

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

March 22, 2021

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.webex.com/irwd/j.php?MTID=mc51610a04c5fdff65cfe8a7c74175508>
Meeting Number (Access Code): 146 495 0905
Meeting Password: JcHGMg7TN62

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 LaMar, McLaughlin, Swan, and Withers, and President Reinhart

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, March 22, 2021.

ALL VOTES SHALL BE TAKEN BY A ROLL CALL VOTE.

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 (Items 3 through 9)

3. BOARD MEETING MINUTES

Recommendation: That the minutes of the February 22, 2021 Regular Board meeting be approved as presented.

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

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

5. 2021 LEGISLATIVE AND REGULATORY UPDATE

Recommendation: That the Board adopt an "OPPOSE" position on AB 377 (R. Rivas) and AB 1434 (Friedman), an "OPPOSE UNLESS AMENDED" position on SB 222 (Dodd), a "SUPPORT IF AMENDED" position on AB 1500 (E. Garcia), SB 45 (Portantino) and SB 427 (Eggman), and a "SUPPORT" position on ACR 17 (Voepel), SB 552 (Hertzberg) and H.R. 1015 (Napolitano).

6. FEBRUARY 2021 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 February 2021 Summary of Payroll ACH payments in the total amount of \$2,495,663, and approve the February 2021 Accounts Payable Disbursement Summary of warrants 415330 through 416090, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$18,057,064.

CONSENT CALENDAR - Continued (Items 3 through 9)

7. SANTIAGO HILLS ZONE C+ RESERVOIR STRAINER MODIFICATIONS
FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Santiago Hills Zone C+ Reservoir Strainer Modifications, authorize the General Manager to file a Notice of Completion, and authorize the payment of the retention 35 days after the date of recording the Notice of Completion for Project 05407.

8. SAND CANYON MEDICAL OFFICE LEASE EXTENSION

Recommendation: That Board approve the lease rate and terms for the extension of IRWD's Lease with Reproductive Sciences Management Company, Inc. at the Sand Canyon Medical Office property and authorize the General Manager to execute the necessary lease extension documents.

9. SILVERADO CANYON BRIDGE 175 TEMPORARY DOMESTIC WATER
BYPASS BUDGET INCREASE AND CONSTRUCTION AWARD

Recommendation: That the Board authorize a budget increase in the amount of \$170,000, from \$504,900 to \$674,900, and authorize the General Manager to execute a construction contract with T.E. Roberts, Inc. in the amount of \$215,188 for the Silverado Canyon Bridge 175 Temporary Domestic Water Bypass, Project 11587.

ACTION CALENDAR

10. TURTLE ROCK ZONE 3 RESERVOIR CHLORAMINIE BOOSTER STATION
BUDGET ADDITION AND CONSULTANT SELECTION

Recommendation: That the Board authorize the addition of Project 11840, Turtle Rock Zone 3 Reservoir Chloramine Booster Station, to the FY 2020-21 Capital Budget in the amount of \$1,705,000 and authorize the General Manager to execute a Professional Services Agreement with Lee & Ro, Inc. in the amount of \$375,477 for engineering design services for the Turtle Rock Zone 3 Reservoir Chloramine Booster Station, Project 11840.

11. MICHELSON WATER RECYCLING PLANT TERTIARY FILTER
IMPROVEMENTS BUDGET INCREASE AND CONSULTANT SELECTION

Recommendation: That the Board authorize a budget increase in the amount of \$9,409,600, from \$466,000 to \$9,875,600, and authorize the General Manager to execute a Professional Services Agreement with HDR in the amount of \$735,163 for engineering design services for the MWRP Tertiary Filter Improvements, Project 07892.

ACTION CALENDAR (Continued)

12. DEEP AQUIFER TREATMENT SYSTEM MISCELLANEOUS REHABILITATION CONSTRUCTION AWARD

Recommendation: That the Board authorize the General Manager to execute a construction contract with Pascal and Ludwig Constructors in the amount of \$1,410,717 for the Deep Aquifer Treatment System Miscellaneous Rehabilitation, Project 11483.

13. GROUNDWATER WELLS AND TREATMENT AGREEMENT WITH EAST ORANGE COUNTY WATER DISTRICT AND THE CITY OF ORANGE

Recommendation: That the Board authorize the General Manager to execute the Groundwater Wells and Treatment Agreement with East Orange County Water District and the City of Orange subject to substantive changes approved by the Engineering and Operations Committee.

14. ONE-FOR-ONE EXCHANGE WITH DUDLEY RIDGE WATER DISTRICT REQUIRING WATER TO BE USED IN KERN COUNTY

Recommendation: That the Board approve delivery of up to 15,000 acre-feet of IRWD's stored non-State Water Project water for use by Dudley Ridge Water District landowners in Kern County in exchange for State Water Project Table A water from Dudley Ridge consistent with the terms of the 2017 agreement between Dudley Ridge Water District and Irvine Ranch Water District for a long-term exchange program.

15. OPTIONS FOR USE OF DUDLEY RIDGE WATER DISTRICT SUPPLIES STORED IN IRWD'S WATER BANK

That the Board authorize the General Manager to execute an agreement with Dudley Ridge Water District for the sale of up to 5,000 AF of State Water Project water at \$650 per acre-foot that must be returned to Dudley Ridge Water District contingent upon Dudley Ridge Water District exercising the one-for-one exchange program for a minimum of 10,000 AF of Kern river water for use in Kern County.

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.

OTHER BUSINESS - Continued

16. General Manager's Report
17. Receive oral update(s) from District liaison(s) regarding communities within IRWD's service area and provide information on relevant community events.
18. Directors' Comments
19. CLOSED SESSION

CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION –
Pursuant to Government Code Section 54956.9(d)(1): *IRWD v. OCWD, et al.*,
Case No. 30-2016-00858584-CU-WM-CJC.
20. Open Session.
21. 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.

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March 22, 2021
Prepared and
submitted by: L. Bonkowski
Approved by: Paul A. Cook



CONSENT CALENDAR

BOARD MEETING MINUTES

SUMMARY:

Provided are the minutes of the February 22, 2021 Regular Board meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE FEBRUARY 22, 2021 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – February 22, 2021 Minutes

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EXHIBIT "A"

MINUTES OF REGULAR MEETING – February 22, 2021

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President Reinhart on February 22, 2021 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: LaMar, McLaughlin, Swan, Withers, and Reinhart.

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, Director of Water Quality and Regulatory Compliance Colston, Director of Recycling Operations Zepeda, Director of Information Services Malone, Director of Water Resources Sanchez, Director of Maintenance Mykitta, Director of Human Resources Mitcham, Government Relations Officer/Deputy General Counsel Compton, Secretary Bonkowski, General Counsel Collins, Consultant Newell, and members of staff and the public.

WRITTEN AND ORAL COMMUNICATIONS: None.

ITEMS RECEIVED TOO LATE TO BE AGENDIZED: None.

CONSENT CALENDAR

Prior to voting on this item, Director Swan asked that a minor description change be revised relative to an entry on his mileage to include a CASA conference on Item No. 5, Exhibit "F". He further received clarification on the original janitorial contact amount on Item No. 7, and clarification on the total amount required for the budget increase on Item No. 8, which staff said would be discussed in detail during tonight's Closed Session. There being no further comments, on MOTION by LaMar, seconded by McLaughlin, and unanimously carried by a roll call vote (5-0) Withers, McLaughlin, Swan, LaMar and Reinhart voting aye, and 0 noes, ITEMS 3 THROUGH 7 WERE APPROVED AS FOLLOWS:

3. BOARD MEETING MINUTES

Recommendation: That the minutes of the February 5, 2021 Adjourned Regular Meeting and the February 8, 2021 Regular Board meeting be approved as presented.

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

Recommendation: That the Board ratify/approve the meetings and events for Steven LaMar, Karen McLaughlin, Peer Swan, and John Withers, as described.

CONSENT CALENDAR CONTINUED)

5. JANUARY 2021 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 January 2021 Summary of Payroll ACH payments in the total amount of \$3,203,313, and approve the January 2021 Accounts Payable Disbursement Summary of Warrants 414652 through 415329, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$27,315,481.

6. TWO-YEAR JANITORIAL CONTRACT AWARD

Recommendation: That the Board authorize the General Manager to execute a two-year janitorial services contract with American Building Maintenance, Inc. in the total amount of \$580,376.

7. MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES BUDGET INCREASE

Recommendation: That the Board authorize a budget increase in the amount of \$27,000,000, from \$238,542,100 to \$265,542,100, for the MWRP Biosolids and Energy Recovery Facilities, Project 04286.

ACTION CALENDAR

MITCHELL EAST HABITAT MITIGATION PROPERTY PURCHASE

Using a PowerPoint presentation, Director of Water Resources Sanchez described the Natural Community Conservation Plan and reviewed the District's potential mitigation requirements that may include the Syphon Reservoir Improvement Project (which currently is being negotiated with the proposed use of 34.38 credits and retaining 19 credit for future use).

Using a map, Ms. Sanchez described the proposed Mitchell East Property located in the Trabuco Canyon area in an unincorporated area of eastern Orange County and consists of approximately 39.8 acres owned by the Parker family. The property is in the County's Foothill / Trabuco Specific Plan Area with the Trabuco Creek crossing the southern portion of the property. Ms. Sanchez said that the Purchase Agreement provides for a six-month due diligence period during which staff conducted studies, tests and inspections prior to the acquisition of the Property. She said that Fuscoe Engineering was retained to perform due diligence investigations on the Property which included: an American Land Title Association survey, a Preliminary Title Report review, an Environmental Phase 1 site assessment, examination of surface soils, flood and seismic hazards, and a review of the general plan for the area and zoning designations. Additionally, consultants at Environmental Science Associates (ESA) evaluated the habitat quality at the property. She said that following a summary of the findings of the due diligence work: 1) staff found no items of record to contest in the review of the Preliminary Title Report; 2). the County of Orange has an easement over the property referred to as "Trabuco Creek Road", and the property is subject to the Foothill/ Trabuco Specific Plan which has two zonings,

Open Space Conservation and Trabuco Canyon Residential; 3) an existing well inside of a shed and a water tank in the middle of the property were identified along with remnants of a demolished building, and a transformer was observed on a power pole as well as a downed electrical pole near the center of the property; 4) the predominant soils on the property are gravelly silt loam, sandy loam and sand; 5) the southeast half of the property is located within a flood zone influenced by the Trabuco Creek (the areas of potential restoration opportunity are not within this zone and there are no seismic hazards identified); 6) the vegetation map indicates that of approximately 40 acres, 26 acres are considered high value coastal sage scrub; 4.3 acres are moderate value habitat with 3.2 acres of coast live oak woodland. There are approximately two acres of disturbed area where previous farming occurred which has potential for restoration; and 7) the property is located within Orange County Transportation Authority's Conservation Assessment priority conservation areas, possessing good potential biological value for gnat catcher, orange throat whiptail, arroyo toad and coastal cactus wren. The property contains oak woodlands, and the southern portion is within a wildlife corridor of the Foothill / Trabuco Specific Plan area and within the critical habitat area for the arroyo toad and the coastal California gnatcatcher. Although no gnatcatchers were observed on the property at the time of ESA's site visit, it does contain suitable habitat with the potential for occurrence of gnatcatcher. Acquisition of the property can enable this corridor segment of the Trabuco Canyon area to be preserved as permanent open space to enhance wildlife connectivity.

Ms. Sanchez said that the District retained a real property appraiser to provide a current market valuation of the Mitchell East Property, and based on the appraisal report, the market value for the Property as of November 12, 2020 is \$955,000.

Director Reinhart reported that he and Director Withers reviewed this item at the Engineering and Operations Committee meeting on February 14, 2020 and concurred with the staff recommendation. Following discussion, Director Swan asked that following purchase of the property a plan be presented to the Board that includes information on the well. Director LaMar suggested that a fence may need to be installed to protect the habitat as hikers use this property for sightseeing. There being no further comments, on MOTION by Reinhart, seconded by Withers, and unanimously carried by a roll call vote (5-0) Withers, McLaughlin, Swan, LaMar and Reinhart voting aye, and 0 noes, THE BOARD FOUND THAT ALL MATTERS CURRENTLY IDENTIFIED WITH REGARD TO THE CONDITION OF TITLE, PHYSICAL CONDITION AND SUITABILITY OF THE MITCHELL EASE PROPERTY FOR THE USES CONTEMPLATED ARE ACCEPTABLE; APPROVED THE ADDITION OF THE PROJECT "MITIGATION LAND", PROJECT NUMBER 11093 TO THE FY 2020-21 CAPITAL BUDGET IN THE AMOUNT OF \$990,000; FOUND THAT THE PROPERTY ACQUISITION IS EXEMPT FROM CEQA; APPROVED THE PROJECT AND AUTHORIZED STAFF TO POST AND FILE THE NOTICES OF EXEMPTION IN ORANGE COUNTY; AND AUTHORIZED THE GENERAL MANAGER, TREASURER AND EACH OTHER OFFICER OF THE DISTRICT, EACH ACTING SINGLY, TO EXECUTE AND DELIVER ANY AND ALL DOCUMENTS, ASSIGNMENTS, CERTIFICATES, INSTRUCTIONS AND INSTRUMENTS NECESSARY OR PROPER FOR CARRYING OUT AND CLOSING THE REAL ESTATE PURCHASE TRANSACTION FOR THE ACQUISITION OF THE PROPERTY.

GENERAL MANAGER’S REPORT

General Manager Cook reported that it is quiet with current COVID-19 cases with one case recently reported which was contracted outside of work. He said that the District is continuing testing at MWRP twice a week, and that all tests have been negative to date.

Mr. Cook said that IRWD continues to be at \$1.7 million outstanding for unpaid customer billing.

Mr. Cook introduced Ms. Tiffany Mitcham, IRWD’s new Human Resources Director, who started work at IRWD on February 16.

COMMUNITY UPDATE

Consultant Newell said that all is quiet in the canyon area.

DIRECTORS’ COMMENTS

Director McLaughlin reported on her attendance at a Southern California Water Coalition Water Quality Matters webinar relative to PFAS in the water supply.

Director Swan reported on his attendance at MWDOC Water Issues and Administration and Finance Committee meetings, a PPIC Headwaters webinar, an Urban Water Institute water conference, a MWDOC Managers meeting, and a Newport Beach Chamber of Commerce Government Affairs Meeting.

Director Withers said that he spoke with an individual from EBMUD and was told that they are currently at \$7 million in outstanding unpaid customer bills. He said that he will be attending the City of Irvine’s State of the City address tomorrow at 5:00 p.m.

Director LaMar reported on his attendance at ACWA meetings, a PPIC Headwaters webinar, and one day of the Urban Water Institute conference.

Director Reinhart reported on his attendance at OCWD and MWDOC meetings.

CLOSED SESSION

Legal counsel Collins said that the following Closed Session would be held this evening:

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

OPEN SESSIOS

Following the Closed Sessions, the meeting was reconvened with Directors McLaughlin, Swan, Reinhart, LaMar and Withers present. No action was reported.

ADJOURNMENT

There being no further business President Reinhart adjourned the meeting.

APPROVED and SIGNED this 8th day of March 2021.

President, IRVINE RANCH WATER DISTRICT

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Claire Hervey Collins, General Counsel
Hanson Bridgett LLP

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March 22, 2021
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

February 25	Water UCI Webinar: Trading Water California – Past, Present, & Future(s)
February 26	Riverside County Water Task Force Speaker Series: Adapting to Climate Variability Through Innovation
April 6-7	OCBC Virtual Sacramento Advocacy Trip
April 27	OCBC Virtual Washington, D.C. Advocacy Trip
May 12-13	ACWA 2021 Virtual Spring Conference & Exhibition

Karen McLaughlin

February 25	Water UCI Webinar: Trading Water California—Past, Present, & Future(s)
March 3	Water UCI Webinar: Remediation, Regulation, Reform—What we’re doing about PFAS in our water
March 11	ACWA Virtual Legislative Symposium
March 12	South Orange County Economic Coalition’s Virtual Economic Forecast
March 17	OCWA Monthly Industry Insight: Asset Management at OC San
March 30	OCWD Webinar: Putting Southern California’s Water Supply on a Low-Sodium Diet
May 12-13	ACWA 2021 Virtual Spring Conference & Exhibition

Douglas Reinhart

March 2021	WaterReuse 36 th Annual Symposium—Virtual Edition
March 30	OCWD Webinar: Putting Southern California’s Water Supply on a Low-Sodium Diet
May 12-13	ACWA 2021 Virtual Spring Conference & Exhibition

Peer Swan

May 12-13	ACWA 2021 Virtual Spring Conference & Exhibition
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Consent Calendar: Ratify/Approve Board of Directors' Attendance at Meetings and Events

March 22, 2021

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John Withers

February 10	Meeting with Paul Hernandez, The Irvine Company: IRWD, City Issues and Forecast
February 23	Irvine's State of the City Livestream
February 25	Water UCI Webinar: Trading Water California—Past, Present, & Future(s)
March 3	Water UCI Webinar: Remediation, Regulation, Reform—What we're doing about PFAS in our water
March 12	South Orange County Economic Coalition's Virtual Economic Forecast
March 30	OCWD Webinar: Putting Southern California's Water Supply on a Low-Sodium Diet
May 12-13	ACWA 2021 Virtual Spring Conference & Exhibition

RECOMMENDATION:

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

LIST OF EXHIBITS:

None.

March 22, 2021
Prepared and
submitted by: C. Compton
Approved by: Paul A. Cook



CONSENT CALENDAR

2021 LEGISLATIVE AND REGULATORY UPDATE

SUMMARY:

This report provides an update on the 2021-2022 legislative session, regulatory issues, and IRWD priorities. As legislation and regulations develop, staff will provide updates and recommendations to the Water Resources Policy and Communications Committee and the Board, as appropriate. Staff recommends the Board consider the following positions:

- *AB 377 (R. Rivas) – Water Quality: Impaired Waters: “OPPOSE”;*
- *AB 1434 (Friedman) – Indoor Residential Water Use Standard: “OPPOSE”;*
- *AB 1500 (E. Garcia) – Safe Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, and Workforce Development Bond Act of 2022: “SUPPORT IF AMENDED”;*
- *ACR 17 (Voepel) – Special Districts Week: “SUPPORT”;*
- *SB 45 (Portantino) – Wildfire Prevention, Safe Drinking Water, Drought Preparation, and Flood Protection Bond Act of 2022: “SUPPORT IF AMENDED”;*
- *SB 222 (Dodd) – Water Affordability Assistance: “OPPOSE UNLESS AMENDED”;*
- *SB 427 (Eggman) – Water Theft: “SUPPORT IF AMENDED”;*
- *SB 552 (Hertzberg) – Small Water Supplier and Countywide Water Shortage Contingency Planning: “SUPPORT”;* and
- *H.R. 1015 (Napolitano) – Water Recycling and Reuse Project Grants: “SUPPORT”.*

BACKGROUND:

The 2021 bill introduction deadline was February 19, 2021. Approximately 2,300 bills were introduced. On the Assembly side, 1,560 bills were introduced while the Senate introduced 809 bills. While many of the introduced bills contain spot or intent language, many bills include substantive proposals. With the introduction deadline having passed, the 2021 legislative year will come into full swing with policy committees ramping up and legislators working to amend their legislation so that it will be heard by the April 30 and May 7 policy committee deadlines.

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

A copy of the 2021 Legislative Matrix is provided as Exhibit “A”. Links to the bills discussed below are included within each discussion unless a separate exhibit is noted.

2021 State Legislative Update:

California COVID-19 Relief Stimulus Package:

On February 17, the Administration and Legislative Leadership announced that a deal has been reached on a \$9.5 billion COVID-19-related stimulus package, which was acted upon and signed into law on February 23. The stimulus package was funded from the \$25 billion in surplus revenue the state currently has due to larger tax returns from high-income earners. The largest funding categories included:

- \$3.37 billion for \$600 stimulus checks for low-income families and all tax filers making up to \$75,000;
- \$2.1 billion for a COVID-19 small business and non-grant grant program; and
- \$2.1 billion in tax and fee relief for small businesses;

While COVID-19 water debt relief was not included in the relief package, the water community continues to encourage the Legislature to appropriate funding for COVID-19 water debt relief.

Climate Resilience Bond Proposals:

There remains strong legislative interest in passing a climate resilience bond in 2021. The effort was led by Senate Ben Allen (D, Santa Monica) in the Senate during the 2019-2020 legislative session and by Assemblymember Eduardo Garcia (D, Coachella) in the Assembly. Confronting a possible \$54 billion State Budget deficit in 2020 due to COVID-19, the effort to pass a bond was deferred until this year.

With the better fiscal position of the State, both the Senate and the Assembly have introduced climate resilience bonds. In the Senate, [SB 45](#) was introduced by Senator Anthony Portantino (D, La Canada Flintridge), Senator Allen, Senator Melissa Hurtado (D, Sanger), and Senator Henry Stern (D, Calabasas) signing on as joint authors. In the Assembly, Assemblymember Garcia introduced [AB 1500](#) with Assemblymember Kevin Mullin (D, South San Francisco).

[SB 45](#), the Wildfire Prevention, Safe Drinking Water, Drought Preparation, and Flood Protection Bond Act of 2022, proposes a \$5.51 billion bond while [AB 1500](#), the Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, and Workforce Development Bond Act of 2022, proposes a \$6.7 billion bond. The following is a summary of the proposed funding included in each bill.

SB 45 & AB 1500 Funding Allocations
(funding in millions)

Investment Category	SB 45 Funding Allocations	AB 1500 Funding Allocations
Wildfire Prevention and Community Resilience	\$2,200	\$1,100
Water-related Climate Risks	\$1,470	\$1,600
Fish and Wildlife Climate Risks	\$620	\$800
Protecting Agricultural Lands from Impacts of Climate Change	\$190	\$300
Coastal Lands, Bays, and Oceans Climate Risks	\$970	\$1,200
Climate Resilience, Workforce Development, and Education	\$60	\$0
Responding to Extreme Heat	\$0	\$640
Strengthening California’s Regional Climate Resilience	\$0	\$1,060
<i>TOTAL</i>	<i>\$5,510</i>	<i>\$6,700</i>

Both bonds include some funding related to water. The proposed funding allocations are summarized in the following chart:

SB 45 and AB 1500 Water-Related Funding Allocations
(funding in millions)

Water Investment Category	SB 45 Funding Allocations	AB 1500 Funding Allocations
Sustainable Groundwater Management	\$420	\$250
Safe Drinking Water	\$190	\$300
Protection and Restoration of Rivers, Lakes, Streams and Parkways	\$490	\$415
Flood Management	\$140	\$235
Water Recycling	\$100	\$300
San Joaquin River Restoration/Friant Kern Canal	\$100	\$0
Contamination of Groundwater or Surface Water Supplies that Serve as a Source of Drinking Water and Improve Access to Wastewater Infrastructure	\$0	\$100
Water Infrastructure Upgrades	\$30	\$0
<i>TOTAL</i>	<i>\$1,470</i>	<i>\$1,600</i>

Last March, the Board adopted the [IRWD Water Resources Funding Policy Principles](#) as a means of providing input into the discussions surrounding the climate resilience bond, and in order to guide the District’s advocacy efforts related to California infrastructure funding. Staff recommends the Board adopt a “support if amended” position on SB 45 and AB 1500. Staff would seek amendments consistent with the Board-adopted policy principles. This is the same approach taken on the climate resilience bond proposal introduced during the 2019-2020 legislative session.

Low Income Rate Assistance Program (LIRA) & SB 222 (Dodd):

As discussed with the Board in February, Senator Bill Dodd (D-Napa) introduced SB 222 on January 14, 2021, which seeks to establish a statewide Water Affordability Assistance Program (WAAF). The WAAF, if funded, would help provide water affordability assistance, for both drinking water and wastewater services, to low-income ratepayers and ratepayers experiencing economic hardship in California and would be run by the State Water Resources Control Board.

While SB 222 proposes a structure for a statewide low-income rate assistance program, it does not propose a funding source for such a program. Despite this, as currently outlined in SB 222, the WAAF Program could be used to provide direct water bill assistance and water bill credits to renters, among other things.

SB 222 has created a tremendous amount of discussion within the water community and in Sacramento. Staff has engaged with industry associations and stakeholders in evaluating the bill. The Association of California Water Agencies (ACWA) and the California Municipal Utilities Association (CMUA) have had initial conversations with the author and sponsors regarding the water industry's concerns, and those conversations continue to take place. Despite ongoing discussions, the author and sponsors have not yet agreed to accept any of the changes proposed by the water community.

In February, the Board adopted a "concerns" position on SB 222 to allow time for conversations with the author and sponsors to take place. With policy committee hearings beginning to take place and significant amendments needed on SB 222 for the District and water community to be comfortable with the bill, staff recommends the Board now adopt a "oppose unless amended" position on SB 222.

AB 1434 (Friedman) – Indoor Residential Water Use Standard:

Assemblywoman Laura Friedman (D, Glendale) along with Senator Bob Hertzberg (D, Van Nuys) authored the "Making Conservation A Way of Life" legislation in 2018. That legislation, which is currently in the process of being implemented, requires each urban water supplier to calculate and meet an urban water use objective. The urban water use objective is calculated largely by using an indoor water use efficiency standard, outdoor water use efficiency standard, and water loss standard.

The standard for indoor residential water use was set by statute in the 2018 legislation. The legislation, which was heavily negotiated with the water community, set the indoor residential standard at 55 gallons per capita daily (gpcd) until 2025. It then reduced the standard to 52.5 gpcd between 2025 and 2030, and to 50 gpcd in 2030. The legislation also required the Department of Water Resources (DWR), in consultation with the State Board, to investigate and study the benefits and consequences of the indoor standard and make a recommendation if it should be adjusted. That examination is being undertaken but has yet to be completed.

This year, Assemblymember Friedman has introduced AB 1434 which proposes to change the indoor standard. This bill would set the standard for indoor residential water use at 48 gpcd until 2025. It would then reduce the standard to 44 gpcd between 2025 and 2030, and to 40 gpcd in 2030.

Reducing the indoor standard just as the “Making Conservation a California Way of Life” legislation is being implemented, and prior to DWR completing its full investigation and study of the benefits and consequences of a change in the indoor standard, is premature. Additionally, a lowering of the indoor residential water use standard to 40 gpcd may have a substantial impact on sewer system and treatment, and recycled water supplies throughout the state. For these reasons, staff recommends the Board adopt an “OPPOSE” position on AB 1434.

Additional 2020 State Legislation of Interest to IRWD:

There are a number of other bills of interest to the District, including:

- *AB 377 (R. Rivas) – Water Quality: Impaired Waters:* AB 377, which is sponsored by California Coastkeeper and authored by Assemblymember Robert Rivas (D, Salinas) and Senator Bob Hertzberg, would require that all California surface waters to be fishable, swimmable, and drinkable by January 1, 2050. The bill would also prohibit the State Board or a regional water quality control board from issuing a discharge permit of any kind that causes or contributes to an exceedance of a water quality standard, or from authorizing a best management practice permit term to authorize a discharge that causes or contributes to an exceedance of a water quality standard in receiving waters. The bill would also prohibit renewal, reissuance or modification of any discharge permit that contains effluent limitations or conditions that are less stringent than those in the previous permit. Given the potential impact this bill would have on the District, staff recommends the Board adopt an “oppose” position on AB 377;
- *SB 427 (Eggman, D-Stockton) – Water Theft:* SB 427 would permit a local agency to make any violation of a water theft ordinance subject to an administrative fine or penalty of between \$1,000 and \$3,000. As currently drafted, the bill would not grant the District the ability to take advantage of the proposed administrative fines or penalties. This same language was introduced last year in AB 2095 (Cooper). Staff recommends the Board adopt a “support if amended” position on SB 427. The amendments sought would be clarifying amendments that would provide the District the ability to address water theft via administrative fines or penalties. Staff engaged with the sponsor of the bill and they are willing to work with on clarifying amendments to address the District’s concerns. If the amendments are included in the bill, the District would move to a “support” position on SB 427;
- *ACR 17 (Voepel) – Special Districts Week:* Again this year, the California Special Districts Association is sponsoring an Assembly Concurrent Resolution recognizing Special Districts Week. ACR 17, authored by Assemblymember Randy Voepel (R-Santee), would recognize May 16- 22, 2021, as Special Districts Week in California. As the District did last year, staff recommends the Board adopt a “support” position on the Assembly Concurrent Resolution recognizing Special Districts Week; and

- *SB 552 (Hertzberg) – Small Water Supplier and Countywide Water Shortage Contingency Planning:* The Urban Water Management Planning Act requires all urban water suppliers to prepare and adopt an urban water management plan (UWMP). One of the required elements of the UWMP is a water shortage contingency plan (WSCP), which is the water shortage and drought response plan for each agency. While the “Making Water Conservation a California Way of Life” legislation enhanced the drought planning requirements of the UWMP and the WSCP for urban water suppliers, it asked the Department of Water Resources to make recommendations on how to implement drought planning and water shortage contingency plans for small water suppliers and rural communities. SB 552 seeks to implement DWR’s recommendations for systems under 2,999 connections and is a reintroduction of SB 971 by Senator Bob Hertzberg (D, Van Nuys) from last year. Staff recommends the Board adopt a “support” position on SB 552, as it will move California towards greater resilience during a drought.

Staff discussed the following bills with the Water Resources Policy and Communications Committee on March 1, 2021:

- SB 12 (McGuire, D- San Rafael) – Planning and Zoning: Wildfires;
- SB 223 (Dodd) – Discontinuation of Residential Water Service;
- SB 323 (Caballero, D-Salinas) – Legal Action on Water and Sewer Service Rates;
- SB 403 (Gonzalez, D-San Diego) – Drinking Water Consolidations;
- SB 443 (Newman, D-Fullerton) – Redistricting;
- Legislative Proposals Modifying the State’s Open Meeting Laws; and
- Other legislation of interest to the District.

2021 State Regulatory Update:

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

The pending regulations and reports actively being tracked include the:

- Board of Forestry and Fire Protection’s propose “Fire Safe Regulations;”
- California Air Resources Board’s proposed “Advanced Clean Trucks Regulation;”
- California Air Resources Board’s Heavy-Duty Vehicle Inspection and Maintenance Program;
- California Plumbing Code Update;
- California Water Commission Workshops on Water Conveyance;
- Department of Water Resources (DWR) and the State Board’s implementation of the “Making Water Conservation a California Way of Life” legislation;

- Implementation of Executive Order [EO-N-82-2020](#) requiring 30 percent of the state’s land and coastal waters to be conserved by 2030;
- Implementation of the Governor’s Water Resiliency Portfolio;
- State Board’s development of a “Cross Connection Policy Handbook;”
- State Board’s Electronic Annual Report;
- State Board’s [Safe and Affordable Funding for Equity and Resilience \(SAFER\) Drinking Water Program](#); and
- State Board’s [Water Loss Performance Standards Regulations](#);

2021 Federal Update:

H.R. 1015 (Napolitano) – Water Recycling and Reuse Project Grants:

Representative Grace Napolitano (D-CA) has reintroduced legislation to increase the funding authorization for the popular Title XVI Program. H.R. 1015, the Water Recycling Investment and Improvement Act, would increase the authorization level for the Title XVI Water Reclamation and Reuse Program from \$50 million to \$500 million, and would make it a permanent program. Currently, the program’s authorization expires this year.

Historically, the District has support increased funding and extended program authorization for the Title XVI program. In fact, the District supported Representative Napolitano’s effort to increase the program’s funding to \$500 million last year. Staff recommends the District support her efforts again this year. To that end, staff recommends the Board adopt a “support” position on H.R. 1015.

Other Federal Updates:

Staff also discussed the following with the Committee:

- Federal efforts related to the Kern Fan Groundwater Storage Project and a reauthorization of the federal Water Storage Program, and
- Federal COVID-19 relief efforts.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on March 1, 2021.

RECOMMENDATION:

THAT THE BOARD ADOPT AN “OPPOSE” POSITION ON AB 377 (R. RIVAS) AND AB 1434 (FRIEDMAN), AN “OPPOSE UNLESS AMENDED” POSITION ON SB 222 (DODD), A “SUPPORT IF AMENDED” POSITION ON AB 1500 (E. GARCIA), SB 45 (PORTANTINO) AND SB 427 (EGGMAN), AND A “SUPPORT” POSITION ON ACR 17 (VOEPEL), SB 552 (HERTZBERG) AND H.R. 1015 (NAPOLITANO).

LIST OF EXHIBITS:

Exhibit “A” – IRWD Legislative Matrix

EXHIBIT "A"
IRWD 2021 LEGISLATIVE MATRIX
Updated 02/24/2021

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 1</u> Garcia (D)	Hazardous Waste		Creates the Board of Environmental Safety in the California Environmental Protection Agency. Provides requirements for the membership of the board and requires the board to conduct no less than 6 public meetings per year. Provides for the duties of the board, which would include, among others, reviewing specified policies, processes, and programs within the hazardous waste control laws.	01/11/2021 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 2</u> Fong (R)	Regulations: Legislative Review: Regulatory Reform		Requires the Office of Administrative Law to submit to each house of the Legislature for review a copy of each major regulation that it submits to the Secretary of State. Requires each state agency to review that agency's regulations, identify any regulations that are duplicative, overlapping, inconsistent, or out of date, to revise those identified regulations, and report to the Legislature and Governor.	01/11/2021 - To ASSEMBLY Committee on ACCOUNTABILITY AND ADMINISTRATIVE REVIEW.
<u>AB 9</u> Wood (D)	Wildfires		States the intent of the Legislature to enact subsequent legislation that would increase California's capacity to prevent and reduce the impact of wildfires.	12/07/2020 - INTRODUCED.
<u>AB 11</u> Ward (D)	Climate Change: Regional Climate Change Authorities		Requires the Strategic Growth Council to establish regional climate change authorities to coordinate climate adaptation and mitigation activities in their regions and coordinate with other regional climate adaptation authorities, state agencies, and other relevant stakeholders. Authorizes the regional climate change authorities to engage in certain activities to address climate change. Requires the regional climate change authorities to annually submit to the council a report on their activities.	01/21/2021 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;01/21/2021 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<u>AB 15</u> Chiu (D)	COVID-19 Relief: Tenancy Stabilization Act of 2021		Extends the definition of "COVID-19 rental debt" as unpaid rent or any other unpaid financial obligation of a tenant that came due between March 1, 2020, and December 31, 2021. Extends the repeal date of the COVID-19 Tenant Relief Act of 2020 to January 1, 2026. Prohibits a landlord from taking certain actions with respect to a tenant's COVID-	01/11/2021 - To ASSEMBLY Committee on HOUSING AND COMMUNITY DEVELOPMENT.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			19 rental debt, including, among others, charging or attempting to collect late fees, or withholding a service or amenity.	
<u>AB 16</u> Chiu (D)	Tenancies: Tenant, Small Landlord, and Housing Act		Establishes the Tenant, Small Landlord, and Affordable Housing Provider Stabilization Program. Authorizes the Director of Housing and Community Development to direct an existing office or program within the Department of Housing and Community Development to implement the program. Establishes in the State Treasury the COVID-19 Tenant, Small Landlord, and Affordable Housing Provider Stabilization Fund, and, upon appropriation, distributes all moneys in the fund to carry out the purposes of the program.	01/12/2021 - From ASSEMBLY Committee on HOUSING AND COMMUNITY DEVELOPMENT with author's amendments.;01/12/2021 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on HOUSING AND COMMUNITY DEVELOPMENT.
<u>AB 20</u> Lee (D)	Political Reform Act of 1974: Clean Money Act of 2021		Enacts the Clean Money Act of 2021, would prohibit a candidate for elective office from receiving a contribution from a business entity, and a business entity from making a contribution to a candidate for elective office, and would make related findings and declarations.	01/11/2021 - To ASSEMBLY Committee on ELECTIONS.
<u>AB 25</u> Kiley (R)	Worker Classification: Employees and Contractors		Generally repeals provisions relating to the "ABC" test to determine if workers are employees or independent contractors. The bill would instead require the determination of whether a person is an employee or an independent contractor to be based on the specific multifactor test set forth in the Borello decision, including whether the person to whom service is rendered has the right to control the manner and means of accomplishing the result desired.	01/11/2021 - To ASSEMBLY Committee on LABOR AND EMPLOYMENT.
<u>AB 29</u> Cooper (D)	State Bodies: Meetings		Requires that the notice of a meeting of a state body include all writings or materials provided for the noticed meeting to a member of the state body by the staff of a state agency, board, or commission, or another member of the state body that are in connection with a matter subject of discussion or consideration at the meeting.	01/11/2021 - To ASSEMBLY Committee on GOVERNMENTAL ORGANIZATION.
<u>AB 33</u> Ting (D)	Natural Gas		Prohibits the Department of General Services from approving or providing funding from the construction on new school buildings that have natural gas connections. Prohibits new public buildings for which	01/11/2021 - To ASSEMBLY Committees on UTILITIES AND

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			construction begins on or after January 1, 2022, to have natural gas connections.	ENERGY and NATURAL RESOURCES.
<u>AB 49</u> Petrie-Norris (D)	California Debt Limit Allocation Committee		States the intent of the Legislature to enact future legislation that would eliminate the California Debt Limit Allocation Committee and that would transfer the duties and authority of that committee to the California Tax Credit Allocation Committee.	12/07/2020 - INTRODUCED.
<u>AB 50</u> Boerner Horvath (D)	Climate Adaptation Center and Regional Support Network		Establishes the Climate Adaptation Center and Regional Support Network in the Ocean Protection Council to provide local governments facing sea level rise challenges with information and scientific expertise necessary to proceed with sea level rise mitigation.	01/11/2021 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 51</u> Quirk (D)	Regional Climate Adaptation Planning Groups		Requires the Strategic Growth Council, by July 1, 2022, to establish guidelines for the formation of regional climate adaptation planning groups. Requires the council, by July 1, 2023, and in consultation with certain state entities, to develop criteria for the development of regional climate adaptation plans.	01/11/2021 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 52</u> Frazier (D)	California Global Warming Solutions Act of 2006		Requires the State Air Resources Board, in each scoping plan update prepared by the state board after January 1, 2022, to include, consistent with the Global Warming Solutions Act of 2006, recommendations for achieving the maximum technologically feasible and cost-effective reductions of emissions of greenhouse gases and black carbon from wildfires. Expresses the intent of the Legislature to appropriate an amount from the Greenhouse Gas Reduction Fund for wildfire mitigation and prevention.	01/11/2021 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 55</u> Boerner Horvath (D)	Employment: Telecommuting		Declares the intent of the Legislature to enact future legislation to ensure certain rights and benefits for telecommuting employees.	12/07/2020 - INTRODUCED.
<u>AB 59</u> Gabriel (D)	Mitigation Fee Act: Fees: Notice and Timeliness	OPPOSE	Relates to the Mitigation Fee Act. Increases, for fees and service charges and for fees for specified public facilities, the time for mailing the notice of the time and place of the meeting to at least 45 days before	01/11/2021 - To ASSEMBLY Committees on LOCAL GOVERNMENT and HOUSING

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			the meeting. Requires the local agency to make that information available to the public at least 30 days before the meeting.	AND COMMUNITY DEVELOPMENT.
<u>AB 63</u> Petrie-Norris (D)	Marine Resources: Marine Managed Areas Improvement Act		Relates to the Marine Managed Areas Improvement Act, restoration activities. Authorizes the designating entity or managing agency to also permit restoration activities.	01/11/2021 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 64</u> Quirk (D)	Electricity: Renewable Energy and Zero-Carbon		Requires the PUC, Energy Commission, and State Air Resources Board, in consultation with all balancing authorities, to additionally develop a strategy, by an unspecified date, on how to achieve a specified state policy in a cost-effective and environmentally beneficial manner.	01/11/2021 - To ASSEMBLY Committees on UTILITIES AND ENERGY and NATURAL RESOURCES.
<u>AB 67</u> Petrie-Norris (D)	Sea Level Rise: Working Group: Economic Analysis		Requires a state agency to take into account the current and future impacts of sea level rise when planning, designing, building, operating, maintaining, and investing in infrastructure located in the coastal zone or otherwise vulnerable to flooding from sea level rise or storm surges, or when otherwise approving the allocation of state funds for those purposes.	01/11/2021 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 69</u> Kiley (R)	State of Emergency: Termination After 60 Days		Requires a state of emergency to terminate 60 days after the Governor's proclamation of the state of emergency unless the Legislature extends it by a concurrent resolution. Prohibits a concurrent resolution from extending a state of emergency by more than 60 days.	01/11/2021 - To ASSEMBLY Committee on EMERGENCY MANAGEMENT.
<u>AB 72</u> Petrie-Norris (D)	Environmental Protection: Coastal Adaptation Projects		Enacts the Coastal Adaptation Permitting Act of 2021. Requires the Natural Resources Agency to explore, and authorize it to implement, options within the agency's jurisdiction to establish a more coordinated and efficient regulatory review and permitting process for coastal adaptation projects.	01/11/2021 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 93</u> Garcia E (D)	Pandemics: Priority for Medical		States the intent of the Legislature to enact legislation to prioritize workers in the food supply industry, including, but not limited to, field	12/07/2020 - INTRODUCED.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
	Treatment: Food Supply		workers and grocery workers, for rapid testing and vaccination programs in response to pandemics, including COVID-19.	
<u>AB 95</u> Low (D)	Employees: Bereavement Leave		Enacts the Bereavement Leave Act of 2021. Requires an employer with 25 or more employees to grant an employee up to 10 business days of unpaid bereavement leave upon the death of a spouse, child, parent, sibling, grandparent, grandchild, or domestic partner, in accordance with certain procedures, and subject to certain exclusions. Requires an employer with fewer than 25 employees to grant up to 3 business days of leave.	01/11/2021 - To ASSEMBLY Committee on LABOR AND EMPLOYMENT.
<u>AB 96</u> O'Donnell (D)	Clean Truck, Bus, and Off-Road Vehicle and Technology		Extends the requirement that 20% of funding be made available to support early commercial deployment of existing zero- and near-zero-emission heavy-duty truck technology until December 31, 2026. The bill would further require at least 20% of that funding support early commercial deployment of existing near-zero-emission heavy-duty truck technology.	01/11/2021 - To ASSEMBLY Committees on TRANSPORTATION and NATURAL RESOURCES.
<u>AB 100</u> Holden (D)	Drinking Water: Pipes and Fittings: Lead Content		Defines "lead free" under the California Safe Drinking Water Act, with respect to end point devices, to mean that the devices do not leach more than one microgram of lead under certain tests and meeting a specified certification.	01/11/2021 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 108</u> Cunningham (R)	Governor's Emergency Orders and Regulations: Approval		Permits an order or regulation, or an amendment or rescission thereof, issued pursuant to specified California Emergency Services Act (CESA) provisions 60 or more days after the proclamation, to take effect only if approved by a concurrent resolution of the Legislature.	01/11/2021 - To ASSEMBLY Committee on EMERGENCY MANAGEMENT.
<u>AB 119</u> Salas (D)	County Assessors: Direct Levies		Requires the county auditor, or other county officer designated by the county, to make publicly available on their internet website information about direct levies as defined, including the range of combined direct levies assessed on real property. Requires a website posting that identifies contact information for each direct levy assessed within their	01/26/2021 - From ASSEMBLY Committee on LOCAL GOVERNMENT with author's amendments.;01/26/2021 - In ASSEMBLY. Read second time and

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			jurisdiction, to also include the range of fees assessed on individual parcels of real property subject to the special district's assessment.	amended. Re-referred to Committee on LOCAL GOVERNMENT.
<u>AB 123</u> Gonzalez (D)	Paid Family Leave: Weekly Benefit Amount		Revises the formula for determining benefits available pursuant to the family temporary disability insurance program, for periods of disability commencing after January 1, 2022, by redefining the weekly benefit amount to be equal to 90% of the wages paid to an individual for employment by employers during the quarter of the individual's disability base period in which these wages were highest, divided by 13, but not exceeding the maximum workers' compensation disability indemnity weekly benefit amount.	01/11/2021 - To ASSEMBLY Committee on INSURANCE.
<u>AB 125</u> Rivas R (D)	Food and Agriculture: Climate Crisis: COVID-19 Recovery		States the intent of the Legislature to enact subsequent legislation to issue a bond to support solutions to the climate crisis and recovery from the COVID-19 pandemic that would create a more equitable and resilient food and farming system.	12/18/2020 - INTRODUCED.
<u>AB 221</u> Santiago (D)	Emergency Food Assistance		Requires the Department of Social Services to provide a food assistance benefit statewide to low-income California residents, regardless of their immigration status, upon the appropriation of funds by the Legislature for this purpose or a determination by the Governor that specified funds available to the Governor may be used for this purpose. Provides that a person is eligible for this benefit if they are an adult who self-attests to eligibility for at least one of 3 prescribed benefits.	01/28/2021 - To ASSEMBLY Committee on HUMAN SERVICES.
<u>AB 230</u> Voepel (R)	Employment: Flexible Work Schedules		Enacts the Workplace Flexibility Act of 2021. Permits an individual nonexempt employee to request an employee-selected flexible work schedule providing for workdays up to a certain number of hours per day within a 40-hour workweek, and would allow an employer to implement this schedule without the obligation to pay overtime compensation for those additional hours in a workday, except as specified.	01/28/2021 - To ASSEMBLY Committee on LABOR AND EMPLOYMENT.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 237</u> Gray (D)	Public Employment: Unfair Practices: Health Protection		Makes it an unfair practice for a covered employer, as defined, to fail or refuse to maintain or pay for continued health care or other medical coverage for an enrolled employee or their enrolled dependents, for the duration of the enrolled employee's participation in the authorized strike, at the level and under the conditions that coverage would have been provided if the employee had continued to work in their position for the duration of the strike.	01/28/2021 - To ASSEMBLY Committee on PUBLIC EMPLOYMENT AND RETIREMENT.
<u>AB 244</u> Rubio (D)	Affordable Housing Cost Study: Housing Plan Addendum		Requires the California Tax Credit Allocation Committee, the Department of Housing and Community Development, the California Housing Finance Agency, and the California Debt Limit Allocation Committee to conduct an affordable housing cost study that measures the factors that influence the cost of building affordable housing, breaks down total development costs for affordable housing, and enables the state to maximize resources allocated for affordable housing.	01/28/2021 - To ASSEMBLY Committee on HOUSING AND COMMUNITY DEVELOPMENT.
<u>AB 252</u> Rivas R (D)	Department of Conservation: Incentive Program		Requires the Department of Conservation to establish and administer a program named the Multibenefit Land Repurposing Incentive Program for purposes of providing grants to groundwater sustainability agencies or counties, or other specified entities designated by groundwater sustainability agencies or counties, for the development or implementation of local programs supporting or facilitating multibenefit land repurposing at the basin scale.	01/28/2021 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 255</u> Muratsuchi (D)	Tenancy: Commercial Leases: COVID-19 Rent Relief		States the intent of the Legislature to enact legislation that would provide commercial rent relief protections for small businesses affected by the COVID-19 pandemic to help them weather this public health and economic crisis without losing their businesses.	01/14/2021 - INTRODUCED.
<u>AB 267</u> Valladares (R)	California Environmental Quality Act: Exemption		Extends the exemption from CEQA prescribed fire, thinning, or fuel reduction projects undertaken on federal lands to reduce the risk of high-severity wildfire that have been reviewed under the federal National Environmental Policy Act of 1969 and the requirement on the	01/28/2021 - To ASSEMBLY Committee on NATURAL RESOURCES.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			Department of Forestry and Fire Protection to report to the relevant policy committees of the Legislature indefinitely.	
<u>AB 284</u> Rivas R (D)	Global Warming Solutions Act of 2006: Climate Goal		Requires the State Air Resources Board, when updating the scoping plan and in collaboration with the Natural Resources Agency and other relevant state agencies and departments, to take specified actions by a certain date, including, among others, identifying a 2045 climate goal, with interim milestones, for the state's natural and working lands.	01/28/2021 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 297</u> Gallagher (R)	Fire Prevention		Appropriates certain amounts to the Department of Forestry and Fire Prevention and the California Conservation Corps, respectively, for fire prevention activities. Exempts from the requirements of the California Environmental Quality Act (CEQA) projects or activities related to forest health and fuel reduction that involve thinning overgrown brushes or trees 10 inches or less in diameter by mechanical thinning, pile burning, prescribed fire, and grazing.	02/12/2021 - To ASSEMBLY Committees on NATURAL RESOURCES and REVENUE AND TAXATION.
<u>AB 304</u> Quirk (D)	Contaminated Sites: Waste Releases		Authorizes a person to request the local officer to oversee the remedial action only if the release of waste is not being overseen by the State Water Resources Control Board or a regional water quality control board.	02/12/2021 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 315</u> Stone (D)	Voluntary Stream Restoration Landowner Liability		Requires the state to indemnify and hold harmless a landowner who voluntarily allows land to be used for such a project to restore fish and wildlife habitat from civil liability for property damage or personal injury resulting from the project if the project meets specified requirements.	02/12/2021 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 318</u> Levine (D)	Hazardous Waste: Classification: Exclusion: Green Waste		Excludes from classification as a hazardous waste green waste, as defined, that has not been contaminated by a chemical that the Department of Toxic Substances Control determines is hazardous or toxic during the production, harvest, or processing stage. Requires that green waste to be disposed of in a permitted class I, II, or III disposal unit or in a compostable materials handling operation.	02/12/2021 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.

