.67	IRWD Check	Reconciled
407167	AMAZON CAPITAL SERVICES, INC.	19-Mar-20	1,245.26	IRWD Check	Reconciled
407168	AMERICAN WATER WORKS ASSOC	19-Mar-20	10,945.00	IRWD Check	Reconciled
407169	ANDERSONPENNA PARTNERS, INC.	19-Mar-20	55,961.00	IRWD Check	Reconciled
407170	APEX SYSTEMS, LLC	19-Mar-20	2,288.00	IRWD Check	Reconciled
407171	AQUA-METRIC SALES COMPANY	19-Mar-20	61,338.63	IRWD Check	Reconciled
407172	AT&T	19-Mar-20	11,559.24	IRWD Check	Reconciled
407173	ATHENS SERVICES	19-Mar-20	1,928.24	IRWD Check	Reconciled
407174	ATHENS SERVICES	19-Mar-20	9,106.47	IRWD Check	Reconciled
407175	BAVCO BACKFLOW APPARATUS & VALVE COMPANY	19-Mar-20	230.64	IRWD Check	Reconciled
407176	BDC SPECIAL WASTE	19-Mar-20	435.00	IRWD Check	Reconciled
407177	BIGWIG MONSTER, LLC	19-Mar-20	12,000.00	IRWD Check	Reconciled
407178	BORCHARD SURVEYING & MAPPING, INC.	19-Mar-20	850.00	IRWD Check	Reconciled
407179	BOYD & ASSOCIATES	19-Mar-20	3,753.00	IRWD Check	Reconciled
407180	BROWN AND CALDWELL	19-Mar-20	60,523.48	IRWD Check	Reconciled
407181	BRUCE HADLEY NEWELL	19-Mar-20	1,250.00	IRWD Check	Negotiable
407182	BUENAVENTURA, MICHAEL	19-Mar-20	162.04	IRWD Check	Negotiable
407183	BURKE, WILLIAMS & SORENSEN, LLP	19-Mar-20	130.00	IRWD Check	Reconciled
407184	BUSH & ASSOCIATES INC	19-Mar-20	500.00	IRWD Check	Negotiable
407185	C WELLS PIPELINE MATERIALS INC	19-Mar-20	1,163.70	IRWD Check	Reconciled
407186	CALIFORNIA BARRICADE RENTAL, INC.	19-Mar-20	15,093.66	IRWD Check	Reconciled
407187	CALIFORNIA DEPARTMENT OF TAX AND FEE ADMINISTRATION	19-Mar-20	421.00	IRWD Check	Negotiable
407188	CANON FINANCIAL SERVICES, INC	19-Mar-20	539.83	IRWD Check	Reconciled
407189	CAROLLO ENGINEERS, INC	19-Mar-20	55,024.25	IRWD Check	Reconciled
407190	CHEM TECH INTERNATIONAL INC	19-Mar-20	2,795.88	IRWD Check	Reconciled
407191	CITY OF SANTA ANA	19-Mar-20	283.71	IRWD Check	Reconciled
407192	CL7 COMMUNICATIONS	19-Mar-20	5,000.00	IRWD Check	Reconciled
407193	CLA-VAL COMPANY	19-Mar-20	2,124.65	IRWD Check	Reconciled
407194	COMMERCIAL DOOR OF ORANGE COUNTY, INC.	19-Mar-20	9,475.00	IRWD Check	Reconciled
407195	CONERY MANUFACTURING, INC.	19-Mar-20	213.04	IRWD Check	Reconciled
407196	CONSTELLATION NEWENERGY, INC.	19-Mar-20	15,459.10	IRWD Check	Reconciled
407197	CORO SOUTHERN CALIFORNIA	19-Mar-20	2,500.00	IRWD Check	Reconciled
407198	CR & R INCORPORATED	19-Mar-20	431.20	IRWD Check	Reconciled
407199	DATA CLEAN CORPORATION	19-Mar-20	554.00	IRWD Check	Reconciled
407200	DAVIDSON, JUSTIN	19-Mar-20	177.37	IRWD Check	Reconciled
407201	DEE JASPAR & ASSOCIATES, INC.	19-Mar-20	207.00	IRWD Check	Reconciled
407202	DISCOVERY SCIENCE CENTER OF ORANGE COUNTY	19-Mar-20	30,000.00	IRWD Check	Reconciled
407203	E&M ELECTRIC AND MACHINERY, INC.	19-Mar-20	6,620.00	IRWD Check	Reconciled
407204	EHS INTERNATIONAL, INC	19-Mar-20	2,300.00	IRWD Check	Reconciled
407205	EMD MILLIPORE CORPORATION	19-Mar-20	4,086.32	IRWD Check	Reconciled
407206	ENTERPRISE HOLDINGS, INC.	19-Mar-20	17,520.00	IRWD Check	Reconciled
407207	ENVIRONMENTAL EXPRESS INC	19-Mar-20	1,559.65	IRWD Check	Reconciled
407208	ENVIRONMENTAL RESOURCE ASSOCIATES	19-Mar-20	3,133.92	IRWD Check	Reconciled
407209	FERGUSON ENTERPRISES, LLC	19-Mar-20	6,680.50	IRWD Check	Reconciled
407210	FISHER SCIENTIFIC COMPANY LLC	19-Mar-20	7,690.71	IRWD Check	Reconciled
407211	FRONTIER CALIFORNIA INC.	19-Mar-20	291.71	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
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407212	GEIGER BROS	19-Mar-20	5,800.79	IRWD Check	Reconciled
407213	GENERAL MONITORS INC.	19-Mar-20	229.28	IRWD Check	Reconciled
407214	GRAINGER	19-Mar-20	3,185.46	IRWD Check	Reconciled
407215	HAAKER EQUIPMENT COMPANY	19-Mar-20	355.46	IRWD Check	Reconciled
407216	HACH COMPANY	19-Mar-20	1,781.12	IRWD Check	Reconciled
407217	HARRINGTON INDUSTRIAL PLASTICS LLC	19-Mar-20	7,068.40	IRWD Check	Reconciled
407218	HASHIMOTO, SOSUKE	19-Mar-20	73.89	IRWD Check	Reconciled
407219	HAZEN AND SAWYER	19-Mar-20	1,235.00	IRWD Check	Reconciled
407220	HDR ENGINEERING INC	19-Mar-20	67,748.50	IRWD Check	Reconciled
407221	HELPMATES STAFFING SERVICES	19-Mar-20	15,779.34	IRWD Check	Reconciled
407222	HERITAGE HILLS IRVINE LLC	19-Mar-20	1,107.33	IRWD Check	Reconciled
407223	HGCPM, INC	19-Mar-20	924.75	IRWD Check	Negotiable
407224	HI-LINE INC	19-Mar-20	430.46	IRWD Check	Reconciled
407225	HICKMAN, TODD	19-Mar-20	189.89	IRWD Check	Reconciled
407226	HILL BROTHERS CHEMICAL COMPANY	19-Mar-20	12,772.10	IRWD Check	Reconciled
407227	HOME DEPOT USA INC	19-Mar-20	422.44	IRWD Check	Reconciled
407228	HOYA OPTICAL LABS OF AMERICA, INC.	19-Mar-20	231.00	IRWD Check	Reconciled
407229	HUIWEN HSU	19-Mar-20	214.26	IRWD Check	Reconciled
407230	HUNSAKER & ASSOCIATES IRVINE	19-Mar-20	350.12	IRWD Check	Reconciled
407231	HYDROTECH ELECTRIC	19-Mar-20	3,570.82	IRWD Check	Reconciled
407232	IDEXX DISTRIBUTION, INC	19-Mar-20	2,566.28	IRWD Check	Reconciled
407233	INDUSTRIAL VIDEO & CONTROL CO	19-Mar-20	1,495.00	IRWD Check	Reconciled
407234	INTEGRITY IT SOLUTIONS INC.	19-Mar-20	2,175.00	IRWD Check	Reconciled
407235	IRVINE PIPE & SUPPLY INC	19-Mar-20	624.45	IRWD Check	Reconciled
407236	IRWD-PETTY CASH CUSTODIAN	19-Mar-20	1,069.71	IRWD Check	Reconciled
407237	J&A COMPANIES INC	19-Mar-20	3,036.99	IRWD Check	Reconciled
407238	JENKINS, NATHAN	19-Mar-20	293.79	IRWD Check	Negotiable
407239	KILL-N-BUGS TERMITE AND PEST CONTROL SERVICES	19-Mar-20	3,570.00	IRWD Check	Reconciled
407240	LANDCARE HOLDINGS, INC.	19-Mar-20	47,805.73	IRWD Check	Reconciled
407241	LCS TECHNOLOGIES, INC.	19-Mar-20	1,350.00	IRWD Check	Reconciled
407242	LED LIGHTING SOLUTIONS	19-Mar-20	6,888.86	IRWD Check	Reconciled
407243	LESLIE'S SWIMMING POOL SUPPLIES	19-Mar-20	1,045.16	IRWD Check	Reconciled
407244	LIM, JAEOCK	19-Mar-20	104.59	IRWD Check	Reconciled
407245	MAP COMMUNICATIONS, INC.	19-Mar-20	648.72	IRWD Check	Reconciled
407246	MBK ENGINEERS	19-Mar-20	3,992.75	IRWD Check	Reconciled
407247	MC MASTER CARR SUPPLY CO	19-Mar-20	818.11	IRWD Check	Reconciled
407248	MDT INC	19-Mar-20	11,010.00	IRWD Check	Reconciled
407249	METTLER-TOLEDO RAININ, LLC	19-Mar-20	2,975.63	IRWD Check	Reconciled
407250	MICHAEL BAKER INTERNATIONAL, INC.	19-Mar-20	5,313.24	IRWD Check	Reconciled
407251	MICRO FOCUS SOFTWARE INC.	19-Mar-20	26,208.00	IRWD Check	Reconciled
407252	MICROSOFT CORPORATION	19-Mar-20	486.96	IRWD Check	Reconciled
407253	MISSION COMMUNICATIONS, LLC	19-Mar-20	1,126.80	IRWD Check	Reconciled
407254	MOBILE MODULAR MANAGEMENT CORPORATION	19-Mar-20	1,212.19	IRWD Check	Reconciled
407255	MRO ELECTRIC & SUPPLY CO.	19-Mar-20	8,138.00	IRWD Check	Reconciled
407256	MSC INDUSTRIAL SUPPLY CO	19-Mar-20	620.21	IRWD Check	Reconciled
407257	MUNICIPAL MAINTENANCE EQUIPMENT INC	19-Mar-20	368.40	IRWD Check	Reconciled
407258	NATIONAL CASTING CORPORATION	19-Mar-20	1,706.76	IRWD Check	Reconciled
407259	NATIONAL READY MIXED CONCRETE SALES, LLC	19-Mar-20	2,369.62	IRWD Check	Reconciled
407260	NEWPORT BEACH CHAMBER OF COMMERCE	19-Mar-20	500.00	IRWD Check	Negotiable
407261	NEWPORT REAL ESTATE SERVICES, INC.	19-Mar-20	27,730.21	IRWD Check	Reconciled
407262	OLIN CORPORATION	19-Mar-20	19,803.28	IRWD Check	Reconciled
407263	ONESOURCE DISTRIBUTORS LLC	19-Mar-20	1,210.03	IRWD Check	Reconciled
407264	ORANGE COUNTY AUTO PARTS CO	19-Mar-20	1,075.75	IRWD Check	Reconciled
407265	ORANGE LINE OIL COMPANY	19-Mar-20	2,246.92	IRWD Check	Reconciled
407266	OWEN, VICTORIA	19-Mar-20	20.33	IRWD Check	Reconciled
407267	PATTEN SYSTEMS, INC.	19-Mar-20	1,137.45	IRWD Check	Negotiable
407268	PELLETIER & ASSOCIATES, INC.	19-Mar-20	673.00	IRWD Check	Reconciled
407269	PILLSBURY WINTHROP SHAW PITTMAN LLP	19-Mar-20	3,494.40	IRWD Check	Reconciled
407270	PINNACLE TOWERS LLC	19-Mar-20	779.18	IRWD Check	Reconciled
407271	PLUMBERS DEPOT INC.	19-Mar-20	518.51	IRWD Check	Reconciled
407272	PROJECT PARTNERS, INC.	19-Mar-20	3,900.00	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
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407273	PRUDENTIAL OVERALL SUPPLY	19-Mar-20	6,712.87	IRWD Check	Reconciled
407274	PSOMAS	19-Mar-20	8,130.00	IRWD Check	Reconciled
407275	PTI SAND & GRAVEL INC	19-Mar-20	634.55	IRWD Check	Reconciled
407276	QUICK CRETE PRODUCTS CORP.	19-Mar-20	7,775.24	IRWD Check	Reconciled
407277	R&B AUTOMATION, INC.	19-Mar-20	3,007.80	IRWD Check	Reconciled
407278	RAM AIR ENGINEERING INC	19-Mar-20	437.55	IRWD Check	Reconciled
407279	RED WING SHOE STORE	19-Mar-20	371.90	IRWD Check	Reconciled
407280	RELIANCE STANDARD LIFE INSURANCE COMPANY	19-Mar-20	30,430.21	IRWD Check	Reconciled
407281	RENTOKIL NORTH AMERICA, INC	19-Mar-20	8,299.00	IRWD Check	Reconciled
407282	RESTEK CORPORATION	19-Mar-20	107.35	IRWD Check	Reconciled
407283	ROBERTS ROOFING INC	19-Mar-20	1,900.00	IRWD Check	Reconciled
407284	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT	19-Mar-20	4,473.91	IRWD Check	Negotiable
407285	SAFETY CENTER INCORPORATED	19-Mar-20	1,848.00	IRWD Check	Reconciled
407286	SC HOMES, INC	19-Mar-20	2,988.14	IRWD Check	Reconciled
407287	SCAP	19-Mar-20	10,120.00	IRWD Check	Negotiable
407288	SCHULER CONSTRUCTORS, INC.	19-Mar-20	13,212.00	IRWD Check	Reconciled
407289	SERRANO WATER DISTRICT	19-Mar-20	27,030.06	IRWD Check	Reconciled
407290	SERVERSUPPLY.COM INC	19-Mar-20	17,760.97	IRWD Check	Reconciled
407291	SHAMROCK SUPPLY CO INC	19-Mar-20	258.77	IRWD Check	Reconciled
407292	SI TESTING	19-Mar-20	1,465.00	IRWD Check	Reconciled
407293	SIMMONS, SOMER	19-Mar-20	41.39	IRWD Check	Reconciled
407294	SITMATIC	19-Mar-20	616.76	IRWD Check	Reconciled
407295	SOLARWINDS, INC	19-Mar-20	7,419.00	IRWD Check	Reconciled
407296	SOUTHERN CALIFORNIA EDISON COMPANY	19-Mar-20	288,752.14	IRWD Check	Reconciled
407297	SOUTHERN CALIFORNIA GAS COMPANY	19-Mar-20	8,326.87	IRWD Check	Reconciled
407298	STEMAR EQUIPMENT & SUPPLY CO., INC	19-Mar-20	2,805.13	IRWD Check	Reconciled
407299	STREET LIGHTS RESIDENTIAL	19-Mar-20	1,010.45	IRWD Check	Negotiable
407300	SUSAN A. SIROTA	19-Mar-20	4,525.00	IRWD Check	Reconciled
407301	TALLEY INC	19-Mar-20	116.10	IRWD Check	Reconciled
407302	TAYLOR MORRISON OF CALIFORNIA, LLC	19-Mar-20	1,480.43	IRWD Check	Reconciled
407303	TEVORA BUSINESS SOLUTIONS, INC.	19-Mar-20	413.33	IRWD Check	Negotiable
407304	THOMPSON INDUSTRIAL SUPPLY	19-Mar-20	4,918.05	IRWD Check	Negotiable
407305	THOMS, MICHELLE	19-Mar-20	241.43	IRWD Check	Reconciled
407306	THYSSENKRUPP ELEVATOR CORPORATION	19-Mar-20	204.71	IRWD Check	Reconciled
407307	TROPICAL PLAZA NURSERY INC	19-Mar-20	2,238.00	IRWD Check	Reconciled
407308	VEOLIA WATER TECHNOLOGIES, INC.	19-Mar-20	2,000.41	IRWD Check	Reconciled
407309	VWR INTERNATIONAL, LLC	19-Mar-20	1,050.68	IRWD Check	Reconciled
407310	WASTE MANAGEMENT OF CALIFORNIA, INC.	19-Mar-20	473.60	IRWD Check	Reconciled
407311	WAXIE'S ENTERPRISES, INC	19-Mar-20	676.31	IRWD Check	Negotiable
407312	WECK LABORATORIES INC	19-Mar-20	1,670.00	IRWD Check	Reconciled
407313	WEST YOST & ASSOCIATES	19-Mar-20	35,513.00	IRWD Check	Reconciled
407314	WESTAMERICA COMMUNICATIONS, INC.	19-Mar-20	648.27	IRWD Check	Reconciled
407315	WORKFORCE SAFETY LLC	19-Mar-20	3,000.00	IRWD Check	Reconciled
407316	ZHU, DANSHENG	19-Mar-20	365.08	IRWD Check	Negotiable
407317	CALIFORNIA BANK & TRUST	19-Mar-20	44,975.84	IRWD Check	Reconciled
407318	PACIFIC HYDROTECH CORPORATION	19-Mar-20	20,984.15	IRWD Check	Reconciled
407319	PACIFIC HYDROTECH CORPORATION	19-Mar-20	254,530.83	IRWD Check	Reconciled
407320	PACIFIC HYDROTECH CORPORATION	19-Mar-20	398,698.85	IRWD Check	Reconciled
407321	PACIFIC HYDROTECH CORPORATION	19-Mar-20	13,396.35	IRWD Check	Reconciled
407322	IRVINE POLICE ASSOCIATION	19-Mar-20	750.00	IRWD Check	Negotiable
407323	ISLE INC	19-Mar-20	18,000.00	IRWD Check	Negotiable
407324	Banda, Ulysses	26-Mar-20	47.20	IRWD Check	Negotiable
407325	Compton, Christine A	26-Mar-20	347.09	IRWD Check	Reconciled
407326	Pan, Jenny W (Jenny)	26-Mar-20	61.94	IRWD Check	Reconciled
407327	Tolerico, Steven M (Steve)	26-Mar-20	228.00	IRWD Check	Negotiable
407328	INTERNAL REVENUE SERVICE	26-Mar-20	163.03	IRWD Check	Negotiable
407329	ORANGE COUNTY SHERIFF'S OFFICE	26-Mar-20	174.50	IRWD Check	Negotiable
407330	FRANCHISE TAX BOARD	26-Mar-20	330.00	IRWD Check	Negotiable
407331	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 47	26-Mar-20	2,753.23	IRWD Check	Negotiable
407332	PERS LONG TERM CARE	26-Mar-20	538.89	IRWD Check	Reconciled
407333	STATE OF CALIFORNIA, EDD	26-Mar-20	75.00	IRWD Check	Negotiable

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR MARCH 2020**

CHECK OR ELECTRONIC #	SUPPLIERS	PAYMENT DATE	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
407334	ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA	26-Mar-20	36,433.96	IRWD Check	Negotiable
407335	ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA	26-Mar-20	888.30	IRWD Check	Negotiable
407336	FIDELITY SECURITY LIFE INSURANCE COMPANY	26-Mar-20	762.22	IRWD Check	Negotiable
407337	FIDELITY SECURITY LIFE INSURANCE COMPANY	26-Mar-20	7,436.85	IRWD Check	Negotiable
407338	FIDELITY SECURITY LIFE INSURANCE COMPANY	26-Mar-20	778.41	IRWD Check	Negotiable
407339	FIDELITY SECURITY LIFE INSURANCE COMPANY	26-Mar-20	762.22	IRWD Check	Negotiable
407340	HUMANA INSURANCE COMPANY	26-Mar-20	56.60	IRWD Check	Negotiable
407341	UNITED HEALTHCARE INSURANCE COMPANY	26-Mar-20	284.07	IRWD Check	Negotiable
407342	JOHN MICHAEL COVAS	26-Mar-20	210.20	IRWD Check	Negotiable
407343	ANTHEM BLUE CROSS	26-Mar-20	257.88	IRWD Check	Negotiable
407344	MORRISROE, EDWARD	26-Mar-20	266.37	IRWD Check	Negotiable
407345	CSAC EXCESS INSURANCE AUTHORITY	26-Mar-20	50,591.00	IRWD Check	Negotiable
407346	A&A WIPING CLOTH CO	26-Mar-20	1,336.10	IRWD Check	Reconciled
407347	ABC ICE, INC	26-Mar-20	374.05	IRWD Check	Negotiable
407348	AGILENT TECHNOLOGIES, INC.	26-Mar-20	1,239.53	IRWD Check	Reconciled
407349	AIRGAS, INC.	26-Mar-20	979.23	IRWD Check	Reconciled
407350	ALLIANCE RESOURCE CONSULTING LLC	26-Mar-20	13,250.00	IRWD Check	Reconciled
407351	AMAZON CAPITAL SERVICES, INC.	26-Mar-20	301.29	IRWD Check	Reconciled
407352	APPLIED ENGINEERING CONCEPTS	26-Mar-20	27,331.75	IRWD Check	Negotiable
407353	AQUA BEN CORPORATION	26-Mar-20	33,808.10	IRWD Check	Reconciled
407354	ARCHROCK SERVICES, L.P.	26-Mar-20	1,687.37	IRWD Check	Negotiable
407355	AT&T	26-Mar-20	1,372.57	IRWD Check	Reconciled
407356	AUTOZONE PARTS, INC.	26-Mar-20	101.66	IRWD Check	Reconciled
407357	BILL'S SWEEPING SERVICE INC	26-Mar-20	780.00	IRWD Check	Negotiable
407358	BIOMAGIC INC	26-Mar-20	15,474.78	IRWD Check	Negotiable
407359	BORCHARD SURVEYING & MAPPING, INC.	26-Mar-20	11,180.00	IRWD Check	Negotiable
407360	CALIFORNIA BARRICADE RENTAL, INC.	26-Mar-20	8,805.00	IRWD Check	Reconciled
407361	CAPTIVE AUDIENCE MARKETING INC.	26-Mar-20	79.00	IRWD Check	Reconciled
407362	CHEM TECH INTERNATIONAL INC	26-Mar-20	5,692.50	IRWD Check	Negotiable
407363	CLA-VAL COMPANY	26-Mar-20	5,961.77	IRWD Check	Reconciled
407364	COMMUNITY EMERGENCY MANAGEMENT, INC	26-Mar-20	6,000.00	IRWD Check	Reconciled
407365	CONSTELLATION NEWENERGY, INC.	26-Mar-20	1,440.54	IRWD Check	Negotiable
407366	COX COMMUNICATIONS, INC.	26-Mar-20	3,109.16	IRWD Check	Reconciled
407367	D & G SIGNS	26-Mar-20	1,244.51	IRWD Check	Reconciled
407368	D & H WATER SYSTEMS INC.	26-Mar-20	6,789.83	IRWD Check	Reconciled
407369	DAN'S MACHINE TOOL, INC.	26-Mar-20	2,269.59	IRWD Check	Reconciled
407370	DEALERS SERVICE, INC	26-Mar-20	1,646.80	IRWD Check	Reconciled
407371	DEE JASPAR & ASSOCIATES, INC.	26-Mar-20	1,825.32	IRWD Check	Reconciled
407372	DILYTICS INC	26-Mar-20	4,100.00	IRWD Check	Negotiable
407373	DIRECTV INC	26-Mar-20	148.33	IRWD Check	Reconciled
407374	FEDEX	26-Mar-20	537.83	IRWD Check	Negotiable
407375	FERREIRA CONSTRUCTION COMPANY, INC.	26-Mar-20	22,096.98	IRWD Check	Reconciled
407376	FISERV	26-Mar-20	44,664.46	IRWD Check	Reconciled
407377	FISHER SCIENTIFIC COMPANY LLC	26-Mar-20	1,582.06	IRWD Check	Reconciled
407378	FLW SERVICE CORPORATION	26-Mar-20	1,835.69	IRWD Check	Negotiable
407379	FRONTIER CALIFORNIA INC.	26-Mar-20	322.30	IRWD Check	Negotiable
407380	FULLER TRUCK ACCESSORIES	26-Mar-20	1,281.15	IRWD Check	Negotiable
407381	FUSCOE ENGINEERING, INC.	26-Mar-20	222.00	IRWD Check	Reconciled
407382	GRAINGER	26-Mar-20	2,666.45	IRWD Check	Reconciled
407383	HAAKER EQUIPMENT COMPANY	26-Mar-20	1,638.85	IRWD Check	Negotiable
407384	HABITAT RESTORATION SCIENCES, INC.	26-Mar-20	800.00	IRWD Check	Negotiable
407385	HACH COMPANY	26-Mar-20	11,836.72	IRWD Check	Reconciled
407386	HDR ENGINEERING INC	26-Mar-20	135,792.58	IRWD Check	Reconciled
407387	HELPMATES STAFFING SERVICES	26-Mar-20	16,765.88	IRWD Check	Reconciled
407388	HI-LINE INC	26-Mar-20	221.77	IRWD Check	Reconciled
407389	HILL BROTHERS CHEMICAL COMPANY	26-Mar-20	3,030.13	IRWD Check	Negotiable
407390	HOME DEPOT USA INC	26-Mar-20	121.24	IRWD Check	Negotiable
407391	INFOSEND, INC.	26-Mar-20	900.00	IRWD Check	Reconciled
407392	INFRASTRUCTURE ENGINEERING CORPORATION	26-Mar-20	4,890.75	IRWD Check	Negotiable
407393	IRELAND INC.	26-Mar-20	54,555.75	IRWD Check	Reconciled
407394	IRVINE PIPE & SUPPLY INC	26-Mar-20	1,185.74	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR MARCH 2020**

CHECK OR ELECTRONIC #	SUPPLIERS	PAYMENT DATE	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
407395	J M ELECTRICAL SERVICES	26-Mar-20	3,000.00	IRWD Check	Negotiable
407396	JCI JONES CHEMICALS INC	26-Mar-20	3,369.73	IRWD Check	Reconciled
407397	JUST ENERGY SOLUTIONS INC.	26-Mar-20	111.90	IRWD Check	Reconciled
407398	KENT DAHLBERG	26-Mar-20	1,920.00	IRWD Check	Negotiable
407399	KEY INFORMATION SYSTEMS, INC.	26-Mar-20	2,050.00	IRWD Check	Reconciled
407400	LA HABRA FENCE COMPANY INC	26-Mar-20	34,924.00	IRWD Check	Negotiable
407401	LANDCARE HOLDINGS, INC.	26-Mar-20	11,501.87	IRWD Check	Reconciled
407402	LGC GEOTECHNICAL, INC.	26-Mar-20	728.75	IRWD Check	Reconciled
407403	LU'S LIGHTHOUSE, INC.	26-Mar-20	671.35	IRWD Check	Reconciled
407404	LUBRICATION ENGINEERS, INC.	26-Mar-20	15,973.19	IRWD Check	Reconciled
407405	MBC AQUATIC SCIENCES, INC.	26-Mar-20	1,350.00	IRWD Check	Reconciled
407406	MBF CONSULTING, INC.	26-Mar-20	5,634.50	IRWD Check	Negotiable
407407	MERRIMAC PETROLEUM, INC.	26-Mar-20	17,454.98	IRWD Check	Reconciled
407408	MULTIQUIP INC	26-Mar-20	602.25	IRWD Check	Negotiable
407409	MUNICIPAL UNDERGROUND SERVICES INC	26-Mar-20	3,850.00	IRWD Check	Reconciled
407410	NATIONAL READY MIXED CONCRETE SALES, LLC	26-Mar-20	872.79	IRWD Check	Reconciled
407411	NOVALYNX CORPORATION	26-Mar-20	376.48	IRWD Check	Negotiable
407412	NV5, INC.	26-Mar-20	22,400.00	IRWD Check	Negotiable
407413	OLIN CORPORATION	26-Mar-20	13,098.57	IRWD Check	Negotiable
407414	ORANGE COUNTY AUTO PARTS CO	26-Mar-20	118.42	IRWD Check	Reconciled
407415	ORANGE COUNTY FIRE AUTHORITY	26-Mar-20	400.00	IRWD Check	Reconciled
407416	PELLETIER & ASSOCIATES, INC.	26-Mar-20	390.00	IRWD Check	Reconciled
407417	PERKINELMER HEALTH SCIENCES INC	26-Mar-20	503.41	IRWD Check	Reconciled
407418	PRAXAIR DISTRIBUTION INC	26-Mar-20	1,288.98	IRWD Check	Reconciled
407419	PROBOLSKY RESEARCH LLC	26-Mar-20	46,075.00	IRWD Check	Reconciled
407420	PTI SAND & GRAVEL INC	26-Mar-20	1,918.91	IRWD Check	Reconciled
407421	PYRO-COMM SYSTEMS INC	26-Mar-20	270.00	IRWD Check	Reconciled
407422	QUADIENT FINANCE USA, INC.	26-Mar-20	2,000.00	IRWD Check	Reconciled
407423	R&B AUTOMATION, INC.	26-Mar-20	11,035.50	IRWD Check	Reconciled
407424	RAM AIR ENGINEERING INC	26-Mar-20	6,048.62	IRWD Check	Reconciled
407425	REAL WATER CONSULTANTS INC.	26-Mar-20	13,746.00	IRWD Check	Negotiable
407426	RED WING SHOE STORE	26-Mar-20	400.00	IRWD Check	Negotiable
407427	RINCON TRUCK CENTER INC.	26-Mar-20	29.74	IRWD Check	Reconciled
407428	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT	26-Mar-20	108,308.37	IRWD Check	Negotiable
407429	SAN DIEGO FLUID SYSTEM TECH	26-Mar-20	524.13	IRWD Check	Reconciled
407430	SANTA MARGARITA FORD	26-Mar-20	981.44	IRWD Check	Negotiable
407431	SCHINDLER ELEVATOR CORPORATION	26-Mar-20	221.90	IRWD Check	Negotiable
407432	SHAMROCK SUPPLY CO INC	26-Mar-20	1,209.10	IRWD Check	Reconciled
407433	SOUTHERN CALIFORNIA EDISON COMPANY	26-Mar-20	119,271.04	IRWD Check	Reconciled
407434	SOUTHERN CALIFORNIA EDISON COMPANY	26-Mar-20	2,000.00	IRWD Check	Reconciled
407435	SOUTHERN CALIFORNIA EDISON COMPANY	26-Mar-20	42.43	IRWD Check	Negotiable
407436	SOUTHERN CALIFORNIA GAS COMPANY	26-Mar-20	2,325.33	IRWD Check	Negotiable
407437	SPATIAL WAVE, INC.	26-Mar-20	63,120.00	IRWD Check	Reconciled
407438	TROPICAL PLAZA NURSERY INC	26-Mar-20	2,824.00	IRWD Check	Reconciled
407439	TRUCPARCO	26-Mar-20	684.32	IRWD Check	Negotiable
407440	ULINE INC	26-Mar-20	224.38	IRWD Check	Negotiable
407441	UNITED SITE SERVICES OF CALIFORNIA INC	26-Mar-20	567.31	IRWD Check	Reconciled
407442	UNIVAR SOLUTIONS USA INC.	26-Mar-20	4,438.00	IRWD Check	Reconciled
407443	US BANK NAT'L ASSOCIATION NORTH DAKOTA	26-Mar-20	67,465.44	IRWD Check	Reconciled
407444	USDA FOREST SERVICE	26-Mar-20	219.97	IRWD Check	Negotiable
407445	WARE MALCOMB	26-Mar-20	8,575.00	IRWD Check	Reconciled
407446	WAXIE'S ENTERPRISES, INC	26-Mar-20	1,956.96	IRWD Check	Reconciled
407447	WECK LABORATORIES INC	26-Mar-20	3,365.00	IRWD Check	Negotiable
407448	WEST COAST SAFETY SUPPLY INC	26-Mar-20	18,960.11	IRWD Check	Negotiable
407449	WEST YOST & ASSOCIATES	26-Mar-20	18,663.75	IRWD Check	Negotiable
407450	WESTERN AV	26-Mar-20	360.00	IRWD Check	Reconciled
407451	WILMINGTON INSTRUMENT COMPANY INC	26-Mar-20	4,165.58	IRWD Check	Reconciled
407452	WORKFORCE SAFETY LLC	26-Mar-20	3,000.00	IRWD Check	Negotiable
407453	YELLOW CAB OF GREATER ORANGE COUNTY	26-Mar-20	44.00	IRWD Check	Reconciled
407454	YSI, INC	26-Mar-20	9,907.45	IRWD Check	Reconciled
407455	ZIMA CORPORATION	26-Mar-20	5,046.37	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR MARCH 2020**

CHECK OR ELECTRONIC #	SUPPLIERS	PAYMENT DATE	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
407456	PAULUS ENGINEERING INC	26-Mar-20	5,557.50	IRWD Check	Reconciled
SUB-TOTAL CHECK DISBURSEMENTS			7,701,717.46		
13666	CHARD SNYDER & ASSOCIATES, INC.	2-Mar-20	3,102.70	IRWD Wire	Negotiable
13667	CHARD SNYDER & ASSOCIATES, INC.	2-Mar-20	23,722.88	IRWD Wire	Negotiable
13668	YORK INSURANCE SERVICES GROUP INC - CA	3-Mar-20	16,805.09	IRWD Wire	Negotiable
13669	CHARD SNYDER & ASSOCIATES, INC.	3-Mar-20	1,540.40	IRWD Wire	Negotiable
13670	CHARD SNYDER & ASSOCIATES, INC.	9-Mar-20	5,925.50	IRWD Wire	Negotiable
13671	CHARD SNYDER & ASSOCIATES, INC.	9-Mar-20	5,732.06	IRWD Wire	Negotiable
13672	YORK INSURANCE SERVICES GROUP INC - CA	10-Mar-20	14,375.55	IRWD Wire	Negotiable
13673	BANK OF NEW YORK MELLON TRUST COMPANY NA	13-Mar-20	53,995.90	IRWD Wire	Negotiable
13674	CALPERS	13-Mar-20	533,501.63	IRWD Wire	Negotiable
13675	CALPERS	13-Mar-20	2,953.07	IRWD Wire	Negotiable
13676	U.S. BANK NATIONAL ASSOCIATION	16-Mar-20	1,764.60	IRWD Wire	Negotiable
13677	CHARD SNYDER & ASSOCIATES, INC.	17-Mar-20	812.57	IRWD Wire	Negotiable
13678	CHARD SNYDER & ASSOCIATES, INC.	17-Mar-20	4,030.33	IRWD Wire	Negotiable
13679	YORK INSURANCE SERVICES GROUP INC - CA	17-Mar-20	7,036.20	IRWD Wire	Negotiable
13680	MERRILL LYNCH CAPITAL SERVICES, INC	17-Mar-20	579,777.00	IRWD Wire	Negotiable
13681	CITIGROUP GLOBAL MARKETS INC.	17-Mar-20	579,777.00	IRWD Wire	Negotiable
13682	U.S. BANK NATIONAL ASSOCIATION	17-Mar-20	21,317.79	IRWD Wire	Negotiable
13683	SUMITOMO MITSUI BANKING CORPORATION	17-Mar-20	33,159.84	IRWD Wire	Negotiable
13684	FILANC-BALFOUR BEATTY JV	19-Mar-20	113,022.20	IRWD Wire	Negotiable
13685	INTERNAL REVENUE SERVICE	24-Mar-20	214,302.90	IRWD Wire	Negotiable
13686	FRANCHISE TAX BOARD	24-Mar-20	64,974.66	IRWD Wire	Negotiable
13687	EMPLOYMENT DEVELOPMENT DEPARTMENT	24-Mar-20	16,191.21	IRWD Wire	Negotiable
13688	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	24-Mar-20	3,026.40	IRWD Wire	Negotiable
13689	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	24-Mar-20	175,037.81	IRWD Wire	Negotiable
13690	CALPERS	24-Mar-20	1,340.88	IRWD Wire	Negotiable
13691	CALPERS	24-Mar-20	233,475.53	IRWD Wire	Negotiable
13692	YORK INSURANCE SERVICES GROUP INC - CA	24-Mar-20	21,085.01	IRWD Wire	Negotiable
13693	CHARD SNYDER & ASSOCIATES, INC.	24-Mar-20	2,137.11	IRWD Wire	Negotiable
13694	CHARD SNYDER & ASSOCIATES, INC.	24-Mar-20	4,633.51	IRWD Wire	Negotiable
13695	INTERNAL REVENUE SERVICE	25-Mar-20	213,937.96	IRWD Wire	Negotiable
13696	FRANCHISE TAX BOARD	25-Mar-20	64,121.31	IRWD Wire	Negotiable
13697	EMPLOYMENT DEVELOPMENT DEPARTMENT	25-Mar-20	16,026.59	IRWD Wire	Negotiable
13698	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	25-Mar-20	3,026.40	IRWD Wire	Negotiable
13699	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	25-Mar-20	173,225.89	IRWD Wire	Negotiable
13700	BANK OF NEW YORK MELLON TRUST COMPANY NA	26-Mar-20	55,774.59	IRWD Wire	Negotiable
13701	BANK OF AMERICA	26-Mar-20	41,189.89	IRWD Wire	Negotiable
13702	U.S. BANK NATIONAL ASSOCIATION	26-Mar-20	43,098.35	IRWD Wire	Negotiable
13703	WELLS FARGO BANK, N.A.	26-Mar-20	6,013.29	IRWD Wire	Negotiable
13704	CHARD SNYDER & ASSOCIATES, INC.	30-Mar-20	12,393.64	IRWD Wire	Negotiable
13705	CHARD SNYDER & ASSOCIATES, INC.	30-Mar-20	1,975.89	IRWD Wire	Negotiable
13706	CAO, RAYMOND	30-Mar-20	36.66	IRWD Wire	Negotiable
13707	YORK INSURANCE SERVICES GROUP INC - CA	31-Mar-20	10,127.21	IRWD Wire	Negotiable
13708	BANK OF NEW YORK MELLON TRUST COMPANY NA	31-Mar-20	3,596.99	IRWD Wire	Negotiable
SUB-TOTAL ELECTRONIC DISBURSEMENTS			3,383,101.99		
SUB-TOTAL AP CHECK AND ELECTRONIC DISBURSEMENTS			11,084,819.45		
SUB-TOTAL CHECK AND ELECTRONIC ISSUED AND VOIDED IN MARCH 2020			-		
TOTAL AP DISBURSEMENTS AND VOIDS FOR MARCH 2020			11,084,819.45		

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MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS

March
2020

	AMOUNT	VENDOR	PURPOSE
3/13/2020	1,035,697.45	BANK OF AMERICA	ACH Payments for Payroll
3/27/2020	1,034,725.78	BANK OF AMERICA	ACH Payments for Payroll
	<u><u>\$2,070,423.23</u></u>		

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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-MAR-20 to 31-MAR-20

NAME	CHECK NO.	CHECK DATE	AMOUNT	ITEM DESCRIPTION	EXPENSE JUSTIFICATION
Barboza, Armando	406940	12-Mar-20	180.00	Certification Renewal	AWWA Backflow Prevention Assembly Certification Renewal
Barboza, Armando	406940	12-Mar-20	192.00	Membership Renewal	CWEA Membership
Calderon, Alfonso	406725	5-Mar-20	450.00	Certification Renewal	CEU Water Distribution Course
Cook, Nicholas	406726	5-Mar-20	466.87	Certification Renewal	CEU Water Distribution Course
Gallegos, Adriel	406941	12-Mar-20	185.73	Other(Misc)	Safety shoe allowance
Guzman, Juan	406729	5-Mar-20	156.23	Other(Misc)	Safety shoe allowance
Irey, Craig	407157	19-Mar-20	105.46	Lodging	CA-NV AWWA Water Use Efficiency I Workshop, Rancho Cucamonga, CA - Nov. 19, 2019
Irey, Craig	407157	19-Mar-20	142.49	Lodging	CA-NV AWWA Water Use Efficiency I Workshop, Rancho Cucamonga, CA - Nov. 20, 2019
Johnson, Dane	406732	5-Mar-20	194.11	Lodging	Urban Water Institute Spring Water Conference, Palm Springs, CA - Feb. 20, 2020
Johnson, Dane	406732	5-Mar-20	109.25	Mileage	Urban Water Institute Spring Water Conference, Palm Springs, CA - Feb. 19-21, 2020
Karpan, Casey	406733	5-Mar-20	466.87	Certification Renewal	CEU Water Distribution Course
Korneff, Nicholas	406943	12-Mar-20	466.87	Certification Renewal	CEU Water Distribution Course
Kulick, Michael	406734	5-Mar-20	192.00	Membership Renewal	CWEA Membership
Martinez, Diego	406735	5-Mar-20	488.67	Certification Renewal	CEU Water Distribution Course
Perez, Rodolfo	406945	12-Mar-20	192.00	Membership Renewal	CWEA Membership
Prewoznik, Frank	407159	19-Mar-20	129.92	Other(Misc)	Roundtrip mileage, attending CASA Winter Conf., Indian Wells, CA - Jan. 21-22, 2020
Richardson, Kyle	406741	5-Mar-20	450.00	Certification Renewal	CEU Water Distribution Course
Rutherford, Allan	406948	12-Mar-20	185.00	Certification Renewal	CWEA Collection Systems Technician Grade II
Sanchez, George	406737	5-Mar-20	120.00	Certification Renewal	SWRCB Water Distribution Grade III
Sanchez, George	406737	5-Mar-20	192.00	Membership Renewal	CWEA Membership
Shapiro, Matthew	406738	5-Mar-20	450.00	Certification Renewal	CEU Water Distribution Course
Silva, Jose A	406949	12-Mar-20	192.00	Membership Renewal	CWEA Membership
Tolerico, Steven	407327	26-Mar-20	170.00	Membership Renewal	SWRCB Water Distribution Grade III
Torres, Richard	407161	19-Mar-20	192.00	Membership Renewal	CWEA Membership
Total			\$6,069.47		

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April 27, 2020
Prepared and
submitted by: C. Compton
Approved by: Paul A. Cook



CONSENT CALENDAR

2020 REGULAR LAFCO SPECIAL DISTRICTS 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) will expire on June 30, 2020. As a result, the Independent Special Districts Selection Committee has begun the nomination and election process for the LAFCO seat currently held by LAFCO Commissioner Jim Fisler, a Director of Mesa Water District.

As part of the election process, the Executive Officer of LAFCO is now accepting nominations for the position and “Declaration of Qualification to Vote” forms designating the voting member and alternative for each special district seeking to vote in the election. The deadline for submitting nominations and the “Declaration of Qualification to Vote” is Monday, May 8, 2020, at 3:00 p.m. If more than one candidate is nominated for the open seat, ballots for election of the Special District LAFCO member will be mailed on May 18, 2020, and must be returned prior to June 22, 2020, at 3:00 p.m.

Staff recommends the Board authorize the District Secretary to submit the “Declaration of Qualification to Vote” form designating President Mary Aileen Matheis as IRWD’s authorized voting member and Vice President Douglas Reinhart as IRWD’s alternate voting member for the Orange County Special District Selection Committee election.

BACKGROUND:

In the spring of even numbered years, the Selection Committee begins the nomination and election process for the Regular LAFCO Special District seat expiring June 30 of that year. On March 24, 2020, 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 Regular LAFCO Special District seat currently held by Commissioner Jim Fisler, a Director at the Mesa Water District. A copy of the letter is provided as Exhibit “A”.

As part of the nomination and election process, each special district must designate a board member 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 May 8, 2020, at 3:00 p.m. Staff recommends the Board authorize the District Secretary to submit the “Declaration of Qualification to Vote” form designating President Mary Aileen Matheis as IRWD’s authorized voting member and Vice President Douglas Reinhart, as IRWD’s alternate voting member, for the Orange County Special District Selection Committee election prior to the deadline.

The deadline for submitting nominations for the open seat is also May 8. Commissioner Fislser has indicated his interest in continuing to represent special districts at LAFCO.

If more than one candidate is nominated for the open seat, ballots for election for the Special District LAFCO member will be mailed on May 18 and must be returned prior to June 22 at 3:00 pm. 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).

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 MARY AILEEN MATHEIS AS IRWD’S AUTHORIZED VOTING MEMBER AND VICE PRESIDENT DOUGLAS REINHART AS IRWD’S ALTERNATE VOTING MEMBER FOR THE ORANGE COUNTY SPECIAL DISTRICT SELECTION COMMITTEE ELECTION.

LIST OF EXHIBITS:

Exhibit “A” – Independent Special Districts Selection Committee Letter Regarding the Nomination and Election Process

EXHIBIT "A"

LOCAL AGENCY FORMATION COMMISSION

ORANGE COUNTY



March 24, 2020

REGULAR MEMBERS

CHAIR
CHERYL BROTHERS
CITY MEMBER

VICE CHAIR
DOUGLASS DAVERT
SPECIAL DISTRICT MEMBER

IMMEDIATE PAST CHAIR
DEREK J. MCGREGOR
PUBLIC MEMBER

LISA BARTLETT
COUNTY MEMBER

DR. ALLAN BERNSTEIN
CITY MEMBER

JAMES FISLER
SPECIAL DISTRICT MEMBER

DONALD P. WAGNER
COUNTY MEMBER

ALTERNATES

WENDY BUCKNUM
CITY MEMBER

KATHRYN FRESHLEY
SPECIAL DISTRICT MEMBER

LOU PENROSE
PUBLIC MEMBER

MICHELLE STEEL
COUNTY MEMBER

STAFF

CAROLYN EMERY
EXECUTIVE OFFICER

TO: Independent Special District Presiding Officer
c/o Clerk of the District

FROM: Carolyn Emery, Executive Officer

SUBJECT: **Appointment Process and Nomination Period for the
Orange County LAFCO Regular Special District
Member Seat**

The nomination period for the Orange County LAFCO (OC LAFCO) Regular Special District Member seat is now open. The OC LAFCO Executive Officer will accept nominations for the regular special district seat from **March 24 through May 8, 2020**. The current term for the seat expires June 30, 2020.