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Updated 02/24/2021

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 322</u> Salas (D)	Energy: Electric Program Investment Charge Program		Requires the State Energy Resources Conservation and Development Commission to allocate not less than 20% of the funds appropriated for the Electric Program Investment Charge (EPIC) program to bioenergy projects for biomass conversion, as defined.	02/12/2021 - To ASSEMBLY Committees on UTILITIES AND ENERGY and NATURAL RESOURCES.
<u>AB 327</u> Kiley (R)	California Cybersecurity Integration Center		Add the California Privacy Protection Agency as one of the organizations whose representatives comprise the California Cybersecurity Integration Center. Declare that its provisions further the purposes and intent of the California Privacy Rights Act of 2020.	02/12/2021 - To ASSEMBLY Committees on PRIVACY AND CONSUMER PROTECTION and EMERGENCY MANAGEMENT.
<u>AB 336</u> Villapudua (D)	Enhanced Infrastructure Financing: Public Authority		Specifies that any member of the legislative body of a participating affected taxing entity who serves as a member of the public financing authority of an enhanced infrastructure financing district, as described, may also serve as a member of the governing body of an agency or entity formed pursuant to an agreement for the joint exercise of power that the participating affected taxing entity has entered into in accordance with the Joint Exercise of Powers Act.	02/12/2021 - To ASSEMBLY Committee on LOCAL GOVERNMENT.
<u>AB 339</u> Lee (D)	State and Local Government: Open Meetings		Requires all meetings of the Legislature, including gatherings using teleconference technology, to include an opportunity for all persons to attend via a call-in option or an internet-based service option that provides closed captioning services and requires both a call-in and an internet-based service option to be provided to the public. Requires all meetings to provide the public with an opportunity to comment on proposed legislation, and requires translation services to be provided, as specified.	01/28/2021 - INTRODUCED.
<u>AB 343</u> Fong (R)	California Public Records Act Ombudsperson		Establishes, within the California State Auditor's Office, the California Public Records Act Ombudsperson. Requires the California State Auditor to appoint the Ombudsperson subject to certain requirements. Requires the Ombudsperson to receive and investigate requests for review, determine whether the denials of original requests complied	02/12/2021 - To ASSEMBLY Committees on ACCOUNTABILITY AND ADMINISTRATIVE REVIEW and JUDICIARY.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			with the California Public Records Act, and issue written opinions of its determination.	
<u>AB 345</u> Quirk-Silva (D)	Accessory Dwelling Units: Separate Conveyance		Requires each local agency to, by ordinance, allow an accessory dwelling unit to be sold or conveyed separately from the primary residence to a qualified buyer if certain conditions are met. Removes the requirements that the property be held pursuant to a recorded tenancy in common agreement and that the agreement allocate to each qualified buyer an undivided, unequal interest in the property.	02/12/2021 - To ASSEMBLY Committees on HOUSING AND COMMUNITY DEVELOPMENT and LOCAL GOVERNMENT.
<u>AB 346</u> Seyarto (R)	Privacy: Breach		Relates to the Information Practices Act which requires an agency, which includes a local agency, that owns or licenses computerized data that includes personal information to disclose expeditiously and without unreasonable delay a breach in the security of the data to a resident of California whose unencrypted personal information was, or is reasonably believed to have been, acquired by an unauthorized person. Makes this requirement applicable if the information is accessed by an unauthorized person.	02/12/2021 - To ASSEMBLY Committee on PRIVACY AND CONSUMER PROTECTION.
<u>AB 350</u> Villapudua (D)	Cannella Environmental Farming Act of 1995		Requires the Department of Food and Agriculture to establish and administer a 3-year grant program to fund technical assistance to support landowners located in critically overdrafted basins, as defined, in the San Joaquin Valley in reaching water use reduction goals established pursuant to the Sustainable Groundwater Management Act.	02/12/2021 - To ASSEMBLY Committees on AGRICULTURE and WATER, PARKS AND WILDLIFE.
<u>AB 354</u> Cooper (D)	Public Utilities Commission: Expedited Distribution		Makes nonsubstantive changes to the provision authorizing the Public Utilities Commission to establish an expedited distribution grid interconnection dispute resolution process.	01/28/2021 - INTRODUCED.
<u>AB 355</u> Cooper (D)	Demand-Side Energy Management Programs		Makes a nonsubstantive change to existing law which requires an electrical or gas corporation to develop a program, within the electrical or gas corporation's demand-side management programs authorized by the commission, to provide incentives to a residential or small or medium business customer to acquire energy management technology.	01/28/2021 - INTRODUCED.

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<u>AB 358</u> Gallagher (R)	Voidable Transactions: Remedies: Choice of Law		Relates to existing law which specifies that a covered claim is governed by the local law of the jurisdiction in which the debtor is located when the transfer is made or the obligation is incurred and specifies that a debtor's location, if the debtor is an individual, is the individual's principal residence. The bill instead provides that a debtor's location, if the debtor is an individual, is the debtor's principal residence or domicile.	02/12/2021 - To ASSEMBLY Committee on JUDICIARY.
<u>AB 361</u> Rivas R (D)	Open Meetings: Local Agencies: Teleconferences		Authorizes a local agency to use teleconferencing without complying with the teleconferencing requirements imposed by the Ralph M. Brown Act when a legislative body of a local agency holds a meeting for the purpose of declaring or ratifying a local emergency, during a declared state or local emergency, when state or local health officials have imposed or recommended measures to promote social distancing, and during a declared local emergency.	02/12/2021 - To ASSEMBLY Committee on LOCAL GOVERNMENT.
<u>AB 363</u> Medina (D)	Carl Moyer Air Quality Standards Attainment Program		Relates to the Carl Moyer Memorial Air Quality Standards Attainment Program. Requires the Air Resources Board, by a specified date, to adopt an online application process for the submission of grant applications under the program. Requires the Board and local air districts administering the program to use the online application process. Requires the state board, by a specified date, to review the program and to submit to the Legislature a report on the review.	02/12/2021 - To ASSEMBLY Committee on TRANSPORTATION.
<u>AB 373</u> Seyarto (R)	Forest Protection: Department of Forestry		Relates to existing Law that directs the Department of Forestry and Fire Protection, in accordance with a plan approved by the State Board of Forestry and Fire Protection to carry out specified duties with respect to the prevention and control of forest fires. Makes nonsubstantive changes in that provision of the prevention and control of forest fires.	02/01/2021 - INTRODUCED.
<u>AB 377</u> Rivas R (D)	Water Quality: Impaired Waters		Requires all California surface waters to be fishable, swimmable, and drinkable by a specified date. Prohibits the state board and regional boards from authorizing an NPDES discharge, waste discharge	02/12/2021 - To ASSEMBLY Committee on ENVIRONMENTAL

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			requirement, or waiver of a waste discharge requirement that causes or contributes to an exceedance of a water quality standard, or from authorizing a best management practice permit term to authorize a discharge that causes or contributes to an exceedance of a water quality standard, as specified.	SAFETY AND TOXIC MATERIALS.
<u>AB 379</u> Gallagher (R)	Wildlife Conservation: Conservation Lands		Authorizes the Department of Fish and Game to enter into a specified type of agreement with a California Native American tribe. Authorizes the board to make grants or loans to California Native American tribes for various purposes in connection with fish and wildlife habitats.	02/12/2021 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 380</u> Seyarto (R)	Forestry: Priority Fuel Reduction Projects		Requires the Department of Forestry and Fire Protection, before December 31, 2022, and before December 31 of each year thereafter, to identify priority fuel reduction projects. Exempts the identified priority fuel reduction projects from certain legal requirements in a similar manner as provided in the proclamation of a state of emergency issued by the Governor on March 22, 2019.	02/12/2021 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 386</u> Cooper (D)	Public Employees Retirement: Investments: Confidential		Exempts from disclosure under the California Public Records Act specified records regarding an internally managed private loan made directly by the Public Employees' Retirement Fund. Provides that these records would include quarterly and annual financial statements of the borrower or its constituent owners, unless the information has already been publicly released by the keeper of the information.	02/12/2021 - To ASSEMBLY Committees on PUBLIC EMPLOYMENT AND RETIREMENT and JUDICIARY.
<u>AB 404</u> Salas (D)	Workers' Compensation: Medical-Legal Expenses		Relates to Workers compensation. Requires that the medical-legal fee schedule be updated at least annually to increase the conversion factor by the percentage increase in the most recent federal Medicare Economic Index. Requires that the fee schedule not decrease in the event that the federal Medicare Economic Index decreases.	02/12/2021 - To ASSEMBLY Committee on INSURANCE.
<u>AB 418</u> Valladares (R)	Emergency Services: Grant Program		Establishes the Community Power Resiliency Program to be administered by the Office of Emergency Services, to support local governments in priority areas including schools, elections offices, food	02/12/2021 - To ASSEMBLY Committees on EMERGENCY

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			storage reserves, COVID-19 testing sites, and traffic signals and street lamps. Authorizes the Office to allocate specified sums, pursuant to an appropriation by the Legislature, to local governments, special districts, and tribes for various purposes relating to power resiliency.	MANAGEMENT and UTILITIES AND ENERGY.
<u>AB 426</u> Bauer-Kahan (D)	Toxic Air Contaminants		Authorizes air pollution control districts and air quality management districts to adopt and implement regulations to require data regarding air pollution within the district's jurisdiction from areawide stationary sources of air pollution, including mobile sources drawn by those stationary sources, to enable the calculation of health risks from toxic air contaminants. Authorizes the districts to adopt and implement regulations to accomplish these objectives in carrying out their responsibilities.	02/12/2021 - To ASSEMBLY Committees on NATURAL RESOURCES and TRANSPORTATION.
<u>AB 427</u> Bauer-Kahan (D)	Electricity: Resource Adequacy Requirements		Requires the Public Utilities Commission, by July 1, 2022, to establish rules that allow demand response programs and resources procured by a load-serving entity to meet the load-serving entity's resource adequacy requirements regardless of whether the program is integrated into the wholesale market overseen by the Independent System Operator, and to adopt a baseline methodology that treats the charging of energy storage as load in baseline calculations for demand response programs.	02/12/2021 - To ASSEMBLY Committee on UTILITIES AND ENERGY.
<u>AB 428</u> Mayes (R)	Local Government Planning		Relates to existing law, the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, which makes certain findings and declarations relating to local government organizations, including the encouragement of orderly growth and development, and the logical formation and modification of the boundaries of local agencies. Makes nonsubstantive changes to these findings and declarations.	02/04/2021 - INTRODUCED.
<u>AB 431</u> Patterson (R)	Forestry: Timber Harvesting Plans: Defensible Space		Extends to January 1, 2026, the State Board of Forestry and Fire Protection's authorization to exempt a person from the Forest Practice Act of 1973 engaging in the cutting or removal of trees on the person's property in compliance with specified defensible space requirements as provided.	02/12/2021 - To ASSEMBLY Committee on NATURAL RESOURCES.

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<u>AB 436</u> Fong (R)	Wages: Records: Inspection and Copying		Relates to existing law which gives every current and former employee the right to inspect and receive a copy of the personnel records that the employer maintains relating to the employee's performance. Requires, if an employee or their representative requests to inspect or copy records relating to the itemized statement and also requests to inspect or receive a copy of personnel records, that the deadline to comply with both requests be governed by the response deadline provisions.	02/12/2021 - To ASSEMBLY Committee on LABOR AND EMPLOYMENT.
<u>AB 440</u> Bigelow (R)	Bear Lake Reservoir: Recreational Use		Extends, until January 1, 2032, the operation of existing law which prohibits recreational use involving bodily contact with the water in Bear Lake Reservoir unless certain conditions are satisfied, including that the water subsequently receives complete water treatment.	02/12/2021 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 442</u> Mayes (R)	Surface Mining and Reclamation Act: Exemption		Exempts from the provisions of the Surface Mining and Reclamation Act of 1975 emergency excavations or grading conducted by the Metropolitan Water District of Southern California (MWD) for its own operations and infrastructure for specified purposes. Authorizes MWD to prepare a single master reclamation plan, as provided, for its earth moving operations conducted on lands owned or leased by, or upon which easements or rights-of-way have been granted to, MWD for specified purposes.	02/12/2021 - To ASSEMBLY Committees on NATURAL RESOURCES and WATER, PARKS AND WILDLIFE.
<u>AB 444</u> Public Employment and Retirement Cmt	State and Local Employees: Pay Warrants: Designees		Relates to State and local employees. Prescribes a process by which an appointing power would issue a check directly to a designated person instead of delivering employee warrants to that person. Provides that upon sufficient proof of the designee's identity, the appointing power must endorse and deposit the warrant issued to a deceased employee back into the Treasury to the credit of the fund or appropriation upon which it was drawn, then issue a revolving fund check to the designated person.	02/18/2021 - To ASSEMBLY Committee on PUBLIC EMPLOYMENT AND RETIREMENT.

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<u>AB 464</u> Mullin (D)	Enhanced Infrastructure Financing Districts		Relates to existing law which authorizes an infrastructure financing district to finance the ongoing or capitalized costs to maintain facilities financed in whole or in part by the district, but prohibits the use of proceeds of bonds issued to finance maintenance of any kind. Removes the prohibition on the use of proceeds of bonds issued to finance maintenance of any kind.	02/18/2021 - To ASSEMBLY Committee on LOCAL GOVERNMENT.
<u>AB 473</u> Chau (D)	California Public Records Act		Recodifies and reorganizes the provisions of the California Public Records Act. The bill would include provisions to govern the effect of recodification and states that the bill is intended to be entirely nonsubstantive in effect.	02/18/2021 - To ASSEMBLY Committee on JUDICIARY.
<u>AB 474</u> Chau (D)	California Public Records Act: Conforming Revisions		Enacts various conforming and technical changes related to another bill that recodifies and reorganizes the California Public Records Act. The bill would only become operative if the related bill recodifying the act is enacted and becomes operative on January 1, 2023.	02/18/2021 - To ASSEMBLY Committee on JUDICIARY.
<u>AB 480</u> Carrillo (D)	Hazardous Substances		Requires the reporting of the release or threatened release of a hazardous substance to the unified program agency (UPA) and the Office of Emergency Services. Requires a handler, employee, authorized representative, agent, or their designee to provide state, city, or county fire or public health or safety personnel and emergency response personnel with access to the handler's facility if there is a release or threatened release at the facility.	02/18/2021 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 497</u> Waldron (R)	Wildfire Prevention		Provides that it is the intent of the Legislature to enact legislation that would enact statutory changes relating to wildfire prevention.	02/09/2021 - INTRODUCED.
<u>AB 513</u> Bigelow (R)	Employment: Telecommuting Employees		Authorizes an employee working from home to receive legally required notices and postings electronically and sign certain documents electronically. The bill would also require that a working from home employee's wages due at the time of separation of employment be deemed to have been paid on the date that the wages are mailed to the employee.	02/18/2021 - To ASSEMBLY Committee on LABOR AND EMPLOYMENT.

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<u>AB 517</u> Dahle M (R)	California State Safe Harbor Agreement Program Act		Relates to existing law which requires the Department of Fish and Wildlife to provide notice to the landowner at least 7 days before accessing the land or water for purposes of the California State Safe Harbor Agreement Program Act. Increases the notice period to the landowner to at least 7 business days.	02/18/2021 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 522</u> Fong (R)	Forest Fire Prevention Exemption		Extends the operation of the Forest Fire Prevention Exemption indefinitely. Deletes the requirement that the tree harvesting area not exceed 300 acres and the requirement that temporary road construction or reconstruction be limited to no more than 2 miles of road per ownership in a planning watershed per any 5-year period.	02/18/2021 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 530</u> Fong (R)	Labor Code Private Attorneys General Act of 2004		Requires the aggrieved employee to inform the employer which specific violations of the Labor Code are being brought under each subdivision of the Labor Code Private Attorneys General Act and to inform the employer if statutory right to cure provisions apply.	02/18/2021 - To ASSEMBLY Committees on LABOR AND EMPLOYMENT and JUDICIARY.
<u>AB 554</u> Mathis (R)	Department of Fish and Wildlife		Establishes in the Department of Fish and Wildlife the Office of the Ombudsperson, administered through the ombudsperson, requires the Fish and Game Commission to appoint the Ombudsperson and would require the Office to operate independently of department staff and to report to the president of the commission, requires the office to undertake specified duties under the supervision of the president of the commission.	02/18/2021 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 564</u> Gonzalez (D)	Biodiversity Protection and Restoration Act		Establishes the Biodiversity Protection and Restoration Act and provides that it is the policy of the state that all state agencies, boards, and commissions shall utilize their authorities in furtherance of the biodiversity conservation purposes and goals of certain executive orders.	02/18/2021 - To ASSEMBLY Committees on ACCOUNTABILITY AND ADMINISTRATIVE REVIEW and WATER, PARKS AND WILDLIFE.
<u>AB 566</u>	Property Taxation: Revenue Allocations		Makes a nonsubstantive change to the requirement that the county auditor, in each fiscal year, allocate property tax revenues to local	02/11/2021 - INTRODUCED.

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Nguyen J (R)			jurisdictions in accordance with specified formulas and procedures, and generally requires that each jurisdiction be allocated an amount equal to the total of the amount of revenue allocated to that jurisdiction in the prior fiscal year, subject to certain modifications.	
<u>AB 571</u> Mayes (R)	Planning and Zoning: Density Bonuses: Housing		Relates to density bonuses for affordable housing. Prohibits affordable housing impact fees, including inclusionary zoning fees, in-lieu fees, and public benefit fees, from being imposed on a housing development's affordable units or bonus units.	02/18/2021 - To ASSEMBLY Committees on HOUSING AND COMMUNITY DEVELOPMENT and LOCAL GOVERNMENT.
<u>AB 588</u> Garcia E (D)	Local Government		Makes a nonsubstantive change to the provision naming the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000.	02/11/2021 - INTRODUCED.
<u>AB 602</u> Grayson (D)	Development Fees		Makes nonsubstantive changes to the definitions under the Mitigation Fee Act.	02/11/2021 - INTRODUCED.
<u>AB 620</u> Mullin (D)	Unified Online Environmental Permit Application		Expresses the intent of the Legislature to enact subsequent legislation creating a unified online environmental permit application and process for state agencies that simplify the submittal and tracking of environmental permits for permit applicants and state agencies, and supports interagency coordination.	02/12/2021 - INTRODUCED.
<u>AB 621</u> Rivas R (D)	California Environmental Quality Act		Makes nonsubstantive changes to existing law which authorizes the preparation of a master environmental impact report (EIR) to evaluate project impacts, and expresses the intent of the Legislature that environmental review of subsequent projects be substantially reduced to the extent that project impacts have been reviewed and appropriate mitigation measures are set forth in a certified master EIR.	02/12/2021 - INTRODUCED.
<u>AB 622</u> Friedman (D)	Washing Machines: Microfiber Filtration		Requires, on or before January 1, 2024, that all washing machines sold as new in California contain a microfiber filtration system with a mesh size of 100 microns or smaller.	02/12/2021 - INTRODUCED.

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<u>AB 642</u> Friedman (D)	Wildfires		Requires the Director of Forestry and Fire Protection to identify areas in the state as moderate and high fire hazard severity zones. Additionally requires the director classify areas into fire hazard severity zones based on additional factors including possible lightning caused ignition. Requires a local agency, within 30 days of receiving a transmittal from the director that identifies fire hazard severity zones, to make the information available for public comment.	02/12/2021 - INTRODUCED.
<u>AB 648</u> Fong (R)	CalRecycle Greenhouse Gas Reduction Fund: Forest		Continuously appropriates, beginning in the 2021-22 fiscal year and ending in the 2028-29 fiscal year, \$200,000,000 of the annual proceeds from the Greenhouse Gas Reduction Fund to the Department of Forestry and Fire Protection for healthy forest and fire prevention programs and projects that improve forest health and reduce greenhouse gas emissions caused by uncontrolled wildfires, and prescribed fire and other fuel reduction projects through proven forestry practices.	02/12/2021 - INTRODUCED.
<u>AB 649</u> Bennett (D)	CalRecycle Greenhouse Gas Reduction Loan Program		Makes a technical, nonsubstantive change to existing law that establishes the CalRecycle Greenhouse Gas Reduction Revolving Loan Program to provide loans to reduce the emissions of greenhouse gases by promoting in-state development of infrastructure or other projects to reduce organic waste or process organic and other recyclable materials into new value-added products.	02/12/2021 - INTRODUCED.
<u>AB 654</u> Reyes (D)	COVID-19: Exposure: Notification		Requires the State Department of Public Health to make workplace and industry information received from local public health departments available on its internet website in a manner that, among other things, allows the public to track the number of COVID-19 cases and outbreaks by both workplace and industry.	02/12/2021 - INTRODUCED.
<u>AB 678</u> Grayson (D)	Land Use: Development Fees		Makes nonsubstantive changes to existing law requiring a local agency, in any action establishing, increasing, or imposing a mitigation fee, to determine how there is a reasonable relationship between the fee's use and the type of development on which the fee is imposed.	02/12/2021 - INTRODUCED.

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<u>AB 688</u> Nazarian (D)	Property Tax: Reassessment		Makes nonsubstantive changes to existing property tax law which authorizes a county board of supervisors to adopt ordinances that allow assessees whose property was damaged or destroyed to apply for a reassessment of that property if certain conditions are met.	02/16/2021 - INTRODUCED.
<u>AB 692</u> Waldron (R)	Lake Wohlford Dam: Grant Funding: Liquidation		Make those funds that were appropriated to the Department of Water Resources by the Disaster Preparedness and Flood Prevention Bond Act of 2006 and allocated to the City of Escondido for use on the Lake Wohlford Dam project available for liquidation until June 30, 2028.	02/16/2021 - INTRODUCED.
<u>AB 693</u> Chau (D)	Proposition 65: Enforcement		Makes nonsubstantive changes to the Safe Drinking Water and Toxic Enforcement Act's enforcement provisions.	02/16/2021 - INTRODUCED.
<u>AB 697</u> Chau (D)	Forest Resources: National Forest Lands		Reorganizes the law relating to the Good Neighbor Authority Fund. Requires the Department of Forestry and Fire Protection, under an agreement between the state and the federal government, to establish a program for purposes of conducting ecological restoration and fire resiliency projects on national forest lands, with priority given to forest restoration and fuels reduction projects that are landscape scale.	02/16/2021 - INTRODUCED.
<u>AB 698</u> Env Safety & Toxic Material Cmt	Hazardous Waste: Small Quantity Generator		Replaces the terms conditionally exempt small quantity generator and CESQG with very small quantity generator and VSQG with reference to a different federal regulation that recasts those provisions regarding the amount of hazardous waste and which hazardous wastes are included in, or excluded from, that calculation.	02/16/2021 - INTRODUCED.
<u>AB 703</u> Rubio (D)	Open Meetings: Local Agencies: Teleconferences		Removes the requirements of the Ralph M. Brown Act particular to teleconferencing and allows for teleconferencing subject to existing provisions regarding the posting of notice of an agenda and the ability of the public to observe the meeting and provide public comment.	02/12/2021 - INTRODUCED.
<u>AB 712</u> Calderon (D)	Local Agency Public Construction Act: Change Orders		Relates to the Local Agency Public Construction Act change orders. Authorizes the board of supervisors and the board of directors of a district, as applicable, at the time the board delegates authority under a	02/12/2021 - INTRODUCED.

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			contract, to implement appropriate measures to prevent fraud and ensure accountability for that delegated authority.	
<u>AB 727</u> Choi (R)	Income Tax: Health Savings Accounts		Allows for specified taxable years, a deduction in computing adjusted gross income in connection with health savings accounts in conformity with federal law. Provides that the deduction would be an amount equal to the aggregate amount paid in cash during the taxable year by, or on behalf of, an eligible individual, as defined, to a health savings account of that individual.	02/16/2021 - INTRODUCED.
<u>AB 732</u> Quirk (D)	Toxic Substances Control: Account		Expresses the intent of the Legislature to also identify and remediate releases of hazardous substances throughout the state to protect human health and the environment and enable productive reuse of contaminated sites. Requires the Department of Toxic Substances Control to publish on its internet website, the list of hazardous substances release sites selected for, and subject to, a response action.	02/16/2021 - INTRODUCED.
<u>AB 736</u> Mathis (R)	Safe Drinking Water State Revolving Fund: Internet		Relates to the Safe Drinking Water State Revolving Fund Law, which requires the State Water Resources Control Board, at least once every 2 years, to post information on its internet website and send a link of the internet website to the Legislature regarding implementation of the law and expenditures from the fund. Requires the board to post that information and send that link at least annually instead of at least once every 2 years.	02/16/2021 - INTRODUCED.
<u>AB 747</u> Mathis (R)	Water treatment Facility		Appropriates \$20,000,000 from the General Fund to the State Water Resources Control Board for the purpose of improving water treatment. Requires the board to grant a specified amount to a specified joint powers authority for a water treatment facility to be operated by the joint powers authority.	02/16/2021 - INTRODUCED.
<u>AB 753</u> Grayson (D)	Barry Keene Underground Storage		Relates to the Barry Keene Underground Storage Tank Cleanup Trust Fund Act of 1989. Expresses the intent of the Legislature to extend the repeal date of the fund beyond January 1, 2026, and expand the purpose	02/15/2021 - INTRODUCED.

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	Tank Cleanup Trust Fund		of the act to provide funding for the remediation of brownfields in preparation for redevelopment.	
<u>AB 754</u> Mathis (R)	Sustainable Groundwater Management Act		States the intent of the Legislature to enact statutory changes relating to the Sustainable Groundwater Management Act.	02/15/2021 - INTRODUCED.
<u>AB 757</u> Davies (R)	Private Employment: COVID-19: Positive Test		Authorizes a private employer to request prescribed documentation of a positive Coronavirus test or diagnosis if an employee reports that the employee has been diagnosed or tested positive for Coronavirus and is unable to work and the employer determines that an employee may be subject to a 14-day exclusion from the workplace as required under certain law or regulations.	02/15/2021 - INTRODUCED.
<u>AB 758</u> Nazarian (D)	Marks-Roos Local Bond Pooling Act of 1985		Makes nonsubstantive changes to provisions of the Marks-Roos Local Bond Pooling Act of 1985 that authorizes certain joint powers authorities, among other powers, to issue bonds and loan the proceeds to local agencies to finance specified types of projects and programs.	02/15/2021 - INTRODUCED.
<u>AB 772</u> Ramos (D)	Workers' Compensation: Medical Treatment		Provides that if the Governor has declared a state of emergency in connection with an act of domestic terrorism, existing law requires an employer, as defined, to provide immediate support from a case nurse manager for employees injured by an act of domestic terrorism whose injuries arise in the course of employment. Makes technical, nonsubstantive changes to that provision.	02/16/2021 - INTRODUCED.
<u>AB 773</u> Nazarian (D)	Street Closures and Designations		Authorizes a local authority to adopt a rule or regulation to close a portion of a street under its jurisdiction to through vehicular traffic if it determines closure is necessary for the safety and protection of persons who are to use that portion of the street during the closure. Authorizes a local authority to adopt a rule or regulation to designate a local street within its jurisdiction as a slow street.	02/16/2021 - INTRODUCED.
<u>AB 780</u> Ting (D)	Tenancies		Relates to existing law that regulates the terms and conditions of tenancies, and requires a tenant who receives notice of certain	02/16/2021 - INTRODUCED.

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			proceedings to recover the property they occupy to give notice to their landlord of the proceeding and provides that the tenant is responsible for any damages sustained by the landlord as a result of failure to give that notice. Makes nonsubstantive changes to those provisions.	
<u>AB 781</u> Daly (D)	Water Development Projects: Approved Projects		Relates to existing law that authorizes specified works of improvement for the control, conservation, and utilization of destructive flood waters and the reclamation and protection of lands that are susceptible to overflow by flood waters and prohibits, if there are any major project changes, money from being reallocated by the state in aid of that portion of the project until a revised plan has been reviewed and approved by the Department of Water Resources. Makes nonsubstantive changes.	02/16/2021 - INTRODUCED.
<u>AB 794</u> Carrillo (D)	Air Pollution: Financial Incentive Programs		States the intent of the Legislature to enact subsequent legislation to provide the requisite authority to the State Air Resources Board to promulgate rules designed to maximize economic benefits of its grant, loan, and incentive programs.	02/16/2021 - INTRODUCED.
<u>AB 800</u> Gabriel (D)	Wildfires: Mitigation and Prevention		Expresses the intent of the Legislature to enact subsequent legislation to improve wildfire mitigation and prevention.	02/16/2021 - INTRODUCED.
<u>AB 802</u> Bloom (D)	Microfiber Pollution		Requires the State Water Resources Control Board to identify the best available control technology for filtering microfibers from an industrial, institutional, or commercial laundry facility on or before an unspecified date, and requires the state board to consult with owners and operators of laundry facilities on the types of filtration systems currently in use and with universities, scientific organizations, and experts on plastic pollution in identifying the best available control technology.	02/16/2021 - INTRODUCED.
<u>AB 805</u> Maienschein (D)	Personal Protective Equipment: Distribution Reports		Requires, during a health-related state of emergency in California proclaimed by the President of the United States or by the Governor, the Medical Health Operational Area Coordinator to report specified information relating to the distribution of personal protective equipment	02/16/2021 - INTRODUCED.

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			to the Office of Emergency Services on a weekly basis. Requires, at all other times, the MHOAC to report that information on a monthly basis.	
<u>AB 814</u> Levine (D)	Personal Information: Contact Tracing		Prohibits data collected, received, or prepared for purposes of contact tracing from being used, maintained, or disclosed for any purpose other than facilitating contact tracing efforts. Prohibits an officer, deputy, employee, or agent of a law enforcement agency from engaging in contact tracing. Requires all data collected, received, or prepared for purposes of contact tracing to be deleted within 60 days.	02/16/2021 - INTRODUCED.
<u>AB 818</u> Bloom (D)	Solid Waste: Premoistened Nonwoven Disposable Wipes	SUPPORT	Requires, except as provided, certain premoistened nonwoven disposable wipes manufactured on or after July 1, 2022, to be labeled clearly and conspicuously with the phrase Do Not Flush and a related symbol. Prohibits a covered entity, as defined, from making a representation about the flushable attributes, benefits, performance, or efficacy of those premoistened nonwoven disposable wipes.	02/16/2021 - INTRODUCED.
<u>AB 819</u> Levine (D)	Environmental Quality Act: Notices and Documents		Requires the lead agency under CEQA and the project applicant to post notices to persons who have filed a written request for notices on their internet website. Requires a lead agency to submit to the State Clearinghouse, in electronic form, specified environmental review documents for all projects and would require the lead agency and project applicant to post those documents on their internet website.	02/16/2021 - INTRODUCED.
<u>AB 821</u> Cooper (D)	Local Government		Makes nonsubstantive changes to a provision of the Ralph M. Brown Act.	02/16/2021 - INTRODUCED.
<u>AB 845</u> Rodriguez (D)	Disability Retirement: COVID-19: Presumption		Creates a presumption, applicable to the retirement systems that the Public Employees' Pension Reform Act of 2013 (PEPRA) regulates and to specified members in those systems, that would be applied to disability retirements on the basis, in whole or in part, of a Coronavirus 2019-related illness. Requires, in this circumstance, that it be presumed the disability arose out of, or in the course of, the member's employment.	02/17/2021 - INTRODUCED.

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<u>AB 846</u> Low (D)	Local Agency Public Construction Act		Changes the January 1, 2022, repeal date to January 1, 2027, thereby extending authorization for job order contracting for school districts and community college districts indefinitely. Requires an entity awarded a job order contract in excess of \$25,000 to provide an enforceable commitment to the school district or community college district that the entity and its subcontractors at every tier will use a skilled and trained workforce to perform all work on the job order contract.	02/17/2021 - INTRODUCED.
<u>AB 850</u> Gallagher (R)	City Property: Sale of Water Utility Property		Authorizes the City of El Monte, the City of Montebello, and the City of Willows to sell its public utility for furnishing water service for the purpose of consolidating the system with another public water system, as specified, subject to additional requirements, including, that the receiving water systems service area borders the service area of the subsumed water system. Extends the authorization to consolidate water systems until a specified date.	02/17/2021 - INTRODUCED.
<u>AB 854</u> Lee (D)	Residential Property: Withdrawal of Accommodations		Relates to existing law, commonly known as the Ellis Act, that prohibits a public entity from adopting any statute, ordinance, or regulation, or taking any administrative action, to compel the owner of residential real property to offer or to continue to offer accommodations in the property for rent or lease, except as specified. Makes nonsubstantive changes to those provisions.	02/17/2021 - INTRODUCED.
<u>AB 867</u> Kiley (R)	Family Care Leave: Child Deceased in Childbirth		Expands eligibility for benefits under the paid family leave program by expanding bonding leave relating to a child's birth to include leave for a parent who was pregnant with a child, if the child dies unexpectedly during childbirth at 37 weeks or more of pregnancy.	02/17/2021 - INTRODUCED.
<u>AB 870</u> Santiago (D)	Hazardous Materials: Liens		Requires the Department of Toxic Substances Control, upon a determination of the scope of a necessary response or corrective action, to provide to the responsible parties an estimate of the costs to complete the response or corrective action. Establishes that the estimated costs constitute a claim and a lien upon the real property owned by a	02/17/2021 - INTRODUCED.

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			responsible party that is subject to, or affected by, the response or corrective action.	
<u>AB 878</u> Dahle M (R)	Wildlife Resources: Natural Community Conservation Plan		Relates to Wildlife resources, natural community conservation plans and public review and comment. Expands the time for public review and comment on a proposed planning agreement from 21 calendar days to 21 business days.	02/17/2021 - INTRODUCED.
<u>AB 885</u> Quirk (D)	Bagley-Keene Open Meeting Act: Teleconferencing		Requires a state body that elects to conduct a meeting or proceeding by teleconference to make the portion that is required to be open to the public both audibly and visually observable. Extends the above requirements of meetings of multimember advisory bodies that are held by teleconference to meetings of all multimember state bodies.	02/17/2021 - INTRODUCED.
<u>AB 893</u> Davies (R)	Emergency Regulations: Department of Public Health		Requires the Division of Occupational Safety and Health or the State Department of Public Health, within 14 calendar days of the release of a federal recommendation that conflicts with an emergency regulation related to Coronavirus 2019 issued by the division or the department, to review the conflicting emergency regulation and make a determination to either amend the regulation or submit a report to the Legislature on the decision not to amend the regulation, as specified.	02/17/2021 - INTRODUCED.
<u>AB 897</u> Mullin (D)	Office of Planning and Research: Regional Climate		Requires the Office of Planning and Research to provide technical assistance to eligible entities developing regional climate networks and plans. Requires, by July 1, 2022, the Office to make recommendations to certain policy committees of the Legislature on developing state support for the work of regional climate networks, as prescribed, and the potential sources of financial assistance and options for distributing state funds to support the creation and implementation of plans.	02/17/2021 - INTRODUCED.
<u>AB 906</u> Carrillo (D)	Zero-Emission Trucks: Tax and Fee Exemptions		Exempts from sales and use taxes, on and after January 1, 2022, the gross receipts from the sale in this state of, and the storage, use, or other consumption in this state of, fuel for the operation of a zero-emission	02/17/2021 - INTRODUCED.

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			medium- or heavy-duty truck that is the subject of a lease entered into after July 1, 2022, with specified characteristics.	
<u>AB 908</u> Frazier (D)	Natural Resources Agency: Statewide Natural Resources		Requires the Natural Resources Agency, to the extent a specified appropriation is made, to prepare a comprehensive, statewide inventory of the natural resources of the state and establish treatment measures necessary to protect those resources, and to post its initial inventory on its internet website on or before January 1, 2023, with annual updates on or before January 1 of each year thereafter.	02/17/2021 - INTRODUCED.
<u>AB 909</u> Frazier (D)	Wildfire Risk Assessment Map		Requires the Department of Forestry and Fire Protection, in consultation with the California Fire Science Consortium and the Department of Insurance to develop a fire risk assessment map for the state that quantifies the risks of wildfire for a parcel of land for a time span of 50 years. Requires the department to annually update the wildfire risk assessment map.	02/17/2021 - INTRODUCED.
<u>AB 919</u> Grayson (D)	Construction Defects: Actions: Statute of Limitations		Shortens the timeframe in which an action may be brought, for underlying construction projects using a skilled and trained workforce, to no more than 5 years after substantial completion of the improvement but no later than the date the notice of completion is recorded.	02/17/2021 - INTRODUCED.
<u>AB 926</u> Mathis (R)	Fire Prevention: Local Assistance Grant Program		Relates to existing law which requires the Department of Forestry and Fire Protection to establish a local assistance grant program for fire prevention activities in the state. Requires that the eligible activities include, among other things, fire prevention activities. Adds roadside vegetation management and projects to create and increase defensible space for critical infrastructure, as provided, to the eligible activities.	02/17/2021 - INTRODUCED.
<u>AB 930</u> Levine (D)	Subsurface Installations: Attorney's Fees and Costs		Requires a court to award attorney's fees and costs, including expert witness fees, to a prevailing party in a civil action or arbitration for specified damages arising from an excavation and arising between an operator of a subsurface installation and an excavator. Applies certain	02/17/2021 - INTRODUCED.

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			procedures relating to offers to compromise to these civil actions and arbitrations.	
<u>AB 954</u> Petrie-Norris (D)	Ocean Use Planning		Makes a nonsubstantive change to existing law which requires the Secretary of the Natural Resources Agency to initiate a comprehensive, long-range planning process for the use of ocean waters offshore of California, and authorizes the secretary, among other things, to use a specified advisory panel as the planning committee.	02/17/2021 - INTRODUCED.
<u>AB 956</u> Flora (R)	Wildfire Mitigation Plans: Fire Retardants		Expressly authorizes a wildfire mitigation plan to include the use of fire-retardant chemicals approved by the State Fire Marshal on a planned basis for wildfire mitigation and risk management.	02/17/2021 - INTRODUCED.
<u>AB 968</u> Frazier (D)	Wildfires		States the intent of the Legislature to enact subsequent legislation to enhance and improve efforts to harden homes against wildfires in the State.	02/17/2021 - INTRODUCED.
<u>AB 969</u> Frazier (D)	Fire Prevention and Mitigation		States the intent of the Legislature to enact subsequent legislation to enhance and improve landscape scale fire prevention and mitigation projects.	02/17/2021 - INTRODUCED.
<u>AB 972</u> Berman (D)	Elections: Deceptive Audio or Visual Media		Extends the repeal date of provisions relative to deceptive audio or visual media use in elections through a specified date.	02/18/2021 - INTRODUCED.
<u>AB 975</u> Rivas (D)	Political Reform Act of 1974		Relates to the Political Reform Act of 1974. Allows a gift of admission to an invitation-only event to be returned, reimbursed, or donated within 30 days of the calendar quarter in which it was received, and would make other changes prescribing conditions for the donation, return, or reimbursement.	02/18/2021 - INTRODUCED.
<u>AB 976</u> Rivas (D)	Resilient Economies and Community Health Pilot Program		Establishes the Resilient Economies and Community Health Pilot Program, which would be administered by the council from January 1, 2022, through December 31, 2026, as a grant pilot program for eligible community-based organizations to provide a comprehensive suite of	02/18/2021 - INTRODUCED.

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			coordinated incentives and services to disadvantaged communities at the resident household level to provide economic savings, reduce greenhouse gas emissions and air pollution, and improve resiliency to the impacts of climate control.	
<u>AB 981</u> Frazier (D)	Forestry: California Fire Safe Council		Establishes the California Fire Safe Council in the Natural Resources Agency consisting of 11 members. Requires the council to identify programs administered by public agencies to address and minimize the risks of wildfire and to coordinate the implementation of those programs, to identify public and private programs that may be leveraged to facilitate structure-hardening and community resilience to minimize the impacts of wildfire to habitable structures.	02/18/2021 - INTRODUCED.
<u>AB 983</u> Garcia E (D)	Public Contracts: Construction Projects: Community Work		Authorizes a public entity to use, enter into, or require contractors to enter into, a community workforce agreement for specified construction projects, including projects related to renewable energy and installation of emission controls in refineries.	02/18/2021 - INTRODUCED.
<u>AB 992</u> Cooley (D)	Hybrid/Zero-Emission Truck and Bus Voucher Incentive		Requires the state board to ensure that a person or entity that purchases a hybrid or zero-emission truck or bus for purposes of placing that vehicle on a peer-to-peer truck sharing platform for use by various operators is eligible for financial assistance under the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project established as a part of the Air Quality Improvement Program.	02/18/2021 - INTRODUCED.
<u>AB 995</u> Gonzalez (D)	Paid Sick Days: Accrual and Use		Modifies the employers alternate sick leave accrual method to require that an employee have no less than 40 hours of accrued sick leave or paid time off by the 200th calendar day of employment or each calendar year, or in each 12-month period.	02/18/2021 - INTRODUCED.
<u>AB 1001</u> Garcia (D)	Environmental Permitting		Relates to existing law that requires the Secretary for Environmental Protection to establish an administrative process that may be used, at the request of a permit applicant for a project that requires multiple environmental permits, for the designation of a consolidated permit	02/18/2021 - INTRODUCED.

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			agency to issue a consolidate permit for the project. Shortens the time period in which the secretary is to respond to 20 days.	
<u>AB 1005</u> Muratsuchi (D)	Scientific Review Panel on Toxic Air Contaminants		Relates to existing law that creates and establishes a 9-member Scientific Review Panel on Toxic Air Contaminants to advise the State Air Resources Board and the Department of Pesticide Regulation in their evaluation of the health effects toxicity of toxic air contaminants and pesticides and prescribes the manner in which the members shall be appointed. Makes nonsubstantive changes to these provisions.	02/18/2021 - INTRODUCED.
<u>AB 1013</u> Lackey (R)	State Mandates: Claims		Relates to State mandates of a new program or higher level of service on any local government, including school districts. Requires the state to provide a subvention of funds to reimburse the local government, unless an exception applies. Provides that statutory provisions that establish procedures for making that reimbursement include a requirement that no claim shall be made or paid unless it exceeds \$1,000. Changes the minimum claim amount to \$900.	02/18/2021 - INTRODUCED.
<u>AB 1017</u> Quirk-Silva (D)	Public Restrooms: Right to Restrooms Act of 2021		Requires local governments to do an inventory of public restrooms that are available to the homeless population to use during the coronavirus state of emergency, as defined. Requires local governments to report their findings to the Office of Emergency Services, which would be required to compile the information in a report to the Legislature, as provided. Provides that this bill would be repealed by its own provisions on a specified date.	02/18/2021 - INTRODUCED.
<u>AB 1023</u> Flora (R)	Contractors and Subcontractors: Records: Penalties		Requires a contractor or subcontractor to furnish payroll records to the Labor Commissioner no later than their final day of work performed on the project. Makes a contractor or subcontractor who fails to furnish those records in the manner specified liable for a penalty of a specific amount per day, as specified, not to exceed a specific amount per project, to be deposited into the State Public Works Enforcement Fund.	02/18/2021 - INTRODUCED.