The appointment process for the OC LAFCO special district seat is governed by Government Code Section 56332 and the Independent Special District Selection Committee Bylaws. In accordance with the statute and the Committee's Bylaws, the appointment process is conducted by mailed ballot and attached to this notification are the following:

- A. The "Declaration of Qualification to Vote" for designating the authorized regular voting member and the alternate voting member of your district, for this appointment process. This form must be returned to OC LAFCO no later than **3:00 PM on Friday, May 8, 2020**. Please note that if OC LAFCO does not receive the form by that date, your district will be ineligible to vote.
- B. The "2020 Nomination Form" for submitting a candidate's name for the Regular Special District seat. If your district is nominating a candidate for the OC LAFCO Regular Special District Member seat, the form must be filled out completely and returned to OC LAFCO no later than **3:00 PM on Friday, May 8, 2020**. Candidate resumes or other supplemental information may be attached to the nomination form and these materials will be distributed with the ballots.

The Declaration and nomination form may be returned to OC LAFCO at any of the following:

Email: ccarter-benjamin@oclafco.org

Mail: Orange County LAFCO
2677 North Main Street,
Suite 1050
Santa Ana, CA 92705
Attn: Cheryl Carter-Benjamin, Commission Clerk

FAX: (714) 640-5139
Attn: Cheryl Carter-Benjamin, Commission Clerk

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

<i>Appointment Process Schedule for OC LAFCO Regular Special District Seat Expiring June 30, 2020</i>	
DATE	EVENT
March 24, 2020	OC LAFCO Executive Officer emails nomination form and Declaration of Qualification to Vote to each independent special district presiding officer (c/o the clerk of the district) and general manager.
May 8, 2020 (by 3:00 PM)	Submission of a nomination (if applicable) and Declaration of Qualification to Vote are due to OC LAFCO by 3:00 p.m.*
May 18, 2020	Ballot is emailed to each special district presiding officer or designee (c/o the clerk of the district).
June 22, 2020 (by 3:00 PM)	Ballots are due to OC LAFCO by 3:00 p.m.
June 29, 2020	OC LAFCO staff (or designee) tabulates ballots and announces results.
July 8, 2020	Oath of office administered at the Commission Regular Meeting.
<i>* Pursuant to Government Code Section 56332(f)(2), at the end of the nominating period, if only one candidate is nominated for the vacant seat, that candidate shall be deemed appointed.</i>	

Please note, that Orange County LAFCO extends our wishes of good health and safety to your agency and ask that if the extraordinary circumstances of Coronavirus (COVID-19) may impact your agency's ability to respond or participate in this process in accordance with the prescribed timeline above, please contact me directly at (714) 640-5100 or by email at cemery@oclafco.org.

March 24, 2020

Page 3 of 3

Other questions may be directed to our Commission Clerk Cheryl Carter-Benjamin at (714) 640-5100 or by email at ccarter-benjamin@oclafco.org.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Carolyn Emery', is written over the typed name and title.

Carolyn Emery
Executive Officer

Attachments:

- A. Declaration of Qualification to Vote
- B. 2020 Nomination Form – Regular Special District Member

cc: Special District General Managers

DECLARATION OF QUALIFICATION TO VOTE

To the Presiding Officer Mary Aileen Matheis
c/o Clerk of the District
Leslie Bonkowski (bonkowsl@irwd.com)
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618-3102

I, _____, * hereby attest that
_____ ** has been authorized by the Board of
_____ to vote in the Orange County Special
District Selection Committee election as the regular voting member.

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

Name and Title*: _____

Signature*: _____

Date: _____

**Declaration MUST be signed by either Board President or Board Secretary*

*** Must be a member of the Board*

Completed forms must be received by OC LAFCO by 3 PM, Friday, May 8, 2020.

Forms must be delivered to OC LAFCO by:

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

2020 NOMINATION FORM

Candidates for the Orange County Local Agency Formation Commission (OC LAFCO)

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 ballots. Completed nomination form and supplemental information may be returned to OC LAFCO by:

1. Email at: ccarter-benjamin@oclafco.org, or
2. Mail at: Orange County LAFCO
2677 North Main Street, Suite 1050
Santa Ana, CA 92705
Attn: Cheryl Carter-Benjamin, or
3. Fax at: (714) 640-5139, Attn: Cheryl Carter-Benjamin

All forms and supplemental information must be received by OC LAFCO by 3:00 p.m. on Friday, May 8, 2020. Nomination forms or candidate information received after that deadline will not be considered.

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April 27, 2020
 Prepared by: E. Akiyoshi / M. Robinson
 Submitted by: K. Burton
 Approved by: Paul A. Cook 

ACTION CALENDAR

MID-CYCLE CAPITAL BUDGET UPDATE FOR FISCAL YEARS 2019-20 AND 2020-21

SUMMARY:

The Two-Year Capital Budget for Fiscal Years (FY) 2019-20 and 2020-21 was approved by the Board on April 2, 2019. At the Board meeting, staff will provide a presentation on the Mid-cycle Capital Budget Update for FY 2019-20 and 2020-21. Staff recommends the Board receive and file the update for the IRWD Capital Budget and approve the addition of 25 new projects to the Capital Budget.

BACKGROUND:

Last year, IRWD transitioned from annual to biennial operating and capital budgets. In April 2019, the Board-approved Capital Budget included forecasted expenditures for FY 2019-20 and FY 2020-21 of \$90.9 million and \$93.8 million, respectively.

Since April 2019, there have been Board-approved increases and updates to project schedules. Staff’s presentation summarizing the Mid-cycle Capital Budget Update, provided as Exhibit “A”, highlights these changes to the total budget and the forecasted expenditures for FY 2020-21, and proposes adding 25 new projects to the Capital Budget. The total budget for the additional projects is \$20.6 million and increases the forecasted expenditures for FY 2020-21 by \$4.6 million. The Capital Budget Project Additions list is provided as Exhibit “B”.

FISCAL IMPACTS:

The following table presents the resulting total budget increase to the Capital Budget and forecasted expenditures for FY 2020-21 from the project additions.

Expenditure Group Description	Total Budget Increase (\$)	FY 2020-21(\$)
Replacement and Rehabilitation	14,572,900	2,772,800
Development	3,591,000	847,300
Operational	2,425,000	1,001,300
Total All Projects	20,588,900	4,621,400

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on April 21, 2020.

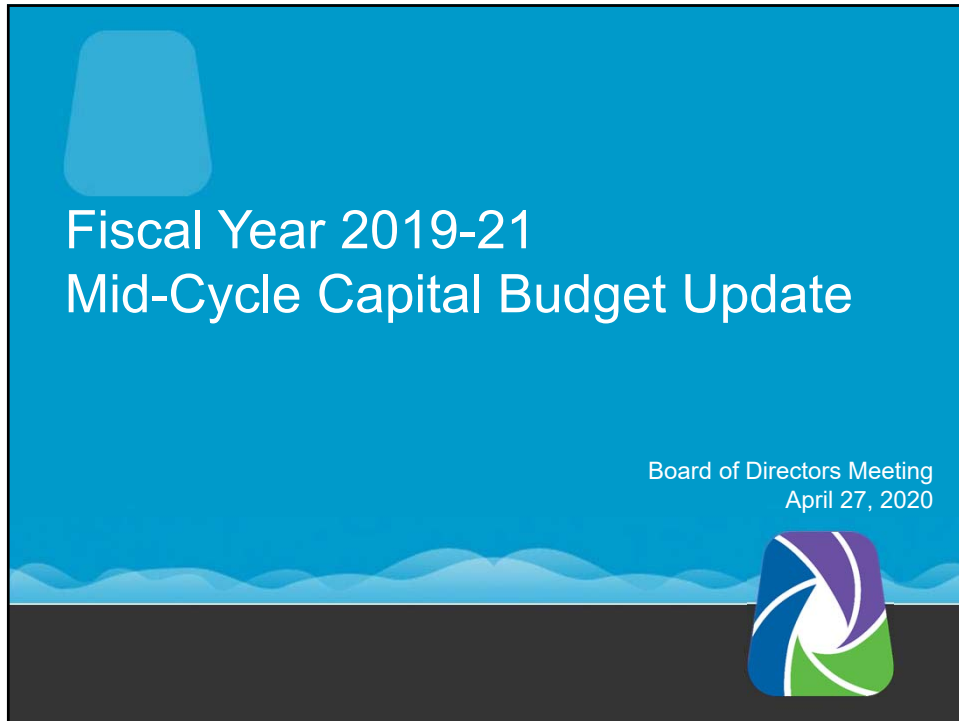
RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE MID-CYCLE CAPITAL BUDGET UPDATE FOR FISCAL YEARS 2019-20 AND 2020-21 AND APPROVE THE FISCAL YEARS 2019-20 AND 2020-21 MID-CYCLE CAPITAL BUDGET PROJECT ADDITIONS.

LIST OF EXHIBITS:


Exhibit "A" – Mid-cycle Capital Budget Presentation

Exhibit "B" – Mid-cycle Capital Budget Project Additions for FY 2019-20 and 2020-21

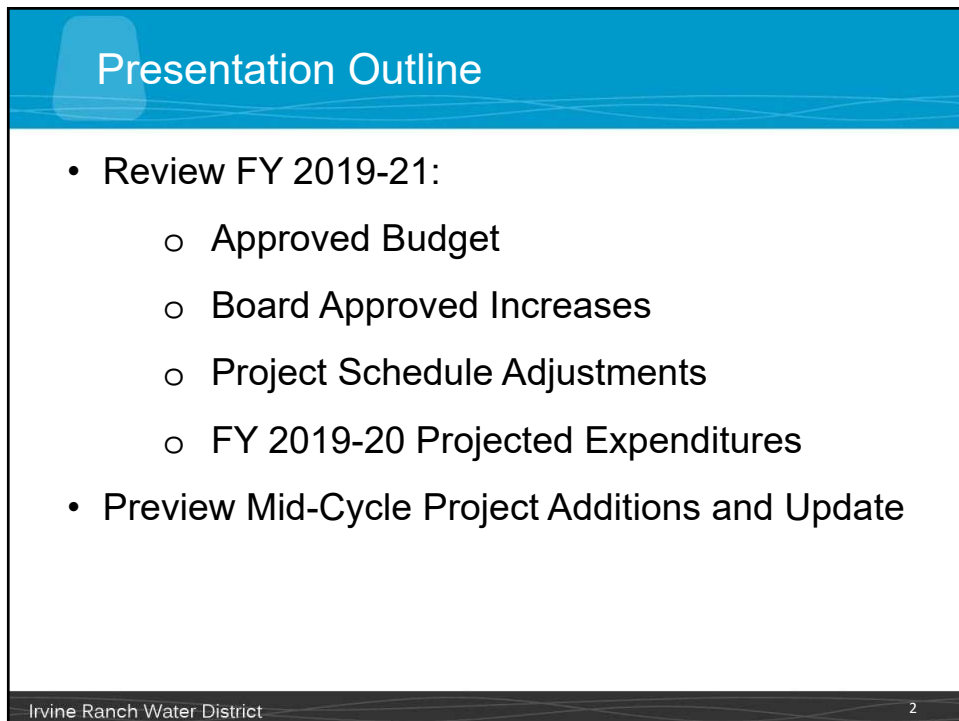


Fiscal Year 2019-21
Mid-Cycle Capital Budget Update

Board of Directors Meeting
April 27, 2020



1



Presentation Outline

- Review FY 2019-21:
 - Approved Budget
 - Board Approved Increases
 - Project Schedule Adjustments
 - FY 2019-20 Projected Expenditures
- Preview Mid-Cycle Project Additions and Update

Irvine Ranch Water District

2



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FY 2019-21 Review

Capital Project Categories	FY 2019-20 Forecasted Expenditures (\$ Millions)	FY 2020-21 Forecasted Expenditures (\$ Millions)
Replacement and Rehabilitation	17.7	24.4
Operational	15.6	14.9
Development	15.4	7.0
Property Management	14.3	0.0
Water Banking	11.7	15.5
Solids Handling	9.8	5.5
Well Rehabilitation	3.1	2.0
Nonpotable Storage	3.1	4.8
Replacement Business Software	2.4	1.8
General Plant	2.3	2.0
Planning	2.0	2.1
Water Resources	1.1	2.3
OCWD Annexation	0.6	0.6
Sewage Treatment	0.5	0.9
OCSD CORF / Equity / Solids Lease	(8.7)	10.0
Total	\$90.9	\$93.8

Irvine Ranch Water District 4

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Board Approved Increases

Description	April 2019 Board Approved Total Budget (\$)	Subsequent Board Approved Total Budget (\$)	FY 2019-20 Mid-Cycle Forecasted Expenditure Increases (\$)	FY 2020-21 Mid-Cycle Forecasted Expenditures Increases (\$)
BAKE PARKWAY FIRE FLOW PRV AND PIPELINE	412,700	750,000	298,600	54,300
BONITA CANYON RW PRV AND PIPELINE REPLACEMENT	325,000	411,400	86,400	0
INNOVATION PARK 12 INCH DW PIPELINE	0	410,000	42,700	85,200
MICHELSON FORCE MAIN REHABILITATION	2,217,300	2,967,300	8,600	0
CONVERSION TO MICROSOFT CLOUD EMAIL SYSTEM	187,000	304,000	70,200	35,100
MWRP HEADWORKS PLATFORM IMPROVEMENTS	175,000	377,900	146,600	1,000
MWRP HEADWORKS SCREENING AREA DIVERTER CHUTE	180,500	222,200	-26,400	-4,200
MWRP TRANSFORMER T1 REPLACEMENT	543,000	2,869,700	-148,000	1,435,900
DYER ROAD WELL FIELD – WELL 14 REHAB	770,000	1,094,000	261,500	0
DYER ROAD WELL FIELD – WELL 16 REHAB	770,000	1,239,000	378,500	0
WELL TREATMENT ALTERNATIVES STUDY	133,100	325,000	100,000	50,000
Total	5,713,600	10,970,500	1,218,700	1,657,300

Irvine Ranch Water District 5

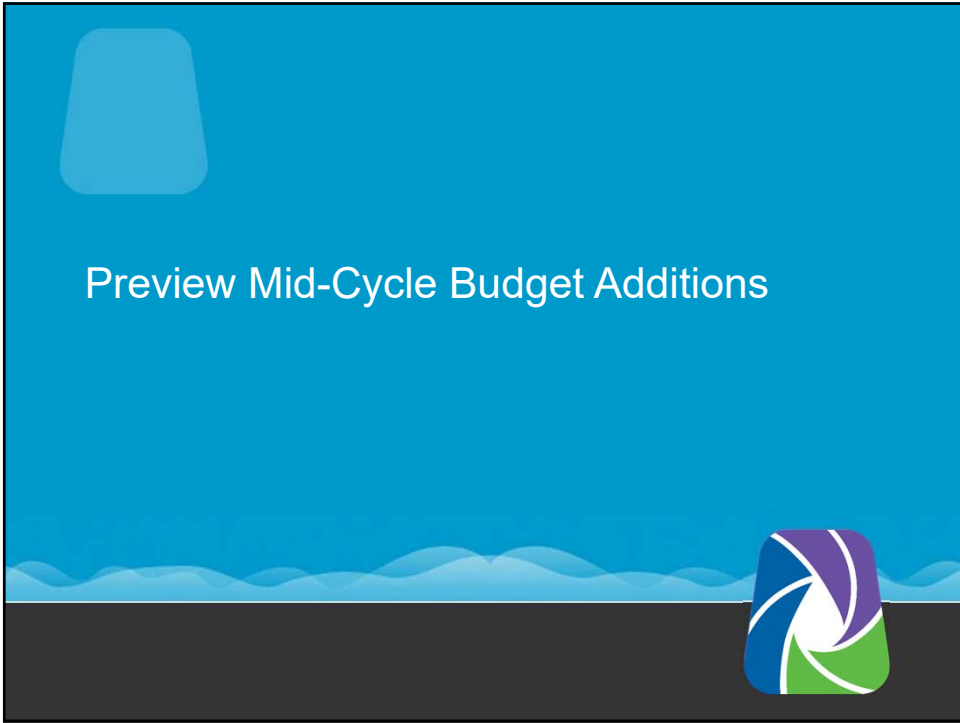
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FY 19-21 Projected Expenditures

Description	FY 2019-20 Forecasted Expenditures (\$ Millions)	FY 2020-21 Forecasted Expenditures (\$ Millions)
April 2019 Forecast	90.9	93.8
Board Approved Increases	1.2	1.7
Kern Fan Schedule Adjustment	-10.2	-1.3
Other Project Schedule Adjustments	-1.7	-4.2
Total (Revised Forecasted Budget)	80.2	90.0
Projected Actual Expenditures	68.4	NA

Irvine Ranch Water District 6

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Proposed Project Additions

Description	Total Budget (\$)	FY 2020-21 Mid-Cycle Forecasted Expenditures (\$)
AUTOMATION CYBERSECURITY - DW	1,350,000	81,500
COASTAL ZNS B&D BPS ELECTRICAL REPLACEMENT	1,557,000	158,100
COMPREHENSIVE CONDITION ANALYSIS OF EXISTING ACP	635,800	5,800
DATS MISCELLANEOUS REHABILITATION	2,278,500	257,800
DRWF WELLSITE REHAB - 3 WELLS	1,588,000	387,300
EMERGENCY GENERATOR FUEL STORAGE – DW	550,000	466,400
EMERGENCY GENERATOR FUEL STORAGE – SS	275,000	222,600
GENERAL SECURITY SYSTEM MODIFICATIONS – DW	125,000	115,385
GENERAL SECURITY SYSTEM MODIFICATIONS – SS	125,000	115,385
HATS DIVERSION STRUCTURE REHABILITATION	707,000	244,700
PA 1 JEFFREY RD EXT 6RW & 12RW	163,000	22,800
LAKE FOREST NAKASE 24 ZB RW	1,365,000	270,000
MODJESKA RD BRIDGE 172 AT MARKUSON RD DW IMPROVEMENTS	504,900	46,200
MORSE/GILLETTE DW REPLACEMENT	674,000	162,400
MWRP CAS ELECTRICAL CONDUITS REPLACEMENT	564,000	66,800
MWRP PRIMARY CLARIFIERS 1-5 COVERS REPLACEMENT	1,419,000	193,200
PA 12 REGIONAL ZONE A RW IMPROVEMENTS	1,615,000	303,300
PUBLIC OUTREACH CAMPAIGN REPLACEMENTS	500,000	313,100
RATTLESNAKE INLET-OUTLET REPLACEMENT	1,273,000	106,900
SEAWATCH RW PRV IMPROVEMENT	1,095,000	88,100
SILVERADO CANYON RD BRIDGE 174 AT SILVERADO COMM CTR DW IMPR	504,900	46,100
SILVERADO CANYON RD BRIDGE 175 AT LADD CANYON DW IMPR	504,900	455,600
SILVERADO CANYON RD BRIDGE 177 AT READ RESERVOIR DW IMPR	504,900	46,100
SR 55 WIDENING SEWER RELOCATION	262,000	194,600
TUSTIN LEGACY NEIGHBORHOOD D SOUTH 12SS	448,000	251,200
Total	20,588,900	4,621,400

Irvine Ranch Water District 8

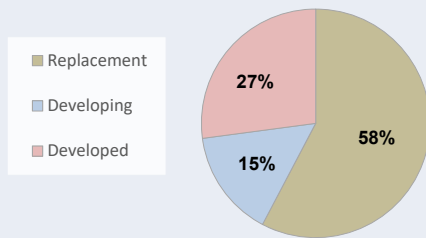
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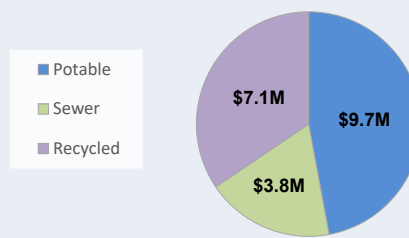
Proposed Project Additions

Category	Total Budget (\$)	FY 2020-21 Mid-Cycle Forecasted Expenditures (\$)
Replacement Facilities	14,572,900	2,772,800
Development	3,591,000	847,300
Operational	2,425,000	1,001,300
Total	20,588,900	4,621,400

Funding Source



Funding By System



Irvine Ranch Water District

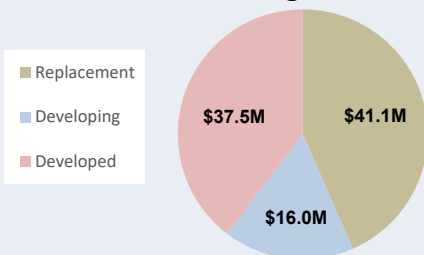
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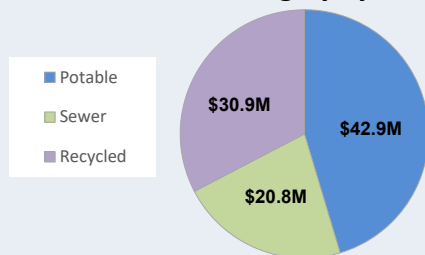
FY 2020-21 Forecasted Expenditures Update

Description	FY 2020-21 Mid-Cycle Forecasted Expenditures (\$ Millions)
Original Forecast	93.8
Board Approved Increases	1.7
Project Schedule Adjustments	-5.5
Project Additions	4.6
Total (New Forecasted Expenditures)	94.6

Funding Source



Funding By System



Irvine Ranch Water District

10

10

Recommendation

That the Board receive and file the Mid-Cycle Capital Budget Update for Fiscal Years 2019-20 and 2020-21, and approve the Fiscal Years 2019-20 and 2020-21 Mid-Cycle Capital Budget Project additions as shown in the attached Exhibit "B."

Irvine Ranch Water District
 Fiscal Year 2019-21 Mid-Cycle Capital Budget
 Project Additions

EXHIBIT "B"

System	Project Number	Project Title	Start	End	FY 20-21 Direct	Total Direct	Improvement District																			
							1100	1110	1120	1130	1250	1530	1540	1850	2100	2120	2130	2220	2250	2400	2530	2560	2850	2880		
Potable Capital	11586	AUTOMATION CYBERSECURITY - DW	7/1/2020	6/30/2023	\$81,500	\$1,350,000		35.1	4.8	3.4	46.4	7.8	0.4	1.6												
Recycled Capital	11568	COASTAL ZNS B&D BPS ELECTRICAL REPLACEMENT	4/1/2020	12/31/2022	\$158,089	\$1,557,000										100.0										
Potable Capital	11571	COMPREHENSIVE CONDITION ANALYSIS OF EXISTING ACP	6/1/2021	6/30/2023	\$5,769	\$635,800	60.0									40.0										
Potable Capital	11483	DATS MISCELLANEOUS REHABILITATION	3/1/2020	4/30/2022	\$257,839	\$2,278,500	100.0																			
Potable Capital	11570	DRWF WELLSITE REHAB - 3 WELLS	7/1/2020	6/30/2022	\$387,304	\$1,588,000	100.0																			
Potable Capital	11536	EMERGENCY GENERATOR FUEL STORAGE - DW	3/1/2020	1/31/2022	\$466,453	\$550,000		35.1	4.8	3.4	46.4	7.8	0.4	1.6												
Sewer Capital	11537	EMERGENCY GENERATOR FUEL STORAGE - SS	4/1/2020	1/31/2022	\$222,568	\$275,000										5.4	3.7	35.4	45.0		7.9	0.4	1.8	0.4		
Potable Capital	11602	GENERAL SECURITY SYSTEM MODIFICATIONS - DW	6/1/2020	6/30/2021	\$115,385	\$125,000		35.1	4.8	3.4	46.4	7.8	0.4	1.6												
Sewer Capital	11192	GENERAL SECURITY SYSTEM MODIFICATIONS - SS	6/1/2020	6/30/2021	\$115,385	\$125,000										3.4	3.4	33.1	48.6		9.6	0.3	1.3	0.3		
Sewer Capital	11122	HATS DIVERSION STRUCTURE REHABILITATION	4/1/2020	11/30/2021	\$244,659	\$707,000										100.0										
Recycled Capital	11582	LAKE FOREST NAKASE 24 ZB RW	7/1/2020	12/31/2022	\$270,000	\$1,365,000										8.8	4.2	15.3	49.2	7.9	13.1		1.5			
Potable Capital	11593	MODJESKA RD BRIDGE 172 AT MARKUSON RD DW IMPROVEMENTS	5/1/2020	7/31/2022	\$46,186	\$504,900	100.0																			
Potable Capital	11567	MORSE/GILLETTE DW REPLACEMENT	2/1/2020	5/31/2022	\$162,384	\$674,000	100.0																			
Sewer Capital	11569	MWRP CAS ELECTRICAL CONDUITS REPLACEMENT	7/1/2020	12/31/2022	\$66,844	\$564,000										100.0										
Sewer Capital	11599	MWRP PRIMARY CLARIFIERS 1-5 COVERS REPLACEMENT	5/1/2020	8/31/2022	\$193,167	\$1,419,000										100.0										
Recycled Capital	11500	PA 1 JEFFREY RD EXT 6RW & 12RW	1/1/2020	2/28/2023	\$22,759	\$163,000																		100.0		
Recycled Capital	11584	PA 12 REGIONAL ZONE A RW IMPROVEMENTS	7/1/2020	12/31/2022	\$303,333	\$1,615,000										8.8	4.2	15.3	49.2	7.9	13.1		1.5			
Potable Capital	11585	PUBLIC OUTREACH CAMPAIGN REPLACEMENTS	4/1/2020	12/31/2022	\$313,062	\$500,000	50.0									50.0										
Recycled Capital	11566	RATTLESNAKE INLET-OUTLET REPLACEMENT	4/1/2020	6/30/2022	\$106,865	\$1,273,000										100.0										
Recycled Capital	11597	SEAWATCH RW PRV IMPROVEMENT	4/1/2020	12/31/2022	\$88,149	\$1,095,000										8.8	4.2	15.3	49.2	7.9	13.1		1.5			
Potable Capital	11588	SILVERADO CANYON RD BRIDGE 174 AT SILVERADO COMMUNITY CENTE	5/1/2020	7/31/2022	\$46,164	\$504,900	100.0																			
Potable Capital	11587	SILVERADO CANYON RD BRIDGE 175 AT LADD CANYON DW IMPROVEM	3/1/2020	7/31/2021	\$455,570	\$504,900	100.0																			
Potable Capital	11589	SILVERADO CANYON RD BRIDGE 177 AT READ RESERVOIR DW IMPROVE	5/1/2020	7/31/2022	\$46,165	\$504,900	100.0																			
Sewer Capital	11583	SR 55 WIDENING SEWER RELOCATION	7/1/2020	12/31/2021	\$194,602	\$262,000										5.4	3.7	35.4	45.0		7.9	0.4	1.8	0.4		
Sewer Capital	11359	TL NH D SOUTH 12SS	7/1/2020	12/31/2021	\$251,216	\$448,000											100.0									
Total					\$4,621,416	\$20,588,900																				

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April 27, 2020

Prepared by: J. Moeder / R. Mori

Submitted by: K. Burton

Approved by: Paul A. Cook



ACTION CALENDAR

SANTIAGO RESERVOIR IMPROVEMENTS BUDGET INCREASE AND CONSULTANT SELECTION

SUMMARY:

AECOM is currently designing the Irvine Lake Santiago Reservoir Outlet Tower Replacement Project. In 2019 GEI Consultants completed the Santiago Reservoir Phase II Spillway Assessment report, which identified that the spillway is reaching the end of its useful life and should be replaced. The California Division of Safety of Dams (DSOD) concurs with this finding and has stipulated that this replacement be completed within 10 years. Since both projects are in the same area and are being conducted along similar timelines, staff combined the projects into a single project. AECOM and GEI, who have collaborated on multiple past projects, prepared a scope of work for completing the outlet tower and spillway replacement as a combined project. AECOM will be the lead consultant, and GEI will be the primary subconsultant. Staff recommends the Board:

- Authorize a budget increase for Project 01813 in the amount of \$123,890,000, from \$15,417,000 to \$139,307,000, and
- Authorize the General Manager to execute a Professional Services Agreement in the amount of \$4,989,380 with AECOM for engineering design services for the Santiago Reservoir Improvements project.

BACKGROUND:

In 2017, IRWD retained AECOM for the design of the Outlet Tower Replacement project in the amount of \$787,625. AECOM completed the Preliminary Design Report for the project in February 2019, and the contract has remaining budget of approximately \$535,000. Also in 2017, IRWD retained GEI to perform a condition assessment of the Santiago Reservoir spillway. The assessment was completed in December 2019 and identified the need to replace the nearly 90-year-old spillway. Given the necessity of the project, IRWD contracted with GEI to develop hydraulic design criteria for a replacement spillway and to identify and evaluate multiple spillway replacement alternatives.

Subsequently, staff from IRWD and Serrano Water District agreed to merge the outlet tower and spillway replacement projects into a single project. This was done to streamline the project execution since the improvements are in the same area and the projects contain overlapping activities including extensive coordination with DSOD, geotechnical and geological investigations and testing, permitting, and environmental compliance. To complete the design of the combined project, staff requested that AECOM and GEI prepare an overall coordinated design for the Santiago Reservoir improvements. This collaboration will capture, and efficiently build upon, the work previously completed by each firm and will ensure that the design is advanced in the most expeditious manner.

Consultant Selection Process:

At the request of staff from IRWD and Serrano Water District, AECOM and GEI prepared a proposal for completing a combined project that includes the following primary components:

- Geotechnical and geological investigations and laboratory testing;
- Erodibility study for Santiago Creek;
- Hydrologic and hydraulic analyses; and
- Preliminary and final design services for the proposed inclined outlet structure, outlet works facilities, and spillway.

Both AECOM and GEI are nationally recognized reservoir and dam design experts, and both offer in-depth concentration of senior staff experienced in the design and construction of reservoirs, dams, and related facilities. AECOM will serve as the prime engineering consultant with GEI as the prime subconsultant. AECOM and GEI have worked together extensively and are currently working together on large reservoir projects including the Pacheco Reservoir Expansion and the Sites Reservoir project.

Staff recommends the Board authorize the General Manager to execute a Professional Services Agreement with AECOM for engineering design services for the Santiago Reservoir Improvements project in the amount of \$4,989,380. The scope of work is provided as Exhibit "A". Note that this recommendation is for a sole source contract award. Staff believes that the team of AECOM and GEI are uniquely and most qualified to provide the requested consultant services and that a sole source contract award is appropriate. AECOM's existing contract for the outlet tower design will be cancelled upon approval of the Professional Services Agreement.

At the Board meeting, staff will provide a presentation on the Santiago Reservoir Improvements consultation selection and the budget increase, which is provided as Exhibit "B".

Schedule:

The Phase II Spillway Assessment report, which DSOD reviewed and with which it agrees, identified the need to replace the spillway by the end of 2029. AECOM and GEI's combined comprehensive scope of work is based on a detailed design schedule that targets completing the design by summer 2023 and constructing the improvements over a two-year period. This schedule provides completing the spillway replacement and other improvements in advance of the 2029 deadline and includes an acceptable margin of time to address unknown geotechnical or design issues, extended DSOD review periods, extended environmental or regulatory coordination, and construction delays. While the project is being designed and constructed, IRWD and Serrano Water District expect to continue operating Santiago Reservoir in accordance with the Interim Operation Plan, which limits the maximum water surface elevation during the winter season to reduce the potential use of the spillway until construction of the replacement project is complete.

FISCAL IMPACTS:

Capital projects are funded by IRWD (75%) and by Serrano Water District (25%) in accordance with the Irvine Lake ownership agreements. IRWD's portion of the project will be funded 5% by the regional potable water fund, which will cover the improvements that provide additional storage in the lake and 95% by the water replacement fund. A budget increase is required to fund the design and construction of the project as shown in the following table. Staff will continue to research and pursue grants as they become available to help cover some of the project costs.

Project No.	Current Budget	Addition <Reduction>	Total Budget
01813	\$15,417,000	\$123,890,000	\$139,307,000

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA). In conformance with the California Code of Regulations Title 14, Chapter 3, Section 15004, the appropriate environmental document will be prepared when "meaningful information" becomes available.

COMMITTEE STATUS:

This item was reviewed by the Serrano Water District / IRWD Committee on April 15, 2020. Both IRWD and Serrano agreed that the project needs to proceed expeditiously, but Serrano requested additional time to review and discuss the project and the consultant selection recommendation with its full Board of Directors. Serrano anticipates having those discussions in the next several months with the goal of providing confirmation of the project and the consultant selection to IRWD by June.

At the Committee meeting, IRWD expressed its interest to proceed with the consultant selection recommendation along with several initial design activities, recognizing that it would be a sole source award. By adopting this approach, work on the project can continue while Serrano completes its internal discussions with its Board of Directors. Upon execution of the Professional Services Agreement between IRWD and AECOM, staff anticipates authorizing AECOM to proceed with initial scope items in the not-to-exceed amount of \$300,000 to allow for progress of the following initial design activities:

- Finalize the development of the recommended spillway replacement alternative;
- Coordinate with DSOD to obtain approval of the recommended spillway replacement alternative;
- Prepare a geotechnical exploration workplan that describes the proposed geotechnical and geologic explorations and coordinate its review and approval with DSOD;
- Begin detailed planning efforts associated with the geotechnical and geological investigations scheduled to begin in August 2020; and
- Provide technical support to the Initial Study that is currently underway, as needed.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE FOR PROJECT 01813 IN THE AMOUNT OF \$123,890,000, FROM \$15,417,000 TO \$139,307,000, AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH AECOM IN THE AMOUNT OF \$4,989,380 FOR ENGINEERING DESIGN SERVICES FOR THE SANTIAGO RESERVOIR IMPROVEMENTS, PROJECT 01813.

LIST OF EXHIBITS:

Exhibit "A" – AECOM/GEI Scope of Work

Exhibit "B" – Presentation for Santiago Reservoir Improvements Consultant Selection and Budget Increase

Scope of Work and Methodology

This memorandum documents a proposed scope of work for engineering services to complete the design of a reconstructed outlet works and a reconstructed spillway including replacement of the control section and chute. We propose that GEI perform this proposed work as a subconsultant to AECOM and work in coordination with AECOM as part of the existing contract to replace the existing outlet tower at the Santiago Creek Dam.

The project involves improvements to the outlet works and spillway at Santiago Creek Dam, which is owned and operated jointly by Irvine Ranch Water District and Serrano Water District. Santiago Creek Dam is a 136-foot-high rolled earth embankment located on Santiago Creek in Orange County, California, about 5 miles northeast of the City of Irvine and 4 miles east of the City of Orange. Santiago Creek Dam forms Irvine Lake which provides water supply to the surrounding communities for both agricultural and municipal use. The outlet works and reinforced concrete spillway at Santiago Creek Dam were constructed in 1932. The outlet works consist of a tower, an outlet conduit and downstream control house. The outlet tower is 135-feet high and has an interior diameter of 8-feet and an exterior diameter of 11-feet. The spillway is located at the left end of the dam and includes an approach, control structure, chute and flip bucket. The dam and reservoir are under the regulatory jurisdiction of the California Department of Water Resources, Division of Safety of Dams (DSOD).

At the request of DSOD, an assessment of the spillway was conducted in 2018. Additional field explorations and non-destructive testing were also completed to better understand the spillway deficiencies and to develop a long-term repair plan. As outlined in the (Phase 1 and Phase 2) Spillway Condition Assessment reports by GEI dated July 1, 2018 and December 3, 2019, respectively, it was concluded that the spillway structure is aged, does not meet all current design standards and has various deficiencies. A recommendation was made to implement a long-term repair plan to comprehensively address the deficiencies noted.

The scope of work for this project will be completed in two phases, which include: Phase 1 - Preliminary Design and Phase 2 - Final Design. Phase 1 will involve additional investigations and evaluations of the Site and existing spillway facilities that have not been collected in the previous work by AECOM/GEI. Design criteria, Site and operational constraints, and preliminary layouts for the spillway will be completed and documented for this task. Phase 2 will involve final design of the outlet works, spillway, and ancillary facilities. AECOM/GEI will work closely with IRWD, SWD, and DSOD throughout the design process in order to develop the most economical solution that meets the needs of all project stakeholders.

It is anticipated that AECOM/GEI, IRWD, and SWD will work collaborative as a team with the exchange of information and reviews of potential project solutions, specifically in areas of lake operations, potential Site access constraints, and preferred solutions during the design process. See Figure 1 for the project team organizational chart, which includes key staff and discipline leads for the AECOM/GEI team. Our detailed scope of work is described task-by-task below.

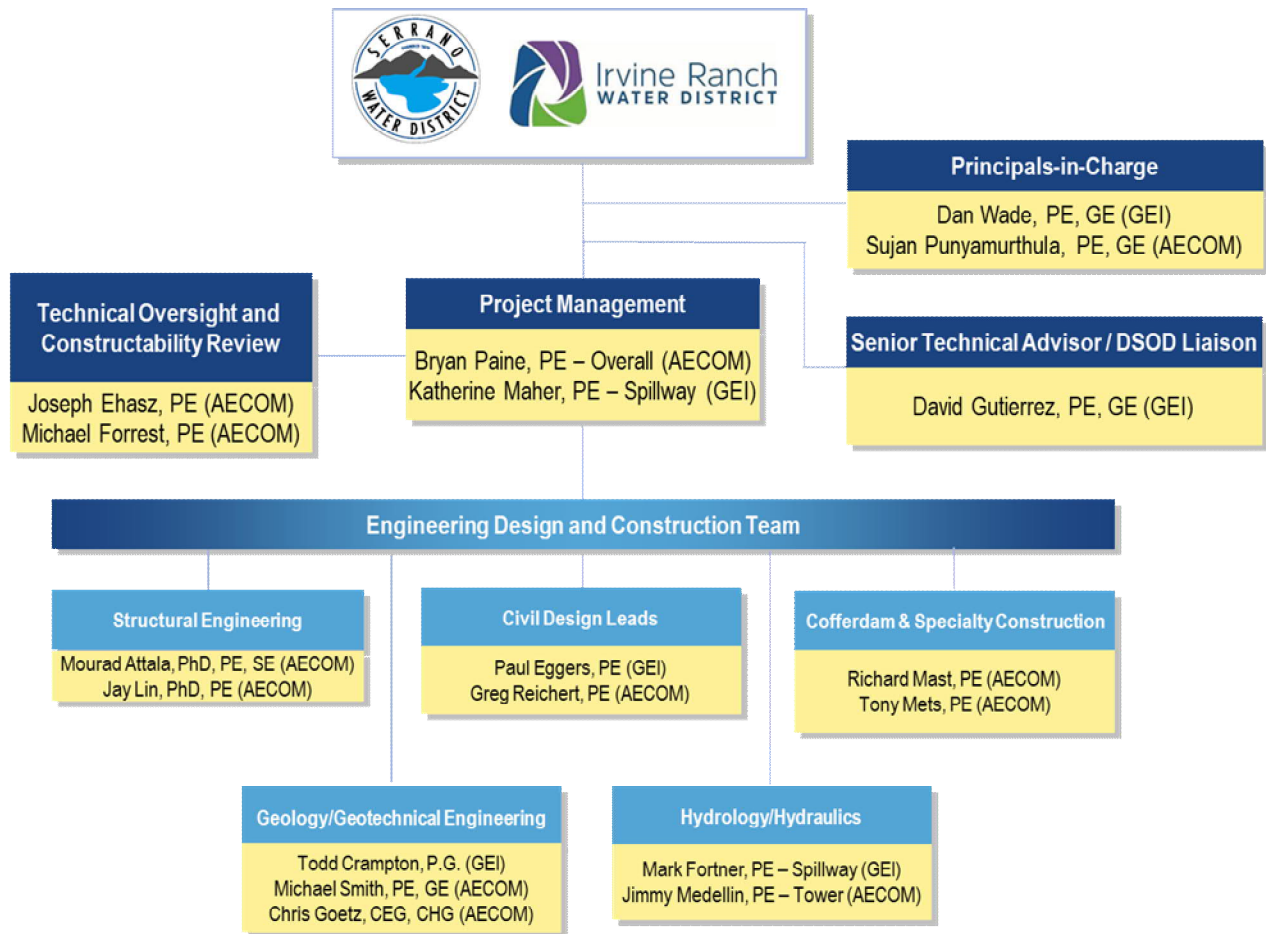


Figure 1 Project Team Organizational Chart

Phase 1 Preliminary Design

1. Project Management and Client Interaction: AECOM will provide project management services for the project. AECOM implements a Project Delivery System (PDS) to assist its project managers in the successful execution of every project. This PDS encompasses elements such as:
 - Project Work Plan (PWP) to define project goals, limits, deliverables, schedule, and scope. The PWP includes plans for quality control and a risk register
 - Staffing and communication plan
 - Document control and management information systems
 - Staffing resources, equipment, and tools
 - QA/QC protocols
 - Risk management issues
 - Safety, Health, and Environment (SH&E) procedures and training needs
 - Subconsultant roles and budgets

Our Project Manager, Bryan Paine, is responsible for managing project controls and is an AECOM Certified Project Manager. We use several methods of tracking progress such as the critical path

method and earned value management (EVM). By using proven project management tools, such as EVM, we can proactively identify and mitigate issues before they begin to adversely impact schedule and budget. Bryan will provide weekly project status emails to IRWD and SWD and include a monthly progress report with each invoice. AECOM/GEI will jointly prepare a Risk Register for the project that will identify risks for the design and construction of the project.

Bryan will work closely with GEI's Project Manager, Katherine Maher, to coordinate project deliverables. We will conduct regular team meetings using the latest communication technologies, such as Microsoft Teams teleconferencing, to keep all informed and to coordinate all activities.

2. Hydraulic Analysis & Erodibility Study: The purpose of this task is to perform hydraulic analyses to evaluate the performance of the preferred spillway control section, chute and dissipation structure and support the detailed design of the spillway components. An alternative analysis is assumed to have been completed prior to this task which will outline the conceptual layout of the spillway including the general weir type and general arrangement of the chute and dissipation structure including gross dimensions and slopes. Task 2 will be completed to refine the design of the selected alternative. The scope of this task includes:
 - a. Hydraulic Modeling: The spillway chute will be initially evaluated using one dimensional analysis during the preliminary design phase to determine flow depths and velocities throughout the profile of the proposed control section and chute. A three-dimensional Computational Fluid Dynamic (CFD) Model will be developed for the final design of the spillway. The CFD model will include the channel and pipe bridge downstream of the spillway to support an erodibility study of the downstream canyon. The downstream limit of the CFD model will be to the dirt road crossing of the stream located approximately 200 feet downstream of the pipe bridge. We assume that no more than ten (10) simulations of the CFD model will be performed. Any proposed converging walls will be evaluated and designed following USBR relationships between acceptable convergence wall angles and the associated Froude numbers from the hydraulic modeling. The chute walls will be designed to minimize cross waves and standing waves and the associated wave run-up on the walls.
 - Freeboard: The spillway chute will be designed to maintain a minimum residual freeboard following DSOD requirements.
 - Cavitation Potential: The spillway chute will be evaluated for cavitation potential following USBR methods and procedures based on the hydraulic modeling results. Evaluation of cavitation potential will be performed using the cavitation index.
 - Flow Profiles and Velocity Calculations: Flow profiles and velocities will be calculated within the spillway for various flow conditions, including the Probable Maximum Flood (PMF). The PMF is the theoretical maximum flood event that could be expected to occur over the life of the project and the spillway will be required to safely pass the PMF to secure regulatory approval from DSOD.
 - End of Chute Design: Hydraulic analysis will include determinations to support an energy dissipation structure at the end of the spillway, which could include a flip bucket and plunge pool, or a stilling basin. The design will follow USBR methods and procedures.
 - Stagnation Pressures: An assessment of the drag force potential will be performed to support the design of the spillway chute anchors and floor joint details.
 - Erodibility Study: AECOM/GEI will conduct an erodibility study of the canyon and creek area downstream of the proposed replacement spillway and the emergency outlet structure using the CFD model results. The area surrounding the pipe bridge downstream of the spillway will be considered as part of the erodibility study.
 - b. Spillway Physical Model: It may be necessary to build a physical model study in conjunction with the CFD numerical model in order to verify the CFD model and account for hydraulic uncertainties associated with a complex spillway configuration. CFD models have several weaknesses which

can be offset through the use of a physical model. Some weaknesses of CFD models are the uncertainty of the CFD solution in resolving location specific hydraulic conditions such as highly turbulent regions, vortices, aeration effects, and separation zones. Physical models are an important tool for understanding these hydraulics conditions that aren't well represented in CFD models and a physical model study is generally performed when these hydraulic conditions are of significant concern. Physical models are particularly useful for representing the superelevation of flow found in curved spillway chutes and the highly turbulent flow conditions found in stilling basins. Given the potential complexity of this spillway design and non-standard stilling basin design, it is anticipated that a physical model will be needed to validate the CFD model and accurately capture hydraulic conditions within the spillway. If a physical model is not constructed, additional CFD simulations will be needed to develop a spillway rating curve and perform additional sensitivity analysis on model parameters and cell size to help validate the CFD model. However, not performing a physical model study would limit our understanding of the spillway hydraulics and increase risk of damage to the spillway.

AECOM/GEI will subcontract with a qualified hydraulic laboratory to construct a scale model replica of the proposed spillway in the hydraulics laboratory to test the performance and refine the design for the spillway. By using both the CFD numerical model and physical modeling, confidence in the results of the analysis are increased and more detail becomes available for making engineering judgements and evaluating refinements.

The physical model will be constructed using a combination of wood, concrete, metal and acrylic. The reservoir will be contained in a wood box and will include the topography using mortar to model the spillway approach. The weir, spillway and energy dissipation basin will be built out of acrylic or some other smooth plastic that can be built with high precision. The downstream channel will also be built with a wood box and concrete being set using plywood templates. Water will be provided using a piped delivery system with calibrated flow meters. It is expected that the scale will be between 1:20 and 1:30 depending on the outcome of the preliminary design and the numerical model study. At a 1:20 scale, the physical model footprint would be 50 feet long by 35 feet wide by 7.5 feet tall.