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<u>AB 1027</u> Seyarto (R)	Solid and Organic Waste		Expresses the intent of the Legislature to enact subsequent legislation to provide relief from those solid waste recycling, composting, and source reduction requirements and organic waste recycling requirements, for no more than one year, to cities and municipalities struggling due to the impacts of COVID-19.	02/18/2021 - INTRODUCED.
<u>AB 1028</u> Seyarto (R)	Telework Flexibility Act		Concerns the Telework Flexibility Act. Authorizes any nonexempt employee working from home who is not under the physical control of the employer to choose when to take any meal or rest period during the workday, if the employer has not already scheduled a meal or rest period within the requirements of the law. Requires an employer to notify the employee of this right one time, when the employee begins working from home.	02/18/2021 - INTRODUCED.
<u>AB 1030</u> Chen (R)	Professional Land Surveyors' Act and Engineers Act		Relates to the Professional Land Surveyors' Act and Professional Engineers Act. Includes within the practices that subject a person to those acts, with regard to the practice of identifying the location, alignment, or elevation for any of the fixed works embraced within the practice of civil engineering, laying out the reference points or lines through the use of mathematical or physical measurements. Expands the practice of land surveying and civil engineering, as specified.	02/18/2021 - INTRODUCED.
<u>AB 1032</u> Cooper (D)	Public Employment: Adverse Action		Relates to existing law that requires an appointing power, before taking adverse action against an employee for one or more enumerated causes for discipline, to serve written notice on the employee that includes specified information relating to the adverse action. Makes a nonsubstantive change to those provisions.	02/18/2021 - INTRODUCED.
<u>AB 1037</u> Grayson (D)	Infrastructure Construction: Digital Construction		Requires an infrastructure project that receives any state funding to deploy digital construction technologies, as defined, to reduce waste, inefficiency, rework, cost overruns, and embodied carbon, and to improve delivery times and project quality.	02/18/2021 - INTRODUCED.

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<u>AB 1041</u> Wicks (D)	Leave Issues		Expands the population that an employee can take leave to care for to include any other individual related by blood or whose close association with the employee is the equivalent of a family relationship.	02/18/2021 - INTRODUCED.
<u>AB 1042</u> Jones- Sawyer (D)	Occupational Safety/Health: Investigation & Inspection		Provides that the California Occupational Safety and Health Act of 1973, requires the Chief of the Division of Occupational Safety and Health within the Department of Industrial Relations and qualified and authorized division inspectors and investigators to have free access to any place of employment to make an investigation or inspection for the protection of safety and health, as prescribed. make nonsubstantive changes to these investigation and inspection provisions.	02/18/2021 - INTRODUCED.
<u>AB 1048</u> Bonta (D)	Safety in Employment		Relates to existing law that authorizes the Division of Occupational Safety and Health to seek an injunction from the superior court of the local jurisdiction to restrain its use or operation when any employment or place of employment or operation of a machine or other equipment constitutes a serious menace to the lives or safety of the persons in proximity to the hazard. Makes a nonsubstantive change to this provision.	02/18/2021 - INTRODUCED.
<u>AB 1053</u> Gabriel (D)	Municipal Improvement Act of 1913		Makes nonsubstantive changes to the provision naming the Municipal Improvement Act of 1913.	02/18/2021 - INTRODUCED.
<u>AB 1056</u> Grayson (D)	Local Agencies: Fees and Zoning Standards		Makes a nonsubstantive change to provisions to Local agencies, fees and zoning standards.	02/18/2021 - INTRODUCED.
<u>AB 1058</u> Garcia (D)	Water Corporations: Bill Payment Pilot Program		Extends the Water Corporations Bill Payment Pilot Program the pilot program until January 1, 2027. Repeals the provision that limits the duration of a pilot program to the duration of the water corporations rate case cycle.	02/18/2021 - INTRODUCED.
<u>AB 1066</u> Bloom (D)	Freshwater Bathing Sites: Water Quality Monitoring		Requires the State water Resources Control Board, in consultation with the Department of Public Health, to establish, by regulation, a definition of a monitored freshwater bathing site that includes freshwater bodies	02/18/2021 - INTRODUCED.

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			that have a high frequency of use by the general public, identify all monitored freshwater bathing sites in the state.	
<u>AB 1074</u> Gonzalez (D)	Employment: Rehiring and Retention: Displaced Workers		Requires an employer to offer its laid-off employees specified information about job positions that become available for which the laid-off employees are qualified, and to offer positions to those laid-off employees based on a preference system, in accordance with specified timelines and procedures. Prohibits an employer from refusing to employ, terminating, reducing compensation, or taking other adverse action against any person for seeking to enforce their rights under these provisions.	02/18/2021 - INTRODUCED.
<u>AB 1086</u> Aguiar- Curry (D)	Organic Waste: Implementation Strategy		Requires the Natural Resources Agency, in coordination with specified state agencies, and in consultation with stakeholders and relevant permitting agencies, to prepare and submit to the Legislature, by January 1, 2023, a report that provides an implementation strategy to achieve the states organic waste, and related climate change and air quality, mandates, goals, and targets.	02/18/2021 - INTRODUCED.
<u>AB 1099</u> Rivas R (D)	State Funding: Environmental Equity		States the intent of the Legislature to enact subsequent legislation to provide new approaches and considerations for directing investments and allocating funds, as well as increasing accountability for how those funds are expended to achieve key objectives. States the intent of the Legislature to enact subsequent legislation that incorporates, to the extent practicable, specified principles of environmental equity into the administration of all environmental and natural resources state funding.	02/18/2021 - INTRODUCED.
<u>AB 1110</u> Rivas R (D)	Zero-Emission Vehicles: Clean Fleet Program		Establishes the California Clean Fleet Accelerator Program, administered by the Department of General Services (DGS). Requires the Governor's Office of Business and Economic Development (GO-Biz), in consultation with specified state agencies and regional and local entities, to develop a nonmandatory master service agreement to solicit bids from eligible vendors for standardized, bulk purchase options for the acquisition of zero-emission fleet vehicles by a public agency.	02/18/2021 - INTRODUCED.

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<u>AB 1119</u> Wicks (D)	Employment Discrimination		Relates to the California Fair Employment and Housing Act (FEHA), which protects the right to seek, obtain, and hold employment without discrimination because of prescribed characteristics. Expands the protected characteristics to include family responsibilities, defined to mean the obligations of an employee to provide direct and ongoing care for a minor child or a care recipient. Defines additional terms for this purpose.	02/18/2021 - INTRODUCED.
<u>AB 1122</u> Garcia (D)	Workforce Diversity		States the intent of the Legislature to enact legislation that would encourage employers to develop and implement personnel policies that incorporate workforce diversity.	02/18/2021 - INTRODUCED.
<u>AB 1135</u> Grayson (D)	Accessory Dwelling Units		Makes nonsubstantive changes to existing law which provides for the creation by local ordinance, or by ministerial approval if a local agency has not adopted an ordinance, of accessory dwelling units to allow single-family or multifamily dwelling residential use in accordance with specified standards and conditions, and prohibits a local agency from using or imposing any additional standards, including, until January 1, 2025, on owner-occupant requirements.	02/18/2021 - INTRODUCED.
<u>AB 1141</u> Frazier (D)	Wildfires: Wildland Urban Interface Fire Research		Expresses the intent of the Legislature to enact subsequent legislation that would develop and fund a Wildland Urban Interface Fire Research Center that specifically addresses the wildland urban interface fire problem and needs of wildfire prevention, detection, and mitigation planning, building, and response, and related economic, insurance, and modeling practices in the state.	02/18/2021 - INTRODUCED.
<u>AB 1142</u> Frazier (D)	Fire Prevention: Detection and Response		Requires the Department of Forestry and Fire Protection to develop and implement a program to predict and respond to wildfire ignition events and to provide for the sharing of information regarding wildfire events and coordination of activities among local, state, and federal agencies in response to wildfires.	02/18/2021 - INTRODUCED.

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<u>AB 1161</u> Garcia E (D)	Electricity: Eligible Renewable Energy: State Agencies		Enacts the Clean Economy and Clean Jobs Stimulus Act of 2021 and would require the Department of Water Resources to procure newly developed eligible renewable energy resources or zero-carbon resources, and energy storage associated with those resources, in an amount that satisfies 100 percent electricity procured to serve all state agencies by specified date.	02/18/2021 - INTRODUCED.
<u>AB 1164</u> Flora (R)	Dams and Reservoirs: Exclusions		Specifies that the exclusion from being considered a dam for a barrier that is not across a stream channel, watercourse, or natural drainage area and that has the principal purpose of impounding water for agricultural use applies only to a barrier owned or operated by a private entity.	02/18/2021 - INTRODUCED.
<u>AB 1175</u> Aguiar- Curry (D)	Employees: Regulation and Supervision		Makes nonsubstantive changes to existing law which regulates the wages, hours, and working conditions of employees with specified exceptions.	02/18/2021 - INTRODUCED.
<u>AB 1179</u> Carrillo (D)	Employer Provided Benefit: Backup Childcare		Requires an employer to provide an employee who works in California for the same employer for 30 or more days within a year from the commencement of employment, with up to 60 hours of paid backup childcare benefits, to be accrued and used as provided. Defines backup childcare as childcare provided by a qualified backup childcare provider to the employee's child when the employee's regular childcare provider cannot be utilized.	02/18/2021 - INTRODUCED.
<u>AB 1180</u> Mathis (R)	Local Governments: Surplus Land: Tribes		Relates to existing law which defines exempt surplus land for which a local agency is not required to follow the requirements for disposal of surplus land, except as provided. Adds to the definition of exempt surplus land, land transferred by a local agency to a tribe.	02/18/2021 - INTRODUCED.
<u>AB 1188</u> Wicks (D)	Rental Registry Online Portal		Requires cities and counties to create and administer a rental registry online portal, which would be designed to receive specified information from landlords, including state and local governmental agencies that own or operate public housing, that own or operate 5 or more rental	02/18/2021 - INTRODUCED.

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			dwelling units regarding their residential tenancies and to disseminate this information to the general public.	
<u>AB 1195</u> Garcia (D)	Southern Los Angeles County Regional Water Agency		Creates the Southern Los Angeles County Regional Water Agency as a regional water agency serving the drinking water needs of the cities, unincorporated areas, and residents in the communities overlying the Central Basin and West Coast Basin aquifers in southern Los Angeles County. Requires the agency to serve the region as the leader in interagency collaboration on water resource issues.	02/18/2021 - INTRODUCED.
<u>AB 1205</u> Frazier (D)	State Air Resources Board: Elections		Expresses the intent of the Legislature to enact subsequent legislation requiring that all members of the state board be elected, rather than appointed.	02/19/2021 - INTRODUCED.
<u>AB 1207</u> Rivas (D)	COVID-19 Relief: State Processes		States the intent of the Legislature to enact legislation relating to streamlining state processes to help recover from the COVID-19 crisis.	02/19/2021 - INTRODUCED.
<u>AB 1218</u> McCarty (D)	Motor Vehicle Greenhouse Gas Emissions Standards		Declares that, to help achieve the states climate and air quality goals and mandates, it is the goal of the state that 100% of new passenger and light-duty vehicle sales are zero-emission vehicles by 2035. Requires, on and after January 1, 2023, total passenger vehicles and light-duty vehicles sold by a manufacturer in the state in a calendar year to meet specified greenhouse gas emissions standards pursuant to a tiered plan.	02/19/2021 - INTRODUCED.
<u>AB 1232</u> McCarty (D)	Construction Documents		Relates to existing law that requires a contract for construction to contain specified information regarding the names, addresses, and places of business of various parties to the contract. Makes a nonsubstantive change to this provision.	02/19/2021 - INTRODUCED.
<u>AB 1239</u> Ting (D)	State Energy Resource Conservation		Relates to the State Energy Resources Conservation and Development Commission. Renames the State Energy Resources Conservation and Development Commission to the Energy Commission. Prohibits existing supplies, forms, insignias, signs, logos, uniforms, or emblems from being destroyed or changed as a result of changing the name of the	02/19/2021 - INTRODUCED.

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			commission and would require their continued use until exhausted or unserviceable.	
<u>AB 1240</u> Ting (D)	Indoor Air Pollution		Relates to indoor air pollution. Requires the state board to provide to the legislature the report relating to indoor air quality by a specified date. Repeals the provisions on a specified date.	02/19/2021 - INTRODUCED.
<u>AB 1246</u> Nguyen J (R)	Community Services Districts		Relates to community services districts. Authorizes the formation of community services districts for various specified purposes, including supplying water, treating sewage, disposing of solid waste. Provides fire protection. Specifies its relation and effect on certain districts organized pursuant to former laws and to actions taken by them, among other things. Makes nonsubstantive changes to provisions.	02/19/2021 - INTRODUCED.
<u>AB 1250</u> Calderon (D)	Water and Sewer System Corporations		Relates to water and sewer system corporations. Concerns consolidation of service. Authorizes a water or sewer system corporation to file an application and obtain approval from the commission through an order authorizing the water or sewer system corporation to consolidate with a public water system or state small water system. Requires the commission to approve or deny the application within 8 months, except as provided.	02/19/2021 - INTRODUCED.
<u>AB 1255</u> Bloom (D)	Fire prevention: Department of Forestry		Relates to fire prevention. Concerns Department of Forestry and Fire Protection. Concerns grant programs. Requires the department, in coordination with the Secretary of the Natural Resources Agency, to facilitate regional, habitat specific, and area specific approaches to fire risk reduction, prevention, and restoration of projects that improve community safety, protect sites and structures, restore burned habitat, reduce catastrophic wildfires, and protect natural resources.	02/19/2021 - INTRODUCED.
<u>AB 1256</u> Quirk (D)	Employment Discrimination: Cannabis Screening Test		Relates to employment discrimination. Concerns cannabis screening test. Prohibits an employer from discriminating against a person in hiring, termination, or any term or condition of employment because a drug screening test has found the person to have tetrahydrocannabinol	02/19/2021 - INTRODUCED.

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			in their urine. Exempts from its provisions an employer that is required to conduct testing for tetrahydrocannabinol by federal law or regulations.	
<u>AB 1261</u> Burke (D)	Renewable Gas		Revises and recasts the above provisions relating to the expulsion or unenrollment of a child from the state preschool program and would include a general childcare and development program and family childcare home education network program as part of those provisions, as provided. Establishes requirements for the use of suspensions in the programs described above. Requires these programs to maintain records on expulsion and suspension, as provided.	02/19/2021 - INTRODUCED.
<u>AB 1270</u> Rivas (D)	Natural Gas: Leaks		Expresses the intent of the Legislature to enact legislation to require pipeline operators, storage facilities, and production facilities to report natural gas leaks to the State Air Resources Board and for the public to be notified.	02/19/2021 - INTRODUCED.
<u>AB 1291</u> Frazier (D)	State Bodies: Open Meetings		Requires a state body, when it limits time for public comment, to provide at least twice the allotted time to a member of the public who utilizes translating technology to address the state body.	02/19/2021 - INTRODUCED.
<u>AB 1295</u> Muratsuchi (D)	Residential Development Agreements: Fire Risk Areas		Prohibits the legislative body of a city or county from entering into a residential development agreement for property located in a very high fire risk area. Defines very high fire risk area for these purposes to mean a very high fire hazard severity zone designated by a local agency or a fire hazard severity zone classified by the director.	02/19/2021 - INTRODUCED.
<u>AB 1296</u> Kamlager-Dove (D)	South Coast Air Quality Management District		Increases the number of members of the South Coast Air Quality Management District board to 15 members by adding 2 environmental justice appointees, one appointed by the Senate Committee on Rules and one appointed by the Speaker of the Assembly.	02/19/2021 - INTRODUCED.
<u>AB 1313</u> Bigelow (R)	COVID-19: Immunity from Civil Liability		Exempts a business from liability for an injury or illness to a person due to coronavirus based on a claim that the person contracted coronavirus	02/19/2021 - INTRODUCED.

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			while at that business, or due to the actions of that business, if the business has substantially complied with all applicable state and local health laws, regulations, and protocols.	
<u>AB 1325</u> Burke (D)	Clean Community Microgrid Incentive Program		Requires the Public Utilities Commission (PUC) to develop and implement a Clean Community Microgrid Incentive Program by 2022 to fund community microgrids that support the critical needs of vulnerable communities that utilize distributed energy resources for the generation of electricity.	02/19/2021 - INTRODUCED.
<u>AB 1332</u> Flora (R)	Local Government Ordinances		Relates to local government ordinances. Makes nonsubstantive changes to any local agency to enact any ordinance that adopts a code by reference if the referenced code is specified in the title of the ordinance.	02/19/2021 - INTRODUCED.
<u>AB 1354</u> Grayson (D)	Public Employees' Retirement		Makes nonsubstantive changes to provisions prohibiting a retired person from being employed by a public employer in the same public retirement system from which the retiree receives pension benefits without reinstatement from retirement into that system, subject to certain exceptions.	02/19/2021 - INTRODUCED.
<u>AB 1367</u> Low (D)	Political Reform Act of 1974		States the intent of the Legislature to enact legislation relating to the Political Reform Act of 1974. Provides for the comprehensive regulation of political campaigns, lobbying, and other matters relating to governmental ethics and elections.	02/19/2021 - INTRODUCED.
<u>AB 1376</u> Gray (D)	Water Quality: State Certification		Requires the State Water Resources Control board to make a water quality certification available on its website for a public comment and review period.	02/19/2021 - INTRODUCED.
<u>AB 1384</u> Gabriel (D)	Resiliency Through Adaptation, Economic Vitality		Requires the Strategic Growth Council to develop and coordinate a strategic resiliency framework that makes recommendations and identifies actions that are necessary to prepare the state for the most significant climate change impacts modeled for certain years. Requires agencies identified in the framework to coordinate with regional entities	02/19/2021 - INTRODUCED.

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			and engage vulnerable communities who have been impacted by climate change.	
<u>AB 1391</u> Chau (D)	Compromised Data		Makes it unlawful for a person to sell, purchase, or utilize data, as defined, that the person knows or reasonably should know is compromised data. Defines the term compromised data to mean data that has been obtained or accessed pursuant to the commission of a crime.	02/19/2021 - INTRODUCED.
<u>AB 1395</u> Muratsuchi (D)	Greenhouse Gases: Carbon Neutrality		Declares the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045, and to achieve and maintain net negative greenhouse gas emissions thereafter. Requires the State Air Resources Board to develop a framework for implementation and accounting that tracks progress toward achieving carbon neutrality.	02/19/2021 - INTRODUCED.
<u>AB 1399</u> Flora (R)	Diversion or Use of Water: Penalties		Makes nonsubstantive changes to provisions that state that the diversion or use of water other than as authorized by specified provisions of law is a trespass, subject to specified civil liability.	02/19/2021 - INTRODUCED.
<u>AB 1400</u> Kalra (D)	Guaranteed Health Care for All		Creates the Guaranteed Health Care for All Program, or CalCare, to provide comprehensive universal single-payer health care coverage and a health care cost control system for the benefit of all residents of the state. Provides for coverage of the CalCare Program. Provides for the CalCare Board. States the intent of the Legislature to enact legislation to develop a revenue plan.	02/19/2021 - INTRODUCED.
<u>AB 1403</u> Levine (D)	Emergency Services		Relates to emergency services. Includes a deenergization, defined as a planned public safety power shutoff, as specified, within those conditions constituting a state of emergency and a local emergency.	02/19/2021 - INTRODUCED.
<u>AB 1409</u> Levine (D)	Planning And Zoning: General Plan: Safety Element		Relates to planning and zoning. Relates to a general plan. Relates to safety element. Requires the safety element to be reviewed and updated to identify evacuation locations. Imposes a state-mandated local	02/19/2021 - INTRODUCED.

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			program. Provides that no reimbursement is required by this act for a specified reason.	
<u>AB 1411</u> Cunningham (R)	Agriculture: Greenhouse Gas Mitigation: Healthy		Relates to agriculture. Relates to greenhouse gas mitigation. Relates to the Healthy Soils Program. Makes nonsubstantive changes to the provision.	02/19/2021 - INTRODUCED.
<u>AB 1428</u> Quirk (D)	Safe Drinking Water Act: Applicability		Removes the provision authorizing water districts that provide primarily agricultural services to certify that they are providing alternative water for residential or similar uses to achieve the equivalent level of public health protection provided by the applicable primary drinking water regulations.	02/19/2021 - INTRODUCED.
<u>AB 1431</u> Frazier (D)	Forestry: Forest Carbon Plan: State Goals		Establishes state goals for fuel treatment and vegetation management, as specified. Requires the Natural Resources Agency and the California Environmental Protection Agency, on or before January 1, 2023, to submit a report to the appropriate policy and budget committees of the Legislature on the positions and resources needed to achieve those state goals.	02/19/2021 - INTRODUCED.
<u>AB 1434</u> Friedman (D)	Urban Water Use Objectives: Indoor Residential		Establishes, beginning January 1, 2023, until January 1, 2025, the standard for indoor residential water use as 48 gallons per capita daily. Establishes, beginning January 1, 2025, the standard as 44 gallons per capita daily and, beginning January 1, 2030, 40 gallons per capita daily. Eliminates the requirement that the Department of Water Resources conduct necessary studies and investigations and recommend to the Legislature a standard for indoor residential water use.	02/19/2021 - INTRODUCED.
<u>AB 1436</u> Chau (D)	Information Practices Act Of 1977		Revises the findings under the Information Practices Act of 1977, including by finding that the increasing use of computers, software, and other sophisticated information technology has greatly magnified the potential risk to individual privacy that can occur from the maintenance of personal information.	02/19/2021 - INTRODUCED.

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<u>AB 1442</u> Ting (D)	Accessory Dwelling Units		Makes nonsubstantive change to existing law which provides for the creation by local ordinance, or by ministerial approval if a local agency has not adopted an ordinance, of accessory dwelling units to allow single-family or multifamily dwelling residential use in accordance with specified standards and conditions.	02/19/2021 - INTRODUCED.
<u>AB 1453</u> Muratsuchi (D)	Environmental Justice: Just Transition Commission		Establishes the Just Transition Advisory Commission, consisting of specified members, in the Labor and Workforce Development Agency and would require the commission, through a public process, to develop and adopt, on or before January 1, 2024, the Just Transition Plan that contains recommendations to transition the state's economy to a climate-resilient and low-carbon economy.	02/19/2021 - INTRODUCED.
<u>AB 1454</u> Bloom (D)	Forestry: Burning of Lands: Wildland Resource		Requires the Department of Forestry and Fire Protection to prepare 2 model plans for the initial development and implementation of a program for wildland resources management through prescribed burning and other methods, as provided.	02/19/2021 - INTRODUCED.
<u>AB 1458</u> Frazier (D)	Fish and Wildlife Protection and Conservation		Prohibits a person, a state or local governmental agency, or a public utility from substantially diverting or obstructing the natural flow of, or substantially changing or using any material from the bed, channel, or bank of, any river, stream, or lake, or depositing or disposing of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, unless prescribed requirements are met.	02/19/2021 - INTRODUCED.
<u>AB 1487</u> Gabriel (D)	Real Property: Eviction Defense		Specifies certain rights and limitations for landlords and tenants subject to eviction and certain procedures for civil actions involving evictions.	02/19/2021 - INTRODUCED.
<u>AB 1488</u> Cervantes (D)	Emergency Services: Local Government		Relates to the California Emergency Services Act, among other things, establishes the Office of Emergency Services and sets forth its powers and duties relating to mitigating the effects of natural, manmade, or war caused emergencies and makes findings and declarations relating to	02/19/2021 - INTRODUCED.

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			ensuring that preparation within the state will be adequate to deal with those emergencies.	
<u>AB 1490</u> Chau (D)	California Privacy Rights Act of 2020		Relates to the California Privacy Rights Act of 2020. Establishes the California Privacy Protection Agency and vests it with full administrative power, authority, and jurisdiction to implement and enforce the Act. Requires the agency to be governed by a 5 member board appointed from among Californians with expertise in the areas of privacy, technology, and consumer rights.	02/19/2021 - INTRODUCED.
<u>AB 1493</u> Rubio (D)	Tenancy: Victims of Domestic Violence, Sexual Assault		Prohibits a landlord from terminating or failing to renew a tenancy based upon an act against a tenant or a member of a tenants household that constitute domestic violence, sexual assault, stalking, human trafficking, or elder or dependent adult abuse, if certain standards are met. Requires the act to be documented in one of several ways, a temporary restraining order, protective order, or police report, and existing law requires that the person against whom the order was issued, or who was named.	02/19/2021 - INTRODUCED.
<u>AB 1500</u> Garcia E (D)	Safe Drinking Water, Wildfire Prevention		Authorizes the issuance of bonds in a specified amount pursuant to the State General Obligation Bond Law to finance a drought, water, parks, climate, coastal protection, and outdoor access for all program. Enacts the Safe Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, and Workforce Development Bond Act of 2022, which, if approved by the voters.	02/19/2021 - INTRODUCED.
<u>AB 1523</u> Gallagher (R)	Greenhouse Gases		Revises the California Global Warming Solutions Act of 2006 by designating the state board with the responsibility of regulating vehicular sources of emissions of greenhouse gases and each district with the responsibility of regulating all sources, other than vehicular sources, of emissions of greenhouse gases within its jurisdiction.	02/19/2021 - INTRODUCED.

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<u>AB 1524</u> O'Donnell (D)	Political Reform Act of 1974: Conflicts of Interest		States the intent of the Legislature to enact legislation to clarify what constitutes a conflict of interest for public officials under the Political Reform Act of 1974.	02/19/2021 - INTRODUCED.
<u>AB 1528</u> Santiago (D)	Wages: Final Payments		Makes nonsubstantive changes to these provisions related to regulation of the terms and conditions of employment and, specifically, the payment of wages.	02/19/2021 - INTRODUCED.
<u>AB 1531</u> O'Donnell (D)	State Bodies: Public Meetings		Makes nonsubstantive changes to those provisions of the Bagley-Keene Open Meeting Act that requires that all meetings of a state body, as defined, be open and public, and that all persons be permitted to attend any meeting of a state body and requires the state body to provide notice of its meeting upon written request, as provided.	02/19/2021 - INTRODUCED.
<u>AB 1553</u> O'Donnell (D)	Water Storage Capacity		States the intent of the Legislature to enact subsequent legislation that would increase California's water storage capacity.	02/19/2021 - INTRODUCED.
<u>AB 1559</u> O'Donnell (D)	Renewable Natural Gas		States the intent of the Legislature to enact subsequent legislation related to renewable natural gas.	02/19/2021 - INTRODUCED.
<u>ACA 1</u> Aguiar-Curry (D)	Local Government Financing: Affordable Housing		Creates an additional exception to the 1% ad valorem tax rate limit on real property that would authorize a city, county, or special district to levy an ad valorem tax to service bonded indebtedness incurred to fund the construction, reconstruction, rehabilitation, or replacement of public infrastructure, affordable housing, or permanent supportive housing, if the proposition proposing the tax is approved by 55% of the voters of the city or county, and the proposition includes accountability requirements.	12/07/2020 - INTRODUCED.
<u>ACR 17</u> Voepel (R)	Special Districts Week		Proclaims the week of May 16, 2021, to May 22, 2021, to be Special Districts Week.	02/12/2021 - To ASSEMBLY Committee on RULES.
<u>ACR 33</u>	Wildfire Mitigation		States the Legislature's commitment to improving wildfire outcomes in the State of California by investing in science-based wildfire mitigation	02/19/2021 - INTRODUCED.

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Friedman (D)			strategies that will benefit the health of California forests and communities. States that the Legislature calls upon public and private stakeholders to work jointly to identify, discuss, and refine, as necessary, procedures concerning treatment of forested lands for the purpose of, among other things, wildfire risk mitigation.	
SB 1 Atkins (D)	Coastal Resources: Sea Level Rise		Includes, as part of the procedures the California Coastal Commission is required to adopt for local coastal programs, recommendations and guidelines for the identification, assessment, minimization, and mitigation of sea level rise within each local coastal program.	01/28/2021 - To SENATE Committees on NATURAL RESOURCES AND WATER and ENVIRONMENTAL QUALITY and GOVERNMENTAL ORGANIZATION.;01/28/2021 - In SENATE. Rescinds referral to Committee on GOVERNMENTAL ORGANIZATION due to limitations concerning COVID-19 virus.
SB 3 Caballero (D)	Tenancy: COVID-19		Extends the covered time period and transition time period for purposes of the COVID-19 Tenant Relief Act of 2020 to a specified date.	01/28/2021 - To SENATE Committee on JUDICIARY.
SB 12 McGuire (D)	Local Government Planning and Zoning: Wildfires		Requires the safety element, upon the next revision of the housing element or the hazard mitigation plan, on or after a certain date, whichever occurs first, to be reviewed and updated as necessary to include a comprehensive retrofit strategy to reduce the risk of property loss and damage during wildfires, and would require the planning agency to submit the adopted strategy to the Office of Planning and Research for inclusion into the clearinghouse for climate adaptation.	01/28/2021 - To SENATE Committees on GOVERNANCE AND FINANCE and HOUSING and NATURAL RESOURCES AND WATER.;01/28/2021 - In SENATE. Rescinds referral to Committee on NATURAL RESOURCES AND WATER due to limitations concerning COVID-19 virus.
SB 13 Dodd (D)	Local Agency Services: Contracts: Napa, San Bernardino		Imposes a deadline for the Napa and San Bernardino commissions to report to the Legislature on the pilot program, authorize a city or district to provide new or extended services outside its jurisdictional boundary, and would require the contents of that report to include how many requests for extension of services were received under these provisions.	01/28/2021 - To SENATE Committee on GOVERNANCE AND FINANCE.

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<u>SB 27</u> Skinner (D)	Carbon Sequestration: State Goals: Natural Working Land		Requires the Natural Resources Agency, no later than July 1, 2022, in coordination with the California Environmental Protection Agency, the State Air Resources Board, and the Department of Food and Agriculture, to establish carbon sequestration goals for natural and working lands. Requires the state board, as part of its scoping plan, to establish specified carbon dioxide removal targets for 2030 and beyond.	01/28/2021 - To SENATE Committees on ENVIRONMENTAL QUALITY and NATURAL RESOURCES AND WATER.
<u>SB 33</u> Cortese (D)	California Environmental Quality Act: Lead Agency		Makes nonsubstantive changes to the California Environmental Quality Act.	01/28/2021 - To SENATE Committee on RULES.
<u>SB 36</u> Skinner (D)	Energy Efficiency		Makes nonsubstantive changes to existing law which authorizes the State Energy Resources Conservation and Development Commission to prescribe, by regulation, energy efficiency standards, including appliance efficiency standards.	01/28/2021 - To SENATE Committee on RULES.
<u>SB 37</u> Cortese (D)	Contaminated Sites Dominic Cortese Act of 2021		Updates and revitalizes the Hazardous Waste and Substances Sites List, or the Cortese List. Requires the Department of Toxic Substances Control to also list hazardous waste facilities where the department issued an order for corrective action after determining that there is or has been a release of hazardous waste or constituents into the environment from a facility.	02/10/2021 - To SENATE Committee on RULES.
<u>SB 45</u> Portantino (D)	Wildfire Prevention, Safe Drinking Water Bond Act		Enacts the Wildfire Prevention, Safe Drinking Water, Drought Preparation, and Flood Protection Bond Act of 2022, which, if approved by the voters, would authorize the issuance of bonds in a specified amount pursuant to the State General Obligation Bond Law to finance projects for a wildfire prevention, safe drinking water, drought preparation, and flood protection program.	01/28/2021 - To SENATE Committees on NATURAL RESOURCES AND WATER and GOVERNANCE AND FINANCE and ENVIRONMENTAL QUALITY.;01/28/2021 - In SENATE. Rescinds referral to Committee on ENVIRONMENTAL QUALITY due to limitations concerning COVID-19 virus.

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<u>SB 46</u> Stern (D)	Employment: Contact Tracing: COVID-19		States the intent of the Legislature to enact legislation that would require an employer to develop and implement contact tracing and safety policies for its employees, including requiring notice to the employer when an employee receives a positive Coronavirus disease 2019 test.	01/28/2021 - To SENATE Committee on RULES.
<u>SB 51</u> Durazo (D)	Surplus Residential Property: Sale: Los Angeles		Requires, with respect to surplus residential property that is located in the City of Los Angeles, that if the surplus residential property is not sold to a former owner or present occupant, the property be offered at fair market value to purchasers who are present tenants who have occupied the property for 5 years or more and who are in good standing with all rent obligations current and paid in full, with first right of occupancy to the present occupants.	02/12/2021 - In SENATE. Read third time, urgency clause adopted. Passed SENATE. *****To ASSEMBLY.
<u>SB 52</u> Dodd (D)	State of Emergency: Power Outages		Expands the definition of sudden and severe energy shortage to include a deenergization event, defined as a planned power outage, as specified, and would make a deenergization event one of those conditions constituting a state of emergency and a local emergency.	01/28/2021 - To SENATE Committee on GOVERNMENTAL ORGANIZATION.
<u>SB 55</u> Stern (D)	Very High Fire Hazard Severity Zone: Development	SEEK AMENDEMENTS	Prohibits the creation or approval of a new development, as defined, in a very high fire hazard severity zone or a state responsibility area.	02/03/2021 - To SENATE Committee on RULES.
<u>SB 63</u> Stern (D)	Fire Prevention: Vegetation Management: Education		Requires the Director of Forestry and Fire Protection to identify areas of the state as moderate and high fire hazard severity zones and requires a local agency to make this information available for public review and comment. Requires the director to establish a statewide program to allow qualified entities to support and augment the department in its defensible space and home hardening assessment and education efforts.	01/28/2021 - To SENATE Committees on NATURAL RESOURCES AND WATER and HOUSING.
<u>SB 67</u> Becker (D)	Clean Energy		States intent of the Legislature to enact subsequent legislation to accelerate the state's progress toward having all electricity provided by renewable or other zero-carbon sources on a permanent basis.	01/28/2021 - To SENATE Committee on RULES.

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<u>SB 68</u> Becker (D)	Building Decarbonization		States the intent of the Legislature to enact subsequent legislation that will help the state achieve its climate and air pollution reduction goals in the building sector through actions such as reducing barriers to upgrading electrical service panels or accommodating additional electrical appliances within existing service panels.	01/28/2021 - To SENATE Committee on RULES.
<u>SB 72</u> Rubio (D)	Residential Property Insurance: Wildfire Risk		Requires the Insurance Commissioner to transmit to the Secretary of the Natural Resources Agency a report that makes geographic recommendations for vegetation management projects based on the commissioner's analysis of specified information, including nonrenewal data on policies of residential property insurance, and to post that report on the Department of Insurance's internet website.	01/28/2021 - To SENATE Committee on RULES.
<u>SB 77</u> Nielsen (R)	Elections: Ballots		Makes a technical, nonsubstantive change to provisions of existing law providing that, on election day, a voter who does not vote the ballot the voter has received shall, before leaving the polling place, return it to the precinct board member having charge of the ballots, who shall immediately cancel it.	01/28/2021 - To SENATE Committee on RULES.
<u>SB 79</u> Nielsen (R)	Fair Political Practices Commission		Makes technical, nonsubstantive changes to provisions of the Fair Political Practices Commission prohibiting members of the commission from holding certain offices and from participating in certain activities. Makes technical, nonsubstantive changes to prescribing criteria for the removal of members of the Fair Political Practices Commission.	01/28/2021 - To SENATE Committee on RULES.
<u>SB 83</u> Allen (D)	California Infrastructure and Economic Development Bank		Creates the Sea Level Rise Revolving Loan Program within the I-Bank to provide low-interest loans to local jurisdictions for the purchase of coastal properties in their jurisdictions identified as vulnerable coastal property. Requires the California Coastal Commission in consultation with the State Lands Commission, and any other applicable state, federal, and local entities, as specified to determine criteria and guidelines for the identification of eligible vulnerable coastal properties.	01/28/2021 - To SENATE Committees on NATURAL RESOURCES AND WATER and GOVERNANCE AND FINANCE.

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<u>SB 91</u> Budget and Fiscal Review Cmt	COVID-19 Relief: Tenancy: Federal Rental Assistance		Extends the imposition of additional damages, if a tenant has provided a declaration of COVID-19 financial distress, on a landlord who violates the prohibition from interrupting or terminating utility service furnished to a tenant with the intent to terminate the occupancy of the tenant. Relates to the evaluation of tenants using an alleged COVID-19 rental debt. Extends the prohibition from bringing an action for unlawful detainer based on a cause of action other than nonpayment of COVID-19 rent.	01/29/2021 - Signed by GOVERNOR.;01/29/2021 - Chaptered by Secretary of State. Chapter No. 2021-002
<u>SB 95</u> Skinner (D)	Budget Act of 2021		Expresses the intent of the Legislature to enact statutory changes relating to the Budget Act of 2021.	02/22/2021 - From ASSEMBLY Committee on BUDGET with author's amendments.;02/22/2021 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on BUDGET.
<u>SB 99</u> Dodd (D)	Community Energy Resilience Act of 2021		Requires the State Energy Resources Conservation and Development Commission to develop and implement a grant program for local governments to develop community energy resilience plans. Sets forth guiding principles for plan development, including equitable access to reliable energy and integration with other existing local planning documents.	01/28/2021 - To SENATE Committee on ENERGY, UTILITIES AND COMMUNICATIONS.
<u>SB 109</u> Dodd (D)	Office of Wildfire Technology Research and Development		Establishes the Office of Wildfire Technology Research and Development within the Office of Emergency Services under the direct control of the Director of the Office of Emergency Services. Makes the office responsible for studying, testing, and advising regarding procurement of emerging technologies and tools in order to more effectively prevent and suppress wildfires, and serving as the central organizing hub for the state government's identification of emerging wildfire technologies.	01/28/2021 - To SENATE Committee on GOVERNMENTAL ORGANIZATION.
<u>SB 209</u> Dahle (R)	State of Emergency: Termination After 7 Days: Extension		Requires a state of emergency to terminate 7 days after the Governor's proclamation of the state of emergency unless the Legislature extends it by a concurrent resolution.	02/10/2021 - To SENATE Committee on GOVERNMENTAL ORGANIZATION.

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<u>SB 219</u> McGuire (D)	Property Tax: Delinquent Penalty Cost: Health Orders		Authorizes the auditor or the tax collector to cancel any penalty, costs, or other charges resulting from tax delinquency upon a finding that failure to make a timely payment is due to a documented hardship, as determined by the tax collector, arising from a shelter-in-place order, as defined, if the principal payment for the proper amount of tax due is paid no later than June 30 of the fiscal year in which the payment first became delinquent.	01/28/2021 - To SENATE Committee on GOVERNANCE AND FINANCE.
<u>SB 222</u> Dodd (D)	Water Affordability Assistance Program	CONCERNS	Establishes the Water Affordability Assistance Fund in the State Treasury to help provide water affordability assistance, for both drinking water and wastewater services, to low-income ratepayers and ratepayers experiencing economic hardship in California.	02/08/2021 - Withdrawn from SENATE Committee on ENVIRONMENTAL QUALITY.;02/08/2021 - Re-referred to SENATE Committees on ENERGY, UTILITIES AND COMMUNICATIONS and ENVIRONMENTAL QUALITY.
<u>SB 223</u> Dodd (D)	Discontinuation of Residential Water Service	OPPOSE UNLESS AMENDED	Revises the conditions under which urban and community water systems and very small community water systems are prohibited from discontinuing residential service for nonpayment. Prohibits these systems from discontinuing residential service for nonpayment during a state or local emergency.	01/28/2021 - To SENATE Committees on ENERGY, UTILITIES AND COMMUNICATIONS and ENVIRONMENTAL QUALITY and JUDICIARY.;01/28/2021 - In SENATE. Rescinds referral to Committee on JUDICIARY due to limitations concerning COVID-19 virus.
<u>SB 230</u> Portantino (D)	State Water Resources Control Board: Constituents		Requires the State Water Resources Control Board to establish, maintain, and direct an ongoing, dedicated program called the Constituents of Emerging Concern Program to assess the state of information and recommend areas for further study on, among other things, the occurrence of Constituents of Emerging Concern in drinking water sources and treated drinking water.	01/28/2021 - To SENATE Committee on ENVIRONMENTAL QUALITY.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 233</u> Umberg (D)	Impact of COVID-19		States the intent of the Legislature to enact legislation to address challenges in the judiciary as a result of the pandemic caused by coronavirus.	01/28/2021 - To SENATE Committee on RULES.
<u>SB 239</u> Banking and Financial Institutions Cmt	Government Finance Surplus Investments		Requires bonds or interest bearing notes that are eligible for investment of surplus state funds to be on obligations that are issued by or fully guaranteed as to principal and interest by a federal agency of the United States or a United States government sponsored enterprise, as defined by specified federal law.	02/03/2021 - To SENATE Committee on BANKING AND FINANCIAL INSTITUTIONS.
<u>SB 241</u> Umberg (D)	Civil Discovery		Declares the intent of the Legislature to enact legislation that would streamline discovery processes in order to reduce costs to the courts and litigants.	02/03/2021 - To SENATE Committee on RULES.
<u>SB 265</u> Borgeas (R)	Property Tax: Reassessment		Makes nonsubstantive changes to existing law which authorizes a county board of supervisors, by ordinance, to provide an assessee of taxable property, or a person liable for the taxes thereon, whose property was damaged or destroyed without that persons fault, the opportunity to apply for reassessment of that property, as specified.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 270</u> Durazo (D)	Public Employment: Labor Relations: Employee Data		Authorizes an exclusive representative to file a charge of an unfair labor practice with the Public Employment Relations Board, as specified, alleging a violation of the specified requirements only if specified conditions are met, including that the exclusive representative gives written notice of the alleged violation and that the public employer fails to cure the violation, as specified.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 273</u> Hertzberg (D)	Water Quality: Municipal Wastewater Agencies		Authorizes a municipal wastewater agency to enter into agreements with entities responsible for stormwater management for the purpose of managing stormwater and dry weather runoff, to acquire, construct, expand, operate, maintain, and provide facilities for specified purposes relating to managing stormwater and dry weather runoff, and to levy taxes, fees, and charges consistent with the municipal wastewater	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.

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			agency's existing authority in order to fund projects undertaken pursuant to the bill.	
<u>SB 274</u> Wieckowski (D)	Local Government Meetings: Agenda and Documents		Requires a local agency with an internet website, or its designee, to email a copy of, or website link to, the agenda or a copy of all the documents constituting the agenda packet if the person requests that the items be delivered by email. Requires the legislative body or its designee to send by mail a copy of the agenda or a website link to the agenda and to mail a copy of all other documents constituting the agenda packet, if specified criteria or circumstances are met.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 278</u> Leyva (D)	PERS: Disallowed Compensation: Benefit Adjustments		Relates to the PERS (Public Employees' Retirement System). Establishes new procedures under PERL (Public Employees' Retirement Law) for cases in which PERS determines that the benefits of a member or annuitant are, or would be, based on disallowed compensation that conflicts with PEPPRA (Public Employees' Pension Reform Act of 2013) and other specified laws and thus impermissible under PERL.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 282</u> Dahle (R)	State Water Resources Control Board		Makes a nonsubstantive change in provisions establishing the State Water Resources Control Board.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 286</u> Min (D)	Elections: County Officers: Consolidation		Relates to existing Law that requires a candidate for a nonpartisan office who at a primary election receives votes on a majority of all the ballots cast for candidates for that office to be elected to that office. Exempts from that requirement candidates for county nonpartisan offices, including a county office in a charter county, but not including a charter city and county.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 294</u> Leyva (D)	Public Retirement: Leave of Absence: Service Credit		Removes the 12-year limitation for service credit earned on an employer-approved compensated leave under the Public Employees Retirement Law and Teachers Retirement Law.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.

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<u>SB 295</u> Dahle (R)	District Elections		Makes a technical, nonsubstantive change to provisions of existing law concerning the Uniform District Election Law and terms of elected members.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 297</u> Durazo (D)	Subsurface Installations: Penalties		Enacts the Wade Kilpatrick Gas Safety Act of 2021. Prescribes new penalties applicable to excavators that fail to provide notice to a gas corporation of the need to locate and mark subsurface installations, or that commence excavation before a gas corporation marks subsurface installations, and then damage a subsurface installation.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 305</u> Jones (R)	Political Reform Act of 1974: Electronic Filing		Imposes the online and electronic filing system with respect to specified committees, slate mailer organizations, lobbyists, and other persons. Eliminates the requirement that individual lobbyists, lobbying firms, lobbying coalitions, and lobbyist employers, as defined, file their registration statements, any amendments, or notices of termination, in physical form with the Secretary of State.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 318</u> Melendez (R)	Land Use: Development Fee or Charge: Auditor Standards		Requires that under the Mitigation Fee Act, an independent auditor be a certified public accountant, or a firm of certified public accountants, concerning an audit to determine whether a fee or charge is reasonable.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.;02/22/2021 - To SENATE Committee on GOVERNANCE AND FINANCE.
<u>SB 319</u> Melendez (R)	Land Use: Development Fees: Audit		Requires an audit, to determine whether a fee or charge levied by a local agency exceeds the amount reasonably necessary to cover the cost of any product, public facility, or service provided by the local agency, to include each consecutive year the local agency did not comply with the disclosure requirement.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.;02/22/2021 - To SENATE Committee on GOVERNANCE AND FINANCE.
<u>SB 323</u> Caballero (D)	Local Government: Water or Sewer	SUPPORT	Applies the same judicial action procedure and timelines, as stated in existing law, to ordinances, resolutions, or motions adopting,	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In

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	Service: Legal Actions		modifying, or amending water or sewer service fees or charges, except as provided.	SENATE. Joint Rule 55 suspended.;02/22/2021 - To SENATE Committees on GOVERNANCE AND FINANCE and JUDICIARY.
<u>SB 335</u> Cortese (D)	Workers' Compensation: Proceedings: Payment Delay		Makes technical, nonsubstantive changes to provisions concerning workers' compensation proceedings.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.;02/22/2021 - To SENATE Committee on RULES.
<u>SB 336</u> Ochoa Bogh (R)	Public Health: COVID-19		Provides that before the State Department of Public Health or a local health official takes measures to prevent the spread of COVID-19, as defined, they publish the measures for 72 hours on their internet website and reach out to local organizations representing local business interests.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.;02/22/2021 - To SENATE Committee on HEALTH.
<u>SB 342</u> Gonzalez (D)	Environmental Justice		States the intent of the Legislature to enact subsequent legislation to increase environmental justice representation at a local level.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.;02/22/2021 - To SENATE Committee on RULES.
<u>SB 345</u> Becker (D)	Energy Programs and Projects: Nonenergy Benefits		Requires the Public Utilities Commission to establish common definitions of nonenergy benefits, as defined, and attempt to determine consistent values for use in all distributed energy resource, as defined, programs, incorporate nonenergy benefits in distributed energy resource programs and projects, and track the nonenergy benefits produced in distributed energy resource programs during program evaluations.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.;02/22/2021 - To SENATE Committee on ENERGY, UTILITIES AND COMMUNICATIONS.
<u>SB 351</u> Caballero (D)	Water Innovation Act of 2021		Enacts the Water Innovation Act of 2021. Creates the Office of Water Innovation at the California Water Commission for the furtherance of new technologies and other innovative approaches in the water sector. Requires the office to take specified measures to advance innovation in the water sector.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.;02/22/2021 - To SENATE

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				Committee on NATURAL RESOURCES AND WATER.
<u>SB 369</u> Pan (D)	Flood Control: Yolo Bypass Cache Slough Partnership		Establishes the Yolo Bypass Cache Slough Partnership Multibenefit Program to support the development and implementation of projects within the Yolo Bypass and Cache Slough region. Defines Yolo Bypass Cache Slough Partnership to mean the multiagency partnership established pursuant to a memorandum of understanding signed in May 2016 by a total of 15 participating federal, state, and local agencies.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.;02/22/2021 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<u>SB 372</u> Leyva (D)	Medium- and Heavy-Duty Fleet Purchasing Program		Requires an unspecified agency to establish a program to make financing tools and nonfinancial supports available to the operators of medium- and heavy-duty vehicle fleets to enable those operators to transition their fleets to zero-emission vehicles.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.;02/22/2021 - To SENATE Committee on RULES.
<u>SB 375</u> Wilk (R)	Joint Powers Agreements		Makes a nonsubstantive change to the definition of public agency for purposes of the Joint Exercise of Powers Act.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.;02/22/2021 - To SENATE Committee on RULES.
<u>SB 376</u> Stern (D)	Fish and Game Code: Name Change		Renames the Fish and Game Code as the Fish and Wildlife Code and requires that any reference to the Fish and Game Code in that code or any other code means the Fish and Wildlife Code.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.;02/22/2021 - To SENATE Committee on RULES.
<u>SB 381</u> Portantino (D)	Surplus Residential Property		Makes nonsubstantive changes to provisions of existing law which establishes priorities and procedures that any state agency disposing of surplus residential property is required to follow.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.;02/22/2021 - To SENATE Committee on RULES.