A GEI hydraulics expert will visit the hydraulics laboratory to witness a portion of the modelling. The simulations are expected to take place over a one-month period. For budgeting purposes, GEI would plan to make up to 3 visits of 2 days each during the physical model construction and simulations and that the AECOM project manager will also attend one of the 2-day visits to the physical model. It is anticipated that IRWD and SWD staff will also accompany GEI on one of the model visits to view the physical model simulations.

A draft report will be prepared documenting the results of the physical model study. One round of review comments by IRWD/SWD and DSOD will be incorporated into the final report. The final report will be incorporated into the hydraulic appendix for the Final Design Report.

Deliverable: Hydraulic analysis appendix for the Preliminary Design Report documenting the CFD model results. Hydraulic analysis appendix for the Final Design Report documenting the both the CFD and physical model results.

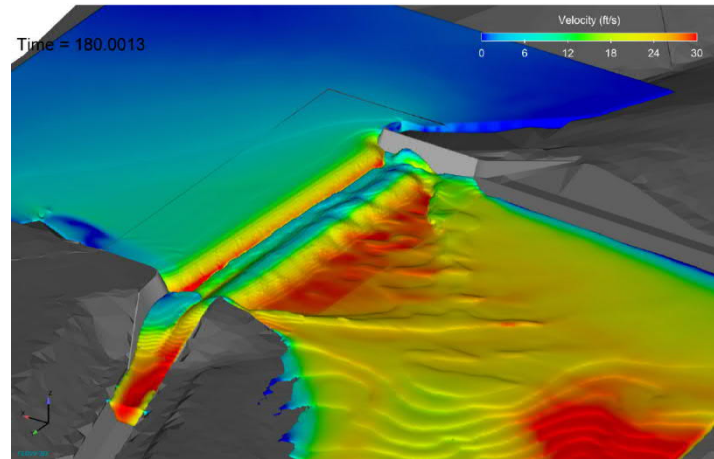


Figure 2 Example of CFD Modeling Results for a Spillway

3. **Topographic Field Survey:** AECOM/GEI will subcontract with PSOMAS to provide additional topographic survey data for the project. A field survey will be conducted to obtain topography of the area downstream of the existing spillway and Santiago Creek, trees/vegetation, utilities, access roads and other ancillary features for preliminary and final design (assume three 8-hour days of surveying). Field surveying will be provided for the locations identified shown on Figure 3 herein. Mapping will be based upon the County of Orange established horizontal and vertical control network and provided in conformance with FGDC Geospatial Positioning Accuracy Standards, Part 4: Architecture, Engineering, Construction, and Facilities Management (FGDC-STD-007.4-2002), nominally with a plotting scale of 1"= 40' and vertical accuracy suitable for 1' interval contours. Psomas provided aerial mapping, a field topographic survey of the dam, and a bathymetry survey of Irvine Lake in 2018 that will be used for the project. We will also use high resolution USGS LiDAR survey data that is available online. We are not performing a study or new survey of the lake perimeter and any project impacts to existing facilities (e.g. boat docks, boat launches).



Figure 3 Limits of Field Survey (blue polygon)

Deliverable: Final deliverables will be a CADD base file with a DTM surface in AutoCAD format.

4. Irvine Lake Shoreline Facility Evaluation: We will perform a field inspection of the perimeter of Irvine Lake to determine impacts to existing shoreline facilities that will occur if the high-water level is raised to elevation 796 feet. We assume that this task will involve a one-day site inspection by foot and/or vehicle of the complete lake perimeter. The inspection team will bring a map of the inundation area for elevation 796 feet and take photos of existing private, commercial, and recreational facilities that could be impacted if the spillway crest is raised. We will prepare a technical memorandum to present our findings and photos from the field inspection. The memorandum will provide recommendations for mitigation measures for the facilities that could be impacted.
5. Seismic Design: We will provide an updated Seismic Hazard Analysis Report following the DSOD requirements. We will utilize the latest Ground Motion Prediction Equations (GMPEs) and the latest information for the source characterization (UCERF3) in our analysis. We will develop horizontal and vertical deterministic spectra (DSHA) for the appropriate ground motion level (84th percentile). We will develop horizontal probabilistic spectra (PSHA), using the OpenSHA software, for the appropriate ground motion level. Finally, we will calculate the Arias Intensity Values for the MCE.
6. Geologic Exploration, Evaluation, and Design Parameters: The purpose of this task will be to establish the foundation conditions anticipated along the inclined outlet structure, valve vault, emergency outlet structure, stilling basin, spillway control section and chute alignment, to determine appropriate lateral wall loads and support drainage designs beneath the slab and adjacent to the walls and for anchor design of the spillway chute slab and terminal structure. The spillway is located on the left abutment ridge, which consists of alternating beds of sandstone and shale. The strike of the sedimentary beds is sub-parallel with the flow path of the spillway (Marliave, 1939). A memorandum dated October 2, 1931 indicates that the left abutment was stripped down approximately 12 to 15 feet before the shale was found to be "firm." This known variability in the engineering properties of the bedrock and the steeply inclined chute present inherent challenges in geologic and geotechnical investigations along the spillway alignment. The following subtasks are proposed to better define the geologic conditions at the Site.
 - a. Geotechnical Exploration Workplan: AECOM/GEI will prepare a Geotechnical Exploration Workplan for DSOD review and approval. The workplan will include figures showing the proposed locations for borings, test pits, and other explorations. We will provide descriptions and details for non-invasive and invasive work along with proposed repair plans for all invasive work (e.g. backfilling of boreholes). A draft and final workplan will be prepared with one round of comments from both IRWD/SWD and DSOD for budgeting purposes.
 - b. Health and Safety Plan: AECOM/GEI will prepare a Health and Safety Plan (HASP) for all field activities, which will include hazard assessment for activities specific to the project Site, protocols for safe work practices, daily tailgate safety briefings, and reporting procedures. A copy of the HASP will be provided to all AECOM/GEI field personnel and subcontractors working in the field.
 - c. Geologic Conditions Evaluation: An evaluation of the geologic conditions in the vicinity of the spillway has already been performed to assess the geomorphic setting of the spillway including the presence of any potential landslides, shear zones, faults, or other features that could impact the design and construction of the replacement chute. The seismicity of Santiago Creek Dam has also been studied in previous investigations of the Site area. These investigations included studies for dam construction, (Marliave, 1939), repair of the spillway (Wahler, 1969), raising of the dam (Boyle, 1971), seismic stability (Woodward-Clyde, 1979), spillway assessment (GEI, 2018) and Phase II Field Investigations (GEI 2019), and Outlet Tower Replacement (AECOM 2019). Observations and findings from these previously completed studies will be relied upon and all available historical photos and records will also be considered and incorporated in the overall evaluation of the foundation conditions.

- d. **Geologic Mapping:** There have been several previous geologic mapping efforts performed at the Site, including in the immediate vicinity of the spillway chute. These efforts have included identifying geologic and geomorphic features that may impact the approach to design. To the degree possible these previous efforts will be incorporated into our interpretation of the geologic conditions. Up to 3 days of additional mapping will be performed in the upstream and downstream areas of the spillway and in the left abutment area of the dam. The project geologic map will be updated to reflect refinements and detail in the area of the spillway chute and “plunge pool” area to inform design.
- e. **Subsurface Geotechnical Investigation:** AECOM/GEI will perform supplementary subsurface geotechnical investigations as required for the final design of the proposed replacement spillway and outlet works. These investigations will provide necessary geotechnical information of the Site subsurface conditions, including depth to and weathering profile of bedrock, bedrock structure (such as bedding and fracture orientation), bedrock lithology, and geotechnical properties of the subsurface materials.

The geotechnical investigations will be carried out in one phase prior to completion of 30% design and it is assumed that the data from the investigations will not initiate significant changes to the design in the 60% design phase. The fee estimate for the driller subcontractor assumes work is completed in 2020, delay or modification of the exploration schedule may result in higher drilling fees. The anticipated activities are described below:

- Seven (7) vertical exploratory borings (S-1 and S-3 through S-6, S-8 and S-9) will be performed in the spillway approach and chute, at the locations shown on Attachment A, to determine geotechnical parameters to support anchor, wall design and slope stability. A lightweight drill rig will be mobilized into the spillway chute via a small crane. At the proposed drilling locations, the spillway slab and approach apron will be cored and exploratory borings advanced using rotary-wash drilling methods in the underlying soil and bedrock. Soils and soft (weathered) bedrock will be sampled with Standard Penetration Test (SPT) and modified-California (modCal) drive samples. Harder bedrock will be continuously sampled with HQ diamond core rotary equipment and recovered with wire-line methods in triple core barrels, in general conformance with ASTM D2113, Standard Practice for Rock Core Drilling and Sampling of Rock for Site Investigation. The HQ bit provides a hole diameter of 3.8 inches and a core diameter of about 2.4 inches. The borings will extend to depths of about 20 feet to 60 feet beneath the existing slab/approach apron elevation. Upon completion of the exploration, the boreholes will be backfilled with grout and the chute slab will be patched with concrete in accordance with DSOD requirements.
- One (1) angled HQ rock core boring (S-7) will be drilled near the spillway entrance at the location shown on Attachment A. This boring will be inclined at -20 degrees from horizontal and oriented to intersect the steeply-dipping geologic units underlying the spillway. Our review of the available existing mapping indicates there is much variability in the lithology of the geologic units underlying the spillway, with near vertical “layers” of sandstone, siltstone, shale, and conglomerate. The angled boring is intended to penetrate the full extent of the geologic units under and adjacent to the spillway in order to capture the full range of expected foundation conditions. Upon completion, the borehole will be backfilled with grout and the chute slab will be patched with concrete in accordance with DSOD requirements.
- One (1) angled HQ rock core boring (S-10) will be drilled within the spillway chute at the location shown on Attachment A. This boring will be inclined at -40 degrees from horizontal and oriented to intersect the steeply-dipping geologic units underlying the spillway. The angled boring is intended to penetrate the full extent of the geologic units under and adjacent to the spillway in order to capture the full range of expected foundation conditions. Upon completion, the borehole will be backfilled with grout.

- One (1) angled HQ rock core boring (S-11) will be drilled opposite the downstream spillway channel at the location shown on Attachment A. This boring will be inclined at -20 degrees from horizontal and oriented to intersect the steeply-dipping geologic units underlying the spillway. Similar to the angled boring in the spillway entrance, this boring is intended to penetrate the full extent of the geologic units in the area where a significant cut slope is proposed. Upon completion, the borehole will be backfilled with grout.
- One (1) rotary wash/core boring (O-3) will be drilled to a depth of 50 feet at the location of the proposed outlet works valve structure downstream of the dam (see Attachment A).
- Three (3) rotary wash/core borings (O-1, O-2, and S-2) will be drilled over water to depths of 50 to 75 feet (below ground surface) to explore the proposed upstream spillway foundation and inclined outlet conduit (sloping intake) alignment (see Attachment A). These borings will be advanced from a barge that will be deployed on the lake. We have observed that the existing boat launch ramp does not extend into the lake at the current water level. We have assumed that a crane will be needed to lift the barge into and out of the lake and have included the crane rental in the fee estimate.
- Four (4) test pits will be excavated at the locations shown on Attachment A, to investigate shallow subsurface conditions adjacent to the existing spillway walls, at the new outlet control building in the left abutment of the dam, and near the new outlet works. These include one hand-dug test pit above the left spillway wall to assess depth of colluvium in the area; all other test pits will be excavated with a small backhoe. Up to 4 days of test pitting will be performed to investigate shallow foundation conditions. Test pit T-4 will likely require environmental permits, and completion of this test pit will likely be postponed until the CEQA process has been completed. It is assumed that the T-4 will be completed in the 90% design phase and that minor modification to the design may occur during 90% design once this data is available.

Drilling explorations will be planned for when access conditions within or adjacent to the chute are safe. The supplemental geologic mapping will be undertaken prior to the test pitting and drilling activities as it will inform both activities and allow for slight adjustments to be made to planned boring and test pit locations as feasible.

Laboratory Testing: Subsequent to the field exploration, geotechnical laboratory tests will be conducted on selected samples obtained from the borings to determine engineering properties of the foundation materials. For cost estimating purposes we anticipate the laboratory testing will include:

- 80 water content tests
 - 80 dry density tests
 - 40 particle-size distribution tests
 - 12 corrosivity suites
 - 32 liquid limit and plastic limit tests
 - 24 direct shear tests
 - 20 triaxial shear tests
 - 54 unconfined compressive strength tests on rock
 - 88 point load strength tests on rock
- f. Develop Geotechnical Parameters: Geotechnical design parameters will be developed using laboratory testing data to support design of the slope stability, foundation, underdrain, and

structural elements of the spillway chute replacement. Soil classification and gradations will be determined for the appropriate material type. Parameters will be documented in the Geotechnical Investigation Report.

- g. **Geotechnical Data Report:** AECOM/GEI will prepare a Geotechnical Data Report (GDR) that will present the geotechnical subsurface investigation data collected at the Site to date. The GDR will include the factual data obtained from the investigations, including geologic mapping, boring and test pit logs, core photos, laboratory test data, and field-testing data. Data will be presented in tabular and graphical format. The intent of the GDR will be to include only the factual data without interpretation, so that it can be incorporated as a stand-alone document into the construction bidding documents and used by bidders without interpretation bias. AECOM/GEI will submit six (6) copies of a draft report to IRWD/SWD. For budgeting purposes, we have assumed one round of review and comment by IRWD/SWD and one round of review by DSOD. Six (6) copies of a final report will be provided.
 - h. **Geotechnical Investigation Report:** AECOM/GEI will prepare a Geotechnical Investigation Report (GIR) to support the final design of the proposed project facilities. The report will rely on the data presented in the GDR to provide interpretation of subsurface conditions at the spillway, including bearing and other properties required for construction and structural design. Geologic and geotechnical sections will be presented. Conclusions and geotechnical recommendations and design parameters will be presented for each structure. AECOM/GEI will submit six (6) copies of a draft report to IRWD/SWD. For budgeting purposes, we have assumed one round of review and comment by IRWD/SWD and one round of review by DSOD. Six (6) copies of a final report will be provided. This will include:

 - Geotechnical recommendations and design parameters for the spillway.
 - Foundation design for appurtenant structures, including the Control Building and Outlet Works Structures.
7. **Outlet Works and Spillway Demolition:** AECOM/GEI will evaluate the extent of the existing facilities that will need to be demolished in order to build the replacement facilities. We will also determine the existing facilities and utilities that will need to be protected-in-place for the project. Exhibits will be prepared to show the limits of infrastructure demolition and the underground and surficial items that will be protected during construction.
 8. **Outlet Tower Abandonment:** This task will include abandonment design for the tower and a portion of the existing outlet conduit. One concept that we will evaluate for final design is removing the top of the existing tower down to the silt line area. AECOM ran a SAP model on the shortened outlet tower and determined that this tower should withstand the MCE event if it is cut and the upper portion removed to below elevation 740 feet. This will likely be a very economical solution for abandoning the existing outlet tower. We will also evaluate a second option to fully remove the tower and the tower foundation.
 9. **Downstream Outlet Works Improvements:** AECOM/GEI will provide a technical memorandum that will include descriptions and figures for proposed improvements, an alternatives analysis, an assessment of the existing equipment and power supply, and a preliminary estimate of probable construction costs for outlet works improvements. We have determined that the valve vault with above-grade enclosure, the emergency outlet structure with fixed cone valve, and the discharge channel to the creek all need to be upsized to meet current DSOD reservoir dewatering requirements. The alternatives analysis will evaluate replacing the valve vault and emergency outlet structure in their current location or in a new location, including how to phase the demolition and construction. We will also evaluate where to house the existing mechanical equipment that resides inside the valve enclosure (e.g. air compressors, water supply pump for dam keeper). AECOM/GEI will submit six (6)

copies of a draft memorandum to IRWD/SWD. For budgeting purposes, we have assumed one round of review and comment by IRWD/SWD. Six (6) copies of a final memorandum will be provided.

10. Emergency Access and Power Supply Plan: AECOM/GEI will conduct a study to determine how the Districts will access the dam, outlet works, and spillway during a major flood or emergency. A technical memorandum will be prepared with exhibits that will provide recommendations for emergency access for vehicles, personnel, and construction equipment. The memorandum will include recommendations and conceptual-level construction costs for improvements such as new access roads or stairways that are identified during the study. AECOM/GEI will submit six (6) copies of a draft memorandum to IRWD/SWD. For budgeting purposes, we have assumed one round of review and comment by IRWD/SWD. Six (6) copies of a final memorandum will be provided.
11. Foundation and Underdrain Design: The purpose of this task is to prepare designs for the spillway chute foundation and the associated foundation treatments, anchoring, and foundation inspection and acceptance procedures. The scope of this task includes:
 - a. Foundation Treatment: The spillway chute foundation is known to be founded on erodible shales and sandstone. Foundation treatment evaluations will be developed based on known conditions and further geotechnical investigations. Treatment options may include recommendations and requirements for dental, leveling, shaping or backfill concrete. The end of the chute will be evaluated for erosion and the potential for undercutting. An appropriate design will be completed to mitigate the potential erosion.
 - b. Anchor Design: The spillway chute design will include anchors beneath the slab and sloped walls. Anchor design will include evaluations and recommendations for the anchor type, size, length, spacing, embedment depths and loading conditions.
 - c. Foundation Acceptance Procedures: Foundation inspection and acceptance procedures will be developed to support the design and construction of the spillway chute foundation. This task will define what is an acceptable foundation condition, treatment measures where inadequate foundation material is identified, and establishing necessary documentation requirements during inspection and construction.
 - d. Underdrain System Design: The spillway chute foundation will include drainage features to control excessive water pressures beneath the spillway chute slab and adjacent to walls. The drain system design will include drain pipe size and locations, minimum slot widths, discharge capacity, access and cleanout details, filter material requirements, and cut-offs.
 - e. Energy Dissipation Structure: An energy dissipation structure will be needed to reduce the velocity of water at the end of the spillway chute to prevent excessive erosion in the channel downstream. An energy dissipation structure will be incorporated into the design and could include a flip bucket and plunge pool or a stilling basin.
 - f. Slope Stability / Erosion Mitigation Design: Slope stability of the steep slopes adjacent to the spillway will be assessed based on the strength of materials assessed under the geotechnical investigation. Slope stabilization mitigation measures (e.g., reinforced shotcrete, rockbolts, slope netting) and/or other stabilization measures will be considered and incorporated into the design documents, as appropriate, to protect the spillway and personnel who may need to enter the spillway periodically for maintenance.
 - g. Foundation Design / Stability Analysis for EI 796 Weir Structure: The preliminary feasibility-level design for the weir structure at EI 796 consists of a mass concrete structure approximately 250 feet long by 100 feet wide and up to 50 feet thick founded on bedrock within the reservoir upstream of the existing spillway. The foundation for this structure will be analyzed for static and

seismic slope stability using limit-equilibrium methods. Cases will be analyzed for stability for both construction and post-construction configurations. The analysis will consider appropriate rock strength parameters obtained during the geotechnical investigation, including parameters for interface strength in rock discontinuities, as appropriate. Foundation design considerations will include rock excavation / benching requirements for placement of mass concrete to ensure long-term stability.

12. **Structural Design:** The purpose of this task is to perform structural analyses to support the designs for the spillway chute slab and walls. The scope of this task includes:

- a. **Stability Analyses:** Develop structural loading conditions including live and dead loads, uplift loads, construction loads, and earthquake loads. Perform structural stability analyses of the new spillway control section, chute and wall structures to evaluate overturning and sliding forces, bearing capacity/settlement analysis and evaluations of the reinforced concrete structures.
- b. **Reinforced Concrete Design:** Develop structural concrete and reinforcing steel design criteria for the new structures. Develop structural details for slabs, walls, foundation keys and miscellaneous connection and metal details.
- c. **Joints, Waterstops, and Tolerances:** Develop structural details for construction joints, contraction joints, and control joints. Develop structural details for location and size of waterstops and specifications for the types of waterstops to use. Establish surface tolerances and flow surface roughness requirements based on evaluated cavitation indices.
- d. **Structural Design & Stability Analysis for El 796 Weir Structure:** The preliminary feasibility-level design for the weir structure at El 796 consists of a mass concrete structure approximately 250 feet long by 100 feet wide and up to 50 feet thick founded on bedrock within the reservoir upstream of the existing spillway. Static and seismic structural stability analysis will be performed for both construction and post-construction configurations. Design of the mass concrete weir structure will include consideration for rock anchors with appropriate factors of safety to secure the mass concrete structure in place under both static and seismic considerations.

13. **Dam Embankment Stability Analysis with Reservoir at El 796:** In order to accommodate raising the reservoir from the current permanent reservoir pool at El 790 to a new El 796, it is anticipated that DSOD will require an updated stability analysis for the dam embankment. Two-dimensional (2D) analysis cross section representative of the section of the dam will be developed and analyzed. 2D steady-state seepage analyses will be performed with the reservoir at full pool using program SEEP/W. 2D limit-equilibrium slope stability analyses will be performed to evaluate steady-state stability, rapid drawdown stability, and to estimate the seismic yield coefficient for a simplified seismic slope displacement analysis using program SLOPE/W. A simplified seismic slope displacement analysis will be performed in accordance with methodology by Bray and Travasarou (2007).

Deliverable: A technical memorandum (draft and final) will be prepared and submitted to the Districts and DSOD in PDF format.

Assumptions:

- Existing data will be reviewed to estimate material properties for engineering analyses.
- A site-specific acceleration response spectrum representative of a design-level seismic event is available for use as part of the simplified seismic slope displacement analysis.
- Liquefaction triggering analyses are not included. If found to be required, additional budget would be required to perform liquefaction triggering analyses.
- If it is found that there is potential for significant strength loss of embankment and/or foundation materials, a more advanced seismic deformation analysis would be required and is outside the scope of this task.

14. Construction Duration, Constructability, and Access: AECOM/GEI will prepare a technical memorandum for this task. The memorandum will include considerations for phasing the demolition and construction of the new sloped intake structure, dam crest widening, downstream outlet works facilities, and spillway. We will evaluate how to handle storm flows into Irvine Lake and work areas during the wet season (e.g. temporary pump station, diversion, cofferdam). Constructability and construction access to the work site is of primary importance for this project. The dam crest access road allows for limited access to the outlet tower area and narrows to around eight feet in one section. Due to this limited access, most of the large construction equipment will need to access the construction site from the reservoir and/or from the downstream end of the spillway. AECOM/GEI will develop a preliminary construction schedule and conduct an evaluation of the constructability and construction access for the outlet tower and spillway replacement project. We will perform an evaluation of the cost difference (e.g. cost/benefit analysis) between performing the construction work in a single dry season versus multiple dry seasons. The findings from this memorandum will be incorporated into the construction drawings and specifications during the Final Design phase. AECOM/GEI will submit six (6) copies of a draft memorandum to IRWD/SWD. For budgeting purposes, we have assumed one round of review and comment by IRWD/SWD. Six (6) copies of a final memorandum will be provided.
15. Permitting Support: AECOM/GEI will support the permit application process during the preliminary design phase. We understand that IRWD/SWD's environmental consultant will manage the permitting effort and will apply for the permits. This task will include preparation of written descriptions, figures, estimates, and other documentation that is required for the permit applications. AECOM/GEI will solely handle the DSOD dam alteration application. The expected permits and licenses will include but may not be limited to: a California Department of Fish and Wildlife Lake or Streambed Alteration Agreement, a U.S. Army Corps of Engineers Section 401 Water Quality Certification, and a County of Orange encroachment permit.
16. CEQA Documentation: AECOM/GEI understands that IRWD/SWD's environmental consultant will prepare and file the CEQA documentation for the project. AECOM/GEI has included an allowance budget for providing IRWD/SWD with data regarding construction activities that will impact the environment. AECOM/GEI's CEQA support may include review of the project description in the environmental document, preparation of exhibits, attendance at up to two meetings, and sharing of project-related information through data requests. Our effort will also include the development of a corridor for relocation of overhead power lines and poles, which will be accounted for in the CEQA document.
17. Preliminary Opinion of Probable Construction Cost: AECOM/GEI will prepare a preliminary Opinion of Probable Construction Costs for all elements of the project. Our professional cost estimator will use recent IRWD construction bids, Caltrans Cost Data Books, bid results from other dam projects we are involved with in California, and other resources to develop the cost estimate.
18. Project Schedule: AECOM/GEI will prepare a project schedule during the preliminary design phase for the design, advertisement, bidding, and construction phases. The schedule will be prepared in Gantt chart format using Microsoft Project. The schedule will identify major design activities, permits, coordination activities, review periods, DSOD coordination, and bid and construction phase activities such as shop drawing review/approval and manufacturing and delivery for long lead time items.
19. Project Meetings: AECOM/GEI will schedule and lead meetings with IRWD and SWD's team to incorporate input for design, operational and maintenance issues. AECOM/GEI will provide agendas of upcoming project coordination meetings five working days in advance of the meeting and prepare meeting minutes and action items within five working days subsequent to the meetings. These efforts are intended to ensure that all technical issues are being addressed and that the project remains on schedule. The meetings will include a two-day design workshop with a panel of technical experts from

AECOM/GEI. The purpose of this workshop is to bring in experts that are not part of the design team to evaluate the overall preliminary design effort and suggest improvements. The workshop will include an in-brief and out-brief attended by IRWD/SWD and the design team. We propose the following meetings during the preliminary design phase.

Meeting/Workshops Task 1 - Preliminary Design	Description
Project Kick-off Meeting	One (1) two-hour meeting
IRWD/SWD Joint Committee Meetings	Two (2) two-hour meetings
Project Kick-off Meeting with DSOD in Sacramento	One (1) two-hour meeting
Progress Meetings with IRWD/SWD	Two (2) two-hour meetings
Design Workshop with Panel of AECOM/GEI Technical Experts	Two (2) eight-hour meetings
IRWD/SWD Meeting to Discuss/Present Preliminary Design	One (1) two-hour meeting
Meeting at DSOD Offices to Present Preliminary Design	One (1) two-hour meeting
Site Visit Meetings	Three (3) two-hour field meetings

20. Task Deliverables:

- a. **Preliminary Design Report:** AECOM/GEI will summarize and compile each of the subtask items listed above into a PDR. The PDR will include design criteria for all elements of the project. AECOM/GEI will provide ten (10) copies of the Draft PDR and Final PDR and electronic files of all documents in MS Word and PDF format. Five (5) copies of the Final PDR will be wet stamped/signed by our California-licensed civil, geotechnical, and structural engineers. We propose the following Table of Contents for the PDR:

Santiago Creek Dam Spillway Replacement Project
 Preliminary Design Report
(Proposed Table of Contents)

Section	
0.0	EXECUTIVE SUMMARY
1.0	INTRODUCTION
1.1	Project Background
1.2	Project Purpose
1.3	Evaluation of Background Information
2.0	SPILLWAY INVESTIGATION
2.1	Existing Spillway As-Builts
2.2	Spillway Geological Mapping
2.3	Spillway Inspection and Condition Assessment
2.4	Recommended Spillway Improvements
3.0	HYDROLOGY, HYDRAULICS, AND EROSION CONTROL
3.1	Hydrologic Analysis for Spillway
3.2	Hydraulics Analysis for Outlet Works and Spillway
3.3	Erodibility of Spillway and Outlet Works Areas
3.4	Erosion Control Measures

- 4.0 SEISMIC DESIGN
 - 4.1 Seismic Hazard Analyses
 - 4.2 Seismic Design Parameters
- 5.0 GEOTECHNICAL CONSIDERATIONS
 - 5.1 Introduction
 - 5.2 Review of Existing Geotechnical Information
- 6.0 PERMITTING, LICENSES, AND ENVIRONMENTAL CONCERNS
 - 6.1 Permits and Licenses
 - 6.2 Environmental Concerns
- 7.0 SPILLWAY DESIGN
 - 7.1 Design Criteria
 - 7.2 Demolition of Existing Spillway
 - 7.3 Temporary Shoring and Easement Measures
 - 7.4 Slab and Chute Wall Design
 - 7.5 Underdrain System
 - 7.6 Drainage Systems
 - 7.7 Energy Dissipator
 - 7.8 Rock Slope Mitigation
- 8.0 OUTLET WORKS IMPROVEMENTS
 - 8.1 Design Criteria
 - 8.2 Demolition of Existing Outlet Works
 - 8.3 Replacement Valve Vault Design
 - 8.4 Replacement Emergency Outlet Structure Design
 - 8.5 Drawdown Analysis for Proposed Outlet Works Improvements
- 9.0 CONSTRUCTION CONSIDERATIONS
 - 9.1 Construction Duration and Phasing
 - 9.2 Constructability Review
 - 9.3 Access to Construction Site & Safety Considerations
 - 9.4 Material Deliveries and Associated Lead Times
 - 9.5 Project Schedule
 - 9.6 Drawing List
 - 9.7 Specifications List and Project Manual Outline
 - 9.8 Opinion of Probable Construction Costs

- b. Preliminary Plans: AECOM/GEI will provide half-size 30% level plans for the spillway control structure, chute, terminal structure, inclined outlet structure, control building, and outlet works. The plans will be placed within an appendix of the PDR or provided separately, if requested.

21. Miscellaneous Preliminary Design Phase Services: This task provides a budget allowance for unforeseen services that may come up in the preliminary design phase. Any expenditures for this task will need to be pre-approved by IRWD/SWD.

Phase 2 Final Design

1. Project Management and Client Interaction: AECOM/GEI will provide project management services for the final design phase of the project. These services will include client and subconsultant coordination, weekly project status emails, monthly invoicing with progress reports. The AECOM/GEI team will also provide updates to the project Risk Register for each deliverable.
2. Outlet Pipe, Outlet Valves, Valve House, and Emergency Outlet Structure: AECOM will provide final design for the inclined outlet pipe, foundation, isolation valves, actuators, screens, ancillary equipment, power supply, valve house, and emergency outlet valve structure for the new outlet works system. The design will include routing electrical, controls, and valve actuation lines from the

proposed Control Building across the proposed pedestrian bridge to the sloped outlet structure. The new valve house downstream of the dam will include a subterranean valve vault below a fire-hardened CMU block building with metal roof. The new emergency outlet structure will include a fixed cone valve, cast-in-place vault, and a downstream stilling basin with riprap revetment.

3. Point of Connection: AECOM/GEI will complete the point of connection notes and details for connection of the new inclined outlet to the existing outlet conduit and for connection of the new downstream outlet works valve structure and emergency outlet structure to the existing outlet conduit.
4. Pedestrian Bridge Across Spillway and Stairway up to Landfill: AECOM/GEI will design a pedestrian bridge over the replacement spillway and stairway up to the landfill that will allow District personnel to access the proposed inclined outlet structure and the west side of the spillway.
 - a. Pedestrian Bridge: The bridge will be a prefabricated steel truss structure, which can also be used to carry electrical, control, and valve actuation conduits over the spillway. We estimate that approximately eleven (11) sheets, technical specifications, and structural calculations will be required for the bridge and abutment structures.
 - b. Stairway to Landfill: Three conceptual stairway alignments will be developed and a final stairway alignment will be selected with coordination and input from Orange County Waste and Recycling (OCWR). We estimate that approximately four (4) sheets, technical specifications, and structural calculations will be required for the stairway up to the landfill. We assume that IRWD/SWD will perform all activities related to obtaining an easement on OCWR land.
5. Constructability and Access: AECOM/GEI will layout appropriate construction access and staging areas for the project. We will use the findings in Phase 1 to determine if our solutions are constructible and safe for the contractors. Traffic flow/routing, property limits, and environmentally sensitive areas will be considered with laying out the construction access and laydown areas. We will also complete a constructability study during the final design phase using a team of construction experts within AECOM and GEI. Findings and constraints from this task will be incorporated into the construction plans and technical specifications.
6. Stormwater Pollution Prevention Plan (SWPPP): AECOM/GEI's certified Qualified SWPPP Developer (QSD) will prepare a SWPPP document and drawings for the project. The Construction General Permit requires the development of a SWPPP based on the amount of proposed land disturbance that is expected. AECOM will deliver five (5) copies of the draft SWPPP and five (5) copies of the final, signed SWPPP and a CD containing the electronic files.
7. Groundwater Dewatering and Land Disposal Permitting: AECOM/GEI will apply for and obtain an NPDES groundwater and land disposal discharge permit from the Santa Ana Regional Water Quality Control Board (Regional Board) prior to the construction phase of the project. Our services include the Notice of Intent (NOI) and Notice of Termination (NOT) packages and sampling and analytical services required by the Regional Board. We assume that the NOI/NOT fees will be paid by the Districts and that the Districts will submit the monthly dewatering discharge letter to the Regional Board during the construction phase.
8. Permitting Support: AECOM/GEI will support the environmental permit application process during the final design phase, which will be managed by IRWD/SWD's environmental consultant. This task will include preparation of written descriptions, figures, estimates, and other documentation that is required for the permit applications.
9. Final Opinion of Probable Construction Cost: AECOM/GEI will provide IRWD/SWD with an engineer's estimate of probable construction costs for the 60%, 90% 100% and final submittals. AECOM/GEI will incorporate and address comments from IRWD/SWD related to the cost estimate. Construction costs

will be developed by AECOM/GEI's professional cost estimator certified by the Association for the Advancement of Cost Engineering International (AACE). The estimator will use a variety of resources, including: vendor quotes, Caltrans Cost Data Books, recent IRWD/SWD construction bids, and bids from other local dam projects that AECOM/GEI has recently designed.

10. **Project Schedule:** AECOM/GEI will submit monthly project schedule updates and with each stage of final design submittal, include a construction schedule. The project schedule will reflect coordination items, submittal milestones, critical path items, IRWD/SWD review times, shop drawing approvals, manufacturing, delivery, seasonal weather impacts, and affected construction projects. AECOM/GEI will prepare the schedule in Microsoft Project format.
11. **Project Meetings:** AECOM/GEI will schedule and lead meetings with IRWD and SWD's team to confirm that all design, operational and maintenance issues are being addressed. AECOM/GEI will provide agendas of upcoming project coordination meetings five working days in advance of the meeting and prepare meeting minutes and action items within five working days subsequent to the meetings. We propose the following meetings, it's assumed that quarterly progress meetings, coordination meetings with OCWR, and miscellaneous meetings will be held via conference call or web meeting.

Meeting/Workshops Task 2 - Final Design	Description
Quarterly Progress Meetings with IRWD/SWD	Six (6) two-hour meetings
60% Design Review Meeting with IRWD/SWD	One (1) two-hour workshop
60% Project Briefing to DSOD in Sacramento	One (1) two-hour workshop
90% Design Review Meeting with IRWD/SWD	One (1) two-hour workshop
90% Project Briefing to DSOD in Sacramento	One (1) two-hour workshop
100% Design Review Meeting with IRWD/SWD	One (1) two-hour workshop
Site Visit Meetings	Six (6) two-hour field meetings
Coordination Meetings with OCWR	Three (3) two-hour meetings
Miscellaneous Meetings	Ten (10) two-hour meetings

12. **Bid Period Assistance:** During the bidding period, AECOM/GEI will provide bidding support and assistance as it pertains to the contract documents and construction drawings. For budgetary purposes, we have assumed several hours in our fee estimate to answer questions from prospective bidding contractors and assist IRWD and SWD in providing information and clarification of the bid documents. AECOM/GEI will consult with IRWD and SWD to address concerns or answer their questions in support of administering the bid process. AECOM/GEI has budgeted for two (2) addendum to the construction plans and/or Project Manual for prospective bidders, if requested by IRWD/SWD. Bid phase services will include:

- Plan Revisions: AECOM/GEI has budgeted eighty (80) hours of staff time for plans revisions.
- Specification Revisions: AECOM/GEI has budgeted forty (40) hours of staff time for revisions to the Project Manual.
- Bidder Questions: AECOM/GEI has budgeted eighty (80) hours of staff time to address and respond to bidder questions.

- Pre-Bid Meeting: Two senior AECOM/GEI staff will attend one (1) two-hour pre-bid meeting, conducted by IRWD, along with a site visit with potential bidders, if required.

13. Task Deliverables:

- Improvement Plans: AECOM/GEI will prepare detailed construction drawings in AutoCAD 2020 using NCS V4.0 layering standards. Construction plans will be prepared on IRWD standard 22-inch x 34-inch sheet with IRWD title block. Pipeline plan and profile sheets will be prepared of two-strip (e.g. profile over plan view) at a scale of 1"=40' horizontal and 1"=4' vertical. The horizontal and vertical control will be established with NAD83 and NAVD88 survey standards, respectively. We assume that the construction plans will consist of one hundred and forty-nine (149) sheets.

Construction Drawing List

Sheet No.	Drawing No.	Sheet Title
1	G-1	Title Sheet
2	G-2	Location Map, Vicinity Map, and Sheet Index
3	G-3	Construction Notes, Symbols, Agency Index & Abbreviations
4	G-4	General Notes and Hydrologic Information
5	G-5	Site Access Plan
6	G-6	Construction Storage and Laydown Plan
7	G-7	Overall Site Plan
8	C-1	Site Demolition and Salvage Plan
9	C-2	Site Demolition and Salvage Plan
10	C-3	Site Demolition and Salvage Details
11	C-4	Tower Abandonment Plan, Section, and Details
12	C-5	Spillway Demolition Plan
13	C-6	Temporary Spillway Slope Shoring Plan
14	C-7	Horizontal Control Plan
15	C-8	Inclined Outlet Access Road and Retaining Wall Plan
16	C-9	Dam Access Safety Improvement Plan, Sections, and Details
17	C-10	Temporary Pump Station Plan
18	C-11	Temporary Stormwater/Creek Diversion Plan
19	OW-1	Outlet Works General Plan
20	OW-2	Inclined Outlet Structure Cofferdam Notes and Arrangement
21	OW-3	Inclined Outlet Structure Cofferdam Sections and Details
22	OW-4	Inclined Outlet Structure Cofferdam Details
23	OW-5	Inclined Outlet Structure Excavation Plan and Profile
24	OW-6	Inclined Outlet Structure Plan and Profile
25	OW-7	Inclined Outlet Structure Point of Connection Details
26	OW-8	Inclined Outlet Structure Mechanical Details - 1
27	OW-9	Inclined Outlet Structure Mechanical Details - 2
28	OW-10	Inclined Outlet Structure Platform and Stairway Plan, Profile, and
29	OW-11	Inclined Outlet Structure Structural Notes, Legend, Abbreviations
30	OW-12	Inclined Outlet Structure Structural Plan, Sections, and Details
31	OW-13	Inclined Outlet Structure Structural Details - 1
32	OW-14	Inclined Outlet Structure Structural Details - 2
33	OW-15	Inclined Outlet Structure Structural Details - 3
34	OW-16	Inclined Outlet Structure Structural Details - 4
35	OW-17	Outlet Works Control Building Site Plan

Sheet No.	Drawing No.	Sheet Title
36	OW-18	Outlet Works Control Building Sections
37	OW-19	Outlet Works Control Building Mechanical Plan
38	OW-20	Outlet Works Control Building Structural Notes
39	OW-21	Outlet Works Control Building Foundation Plan
40	OW-22	Outlet Works Control Building Roof Framing Plan
41	OW-23	Outlet Works Control Building Roof Framing Details
42	OW-24	Outlet Works Control Building Sections and Elevations
43	OW-25	Outlet Works Control Building Structural Details - 1
44	OW-26	Outlet Works Control Building Structural Details - 2
45	OW-27	Valve House Plan
46	OW-28	Valve House Sections
47	OW-29	Valve House Mechanical Plan
48	OW-30	Valve House Excavation Plan
49	OW-31	Valve House Structural Notes
50	OW-32	Valve House Foundation Plan
51	OW-33	Valve House Roof Framing Plan
52	OW-34	Valve House Roof Framing Details
53	OW-35	Valve House Sections and Elevations
54	OW-36	Valve House Structural Details - 1
55	OW-37	Valve House Structural Details - 2
56	OW-38	Emergency Outlet Structure Plan
57	OW-39	Emergency Outlet Structure Excavation Plan
58	OW-40	Emergency Outlet Structure Section
59	OW-41	Emergency Outlet Structure Details
60	OW-42	Stilling Basin Plan and Profile
61	OW-43	Stilling Basin Sections and Details
62	SP-1	Spillway General Arrangement
63	SP-2	Spillway Plan
64	SP-3	Spillway Profile
65	SP-4	Spillway Excavation Plan
66	SP-5	Spillway Final Grading Plan
67	SP-6	Spillway Sections – 1
68	SP-7	Spillway Sections – 2
69	SP-8	Spillway Sections – 3
70	SP-9	Spillway Sections – 4
71	SP-10	Spillway Sections – 5
72	SP-11	Spillway Sections - 6
73	SP-12	Spillway Structural Plan Detail – 1
74	SP-13	Spillway Structural Plan Detail – 2
75	SP-14	Spillway Structural Plan Detail – 3
76	SP-15	Spillway Structural Plan Detail – 4
77	SP-16	Spillway Structural Plan Detail – 5
78	SP-17	Spillway Structural Plan Detail - 6
79	SP-18	Spillway Foundation and Drainage Plan – 1
80	SP-19	Spillway Foundation and Drainage Plan – 2
81	SP-20	Spillway Right Training Wall Plan and Elevation
82	SP-21	Spillway Left Training Wall Plan and Elevation
83	SP-22	Spillway Training Wall Sections

Sheet No.	Drawing No.	Sheet Title
84	SP-23	Spillway Stilling Basin Plan
85	SP-24	Spillway Stilling Basin Profile
86	SP-25	Spillway Stilling Basin Sections – 1
87	SP-26	Spillway Stilling Basin Sections – 2
88	SP-27	Spillway Details – 1
89	SP-28	Spillway Details – 2
90	SP-29	Spillway Details – 3
91	SP-30	Spillway Details – 4
92	SP-31	Spillway Details – 5
93	SP-32	Spillway Details – 6
94	SP-33	Spillway Details – 7
95	SP-34	Spillway Details - 8
96	SP-35	Slope Mitigation Plan
97	SP-36	Slope Mitigation Details
98	BR-1	Pedestrian Bridge Structural Notes and Abbreviations
99	BR-2	Pedestrian Bridge General Arrangement Plan
100	BR-3	Pedestrian Bridge Structural Observations and Special Inspections
101	BR-4	Pedestrian Bridge Foundation Plan
102	BR-5	Pedestrian Bridge Elevations
103	BR-6	Pedestrian Bridge Abutment Sections
104	BR-7	Pedestrian Bridge Sections
105	BR-8	Pedestrian Bridge Abutment Details
106	BR-9	Pedestrian Bridge Details - 1
107	BR-10	Pedestrian Bridge Details - 2
108	BR-11	Pedestrian Bridge Miscellaneous Details - 3
109	SW-1	Stairway Plan
110	SW-2	Stairway Profile
111	SW-3	Stairway Sections and Details
112	SW-4	Stairway Details
113	E-1	Overall Electrical Site Plan, Legend & Abbreviations
114	E-2	Single Line Diagram
115	E-3	Control Building Electrical Plan
116	E-4	Valve Vault & EOS Electrical Plan
117	E-5	Control Building Conduit Plan
118	E-6	Outlet Works Valve Vault & EOS Conduit Plan
119	E-7	Control Building Lighting Security, and Grounding Plan
120	E-8	Valve Vault & EOS Lighting Security, and Grounding Plan
121	E-9	Control Building Panel Elevations
122	E-10	Electrical Conduit – Sections and Details
123	E-11	Electrical Service Plan and Details
124	E-12	PLC and Telemetry Schematic
125	E-13	Security Camera and Telemetry Details
126	E-14	Air Schematic Control Diagram
127	E-15	Emergency Outlet Valve Schematic Control Diagram
128	E-16	Electrical Details - 1
129	E-17	Electrical Details - 2
130	E-18	Cable and Conduit Schedule
131	I-1	Instrumentation Legend and Symbols

Sheet No.	Drawing No.	Sheet Title
132	I-2	Outlet Works P&ID
133	I-3	Instrumentation Details
134	I-4	SCADA System Architecture
135	I-5	Telemetry System Details - 1
136	I-6	Telemetry System Details - 2
137	EC-1	SWPPP Index Map and Notes
138	EC-2	SWPPP Notes
139	EC-3	SWPPP Excavation Area 1
140	EC-4	SWPPP Excavation Area 2
141	EC-5	SWPPP Excavation Area 3
142	EC-6	SWPPP Outlet Works Improvements Area 1
143	EC-7	SWPPP Outlet Works Improvements Area 2
144	EC-8	SWPPP Spillway Improvements Area 1
145	EC-9	SWPPP Spillway Improvements Area 2
146	EC-10	SWPPP Details - 1
147	EC-11	SWPPP Details - 2
148	EC-12	SWPPP Details - 3
149	EC-13	SWPPP Details - 4

- b. Project Manual: AECOM/GEI will prepare the Project Manual for the project in standard IRWD format and complete IRWD templates for the bidding and contract requirements section of the manual. AECOM/GEI will use the latest version of IRWD's Project Manual for the front-end documents related to bidding, agreements, general provisions, and special provisions. The special provisions will be tailored for the project. The Project Manual will reference the applicable sections of IRWD's General Technical Specifications, modify these sections as needed, and provide new technical sections as needed for the project. The Project Manual will also include an Appendix with District holidays, District Alternating Friday Closure Schedule, standard construction forms, permit documents, NPDES documents, Project Sign figure, and various other forms for construction.