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<u>SB 396</u> Dahle (R)	Forestry: Internal Combustion Engines: Fire Toolbox		Requires a dedicated set of tools to be located within the operating area on or near any forest, brush, or grass-covered land and accessible in the event of a fire, which fire toolbox shall contain a sufficient number of fire extinguishers, axes, 2 McLeod fire tools, and shovels so that, when added to any other tools on the industrial operation, each employee at the operation can be equipped to fight fire.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 403</u> Gonzalez (D)	Drinking Water: Consolidation		Authorizes the State Water Resources Control Board to also order consolidation where a water system serving a disadvantaged community is at risk of failing to provide an adequate supply of safe drinking water or where a disadvantaged community is substantially reliant on domestic wells that are at risk of failing to provide an adequate supply of safe drinking water.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 426</u> Rubio (D)	California Regional Water Quality Control Boards		Relates to existing law which provides that a California regional water quality control board is authorized to post notice upon a nuisance property, stating that the condition constitutes either a condition of pollution or nuisance which is required to be abated by correction of the condition, or it will be corrected at the property owner's expense. Changes the minimum amount of time the notice has to provide for a hearing from 10 days from the posting of the notice to 14 days from the posting.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 427</u> Eggman (D)	Water Theft: Enhanced Penalties		Authorizes the legislative body of a city or a county to make, by ordinance, any violation of an ordinance regarding water theft, as defined, subject to an administrative fine or penalty in excess of the limitations specified in existing law.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 440</u> Dodd (D)	Earthquake and Wildfire Loss Mitigation		Requires the Wildfire Fund Administrator, the Office of Emergency Services, and the Office of Energy Infrastructure Safety to create the California Wildfire Residential Loss Mitigation Program as a joint powers authority. Requires that program to provide mitigation against wildfire risk, including a grant program to assist qualifying owners to	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.

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			retrofit their structures to protect against wildfire or to create a defensible space around their structures.	
SB 443 Newman (D)	Elections: Redistricting		Makes the criteria for the district boundaries of for the members of the governing body of a county board of education, school district, community college district, special district, city, or county, consistent with the criteria for Senate, Assembly, Congress, and State Board of Equalization districts established under the Constitution.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 448 Melendez (R)	Emergency Services Act: Emergency Powers: Limitation		Enacts the Emergency Power Limitation Act. Requires an emergency order, as defined, to be narrowly tailored to serve a compelling public health or safety purpose and limited in duration, applicability, and scope. Authorizes any person to bring an action to invalidate or enjoin enforcement of an emergency order that is allegedly unlawful.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 449 Stern (D)	Climate-Related Financial Risk		Requires a bank, corporation, credit union, finance lender, insurer, investment advisor, real estate investment trust, and mortgage lender, as those terms are defined, to, before January 1, 2023, and annually thereafter, prepare a climate-related financial risk report, as defined, and to submit to the department, and make available to the public on its own internet website, a copy of that report.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 456 Laird (D)	Climate Resiliency		Expresses the intent of the Legislature to enact subsequent legislation relating to climate resiliency.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 457 Portantino (D)	Public Employee Retirement Systems: Investments		Requires the boards of administration of the Public Employees Retirement System and the State Teachers Retirement System to provide employers that are school districts and cities that participate in the systems an option to elect an investment portfolio that does not contain investment vehicles that are issued or owned by the government of the Republic of Turkey.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.

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<u>SB 459</u> Allen (D)	Political Reform Act of 1974: Lobbying		States the intent of the Legislature to enact legislation to increase transparency and public access to lobbying information illustrating how money is spent to influence the actions of California's government.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 463</u> Dahle (R)	Water		Expresses the intent of the Legislature to enact subsequent legislation relating to water.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 471</u> Hueso (D)	The Racial and Economic Equity Bond Act of 2021		States the intent of the Legislature to enact future legislation entitled the Racial and Economic Equity Bond Act of 2021.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 479</u> Laird (D)	Local Government Renewable Energy Self-Generation		Expands the local government renewable energy self-generation program definition of benefiting account to include accounts meeting specified requirements located within the geographical boundaries of a California Native American tribe. Expands the definition of a local government to include a California Native American tribe.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 484</u> Archuleta (D)	Home Inspections: Sewer Lateral Repairs		Declares that specified provisions of home inspection do not affect the ability of a plumbing contractor who holds a specified license to perform repairs pursuant to the contractors inspection of a sewer lateral connecting a residence or business to a municipal sewer system if the consumer is provided a specified disclosure before authorizing the home inspection.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 496</u> Laird (D)	Flood Control: Counties		Authorizes the board of supervisors of a county to appropriate and spend money from the general fund of the county for the reuse of flood waters in connection with streams or rivers in the county.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 501</u> Wieckowski (D)	Claims Against Public Entities: Minors		Revises the circumstances pursuant to which a board reviewing an application under the Government Claims Act for leave to present a claim relating to an injury to a minor is required to grant the application.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.

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<u>SB 505</u> Hertzberg (D)	Wages: Withholdings: Written Authorization		Requires an employer, absent fraud, misrepresentation, or theft, to make a good faith effort to consult with an employee to obtain a written authorization to resolve a monetary obligation before utilizing third-party collection services or commencing a civil action. Requires an employer, absent fraud, misrepresentation, or theft, to make a good faith effort to consult with an employee to obtain a written authorization to resolve a monetary obligation before utilizing third-party collection services.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 506</u> Jones (R)	California Environmental Quality Act: Greenhouse Gas		Prohibits the Department of Forestry and Fire Protection from requiring applicants for a grant or other funds made available to the department from the Greenhouse Gas Reduction Fund to consider the greenhouse gas emissions impacts of vegetation management projects pursuant to the California Environmental Quality Act (CEQA) as a condition of applying for or receiving a grant or other funds from moneys made available to the department from the fund.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 520</u> Wilk (R)	Water Resources: Permit to Appropriate: Applications		Requires the State Water Resources Control Board, if the board has not rendered a final determination on an application for a permit to appropriate water within 30 years from the date the application was filed, to issue a new notice and provide an opportunity for protests before rendering a final determination, with specified exceptions.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 526</u> Min (D)	Community Water Systems: Lead User Service Lines		Requires community water system to remove or replace the full lead user service line, if the community water system disturbs, removes, or replaces a portion thereof. Applies specified enforcement provisions to a violation of the requirements of the bill, thereby creating a state-mandated local program by expanding the scope of crimes under the California Safe Drinking Water Act.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 527</u> Melendez (R)	Greenhouse Gas Reduction Fund: High-Speed Rail		Eliminates the continuous appropriation of 25% of the annual proceeds of Greenhouse Gas Reduction Fund to the High-Speed Rail Authority on a specified date. Transfers 25% of the annual proceeds of the Greenhouse Gas Reduction Fund to the Salton Sea Restoration Fund.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.

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<u>SB 531</u> Wieckowski (D)	Consumer Debt		Defines debt buyer to additionally mean a person or entity that is regularly assigned consumer debt for collection purposes and would prohibit a creditor from selling a consumer debt or assigning to a third party the right to collect payments on a consumer debt unless the creditor has provided a notice to the debtor at least 30 days before selling the debt that contains certain information, including the dollar amount of the outstanding debt.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 533</u> Stern (D)	Electrical Corporations: Wildfire Mitigation Plans		Requires an electrical corporation to ensure its electrical transmission and distribution system achieves the highest level of safety, reliability, and resiliency by modernizing, upgrading, including by installing one or more microgrids, replacing, hardening, or undergrounding, any portion of its transmission and distribution wires or poles that experiences a specified number of recurring deenergization events, as defined.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 542</u> Limon (D)	Zero-Emission Vehicles: Fees		States the intent of the Legislature to enact legislation to create parity between zero-emission trucks and their internal-combustion engine equivalents with regard to Department of Motor Vehicle fees and sales taxes paid by owners of Zero-emission vehicles.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 551</u> Stern (D)	California Electric Vehicle Authority		Establishes the California Electric Vehicle Authority within the Governors office. Requires the authority to coordinate activities among state agencies to advance electric vehicle and zero-emission charging infrastructure deployment as well as ensure related equity, workforce development, economic development, and other needs are addressed, as specified.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 552</u> Hertzberg (D)	Drought Planning: Small Water Suppliers: Water Systems		Requires small water suppliers, as defined, and nontransient noncommunity water systems that are schools, no later than a specified date, to develop and submit to the Division of Drinking Water for the state board an Emergency Response Plan that includes specified drought-planning elements.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.

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<u>SB 559</u> Hurtado (D)	Department of Water Resources: Water Conveyance Systems		Establishes the Canal Conveyance Capacity Restoration Fund in the State Treasury to be administered by the Department of Water Resources.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 582</u> Stern (D)	Climate Change		States the intent of the Legislature to enact subsequent legislation in furtherance of achieving the states climate change goals.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 594</u> Glazer (D)	Elections: Local Redistricting		States the intent of the Legislature to enact legislation that would mitigate issues surrounding the potential delay in the release of census data and the effect of that delay on local redistricting.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 600</u> Borgeas (R)	Administrative Procedure Act		Makes a nonsubstantive change to provisions relative to the Administrative Procedure Act.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 602</u> Laird (D)	Public Contracts		Makes nonsubstantive changes to provisions concerning goals for for minority business enterprise, women business enterprise, and disabled veteran business enterprises concerning public contracting.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 606</u> Gonzalez (D)	Workplace Safety: Citations: Employer Retaliation		Requires the Division of Occupational Safety and Health to issue a citation to an egregious employer, as defined, for each willful violation concerning employer retaliations for reporting a workplace safety incident and each employee exposed to that violation would be required to be considered a separate violation for purposes of the issuance of fines and penalties, as provided.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 618</u> Borgeas (R)	Fire prevention Activities: Local Assistance Grant		Makes nonsubstantive changes to the definition of fire prevention activities.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 626</u> Dodd (D)	Construction Manager/General		Authorizes the Department of Water Resources to utilize the Construction Manager/General Contractor Procurement method, as	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
	Contractor Procurement		specified, for projects for the construction of a facility or infrastructure related to water resources.	dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 634</u> Labor, Public Employment & Retirement Cmt	Public Employees' Retirement		Prohibits a member of the State Teachers' Retirement System (STRS) from purchasing service credit for any school year if the purchase would result in more than one year of service for that school year.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 638</u> Hertzberg (D)	California Debt and Investment Advisory Commission		Makes nonsubstantive changes to provisions establishing the California Debt and Investment Advisory Commission.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 649</u> Cortese (D)	Local Governments: Affordable Housing: Local Tenant		Establishes a state policy supporting local tenant preferences for lower income households, as defined, that are subject to displacement risk, and, further, permits local governments and developers in receipt of local or state funds, federal or state tax credits, or an allocation of tax-exempt private activity bonds designated for affordable rental housing to restrict occupancy by creating a local housing preference for lower income households subject to displacement risk.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 656</u> Eggman (D)	Stockton-East Water District: Water Rates and Budget		Defines groundwater assessment for purposes of the Water Conservation District Law of 1931 establishing the Stockton-East Water District to mean groundwater assessment or charge. Specifies the rates the district was authorized to impose in the 2020 calendar year under existing law, and would prohibit the rates for stream-delivered water and for domestic and agricultural groundwater assessments or charges for the 2022 calendar year and thereafter from exceeding the 2020 rates.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 657</u> Ochoa Bogh (R)	Employment: Electronic Documents		Authorizes an employee working from home to receive legally required notices and postings electronically and sign or acknowledge certain documents electronically.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution

IRWD 2021 LEGISLATIVE MATRIX
Updated 02/24/2021

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
				dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 660 Newman (D)	Initiative, Referendum, and Recall Petitions		Prohibits person from paying money or providing any other thing of value based on the number of signatures obtained on a state or local initiative, referendum, or recall petition.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 666 Umberg (D)	Civil Litigation		Declares the intent of the Legislature, in light of the COVID-19 public health emergency, to enact legislation that would increase efficiency and reduce the cost of civil litigation.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 669 Borgeas (R)	California Renewables Portfolio Standard Program		Makes a nonsubstantive revision to a definition applicable to existing law, wherein the Public Utilities Commission has regulatory authority over public utilities, including electrical corporations, while local publicly owned electric utilities are under the direction of their governing boards.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 674 Durazo (D)	Public Contracts: Workforce Development		Requires relevant public agencies to develop a program, known as the State Jobs Plan Program, to meet specified objectives, including, as a component of applications for covered public contracts, creation of a form that states the minimum numbers of proposed jobs that are projected to be retained and created if the applicant wins the covered public contract, and proposed wages, benefits, and investment in training.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 676 Bates (R)	Forcible Entry, Forcible Detainer, or Unlawful Detainer		Relates to an action for forcible entry, forcible detainer, or unlawful detainer. Authorizes a defendant to file a motion to strike on or before the day fixed for the defendants appearance. Authorizes a party to file a motion for summary adjudication in the same manner as a motion for summary judgment.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 683 Ochoa Bogh (R)	Flood Control: Counties		Makes nonsubstantive changes to existing law relating to flood control in counties authorizes the board of supervisors of a county to appropriate and spend money from the general fund of the county for	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.

IRWD 2021 LEGISLATIVE MATRIX
Updated 02/24/2021

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			any of specified flood control purposes in connection with streams or rivers in the county.	
SB 696 Allen (D)	Subdivision Map Act		Makes nonsubstantive changes to a provision excluding the construction, financing, or leasing of specified dwelling units and accessory dwelling units from the Subdivision Map Act.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 698 Grove (R)	Water Rights		Makes nonsubstantive changes to existing law that declares the right to water is limited to that water that is reasonably required for the beneficial use to be served, and does not extend to the waste or unreasonable use, unreasonable method of use, or unreasonable method of diversion of water.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 708 Melendez (R)	Water Quality Supply and Infrastructure Improvement		Authorizes the issuance of general obligation bonds to finance a water quality, supply, and infrastructure improvement program. Makes a nonsubstantive change to a provision of the Water Quality, Supply, and Infrastructure Improvement Act defining board for purposes of the State General Obligation Bond Law.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 719 Min (D)	Surplus Land		Prescribes requirements for the disposal of surplus land by a local agency. Defines terms for these purposes, including surplus land, to mean land owned in fee simple by any local agency for which the local agency's governing body takes formal action in a regular public meeting declaring that the land is surplus and is not necessary for the agency's use. Makes a nonsubstantive change to those definitions.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
SB 728 Hertzberg (D)	Housing		States the intent of the Legislature to enact legislation that would prohibit state and local housing programs and incentives, including, but not limited to, programs under the Surplus Lands Act, local inclusionary housing ordinances, and the Density Bonus Law, from excluding, either explicitly or in effect, homeownership or for-sale opportunities for low-income individuals.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.

IRWD 2021 LEGISLATIVE MATRIX
Updated 02/24/2021

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 733</u> Hueso (D)	Energy Storage: Pumped Storage Hydroelectric Facilities		Requires the Public Utilities Commission to open a proceeding to determine appropriate targets, if any, for each load-serving entity, defined as including electrical corporations, community choice aggregators, and electric service providers, to procure viable and cost-effective energy storage systems to be achieved by December 31, 2015, and December 31, 2020.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 734</u> Hueso (D)	Dissolution Of Redevelopment Agencies		Makes nonsubstantive changes to existing law that dissolved redevelopment agencies and community development agencies as of February 1, 2012, and provides for the designation of successor agencies to wind down the affairs of dissolved redevelopment agencies and to make payments due for enforceable obligations.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 746</u> Skinner (D)	Consumer Privacy Act of 2018: Personal Information		Grants a consumer the right to request that a business disclose to the consumer whether or not the business uses personal information collected about the consumer for a political purpose. Requires a business that collects personal information about a consumer and uses that information for a political purpose to disclose to the consumer specified information upon receipt of a verifiable consumer request from the consumer.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 751</u> Gonzalez (D)	Environmental Justice		States the intent of the Legislature to enact subsequent legislation to promote environmental justice by ensuring that disadvantaged communities, often low-income communities of color, do not continue to be overburdened with unfair shares of pollution.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 752</u> Allen (D)	Elections: Disclosure of Contributors		Expresses the intent of the Legislature to enact legislation relating to these disclosure requirements.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 776</u> Gonzalez (D)	State Policy For Water Quality Control		Makes nonsubstantive changes to existing law which provides that the state policy for water quality control is required to consist of water quality principles and guidelines for long-range resource planning, water quality objectives, and other principles and guidelines deemed	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.

IRWD 2021 LEGISLATIVE MATRIX
Updated 02/24/2021

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			essential by the State Water Resources Control Board for water quality control.	
<u>SB 780</u> Cortese (D)	Local Finance: Public Investment Authorities		Authorizes the legislative body of a city or county to divide the district into multiple project areas, and require the resolution to form the district to state any project area proposed within the district. Authorizes the legislative bodies to appoint designees to the community revitalization and investment authority.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 786</u> Becker (D)	Water Conservation		Makes a nonsubstantive change to existing law which declares the intent of the Legislature to, among other things, promote urban water conservation standards that are consistent with the California Urban Water Conservation Councils adopted best management practices and specified requirements for demand management.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 794</u> Glazer (D)	Elections: Secretary of State		Requires the Secretary of State to summon the candidates subject to the tie vote to the Secretary of States office.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 807</u> Wieckowski (D)	Public Square: Construction of Building		Makes nonsubstantive changes to existing law which regulates public property of a local agency, as defined. Defines the term public square for these purposes. Authorizes the construction of a public building thereon if the legislative body of the local agency finds that is the best use for that land.	02/22/2021 - In SENATE. Article IV. Section 8(a) of the Constitution dispensed with.;02/22/2021 - In SENATE. Joint Rule 55 suspended.
<u>SB 813</u> Governance and Finance Cmt	Controller: Local Government Financial Reports		Specifies that local government financial reports shall be furnished at the time prescribed by the Controller and would revise the amount of time in which the report is required to be furnished to either 7 months or within the time prescribed by the Controller, whichever is later.	02/23/2021 - INTRODUCED.
<u>SCA 1</u> Hertzberg (D)	Elections: Referenda		Requires that the ballot for a referendum measure provide that a Yes vote is in favor of the referendum and rejects the statute or part of the statute subject to the referendum, and a No vote is against the referendum and approves the statute or part of the statute subject to the	12/07/2020 - INTRODUCED.

IRWD 2021 LEGISLATIVE MATRIX
Updated 02/24/2021

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			referendum, thus requiring a majority vote in favor of the referendum to reject the statute or part of the statute subject to the referendum.	
<u>SCR 5</u> Melendez (R)	State of emergency: COVID-19: Termination		Declares that the state of emergency proclaimed by the Governor on a specified date, is at an end, thereby terminating the emergency powers granted to the Governor as a result of that proclamation.	02/10/2021 - Re-referred to SENATE Committee on GOVERNMENTAL ORGANIZATION.
<u>HR 535</u> Garamendi (D)	Coronavirus Relief Fund Special Districts		Amends the Social Security Act, includes special districts in the coronavirus relief fund, directs the Secretary to include special districts as an eligible issuer under the Municipal Liquidity Facility.	01/28/2021 - INTRODUCED.;01/28/2021 - To HOUSE Committee on OVERSIGHT AND REFORM.;01/28/2021 - To HOUSE Committee on FINANCIAL SERVICES.
<u>HR 737</u> Valadao (R)	California Operational Flexibility and Drought Relief	SUPPORT	Extends the authorities under the Water Infrastructure Improvements for the Nation Act of 2016 providing operational flexibility, drought relief, and other benefits to the State of California.	02/02/2021 - INTRODUCED.;02/02/2021 - To HOUSE Committee on NATURAL RESOURCES.
<u>HR 1015</u> Napolitano (D)	Water Recycling and Reuse Project Grants		Establishes a grant program for the funding of water recycling and reuse projects.	02/11/2021 - INTRODUCED.;02/11/2021 - To HOUSE Committee on NATURAL RESOURCES.
<u>S 91</u> Sinema (D)	Coronavirus Relief Fund Special Districts		Amends the Social Security Act, includes special districts in the Coronavirus relief fund, directs the Secretary to include special districts as an eligible issuer under the Municipal Liquidity Facility.	01/28/2021 - INTRODUCED.;01/28/2021 - In SENATE. Read second time.;01/28/2021 - To SENATE Committee on FINANCE.

March 22, 2021
Prepared by: J. Davis
Submitted by: R. Jacobson / C. Clary
Approved by: Paul A. Cook



CONSENT CALENDAR

FEBRUARY 2021 TREASURY REPORT

SUMMARY:

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

- A. The February 2021 Investment Summary Report. This Investment Summary Report conforms with the 2021 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 February 28, 2021, as outlined in Exhibit "B";
- C. The Monthly Interest Rate Swap Summary as of February 28, 2021, as outlined in Exhibit "C";
- D. The February 28, 2021 Disbursement Summary of warrants 415330 through 416090, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$18,057,064, as outlined in Exhibit "D";
- E. The Summary of Payroll ACH payments in the total amount of \$2,495,663, as outlined in Exhibit "E"; and
- F. The Disclosure Report of Reimbursements to Board members and staff for February 2021, detailing payments or reimbursements for individual charges of \$100 or more per transaction, as outlined in Exhibit "F".

FISCAL IMPACTS:

As of February 28, 2021, the book value of the investment portfolio was \$398,969,243, with a 0.83% rate of return and a market value of \$399,874,709. Based on IRWD's December 31, 2020 quarterly real estate investment rate of return of 10.96%, the weighted average return for the fixed income and real estate investments was 2.79%.

As of February 28, 2021, the outstanding principal amount of fixed and variable rate debt was \$646,245,000. The monthly weighted average all-in variable rate was 0.35%. Including IRWD'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 2.87%.

Payroll ACH payments totaled \$2,495,663, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for February totaled \$18,057,064.

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; the investment and debt reports are submitted to the Finance and Personnel Committee monthly.

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE TREASURER'S INVESTMENT SUMMARY REPORT, THE SUMMARY OF FIXED AND VARIABLE RATE DEBT, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF, APPROVE THE FEBRUARY 2021 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$2,495,663, AND APPROVE THE FEBRUARY 2021 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 415330 THROUGH 416090, WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$18,057,064.

LIST OF EXHIBITS:

Exhibit "A" – Investment Summary Report

Exhibit "B" – Summary of Fixed and Variable Debt

Exhibit "C" – Monthly Interest Rate Swap Summary

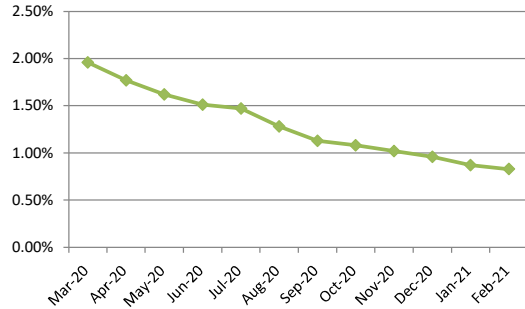
Exhibit "D" – Monthly Summary of District Disbursements

Exhibit "E" – Monthly Payroll ACH Summary

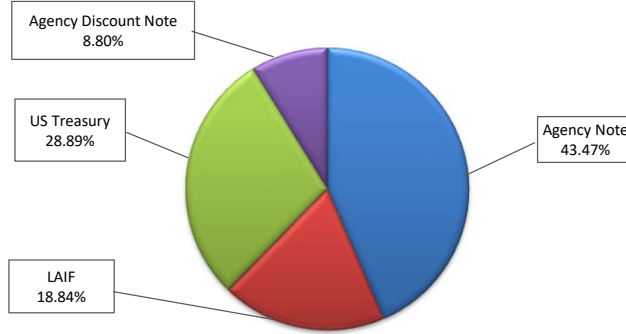
Exhibit "F" – Disclosure of Reimbursements to Board Members and Staff

Exhibit "A"
**Irvine Ranch Water District
Investment Portfolio Summary
February 2021**

Monthly Fixed Income Yield



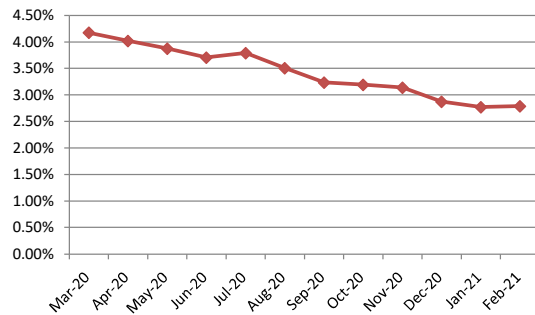
Portfolio Distribution



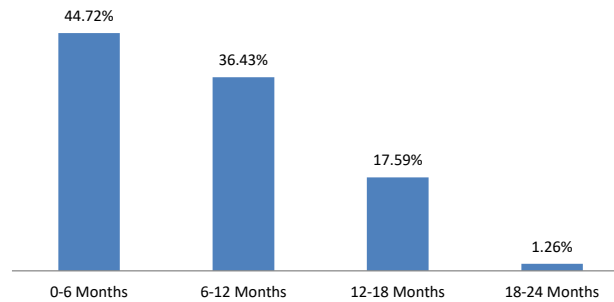
Investment Summary

Type	PAR	Book Value	Market Value
Agency Note	173,000,000	173,464,554	174,096,560
US Treasury	115,000,000	115,520,175	116,195,700
LAIF	75,000,000	75,000,000	75,170,349
Agency Discount Note	35,000,000	34,984,514	34,412,100
Grand Total	398,000,000	398,969,243	399,874,709

**Weighted Average Return
Including Real Estate Portfolio**



Maturity Distribution



Top Issuers

Issuer	PAR	% Portfolio
US Treasury	115,000,000	28.89%
Fed Home Loan Bank	90,000,000	22.61%
Fed Farm Credit Bank	80,000,000	20.10%
State of California Tsy.	75,000,000	18.84%
Fed Home Loan Mortgage Corp	20,000,000	5.03%
Fed Natl Mortgage Assoc	18,000,000	4.53%
Grand Total	398,000,000	100.00%

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

02/28/21

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE ⁽¹⁾ 2/28/2021	UNREALIZED ⁽²⁾ GAIN/(LOSS)
07/24/20			03/01/21		LAIF	State of California Tsy.	\$75,000,000		0.420%	\$75,000,000.00	\$75,000,000.00	75,170,348.85	170,348.85
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	4,998,204.82	5,000,000.00	1,795.18
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	9,999,949.28	10,007,600.00	7,650.72
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	4,999,744.91	5,003,600.00	3,855.09
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	5,000,026.29	5,004,250.00	4,223.71
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	3,014,685.73	3,008,610.00	(6,075.73)
11/24/20	NA	NA	04/27/21	NR	FHLB - Discount Note	Fed Home Loan Bank	5,000,000	0.075%	0.076%	4,998,395.83	4,999,406.25	4,998,400.00	(1,006.25)
11/25/20	NA	NA	04/27/21	NR	FHLB - Discount Note	Fed Home Loan Bank	5,000,000	0.075%	0.076%	4,998,406.25	4,999,406.25	4,998,400.00	(1,006.25)
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	4,998,688.05	5,013,650.00	14,961.95
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	5,004,852.29	5,018,000.00	13,147.71
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	5,008,741.03	5,026,250.00	17,508.97
11/18/20	NA	NA	05/27/21	NR	FHLB - Discount Note	Fed Home Loan Bank	5,000,000	0.080%	0.081%	4,997,888.89	4,999,033.33	4,999,500.00	466.67
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	10,046,284.44	10,050,900.00	4,615.56
06/11/20	NA	NA	06/09/21	NR	FHLB - Discount Note	Fed Home Loan Bank	5,000,000	0.190%	0.193%	4,990,420.85	4,997,361.12	4,999,300.00	1,938.88
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	5,006,342.72	5,030,350.00	24,007.28
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	4,992,344.93	5,017,950.00	25,605.07
12/31/20	NA	NA	07/01/21	Aaa/NR/AAA	Treasury - Bill	US Treasury	10,000,000	0.090%	0.090%	9,995,450.00	9,996,950.00	9,998,200.00	1,250.00
01/19/21	NA	NA	07/15/21	Aaa/NR/AAA	Treasury - Bill	US Treasury	5,000,000	0.075%	0.076%	4,998,156.25	4,998,583.33	4,999,050.00	466.67
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	4,999,033.15	5,034,950.00	35,916.85
08/13/20	NA	NA	08/12/21	NR	FFCB - Discount Note	Fed Farm Credit Bank	10,000,000	0.140%	0.142%	9,985,844.44	9,993,622.22	9,948,800.00	(574,822.22)
08/13/20	NA	NA	08/13/21	Aaa/NR/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	0.125%	0.133%	9,999,220.00	9,999,647.40	9,997,300.00	(2,347.40)
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	4,983,091.74	5,026,350.00	43,258.26
09/17/20	NA	NA	09/17/21	NA	FHLB - Note	Fed Home Loan Bank	5,000,000	0.125%	0.132%	4,999,660.00	4,999,813.70	5,002,300.00	2,486.30
08/13/20	NA	NA	09/30/21	Aaa/AA+/NR	Treasury - Note	US Treasury	10,000,000	1.125%	0.133%	10,112,109.38	10,057,819.12	10,061,700.00	3,880.88
09/30/20	NA	NA	09/30/21	NA	FHLB - Note	Fed Home Loan Bank	10,000,000	0.125%	0.122%	10,000,336.80	10,000,196.54	10,004,800.00	4,603.46
08/13/20	NA	NA	10/07/21	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	10,000,000	1.375%	0.143%	10,141,500.00	10,074,119.05	10,077,500.00	3,380.95
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	5,040,835.46	5,087,100.00	46,264.54
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	4,992,599.45	5,041,700.00	49,100.55
10/29/20	NA	NA	10/19/21	Aaa/NR/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	0.125%	0.127%	9,999,800.00	9,999,869.30	10,005,100.00	5,230.70
10/27/20	NA	NA	10/26/21	NR	FFCB - Discount Note	Fed Farm Credit Bank	5,000,000	0.130%	0.132%	4,993,427.78	4,995,684.72	4,997,700.00	2,015.28
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	5,043,895.76	5,098,450.00	54,554.24
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	5,002,558.52	5,062,900.00	60,341.48
09/28/20	NA	NA	12/03/21	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.150%	0.120%	5,001,765.00	5,001,134.35	5,002,450.00	1,315.65
10/30/20	NA	NA	12/15/21	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.625%	0.127%	5,140,429.69	5,098,744.96	5,100,200.00	1,455.04
04/23/20	NA	NA	12/20/21	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	1.625%	0.309%	10,217,480.00	10,119,506.34	10,125,300.00	5,793.66
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	5,015,533.33	5,079,700.00	64,166.67
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	5,031,494.23	5,098,600.00	67,105.77
08/14/20	NA	NA	01/13/22	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	2.375%	0.147%	5,157,297.23	5,096,751.49	5,098,600.00	1,848.51
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	5,001,676.25	5,104,900.00	103,223.75
10/21/20	Continuous after	04/21/21	01/21/22	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.150%	0.150%	5,000,000.00	5,000,000.00	5,000,500.00	500.00
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	5,010,513.57	5,081,450.00	70,936.43
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	4,985,261.57	5,089,350.00	104,088.43
11/13/20	Continuous after	05/04/21	02/04/22	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.400%	0.150%	4,999,390.00	4,999,537.05	5,000,350.00	812.95
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	5,039,794.74	5,115,050.00	75,255.26
11/13/20	NA	NA	02/28/22	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	1.875%	0.139%	5,112,304.69	5,086,607.85	5,088,650.00	2,042.15
11/19/20	NA	NA	02/28/22	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	1.750%	0.126%	5,103,710.94	5,081,010.26	5,082,400.00	1,389.74
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	5,000,938.35	5,122,350.00	121,411.65
12/23/20	NA	NA	03/22/22	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	10,000,000	0.090%	0.090%	10,000,000.00	10,000,000.00	9,995,000.00	(5,000.00)
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	5,012,132.59	5,096,500.00	84,367.41
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	4,999,082.38	5,069,550.00	70,467.62
04/23/20	NA	NA	04/21/22	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	10,000,000	1.580%	0.320%	10,250,200.00	10,145,720.88	10,162,000.00	16,279.12
05/28/20	One Time	05/26/21	05/26/22	Aaa/NR/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.270%	0.270%	5,000,000.00	5,000,000.00	5,000,450.00	450.00

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

02/28/21

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE ⁽¹⁾ 2/28/2021	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	5,000,412.01	5,099,000.00	98,587.99
05/28/20	One Time	05/26/21	08/26/22	Aaa/NR/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.300%	0.300%	5,000,000.00	5,000,000.00	5,001,350.00	1,350.00
TOTAL INVESTMENTS							\$398,000,000			\$399,738,661.71	\$398,969,243.08	\$399,874,708.85	\$905,465.77

Petty Cash										3,400.00			
Ck Balance					Bank of America		ECR	0.19%		15,628,201.00			
										<u>\$415,370,262.71</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	\$251,100,000
Net Outstanding Variable Rate Debt (Less \$60 million fixed-payer swaps)	\$191,100,000
Investment Balance:	\$415,370,263
Investment to Variable Rate Debt Ratio:	217%
Portfolio - Average Number of Days To Maturity	185

	Investment Portfolio	Real Estate ⁽³⁾ Portfolio	Weighted Avg. Return
February	0.83%	10.96%	2.79%
January	0.87%	10.96%	2.77%
Change	-0.04%		0.02%

This Investment Summary Report is in conformity with the 2021 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures.

*S - Step up

IRVINE RANCH WATER DISTRICT
SUMMARY OF MATURITIES

02/28/21

DATE	TOTAL	%	LAIF	Agency Notes	Agency Discount Notes	Municipal Bonds	US Treasury
02/21	\$80,000,000	20.10%	\$75,000,000	-			5,000,000
03/21	20,000,000	5.03%		20,000,000			
04/21	23,000,000	5.78%		8,000,000	10,000,000		5,000,000
05/21	20,000,000	5.03%			5,000,000		15,000,000
06/21	15,000,000	3.77%		5,000,000	5,000,000		5,000,000
07/21	20,000,000	5.03%		5,000,000			15,000,000
08/21	25,000,000	6.28%		10,000,000	10,000,000		5,000,000
09/21	25,000,000	6.28%		15,000,000			10,000,000
10/21	35,000,000	8.79%		25,000,000	5,000,000		5,000,000
11/21	10,000,000	2.51%		-			10,000,000
12/21	25,000,000	6.28%		15,000,000			10,000,000
01/22	25,000,000	6.28%		15,000,000			10,000,000
SUB-TOTAL	\$323,000,000	81.16%	\$75,000,000	\$118,000,000	35,000,000		\$95,000,000
13 Months - 3 YEARS							
2/01/2022 - 4/30/2022	60,000,000	15.08%		40,000,000			20,000,000
05/01/2022 - 7/31/2022	10,000,000	2.51%		10,000,000			
08/01/2022 - 10/31/2022	5,000,000	1.26%		5,000,000			
	-						
	-						
	-						
	-						
	-						
	-						
TOTALS	\$398,000,000	100.00%	\$75,000,000	\$173,000,000	\$35,000,000		\$115,000,000

% OF PORTFOLIO 18.84% 43.47% 8.80% 28.89%

Irvine Ranch Water District
Summary of Real Estate - Income Producing Investments
12/31/2020

	ACQUISITION DATE	PROPERTY TYPE	OWNERSHIP INTEREST	ORIGINAL COST	MARKET VALUE 6/30/2020	ANNUALIZED RATE OF RETURN QUARTER ENDED 12/31/2020
Sycamore Canyon	Dec-92	Apartments	Fee Simple	\$ 43,550,810	\$ 152,340,625	19.83%
Wood Canyon Villas	Jun-91	Apartments	Limited Partner	\$ 6,000,000	\$ 30,432,947	8.51%
ITC (230 Commerce)	Jul-03	Office Building	Fee Simple	\$ 5,739,845	\$ 11,964,600	9.15%
Waterworks Business Pk.	Nov-08	Research & Dev.	Fee Simple	\$ 8,630,577	\$ 9,363,600	6.73%
Sand Canyon Professional Center - Medical Office	Jul-12	Medical Office	Fee Simple	\$ 8,648,594	\$ 11,444,400	8.76%
Sand Canyon Professional Center - General Office	Sep-20	Office Building	Fee Simple	\$ 25,985,968	\$ 28,770,000	-0.79%
Total - Income Properties				\$ 98,555,794	\$ 244,316,172	10.96%

IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT
INVESTMENT ACTIVITY
Feb-21

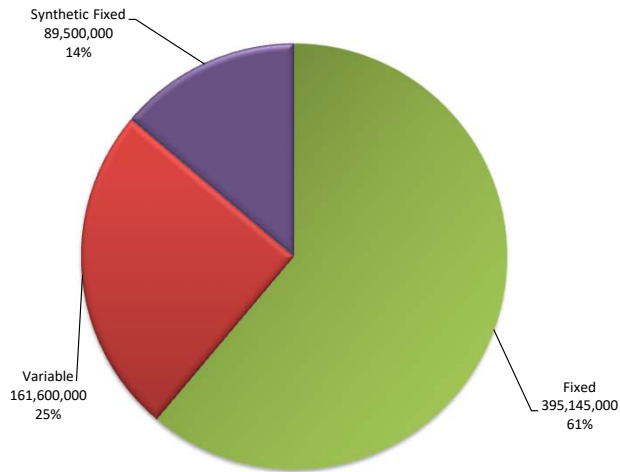
MATURITIES/SALES/CALLS

PURCHASES

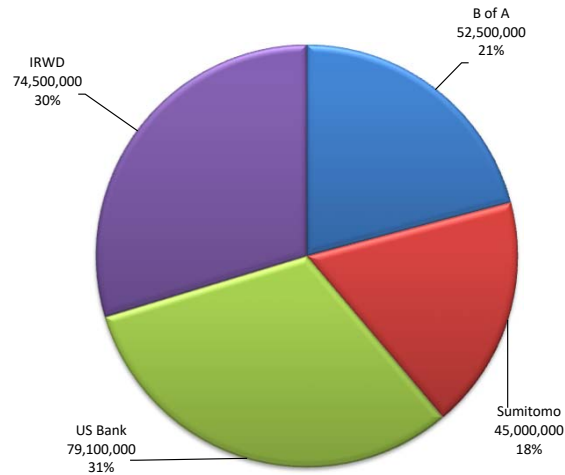
DATE	SECURITY TYPE	PAR	YIELD	Settlement Date	Maturity Date	SECURITY TYPE	PAR	YIELD TO MATURITY
2/16/2021	FHLMC - NOTE	\$5,000,000	2.81%					
2/25/2021	US Treasury	\$10,000,000	0.11%					
2/28/2021	US Treasury	\$5,000,000	2.77%					

Exhibit "B"
Irvine Ranch Water District
Summary of Fixed and Variable Rate Debt
February 2021

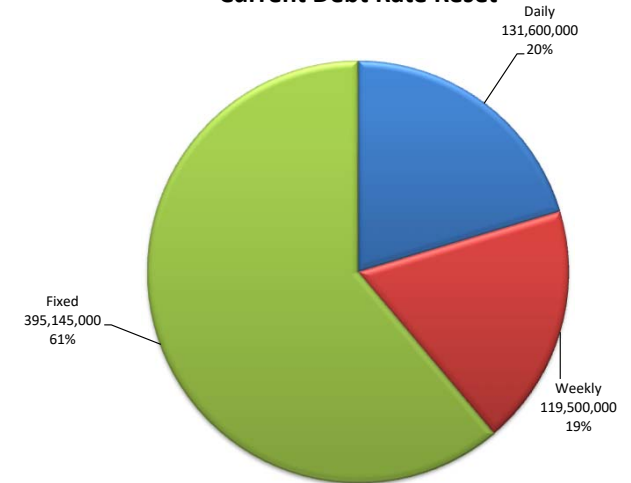
Current Debt Mix By Type



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	\$26,600,000	4.12%	US Bank	BAML	Variable	Daily
Series 2008-A Refunding	04/24/08	07/01/35	\$45,000,000	6.96%	Sumitomo	BAML	Variable	Weekly
Series 2011-A-1 Refunding	04/15/11	10/01/37	\$44,700,000	6.92%	IRWD	Goldman	Variable	Weekly
Series 2011-A-2 Refunding	04/15/11	10/01/37	\$29,800,000	4.61%	IRWD	Goldman	Variable	Weekly
Series 2009 - A	06/04/09	10/01/41	\$52,500,000	8.12%	US Bank	US Bank	Variable	Daily
Series 2009 - B	06/04/09	10/01/41	\$52,500,000	8.12%	B of A	Goldman	Variable	Daily
2016 COPS	09/01/16	03/01/46	\$116,745,000	18.07%	N/A	N/A	Fixed	Fixed
2010 Build America Taxable Bond	12/16/10	05/01/40	\$175,000,000	27.08%	N/A	N/A	Fixed	Fixed
Series 2016	10/12/16	02/01/46	\$103,400,000	16.00%	N/A	N/A	Fixed	Fixed
Total			\$646,245,000	100.00%				

IRVINE RANCH WATER DISTRICT
SUMMARY OF FIXED & VARIABLE RATE DEBT

February-21

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	\$26,600,000	US BANK	05/07/15	12/15/21	Aa3/VMIG1	AA-/A-1+	N/R	\$26,958,553	0.3300%	\$88,963	BAML	DAILY	0.10%	\$26,600	BANK OF NY						
SERIES 2008-A Refunding	04/24/08	07/01/35	Jul 1	5th Bus. Day	\$60,215,000	\$45,000,000	SUMITOMO	04/01/11	07/21/21	A1/P-1	A/A-1	A/F1	\$45,665,753	0.3150%	\$143,847	BAML	WED	0.07%	\$31,500	BANK OF NY						
SERIES 2011-A-1 Refunding	04/15/11	10/01/37	Oct 1	1st Bus. Day	\$60,545,000	\$44,700,000	N/A	N/A	N/A	Aa1/VMIG1	A-1+	AAA/F1+	N/A	N/A	N/A	Goldman	WED	0.13%	\$55,875	BANK OF NY						
SERIES 2011-A-2 Refunding	04/15/11	10/01/37	Oct 1	1st Bus. Day	\$40,370,000	\$29,800,000	N/A	N/A	N/A	Aa1/VMIG1	A-1+	AAA/F1+	N/A	N/A	N/A	Goldman	WED	0.13%	\$37,250	BANK OF NY						
SERIES 2009 - A	06/04/09	10/01/41	Oct 1	1st Bus. Day	\$75,000,000	\$52,500,000	US BANK	04/01/11	12/15/21	Aa2/VMIG 1	AA-/A-1+	AA/F1+	\$53,086,849	0.3300%	\$175,187	US Bank	DAILY	0.07%	\$36,750	US BANK						
SERIES 2009 - B	06/04/09	10/01/41	Oct 1	1st Bus. Day	\$75,000,000	\$52,500,000	B of A	04/01/11	05/16/22	Aa2/VMIG 1	A/A-1	A1/F1+	\$53,086,849	0.3000%	\$159,261	Goldman	DAILY	0.10%	\$52,500	US BANK						
					\$349,430,000	\$251,100,000	SUB-TOTAL VARIABLE RATE DEBT										\$178,798,005		0.3173%		\$567,258		0.10%		\$240,475	
																	(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	\$646,245,000	TOTAL- FIXED & VARIABLE RATE DEBT																			

Remarketing Agents			GO VS COP's		
Goldman	127,000,000	51%	GO:	529,500,000	82%
BAML	71,600,000	29%	COPS:	116,745,000	18%
US Bank	52,500,000	21%	Total	<u>646,245,000</u>	
	<u>251,100,000</u>				

LOC Banks		Breakdown Between Variable & Fixed Rate Mode	
SUMITOMO	45,000,000	Daily Issues	131,600,000 20%
BANK OF AMERICA	52,500,000	Weekly Issues	45,000,000 7%
US BANK	79,100,000	ITN Issues	74,500,000 12%
	<u>176,600,000</u>	Sub-Total	<u>251,100,000</u>
		Fixed Rate Issues	\$395,145,000 61%
		Sub-Total - Fixed	<u>395,145,000</u>
		TOTAL DEBT	
		FIXED & VAR.	<u>646,245,000</u> 100%

IRVINE RANCH WATER DISTRICT
SUMMARY OF DEBT RATES
Feb-21

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	52,500,000	44,700,000	29,800,000	26,600,000	45,000,000	52,500,000
Bank	BOFA	(SIFMA -6) (SIFMA + 3)	(SIFMA -6) (SIFMA + 3)	US BANK	Sumitomo	US BANK
Reset		Wednesday	Wednesday		Wednesday	
2/1/2021	0.01%	0.00%	0.00%	0.01%	0.04%	0.01%
2/2/2021	0.01%	0.00%	0.00%	0.01%	0.04%	0.01%
2/3/2021	0.01%	0.00%	0.00%	0.01%	0.04%	0.01%
2/4/2021	0.01%	0.06%	0.06%	0.01%	0.03%	0.01%
2/5/2021	0.01%	0.06%	0.06%	0.01%	0.03%	0.01%
2/6/2021	0.01%	0.06%	0.06%	0.01%	0.03%	0.01%
2/7/2021	0.01%	0.06%	0.06%	0.01%	0.03%	0.01%
2/8/2021	0.01%	0.06%	0.06%	0.01%	0.03%	0.01%
2/9/2021	0.01%	0.06%	0.06%	0.01%	0.03%	0.01%
2/10/2021	0.01%	0.06%	0.06%	0.01%	0.03%	0.01%
2/11/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
2/12/2021	0.02%	0.06%	0.06%	0.01%	0.02%	0.02%
2/13/2021	0.02%	0.06%	0.06%	0.01%	0.02%	0.02%
2/14/2021	0.02%	0.06%	0.06%	0.01%	0.02%	0.02%
2/15/2021	0.02%	0.06%	0.06%	0.01%	0.02%	0.02%
2/16/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
2/17/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
2/18/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
2/19/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
2/20/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
2/21/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
2/22/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
2/23/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
2/24/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
2/25/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
2/26/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
2/27/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
2/28/2021	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
Avg Interest Rates	0.01%	0.06%	0.06%	0.01%	0.02%	0.01%
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	0.41%	0.19%	0.19%	0.44%	0.41%	0.41%
Par Amount	97,200,000		29,800,000	71,600,000		52,500,000

Interest Rate Mode	Percent of Total Variable Rate Debt	Par Outstanding	Weighted All-In Average Rate	Base Rate Average
Daily	52.41%	131,600,000	0.42%	0.01%
Weekly	47.59%	119,500,000	0.27%	0.05%
Fixed	100.00%	\$ 251,100,000	0.35%	0.03%
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				2.87%

(1) Rate adjusted up from 4.35% as a result of sequestration reducing BAB's subsidy by 5.7%

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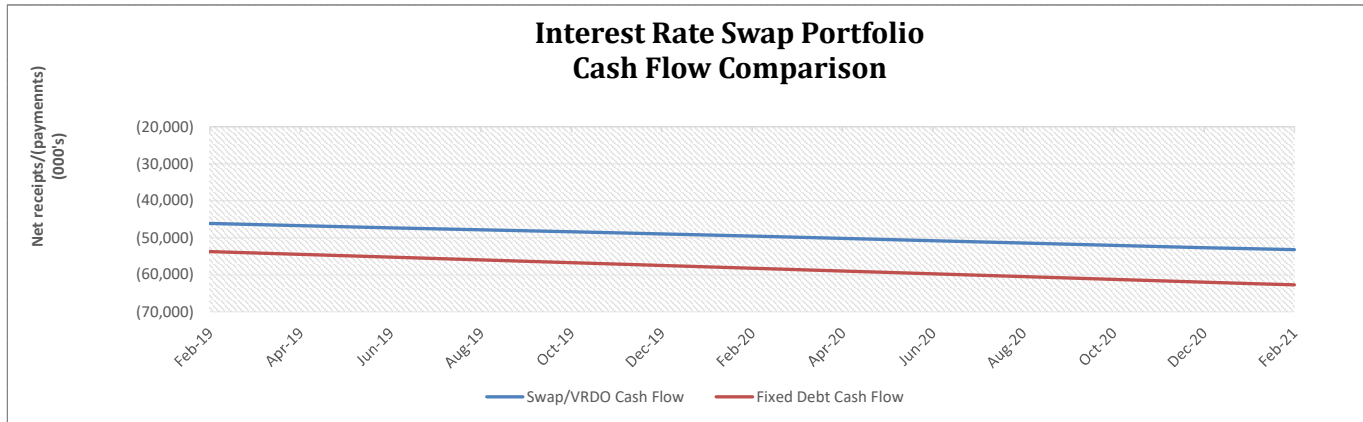
Exhibit "C"
Irvine Ranch Water District
Interest Rate Swap Summary
February 2021

	Prior Mo.	Current Mo.	12-Mo Avg
LIBOR Avg %	0.13%	0.11%	0.27%

Current Fiscal Year Active Swaps								Cash Flow				Mark to Market		
Effective Date	Maturity Date	Years to Maturity	Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Prior Month	Current Month	Fiscal YTD	(Since 3/07)		Current Mark to Market	Notional Difference
											Cumulative Net Accrual			
Fixed Payer Swaps - By Effective Date														
3/10/2007	3/10/2029	8.0	ML	30,000,000	FXP	LIBOR	5.687%	(129,357)	(125,025)	(1,088,143)	(19,113,285)		19,539,462	(10,460,538)
3/10/2007	3/10/2029	8.0	CG	30,000,000	FXP	LIBOR	5.687%	(129,357)	(125,025)	(1,088,143)	(19,113,285)		19,519,469	(10,480,531)
Totals/Weighted Avgs				8.0	\$ 60,000,000		5.687%	\$ (258,714)	\$ (250,050)	\$ (2,176,285)	\$ (38,226,570)		\$ 39,058,931	\$ (20,941,069)
Total Current Year Active Swaps					\$ 60,000,000			\$ (258,714)	\$ (250,050)	\$ (2,176,285)	\$ (38,226,570)		\$ 39,058,931	\$ (20,941,069)

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		
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 Active & Terminated Swaps
				\$ 60,000,000				\$ (258,714)	\$ (250,050)	\$ (2,176,285)	\$ (38,226,570)		\$ 39,058,931	\$ (20,941,069)



Cash Flow Comparison Synthetic Fixed vs. Fixed Rate Debt	
<u>Cash Flow to Date</u>	
Synthetic Fixed =	\$53,218,761
Fixed Rate =	\$62,716,468
<u>Assumptions:</u>	
- Fixed rate debt issued at 4.93% in Mar-07 (estimated TE rate - Bloomberg)	
- 'Synthetic' includes swap cash flow + interest + fees to date	

Note: This page is intentionally left blank.

Exhibit "D"

IRVINE RANCH WATER DISTRICT AP DISBURSEMENTS AND VOIDS FOR FEBRUARY 2021

CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
415330	4-Feb-21	MATHEIS, MARY AILEEN	2,003.68	IRWD Check	Reconciled
415331	4-Feb-21	Sagert, Justin	244.56	IRWD Check	Reconciled
415332	4-Feb-21	ABM INDUSTRY GROUPS, LLC	6,124.57	IRWD Check	Reconciled
415333	4-Feb-21	ABSOLUTE STANDARDS, INC.	227.50	IRWD Check	Reconciled
415334	4-Feb-21	ACWA	1,871.04	IRWD Check	Reconciled
415335	4-Feb-21	AFLAC	2,227.70	IRWD Check	Reconciled
415336	4-Feb-21	AIRGAS, INC.	4,650.43	IRWD Check	Reconciled
415337	4-Feb-21	AMAZON CAPITAL SERVICES, INC.	434.98	IRWD Check	Reconciled
415338	4-Feb-21	AMERICAN WATER CHEMICALS, INC.	4,573.99	IRWD Check	Reconciled
415339	4-Feb-21	AMWINS GROUP BENEFITS INC.	4,031.90	IRWD Check	Reconciled
415340	4-Feb-21	ANTHONY N. LARSEN	675.00	IRWD Check	Reconciled
415341	4-Feb-21	APPLIED ENGINEERING CONCEPTS	10,300.00	IRWD Check	Reconciled
415342	4-Feb-21	AQUA-AEROBIC SYSTEMS INC	260.05	IRWD Check	Reconciled
415343	4-Feb-21	AT&T	271.39	IRWD Check	Reconciled
415344	4-Feb-21	AT&T	4,280.63	IRWD Check	Reconciled
415345	4-Feb-21	ATHENS SERVICES	1,851.36	IRWD Check	Reconciled
415346	4-Feb-21	ATLAS INTEGRATED SYSTEMS INC.	11,389.91	IRWD Check	Reconciled
415347	4-Feb-21	AUTOZONE PARTS, INC.	1,271.39	IRWD Check	Reconciled
415348	4-Feb-21	BARTO, STANLEY	21.17	IRWD Check	Reconciled
415349	4-Feb-21	BATTERIES PLUS AND BATTERIES PLUS BULBS	2,050.87	IRWD Check	Reconciled
415350	4-Feb-21	BATTERY SYSTEMS INC	2,154.24	IRWD Check	Reconciled
415351	4-Feb-21	BILL'S SWEEPING SERVICE INC	2,189.00	IRWD Check	Reconciled
415352	4-Feb-21	BIOMAGIC INC	1,472.30	IRWD Check	Reconciled
415353	4-Feb-21	BLACK & VEATCH CORPORATION	4,447.00	IRWD Check	Reconciled
415354	4-Feb-21	BRENNTAG PACIFIC INC	21,086.41	IRWD Check	Reconciled
415355	4-Feb-21	C WELLS PIPELINE MATERIALS INC	10,137.69	IRWD Check	Reconciled
415356	4-Feb-21	CALIFORNIA BARRICADE RENTAL, INC.	8,307.50	IRWD Check	Reconciled
415357	4-Feb-21	CANON SOLUTIONS AMERICA, INC.	17.46	IRWD Check	Reconciled
415358	4-Feb-21	CANON SOLUTIONS AMERICA, INC.	22.18	IRWD Check	Reconciled
415359	4-Feb-21	CHAIREL CUSTOM HAY, INC.	810.50	IRWD Check	Reconciled
415360	4-Feb-21	CHAN, KAM KIU	482.37	IRWD Check	Reconciled
415361	4-Feb-21	CHARLES P CROWLEY COMPANY INC	7,146.00	IRWD Check	Reconciled
415362	4-Feb-21	CHEM TECH INTERNATIONAL INC	13,972.50	IRWD Check	Reconciled
415363	4-Feb-21	CHEMGLASS LIFE SCIENCES, LLC	1,049.35	IRWD Check	Reconciled
415364	4-Feb-21	CHESHIRE MEDICAL CORPORATION	3,482.34	IRWD Check	Reconciled
415365	4-Feb-21	CITY OF IRVINE	3,582.45	IRWD Check	Reconciled
415366	4-Feb-21	CITY OF TUSTIN	75.00	IRWD Check	Reconciled
415367	4-Feb-21	CITY OF TUSTIN	63,392.53	IRWD Check	Reconciled
415368	4-Feb-21	CIZEM, TUBA	459.60	IRWD Check	Reconciled
415369	4-Feb-21	CLA-VAL COMPANY	2,456.62	IRWD Check	Reconciled
415370	4-Feb-21	CLEAN ENERGY	3,436.73	IRWD Check	Reconciled
415371	4-Feb-21	COLONIAL LIFE & ACCIDENT INSURANCE CO.	1,654.89	IRWD Check	Reconciled
415372	4-Feb-21	CONSTELLATION NEWENERGY, INC.	25,396.82	IRWD Check	Reconciled
415373	4-Feb-21	CORTLAND VALUATION GROUP, INC.	5,500.00	IRWD Check	Reconciled
415374	4-Feb-21	COX COMMUNICATIONS, INC.	275.29	IRWD Check	Reconciled
415375	4-Feb-21	CRESCENT CHEMICAL CO.	655.67	IRWD Check	Reconciled
415376	4-Feb-21	D & G SIGNS	20,691.53	IRWD Check	Reconciled
415377	4-Feb-21	DAYTON CERTIFIED WELDING, INC.	7,950.00	IRWD Check	Reconciled
415378	4-Feb-21	DEMARIA ELECTRIC MOTOR SERVICES, INC.	5,301.88	IRWD Check	Reconciled
415379	4-Feb-21	DENALI WATER SOLUTIONS LLC	8,435.98	IRWD Check	Reconciled
415380	4-Feb-21	EAST ORANGE COUNTY WATER DISTRICT	2,079.62	IRWD Check	Reconciled
415381	4-Feb-21	ENTERPRISE INFORMATION SYSTEMS, INC.	1,680.00	IRWD Check	Negotiable
415382	4-Feb-21	ENVIRONMENTAL RESOURCE ASSOCIATES	149.15	IRWD Check	Reconciled
415383	4-Feb-21	EUROFINS CALSCIENCE, LLC	2,105.25	IRWD Check	Reconciled
415384	4-Feb-21	EVOLVE PARTNERS LLC	335.07	IRWD Check	Reconciled
415385	4-Feb-21	EXECUTIVE LIGHTING & ELECTRIC	10,210.85	IRWD Check	Reconciled
415386	4-Feb-21	FAHIE, SHURLENE	311.19	IRWD Check	Negotiable
415387	4-Feb-21	FEDEX	230.55	IRWD Check	Reconciled
415388	4-Feb-21	FERGUSON ENTERPRISES, LLC	13,484.09	IRWD Check	Reconciled
415389	4-Feb-21	FISHER SCIENTIFIC COMPANY LLC	1,380.65	IRWD Check	Reconciled
415390	4-Feb-21	FLEET SOLUTIONS LLC	4,735.61	IRWD Check	Reconciled
415391	4-Feb-21	FOUGHT, CYNTHIA J.	3,062.93	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR FEBRUARY 2021**

CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
415392	4-Feb-21	FRONTIER CALIFORNIA INC.	293.57	IRWD Check	Reconciled
415393	4-Feb-21	FULLER TRUCK ACCESSORIES	1,537.59	IRWD Check	Reconciled
415394	4-Feb-21	GANAHL LUMBER CO.	4,360.19	IRWD Check	Reconciled
415395	4-Feb-21	GM SAGER CONSTRUCTION CO,INC.	39,100.00	IRWD Check	Reconciled
415396	4-Feb-21	GRAINGER	3,729.85	IRWD Check	Reconciled
415397	4-Feb-21	GRAYBAR ELECTRIC COMPANY	1,062.42	IRWD Check	Reconciled
415398	4-Feb-21	HAAKER EQUIPMENT COMPANY	4,688.59	IRWD Check	Reconciled
415399	4-Feb-21	HARRINGTON INDUSTRIAL PLASTICS LLC	9,183.67	IRWD Check	Reconciled
415400	4-Feb-21	HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY	108.45	IRWD Check	Reconciled
415401	4-Feb-21	HAZEN AND SAWYER	5,017.50	IRWD Check	Reconciled
415402	4-Feb-21	HELPMATES STAFFING SERVICES	1,356.40	IRWD Check	Reconciled
415403	4-Feb-21	HI-LINE INC	305.22	IRWD Check	Reconciled
415404	4-Feb-21	HILL BROTHERS CHEMICAL COMPANY	11,196.61	IRWD Check	Reconciled
415405	4-Feb-21	HOME DEPOT USA INC	601.90	IRWD Check	Reconciled
415406	4-Feb-21	HU, JIANYONG	27.21	IRWD Check	Reconciled
415407	4-Feb-21	INDUSTRIAL METAL SUPPLY CO	390.28	IRWD Check	Reconciled
415408	4-Feb-21	INDUSTRIAL SURPLUS AND SALVAGE	14,481.60	IRWD Check	Reconciled
415409	4-Feb-21	INTEGRITY MUNICIPAL SERVICES LLC	2,500.00	IRWD Check	Reconciled
415410	4-Feb-21	IRVINE PIPE & SUPPLY INC	2,031.02	IRWD Check	Reconciled
415411	4-Feb-21	J.B. BOSTICK COMPANY, INC.	40,294.00	IRWD Check	Reconciled
415412	4-Feb-21	KAMIL CHURAEV AND AIGUL CHURAEV	20.32	IRWD Check	Reconciled
415413	4-Feb-21	KIM, HEEJA	192.56	IRWD Check	Reconciled
415414	4-Feb-21	KIMBALL MIDWEST	3,189.91	IRWD Check	Reconciled
415415	4-Feb-21	LAGUNA BEACH COUNTY WATER DISTRICT	6,011.19	IRWD Check	Reconciled
415416	4-Feb-21	LANDCARE HOLDINGS, INC.	77,726.33	IRWD Check	Reconciled
415417	4-Feb-21	LEE, JORDAN	281.27	IRWD Check	Negotiable
415418	4-Feb-21	LENNAR HOMES	99.75	IRWD Check	Reconciled
415419	4-Feb-21	LIM, SHARI	45.50	IRWD Check	Negotiable
415420	4-Feb-21	MC FADDEN-DALE INDUSTRIAL	89.91	IRWD Check	Reconciled
415421	4-Feb-21	MC MASTER CARR SUPPLY CO	198.89	IRWD Check	Reconciled
415422	4-Feb-21	MEINHARD	648.00	IRWD Check	Reconciled
415423	4-Feb-21	MEL UNDERWOOD WATER TRUCKS & EQUIPMENT	1,200.00	IRWD Check	Reconciled
415424	4-Feb-21	MERRIMAC PETROLEUM, INC.	22,599.66	IRWD Check	Reconciled
415425	4-Feb-21	MICROSOFT CORPORATION	822.93	IRWD Check	Negotiable
415426	4-Feb-21	MITCHELL, ANDREW	26.04	IRWD Check	Negotiable
415427	4-Feb-21	MR CRANE INC	1,161.00	IRWD Check	Reconciled
415428	4-Feb-21	MSA SAFETY INCORPORATED	6,000.37	IRWD Check	Reconciled
415429	4-Feb-21	MSC INDUSTRIAL SUPPLY CO	1,062.42	IRWD Check	Reconciled
415430	4-Feb-21	MYERS & SONS HI-WAY SAFETY, INC.	2,749.78	IRWD Check	Reconciled
415431	4-Feb-21	NATIONAL READY MIXED CONCRETE SALES, LLC	2,446.61	IRWD Check	Reconciled
415432	4-Feb-21	NEARMAP US INC.	15,675.00	IRWD Check	Reconciled
415433	4-Feb-21	NGUYEN, LOAN P	209.81	IRWD Check	Reconciled
415434	4-Feb-21	NORTHWOOD PARK APTS	87.22	IRWD Check	Reconciled
415435	4-Feb-21	O.C. SUPERIOR CUSTOM CLEANING	672.00	IRWD Check	Reconciled
415436	4-Feb-21	OLIN CORPORATION	20,265.94	IRWD Check	Reconciled
415437	4-Feb-21	ONESOURCE DISTRIBUTORS LLC	11,840.74	IRWD Check	Reconciled
415438	4-Feb-21	ORANGE COUNTY AUTO PARTS CO	2,339.49	IRWD Check	Reconciled
415439	4-Feb-21	ORCHARD GLEN HOA	968.12	IRWD Check	Reconciled
415440	4-Feb-21	PACIFIC PARTS & CONTROLS INC	8,101.32	IRWD Check	Reconciled
415441	4-Feb-21	PACIFIC STAR CHEMICAL, LLC	1,241.28	IRWD Check	Reconciled
415442	4-Feb-21	PARKHOUSE TIRE INC	1,673.83	IRWD Check	Reconciled
415443	4-Feb-21	PAULUS ENGINEERING INC	30,020.00	IRWD Check	Reconciled
415444	4-Feb-21	PAULUS ENGINEERING, INC.	17,776.17	IRWD Check	Reconciled
415445	4-Feb-21	PRAXAIR DISTRIBUTION INC	461.44	IRWD Check	Reconciled
415446	4-Feb-21	PRE-PAID LEGAL SERVICES, INC.	1,562.82	IRWD Check	Reconciled
415447	4-Feb-21	PRIME CONTROLS COMPANY INC	1,352.24	IRWD Check	Reconciled
415448	4-Feb-21	PTI SAND & GRAVEL INC	1,768.63	IRWD Check	Reconciled
415449	4-Feb-21	PURE PROCESS FILTRATION INC	14,013.04	IRWD Check	Reconciled
415450	4-Feb-21	RAM AIR ENGINEERING INC	750.00	IRWD Check	Reconciled
415451	4-Feb-21	REACH EMPLOYEE ASSISTANCE INC	1,094.80	IRWD Check	Reconciled
415452	4-Feb-21	RELIANCE STANDARD LIFE INSURANCE COMPANY	30,464.38	IRWD Check	Reconciled
415453	4-Feb-21	RENTOKIL NORTH AMERICA, INC	5,101.00	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR FEBRUARY 2021**

CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
415454	4-Feb-21	RINCON TRUCK CENTER INC.	2,020.66	IRWD Check	Reconciled
415455	4-Feb-21	ROSEMOUNT INC.	3,711.67	IRWD Check	Reconciled
415456	4-Feb-21	S&S SEEDS INC	534.99	IRWD Check	Reconciled
415457	4-Feb-21	SANTA MARGARITA FORD	982.87	IRWD Check	Reconciled
415458	4-Feb-21	SANTA MARGARITA FORD	318.00	IRWD Check	Reconciled
415459	4-Feb-21	SAWANT, ASHOK	777.77	IRWD Check	Reconciled
415460	4-Feb-21	SCOTT, TIMOTHY	48.49	IRWD Check	Reconciled
415461	4-Feb-21	SHAMROCK SUPPLY CO INC	59.57	IRWD Check	Reconciled
415462	4-Feb-21	SI TESTING	10,698.00	IRWD Check	Reconciled
415463	4-Feb-21	SKC-WEST INC	252.24	IRWD Check	Reconciled
415464	4-Feb-21	SMT AUTOMOTIVE LLC	89.79	IRWD Check	Reconciled
415465	4-Feb-21	SOUTHERN CALIFORNIA EDISON COMPANY	384,770.37	IRWD Check	Reconciled
415466	4-Feb-21	SOUTHERN CALIFORNIA EDISON COMPANY	63.80	IRWD Check	Reconciled
415467	4-Feb-21	SOUTHSIDE TOWING	275.00	IRWD Check	Reconciled
415468	4-Feb-21	SPARKLETTS	127.36	IRWD Check	Reconciled
415469	4-Feb-21	STANTEC CONSULTING SERVICES INC.	2,475.00	IRWD Check	Reconciled
415470	4-Feb-21	SUSAN A. SIROTA	4,660.00	IRWD Check	Reconciled
415471	4-Feb-21	TAIT ENVIRONMENTAL SERVICES, INC.	2,260.38	IRWD Check	Reconciled
415472	4-Feb-21	TANKVISIONS, INC	30.00	IRWD Check	Reconciled
415473	4-Feb-21	THE PAPE' GROUP INC.	612.15	IRWD Check	Reconciled
415474	4-Feb-21	THERMO ELECTRON NORTH AMERICA LLC	6,469.00	IRWD Check	Reconciled
415475	4-Feb-21	THOMPSON & PHIPPS INC	8,620.60	IRWD Check	Reconciled
415476	4-Feb-21	THYSSENKRUPP ELEVATOR CORPORATION	211.44	IRWD Check	Reconciled
415477	4-Feb-21	TOTAL RESOURCE MANAGEMENT, INC	935.00	IRWD Check	Negotiable
415478	4-Feb-21	TROPICAL PLAZA NURSERY INC	3,290.00	IRWD Check	Reconciled
415479	4-Feb-21	TRUKSPECT, INC	1,571.88	IRWD Check	Negotiable
415480	4-Feb-21	UDALL, BETH	678.61	IRWD Check	Reconciled
415481	4-Feb-21	UNITED PARCEL SERVICE INC	107.03	IRWD Check	Reconciled
415482	4-Feb-21	UNITED SITE SERVICES OF CALIFORNIA INC	1,468.58	IRWD Check	Reconciled
415483	4-Feb-21	VAUGHAN'S INDUSTRIAL REPAIR CO INC	16,783.27	IRWD Check	Reconciled
415484	4-Feb-21	VERIZON WIRELESS SERVICES LLC	9,313.91	IRWD Check	Reconciled
415485	4-Feb-21	VERTECH INDUSTRIAL SYSTEMS, LLC	2,157.41	IRWD Check	Reconciled
415486	4-Feb-21	VIDO ARTUKOVICH & SON, INC./VIDMAR, INC. A JV	552,210.07	IRWD Check	Reconciled
415487	4-Feb-21	VIDO ARTUKOVICH & SON, INC./VIDMAR, INC. A JV	29,063.68	IRWD Check	Reconciled
415488	4-Feb-21	VULCAN MATERIALS COMPANY	1,686.21	IRWD Check	Reconciled
415489	4-Feb-21	WALTERS WHOLESALE ELECTRIC	94.72	IRWD Check	Reconciled
415490	4-Feb-21	WASTE MANAGEMENT COLLECTIONS AND RECYCLING, INC.	2,973.36	IRWD Check	Reconciled
415491	4-Feb-21	WATER TREATMENT CHEMICALS INC	11,619.84	IRWD Check	Reconciled
415492	4-Feb-21	WATERSMART SOFTWARE INC	13,547.22	IRWD Check	Negotiable
415493	4-Feb-21	WAXIE'S ENTERPRISES, INC	1,346.58	IRWD Check	Reconciled
415494	4-Feb-21	WECK LABORATORIES INC	924.00	IRWD Check	Reconciled
415495	4-Feb-21	WEI, CHEN	27.73	IRWD Check	Reconciled
415496	4-Feb-21	WEST YOST & ASSOCIATES	9,230.03	IRWD Check	Reconciled
415497	4-Feb-21	WILMINGTON INSTRUMENT COMPANY INC	4,436.92	IRWD Check	Reconciled
415498	4-Feb-21	WONG, JEANIE	209.02	IRWD Check	Reconciled
415499	4-Feb-21	XYLEM WATER SOLUTIONS USA, INC.	835.28	IRWD Check	Negotiable
415500	4-Feb-21	YORKE ENGINEERING, LLC	2,200.00	IRWD Check	Reconciled
415501	4-Feb-21	ZHANG, XIAOJUN	272.78	IRWD Check	Negotiable
415502	9-Feb-21	GROUNDWATER BANKING JOINT POWERS AUTHORITY	100.00	IRWD Check	Negotiable
415503	11-Feb-21	Hall, William P (William)	100.00	IRWD Check	Reconciled
415504	11-Feb-21	Nicholson, Darin	101.00	IRWD Check	Reconciled
415505	11-Feb-21	Reed, James W (James)	305.00	IRWD Check	Reconciled
415506	11-Feb-21	AAF INTERNATIONAL	210.63	IRWD Check	Reconciled
415507	11-Feb-21	ABM INDUSTRY GROUPS, LLC	34,006.30	IRWD Check	Reconciled
415508	11-Feb-21	ADAM'S FALCONRY SERVICE, LLC	1,560.00	IRWD Check	Reconciled
415509	11-Feb-21	ADS CORP.	2,250.00	IRWD Check	Reconciled
415510	11-Feb-21	AGILENT TECHNOLOGIES, INC.	594.59	IRWD Check	Reconciled
415511	11-Feb-21	AIRGAS, INC.	1,071.37	IRWD Check	Reconciled
415512	11-Feb-21	ALEXANDER'S CONTRACT SERVICES, INC.	125,101.00	IRWD Check	Reconciled
415513	11-Feb-21	ALJAFF, OMAR	108.11	IRWD Check	Reconciled
415514	11-Feb-21	ALL STAR GLASS	312.02	IRWD Check	Reconciled
415515	11-Feb-21	ALSTON & BIRD LLP	436,972.50	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR FEBRUARY 2021**

CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
415516	11-Feb-21	AMAZON CAPITAL SERVICES, INC.	950.89	IRWD Check	Reconciled
415517	11-Feb-21	APEX SYSTEMS, LLC	3,692.00	IRWD Check	Reconciled
415518	11-Feb-21	ARANA, PATTY	45.72	IRWD Check	Reconciled
415519	11-Feb-21	AT&T	1,681.43	IRWD Check	Reconciled
415520	11-Feb-21	AT&T	1,106.82	IRWD Check	Reconciled
415521	11-Feb-21	ATLAS COPCO USA HOLDINGS, INC	1,959.39	IRWD Check	Reconciled
415522	11-Feb-21	ATLAS INTEGRATED SYSTEMS INC.	1,200.00	IRWD Check	Reconciled
415523	11-Feb-21	AUTOZONE PARTS, INC.	210.84	IRWD Check	Reconciled
415524	11-Feb-21	B & K ELECTRIC WHOLESALE	934.67	IRWD Check	Reconciled
415525	11-Feb-21	BAKER RANCH COMMUNITY ASSOCIATION	12,723.42	IRWD Check	Reconciled
415526	11-Feb-21	BANK OF AMERICA	27,578.51	IRWD Check	Reconciled
415527	11-Feb-21	BANK OF NEW YORK MELLON TRUST COMPANY NA	1,398.00	IRWD Check	Reconciled
415528	11-Feb-21	BOFA SECURITIES, INC.	14,604.37	IRWD Check	Reconciled
415529	11-Feb-21	BYINGTON, ELENA	48.28	IRWD Check	Reconciled
415530	11-Feb-21	CALIFORNIA BARRICADE RENTAL, INC.	7,441.76	IRWD Check	Reconciled
415531	11-Feb-21	CALIFORNIA DEPARTMENT OF TAX AND FEE ADMINISTRATION	8,004.00	IRWD Check	Reconciled
415532	11-Feb-21	CALIFORNIA MUNICIPAL STATISTICS INC	3,075.00	IRWD Check	Negotiable
415533	11-Feb-21	CALIFORNIA PACIFIC HOMES	63.87	IRWD Check	Reconciled
415534	11-Feb-21	CALIFORNIA TRUCK EQUIPMENT COMPANY	358.25	IRWD Check	Negotiable
415535	11-Feb-21	CAPTIVE AUDIENCE MARKETING INC.	79.00	IRWD Check	Reconciled
415536	11-Feb-21	CAROLLO ENGINEERS, INC	4,017.00	IRWD Check	Reconciled
415537	11-Feb-21	CHENG, NAN	15.60	IRWD Check	Negotiable
415538	11-Feb-21	CHESHIRE MEDICAL CORPORATION	1,299.32	IRWD Check	Reconciled
415539	11-Feb-21	CITY CIRCUIT BREAKERS	457.94	IRWD Check	Reconciled
415540	11-Feb-21	CLARIS STRATEGY INC.	3,002.50	IRWD Check	Reconciled
415541	11-Feb-21	CLIFFORD MORIYAMA	4,000.00	IRWD Check	Reconciled
415542	11-Feb-21	CONSOLIDATED ELECTRICAL DISTRIBUTORS, INC	2,896.68	IRWD Check	Reconciled
415543	11-Feb-21	CONSTELLATION NEWENERGY, INC.	84,013.74	IRWD Check	Reconciled
415544	11-Feb-21	CYPRESS VILLAGE MURANO	9,460.53	IRWD Check	Reconciled
415545	11-Feb-21	CYPRESS VILLAGE VENETO	1,189.67	IRWD Check	Reconciled
415546	11-Feb-21	D & H WATER SYSTEMS INC.	804.03	IRWD Check	Reconciled
415547	11-Feb-21	DAL CHEM INC.	42,669.00	IRWD Check	Reconciled
415548	11-Feb-21	DCS MANAGEMENT LLC	277.14	IRWD Check	Reconciled
415549	11-Feb-21	DDB ENGINEERING, INC.	3,237.00	IRWD Check	Reconciled
415550	11-Feb-21	DEHAM, ELAINE	41.31	IRWD Check	Negotiable
415551	11-Feb-21	DEMARIA ELECTRIC MOTOR SERVICES, INC.	15,217.85	IRWD Check	Reconciled
415552	11-Feb-21	DISCOVERY SCIENCE CENTER OF ORANGE COUNTY	805.00	IRWD Check	Reconciled
415553	11-Feb-21	DIVITA BUILDERS, INC.	1,522.67	IRWD Check	Reconciled
415554	11-Feb-21	DOUGLAS ENVIRONMENTAL GROUP INC	1,425.00	IRWD Check	Reconciled
415555	11-Feb-21	DUDE SOLUTIONS, INC.	10,244.98	IRWD Check	Reconciled
415556	11-Feb-21	EI&C ENGINEERING INC.	51,974.00	IRWD Check	Reconciled
415557	11-Feb-21	ELABRA INC	984.07	IRWD Check	Reconciled
415558	11-Feb-21	ELEMENTAL SCIENTIFIC, INC.	859.93	IRWD Check	Reconciled
415559	11-Feb-21	EMD MILLIPORE CORPORATION	154.64	IRWD Check	Reconciled
415560	11-Feb-21	ENVIRONMENTAL RESOURCE ASSOCIATES	341.27	IRWD Check	Reconciled
415561	11-Feb-21	EUROFINS CALSCIENCE, LLC	3,444.00	IRWD Check	Reconciled
415562	11-Feb-21	FARRELL & ASSOCIATES	165.42	IRWD Check	Reconciled
415563	11-Feb-21	FASTBLUE COMMUNICATIONS INC.	3,834.00	IRWD Check	Reconciled
415564	11-Feb-21	FEDEX	214.78	IRWD Check	Reconciled
415565	11-Feb-21	FERGUSON ENTERPRISES, LLC	15,234.00	IRWD Check	Reconciled
415566	11-Feb-21	FERREIRA CONSTRUCTION COMPANY, INC.	4,788.00	IRWD Check	Reconciled
415567	11-Feb-21	FIERRO, SERGIO D	3,960.00	IRWD Check	Reconciled
415568	11-Feb-21	FIRST CHOICE SERVICES	987.98	IRWD Check	Reconciled
415569	11-Feb-21	FISHER SCIENTIFIC COMPANY LLC	24,646.14	IRWD Check	Reconciled
415570	11-Feb-21	FRANCHISE TAX BOARD	330.00	IRWD Check	Negotiable
415571	11-Feb-21	FRONTIER CALIFORNIA INC.	58.52	IRWD Check	Reconciled
415572	11-Feb-21	FULLER TRUCK ACCESSORIES	1,786.50	IRWD Check	Reconciled
415573	11-Feb-21	GANAHL LUMBER CO.	55.99	IRWD Check	Reconciled
415574	11-Feb-21	GAO, DANIEL	121.61	IRWD Check	Reconciled
415575	11-Feb-21	GEORGE T. HALL CO., INC.	45,367.90	IRWD Check	Reconciled
415576	11-Feb-21	GHAI, ASTHA	1,016.97	IRWD Check	Reconciled
415577	11-Feb-21	GI ENDURANT LLC	37,444.50	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR FEBRUARY 2021**

CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
415578	11-Feb-21	GM SAGER CONSTRUCTION CO,INC.	41,680.00	IRWD Check	Reconciled
415579	11-Feb-21	GOLDMAN, SACHS & CO. LLC	13,196.72	IRWD Check	Reconciled
415580	11-Feb-21	GRAINGER	6,612.36	IRWD Check	Reconciled
415581	11-Feb-21	GSRP ST SOLAR I LLC	10,616.76	IRWD Check	Reconciled
415582	11-Feb-21	HACH COMPANY	9,094.73	IRWD Check	Reconciled
415583	11-Feb-21	HALITOV, LILIA	35.24	IRWD Check	Reconciled
415584	11-Feb-21	HANSON BRIDGETT LLP	45,013.96	IRWD Check	Reconciled
415585	11-Feb-21	HARRINGTON INDUSTRIAL PLASTICS LLC	1,820.43	IRWD Check	Reconciled
415586	11-Feb-21	HELPMATES STAFFING SERVICES	7,982.40	IRWD Check	Reconciled
415587	11-Feb-21	HI-LINE INC	56.29	IRWD Check	Reconciled
415588	11-Feb-21	HILL BROTHERS CHEMICAL COMPANY	10,267.49	IRWD Check	Negotiable
415589	11-Feb-21	HOME DEPOT USA INC	110.43	IRWD Check	Reconciled
415590	11-Feb-21	HOYA OPTICAL LABS OF AMERICA, INC.	442.00	IRWD Check	Reconciled
415591	11-Feb-21	IMPERIAL SPRINKLER SUPPLY, INC.	9.81	IRWD Check	Reconciled
415592	11-Feb-21	INDUSTRIAL METAL SUPPLY CO	52.85	IRWD Check	Reconciled
415593	11-Feb-21	INFOSEND, INC.	17,917.00	IRWD Check	Reconciled
415594	11-Feb-21	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 47	2,834.56	IRWD Check	Reconciled
415595	11-Feb-21	IRON MOUNTAIN INFORMATION MANAGEMENT INC	657.02	IRWD Check	Reconciled
415596	11-Feb-21	IRVINE PIPE & SUPPLY INC	2,751.58	IRWD Check	Reconciled
415597	11-Feb-21	IRWD-PETTY CASH CUSTODIAN	764.26	IRWD Check	Reconciled
415598	11-Feb-21	JIG CONSULTANTS	1,920.00	IRWD Check	Negotiable
415599	11-Feb-21	JOSE MARTINEZ TREE SERVICE INC.	3,500.00	IRWD Check	Reconciled
415600	11-Feb-21	KAESER COMPRESSORS, INC.	1,368.00	IRWD Check	Reconciled
415601	11-Feb-21	KENT DAHLBERG	20,080.77	IRWD Check	Reconciled
415602	11-Feb-21	KIMBALL MIDWEST	17.80	IRWD Check	Reconciled
415603	11-Feb-21	KOLLER, GERALD	25.19	IRWD Check	Negotiable
415604	11-Feb-21	KROPKO, BRIAN	17.35	IRWD Check	Negotiable
415605	11-Feb-21	LA HABRA FENCE COMPANY INC	1,277.00	IRWD Check	Reconciled
415606	11-Feb-21	LANCER SALES USA, INC.	463.28	IRWD Check	Reconciled
415607	11-Feb-21	LENNAR HOMES	2,742.79	IRWD Check	Reconciled
415608	11-Feb-21	LG SONIC US, LLC	11,774.00	IRWD Check	Reconciled
415609	11-Feb-21	LILLESTRAND LEADERSHIP CONSULTING, INC.	880.00	IRWD Check	Reconciled
415610	11-Feb-21	LSA ASSOCIATES INC	21,718.37	IRWD Check	Reconciled
415611	11-Feb-21	MAP COMMUNICATIONS, INC.	1,790.20	IRWD Check	Negotiable
415612	11-Feb-21	MARK KADESH	10,200.00	IRWD Check	Reconciled
415613	11-Feb-21	MBC AQUATIC SCIENCES, INC.	3,600.00	IRWD Check	Reconciled
415614	11-Feb-21	MBK ENGINEERS	1,286.25	IRWD Check	Reconciled
415615	11-Feb-21	MC MASTER CARR SUPPLY CO	90.01	IRWD Check	Reconciled
415616	11-Feb-21	MCPHAIL, DANNY	25.90	IRWD Check	Negotiable
415617	11-Feb-21	MEGGITT SENSING SYSTEMS	213.70	IRWD Check	Negotiable
415618	11-Feb-21	MERITAGE HOMES OF CALIFORNIA, INC.	487.60	IRWD Check	Negotiable
415619	11-Feb-21	MICHAEL BAKER INTERNATIONAL, INC.	2,080.00	IRWD Check	Reconciled
415620	11-Feb-21	MIKE ETCHANDRY FARMS, INC.	1,900.00	IRWD Check	Negotiable
415621	11-Feb-21	MRO ELECTRIC & SUPPLY CO.	8,995.00	IRWD Check	Reconciled
415622	11-Feb-21	MUNICIPAL MAINTENANCE EQUIPMENT INC	856.45	IRWD Check	Reconciled
415623	11-Feb-21	NATIONAL READY MIXED CONCRETE SALES, LLC	654.06	IRWD Check	Reconciled
415624	11-Feb-21	O.C. SUPERIOR CUSTOM CLEANING	3,600.00	IRWD Check	Reconciled
415625	11-Feb-21	OLIN CORPORATION	33,269.48	IRWD Check	Reconciled
415626	11-Feb-21	ORACLE AMERICA, INC.	28,243.96	IRWD Check	Reconciled
415627	11-Feb-21	ORANGE COAST PLUMBING	1,725.00	IRWD Check	Reconciled
415628	11-Feb-21	ORANGE COUNTY AUTO PARTS CO	598.64	IRWD Check	Reconciled
415629	11-Feb-21	ORANGE COUNTY FIRE AUTHORITY	250.00	IRWD Check	Reconciled
415630	11-Feb-21	ORANGE LINE OIL COMPANY	2,685.50	IRWD Check	Reconciled
415631	11-Feb-21	ORANGETREE TERRACE	7,564.46	IRWD Check	Reconciled
415632	11-Feb-21	PACIFIC HYDROTECH CORPORATION	21,544.23	IRWD Check	Reconciled
415633	11-Feb-21	PACIFIC HYDROTECH CORPORATION	705,089.71	IRWD Check	Reconciled
415634	11-Feb-21	PACIFIC HYDROTECH CORPORATION	15,565.75	IRWD Check	Reconciled
415635	11-Feb-21	PACIFIC PARTS & CONTROLS INC	98.43	IRWD Check	Reconciled
415636	11-Feb-21	PACIFIC RESOURCE RECOVERY	983.10	IRWD Check	Reconciled
415637	11-Feb-21	PAPER DEPOT DOCUMENT DESTRUCTION LLC	333.00	IRWD Check	Reconciled
415638	11-Feb-21	PARKHOUSE TIRE INC	2,884.77	IRWD Check	Reconciled
415639	11-Feb-21	PAUL A. RUELAS	173.00	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
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CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
415640	11-Feb-21	PAX WATER TECHNOLOGIES, INC	419.37	IRWD Check	Reconciled
415641	11-Feb-21	PAYNE & FEARS LLP	6,171.00	IRWD Check	Reconciled
415642	11-Feb-21	PENN ARCHIVE SERVICES	124.40	IRWD Check	Reconciled
415643	11-Feb-21	PERS LONG TERM CARE	447.62	IRWD Check	Reconciled
415644	11-Feb-21	PLANETBIDS, INC.	9,415.49	IRWD Check	Negotiable
415645	11-Feb-21	PRAXAIR DISTRIBUTION INC	1,944.32	IRWD Check	Reconciled
415646	11-Feb-21	PREMIER PAVING	1,807.00	IRWD Check	Reconciled
415647	11-Feb-21	PRIME CONTROLS COMPANY INC	651.83	IRWD Check	Reconciled
415648	11-Feb-21	PTI SAND & GRAVEL INC	2,620.63	IRWD Check	Reconciled
415649	11-Feb-21	PURE PROCESS FILTRATION INC	11,629.78	IRWD Check	Reconciled
415650	11-Feb-21	R.F. MACDONALD CO.	1,260.00	IRWD Check	Reconciled
415651	11-Feb-21	R.J. DAUM CONSTRUCTION COMPANY	1,606.30	IRWD Check	Reconciled
415652	11-Feb-21	RANSCAPES INC	9,966.87	IRWD Check	Negotiable
415653	11-Feb-21	REAL TECH INC	525.00	IRWD Check	Negotiable
415654	11-Feb-21	RED WING SHOE STORE	1,566.20	IRWD Check	Reconciled
415655	11-Feb-21	REPUBLIC PAVEMENT MAINTENANCE	1,499.53	IRWD Check	Reconciled
415656	11-Feb-21	RINCON TRUCK CENTER INC.	451.33	IRWD Check	Reconciled
415657	11-Feb-21	RODNEY HARMSWORTH ASSOCIATES, INC.	7,889.00	IRWD Check	Reconciled
415658	11-Feb-21	SANTA ANA BLUE PRINT	2,233.76	IRWD Check	Reconciled
415659	11-Feb-21	SERVERSUPPLY.COM INC	8,489.84	IRWD Check	Reconciled
415660	11-Feb-21	SHAMROCK SUPPLY CO INC	362.52	IRWD Check	Reconciled
415661	11-Feb-21	SHOETERIA	578.19	IRWD Check	Reconciled
415662	11-Feb-21	SI TESTING	3,700.00	IRWD Check	Reconciled
415663	11-Feb-21	SITMATIC	583.83	IRWD Check	Reconciled
415664	11-Feb-21	SKYPARK PARTNERS	4,392.55	IRWD Check	Reconciled
415665	11-Feb-21	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	1,114.84	IRWD Check	Reconciled
415666	11-Feb-21	SOUTH COAST WATER CO.	95.00	IRWD Check	Reconciled
415667	11-Feb-21	SOUTHERN CALIFORNIA EDISON COMPANY	43,336.43	IRWD Check	Reconciled
415668	11-Feb-21	SOUTHERN CALIFORNIA GAS COMPANY	4,760.17	IRWD Check	Reconciled
415669	11-Feb-21	SPARKLETTS	105.65	IRWD Check	Reconciled
415670	11-Feb-21	STANFORD COURT APARTMENTS	83.44	IRWD Check	Reconciled
415671	11-Feb-21	SYNAGRO-WWT, INC.	32,325.58	IRWD Check	Reconciled
415672	11-Feb-21	TAIT ENVIRONMENTAL SERVICES, INC.	4,869.24	IRWD Check	Reconciled
415673	11-Feb-21	TEKDRAULICS	1,373.61	IRWD Check	Reconciled
415674	11-Feb-21	TETRA TECH, INC	9,057.50	IRWD Check	Reconciled
415675	11-Feb-21	TEVORA BUSINESS SOLUTIONS, INC.	355.00	IRWD Check	Reconciled
415676	11-Feb-21	THOMPSON & PHIPPS INC	923.41	IRWD Check	Reconciled
415677	11-Feb-21	TROPICAL PLAZA NURSERY INC	1,009.86	IRWD Check	Reconciled
415678	11-Feb-21	TRUCPARCO	75.18	IRWD Check	Reconciled
415679	11-Feb-21	U.S. GAIN - A DIVISION OF U.S. VENTURE, INC.	289.71	IRWD Check	Reconciled
415680	11-Feb-21	UNITED PARCEL SERVICE INC	47.64	IRWD Check	Reconciled
415681	11-Feb-21	US BANK NAT'L ASSOC N.DAKOTA	9,237.70	IRWD Check	Reconciled
415682	11-Feb-21	US BANK NAT'L ASSOC N.DAKOTA	2,000.00	IRWD Check	Reconciled
415683	11-Feb-21	USA WASTE OF CALIFORNIA, INC.	542.50	IRWD Check	Reconciled
415684	11-Feb-21	WALTERS WHOLESALE ELECTRIC	303.10	IRWD Check	Reconciled
415685	11-Feb-21	WASTE MANAGEMENT COLLECTIONS AND RECYCLING, INC.	3,769.28	IRWD Check	Reconciled
415686	11-Feb-21	WATEREUSE ASSOCIATION	7,500.00	IRWD Check	Negotiable
415687	11-Feb-21	WAXIE'S ENTERPRISES, INC	90.32	IRWD Check	Reconciled
415688	11-Feb-21	WECK LABORATORIES INC	1,145.00	IRWD Check	Reconciled
415689	11-Feb-21	WESTAMERICA COMMUNICATIONS, INC.	600.00	IRWD Check	Reconciled
415690	11-Feb-21	WESTERN AV	532.00	IRWD Check	Reconciled
415691	11-Feb-21	WESTERN WEATHER GROUP INC	57.26	IRWD Check	Reconciled
415692	11-Feb-21	WIENHOFF & ASSOCIATES, INC	4,960.00	IRWD Check	Reconciled
415693	11-Feb-21	YAN, GUANG	25.70	IRWD Check	Negotiable
415694	11-Feb-21	INTERNATIONAL ACCREDITATION SERVICE, INC	3,750.00	IRWD Check	Reconciled
415695	11-Feb-21	CALIFORNIA DEPARTMENT OF TAX AND FEE ADMINISTRATION	2,220.00	IRWD Check	Reconciled
415696	18-Feb-21	Lynch, Toni Marie	10.00	IRWD Check	Reconciled
415697	18-Feb-21	Moreno, Derek	263.15	IRWD Check	Reconciled
415698	18-Feb-21	Sanchez, Hector A (Hector)	200.00	IRWD Check	Negotiable
415699	18-Feb-21	Borowski, Michael (Mike)	200.00	IRWD Check	Negotiable
415700	18-Feb-21	Barboza, Armando	192.00	IRWD Check	Reconciled
415701	18-Feb-21	ABC ICE, INC	263.95	IRWD Check	Reconciled