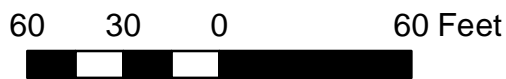
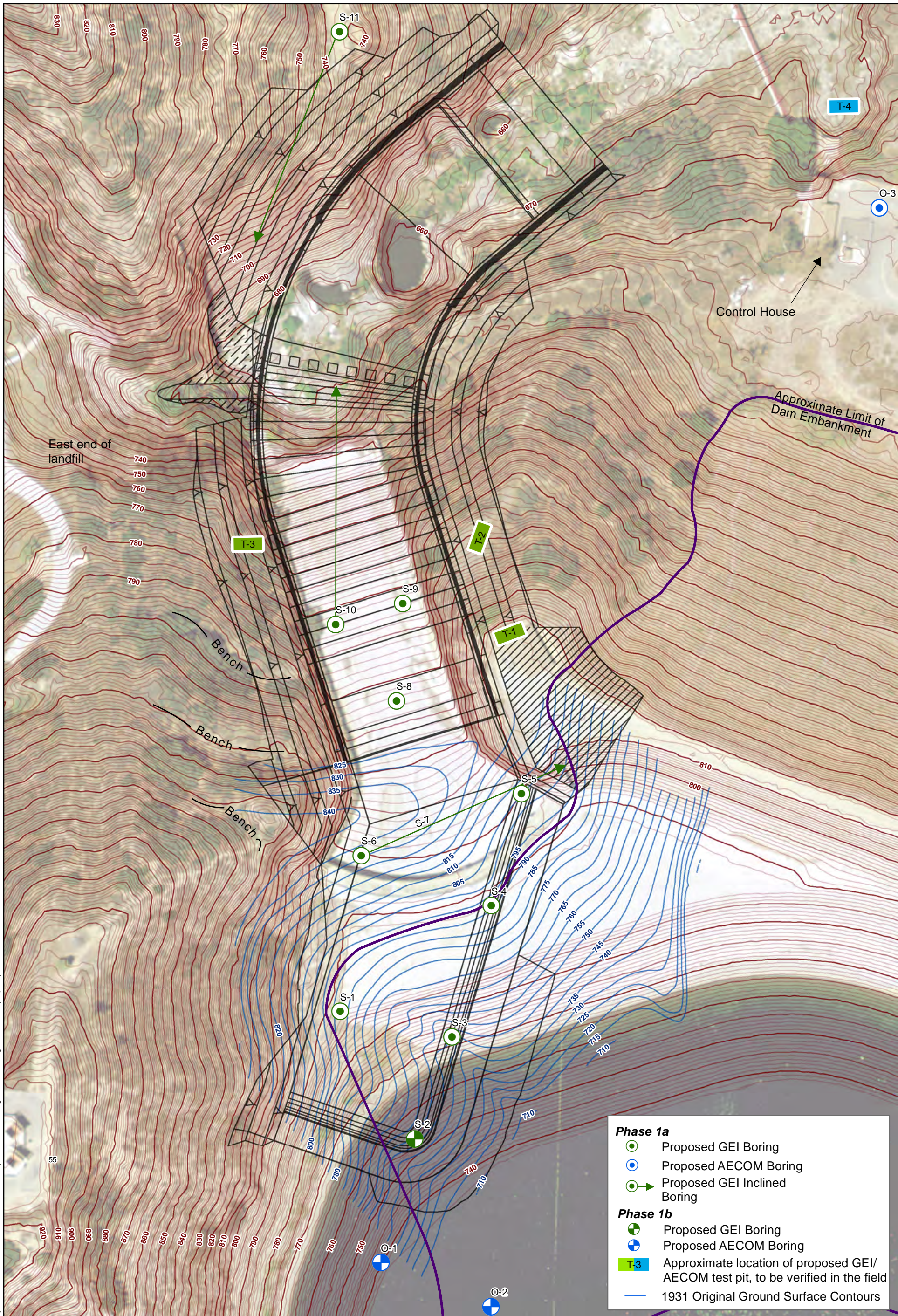
Final Design Deliverable: AECOM/GEI will provide final design deliverables pursuant to IRWD's Design Process Manual. Hard copies of construction plans will be reproduced in half-size tabloid (11"x17") bond format. The Project Manual will be reproduced in double-sided letter-size format per IRWD standards. The submittals will be provided as described below.

- i. AECOM/GEI will submit eight (8) half-size bond copies of the first (60%) submittal. Plans for the first submittal will include a draft set of drawings for the entire project. The first submittal will include eight (8) copies of the Project Manual with technical specifications and an engineer's estimate of probable construction cost.
- ii. AECOM/GEI will submit eight (8) half-size bond copies of the entire plan set for the second (90%) submittal. Plans for the second submittal will show all the design elements of the 60% Submittal, but in much greater detail. AECOM/GEI will incorporate IRWD/SWD staff comments on the 60% submittal. AECOM/GEI will provide eight (8) copies of the complete Project Manual and engineer's estimate of probable construction cost for this submittal. All sections of the Project Manual will be provided for this submittal, including contract requirements, general provisions, special provisions, general requirements, technical specifications, and appendix.
- iii. AECOM/GEI will submit eight (8) half-size bond copies of the entire plan set and eight (8) copies of the Project Manual. This submittal will include the complete plan set and specifications and a notebook with the design calculations (including hydrologic, hydraulic, civil, structural, and geotechnical). AECOM/GEI will incorporate IRWD/SWD staff and DSOD comments on the 90% submittal, as well as comments

received at the 90% plan review meeting. AECOM/GEI will update the Project Manual and engineer's estimate of probable construction cost for this submittal.

- iv. AECOM/GEI will submit stamped and signed reproducible plans (with mylar cover) of the final construction plans and original signed Project Manual for IRWD/SWD signatures after incorporating any final District and DSOD comments to the 100% design documents. A CD with electronic files (PDF, AutoCAD, MS Word) will be provided for the entire construction drawing set and Project Manual. AECOM/GEI will attend IRWD/SWD's meeting for signatures to explain the project and answer questions. A final engineer's estimate of probable construction cost will be submitted with the final plans and Project Manual.

14. Miscellaneous Final Design Phase Services: This task provides a budget allowance for unforeseen services that may come up in the final design phase. Any expenditures for this task will need to be pre-approved by IRWD/SWD.



Santiago Dam Spillway
Orange County, California

Irvine Ranch Water District



PROPOSED EXPLORATION PLAN

APRIL 2020

ATTACHMENT A

Estimated Cost Breakdown of Total Fee
 Irvine Ranch Water District and Serrano Water District
 Santiago Creek Dam Outlet Tower and Spillway Improvements Project - Engineering Services
 April 6, 2020

Task No.	Task Description	AECOM Labor Hours ¹						AECOM TOTAL HOURS	AECOM LABOR COSTS	GEI LABOR COSTS (no mark-up)	GEI DIRECT COSTS & MATERIALS ²	AECOM SUB-CONTRACTOR COSTS (no mark-up)	AECOM DIRECT COSTS & MATERIALS ²	TOTAL	
		Principal Engineer	Project Manager / Senior Engineer	Senior Project Engineer / Geologist / Scientist	Project Engineer / Geologist / Scientist	Senior Staff Engineer / Geologist / Scientist	Staff Engineer / Geologist / Scientist / CAD / GIS								Project Admin
		\$290	\$250	\$190	\$160	\$130	\$110								\$100
Phase 1 - Preliminary Design															
1.	Project Management and Client Interaction		200					24	224	\$52,400	\$46,600			\$99,000	
2.	Hydraulic Analysis and Erodibility Study		4	8					12	\$2,520	\$49,640	\$500		\$52,660	
	a. Hydraulic Modeling (1D and 3D CFD)		4	8					12	\$2,520	\$112,000	\$50,000		\$164,520	
	b. Spillway Physical Model		20						20	\$5,000	\$109,200	\$358,000	\$1,000	\$473,200	
3.	Topographic Field Survey		4				4	2	10	\$1,640			\$10,800	\$12,440	
4.	Irvine Lake Shoreline Facility Evaluation		16		24		40		80	\$12,240			\$50	\$12,290	
5.	Seismic Design	4	4	40				4	52	\$10,160	\$2,160			\$12,320	
6.	Geologic Exploration, Evaluation, and Design Parameters								-	-	-			-	
	a. Develop Workplan and DSOD approval	2	4	16		20	24	2	68	\$10,060	\$12,000			\$22,060	
	b. Develop Safe Work Plan		2	4		16			22	\$3,340	\$4,050			\$7,390	
	c. Geologic Conditions Evaluation			20		20			40	\$6,400	\$19,840			\$26,240	
	d. Geologic Mapping										\$13,680	\$2,700		\$16,380	
	e. Subsurface Geotechnical Investigation	4		20		50			74	\$11,460	\$101,940	\$15,000	\$507,400	\$678,780	
	f. Develop Geotechnical Parameters	4		4		20			28	\$4,520	\$29,680			\$34,200	
	g. Prepare Geotechnical Data Report (GDR)	4	6	40	30	40	40	2	162	\$24,860	\$49,080		\$500	\$74,440	
	h. Prepare Geotechnical Investigation Report (GIR)	4	6	40	30	40	40	2	162	\$24,860	\$49,440		\$500	\$74,800	
7.	Outlet Works and Spillway Demolition		4				16		20	\$2,760	\$5,820			\$8,580	
8.	Outlet Tower Abandonment	8	2	20	24		24		78	\$13,100				\$13,100	
9.	Downstream Outlet Works Improvements	4	16	24	20	40	80		184	\$26,920				\$26,920	
10.	Emergency Access & Power Supply Plan	4	12	20	20		40	4	100	\$15,960				\$15,960	
11.	Foundation and Underdrain Design								-	-	-			-	
	a. Foundation Treatment	2		4					6	\$1,340	\$21,680			\$23,020	
	b. Anchor Design	2		4					6	\$1,340	\$36,680			\$38,020	
	c. Foundation Acceptance Procedures	2		4					6	\$1,340	\$8,620			\$9,960	
	d. Underdrain System Design	2		4					6	\$1,340	\$9,200			\$10,540	
	e. Energy Dissipater Design	2		4					6	\$1,340	\$9,200			\$10,540	
	f. Slope Stability / Erosion Mitigation Design	2		4					6	\$1,340	\$9,200			\$10,540	
	g. Foundation Design / Stability Analysis for El 796 Weir Structure	2		4					6	\$1,340	\$75,960			\$77,300	
12.	Structural Design								-	-	-			-	
	a. Stability Analyses			16					16	\$3,040	\$77,520			\$80,560	
	b. Reinforced Concrete Design			16					16	\$3,040	\$24,520			\$27,560	
	c. Joints, Waterstops, and Tolerances			8					8	\$1,520	\$23,520			\$25,040	
	d. Structural Design & Stability Analysis for El 796 Weir Structure			8					8	\$1,520	\$75,960			\$77,480	
13.	Dam Embankment Stability Analysis with Permanent Reservoir at El 796	8			16				24	\$4,880	\$95,200			\$100,080	
14.	Construction Duration, Constructability, and Access	16	20	60	40	80	40	4	260	\$42,640	\$6,680		\$100	\$49,420	
15.	Permitting Support		4	4	16		16		40	\$6,080	\$12,160			\$18,240	
16.	CEQA Documentation	4	24			40	40	5	113	\$17,260	\$17,260		\$480	\$35,000	
17.	Preliminary Opinion of Probable Construction Cost		4	60				16	80	\$14,160	\$2,680			\$16,840	
18.	Project Schedule		8						8	\$2,000	\$2,580			\$4,580	
19.	Project Meetings	105	110	82					297	\$73,530	\$73,900	\$15,100	\$6,350	\$168,880	
20.	Task Deliverables								-	-	-			-	
	a. Preliminary Design Report	4	20	8	40			8	80	\$14,880	\$98,240		\$2,000	\$115,120	
	b. 30% Preliminary Plans	16	60	100		200	240		616	\$91,040	\$54,580			\$145,620	
21.	Miscellaneous Preliminary Design Phase Services								-	-	-			\$40,000	
SUBTOTAL PHASE 1		205	554	654	260	566	660	57	2,956	\$515,690	\$1,340,470	\$441,300	\$518,200	\$53,960	\$2,909,620
Phase 2 - Final Design															
1.	Project Management and Client Interaction		200					80	280	\$58,000	\$53,200			\$111,200	
2.	Outlet Pipe, Outlet Valves, Valve House, and Emergency Outlet Structure	4	16	4	24	40			88	\$14,960				\$14,960	
3.	Point of Connection	8	8	40		60			116	\$19,720				\$19,720	
4.	Pedestrian Bridge across Spillway and Stairway to Landfill								-	-	-			-	
	a. Pedestrian Bridge Across Spillway	46	86	40	80	100			352	\$68,240	\$5,200			\$73,440	
	b. Stairway to Landfill	8	8						16	\$4,320	\$39,920			\$44,240	
5.	Constructability and Access (includes considerations for Weir at El 796)	24	12	16	40		40		132	\$23,800	\$19,840			\$43,640	
6.	Stormwater Pollution Prevention Plan		4	8	80		40	4	136	\$20,120			\$200	\$20,320	
7.	Groundwater Dewatering and Land Disposal Permitting		8		20	80		4	132	\$18,200		\$15,000		\$33,200	
8.	Permitting Support	4	24	24			24	8	84	\$15,160	\$5,840			\$21,000	
9.	Final Opinion of Probable Construction Cost	4	20	120			40	2	186	\$33,560	\$5,180			\$38,740	
10.	Project Schedule		16						16	\$4,000	\$4,000			\$8,000	
11.	Project Meetings	83	187	157					427	\$100,650	\$126,800	\$21,880	\$5,820	\$255,150	
12.	Bid Period Assistance	2	20	4	12	20	40	2	100	\$15,460	\$15,460		\$100	\$31,020	
13.	Task Deliverables			4					-	-	-			-	
	a. Improvements Plans (149 Sheets)	109	436	654	872	1744			5777	\$846,930	\$344,800		\$3,000	\$1,194,730	
	b. Project Manual (includes considerations for Weir at El 796)	20	80	40	250			40	430	\$77,400	\$66,000		\$2,000	\$145,400	
14.	Miscellaneous Final Design Phase Services								-	-	-			\$25,000	
SUBTOTAL PHASE 2		312	1125	1111	1378	2044	2166	140	8,272	\$1,320,520	\$686,240	\$21,880	\$15,000	\$11,120	\$2,079,760
TOTAL		517	1,679	1,765	1,638	2,610	2,826	197	11,232	\$1,836,210	\$2,026,710	\$463,180	\$533,200	\$65,080	\$4,989,380

Notes & Assumptions:

- 1.) The billing rates for AECOM/GEI are escalated to the mid-point of design and will be held for the duration of the preliminary and final design phases.
- 2.) Direct Costs / Materials provided with no markup and include costs such as geotechnical borings, lab testing, mileage to meetings/site, courier fees, rental cars, airfare to DSOD offices, and document reproduction costs.

GEI Subconsultant Fee Estimate
 Irvine Ranch Water District and Serrano Water District
 Santiago Creek Dam Outlet Tower and Spillway Improvements Project - Engineering Services
 April 6, 2020

Task No.	Task Description	GEI Labor Hours ¹						Project Admin	GEI TOTAL HOURS	GEI LABOR COSTS	GEI TOTAL
		Principal Engineer	Project Manager / Senior Engineer	Senior Project Engineer / Geologist / Scientist	Project Engineer / Geologist / Scientist	Senior Staff Engineer / Geologist / Scientist	Staff Engineer / Geologist / Scientist / CAD / GIS				
		\$290	\$250	\$190	\$160	\$130	\$110				
Phase 1 - Preliminary Design											
1.	Project Management and Client Interaction	40	140						180	\$46,600	\$46,600
2.	Hydraulic Analysis and Erodibility Study	20	40	80		120	24	4	288	\$49,640	\$49,640
	a. Hydraulic Modeling (1D and 3D CFD)	40	80	200	200	80			600	\$112,000	\$112,000
	b. Spillway Physical Model	180	148			80	80	8	496	\$109,200	\$109,200
3.	Topographic Field Survey								0	\$0	\$0
4.	Irvine Lake Shoreline Facility Evaluation								0	\$0	\$0
5.	Seismic Design	4	4						8	\$2,160	\$2,160
6.	Geologic Exploration, Evaluation, and Design Parameters								-	-	-
	a. Develop Workplan and DSOD approval	8	4	40			8	2	62	\$12,000	\$12,000
	b. Develop Safe Work Plan	1	2	4		16	2	2	27	\$4,050	\$4,050
	c. Geologic Conditions Evaluation	16	40			40			96	\$19,840	\$19,840
	d. Geologic Mapping	0	36			36		0	72	\$13,680	\$13,680
	e. Subsurface Geotechnical Investigation	30	120			460	24	8	642	\$101,940	\$101,940
	f. Develop Geotechnical Parameters	12	36	50		50		12	160	\$29,680	\$29,680
	g. Prepare Geotechnical Data Report (GDR)	12	30	30	30	200		16	318	\$49,080	\$49,080
	h. Prepare Geotechnical Investigation Report (GIR)	16	40	40	64	64	64	16	304	\$49,440	\$49,440
7.	Outlet Works and Spillway Demolition	2	8		12		12		34	\$5,820	\$5,820
8.	Outlet Tower Abandonment								0	\$0	\$0
9.	Downstream Outlet Works Improvements								0	\$0	\$0
10.	Emergency Access & Power Supply Plan								0	\$0	\$0
11.	Foundation and Underdrain Design								-	-	-
	a. Foundation Treatment	12	50	30					92	\$21,680	\$21,680
	b. Anchor Design	12	72	80					164	\$36,680	\$36,680
	c. Foundation Acceptance Procedures	2	20	16					38	\$8,620	\$8,620
	d. Underdrain System Design	4	20	16					40	\$9,200	\$9,200
	e. Energy Dissipater Design	4	20	16					40	\$9,200	\$9,200
	f. Slope Stability / Erosion Mitigation Design	4	20	16					40	\$9,200	\$9,200
	g. Foundation Design / Stability Analysis for EI 796 Weir Structure	24	40	120	120	80	60		444	\$75,960	\$75,960
12.	Structural Design								-	-	-
	a. Stability Analyses	48	72	240					360	\$77,520	\$77,520
	b. Reinforced Concrete Design	8	28	80					116	\$24,520	\$24,520
	c. Joints, Waterstops, and Tolerances	8	24	80					112	\$23,520	\$23,520
	d. Structural Design & Stability Analysis for EI 796 Weir Structure	24	40	120	120	80	60		444	\$75,960	\$75,960
13.	Dam Embankment Stability Analysis with Permanent Reservoir at EI 796	40	60	120	120	120	100		560	\$95,200	\$95,200
14.	Construction Duration, Constructability, and Access	4	16	8					28	\$6,680	\$6,680
15.	Permitting Support		8	8	32		32		80	\$12,160	\$12,160
16.	CEQA Documentation	4	24			40	40	5	113	\$17,260	\$17,260
17.	Preliminary Opinion of Probable Construction Cost	2	4				10		16	\$2,680	\$2,680
18.	Project Schedule	2	8						10	\$2,580	\$2,580
19.	Project Meetings	104	102	96					302	\$73,900	\$73,900
20.	Task Deliverables								-	-	-
	a. Preliminary Design Report	40	120	120	120	80	24	16	520	\$98,240	\$98,240
	b. 30% Preliminary Plans	16	44	66		110	110		346	\$54,580	\$54,580
21.	Miscellaneous Preliminary Design Phase Services								-	-	-
SUBTOTAL PHASE 1		743	1520	1676	818	1656	650	89	7,152	\$1,340,470	\$1,340,470
Phase 2 - Final Design											
1.	Project Management and Client Interaction	60	140					8	208	\$53,200	\$53,200
2.	Outlet Pipe, Outlet Valves, Valve House, and Emergency Outlet Structure								0	\$0	\$0
3.	Point of Connection								0	\$0	\$0
4.	Pedestrian Bridge across Spillway and Stairway to Landfill								-	-	-
	a. Pedestrian Bridge Across Spillway	8	8				8		24	\$5,200	\$5,200
	b. Stairway to Landfill	12	36	48	48	48	40		232	\$39,920	\$39,920
5.	Constructability and Access (includes considerations for Weir at EI 796)	16	24	20	20		20		100	\$19,840	\$19,840
6.	Stormwater Pollution Prevention Plan								0	\$0	\$0
7.	Groundwater Dewatering and Land Disposal Permitting								0	\$0	\$0
8.	Permitting Support	8	8	8					24	\$5,840	\$5,840
9.	Final Opinion of Probable Construction Cost	2	8			20			30	\$5,180	\$5,180
10.	Project Schedule		16						16	\$4,000	\$4,000
11.	Project Meetings	136	240	144					520	\$126,800	\$126,800
12.	Bid Period Assistance	2	20	4	12	20	40	2	100	\$15,460	\$15,460
13.	Task Deliverables								-	-	-
	a. Improvements Plans (40 GEI Sheets)	80	240	240	360	660	660		2240	\$344,800	\$344,800
	b. Project Manual (includes considerations for Weir at EI 796)	40	80	80	100			32	332	\$66,000	\$66,000
14.	Miscellaneous Final Design Phase Services								-	-	-
SUBTOTAL PHASE 2		364	820	544	540	748	768	42	3,826	\$686,240	\$686,240
TOTAL		1,107	2,340	2,220	1,358	2,404	1,418	131	10,978	\$2,026,710	\$2,026,710

Notes & Assumptions:

- The billing rates for AECOM/GEI are escalated to the mid-point of design and will be held for the duration of the preliminary and final design phases.
- Direct Costs / Materials provided with no markup and include costs such as geotechnical borings, lab testing, mileage to meetings/site, courier fees, rental cars, airfare to DSOD offices, and document reproduction costs.

Irvine Ranch Water District and Serrano Water District
Santiago Creek Dam Outlet Tower and Spillway Improvements Project - Engineering Services
April 6, 2020

Miscellaneous Subcontractor Costs

Task No.	Subcontractor	Task Description	Quantity	Unit	Unit Cost	Total Cost
Ph 1, Task 3	Psomas	Three days of field survey for area downstream of spillway and outlet works	1	LS	\$10,800.00	\$10,800.00
Ph 1, Task 6e	Innovative Services Group	Dig total four (4) test pits to 5ft depth (includes three machine-dug pits and one hand-dug pit)	1	LS	\$20,000.00	\$20,000.00
Ph 1, Task 6e	Gregg Drilling	Phase 1a (7 borings in spillway approach and chute, 1 boring near outlet structure, 1 boring on slope across from spillway)	1	LS	\$192,000.00	\$192,000.00
Ph 1, Task 6e	Gregg Drilling	Phase 1b borings (3 over-water borings; 1 boring near downstream end of spillway)	1	LS	\$281,000.00	\$281,000.00
Ph 1, Task 6e	Innovative Services Group	Vegetation Clearing for boring near downstream end of spillway chute	1	LS	\$8,000.00	\$8,000.00
Ph 1, Task 6e	Belshire Environmental Services	Pick-up and dispose up to 20 drums of drill cuttings	1	LS	\$6,000.00	\$6,000.00
Ph 1, Task 6e	Eurofins Calscience	Chemical analysis of drummed drill cuttings.	1	LS	\$400.00	\$400.00
Ph 2, Task 7	Eurofins Calscience	Lab costs for NPDES groundwater sampling	1	LS	\$15,000.00	\$15,000.00
Total						\$533,200.00

AECOM Geotechnical Laboratory Costs

Task No.	Subcontractor	Task Description	Quantity	Unit	Unit Cost	Total Cost
Ph 1, Task 6e	AECOM Geotechnical Lab	Water content tests	80	EA	\$16.00	\$1,280.00
Ph 1, Task 6e	AECOM Geotechnical Lab	Dry density tests	80	EA	\$31.00	\$2,480.00
Ph 1, Task 6e	AECOM Geotechnical Lab	Particle-size distribution tests	40	EA	\$130.00	\$5,200.00
Ph 1, Task 6e	AECOM Geotechnical Lab	Corrosivity suites	12	EA	\$190.00	\$2,280.00
Ph 1, Task 6e	AECOM Geotechnical Lab	Liquid limit and plastic limit tests	32	EA	\$140.00	\$4,480.00
Ph 1, Task 6e	AECOM Geotechnical Lab	Direct shear tests	24	EA	\$240.00	\$5,760.00
Ph 1, Task 6e	AECOM Geotechnical Lab	Triaxial shear tests	20	EA	\$325.00	\$6,500.00
Ph 1, Task 6e	AECOM Geotechnical Lab	Unconfined compressive strength tests on rock	54	EA	\$100.00	\$5,400.00
Ph 1, Task 6e	AECOM Geotechnical Lab	Point load strength tests on rock	88	EA	\$100.00	\$8,800.00
Total						\$42,180.00

Notes:

1. Agency permit fees for drilling are unknown at this time.
2. Assumes AECOM Geotechnical Lab in Anaheim, CA will perform geotechnical laboratory testing.
3. All subcontractor and laboratory costs shown in the tables above include payment of prevailing wages. The California Department of Industrial Relations (DIR) registration numbers for all companies are as follows:
 DIR # 1000005693 AECOM Technical Services, Inc.
 DIR # 1000025634 GEI Consultants, Inc.
 DIR # 1000061085 Gregg Drilling, LLC
 DIR # 1000464682 Innovative Service Group (ISG), LLC
 DIR # 1000010904 Psomas
 DIR # 1000010287 Belshire Environmental Services, Inc.
 DIR # 1000058872 Eurofins Calscience LLC

AECOM/GEI
Schedule of Fees and Charges (Rate Table) for the IRWD Santiago Creek Dam Outlet Tower and Spillway Improvements Project

This Schedule of Fees and Charges shown in the labor classification table below will remain constant for the preliminary design, final design, and bid support phases of the project.