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CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
415702	18-Feb-21	ABSOLUTE STANDARDS, INC.	270.00	IRWD Check	Negotiable
415703	18-Feb-21	ACCUSOURCE, INC.	182.08	IRWD Check	Reconciled
415704	18-Feb-21	ACCUSTANDARD INC	134.97	IRWD Check	Negotiable
415705	18-Feb-21	AECOM TECHNICAL SERVICES, INC.	54,968.10	IRWD Check	Negotiable
415706	18-Feb-21	AGILENT TECHNOLOGIES, INC.	669.34	IRWD Check	Reconciled
415707	18-Feb-21	AIRGAS, INC.	510.54	IRWD Check	Reconciled
415708	18-Feb-21	AMAZON CAPITAL SERVICES, INC.	23.69	IRWD Check	Reconciled
415709	18-Feb-21	AMERICAN TECHNOLOGIES, INC	1,745.69	IRWD Check	Reconciled
415710	18-Feb-21	AMERICAN WATER CHEMICALS, INC.	5,112.74	IRWD Check	Reconciled
415711	18-Feb-21	ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA	724.11	IRWD Check	Negotiable
415712	18-Feb-21	ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA	38,544.67	IRWD Check	Negotiable
415713	18-Feb-21	AT&T	83.97	IRWD Check	Negotiable
415714	18-Feb-21	AT&T	5,021.11	IRWD Check	Negotiable
415715	18-Feb-21	AT&T	175.14	IRWD Check	Negotiable
415716	18-Feb-21	ATHENS SERVICES	7,978.58	IRWD Check	Reconciled
415717	18-Feb-21	ATHENS SERVICES	1,851.36	IRWD Check	Reconciled
415718	18-Feb-21	AUSTIN HARDWOODS, INC	528.54	IRWD Check	Negotiable
415719	18-Feb-21	AUTOZONE PARTS, INC.	511.72	IRWD Check	Negotiable
415720	18-Feb-21	BELL TOWER FLORIST & GIFTS	693.83	IRWD Check	Negotiable
415721	18-Feb-21	BELTRAN, ANTONIA	35.84	IRWD Check	Negotiable
415722	18-Feb-21	BIGWIG MONSTER, LLC	24,390.00	IRWD Check	Negotiable
415723	18-Feb-21	BROWN AND CALDWELL	6,938.65	IRWD Check	Reconciled
415724	18-Feb-21	C WELLS PIPELINE MATERIALS INC	13,178.93	IRWD Check	Negotiable
415725	18-Feb-21	CALIFORNIA BARRICADE RENTAL, INC.	6,759.89	IRWD Check	Reconciled
415726	18-Feb-21	CANNON CORPORATION	11,662.00	IRWD Check	Reconciled
415727	18-Feb-21	CANON FINANCIAL SERVICES, INC	8,343.52	IRWD Check	Negotiable
415728	18-Feb-21	CAROLLO ENGINEERS, INC	14,284.00	IRWD Check	Reconciled
415729	18-Feb-21	CHAIREL CUSTOM HAY, INC.	2,000.50	IRWD Check	Reconciled
415730	18-Feb-21	CHOI, CHANG GYU	32.99	IRWD Check	Reconciled
415731	18-Feb-21	CHU, FIONA	107.70	IRWD Check	Negotiable
415732	18-Feb-21	CHYANG, YUN	42.02	IRWD Check	Negotiable
415733	18-Feb-21	CITY OF SANTA ANA	526.14	IRWD Check	Reconciled
415734	18-Feb-21	CNC ENGINEERING	7,855.00	IRWD Check	Reconciled
415735	18-Feb-21	COASTLINE EQUIPMENT COMPANY	5,964.28	IRWD Check	Reconciled
415736	18-Feb-21	COMMERCIAL DOOR OF ORANGE COUNTY, INC.	19,879.00	IRWD Check	Reconciled
415737	18-Feb-21	CONSTELLATION NEWENERGY, INC.	8,296.17	IRWD Check	Negotiable
415738	18-Feb-21	COOMBS SERVICE GROUP	5,360.00	IRWD Check	Reconciled
415739	18-Feb-21	COUNTY OF ORANGE	3,598.47	IRWD Check	Negotiable
415740	18-Feb-21	CR & R INCORPORATED	428.34	IRWD Check	Reconciled
415741	18-Feb-21	D & G SIGNS	910.49	IRWD Check	Reconciled
415742	18-Feb-21	DESAI, CHET	290.13	IRWD Check	Reconciled
415743	18-Feb-21	DEX MEDIA, INC.	91.00	IRWD Check	Negotiable
415744	18-Feb-21	DG INVESTMENT INTERMEDIATE HOLDINGS 2, INC.	9,833.03	IRWD Check	Negotiable
415745	18-Feb-21	EQUALTOX, LLC	8,750.00	IRWD Check	Reconciled
415746	18-Feb-21	ERP OPERATING LP	33,554.88	IRWD Check	Negotiable
415747	18-Feb-21	EVERETT DOREY LLP	4,491.00	IRWD Check	Reconciled
415748	18-Feb-21	FERGUSON ENTERPRISES, LLC	525.82	IRWD Check	Reconciled
415749	18-Feb-21	FISHER SCIENTIFIC COMPANY LLC	4,490.98	IRWD Check	Reconciled
415750	18-Feb-21	FLARE INDUSTRIES, LLC	1,203.57	IRWD Check	Negotiable
415751	18-Feb-21	FRONTIER CALIFORNIA INC.	296.25	IRWD Check	Negotiable
415752	18-Feb-21	FUSCOE ENGINEERING, INC.	3,092.00	IRWD Check	Reconciled
415753	18-Feb-21	GALPIN MOTORS INC	69,905.51	IRWD Check	Reconciled
415754	18-Feb-21	GANAHL LUMBER CO.	2,589.62	IRWD Check	Negotiable
415755	18-Feb-21	GARCIA, ENRIQUE	425.14	IRWD Check	Reconciled
415756	18-Feb-21	GEORGE HILLS COMPANY, INC.	18.00	IRWD Check	Negotiable
415757	18-Feb-21	GI ENDURANT LLC	42,195.75	IRWD Check	Negotiable
415758	18-Feb-21	GM SAGER CONSTRUCTION CO,INC.	22,710.00	IRWD Check	Negotiable
415759	18-Feb-21	GRAINGER	2,314.50	IRWD Check	Negotiable
415760	18-Feb-21	GRAYBAR ELECTRIC COMPANY	1,445.63	IRWD Check	Reconciled
415761	18-Feb-21	HARRINGTON INDUSTRIAL PLASTICS LLC	4,309.19	IRWD Check	Reconciled
415762	18-Feb-21	HDR ENGINEERING INC	41,271.32	IRWD Check	Negotiable
415763	18-Feb-21	HELIX ENVIRONMENTAL PLANNING, INC.	2,226.25	IRWD Check	Reconciled

**IRVINE RANCH WATER DISTRICT
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CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
415764	18-Feb-21	HELPMATES STAFFING SERVICES	6,236.30	IRWD Check	Reconciled
415765	18-Feb-21	HERC RENTALS INC.	19.44	IRWD Check	Reconciled
415766	18-Feb-21	HI-LINE INC	471.53	IRWD Check	Reconciled
415767	18-Feb-21	HILL BROTHERS CHEMICAL COMPANY	11,681.77	IRWD Check	Negotiable
415768	18-Feb-21	HOME DEPOT USA INC	1,148.06	IRWD Check	Negotiable
415769	18-Feb-21	ILAND INTERNET SOLUTION CORPORATION	9,320.84	IRWD Check	Negotiable
415770	18-Feb-21	INDUSTRIAL NETWORKING SOLUTIONS	1,215.58	IRWD Check	Negotiable
415771	18-Feb-21	INDUSTRIAL SCIENTIFIC CORPORATION	11,121.19	IRWD Check	Reconciled
415772	18-Feb-21	IRVINE PIPE & SUPPLY INC	1,270.14	IRWD Check	Reconciled
415773	18-Feb-21	J M ELECTRICAL SERVICES	4,000.00	IRWD Check	Negotiable
415774	18-Feb-21	JACOBS ENGINEERING GROUP INC.	36,201.50	IRWD Check	Negotiable
415775	18-Feb-21	JAMBOREE SMOG	93.00	IRWD Check	Negotiable
415776	18-Feb-21	JOHN MICHAEL COVAS	199.60	IRWD Check	Reconciled
415777	18-Feb-21	JOHN MICHAEL COVAS	199.60	IRWD Check	Reconciled
415778	18-Feb-21	JWC ENVIRONMENTAL INC.	2,107.62	IRWD Check	Reconciled
415779	18-Feb-21	KRONICK MOSKOVITZ TIEDEMANN & GIRARD	27,418.66	IRWD Check	Reconciled
415780	18-Feb-21	KURZ INSTRUMENTS INC	7,502.04	IRWD Check	Negotiable
415781	18-Feb-21	KUTAK ROCK LLP	27,854.63	IRWD Check	Negotiable
415782	18-Feb-21	LANDCARE HOLDINGS, INC.	34,566.56	IRWD Check	Negotiable
415783	18-Feb-21	LAYTON CONSTRUCTION COMPANY, LLC	103,115.96	IRWD Check	Negotiable
415784	18-Feb-21	LU'S LIGHTHOUSE, INC.	1,424.31	IRWD Check	Reconciled
415785	18-Feb-21	MARK ENTERPRISES TECHNOLOGIES LLC	24,381.64	IRWD Check	Reconciled
415786	18-Feb-21	MC FADDEN-DALE INDUSTRIAL	15.08	IRWD Check	Reconciled
415787	18-Feb-21	MC MASTER CARR SUPPLY CO	191.69	IRWD Check	Negotiable
415788	18-Feb-21	MCDANIEL, VANESSA	36.04	IRWD Check	Negotiable
415789	18-Feb-21	MCKNIGHT, RICHARD	77.50	IRWD Check	Reconciled
415790	18-Feb-21	MISSION COMMUNICATIONS, LLC	6,197.40	IRWD Check	Negotiable
415791	18-Feb-21	MONROE TRUCK EQUIPMENT, INC.	1,496.21	IRWD Check	Negotiable
415792	18-Feb-21	MOON, BYUNG OOK	70.29	IRWD Check	Negotiable
415793	18-Feb-21	NATIONAL READY MIXED CONCRETE SALES, LLC	505.36	IRWD Check	Reconciled
415794	18-Feb-21	NATIONAL WATER RESEARCH INSTITUTE	2,500.00	IRWD Check	Negotiable
415795	18-Feb-21	NATIONAL WATER RESOURCES ASSOCIATION INC	525.00	IRWD Check	Negotiable
415796	18-Feb-21	NATURALWELL, LLC	1,347.50	IRWD Check	Reconciled
415797	18-Feb-21	NEW PIG CORPORATION	2,540.39	IRWD Check	Negotiable
415798	18-Feb-21	NMG GEOTECHNICAL INC	2,172.40	IRWD Check	Reconciled
415799	18-Feb-21	NV5, INC.	11,200.00	IRWD Check	Negotiable
415800	18-Feb-21	OLIN CORPORATION	10,138.43	IRWD Check	Reconciled
415801	18-Feb-21	ORACLE AMERICA, INC.	5.34	IRWD Check	Reconciled
415802	18-Feb-21	ORANGE COAST INTERFAITH SHELTER	41.86	IRWD Check	Negotiable
415803	18-Feb-21	ORANGE COUNTY AUTO PARTS CO	688.80	IRWD Check	Reconciled
415804	18-Feb-21	ORIGIN CONSULTING LLC	6,424.40	IRWD Check	Negotiable
415805	18-Feb-21	OSTS, INC	750.00	IRWD Check	Reconciled
415806	18-Feb-21	PACIFIC COAST BOLT CORP	6,611.84	IRWD Check	Negotiable
415807	18-Feb-21	PACIFIC PARTS & CONTROLS INC	10,508.33	IRWD Check	Reconciled
415808	18-Feb-21	PARKHOUSE TIRE INC	3,139.05	IRWD Check	Reconciled
415809	18-Feb-21	PATTEN SYSTEMS, INC.	3,359.48	IRWD Check	Negotiable
415810	18-Feb-21	PILLSBURY WINTHROP SHAW PITTMAN LLP	1,633.00	IRWD Check	Reconciled
415811	18-Feb-21	PIVOT INTERIORS INC	2,218.53	IRWD Check	Reconciled
415812	18-Feb-21	PRAXAIR DISTRIBUTION INC	1,805.39	IRWD Check	Reconciled
415813	18-Feb-21	PRESTI, LORETTA	21.01	IRWD Check	Negotiable
415814	18-Feb-21	PTI SAND & GRAVEL INC	2,373.59	IRWD Check	Negotiable
415815	18-Feb-21	PYRO-COMM SYSTEMS INC	1,836.87	IRWD Check	Reconciled
415816	18-Feb-21	QUINTANA, WATTS & HARTMANN, LLC	5,150.00	IRWD Check	Negotiable
415817	18-Feb-21	RAM AIR ENGINEERING INC	18,619.91	IRWD Check	Reconciled
415818	18-Feb-21	RANCHO MARIPOSA APTS	43.39	IRWD Check	Negotiable
415819	18-Feb-21	RDFN VENTURES INC.	54.68	IRWD Check	Negotiable
415820	18-Feb-21	REFRIGERATION SUPPLIES DISTRIBUTOR	620.77	IRWD Check	Reconciled
415821	18-Feb-21	RENTOKIL NORTH AMERICA, INC	120.00	IRWD Check	Negotiable
415822	18-Feb-21	RINCON TRUCK CENTER INC.	963.74	IRWD Check	Reconciled
415823	18-Feb-21	RLG ENTERPRISES, INC	856.17	IRWD Check	Reconciled
415824	18-Feb-21	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT	20,943.40	IRWD Check	Negotiable
415825	18-Feb-21	SADAGHIAN POOR, SEYEDNEZAMEDDIN	75.57	IRWD Check	Negotiable

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR FEBRUARY 2021**

CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
415826	18-Feb-21	SANTA ANA BLUE PRINT	1,902.46	IRWD Check	Reconciled
415827	18-Feb-21	SEBALI, WALID	16.68	IRWD Check	Negotiable
415828	18-Feb-21	SECURITAS SECURITY SERVICES USA, INC.	45,906.90	IRWD Check	Reconciled
415829	18-Feb-21	SERRANO WATER DISTRICT	11,615.32	IRWD Check	Reconciled
415830	18-Feb-21	SHADRIN, ASHLEY	35.42	IRWD Check	Negotiable
415831	18-Feb-21	SHAMROCK SUPPLY CO INC	390.14	IRWD Check	Reconciled
415832	18-Feb-21	SHARMA, HEMANT	113.34	IRWD Check	Negotiable
415833	18-Feb-21	SOUTH COAST WATER DISTRICT	26,921.82	IRWD Check	Negotiable
415834	18-Feb-21	SOUTHERN CALIFORNIA EDISON COMPANY	531,749.63	IRWD Check	Negotiable
415835	18-Feb-21	SOUTHERN CALIFORNIA GAS COMPANY	13,050.47	IRWD Check	Reconciled
415836	18-Feb-21	SOUTHERN CALIFORNIA SECURITY CENTERS, INC.	190.86	IRWD Check	Negotiable
415837	18-Feb-21	SOUTHERN COUNTIES LUBRICANTS LLC	1,740.16	IRWD Check	Reconciled
415838	18-Feb-21	STANFORD COURT APARTMENTS	59.29	IRWD Check	Negotiable
415839	18-Feb-21	STEVENS, PATRICIA	44.51	IRWD Check	Negotiable
415840	18-Feb-21	TANG, TONY	37.99	IRWD Check	Reconciled
415841	18-Feb-21	THOMPSON & PHIPPS INC	7,465.77	IRWD Check	Reconciled
415842	18-Feb-21	TOP TEN REAL ESTATE INC	93.87	IRWD Check	Negotiable
415843	18-Feb-21	TROPICAL PLAZA NURSERY INC	2,300.00	IRWD Check	Reconciled
415844	18-Feb-21	TRUKSPECT, INC	903.96	IRWD Check	Negotiable
415845	18-Feb-21	TUNG, CHUNGHAO	265.30	IRWD Check	Negotiable
415846	18-Feb-21	UNITED PARCEL SERVICE INC	262.39	IRWD Check	Negotiable
415847	18-Feb-21	VILLASENOR, BLANCA	118.76	IRWD Check	Negotiable
415848	18-Feb-21	VWR INTERNATIONAL, LLC	5,799.27	IRWD Check	Reconciled
415849	18-Feb-21	WANG, HUA	16.05	IRWD Check	Negotiable
415850	18-Feb-21	WATER TREATMENT CHEMICALS INC	12,521.52	IRWD Check	Negotiable
415851	18-Feb-21	WAXIE'S ENTERPRISES, INC	1,611.60	IRWD Check	Reconciled
415852	18-Feb-21	WEST YOST & ASSOCIATES	3,404.33	IRWD Check	Reconciled
415853	18-Feb-21	WESTERN AV	2,944.00	IRWD Check	Reconciled
415854	18-Feb-21	WORKFORCE SAFETY LLC	3,000.00	IRWD Check	Negotiable
415855	18-Feb-21	XIE, LINXI	135.93	IRWD Check	Negotiable
415856	18-Feb-21	YIM, JOON	26.47	IRWD Check	Reconciled
415857	18-Feb-21	YU, PETER	44.65	IRWD Check	Negotiable
415858	25-Feb-21	Breiter, Michelle	14.60	IRWD Check	Negotiable
415859	25-Feb-21	Colvin, Todd C (Todd)	192.00	IRWD Check	Negotiable
415860	25-Feb-21	Perez, Rodolfo (Rudy)	288.00	IRWD Check	Negotiable
415861	25-Feb-21	Perry, Guy M (Matthew)	124.00	IRWD Check	Negotiable
415862	25-Feb-21	Shinbashi, Allen	128.22	IRWD Check	Negotiable
415863	25-Feb-21	Zamora, Victor A	127.66	IRWD Check	Negotiable
415864	25-Feb-21	A&Y ASPHALT CONTRACTORS, INC.	37,534.03	IRWD Check	Negotiable
415865	25-Feb-21	ABM INDUSTRY GROUPS, LLC	5,151.34	IRWD Check	Negotiable
415866	25-Feb-21	ADVANCED INDUSTRIAL SOLUTIONS INC	3,943.00	IRWD Check	Negotiable
415867	25-Feb-21	AECOM TECHNICAL SERVICES, INC.	1,540.00	IRWD Check	Negotiable
415868	25-Feb-21	AGILENT TECHNOLOGIES, INC.	13,920.02	IRWD Check	Negotiable
415869	25-Feb-21	AIRGAS, INC.	375.83	IRWD Check	Negotiable
415870	25-Feb-21	AMAZON CAPITAL SERVICES, INC.	615.97	IRWD Check	Negotiable
415871	25-Feb-21	AMBROSE APTS	643.88	IRWD Check	Negotiable
415872	25-Feb-21	AMERICAN GEOTECHNICAL, INC.	4,247.50	IRWD Check	Negotiable
415873	25-Feb-21	AMERICAN TRUCK AND TRAILER OF SANTA ANA	13,656.61	IRWD Check	Negotiable
415874	25-Feb-21	ANTHEM BLUE CROSS	283.41	IRWD Check	Negotiable
415875	25-Feb-21	APCO GRAPHICS INC	1,569.11	IRWD Check	Negotiable
415876	25-Feb-21	APEX SYSTEMS, LLC	2,002.00	IRWD Check	Negotiable
415877	25-Feb-21	ARCADIS U.S., INC.	1,375.00	IRWD Check	Negotiable
415878	25-Feb-21	ARCHROCK SERVICES, L.P.	60,335.10	IRWD Check	Negotiable
415879	25-Feb-21	AT&T	8,123.78	IRWD Check	Negotiable
415880	25-Feb-21	ATHENS SERVICES	1,851.36	IRWD Check	Negotiable
415881	25-Feb-21	AU, SCOTT	60.05	IRWD Check	Negotiable
415882	25-Feb-21	AUTOZONE PARTS, INC.	324.02	IRWD Check	Negotiable
415883	25-Feb-21	BARNUM, ERIN	21.60	IRWD Check	Negotiable
415884	25-Feb-21	BATTERIES PLUS AND BATTERIES PLUS BULBS	4,365.68	IRWD Check	Negotiable
415885	25-Feb-21	BIGWIG MONSTER, LLC	18,000.00	IRWD Check	Negotiable
415886	25-Feb-21	BILL'S SWEEPING SERVICE INC	796.00	IRWD Check	Negotiable
415887	25-Feb-21	BLACK & VEATCH CORPORATION	133,724.20	IRWD Check	Negotiable

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR FEBRUARY 2021**

CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
415888	25-Feb-21	BRUCE HADLEY NEWELL	1,250.00	IRWD Check	Negotiable
415889	25-Feb-21	C BELOW INC	10,795.00	IRWD Check	Negotiable
415890	25-Feb-21	C WELLS PIPELINE MATERIALS INC	18,084.39	IRWD Check	Negotiable
415891	25-Feb-21	CALIFORNIA BARRICADE RENTAL, INC.	5,488.80	IRWD Check	Negotiable
415892	25-Feb-21	CAROLLO ENGINEERS, INC	14,628.00	IRWD Check	Negotiable
415893	25-Feb-21	CBS SAFARI, LLC	54.40	IRWD Check	Negotiable
415894	25-Feb-21	CDW GOVERNMENT LLC	512.99	IRWD Check	Negotiable
415895	25-Feb-21	CENTERPOINTE II APTS	755.95	IRWD Check	Negotiable
415896	25-Feb-21	CHEN, RITA	25.00	IRWD Check	Negotiable
415897	25-Feb-21	CHESHIRE MEDICAL CORPORATION	121.44	IRWD Check	Negotiable
415898	25-Feb-21	CITY OF NEWPORT BEACH	1,828.02	IRWD Check	Negotiable
415899	25-Feb-21	CONSOLIDATED ELECTRICAL DISTRIBUTORS, INC	1,990.86	IRWD Check	Negotiable
415900	25-Feb-21	CONSOLIDATED ELECTRICAL DISTRIBUTORS, INC	3,798.04	IRWD Check	Negotiable
415901	25-Feb-21	CONSTELLATION NEWENERGY, INC.	5,979.34	IRWD Check	Negotiable
415902	25-Feb-21	CORNELL COURT APTS	196.85	IRWD Check	Negotiable
415903	25-Feb-21	COX COMMUNICATIONS, INC.	3,261.97	IRWD Check	Negotiable
415904	25-Feb-21	COXCO LLC	16,746.76	IRWD Check	Negotiable
415905	25-Feb-21	CPC SYSTEMS, INC.	1,350.00	IRWD Check	Negotiable
415906	25-Feb-21	CROWN CASTLE INTERNATIONAL CORP.	810.35	IRWD Check	Negotiable
415907	25-Feb-21	CS-AMSCO	675.00	IRWD Check	Negotiable
415908	25-Feb-21	CULLIGAN OF SANTA ANA	21,000.00	IRWD Check	Negotiable
415909	25-Feb-21	D & H WATER SYSTEMS INC.	934.47	IRWD Check	Negotiable
415910	25-Feb-21	DANG, STEVEN	62.58	IRWD Check	Negotiable
415911	25-Feb-21	DELREY APARTMENTS	644.91	IRWD Check	Negotiable
415912	25-Feb-21	DIRECTV INC	153.99	IRWD Check	Negotiable
415913	25-Feb-21	DUDLEY RIDGE WATER DISTRICT	18,072.82	IRWD Check	Negotiable
415914	25-Feb-21	EDNEY, LIU LIU	74.13	IRWD Check	Negotiable
415915	25-Feb-21	EUROFINS CALSCIENCE, LLC	1,722.00	IRWD Check	Negotiable
415916	25-Feb-21	EXECUTIVE LIGHTING & ELECTRIC	950.00	IRWD Check	Negotiable
415917	25-Feb-21	FAITHCO INC.	1,250.00	IRWD Check	Negotiable
415918	25-Feb-21	FANNY ECKERMANN AND VIVIAN LEE	164.39	IRWD Check	Negotiable
415919	25-Feb-21	FARRELL & ASSOCIATES	242.18	IRWD Check	Negotiable
415920	25-Feb-21	FARZANEH NAMAZIFARD AND HOSSEIN ZOLFAGHARI	320.24	IRWD Check	Negotiable
415921	25-Feb-21	FERGUSON ENTERPRISES, LLC	8,844.13	IRWD Check	Negotiable
415922	25-Feb-21	FIDELITY SECURITY LIFE INSURANCE COMPANY	6,997.30	IRWD Check	Negotiable
415923	25-Feb-21	FIDELITY SECURITY LIFE INSURANCE COMPANY	108.74	IRWD Check	Negotiable
415924	25-Feb-21	FIDELITY SECURITY LIFE INSURANCE COMPANY	715.47	IRWD Check	Negotiable
415925	25-Feb-21	FIONA HUTTON & ASSOCIATES, INC.	13,288.19	IRWD Check	Negotiable
415926	25-Feb-21	FIREHOSEDIRECT.COM	575.11	IRWD Check	Negotiable
415927	25-Feb-21	FLARE INDUSTRIES, LLC	1,068.90	IRWD Check	Negotiable
415928	25-Feb-21	FORD, CHRISTINE	59.36	IRWD Check	Negotiable
415929	25-Feb-21	FRANCHISE TAX BOARD	330.00	IRWD Check	Negotiable
415930	25-Feb-21	FRONTIER CALIFORNIA INC.	347.79	IRWD Check	Negotiable
415931	25-Feb-21	FUSCOE ENGINEERING, INC.	1,700.00	IRWD Check	Negotiable
415932	25-Feb-21	GANAHL LUMBER CO.	5,428.62	IRWD Check	Negotiable
415933	25-Feb-21	GCI CONSTRUCTION, INC.	100,812.00	IRWD Check	Negotiable
415934	25-Feb-21	GEI CONSULTANTS INC	6,935.50	IRWD Check	Negotiable
415935	25-Feb-21	GJ AUTOMOTIVE EQUIPMENT CO INC	938.88	IRWD Check	Negotiable
415936	25-Feb-21	GORDEEVA, KATIA	614.79	IRWD Check	Negotiable
415937	25-Feb-21	GRAINGER	7,418.87	IRWD Check	Negotiable
415938	25-Feb-21	GRANICUS, LLC	1,818.70	IRWD Check	Negotiable
415939	25-Feb-21	GRAYBAR ELECTRIC COMPANY	1,076.42	IRWD Check	Negotiable
415940	25-Feb-21	HAAKER EQUIPMENT COMPANY	795.31	IRWD Check	Negotiable
415941	25-Feb-21	HACH COMPANY	13,868.63	IRWD Check	Negotiable
415942	25-Feb-21	HANSON BRIDGETT LLP	66,319.60	IRWD Check	Negotiable
415943	25-Feb-21	HARVARD COURT APARTMENTS	38.18	IRWD Check	Negotiable
415944	25-Feb-21	HAZEN AND SAWYER	3,520.00	IRWD Check	Negotiable
415945	25-Feb-21	HDR ENGINEERING INC	5,036.00	IRWD Check	Negotiable
415946	25-Feb-21	HELPMATES STAFFING SERVICES	8,659.16	IRWD Check	Negotiable
415947	25-Feb-21	HERC RENTALS INC.	2,476.35	IRWD Check	Negotiable
415948	25-Feb-21	HERITAGE FIELDS EL TORO, LLC	432.30	IRWD Check	Negotiable
415949	25-Feb-21	HILL BROTHERS CHEMICAL COMPANY	5,605.01	IRWD Check	Negotiable

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR FEBRUARY 2021**

CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
415950	25-Feb-21	HOME DEPOT USA INC	294.10	IRWD Check	Negotiable
415951	25-Feb-21	HORNBEAK, ANDREW	40.10	IRWD Check	Negotiable
415952	25-Feb-21	HUMANA INSURANCE COMPANY	65.30	IRWD Check	Negotiable
415953	25-Feb-21	ICP DAS USA INC	1,220.00	IRWD Check	Negotiable
415954	25-Feb-21	IMPERIAL SPRINKLER SUPPLY, INC.	108.40	IRWD Check	Negotiable
415955	25-Feb-21	INDUSTRIAL SURPLUS AND SALVAGE	46,967.28	IRWD Check	Negotiable
415956	25-Feb-21	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 47	2,834.56	IRWD Check	Negotiable
415957	25-Feb-21	INTRACORP SOUTHERN CALIFORNIA, LLC	292.14	IRWD Check	Negotiable
415958	25-Feb-21	IRVINE PIPE & SUPPLY INC	479.78	IRWD Check	Negotiable
415959	25-Feb-21	IRWD-PETTY CASH CUSTODIAN	641.38	IRWD Check	Negotiable
415960	25-Feb-21	JINGTING, LI	36.13	IRWD Check	Negotiable
415961	25-Feb-21	JOHN MICHAEL COVAS	196.60	IRWD Check	Negotiable
415962	25-Feb-21	KAZARIANS & ASSOCIATES, INC.	1,100.00	IRWD Check	Negotiable
415963	25-Feb-21	KB HOMES	98.65	IRWD Check	Negotiable
415964	25-Feb-21	KB HOMES	746.00	IRWD Check	Negotiable
415965	25-Feb-21	KIMBALL MIDWEST	812.07	IRWD Check	Negotiable
415966	25-Feb-21	LA HABRA FENCE COMPANY INC	977.00	IRWD Check	Negotiable
415967	25-Feb-21	LANDCARE HOLDINGS, INC.	10,528.05	IRWD Check	Negotiable
415968	25-Feb-21	LEE & RO, INC.	911.00	IRWD Check	Negotiable
415969	25-Feb-21	LENNAR HOMES	2,292.07	IRWD Check	Negotiable
415970	25-Feb-21	LOS OLIVOS APARTMENTS	1,510.91	IRWD Check	Negotiable
415971	25-Feb-21	LSA ASSOCIATES INC	3,177.45	IRWD Check	Negotiable
415972	25-Feb-21	LURYE, VICTORIA	31.77	IRWD Check	Negotiable
415973	25-Feb-21	MARK THOMAS & COMPANY, INC.	384.00	IRWD Check	Negotiable
415974	25-Feb-21	MC MASTER CARR SUPPLY CO	360.67	IRWD Check	Negotiable
415975	25-Feb-21	MCGLADE, CHRISTINA	69.16	IRWD Check	Negotiable
415976	25-Feb-21	MCR TECHNOLOGIES INC	3,120.47	IRWD Check	Negotiable
415977	25-Feb-21	MDT INC	14,038.00	IRWD Check	Negotiable
415978	25-Feb-21	MEGGITT SENSING SYSTEMS	652.98	IRWD Check	Negotiable
415979	25-Feb-21	MERRIMAC PETROLEUM, INC.	24,259.91	IRWD Check	Negotiable
415980	25-Feb-21	MONTROSE ENVIRONMENTAL GROUP, INC.	600.00	IRWD Check	Negotiable
415981	25-Feb-21	MRO ELECTRIC & SUPPLY CO.	13,412.00	IRWD Check	Negotiable
415982	25-Feb-21	MULTIQUIP INC	3,559.52	IRWD Check	Negotiable
415983	25-Feb-21	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY	3,461.00	IRWD Check	Negotiable
415984	25-Feb-21	NATIONAL READY MIXED CONCRETE SALES, LLC	911.99	IRWD Check	Negotiable
415985	25-Feb-21	NEWPORT BLUFFS APTS	285.73	IRWD Check	Negotiable
415986	25-Feb-21	NEWPORT NORTH APTS	319.72	IRWD Check	Negotiable
415987	25-Feb-21	NEWPORT RIDGE APTS	367.21	IRWD Check	Negotiable
415988	25-Feb-21	NEWPORT WINDOW MAINTENANCE INC	2,385.00	IRWD Check	Negotiable
415989	25-Feb-21	NIXON-EGLI EQUIPMENT COMPANY INC.	2,195.95	IRWD Check	Negotiable
415990	25-Feb-21	NORTHWOOD PLACE APTS	41.57	IRWD Check	Negotiable
415991	25-Feb-21	OLIN CORPORATION	9,970.99	IRWD Check	Negotiable
415992	25-Feb-21	OLSON REMCHO LLP	350.50	IRWD Check	Negotiable
415993	25-Feb-21	OMBAO, ANN	37.64	IRWD Check	Negotiable
415994	25-Feb-21	ONESOURCE DISTRIBUTORS LLC	12,177.17	IRWD Check	Negotiable
415995	25-Feb-21	ORRICK, HERRINGTON & SUTCLIFFE LLP	30,000.00	IRWD Check	Negotiable
415996	25-Feb-21	PARK WEST APTS	1,754.58	IRWD Check	Negotiable
415997	25-Feb-21	PARKWAY LAWNMOWER SHOP	6,352.25	IRWD Check	Negotiable
415998	25-Feb-21	PATEL, ATUL	23.40	IRWD Check	Negotiable
415999	25-Feb-21	PATEL, MOHAN	37.67	IRWD Check	Negotiable
416000	25-Feb-21	PAULUS ENGINEERING, INC.	30,761.59	IRWD Check	Negotiable
416001	25-Feb-21	PERKINELMER HEALTH SCIENCES INC	13,920.00	IRWD Check	Negotiable
416002	25-Feb-21	PERS LONG TERM CARE	447.62	IRWD Check	Negotiable
416003	25-Feb-21	PETRUSSE-NORRIS PAINTING, INC.	4,633.44	IRWD Check	Negotiable
416004	25-Feb-21	PFM SWAP ADVISORS LLC	5,000.00	IRWD Check	Negotiable
416005	25-Feb-21	PILLSBURY WINTHROP SHAW PITTMAN LLP	1,562.00	IRWD Check	Negotiable
416006	25-Feb-21	PRAXAIR DISTRIBUTION INC	6,714.09	IRWD Check	Negotiable
416007	25-Feb-21	PRUDENTIAL OVERALL SUPPLY	953.73	IRWD Check	Negotiable
416008	25-Feb-21	R.F. MACDONALD CO.	2,162.50	IRWD Check	Negotiable
416009	25-Feb-21	RAM AIR ENGINEERING INC	5,939.00	IRWD Check	Negotiable
416010	25-Feb-21	RANCHO SAN JOAQUIN	3,588.82	IRWD Check	Negotiable
416011	25-Feb-21	REAL WATER CONSULTANTS INC.	15,879.00	IRWD Check	Negotiable

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR FEBRUARY 2021**

CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
416012	25-Feb-21	RED WING SHOE STORE	1,247.56	IRWD Check	Negotiable
416013	25-Feb-21	RELIABLE WATER SOLUTIONS, LLC	5,206.57	IRWD Check	Negotiable
416014	25-Feb-21	RENTOKIL NORTH AMERICA, INC	20,362.00	IRWD Check	Negotiable
416015	25-Feb-21	RESTEK CORPORATION	265.80	IRWD Check	Negotiable
416016	25-Feb-21	RINCON TRUCK CENTER INC.	817.36	IRWD Check	Negotiable
416017	25-Feb-21	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT	18,702.38	IRWD Check	Negotiable
416018	25-Feb-21	RTM ENGINEERING CONSULTANTS, LLC	963.00	IRWD Check	Negotiable
416019	25-Feb-21	RUIA, ANISHA	315.00	IRWD Check	Negotiable
416020	25-Feb-21	SAN CARLO APARTMENTS	287.72	IRWD Check	Negotiable
416021	25-Feb-21	SAN LEON APTS	512.91	IRWD Check	Negotiable
416022	25-Feb-21	SAN MARCO APARTMENTS	36.53	IRWD Check	Negotiable
416023	25-Feb-21	SAN REMO APTS	5,262.53	IRWD Check	Negotiable
416024	25-Feb-21	SANTA MARGARITA FORD	311.99	IRWD Check	Negotiable
416025	25-Feb-21	SANTA ROSA APARTMENTS	1,237.55	IRWD Check	Negotiable
416026	25-Feb-21	SARKISIAN, MICHAEL	23.41	IRWD Check	Negotiable
416027	25-Feb-21	SCHINDLER ELEVATOR CORPORATION	229.11	IRWD Check	Negotiable
416028	25-Feb-21	SHAMROCK SUPPLY CO INC	1,962.83	IRWD Check	Negotiable
416029	25-Feb-21	SINIGAGLIA, RICARDO	31.20	IRWD Check	Negotiable
416030	25-Feb-21	SOUTHERN CALIFORNIA EDISON COMPANY	21,733.49	IRWD Check	Negotiable
416031	25-Feb-21	SOUTHERN CALIFORNIA EDISON COMPANY	9.80	IRWD Check	Negotiable
416032	25-Feb-21	SOUTHERN CALIFORNIA GAS COMPANY	13.94	IRWD Check	Negotiable
416033	25-Feb-21	SOUTHERN CALIFORNIA SECURITY CENTERS, INC.	156.10	IRWD Check	Negotiable
416034	25-Feb-21	SOUTHERN COUNTIES LUBRICANTS LLC	499.91	IRWD Check	Negotiable
416035	25-Feb-21	SOUTHSIDE TOWING	250.00	IRWD Check	Negotiable
416036	25-Feb-21	SOUTHWEST VALVE & EQUIPMENT INC	2,447.60	IRWD Check	Negotiable
416037	25-Feb-21	STACHELSKI, BARBARA	33.32	IRWD Check	Negotiable
416038	25-Feb-21	STANFORD COURT APARTMENTS	541.80	IRWD Check	Negotiable
416039	25-Feb-21	STANTEC CONSULTING SERVICES INC.	20,813.99	IRWD Check	Negotiable
416040	25-Feb-21	STETSON ENGINEERS INC.	705.00	IRWD Check	Negotiable
416041	25-Feb-21	STONE MILLER CONSULTANTS INC	98.00	IRWD Check	Negotiable
416042	25-Feb-21	STRADLING YOCCA CARLSON & RAUTH	168.00	IRWD Check	Negotiable
416043	25-Feb-21	STREAKWAVE WIRELESS, INC.	3,111.41	IRWD Check	Negotiable
416044	25-Feb-21	SUKLE ADVERTISING INC.	18,470.87	IRWD Check	Negotiable
416045	25-Feb-21	SWEETER, LYLE R	652.61	IRWD Check	Negotiable
416046	25-Feb-21	TETRA TECH, INC	41,837.50	IRWD Check	Negotiable
416047	25-Feb-21	THE PARK AT IRVINE SPECTRUM	2,826.09	IRWD Check	Negotiable
416048	25-Feb-21	THOMPSON & PHIPPS INC	9,652.59	IRWD Check	Negotiable
416049	25-Feb-21	TIC-IPG-COMMON	499.75	IRWD Check	Negotiable
416050	25-Feb-21	TIC-OFFICE PROPERTIES	6,556.76	IRWD Check	Negotiable
416051	25-Feb-21	TIC-RESORT PROPERTIES	1,075.45	IRWD Check	Negotiable
416052	25-Feb-21	TIC-RETAIL PROPERTIES	2,084.06	IRWD Check	Negotiable
416053	25-Feb-21	TIC-SPECTRUM OFFICE	1,493.32	IRWD Check	Negotiable
416054	25-Feb-21	TOLL BROS., INC.	231.83	IRWD Check	Negotiable
416055	25-Feb-21	TOP TEN REAL ESTATE INC	113.39	IRWD Check	Negotiable
416056	25-Feb-21	TOTAL RESOURCE MANAGEMENT, INC	1,572.50	IRWD Check	Negotiable
416057	25-Feb-21	TRAFFIC LOGIX CORPORATION	800.00	IRWD Check	Negotiable
416058	25-Feb-21	TRAN, DUYEN	48.01	IRWD Check	Negotiable
416059	25-Feb-21	TRANQUILL, ANTHONY	273.13	IRWD Check	Negotiable
416060	25-Feb-21	TREE OF LIFE NURSERY	12,426.28	IRWD Check	Negotiable
416061	25-Feb-21	TRUCPARCO	269.26	IRWD Check	Negotiable
416062	25-Feb-21	TURTLE ROCK CANYON APTS	64.13	IRWD Check	Negotiable
416063	25-Feb-21	UNITED PARCEL SERVICE INC	43.08	IRWD Check	Negotiable
416064	25-Feb-21	UNIVAR SOLUTIONS USA INC.	4,627.65	IRWD Check	Negotiable
416065	25-Feb-21	US BANK NAT'L ASSOC N.DAKOTA	1,430.00	IRWD Check	Negotiable
416066	25-Feb-21	US BANK NAT'L ASSOCIATION NORTH DAKOTA	48,701.37	IRWD Check	Negotiable
416067	25-Feb-21	VAUGHAN'S INDUSTRIAL REPAIR CO INC	43,193.74	IRWD Check	Negotiable
416068	25-Feb-21	VILLA CORONADO APTS	1,072.06	IRWD Check	Negotiable
416069	25-Feb-21	VILLA SIENA APTS	658.24	IRWD Check	Negotiable
416070	25-Feb-21	VILLARREAL, AL	86.60	IRWD Check	Negotiable
416071	25-Feb-21	VIRTUAL GRAFFITI, INC.	765.00	IRWD Check	Negotiable
416072	25-Feb-21	VO, LE DUNG THI	47.13	IRWD Check	Negotiable
416073	25-Feb-21	VULCAN MATERIALS COMPANY	1,510.15	IRWD Check	Negotiable

**IRVINE RANCH WATER DISTRICT
AP DISBURSEMENTS AND VOIDS FOR FEBRUARY 2021**

CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
416074	25-Feb-21	VWR INTERNATIONAL, LLC	1,728.14	IRWD Check	Negotiable
416075	25-Feb-21	WANG, YAN	62.87	IRWD Check	Negotiable
416076	25-Feb-21	WASTE MANAGEMENT COLLECTIONS AND RECYCLING, INC.	198.06	IRWD Check	Negotiable
416077	25-Feb-21	WATERLINE TECHNOLOGIES INC	4,800.00	IRWD Check	Negotiable
416078	25-Feb-21	WAXIE'S ENTERPRISES, INC	247.15	IRWD Check	Negotiable
416079	25-Feb-21	WECK LABORATORIES INC	1,076.00	IRWD Check	Negotiable
416080	25-Feb-21	WEST YOST & ASSOCIATES	14,617.00	IRWD Check	Negotiable
416081	25-Feb-21	WILLIAM LYON HOMES, INC.	744.58	IRWD Check	Negotiable
416082	25-Feb-21	WOODARD & CURRAN INC	9,513.52	IRWD Check	Negotiable
416083	25-Feb-21	WU, HSIAO PING	36.45	IRWD Check	Negotiable
416084	25-Feb-21	XIAO, TIANRUN	36.63	IRWD Check	Negotiable
416085	25-Feb-21	XILIANG ZHOU & YIQI WANG	38.17	IRWD Check	Negotiable
416086	25-Feb-21	YANG, WEN	51.74	IRWD Check	Negotiable
416087	25-Feb-21	YSI, INC	11,421.62	IRWD Check	Negotiable
416088	25-Feb-21	ZEBRON CONTRACTING INC	7,980.00	IRWD Check	Negotiable
416089	25-Feb-21	ZHENG, ZHONG	150.66	IRWD Check	Negotiable
416090	25-Feb-21	ANTHEM BLUE CROSS	257.88	IRWD Check	Negotiable
SUB-TOTAL CHECK DISBURSEMENTS			7,252,755.62		
14194	1-Feb-21	CHARD SNYDER & ASSOCIATES, INC.	16,342.87	IRWD Wire	Negotiable
14195	1-Feb-21	CHARD SNYDER & ASSOCIATES, INC.	2,623.74	IRWD Wire	Negotiable
14196	2-Feb-21	YORK INSURANCE SERVICES GROUP INC - CA	1,696.59	IRWD Wire	Negotiable
14197	3-Feb-21	CALPERS	3,140.28	IRWD Wire	Negotiable
14198	3-Feb-21	CALPERS	565,461.09	IRWD Wire	Negotiable
14199	3-Feb-21	CHARD SNYDER & ASSOCIATES, INC.	1,559.65	IRWD Wire	Negotiable
14200	8-Feb-21	CHARD SNYDER & ASSOCIATES, INC.	2,938.76	IRWD Wire	Negotiable
14201	8-Feb-21	CHARD SNYDER & ASSOCIATES, INC.	4,806.60	IRWD Wire	Negotiable
14202	8-Feb-21	BANK OF NEW YORK MELLON TRUST COMPANY NA	326.58	IRWD Wire	Negotiable
14203	8-Feb-21	U.S. BANK NATIONAL ASSOCIATION	690.31	IRWD Wire	Negotiable
14204	8-Feb-21	BANK OF AMERICA	1,546.54	IRWD Wire	Negotiable
14205	8-Feb-21	U.S. BANK NATIONAL ASSOCIATION	422.70	IRWD Wire	Negotiable
14206	8-Feb-21	SUMITOMO MITSUI BANKING CORPORATION	2,342.47	IRWD Wire	Negotiable
14207	8-Feb-21	GOLDMAN, SACHS & CO. LLC	93,125.00	IRWD Wire	Negotiable
14208	9-Feb-21	YORK INSURANCE SERVICES GROUP INC - CA	5,876.18	IRWD Wire	Negotiable
14209	11-Feb-21	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	182,189.50	IRWD Wire	Negotiable
14210	11-Feb-21	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	2,323.01	IRWD Wire	Negotiable
14211	11-Feb-21	INTERNAL REVENUE SERVICE	218,499.02	IRWD Wire	Negotiable
14212	11-Feb-21	FRANCHISE TAX BOARD	66,428.70	IRWD Wire	Negotiable
14213	11-Feb-21	EMPLOYMENT DEVELOPMENT DEPARTMENT	19,996.05	IRWD Wire	Negotiable
14214	11-Feb-21	CALPERS	251,538.39	IRWD Wire	Negotiable
14215	11-Feb-21	CALPERS	1,386.17	IRWD Wire	Negotiable
14216	16-Feb-21	CHARD SNYDER & ASSOCIATES, INC.	11,477.50	IRWD Wire	Negotiable
14217	16-Feb-21	CHARD SNYDER & ASSOCIATES, INC.	2,900.28	IRWD Wire	Negotiable
14218	16-Feb-21	WELLS FARGO BANK, N.A.	5,505.36	IRWD Wire	Negotiable
14219	16-Feb-21	YORK INSURANCE SERVICES GROUP INC - CA	3,928.20	IRWD Wire	Negotiable
14220	18-Feb-21	KUMAR, ANANT	38.20	IRWD Wire	Negotiable
14221	18-Feb-21	PINEDA, JENNIFER	38.78	IRWD Wire	Negotiable
14222	22-Feb-21	CHARD SNYDER & ASSOCIATES, INC.	6,086.97	IRWD Wire	Negotiable
14223	22-Feb-21	CHARD SNYDER & ASSOCIATES, INC.	4,694.86	IRWD Wire	Negotiable
14224	23-Feb-21	YORK INSURANCE SERVICES GROUP INC - CA	5,742.67	IRWD Wire	Negotiable
14225	23-Feb-21	GROUNDWATER BANKING JOINT POWERS AUTHORITY	129,478.00	IRWD Wire	Negotiable
14226	23-Feb-21	GROUNDWATER BANKING JOINT POWERS AUTHORITY	2,500.00	IRWD Wire	Negotiable
14227	25-Feb-21	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY	1,842,166.97	IRWD Wire	Negotiable
14228	25-Feb-21	INTERNAL REVENUE SERVICE	312,322.00	IRWD Wire	Negotiable
14229	25-Feb-21	FRANCHISE TAX BOARD	99,048.34	IRWD Wire	Negotiable
14230	25-Feb-21	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	312,679.12	IRWD Wire	Negotiable
14231	25-Feb-21	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	2,323.01	IRWD Wire	Negotiable
14232	25-Feb-21	EMPLOYMENT DEVELOPMENT DEPARTMENT	27,166.48	IRWD Wire	Negotiable
14233	25-Feb-21	U.S. BANK NATIONAL ASSOCIATION	6,338,625.00	IRWD Wire	Negotiable
14234	25-Feb-21	CALPERS	252,326.74	IRWD Wire	Negotiable
SUB-TOTAL ELECTRONIC DISBURSEMENTS			10,804,308.68		

IRVINE RANCH WATER DISTRICT
 AP DISBURSEMENTS AND VOIDS FOR FEBRUARY 2021

CHECK OR ELECTRONIC #	PAYMENT DATE	SUPPLIERS	PAYMENT AMOUNT	PAYMENT METHOD	STATUS
SUB-TOTAL AP CHECK AND ELECTRONIC DISBURSEMENTS			18,057,064.30		
SUB-TOTAL CHECK AND ELECTRONIC ISSUED AND VOIDED IN FEB 2020			-		
TOTAL AP DISBURSEMENTS AND VOIDS FOR FEB 2020			18,057,064.30		

Exhibit "E"

MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS

February
2021

	AMOUNT	VENDOR	PURPOSE
2/12/2021	1,076,549.10	BANK OF AMERICA	ACH Payments for Payroll
2/26/2021	1,419,113.48	BANK OF AMERICA	ACH Payments for Payroll
	<u><u>\$2,495,662.58</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-FEB-21 to 28-FEB-21

NAME	CHECK NO.	CHECK DATE	AMOUNT	ITEM DESCRIPTION	EXPENSE JUSTIFICATION
Barboza, Armando	415700	18-Feb-21	192.00	Membership Renewal	CWEA membership
Borowski, Michael	415699	18-Feb-21	200.00	Other(Misc)	Safety Shoe Allowance
Colvin, Todd	415859	25-Feb-21	192.00	Membership Renewal	CWEA membership
Hall, William	415503	11-Feb-21	100.00	Certification Renewal	AWWA Cross Connection Specialist
Nicholson, Darin	415504	11-Feb-21	101.00	Certification Renewal	CWEA Electrical Technician Grade III
Perez, Rodolfo	415860	25-Feb-21	192.00	Membership Renewal	CWEA membership
Perry, Matthew	415861	25-Feb-21	124.00	Certification Renewal	ASE certificate
Reed, James W	415505	11-Feb-21	305.00	Certification Renewal	AWWA Backflow certification
Sagert, Justin	415331	4-Feb-21	181.44	Mileage	Roundtrip to/from Rosedale Rio Bravo Storage, Strand Ranch, Bakersfield, CA - January 20 & 21, 2021
Sanchez, Hector	415698	18-Feb-21	200.00	Other(Misc)	Safety Shoe Allowance
Zamora, Victor	415863	25-Feb-21	127.66	Other(Misc)	OC Farm Supply Co. Soil additives for Shadetree Nursery
Total Amount:			\$1,915.10		

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March 22, 2021
Prepared by: T. Lynch / J. Moeder / R. Mori
Submitted by: K. Burton
Approved by: Paul A. Cook 

CONSENT CALENDAR

SANTIAGO HILLS ZONE C+ RESERVOIR
STRAINER MODIFICATIONS FINAL ACCEPTANCE

SUMMARY:

The Santiago Hills Zone C+ Reservoir Strainer Modifications project is complete. IRWD’s contractor Paulus Engineering completed the required work and all punch list items. The project has received final inspection and acceptance of construction is recommended.

BACKGROUND:

The Irvine Lake Pipeline (ILP) North Conversion Project was part of the District’s strategic plan to increase recycled water usage and reduce reliance on imported water supplies by converting a significant portion of the ILP from untreated water to recycled water. The 2.4-million-gallon Zone C+ recycled water reservoir was constructed with a strainer facility in November 2019. After bringing the strainer facility online, staff determined that additional improvements were needed to reduce clogging of the strainers and to improve the overall efficiency of the strainer backwash and cleaning systems. Those improvements, which were constructed under this project, included diverting the strainer backwash water to the sewer, upsizing the strainer backwash sump pumps, and increasing the pressure in the strainer backwash water feed system.

Staff completed the design in April 2020, and Paulus Engineering was awarded the construction contract on June 23, 2020. Paulus Engineering completed construction of all improvements on February 22, 2021. A summary of construction change orders is provided as Exhibit “A”.

Project Title:	Santiago Hills Zone C+ Reservoir Strainer Modifications Project
Project No.:	05407
Design Engineer:	Psomas
Construction Management by:	IRWD Staff
Contractor:	Paulus Engineering, Inc.
Original Contract Cost:	\$215,965.99
Final Contract Cost:	\$271,795.48
Original Contract Days:	165
Final Contract Days:	255
Final Change Order Approved On:	February 1, 2021

FISCAL IMPACTS:

Project 05407 is included in the FY 2020-21 Capital Budget. The existing budget is sufficient to fund the final payment for the project.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA) and in conformance with California Code of Regulations Title 14, Chapter 3, Article 6, a Notice of Intent to adopt a Mitigated Negative Declaration was filed with the County of Orange on November 3, 2015. Pursuant to State Guideline § 15073, the Initial Study/Mitigated Negative Declaration (IS/MND) was made available for public review for a period of 30 days from November 4, 2015 through December 3, 2015. The IS/MND was adopted by IRWD Board of Directors at its January 11, 2016 meeting. A Notice of Determination was filed with the Orange County Clerk/Recorder and the CA State Clearinghouse on January 12, 2016.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE SANTIAGO HILLS ZONE C+ RESERVOIR STRAINER MODIFICATIONS, AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION, AND AUTHORIZE THE PAYMENT OF THE RETENTION 35 DAYS AFTER THE DATE OF RECORDING THE NOTICE OF COMPLETION FOR PROJECT 05407.

LIST OF EXHIBITS:

Exhibit "A" – Construction Change Order Summary

EXHIBIT "A"

Santiago Hills Zone C+ Reservoir Site Strainer Modifications Project
PR 05407
Construction Change Order Summary

Date: February 23, 2021
Contractor: Paulus Engineering
Design Engineer: Psomas

			Contract Amount						Contract Days				Original Completion Date:
			Original Contract Amount: \$215,965.99						Original Days: 165				12/5/2020
Change Order No.	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Order Days	Cum. Change Order Days	Revised Total Contract Days	Revised Completion Date
1	Approved by Executive Director of Technical Services Approved on 12/9/2020 CR-1: HDPE Highline Modifications CR-2: Addition of Magnetic Flowmeter CR-3: Backwash Sump Pump Electrical Modifications Non-Compensable Time Extension	B A B	\$2,896.06 \$5,525.08 \$2,024.07	\$10,445.21	\$ -	\$ 10,445.21	4.84%	\$226,411.20	26 0 2 0 24	0	26	191	12/31/2020
2	Approved by Executive Director of Technical Services Approved on 1/11/2021 CR-4: Discharge Piping Modifications Non-Compensable Time Extension	D	\$15,504.15	\$15,504.15	\$ 10,445.21	\$ 25,949.36	12.02%	\$241,915.35	29 0 29	26	55	220	1/29/2021
3	Approved by Executive Director of Technical Services Approved on 2/1/2021 CR-5: Addition of 4-inch PRV Assembly on Zone 8 Pipeline Non-Compensable Time Extension	A	\$29,880.13	\$29,880.13	\$25,949.36	\$55,829.49	25.85%	\$271,795.48	35 0 35	55	90	255	3/5/2021

Category	Total Amount	% of Original Contract
A - Owner Directed Change	\$35,405.21	16.39%
B - Differing/Unknown Condition	\$4,920.13	2.28%
C - External Agency, Regulatory, and/or Permit Required Change	\$0.00	0.00%
D - Design Oversight	\$15,504.15	7.18%
Total Change Order Amount (A + B + C + D)	\$55,829.49	25.85%

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March 22, 2021
Prepared by: R. Jacobson
Submitted by: C. Clary
Approved by: Paul A. Cook



CONSENT CALENDAR

SAND CANYON MEDICAL OFFICE LEASE EXTENSION

SUMMARY:

IRWD has been in negotiations with Reproductive Sciences Management Company (RSMC) regarding its interest in extending the lease of 12,031 square feet of office space at the District's Sand Canyon Medical Office. The proposed terms include a lease extension for a term of seven years starting at the end of the current lease term (April 30, 2022) on an as-is basis with no additional tenant improvements. Staff recommends the Board approve the proposed lease extension rate and terms and authorize the General Manager to execute all related lease extension documents.

BACKGROUND:

The Sand Canyon Medical Office property is a 16,347 square-foot building constructed by IRWD as a for-lease investment property which was completed in April 2012. The majority of the space in the building (12,031 square feet) has been leased by RSMC (formerly Coastal Fertility) since construction was completed. The current lease term is scheduled to end in April 2022. The initial lease rate for the space was \$3.15 per square foot and included annual increases of 3.0%. The initial tenant improvement allowance for the fertility center space totaled \$125 per square foot in 2012. When RSMC's lease expires, its lease rate will be at \$3.86 per square foot.

Future Leasing Considerations:

Given the potential lead time for construction of tenant improvements and licensing requirements for medical/surgical practices if it were to move to a new site, RSMC and its commercial broker (Cresa) have initiated the process to plan for its future location. The planning process includes a potential relocation of its facility to a new site or the extension of its lease at the Sand Canyon Medical Office.

Based on negotiations between the District and RSMC, the proposed extension would be for a seven-year term beginning in May 2022 with a starting lease rate of \$3.20 per square foot and include annual increases of 3.0%. In its proposal, RSMC also stated that it would be willing to take the space as-is, with no tenant improvements required and did not request any abated rent. A copy of the lease proposal is provided as Exhibit "A".

Staff has consulted with the medical office commercial representatives from Colliers International's Orange County office to determine expected lease rates if the space is vacated, as well as estimated tenant improvement costs for a new medical tenant and demand for medical space in the property's market area. According to Colliers, the estimated starting lease rate for a new tenant for the Sand Canyon Medical Office space would be between \$3.30 per square foot and \$3.50 per square foot, with an expected tenant improvement allowance from the landlord of

\$50 per square foot to \$70 per square foot. Other cash flow considerations when leasing to a new tenant would include abated (free) rent and loss of income during the marketing period and tenant improvement construction.

Comparing the proposed lease extension terms with a lease to a new tenant, the effective lease rate including tenant improvements (for a new tenant) for the seven-year term would be \$3.50 per square foot for the proposed lease extension, and \$2.95 per square foot for a new tenant (assuming a starting lease rate of \$3.40 and \$60 per square foot of tenant improvements).

The proposed lease extension also includes a commission to the tenant's broker of 4% for the first five years and 2% for the final two years. The commission rate for a lease to a new tenant would include a listing broker and would typically be 6% for the first five years and 3% for the remaining period.

FISCAL IMPACTS:

The effective lease rate for the seven-year term will be \$3.50 per square foot for the proposed lease extension. In year one of the extension, total lease income will be \$461,990, which will increase by 3% per year.

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 reviewed by the Finance and Personnel Committee in Closed Session on March 2, 2021.

RECOMMENDATION:

THAT BOARD APPROVE THE LEASE RATE AND TERMS FOR THE EXTENSION OF IRWD'S LEASE WITH REPRODUCTIVE SCIENCES MANAGEMENT COMPANY, INC. AT THE SAND CANYON MEDICAL OFFICE PROPERTY AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE NECESSARY LEASE EXTENSION DOCUMENTS.

LIST OF EXHIBITS:

Exhibit "A" – RSMC Offer to Lease



January 6, 2021

Robert Jacobson
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

Via e-mail: jacobson@irwd.com

Re: Offer to Lease/Reproductive Sciences Management Company, Inc.

Robert:

Cresa has been authorized by Reproductive Sciences Management Company, Inc. ("Tenant") to represent them in their effort to lease approximately 12,000 square feet of medical office space in Orange County, CA.

On behalf of our client, we are pleased to present the following Offer to Lease:

LOCATION: 15500 San Canyon Avenue, Irvine CA

BUILDING OWNERSHIP: Irvine Ranch Water District

PREMISES: Approximately 12,031 rentable square feet, located on the first floor.

TERM: Eighty-four (84) months commencing on May 1, 2022.

BASE RENTAL: \$3.²⁰~~10~~ per rentable square foot NNN.
Annual rent increases shall be fixed at three percent (3.0%)

OPERATING EXPENSES: Per the existing lease

PARKING: Per the existing lease

USE: Per the existing lease

RENEWAL OPTION: Per the existing Lease

ADA COMPLIANCE: Per the existing Lease

TENANT IMPROVEMENT ALLOWANCE : Tenant agrees to accept the Premises in its "as is" condition.

ASSIGNMENT OR SUBLEASING: Per the existing Lease



PREPAID RENT AND SECURITY DEPOSIT:

Upon Lease commencement, Tenant shall pay the first month's rent. Landlord shall retain Tenant's existing security deposit.

BROKERAGE:

Landlord shall pay Cresa Global, Inc. a leasing commission equal to four percent (4%) of the total NNN lease consideration for years 1-5 and 2% for years 6-7. Said commission shall be paid in full upon execution of the lease amendment.

EXISTING LEASE:

All other terms of the existing lease dated March 28, 2011, the First Amendment dated May 15, 2012, the Second Amendment dated May 1, 2015, and the Assignment and Assumption of Lease dated April 11, 2019 shall remain in full force and effect.

DISCLAIMER:

This letter is not a legally binding document and is expressly contingent upon final corporate approval by Tenant and the negotiation and execution of a mutually agreeable lease document.

This Offer to Lease shall expire at 5:00 p.m. on January 13, 2021. Upon acceptance of this Offer to Lease, Landlord is to proceed with the preparation of a Lease Amendment, it being expressly understood that this proposal is not binding on either of the parties and that Lease Amendment, when executed by the parties, shall contain their full agreement.

Cresa is not authorized to give legal or tax advice. No representation or recommendation is made by Cresa, its agents or employees, as to the legal sufficiency, legal effect, or tax consequences of this document, or any transaction relating thereto. Cresa is acting as Tenant's agent and advises all parties in this transaction to consult an attorney on all legal matters, a financial advisor or CPA on all tax or financial matters and an engineer on all environmental matters. Cresa makes no warranty or guarantee that either Landlord or Tenant, or their respective agents, will perform according to the terms of any agreements.

If you have any questions, please feel free to call me. Please e-mail your response to gfriedrich@cresa.com.

Sincerely,
CRESA SAN DIEGO

A handwritten signature in black ink, appearing to read "G. Friedrich".

Glenn Friedrich
Managing Principal
BRE #01163646
(858) 794-5505

cc: Yingru Li

March 22, 2021

Prepared by: W. James / M. Cortez

Submitted by: K. Burton

Approved by: Paul A. Cook



CONSENT CALENDAR

SILVERADO CANYON BRIDGE 175 TEMPORARY DOMESTIC WATER BYPASS BUDGET INCREASE AND CONSTRUCTION AWARD

SUMMARY:

The Silverado Canyon Bridge 175 Temporary Domestic Water Bypass will install a temporary eight-inch pipeline across the Silverado Creek to facilitate the County of Orange's replacement of Bridge 175. Staff recommends the Board:

- Authorize a budget increase in the amount of \$170,000, from \$504,900 to \$674,900, and
- Authorize the General Manager to execute a construction contract with T.E. Roberts, Inc. in the amount of \$215,188 for the Silverado Canyon Bridge 175 Temporary Domestic Water Bypass.

BACKGROUND:

IRWD's eight-inch domestic water pipeline is attached to an existing road bridge (Bridge 175) that is owned by the County of Orange located east of the street intersection of Silverado Canyon and Ladd Canyon Roads in Silverado Canyon. A site map is provided as Exhibit "A". The County of Orange has an upcoming project that will replace the existing bridge with a new bridge structure, impacting IRWD's eight-inch pipeline. In preparation for the County's project, IRWD will construct a temporary bypass pipeline to maintain domestic water service in the area during the County's replacement bridge construction.

While most of the temporary pipeline will be buried, a section will cross Silverado Creek. This project will construct a temporary truss bridge spanning approximately 70 feet with concrete footings located on each side of the creek to support the pipeline as it crosses the creek. IRWD's new permanent pipeline will be constructed as part of the County's upcoming bridge replacement project under a Reimbursement Agreement. Upon completion of the new bridge and the installation and connection of the permanent pipeline, the County will remove the temporary truss bridge, the concrete footings, and the temporary pipeline. The truss bridge will be salvaged and returned to IRWD for possible reuse on three future bridge replacement projects in the Silverado area by the County.

Construction Schedule:

The anticipated completion of the temporary pipeline project is the end of June 2021. The County's current schedule for its bridge replacement project includes advertisement for construction bidding in July 2021 and award of the construction contract in August 2021. This schedule may slip based on the County's application for grant funding, which must be completed prior to advertising. Construction of the new bridge will occur in two phases: south and north halves of the bridge. The southern portion of the bridge will be replaced first. IRWD's

Consent Calendar: Silverado Canyon Bridge 175 Temporary Domestic Water Bypass Budget Increase and Construction Award

March 22, 2021

Page 2

permanent domestic water pipeline will be installed during this first phase. The tentative completion date for the southern half is January 2022. At that time, the temporary pipeline will no longer be required. The temporary pipeline is expected to be in service for at least six months; longer use will be required should the County's project schedule slide for any reason.

Construction Bid:

The project was advertised to a select bidders list of 19 pipeline contractors on February 11, 2021, and the bid opening was held on March 4. Six bids were received from Ferreira Construction Company, Inc., GRFCO Inc., Gwinco Corporation, Mike Prlich and Sons, Inc., Paulus Engineering, Inc., and T.E. Roberts, Inc.

The bids are summarized in the table below.

Bidder	Bid Amount
T. E. Roberts, Inc.	\$215,188
Gwinco Corporation	\$237,348
Ferreira Construction Corporation, Inc	\$277,055
GRFCO Inc.	\$285,000
Paulus Engineering, Inc.	\$291,309
Mike Prlich and Sons, Inc.	\$309,700
<i>Engineer's Estimate</i>	<i>\$118,700</i>

T.E. Roberts, Inc. was the apparent low bidder with a bid of \$215,188; the bid information is provided as Exhibit "B". All bids were higher than the engineer's estimate of \$118,700. When investigating the bid item values, staff found the main discrepancy between the contractor bids and the engineer's estimate was the cost of the pipe bridge as the engineer's cost was much lower in comparison. The engineer's estimate for piping, road trenching, and road repairs were also lower than the Contractor's bid item values. Staff believes the bids received represent the true cost of construction. T.E. Roberts has previously constructed several IRWD pipeline projects and is well qualified to construct the improvements.

FISCAL IMPACTS:

Project 11587 is included in the FY 2020-21 Capital Budget for this Temporary Bypass Pipeline as well as the permanent pipeline to be constructed in the near future by the County of Orange under a Reimbursement Agreement. A budget increase is required to fund the construction and engineering support services for the project as shown in the following table.

Project No.	Current Budget	Addition <Reduction>	Total Budget
11587	\$504,900	\$170,000	\$674,900

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 which provides exemption for minor alterations of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. A Notice of Exemption for the project was filed with the County of Orange on February 11, 2021.

COMMITTEE STATUS:

Construction awards are not routinely reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE IN THE AMOUNT OF \$170,000, FROM \$504,900 TO \$674,900, AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH T.E. ROBERTS, INC. IN THE AMOUNT OF \$215,188 FOR THE SILVERADO CANYON BRIDGE 175 TEMPORARY DOMESTIC WATER BYPASS, PROJECT 11587.

LIST OF EXHIBITS:

Exhibit "A" – Project Site Map

Exhibit "B" – Silverado Canyon Bridge 175 Temporary Domestic Water Bypass Bid Results

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EXHIBIT "A" - PROJECT SITE MAP
SILVERADO CANYON BRIDGE 175 TEMPORARY DOMESTIC WATER BYPASS



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EXHIBIT "B"

SILVERADO CANYON BRIDGE 175 TEMPORARY DOMESTIC WATER BYPASS

Bid Results

Bidder Details

Vendor Name T. E. Roberts, Inc.
Address 306 W. Katella Avenue, Unit B
Orange, California 92867
United States
Respondee Brian Wagner
Respondee Title Estimator
Phone 714-669-0072
Email estimating@teroberts.com
Vendor Type CADIR
License #
CADIR 1000000280

Bid Detail

Bid Format Electronic
Submitted 03/04/2021 1:31 PM (PST)
Delivery Method
Bid Responsive
Bid Status Submitted
Confirmation # 245148
Ranking 0

Attachments

File Title	File Name	File Type
IRWD Silverado.pdf	IRWD Silverado.pdf	General Attachments

Subcontractors

Showing 3 of undefined Subcontractors

Name & Address	Desc	License Num	CADIR	Amount	Type
Structures Unlimited 7671 Arlington Avenue Riverside, California 92503	concrete work	550710	1000010800	\$9,200.00	CADIR
Superior Pavement Markings 5312 Cypress St Cypress, California 90630	Striping	776306	1000001476	\$3,622.00	CADIR
UDC Corporation 1041 Kraemer Place Anaheim, California 92806	truss	457906	1000041923	\$24,985.00	

Line Items

Item #	Item Code	Section	Type	Item Description	UOM	QTY	Unit Price	Line Total	Response	Comment
1		BASE BID ITEMS		Mobilization, demobilization, and cleanup, and spoil disposal (not to exceed 5% of Total Amount of Bid)	LS	1	\$10,000.00	\$10,000.00	Yes	
2		BASE BID ITEMS		8-inch PVC AWWA C-900 DR 14	LF	84	\$382.00	\$32,088.00	Yes	
3		BASE BID ITEMS		8-inch CML&P Steel Pipe Truss Structure across the creek	LS	1	\$94,700.00	\$94,700.00	Yes	
4		BASE BID ITEMS		Connection to existing 10-inch PVC pipeline on Ladd Canyon Road	LS	1	\$6,700.00	\$6,700.00	Yes	
5		BASE BID ITEMS		Connection to existing 8-inch CML&C Steel pipeline on Silverado Canyon Road	LS	1	\$10,800.00	\$10,800.00	Yes	
6		BASE BID ITEMS		Fire Hydrant	EA	1	\$13,800.00	\$13,800.00	Yes	
7		BASE BID ITEMS		1-inch Air Vac.	EA	1	\$2,600.00	\$2,600.00	Yes	
8		BASE BID ITEMS		Trench repair AC Performance Grade PG 64-10 (Ladd Canyon Road)	LS	1	\$8,700.00	\$8,700.00	Yes	
9		BASE BID ITEMS		Grind and Cap AC (Ladd Canyon Road)	SF	400	\$20.00	\$8,000.00	Yes	
10		BASE BID ITEMS		Trench repair AC Performance Grade PG 64-10 (Silverado Canyon Road)	LS	1	\$3,900.00	\$3,900.00	Yes	
11		BASE BID ITEMS		Grind and Cap AC (Silverado Canyon Road)	SF	200	\$20.00	\$4,000.00	Yes	
12		BASE BID ITEMS		Road Paint Striping (Silverado Canyon Road)	LS	1	\$5,900.00	\$5,900.00	Yes	
13		BASE BID ITEMS		Traffic Control	LS	1	\$10,700.00	\$10,700.00	Yes	
14		BASE BID ITEMS		Trench Safety Measures	LS	1	\$1,300.00	\$1,300.00	Yes	
15		BASE BID ITEMS		Final Record Drawings	LS	1	\$2,000.00	\$2,000.00	Yes	

Line Item Subtotals

Section Title	Line Total
BASE BID ITEMS	\$215,188.00
ADDITION OR DEDUCTION LINE ITEM	\$0.00
Grand Total	\$215,188.00

March 22, 2021

Prepared by: A. Murphy / M. Cortez

Submitted by: K. Burton

Approved by: Paul A. Cook

ACTION CALENDAR

TURTLE ROCK ZONE 3 RESERVOIR CHLORAMINE BOOSTER STATION BUDGET ADDITION AND CONSULTANT SELECTION

SUMMARY:

The Turtle Rock Zone 3 Reservoir Chloramine Booster Station project will construct a chlorine and ammonia (chloramine) dosing facility and a reservoir mixing system to improve water quality and prevent nitrification in the reservoir. Staff recommends the Board:

- Authorize the addition of Project 11840, Turtle Rock Zone 3 Reservoir Chloramine Booster Station, to the FY 2020-21 Capital Budget in the amount of \$1,705,000, and
- Authorize the General Manager to execute a Professional Services Agreement with Lee & Ro, Inc. in the amount of \$375,477 for engineering design services for the Turtle Rock Zone 3 Reservoir Chloramine Booster Station.

BACKGROUND:

This project will install a chloramine booster station at the Turtle Rock Zone 3 Reservoir and Zone 3 to 4 Pump Station site to improve water quality and reduce nitrification events by maintaining proper chlorine residual and mixing in the reservoir. Construction of these improvements will replace the existing in-pipe chloramine injection facility at the Turtle Rock Zone 1 to 3 Pump Station that has experienced multiple operational issues due to chemical precipitation in the injection line. The scope of design for this project includes a new chloramine booster station building with chemical storage and dosing facilities, a new reservoir mixing system and new access from the chemical building to the top of the buried reservoir. A major challenge for the design will be siting the new chemical building entirely within IRWD property, adjacent to the Turtle Rock Zone 3 to 4 Pump Station, while providing room for chemical deliveries and maintenance access.

Based on concerns of residents living adjacent to the reservoir site regarding pedestrian use of the reservoir access road at night, the design scope also includes an optional task for a new security fence across the access road to prevent trespassers from using it to access the City of Irvine's open space beyond the existing Turtle Rock Homeowners Association (HOA) fence.

A location map of Turtle Rock Zone 3 Reservoir is shown in Exhibit "A".

Consultant Selection:

Staff issued a request for proposal for the preliminary and final design to seven consultants and three responded with proposals: Dudek, Lee & Ro and Tetra Tech. While each consultant showed a good understanding of the scope of work and Lee & Ro and Dudek expounded their ideas on project approach, staff determined that Lee & Ro demonstrated a greater amount of

Action Calendar: Turtle Rock Zone 3 Reservoir Chloramine Booster Station Budget Addition and Consultant Selection

March 22, 2021

Page 2

thought and dedication by providing several alternative building location renderings in its proposal for our consideration. Staff also found that the preliminary siting studies reflect Lee & Ro's superior understanding of the site constraints, and the scope of work and effort required for this project. Fees proposed by Lee & Ro (\$375,477) and Tetra Tech (\$380,000) were nearly equal and Dudek (\$483,085) was approximately \$100,000 more. Based on these considerations, along with Lee & Ro's project team and its previous experience on District projects, staff recommends the selection of Lee & Ro. The consultant evaluation matrix is provided as Exhibit "B", and Lee & Ro's proposal is provided as Exhibit "C".

FISCAL IMPACTS:

Project 11840 is currently not included in the FY 2020-21 Capital Budget. The budget shown below is required to fund the design and construction phases for the project.

Project No.	Current Budget	Budget Addition	Total Budget
11840	\$0	\$1,705,000	\$1,705,000

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 Engineering and Operations Committee on March 16, 2021.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION OF PROJECT 11840, TURTLE ROCK ZONE 3 RESERVOIR CHLORAMINE BOOSTER STATION, TO THE FY 2020-21 CAPITAL BUDGET IN THE AMOUNT OF \$1,705,000 AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH LEE & RO, INC. IN THE AMOUNT OF \$375,477 FOR ENGINEERING DESIGN SERVICES FOR THE TURTLE ROCK ZONE 3 RESERVOIR CHLORAMINE BOOSTER STATION, PROJECT 11840.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Consultant Selection Evaluation Matrix
- Exhibit "C" – Lee & Ro's Proposal



TURTLE ROCK ZONE 3 RESERVOIR AND PUMP STATION LOCATION MAP

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Exhibit "B" Turtle Rock Zone 3 Reservoir Chloramine Booster Station Consultant Selection Matrix

	Weights	Dudek	Lee & Ro	Tetra Tech
TECHNICAL APPROACH	60%			
*Project Approach	50%	2	1	3
*Scope of Work	50%	1	2	3
Weighted Score (Technical Approach)		1.50	1.50	3.00
EXPERIENCE	40%			
*Firm/Team	60%	3	2	1
*Project Manager	40%	3	1	2
Weighted Score (Experience)		3.00	1.60	1.40
Principal-in-Charge/Technical advisor Project Manager		Bob Ohlund Michael Metts Amanda Combs &	Eric Lovering Kevin Saleh	Tom Epperson Neha Gajjar
Project Engineer QA/QC Process Mechanical/ Mechanical Civil		Brandon Lacap Bob Ohlund Greg Guillen Charles Greely	Jay Jung Richard Davis Sam Lee Adam Betsworth	Matt Vera Steve Ellis
Electrical I&C		<i>subconsultant</i> <i>subconsultant</i>	Mike Assadourian Mike Assadourian	Mazen Kassar/Nicole Han
Structural Architect		Galit Ryan <i>subconsultant</i>	Alice Maupin	Astrid Fleischer Victor Ramirez/Eric Yuen
<u>Subconsultants:</u>			OnPoint	
Surveying Potholing		Guida Surveying TC Mueller Converse Consultants	Landsurveying Bess Testlab Associated Soils Engineering Resolved Analytics	
Geotechnical (optional) Reservoir Mixing CFD Modeling		Flow Science Mores Pham Associates MBN Group		
Electrical Architect				
COMBINED WEIGHTED SCORE		2.10	1.54	2.36
		Hours	Hours	Hours
Task 1 Project Management		149	134	170
Task 2 Preliminary Design Report		543	784	428
Task 3 Final Design		1,451	1,051	1,342
TOTAL DESIGN HOURS		1,994	1,835	1,770
Optional Task Hours		319	164	39
TOTAL HOURS		2,313	1,999	1,809
Sheet Count				
Number of Construction Drawings		55	50	50
PDR Meetings		4	5	4
Review Meetings		4	4	4
Total Meetigs		8	9	8
FEE				
Task 1 Project Management		\$38,304	\$32,682	\$42,400
Task 2 Preliminary Design		\$118,626	\$136,994	\$80,630
Task 3 Final Design		\$268,924	\$170,521	\$193,540
Optional Tasks Included in Total Fee				
CFD Analysis of Outer Ring		\$29,683	\$13,596	\$32,890
Geotechnical Investigation		\$14,985	\$9,646	\$16,310
SCE Permitting Assistance		\$3,767	\$4,724	\$3,970
Reservoir Access Road/ Security Fence		\$8,795	\$7,314	\$10,260
TOTAL FEE		\$483,084	\$375,477	\$380,000
Average \$/hour		\$209	\$188	\$210
Professional Liability Insurance General Liability Insurance		YES YES	YES YES	YES YES
FORCED RANKINGS:		2	1	3
1-First				
2-Second				
3-Third				

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Proposal for



ENGINEERING DESIGN SERVICES FOR THE TURTLE ROCK CHLORAMINE BOOSTER STATIONS

FEBRUARY 12, 2021



WATER INFRASTRUCTURE ENGINEERS

1199 SOUTH FULLERTON ROAD
CITY OF INDUSTRY, CA 91748
(626) 912-3391

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APPENDICES

Appendix A [Resumes](#)

A. SCOPE

Project Understanding, Approach, and Scope of Work

LEE + RO's approach to each Project is tailored to the established goals, objectives, schedules, and budgets identified by our clients. Our work plans are detailed and specific to each Project's requirements. However, core values and principles are employed and integrated into each Project undertaken. Project development begins at the Request for Proposal (RFP) stage and culminates in creating final reports or design documents. We have reviewed the RFP and visited the project site to assess the work's technical requirements and the delivery schedule. We will deliver the work within the time constraints established by the District. We have the ability to make these commitments and assurances because of our experienced and diverse staff, and our corporate organization allows us to respond to requests and organize resources as needed. Each phase is essential to overall project success.

Project Understanding

Irvine Ranch Water District (District) currently owns and operates the dual tank below-grade reinforced concrete circular tanks with a total capacity of 5.0 Million Gallon (MG) capacity Turtle Rock Zone 3 (TR Z3) Domestic Water Reservoir and Zone 3 to Zone 4 booster pump station located at 13 ½ Minaret in the City of Irvine. The water in the reservoir is currently disinfected with chloramines injected in zone 1 to zone three booster station. IRWD has experienced degraded water quality at the TR Z3 Res due to nitrification caused by chlorine residual loss, excess free ammonia, and low water supply turnover. IRWD doses chlorine and ammonia at the Turtle Rock Zone 1 to Zone 3 Pump Station to reduce nitrification in the system. Still, this process is susceptible to chemical precipitation in the pipe where the chemical is injected and has required multiple injection pipe replacements. This Project will design a chloramine booster station at TR Z3 Reservoir to address and avoid the nitrification and in-pipe chemical precipitation issues. This facility will be similar to the other chloramine booster stations in service at multiple reservoirs throughout IRWD's potable system.

The Project aims to improve the water quality in Turtle Rock Zone 3 and Zone 4 by constructing a chloramine booster station at Turtle Rock Zone 3 Reservoir and upgrading the mixing inside the reservoir.

Engineering services include:

- Design improvements including the chloramine booster station building with chemical storage for chlorine and ammonia, chemical metering pumps, chlorine analyzer equipment, reservoir mixing equipment, and related electrical, instrumentation, and control equipment.
- Evaluate the station's alternative locations, including the three (3) potential locations shown on RFP's Exhibit "H" and any other feasible alternative within IRWD's property.
- The station could meet chemical storage code requirements without falling under CALARP classifications and meet all emergency response access requirements.
- The station's location and design must allow for safe and efficient delivery of chemicals via the existing Turtle Rock Zone 4 Pump Station (TR Z4 PS) driveway.
- The station's location should allow for operation and maintenance of the existing pump station and pipelines during and after construction and provide operation and maintenance access for the new chloramine booster station facility.
- Evaluate and recommend improvements to provide adequate mixing of the existing reservoir, including but not limited to recommendations for mixer type and locations, best possible maintenance access through the roof opening.
- Develop a chemical dosing control strategy based on chlorine residual. Evaluation of the existing chlorine analyzers located on top of the reservoir and recommendation of improvements including but not limited to installing new analyzer equipment inside the chloramine booster building and adding new sample pumps or utilizing the mixing pumps to supply sample to the analyzers. Evaluate the performance and reliability benefits and costs associated with relocating the analyzer equipment inside the building versus the current locations.
- Evaluate the existing power supply at the TR Z4 PS and the power supply for the current mixers and analyzers and identify the necessary electrical improvements to power the new chloramine booster station mixers and analyzers.
- Design the instrumentation and control system for the new chloramine booster station, including a new PLC with HMI, chemical tank levels, leak detection for the chemical containment and chemical delivery system, chemical dosing control based on chlorine residual, and feedback from the reservoir mixers. The system will connect to SCADA via a hard-wired connection back to the existing PLC and radio communications system in the TR Z4 PS.
- The design will include the addition of sewer service to the new chemical containment drainage system to facilitate drainage for a routine cleaning or in the case of a chemical spill. The drain should include a drain valve, which generally is closed to prevent a chemical spill from entering the sewer before neutralization and cleanup.
- The design will include providing access to the reservoir from the chloramine building, including stairs and a concrete walkway along the pump station's backside to allow staff access to the top of the existing pump station building and the reservoir.
- Removal of the existing BBQ and other debris on top of the reservoir and repainting the exterior of the natural gas tank in the pump station driveway.
- Optional task – design of a steel or chain-link fence along the access path to the reservoir and demolition and widen the access road to the reservoir to provide better construction work and ongoing maintenance.

Technical Approach

The LEE + RO team has extensive knowledge and experience designing chemical booster stations and reservoir mixing, critically has reviewed available documents, and has formulated our preliminary analysis. We have identified the following design considerations and key points for this Project.

Design Considerations and Key Points

Underground Utilities

The exact location of all underground piping, vaults, electrical/control duct banks located within pump station property shall be identified and shown on plans before finalizing the chemical booster station location to avoid/minimize utility relocations. Suppose any relocation of piping, electrical/control duct banks, and pull boxes are deemed necessary; in that case, we will identify them at the early design stages, which will help plan construction sequencing accurately. After creating the site base map and showing the location of underground utilities, according to available record drawings, we will identify the potholing locations for utilities that may interfere with the chemical booster station's construction. Any upfront information gathering will ease construction and avoid impacting the schedule or budget with unnecessary change orders or stand-by time.

IRWD Standards

LEE + RO has a broad knowledge of IRWD and industry standards and federal, State, and local government requirements and will implement these requirements and recommendations into this

Key elements of our project management are:

Project's design. These agencies include but are not limited to the Environmental Protection Agency (EPA), California Department of Public Health (CDPH), and Orange County Fire Authority (OCFA).

Project Management

LEE + RO's project manager will conduct project management activities to ensure adherence to scope, schedule, and budget; promote efficient communication between us, IRWD, and others as required; and implement an effective quality assurance/quality control (QA/QC) program. Our project manager will be the point of contact with the District and will have full technical and administrative responsibility for the Project. Our project manager's responsibility is to meet with the District regularly, ascertain the goals, incorporate them into the Project promptly, and communicate them to the project team members to develop a superior product within the budget and schedule. He will work with our QA/QC Manager to ascertain that the Project is reviewed before any milestone submittal and is of decent quality.

Preparation of a Management Plan is one of the first tasks that will be undertaken for the Project. The Management Plan will define project roles and responsibilities, communicate management philosophy, and establish project procedures and policies. Specifically, our plan includes:

- Project policies and procedures that will cover document control, lines of communications among the project team members and the District, sign-off procedures, report formats, and billing instructions.
- The project performance plan identifies specific work scopes on a task-by-task basis and assigns schedules and budgets to each task establishing the base for subsequent control.

KEY ELEMENTS OF PROJECT MANAGEMENT

Project Identification	Work Program	Project Management	Technical Execution
Listen to the Client	Establish Work Plan and Schedule	Progress Reporting	Project Execution
Ascertain project Needs	Establish Work Breakdown Structure (WBS)	Comparison of Progress Reporting with WBS and Resources Loaded Schedule	Internal Quality Control
Identify Problem/Constraints	Resource Determination	Resolution of Discrepancies	
Review Schedule	Review and Adjustment in Plan and Schedule	Identification of Impact(s)	
Review Budget	Establish Project Milestones	Development of Mitigation (s)	
Site Review		Continuous Coordination	
Data Review			
Determine Expectations			
Determine Approval Process			
Establish Scope of Technical Services			

QA/QC

We have developed and implemented a proven QA/QC measures to ensure ongoing and consistent quality control throughout all project phases. LEE + RO's QA/QC plan for this Project includes:

- Review of project deliverables and definition of procedures and required standards.
- Identification of elements of the Project review requiring special quality control attention or emphasis.
- Identification of technical experts required for and consultation.
- Estimate of resources required for quality control functions.
- Description of specific quality control procedures to be followed in particular activities, including the level and frequency of review required.

Construction Staging

The contractor staging area will be considered during the design and identified on the plans to ensure that the Operations will have access to the facility during the construction and avoid future conflicts and potential change orders due to access restraints.

Constructability Review

Contract documents will be developed, including construction plans, special provisions, and cost estimates. These documents will be reviewed for constructability by our construction management team to avoid potential construction issues.

Facility Operation

We understand that the facility shall remain operational during the construction, and preferably, even a short-term shutdown shall be avoided. LEE + RO will select the type of mixer to prevent any shutdown and keep the reservoir up and running during the construction of mixers and chemical injection points.

Potential Site Layouts

To provide an accurate count for the number of construction drawing sheets and provide a fair assessment of engineering consulting fees, LEE + RO presents four Alternative "big picture" site layout options. Our initial effort will also allow for faster development of the PDR. During the initial workshops with IRWD, we can choose which of the four options is preferred so we can provide various focused options of the preferred "big picture" alternative.

Possible Building Layout

We have developed an initial conceptual layout so the overall size of each of the various components could be examined to fit within site. During the PDR, we will create multiple building layouts and further refine as necessary. Besides, we can consider splitting the building up into two pieces if determined to benefit. Not all of the appurtenance is shown at this conceptual stage, such as ventilation, air condition, chemical pumps, etc. The final design of the entire site and the pump station will consider fire hardening methodologies as required.





FIGURE 1 - BOOSTER STATION LOCATION (OPTION A)

Booster Station Location – Option A	
Advantages	Disadvantages
Minimum Site Grading	Flow Meter Vault Vents need to be Relocated
Minimum Visibility from the street	Narrow Access Way between Existing Building and Proposed Building
No Need of Relocating Storm Water V-Ditch and Underground Drain and Overflow Piping	May Need to relocate Main Power Supply Conduits
Existing retaining Wall Remains in Place	
Easy Maintenance and Operation Access	
Easy Chemical Supply and tanks Fill	

- The figure is conceptual and will be updated in Preliminary Design Phase.



FIGURE 2 - BOOSTER STATION LOCATION (OPTION B)

Booster Station Location – Option B	
Advantages	Disadvantages
Minimum Site Grading	Flow Meter Vault Vents need to be Relocated
Minimum Visibility from the street	Perimeter Walls adjacent to Proposed Building Need to Be relocated
No Need of Relocating Storm Water V-Ditch and Underground Drain and Overflow Piping	Need to relocate Main Power Supply Conduits
Existing retaining Wall Remains in Place	Maintenance Trucks Accessibility

- The figure is conceptual and will be updated in Preliminary Design Phase.



FIGURE 3 - BOOSTER STATION LOCATION (OPTION C)

Booster Station Location – Option C	
Advantages	Disadvantages
No Need of Relocating Overflow and Drain Piping	Existing retaining Wall Shall be Modified
Minimum Visibility from the street	Maintenance Trucks Accessibility
Easy Chemical Supply and tanks Fill	Storm Water V-Ditch Shall be Re-designed and Relocated
Flow Meter Vault Vents Do Not need to be Relocated	Excavation Accessibility
	Grading; Plant removal



- The figure is conceptual and will be updated in Preliminary Design Phase.

FIGURE 4- BOOSTER STATION LOCATION (OPTION D)

Booster Station Location – Option D	
Advantages	Disadvantages
No Need of Relocating Overflow and Drain Piping	Existing retaining Wall Shall be Modified
Lower Construction Cost Than Option C	Visibility from the street
Easy Chemical Supply and tanks Fill	Storm Water V-Ditch Shall be Re-designed and Relocated
Flow Meter Vault Vents Do Not need to be Relocated	Excavation Accessibility
Maintenance Trucks Accessibility	Grading; Plant removal

Chemical Storage

Since the City of Irvine Building and Safety Department / Orange County Fire Authority will review structural plans, LEE + RO's design team will obtain a copy of the Building and Safety's Plan Correction Checklist at the beginning of the design to assist us in complying with the requirements and to expedite review.