PERSONNEL CHARGES*

The charge for all time required in the performance of the Scope of Service, including office, field and travel time, will be at the Unit Price Hourly rates set forth below for the labor classifications:

LABOR CLASSIFICATION	
Professional Staff	Hourly Rate
Staff Engineer/Scientist/Geologist	\$110
Senior Staff Engineer/Scientist/Geologist	\$130
Project Engineer/Scientist/Geologist	\$160
Senior Engineer/Scientist/Geologist	\$190
Project Manager/Senior Engineer	\$250
Principal Engineer/Architect	\$290
Principal-in-Charge	\$300
Technical Staff	Hourly Rate
Drafter/GIS/Graphics	\$100
Senior Drafter/GIS/Graphics	\$110
Design/GIS/Estimator/Scheduler	\$130
Senior Design/Estimator/Scheduler	\$160
Lead Design/Estimator/Scheduler	\$190
Project Support Staff	Hourly Rate
Office/Clerical	\$80
Project Assistant	\$90
Administrator/Contracts	\$100
Project Admin/Contracts	\$125
Sr Project Admin/Contracts	\$150
Principal Project Admin/Contract	\$175

Overtime (hours worked in excess of eight (8) hours per day) by exempt personnel will be charged at the above straight time rate. Overtime by non-exempt personnel will be charged at 1.5 times the above hourly rates.

OTHER PROJECT CHARGES

Subcontractors and Equipment Rental

The cost of services subcontracted by AECOM/GEI to others and other costs incurred by AECOM/GEI will be charged at cost with no mark-up.

Document Reproduction

In-house reproduction will be charged as follows:

- 8 ½x11 Black & White = \$0.09
- 11x17 Black & White = \$0.17
- 8 ½x11 Color = \$0.14
- 11x17 Color = \$0.26
- Black & White plot/ square foot = \$0.20
- Color plot/square foot = \$0.26

Vehicles and Mileage

Leased field vehicles (pick-ups, vans, trucks, etc.) used on project assignments will be charged at \$85 per day. The mileage charge for personal autos will be the current mileage rate established by the Internal Revenue Service.

This fee schedule contains confidential business information and is not to be copied or distributed for any purpose other than the use intended in this contract or proposal.

*The above rates do not include prevailing wages as determined by the Department of Industrial Relations on Public Works projects. Prevailing wages and benefits are billed at a higher rate in comparison to the AECOM/GEI rate.

When AECOM/GEI staff, appear as expert witnesses at court trials, mediation, arbitration hearings and depositions, their time will be charged at 2.0 times the standard rate. All time spent preparing for such trials, hearings and depositions will be charged at the standard

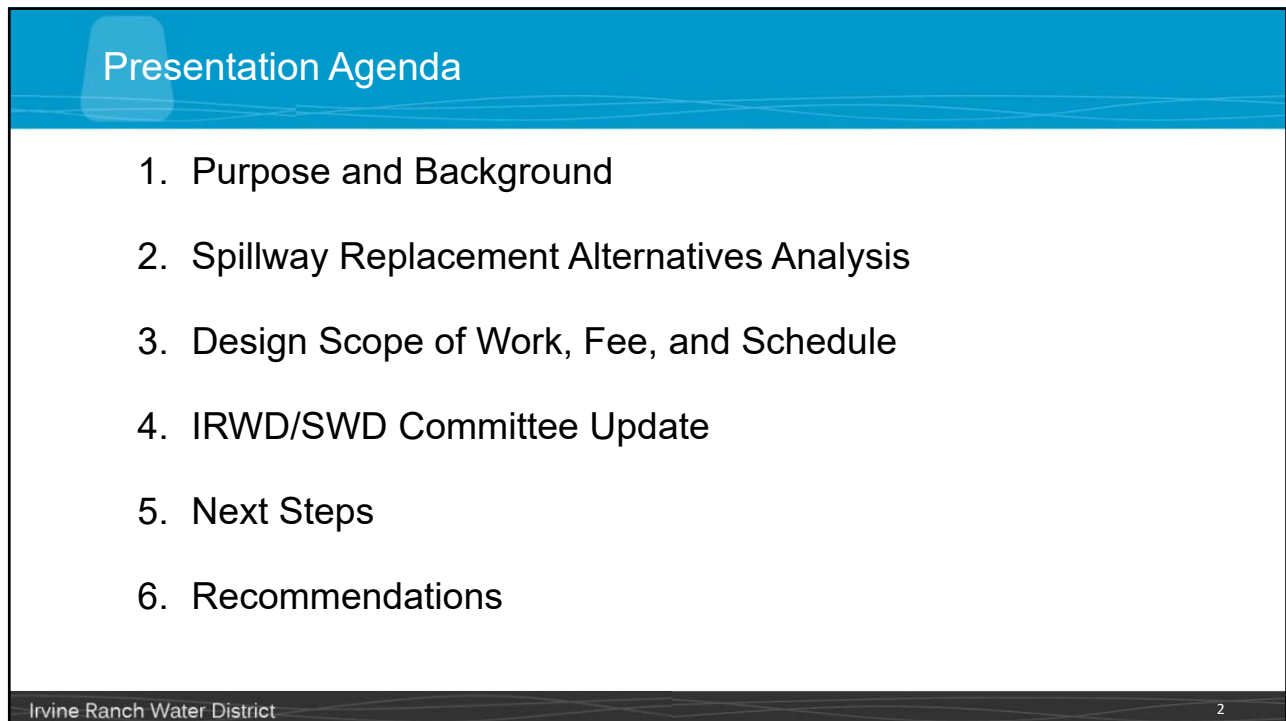


Santiago Reservoir Improvements Consultant Selection and Budget Increase

IRWD Board of Directors Meeting
April 27, 2020



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Presentation Agenda

1. Purpose and Background
2. Spillway Replacement Alternatives Analysis
3. Design Scope of Work, Fee, and Schedule
4. IRWD/SWD Committee Update
5. Next Steps
6. Recommendations

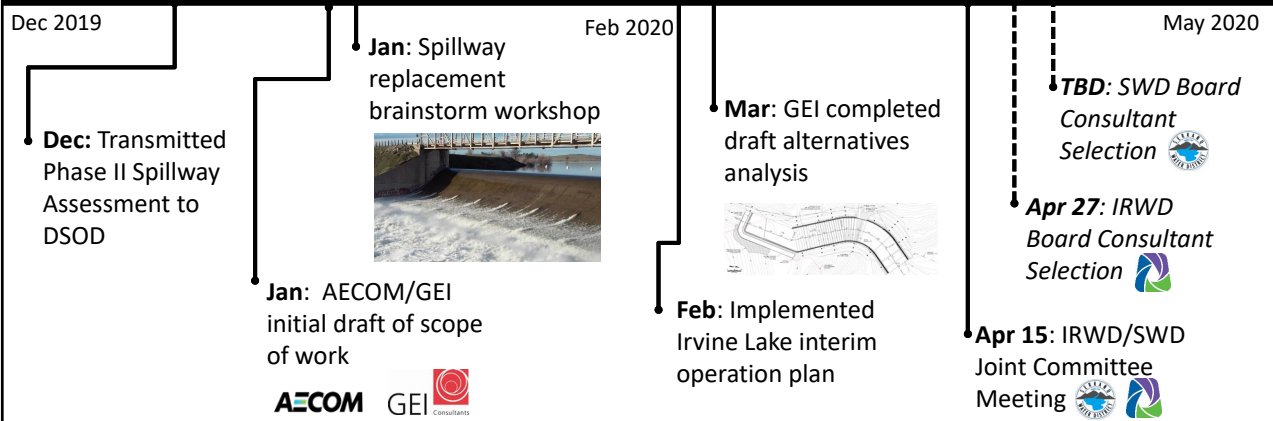
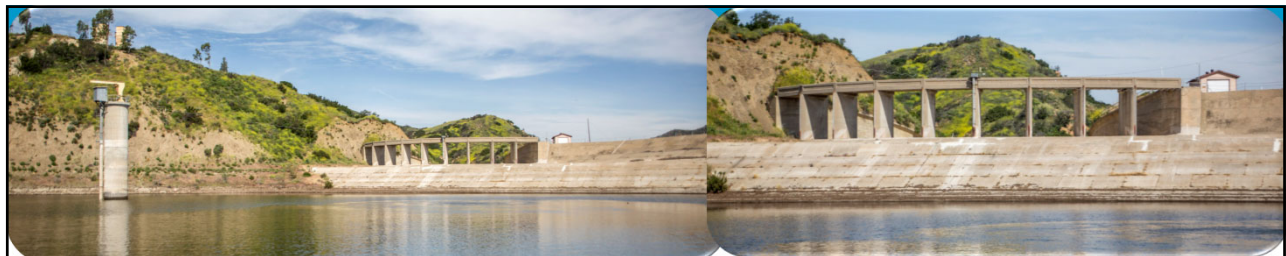
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Purpose of Presentation

Recommend a project budget increase and new Professional Services Agreement with AECOM/GEI for design of the tower and spillway improvements.

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Division of Safety of Dams Response to Spillway Assessment

- Staff transmitted Phase II Spillway Assessment to DSOD in December 2019
- DSOD changed Santiago Creek Dam condition rating from “Satisfactory” to “Poor”
 - Outlet tower deficiency
 - Spillway deficiency
- DSOD is requiring the Districts implement interim risk reduction measures and submit spillway replacement alternative by July 1



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Considerations for Spillway Replacement Alternatives

- Design for Probable Maximum Flood (PMF)
 - Existing spillway designed for 23,830 cfs
 - New PMF is approximately 47,300 cfs
- Freeboard requirements
- Spillway components
- Terrain
 - Steep topography surrounding existing spillway
 - Spillway alignment

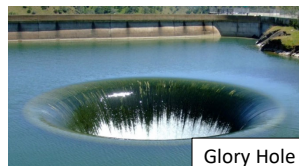
<i>Dam Crest</i>	El 810 ft
<i>IDF Residual Freeboard (3 ft)</i>	El 807 ft
<i>Alternative 3 Crest Elev.</i>	El 796 ft
<i>Alternative 2 Crest Elev.</i>	El 794 ft
<i>Alternative 1 Crest Elev.</i>	El 790 ft



Labyrinth



Ogee



Glory Hole

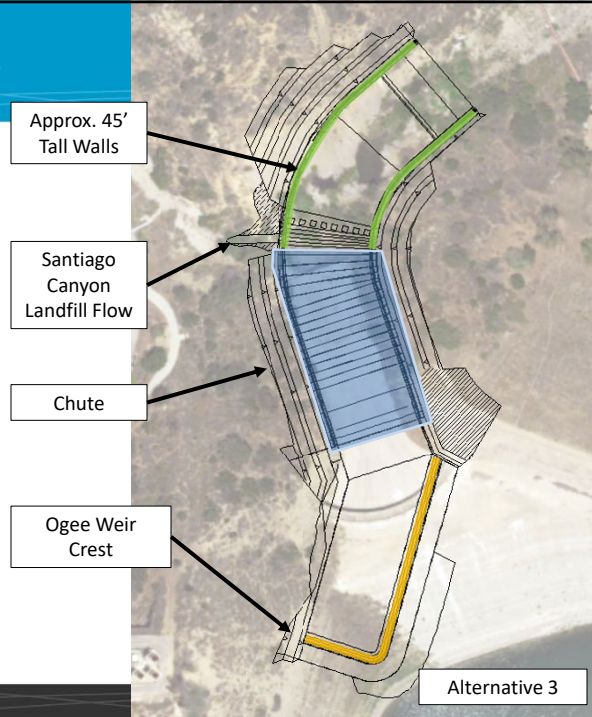


Broad-crested

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Spillway Replacement Alternatives

- Alternative 1 – Spillway Crest at 790-ft (current crest elevation)
 - No additional storage
- Alternative 2 – Spillway Crest at 794-ft (current elevation at top of flashboards)
 - 2,400 AF of additional storage
- Alternative 3 – Spillway Crest at 796-ft
 - 3,700 AF of additional storage



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Additional Reservoir Storage – Potential Savings

Savings in Untreated Water Purchases Over 100-year Period

Spillway Alternative	Storage Above 790-feet (AF)	Construction Cost Estimate (\$Millions)*	Cumulative Savings Based on Storage Usage Frequency		
			5-Year	10-Year	20-Year
1 – Crest at 790-feet	0	\$73		-	
2 – Crest at 794-feet	2,400	\$76	\$520 M	\$287 M	\$172 M
3 – Crest at 796-feet	3,700	\$78	\$802 M	\$442 M	\$266 M

*Values escalated to mid-point of construction.

Alternative 3 costs approximately \$5M more than Alternative 1 and offers the highest overall value.

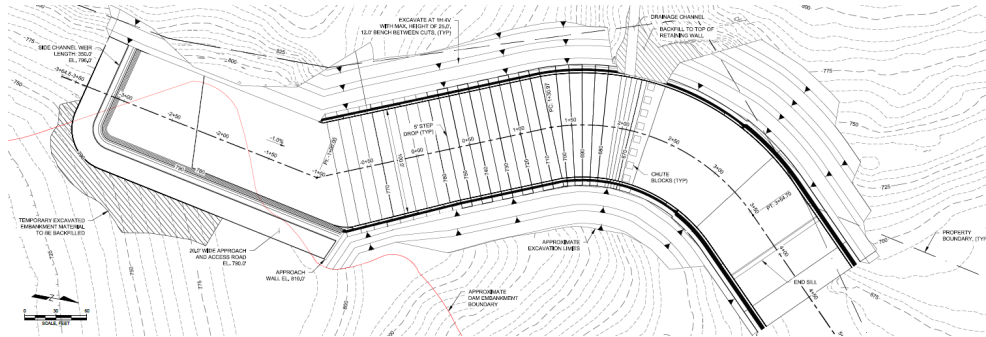
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Spillway Replacement Recommendation

- Recommend Alternative 3, Ogee Weir Crest at 796-ft
 - Maximizes reservoir storage
 - Minimizes untreated water purchases
 - Maximizes use of the districts' water rights



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Anticipated "All-In" Project Cost

Outlet Works:	\$5 M
Spillway:	\$78 M
Inclined Outlet Structure:	\$20 M
Approximate overall construction cost	\$103 M
Soft Costs @ 35% (engineering, environmental, construction management, legal)	\$36 M
Total "All-In" Project Cost	\$139 M

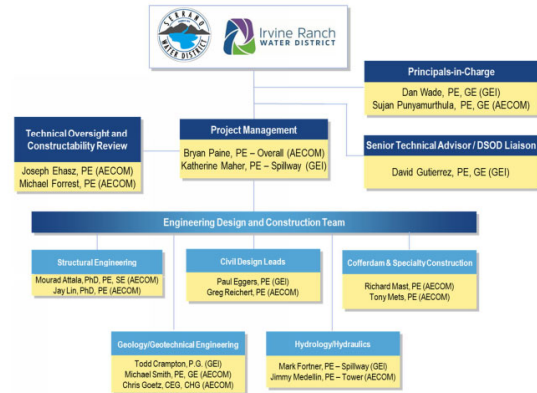


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AECOM/GEI Team

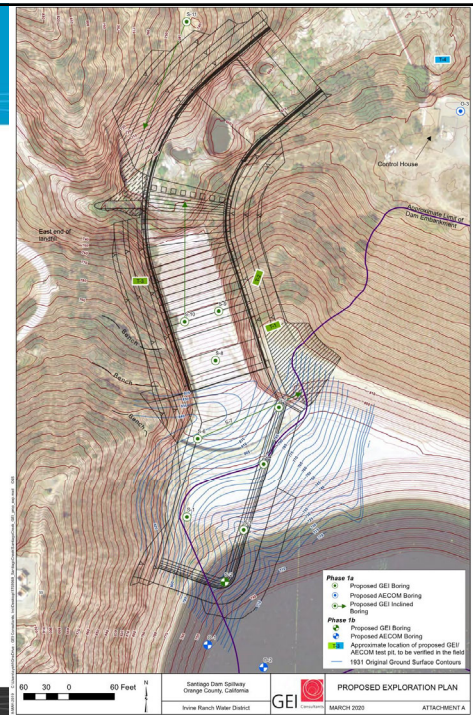
- Project Team Led by AECOM and fully supported by GEI
- AECOM/GEI have established working relationship
- Proven experience with DSOD coordination and approvals
- AECOM/GEI are top design firms for dams and reservoirs in California



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Scope of Work

- Coordination with DSOD
- Geotechnical investigation
- Erodibility study for Santiago Creek
- Hydraulic analysis using computational fluid dynamics (CFD) and physical model
- Improvements for all weather access
- Complete preliminary and final design



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Design Fee

- New Professional Services Agreement with AECOM in the amount of \$4,989,380
- Cancel AECOM's existing contract for the Inclined Outlet Tower design (~\$535,000 remains)



Irvine Ranch Water District



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Project Schedule

- | | |
|---|---------------|
| • Complete Spillway Alternatives Analysis | May 2020 |
| • Complete Preliminary Design Report | June 2021 |
| • Complete CEQA | February 2023 |
| • Complete Design | April 2023 |
| • Start Construction | August 2023 |
| • Construction Completion | August 2025 |

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Project Budget

- A budget increase is required to fund the project

Project No.	Current Budget	Addition <Reduction>	Total Budget
01813	\$15,417,000	\$123,890,000	\$139,307,000

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IRWD/SWD Committee Meeting Held April 15, 2020

- Both IRWD and SWD agreed that the project needs to proceed expeditiously
- SWD requested additional time to review and discuss the project and the consultant selection with its full Board of Directors
 - SWD anticipates completing those discussions and providing confirmation of the project and the consultant selection by June/July 2020
- Staff recommends IRWD proceed with the consultant selection and several initial design activities in the amount of \$300,000
 - Allows the project to advance while SWD completes its internal discussions



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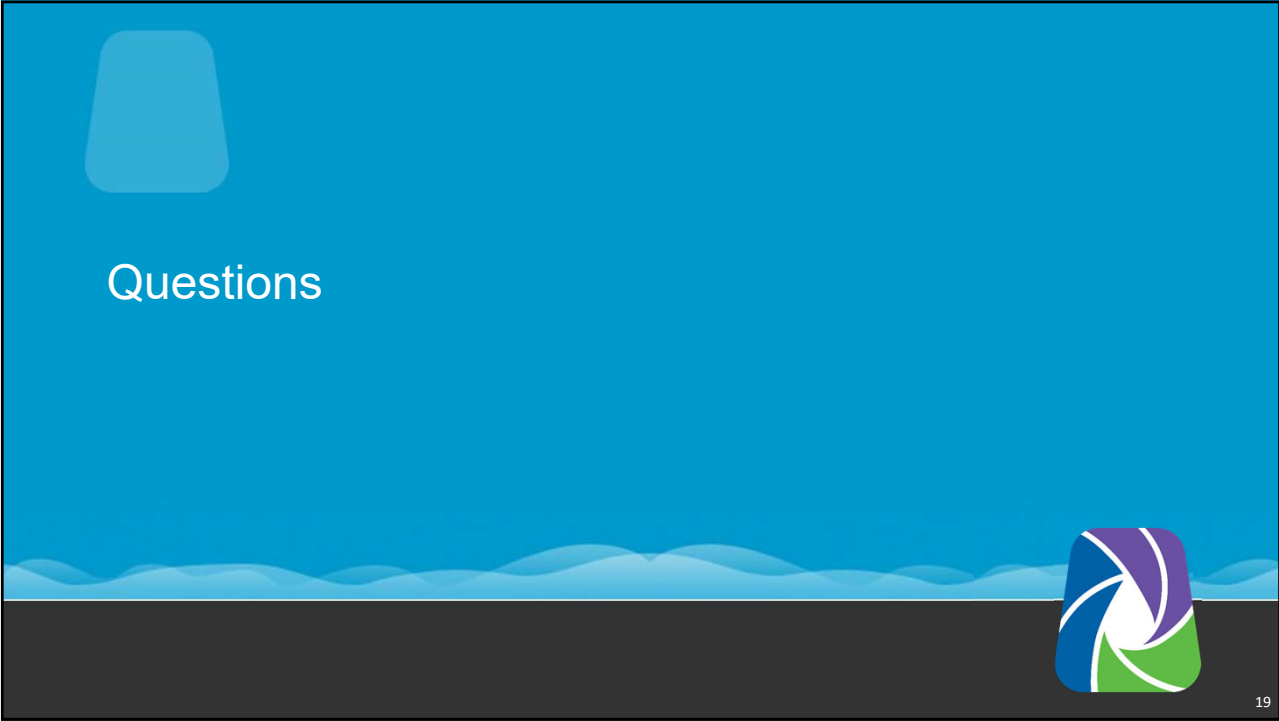
Next Steps

- IRWD Board approves consultant selection and budget increase
- Proceed with initial design activities
- Continue advancing environmental compliance activities
- SWD Board approves consultant selection (anticipated June/July 2020)




Recommendations

- Authorize a budget increase for Project 01813 in the amount of \$123,890,000, from \$15,417,000 to \$139,307,000, and
- Authorize the General Manager to execute a Professional Services Agreement in the amount of \$4,989,380 with AECOM for engineering design services for the Santiago Reservoir Improvements project.



Questions



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