The occupancy category of the chemical booster station building will be "Utility and Miscellaneous Group U" if maximum quantities of hazardous material stored on-site follow the amounts indicated in Table below:

**TABLE 1:
CODE MAXIMUM ALLOWABLE QUANTITIES OF HAZARDOUS MATERIALS FOR
NON-HAZARDOUS INDOOR OCCUPANCY CATEGORIES**

Chemical	CBC Classification	Applicable Code Table and Chapter	NFPA Hazard Rating	Allowable Quantity per Control Area per Code	Code Occupancy Classification if Limit Exceeded
Ammonium Hydroxide NH ₄ OH (Aqueous Ammonia) 19%	Toxic Corrosive Liquid	CBC 307.1(1) CBC 307.1(2) CBC 414.2.5(1) CFC 2703.1.1(1) CFC 2703.1 1(2)	Health 3 Fire 1 Reactivity 0 CORR	100 gallons	H-4
Ammonium Hydroxide NH ₄ OH (Aqueous Ammonia) 29%	Toxic Corrosive Liquid	CBC 307.1(1) CBC 307.1(2) CBC 414.2.5(1) CFC 2703.1.1(1) CFC 2703.1 1(2)	Health 3 Fire 1 Reactivity 0 CORR	100 gallons	H-4
Sodium Hypochlorite NaClO 12-15% (Bleach)	Corrosive Liquid	CBC 307.1(1) CFC 2703.1 1(2)	Health 3 Fire 0 Reactivity 1 CORR OX	500 gallons	H-4

CFC Section 2703.4 requires material safety data sheets (MSDS) to be available on-site for all materials shown above.

CFC Section 2704 requires hazardous materials signs and placarding be placed on all stationary containers and above-ground tanks and at entrances to locations where materials listed above are stored or dispensed.

We will propose the following safety measures for chemical storage building:

- Smoke Detector to detect fast flaming fires and dense smoke, which could be FAP-325-V2F Analog Photoelectric Smoke Detector or any other model, that will be discussed with the District during the preliminary design.



- Ammonia Gas Detector for an on-line monitoring system to detect chlorine or ammonia gas in ambient air, which could be Acutec 35 system by Evoqua or District's preference, will be discussed during the preliminary design.



- Scrubber tank to address discharging vapor from ammonia tank during operation and filling. It is essential to accommodate proper Actual Cubic Feet Per Minute for the system.



Scope of Services

The Project is relatively straightforward in its scope. We have reviewed the scope of services in Section II of the District's RFP and take no exceptions to the scope as prepared by the District. The scope of services below is essentially the District's scope with the following clarifications:

1. Site visits will be performed by key staff as necessary (minimum of two site visits). We will follow all District's health and safety protocols.
2. CFD modeling of the inner reservoir is added to the work scope to ensure proper mixing and document the inner segment's future mixing condition.

The detailed scope of work presented herein shall be used to establish the minimum requirements for the Project. We have reviewed the work scope and RFP's attached documents and provide a comprehensive work scope that reflects all the efforts needed to complete the Project.

IRWD has developed guidelines and standards for many aspects of the design and construction process. All work performed on this Project must conform to IRWD standards and requirements, including, but not limited to, the following:

1. IRWD Project Manual: IRWD has developed and periodically updates the IRWD Project Manual, which contains front-end documents related to bidding, agreements, general provisions, and special provisions. This manual shall be edited and incorporated into the Contract Documents for all construction contracts.

2. IRWD Construction Manual: IRWD has developed and periodically updates the IRWD Construction Manual, which contains General Technical Specifications and Standard Drawings to be used for the preparation of plans and project technical specifications. This manual shall be incorporated into the Contract Documents for all construction contracts.

Work shall generally consist of, but not be limited to, the following tasks.

Task 1 – Project Management

LEE + RO's project management is set up to deliver a technically outstanding project within schedule and budget. We will accomplish this by establishing a work breakdown structure and schedule at the inception of the Project. We will communicate with the District to ascertain that the Project's goals are clear, all constraints are identified and properly addressed as the Project is developed. Our project manager has implemented this approach on numerous successful projects and is well equipped to oversee the Project's completion. Key elements of our project management are:

A. Preparation of Project Status Reports: LEE + RO recognizes the District's need for comprehensive, up-to-date information and will Prepare weekly and monthly status reports.

Each weekly status report will be submitted on Monday and shall consist of a brief (one to two paragraphs) e-mail summarizing the activities completed the previous week, the activities planned for the upcoming week and critical decisions that need to be made.

Each monthly status report will be submitted along with the billing invoice for that month. It will provide more detail, summarize the work completed, and review work status relative to budget and schedule. The project schedule will also be updated every month for inclusion in the monthly status report. This report also includes discussing events occurring during the month that affect the estimate of completion, problems, issues, and actions being taken to mitigate the District's issues.

B. Meetings: Organize, attend, and conduct meetings as required. Prepare and submit meeting agendas for IRWD review and concurrence at least five days before the meeting. Prepare draft and final minutes for all meetings and workshops and submit them to IRWD within one week of the meeting. Due to the ongoing pandemic, all meetings will be virtual meetings unless they are field meetings conducted outside. For budgeting purposes, the following meetings are budgeted.

C. Quality Assurance/Quality Control: The quality of our work product is a corporate commitment at LEE + RO. Past performance with respect to the quality of our work and compliance with schedules is indicated by repeat business, low insurance rates, minimal scope or cost changes, and recognition by industry peers. Over 90 percent of our work is with repeat clients.

A key element in satisfactorily completing any project is implementing a quality assurance/quality control program implemented for all our projects.

The Project is regularly reviewed by the Project Manager, who monitors the Project's progress against established work breakdown structure and schedule. The Project Engineer reviews the entire project team's work weekly for technical accuracy, consistency, and coordination between the disciplines. The Project Manager makes decisions regarding the project issues in consultation with the project engineer and lead discipline engineers. Additionally, the Project is reviewed by the assigned QA/QC Manager before any submittal for conformance to established standards and constructability. Any technical difficulties, schedule slips, or previously unforeseen conditions are immediately recognized, quantified, and addressed through this process. The status is reported to the District in project status reports. As a result, an interactive, responsive, and proactive quality control system is utilized.

Table 2: Project Meetings Description

Meeting/Workshop	Description	LEE + RO's Attendees
Preliminary Design Kickoff and Site Visit	One (1) two-hour meeting on-site or virtual	Principal-in-Charge, Project Manager, Project Engineer, Electrical/Process Engineer, Structural Engineer
Chloramine Station Location Selection Meeting	One (1) two-hour meeting; Virtual Meeting	Project Manager
Present Draft PDR Submittal Meeting	One (1) two-hour meeting; Virtual Meeting	Project Manager, any team member as needed
Present Final PDR Submittal Meeting	One (1) two-hour meeting; Virtual Meeting	Project Manager
Present the 60% design and record IRWD's comments	One (1) two-hour meeting; Virtual Meeting	Project Manager
Present the 90% design, discuss IRWD's comments, and discuss how the comments were addressed	One (1) two-hour meeting; Virtual Meeting	Project Manager
Present the 100% design, discuss IRWD's comments, and discuss how the comments were addressed	One (1) two-hour meeting; Virtual Meeting	Project Manager
Final design plan signing	One (1) two-hour meeting; on IEWD Office	Staff(s) Authorized to Sign
Supplementary Site Visit	One (1) two-hour meeting on-site	Project's team member(s) who need to collect field information. The meeting will be coordinated with the District at an early stage of the design, if necessary.

We will provide evidence of quality control on the Project to the District with each submittal. These will consist of checked calculations, checked plans, specifications, estimates, and correspondence regarding the QA/QC program.

Task 2 - Preliminary Design

LEE + RO will perform the following subtasks as part of the preliminary design phase. The primary goal of this task is to establish facility design criteria. The subtasks will be documented and compiled into a Preliminary Design Report (PDR) as summarized below.

A. Chloramine Booster Station: Our team will document the preliminary design criteria for the construction of a new Chloramine Booster Station:

1. Chloramine Booster Station Building:

a) Evaluate multiple locations on District Property and make a recommendation for the optimal location and building design considering the following criteria:

- i. Constructability and construction cost
- ii. Operation and maintenance access for new and existing facilities
- iii. Chemical storage and fire code criteria
- iv. Access for chemical deliveries through the existing pump station driveway
- v. Minimizing impact to the existing pump station and reservoir, including buried pipeline, which must maintain operations throughout the Project
- vi. Review of existing geotechnical reports and an optional geotechnical investigation;
- vii. Minimizing visual impact to the surrounding neighborhood

The evaluation will be summarized in a matrix format with weighted criteria of evaluation and score of each alternative for that criteria. We will prepare a conceptual layout for each potential building location.

2. Chemical storage system for 12.5% sodium hypochlorite and aqueous ammonia, including tank, ammonia chiller, tank level equipment, secondary containment, and leak detection. Our team will evaluate the use of 19% aqueous ammonia as an alternative to 29% (current concentration of aqueous ammonia used by IRWD) to minimize odor and vapor lock issues. We will determine the proposed switch's implications to 19%, including the differences in chemical delivery cost and incidence of delivery, differences in chemical dosing performance, and differences in equipment required (larger tank, chiller versus no chiller). The evaluation results will be summarized in a matrix format.

Based on this information, the District will decide which chemical concentration to use at this site.

3. Chemical delivery system, including specifying pumps and piping and secondary containment and leak detection.

4. Evaluation of the existing power supply at TR Z4 PS and recommendations for improvements to power the proposed chloramine booster station and mixer analyzer improvements.

5. Instrumentation and control system for chloramine booster station including control description for all chemical delivery, leak detection, chemical level, and reservoir mixing equipment systems and specifying I&C system equipment for the proposed improvements.

B. Reservoir Mixing System: Our Project team will evaluate the existing reservoir mixing system and make recommendations for improvements. These recommendations will include specifying new mixer equipment and locations to properly mix chemicals at the injection point and prevent dead zones in the reservoir while providing maintenance access to the equipment.

C. Optional CFD Analysis of Outer Ring: Our team will perform the CFD analysis of the inner and outer ring to verify the optimal size, type, and mixers' location to complete the reservoir and the chemicals injection point. We highly recommend performing CFD analysis for both inner and outer reservoirs as a mandatory task. It will help select the best mixing option using existing openings in the reservoir's roof and prevent shutdowns for the reservoir roof modifications.

a) Establishing the Range of Mixer Designs to be Tested

There are variety of commercially available mixer designs. We have gathered a significant amount of information useful in down-selecting the appropriate technology to be used at the Zone 3 Reservoir through that experience.

The most common type of mixer used in the water industry is the submersible impeller type. These mixers are inexpensive but have two significant drawbacks – limited mixing efficiency and limited accessibility for maintenance.

Another common type of mixer is the eductor or venturi-nozzle type mixer. This mixer requires fluid pumping but has a greater mixing efficiency and no submerged mechanical or electrical components. The eductor design takes advantage of the venturi effect to move more significant amounts of fluid than are directly impact, with a multiplication factor of around three typically. Eductor locations can be manipulated to excite the whole tank and move many more fluids if run continuously.

Lastly, new mixer designs have recently come onto the market to reduce maintenance and greater mixing efficiency. Two of these are the Blue Fusion and the Pax Lily Impeller. The Blue Fusion technology is a modified pipe stand that is custom designed for each potential application and provides energy-efficient mixing and aeration. The Pax technology is especially beneficial in cylindrical tanks where the cyclonic flow it induces can have a multiplicative effect when used continuously.

b) CFD Evaluations

Once an initial set of mixer designs and configurations is established for testing, our team will carry out the required simulations to evaluate each's performance. The designs and configurations will be further down-selected by comparing the relative performance of each. Those mixer designs and configurations showing the highest potential will be refined and further evaluated as needed to establish the design that provides the best balance of mixing efficiency, cost, and low maintenance requirements.

For each case modeled in each project phase, the models will predict velocity, fuel, air, temperature, pressure, and particulate profiles in the fluid space being analyzed. At the end of each phase of the Project, a PowerPoint-style report will be issued that summarizes the CFD model setup, geometry, flow cases, and results for each case, as well as any animations of the relevant cases.

D. Chlorine Analyzer System: Our team will evaluate the existing chlorine analyzer system and provide recommendations for improvements, including specifying replacement analyzer equipment as necessary to provide proper feedback for chemical dosing.

E. Site Survey: Our sub-consultant will survey the District's Turtle Rock property, including the reservoir, reservoir access road, and pump station, to create an overall topographic map including one-foot contours and spot elevations, specific dimensions and locations of existing utilities, and location of potholes, easements, and property lines so that right of way information and utility information may be incorporated into the topographic mapping and serve as the basis for the design of the Project.

F. Potholing Underground Utilities: Perform potholing to locate utilities or other physical features, including all IRWD utilities and potholes (10) utilities, to ensure none of the utilities will interfere with the construction of the building.

G. Geotechnical Investigation: The geotechnical report (G. A. Nicoll & Associates, 1980) in Exhibit "C" is a compaction (as-built) report, containing observation and density test results during grading/compaction of backfill soils for construction of Turtle Rock Booster Pump Station. The geotechnical investigation report dated 1978 was not part of the package provided by IRWD. We recommend performing a geotechnical investigation. Additionally, since building code and seismic design requirements have changed considerably over the past 42 years, the site geotechnical information needs to be verified/updated even if we will be provided with the 1978 report.

H. Optional Geotechnical Investigation: If necessary, conduct a geotechnical investigation and drill one soil boring to determine the geotechnical conditions. Provide soil analysis for use in the design.

The geotechnical report will include:

- Site plan
- Boring log

- Site conditions
- Geologic hazards
- Seismicity
- Foundations
- Earthwork
- Retaining walls
- Corrosion
- Pavement design

This task will be included in the professional services agreement's work scope and will be authorized if needed.

I. Permitting Assistance: LEE + RO will identify and apply for all applicable permits required for construction. This task will include identifying all applicable code requirements for the chemical facility and coordinating with the OCFA to permit and approve the plans, which will consist of creating a comprehensive site fire master plan for existing and new facilities.

J. Optional Permitting Assistance: Include an optional item for permitting and coordination with SCE to relocate existing SCE switching capacitor or transformers if necessary to facilitate the improvements.

K. Project Schedule: Our project manager will submit a construction project schedule that reflects coordination items, date of completed plans, critical path issues, any long lead items, and IRWD review times.

L. Estimates of Probable Construction Costs: our team will provide and submit a preliminary estimate of the construction project's probable construction cost.

M. Team Meetings: Our project manager will schedule and lead meetings with IRWD to ensure that all design, operational, and maintenance issues are addressed. He will provide meeting minutes and action items. This task will help determine that all the technical problems are addressed and that the Project stays on schedule. During preliminary design, scheduled meetings include the project kickoff meeting, coordination meetings to discuss electrical and control improvements, and sequence of construction, preliminary design progress meeting to review the preliminary design recommendations before submitting the draft PDR a final PDR submittal meeting.

N. Technical Specifications: Our team will produce an outline of the Project Manual for the construction project. The outline shall include a list of technical specifications, including items not already covered by IRWD's Construction Manual, latest edition.

O. Construction Plans: We will prepare preliminary design drawings in the latest AutoCAD version and use NCS V4.0 layering standards on 22-inch x 34-inch sheets utilizing IRWD's standard border template. Plans shall be prepared using the NAVD 88 and NAD 83 survey standards. The following sheet list is anticipated for the preliminary design. The sheet list provided herein is not intended to be exhaustive.

TABLE 3: LIST OF DRAWINGS

SHEET NO	DWG NO.	DESCRIPTIONS
GENERAL		
1	G-1	TITLE SHEET
2	G-2	LOCATION & VICINITY MAPS & DRAWING INDEX
3	G-3	GENERAL NOTES - 1
4	G-4	GENERAL NOTES - 2
5	G-5	SYMBOLS & ABBREVIATIONS
DEMOLITION		
6	D-1	DEMOLITION PLAN - 1
7	D-2	DEMOLITION PLAN - 2
8	D-3	DEMOLITION DETAILS - 1
9	D-4	DEMOLITION DETAILS - 2
CIVIL		
10	C-1	SITE PLAN
11	C-2	TEMPORARY RESERVOIR ACCESS ROAD AND SITE FENCING
12	C-3	GRADING PLAN
13	C-4	ACCESS STAIRWAY AND SITE FENCING MODIFICATIONS PLAN
14	C-5	YARD PIPING AND DRAIN PIPING
15	C-6	FENCE AND RESERVOIR ACCESS MODIFICATIONS PLAN
16	C-7	CIVIL DETAILS - 1
17	C-8	CIVIL DETAILS - 2
ARCHITECTURAL		
18	A-1	ARCHITECTURAL ABBREVIATIONS, NOTES, & SCHEDULES
19	A-2	ARCHITECTURAL PLAN
20	A-3	ARCHITECTURAL ELEVATIONS
21	A-4	ARCHITECTURAL DETAILS - 1
22	A-5	ARCHITECTURAL DETAILS - 2
STRUCTURAL		
23	S-1	STRUCTURAL ABBREVIATIONS & NOTES
24	S-2	STRUCTURAL FLOOR AND ROOF FRAMING PLAN
25	S-3	STRUCTURAL RESERVOIR ROOFTOP PLAN
26	S-4	STRUCTURAL BLDG SECTIONS - 1
27	S-5	STRUCTURAL BLDG SECTIONS - 2
28	S-6	STRUCTURAL BLDG DETAILS - 1
29	S-7	STRUCTURAL BLDG DETAILS - 2
MECHANICAL		
30	M-1	MECHANICAL PLAN - 1
31	M-3	MECHANICAL PLAN - 2
32	M-4	MECHANICAL SECTIONS - 1
33	M-5	METERING PUMPS PLAN AND ELEVATION
34	M-6	INNER TANK MIXER PLAN, SECTION, AND DETAILS
35	M-7	OUTER TANK MIXER PLAN, SECTION, AND DETAILS
36	M-8	MECHANICAL DETAILS - 1
37	M-9	MECHANICAL DETAILS - 2

SHEET NO	SHEET NO	DESCRIPTIONS
ELECTRICAL		
38	E-1	ELECTRICAL SYMBOLS & ABBREVIATIONS
39	E-2	SINGLE LINE DIAGRAM, AND LP "A" ELEVATION
40	E-3	CONDUIT PLAN
41	E-4	LIGHTING PLAN, SCHEDULE, AND DETAILS
42	E-5	DIGITAL AND ANALOG I/O
43	E-6	NITRATE AND CHLORINE ANALYZER ELEVATIONS AND CONTROL DIAGRAM
44	E-7	GENERAL ELECTRICAL DETAILS
INSTRUMENTATION		
45	I-1	INSTRUMENTATION SYMBOLS & ABBREVIATIONS
46	I-2	AQUA AMMONIA STORAGE PROCESS AND INSTRUMENTATION DIAGRAM
47	I-3	SODIUM HYPOCHLORITE STORAGE PROCESS AND INSTRUMENTATION DIAGRAM
48	I-4	RESERVOIR MIXERS PROCESS AND INSTRUMENTATION DIAGRAM
49	I-5	INSTRUMENTATION DETAILS - 1
50	I-6	INSTRUMENTATION DETAILS - 2
50	TOTAL DRAWINGS*	

* If the location of the chloramine booster station building requires the construction of a retaining wall, two sheets for retaining wall design will be added to the set of drawings

P. Preliminary Design Report (PDR): The work described above will be summarized and compiled into a PDR. At a minimum, the PDR will summarize the results of the subtasks identified above and additional design criteria identified by our team during the preliminary design phase.

Deliverables:

Eight (8) copies of the Draft PDR and one (1) electronic copy in PDF shall be submitted for review. Upon resolution and incorporation of review comments, eight (8) copies of the final PDR and one (1) electronic copy in PDF shall be submitted.

Task 3 Final Design

The final design shall result in the preparation of the Contract Documents. In the final design phase, our team shall address the items discussed below:

A. Project Manual: Our team will prepare a Project Manual in standard IRWD format for the Contract Documents. IRWD's front-end documents shall be utilized. Our team will assess IRWD's documents to determine any needed supplemental special provisions that should be added to comply with IRWD's general provisions and front-end requirements. The Project Manual shall describe the allowable shutdown durations and sequencing associated with construction activities. The Project Manual shall also include the IRWD General Technical Specifications, modifications to it, and any project-specific technical specifications.

B. Construction Plans: LEE + RO will prepare detailed construction drawings in the latest version of AutoCAD and using NCS V4.0 layering standards on 22-inch x 34-inch sheets utilizing IRWD's standard border template. Sheet index/location map/legend, general notes, construction notes, and details shall be included. Construction notes shall be used (callouts on the plans are not allowed) on all construction drawings. Construction plans shall be prepared using the NAVD 88 and NAD 83 survey standards.

C. Electrical/Instrumentation: Our team will prepare an operational scheme including P&IDs, single line diagrams, control equipment list, and control loop descriptions. Before this process, Our team shall meet with IRWD staff to incorporate IRWD's standard operations, programming, and tagging requirements into the design. Our team shall develop and provide the operational scheme and functional descriptions (in plain English) for District review and approval.

D. Project Schedule: Our project manager will maintain and consistently update the project schedule, including detailed schedules for both design and construction activities. The schedule shall include all critical factors impacting the project schedule, including implementation, permitting, and coordination activities to ensure that the Project is completed per the proposed schedule. The schedule shall be prepared in Microsoft Project. A preliminary schedule outlining the preliminary and final design phase activities shall be included in the Proposal.

E. The opinion of Probable Construction Cost: Our team will prepare a detailed and itemized opinion of probable construction cost for the proposed upgrades, which shall be updated and submitted with each of the design deliverables described below.

Deliverables:

60% Design Submittal: Six 11" x17" and two 22" x34" bound copies and one CD containing a single PDF file of the entire plan set. Show civil/site, demolition, process mechanical, structural, and electrical plans. Show necessary mechanical equipment, structural layouts, pipeline alignments, preliminary profiles, and existing utilities at a minimum. Provide a complete table of contents for the Project Manual.

90% Design Submittal: Six 11" x17" and two 22" x34" bound copies of the 90 percent submittal and one CD containing a single PDF file of the entire plan set. Show concepts of each design component such as civil, structural, demolition, process mechanical, electrical, and instrumentation. Show plan, profile, connections, details, and location of appurtenances. Plan and profile drawings and process mechanical details/drawings shall be developed to a high detail level. Provide five color-coded copies of the 90 percent Project Manual, including all sections; contract documents, general provisions, special provisions, general requirements, technical specifications, and appendix.

100% Design Submittal: Six 11" x17" and two 22" x34" bound copies of the 100 percent submittal, one CD containing AutoCAD files for the entire plan set, and one CD containing a single PDF file of the entire plan set. Include complete plans and five color-coded copies of the Project Manual, a notebook with the design calculations (including, but not limited to, process mechanical, civil, structural, electrical, pipe thickness, and restraint), and one CD containing all MS Word files used in the preparation of the Project Manual.

F. Final Submittal: PDF files of the final submittal. One full-size final stamped and signed reproducible plan consisted of a mylar title sheet and all remaining sheets on bond paper, and one original signed Project Manual for District's signatures.

G. Addenda Preparation and Pre-Bid Meeting: During the bidding period, LEE + RO will provide information and clarify bid documents to prospective bidders. This shall include the preparation of up to three addenda, including revisions to the design plans and specifications and assistance with addressing bidder questions. At a minimum, addenda preparation activities shall include:

1. **Plan Revisions:** We have budgeted 24 hours of appropriate staff time for plan revisions to the construction drawings.
2. **Specification Revisions:** We have budgeted 24 hours of appropriate staff time for revisions or additions to the project specifications.
3. **Bidder Questions:** We have budgeted 24 hours of appropriate staff time to address and respond to bidder questions.
4. **Pre-Bid Meeting:** Our project manager will attend a two-hour pre-bid meeting during the bidding period. This may include a site visit with potential bidding contractors.

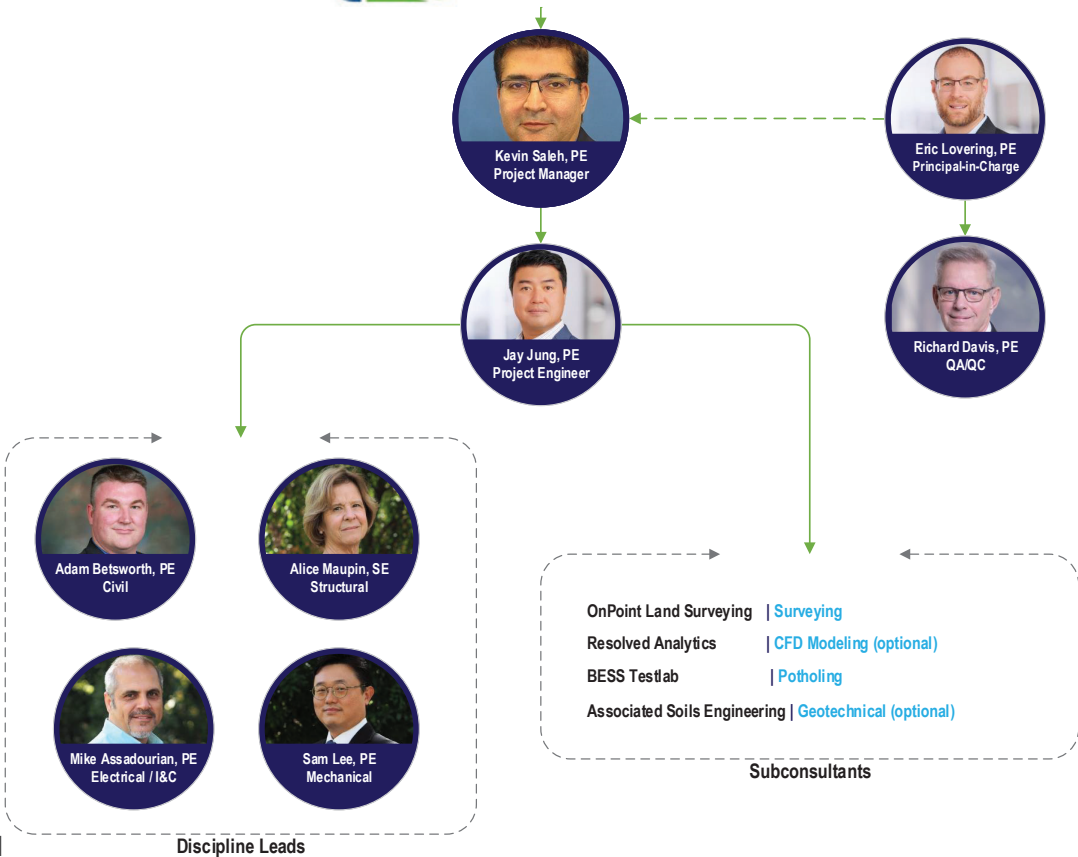
B. TEAM

The LEE + RO key staff members chosen for this project have significant experience executing similar services for other municipal agency clients. We have assembled a team that can successfully deliver this complex project to you in the most efficient manner. mechanical, civil, electrical, and instrumentation and controls (I&C) disciplines are all LEE + RO employees. This will make the LEE + RO team efficient and productive. The team includes three subconsultants which will augment our expertise. Full resumes for the proposed LEE + RO team members are in **Appendix A**.

Kevin Saleh, PE will be your **Project Manager** and will be your main point of contact. Kevin has over 20 years of experience as a civil engineer. His professional experience includes planning, design, construction management, and construction support services for various public works projects, with specific areas of practice in water and wastewater. **Jay Jung, PE** will be your **Project Engineer**. Jay has 15 years of process research and design, as well as water treatment facilities engineering projects. His areas of expertise include experiment setup, pilot or full-scale testing, sampling and data analysis, and development of treatment process trains.

Kevin and Jay will be supported by a highly skilled team with many years of proven success. **Adam S. Betsworth, PE, Civil Engineer**, has 15 years of experience as a civil engineer, and has performed his duties as civil engineer at various job sites and a Civil 3D expert. **Alice Maupin, PE, Structural Engineer**, has more than 20 years of seismic structural analysis, field investigation, design, constructability assessment, and project management experience working for the Metropolitan Water District of Southern California. **Michael Assadourian, PE, Electrical and Instrumentation & Controls Engineer**, has over 25 years of experience covering, electrical and control systems engineering, design, construction and project management for water and wastewater treatment plants, pump stations, emergency power generation systems, water conveyance facilities, petrochemical plants, and refineries. **Sam Lee, PE, Mechanical Engineer** has 15 years of diversified civil, sanitary, mechanical and process engineering and design experience with water and wastewater infrastructure engineering projects. He has acquired diverse design and inter-discipline coordination skills. facility investigation and evaluation, condition assessments, documentation of as-built conditions through field verification of existing dimensions. **Richard Davis, PE, Quality Assurance & Quality Control Engineer**. Richard has more than 35 year's management experience and is a results-oriented Civil Engineer with experience in management of wastewater and water infrastructure projects.

Eric Lovering, PE, Principal-in-Charge, is a California State registered "Civil" and "Electrical" engineer with 19 years of diversified planning, engineering, design, and construction experience. Eric's extensive training and familiarity with the District. will allow him successfully guide the team to a successful project.



PROJECT ENGINEERS



25 Years Experience

Civil Engineer, CA # 90535
Professional Engineer,
MD # 36759

Higher National Diploma, 2004,
Computer Programming/
Systems Analysis,
Seneca College

KEVIN SALEH, PE | PROJECT MANAGER

Kevin Saleh has over 20 years of experience as a civil engineer. His professional experience includes planning, design, construction management, and construction support services for various public works projects, with specific areas of practice in water and wastewater. His relevant experience includes water distribution and treatment facilities, pumping facilities, treatment plant projects/processes, reservoirs, pressure reducing, and surge facilities. Wastewater projects include conveyance systems, pumping stations, and treatment plant projects and processes.

Kevin's Relevant Experience Includes:

- Design of Ammonia Injection System including Ammonia tank and scrubber, metering pumps, safety equipment inside the chemical building for City of Corona's Arlington Desalter Connection Project.
- Design of chloramine booster station and tanks mixers for PA3 Interim Reservoirs in Rancho Mission Viejo, including Pax mixers for two (2) 1MG potable water reservoirs, chlorine and ammonia tanks, and metering pumps, and chloramine management system.
- Design of Ammonia Injection Station for the City of Corona's Mangular and Garretson Ammonia Injection Stations. Projects included the design of the buildings, mechanical and safety measures.
- Design of modifications in chemical storage and feed system including Sodium Hypochlorite and Aqua Ammonia for the City of San Juan Capistrano's Ground Water Recovery Plant Expansion project.



15 Years Experience

Civil Engineer, CA #75672

PH. D. Candidate University Of
Southern California (Completed
4 Years In Ph.D. Program)

MS, Environmental Engineering,
University Of Southern California;

MS, Environmental Engineering,
Yonsei, Korea

JAY JUNG, PE | PROJECT ENGINEER

Jay Jung has 15 years of process research and design, as well as water treatment facilities engineering projects. His areas of expertise include experiment setup, pilot or full-scale testing, sampling and data analysis, and development of treatment process trains. He also has considerable experience with feasibility studies, analysis of existing process trains, and preparation of project or preliminary design reports. During the last ten years, Mr. Jung has been a project engineer responsible for development of plant design criteria, P&IDs, hydraulic profiles, and detailed facility design drawings and specifications. His area of expertise includes chemical conditioning and chemical handling facilities, disinfection, spent backwash water treatment, granular activate carbon adsorption, and membrane biofiltration.

Jay's Relevant Experience Includes:

- Project Manager for a chloramine disinfection system design includes a chemical feed system and storage design for Utility Site in West Palmdale for a potable water facility with a 10,700gpm capacity.
- Project Manager for engineering, design, and construction support services to convert on-site hypochlorite generation systems to bulk liquid sodium hypochlorite for ammonia chloramine disinfection at different water reservoir sites in the MNWD service area.
- Project Manager for converting on-site hypochlorite generation systems and liquid ammonia systems to bulk liquid sodium hypochlorite and ammonia chloramine disinfection systems at two (2) different water reservoir sites in the SMWD service area. The project also includes replacing the tank's shark mixer at the Estado Reservoir with a new PAX mixer.

ADAM BETSWORTH, PE | CIVIL ENGINEER



15 Years Experience

Civil Engineer, CA # C73790

Adam S. Betsworth has 15 years of experience as a civil engineer. Adam has performed his duties as a civil engineer at various job sites. Adam has supervised and trained employees in multiple tasks and the use of Civil 3D. He has calculated and resolved complex mathematical/engineering problems and formulas to meet project specifications. He presented projects to clients, from concept to 3D model designs using Civil 3D in conjunction with product samples and presentation material. Adam has a proper understanding of government rules and regulations as needed to complete projects. He can draft plans and concepts using Civil 3D, LDD, and AutoCAD

Adam's Relevant Experience Includes:

- Civil Engineer for two (2) water booster station projects in which Adam was responsible for the on-site grading, wall plans, buildings, and pump station.
- Civil Engineer for rough and precise grading for many water infrastructure facilities.
- Civil Engineer for design of site layout of a recycled water tank and booster pump station.
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ALICE MAUPIN, PE | STRUCTURAL ENGINEER



20 Years Experience

Civil Engineer, CA # C51691;
Structural Engineer, NV # S020877
Structural Engineer, AZ # S50525

MS, Civil Engineering with
emphasis on Water and
Wastewater Treatment
Graduate courses in
structural design,
University of
Southern California

BS, Civil Engineering
(Structural Option),
California State University,
Los Angeles

Alice Maupin is a California registered civil engineer with more than 20 years of seismic structural analysis, field investigation, design, constructability assessment, and project management experience. In her work with Metropolitan Water District of Southern California (MWD) and CalPortland Cement Company (CPC), she has produced numerous foundation designs with seismic anchorage for large diameter water tanks and concrete cement silos. Part of her graduate work at USC dealt with seismic sloshing effects on tank foundations.

Alice's Relevant Experience Includes:

- Structural Engineer for Cement Hill Water Treatment Plant Chemical rehabilitation.
- Structural Engineer for Pomerado Park Reservoir Upgrade Project.
- Structural Engineer for Metropolitan Water District of Southern California's Water and chemical tank foundation and anchorage design for Skinner, Diemer, and Mills Water Treatment Plants.



MICHAEL ASSADOURIAN, PE | ELECTRICAL & INSTRUMENTATION & CONTROLS ENGINEER

Michael Assadourian has over 25 years of experience covering, electrical and control systems engineering, design, construction and project management for water and wastewater treatment plants, pump stations, emergency power generation systems, water conveyance facilities, petrochemical plants, and refineries. He has in-depth knowledge of power distribution and lighting systems, both NEMA and IEC standards-based; motor controls and variable frequency drives; coordination with power & utility companies; and SCADA and radio/microwave systems. His work experience includes P&ID development, electrical system condition assessment, ETAP analysis, load flow and short-circuit analysis, and protective device coordination studies. He has extensive experience in retrofitting existing plants with new power and controls and resolving construction-related problems. Michael has provided a wide variety of construction support services including equipment & shop drawings review, processing of RFIs, resolving construction issues, and electrical system commissioning and start-up.

25 Years Experience

Civil Engineer, CA # E14390

MS, Industrial And Systems
Engineering & Management,
University of Southern California

BS, Electrical Engineering,
University Of Southern California

Michael's Relevant Experience Includes:

- Electrical and I&C Engineer for pumping facilities electrical system assessment and backup power design for City of Ontario's 32 facilities.
- Electrical and I&C Engineer for 2016-17 and 2017-18 Reservoir Management Systems replacement projects for the Moulton Niguel Water District.
- Electrical and I&C Engineer for South Orange County Water Authority's J.B. Latham Wastewater Treatment Plant Improvements Project.



SAM LEE, PE | MECHANICAL ENGINEER

Sam Lee has 15 years of diversified civil, mechanical and process engineering and design experience with water and wastewater treatment and pump station projects. His experience includes facility investigation and evaluation, condition assessment, preparation of as-built background drawings through verification of existing facility dimensions, CAD based equipment and piping layout, engineering analysis and final design, and construction phase engineering services for wastewater and water treatment plants and pump stations including emergency generators and other auxiliary equipment. Through a variety treatment plant engineering & design projects, Sam has acquired diverse design skills as well as project coordination skills with electrical and structural design engineers. His construction phase engineering experience includes shop drawing and equipment submittal reviews, RFI processing, preparation of as built drawings, and coordination with resident engineering staff. Recent experience includes project engineering on two potable water reservoir disinfection and management systems projects.

15 Years Experience

Civil Engineer, CA # C78939

MS, Environmental Engineering
University of Southern California

BS, Environmental Engineering
Yonsei University, Korea

Sam's Relevant Experience Includes:

- Mechanical Engineer for the Ammonia Containment and analyzer and drainage improvements project for the Santa Clarita Valley Water Agency.
- Project & Mechanical Engineer for Upgrades and Improvements for City of Calexico's Wastewater Treatment Plant.
- Project & Mechanical Engineer for Upgrades and Improvements for City of Brawley Wastewater Treatment Plant.



RICHARD DAVIS, PE | QUALITY ASSURANCE & QUALITY CONTROL MANAGER

35 Years Experience

Civil Engineer, CA #C27804
Engineer, NV #17689
Engineer, MD #41041
Engineer, DC #PE906402

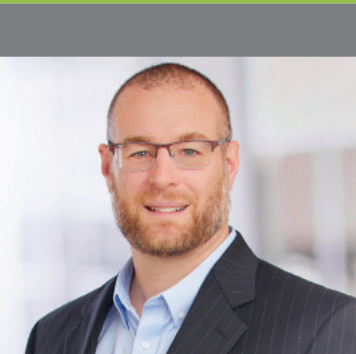
MS, Civil Engineering,
Sacramento State University

BS, Civil Engineering,
San Jose State University

Richard has more than 35 years of management experience and is a results-oriented Civil Engineer with expertise in managing wastewater and water infrastructure projects. He has planned, designed, and constructed sewage collection systems, pump stations, water transmission systems, and other capital improvement projects. He also has overseen the development of master plans, Geographic Information Systems, sewer flow models, and many engineering studies and reports. He also has experience preparing environmental documents in compliance with state laws and ordinances; implementing required mitigation measures.

Richard's Relevant Experience Includes:

- QA/QC Manager for the City of Colton's Prado Booster Station Upgrades.
- QA/QC Manager for the Orange County Sanitation District's Seal Beach Pump Station Replacement Project.
- QA/QC Manager for Electrical Standard Details for various LEE + RO Projects for various clients.



ERIC LOVERING, PE | PRINCIPAL-IN-CHARGE

19 Years Experience

Civil Engineer, CA #C70807
Electrical Engineer, CA #E18727

BS, Aeronautical Engineering,
University of California, Davis

Eric Lovering is a California State registered "Civil" and "Electrical" engineer with 19 years of diversified planning, engineering, design, and construction experience. Eric has extensive training and hands-on knowledge in hydraulics, civil, mechanical, and electrical engineering, including instrumentation & controls (I&C), programmable logic controllers (PLCs), and SCADA systems. As lead mechanical/electrical engineer and project manager, Eric has completed the design, construction, start-up, and commissioning of water, recycled water, and wastewater pumping facilities (capacities range from 200 gallons/minute to 450 million gallons/ day) projects and emergency power-generation systems (capacities from 150 kW to 10 mega Watt). Eric has developed exceptional hydraulic analysis skills, pump selection, pumping system control logics, surge controls, and related electrical and I&C/SCADA system design and construction. Additionally, he has completed pump station evaluations, condition assessments, and the development of rehabilitation and upgrading schemes.

Eric's Relevant Experience Includes:

- Project Manager & Electrical Engineer for the Design of Booster Pump Station 3501, including a new chemical storage building for the Coachella Valley Water District.
- Project Manager & Electrical Engineer for the Preparation of P&IDs for various LEE + RO projects for various clients.
- Project Manager & Electrical Engineer for the Design and Construction Support for the Irvine Ranch Water District's Foothill Zone 6A Pump Station.

SUB-CONSULTANTS

ON POINT LAND SURVEYING | SURVEYING

On Point Land Surveying, Inc. is certified as a Small Business Enterprise (SBE) with a Coalition of Southern California Public Agencies (#24235) and is also certified as a Micro Small Business (MB) with the State of California (#1447060). The firm is registered with the State of Arizona, Board of Technical Registration, and the State of California, Board for Professional Engineers and Land Surveyors. On Point Land Surveying offers a highly experienced staff that can manage any level of projects to consistently exceed client's expectations by providing the highest degree of coordination, communication, and client contact while maintaining very competitive pricing ASEALTA/ACSM Surveys

RESOLVED ANALYTICS | CFD MODELING

Resolved Analytics specializes in computational engineering, computational fluid dynamics, computational solid mechanics, multiphysics simulations and optimization. They are also the first ever STAR-CCM+ Platinum Level Certified STAR User. Because they believe their clients know their processes and products better than they do. Resolved Analytics encourages a collaborative process with a focus on specific measures of success. The result is a combined team with less wasted effort. Some recent water treatment/mixing tank experiences:

- Maynilad Water (Philippines) – Las Pinas 88 MLD Reclamation Facility:
 - *Distribution tank, equalization tank, anaerobic tank, aeration tanks, grit sump, clarifier, disc filter, sludge holding tank, thickened sludge sump, digested sludge tank, RAS*
- TankPro: 500,000 gal municipal water tank mixing optimization
- Arauco: Hot water lagoon mixing and aeration
- Saskatoon City: Richard Miller 240 mgd WTP:
 - *Bioreactor, Clarifier, Fermenter, UV Treatment*
- Peroxychem: Hydrogen Peroxide Mixing Tank Optimization

BESS TESTLAB | POTHOLING

BTL provides a full range of Subsurface Utility Engineering (SUE) including underground utility locating services to mitigate buried utility related risks associated with the design and construction of infrastructure projects. Specifically, BTL provides utility locating, concrete scanning, electromagnetic pipe locating, CCTV pipe inspection, ground penetrating radar (GPR), vacuum excavation and utility mapping services.

ASSOCIATED SOILS ENGINEERING | GEOTECHNICAL

Associated Soils Engineering (ASE), incorporated in 1974 in the State of California, has provided geotechnical design, material testing, and construction testing services for over four decades in Southern California and can use the vast experience, information and data gathered over the years to provide quick and cost-effective geotechnical solutions to a wide variety of public works construction projects. ASE has provided geotechnical engineering services on many of LEE + RO's projects since 2000. ASE is very familiar with the geology of the Southern California areas through their previous geotechnical investigation work.

TEAM AVAILABILITY

KEY PERSONNEL	ROLE	% OF TIME COMMITTED ON PROJECT	OFFICE LOCATION
Kevin Saleh, PE	Project Manager	50	City of Industry
Jay Jung, PE	Project Engineer	65	City of Industry
Sam Lee, PE	Lead Mechanical	65	City of Industry
Michael Assadorian, PE	Electrical and I & C	65	City of Industry
Alice Maupin, PE	Structural	50	City of Industry
Adam Betsworth, PE	Civil / Site	50	City of Industry
Richard Davis, PE	Technical Advisor (QA/QC)	10	Walnut Creek
Eric Lovering, PE	Principal in Charge	5	San Diego



2017-18 RESERVOIR MANAGEMENT SYSTEMS REPLACEMENT PROJECTS
MOULTON NIGUEL WATER DISTRICT

Reference:
Todd Dmytryshyn, Principal Engineer
(949) 425-3549
TDmytryshyn@mnwd.com

LEE + RO is providing engineering, design, and construction support services for the conversion of on-site hypochlorite generation systems and liquid ammonia systems to bulk liquid sodium hypochlorite and ammonia chloramine disinfection systems at five (5) different water reservoir sites in the MNWD service area, (1) 4 MG Crown Valley Reservoir, (2) 2 MG Highlands Reservoir, (3) 2.5 MG Marguerite Reservoir, (4) 4 MG Moulton Peak Reservoir, and (5) 5 MG Pacific Park Reservoir. Each site contains a potable water storage reservoir that supplies domestic water to the communities. The water is disinfected utilizing chloramines in the reservoirs to maintain the residual chlorine concentration prior to delivery to the communities. Each disinfection facility contains new bulk sodium hypochlorite and ammonia storage and feeding systems and includes a masonry block chemical storage building with separate rooms for each chemical, ventilation and split system AC units for the chemical rooms, storage tanks, chemical pumps and piping, reservoir mixers, analyzers and dosage control, chemical leak detection systems, sample and drain piping, electrical, process monitoring and control via SCADA, shower/eyewash stations, and site utilities. Site modifications for the Highlands and Marguerite chemical building include grading of the slope, protection of existing tree, modification of chain link fence, and a retaining wall.

Location of the Project: Laguna Hills, CA
Project Start Date: September 2016
Completion Date: Ongoing
Cost: \$3 Million
Team Members Involved: Jay Jung- Project Manager, Sam Lee - Project Engineer, Michael Assadourian - Electrical and I&C Engineer



2016-2017 RESERVOIR MANAGEMENT SYSTEMS REPLACEMENT PROJECTS
MOULTON NIGUEL WATER DISTRICT

Reference:
Todd Dmytryshyn, Principal Engineer
(949) 425-3549
TDmytryshyn@mnwd.com

LEE + RO provided engineering, design, and is providing construction support services for the conversion of onsite hypochlorite generation systems and liquid ammonia systems to bulk liquid sodium hypochlorite and ammonia chloramine disinfection systems at three (3) different water reservoir sites in the MNWD service area, (1) 10 MG East Aliso Creek Reservoir, (2) Seville Reservoirs – 2ea. x 1.125 MG, and (3) Mathis-Nellie Gail Reservoirs – 1ea. x 1.75 MG and 1ea. x 4 MG. Each site contains one or two potable water storage reservoirs that supply domestic water to the communities. The water is disinfected utilizing chloramines in the reservoirs to maintain the residual chlorine concentration before delivery to the communities. Each disinfection facility contains new bulk sodium hypochlorite and ammonia storage and feeding systems and includes a masonry block chemical storage building with separate rooms for each chemical, ventilation and split system AC units for the chemical rooms, storage tanks, chemical pumps and piping, reservoir mixers, analyzers, and dosage control, chemical leak detection systems, sample and drain piping, electrical, process monitoring and control via SCADA, shower/eyewash stations, and site utilities. Site modifications for the East Aliso Creek chemical building included grading of the slope and a retaining wall. Mathis-Nellie Gail requires temporary power during construction to maintain the operation of the existing disinfection facility. This \$3 million project is currently in construction.

Location of the Project: Laguna Hills, CA
Project Start Date: September 2016
Completion Date: Ongoing
Cost: \$3 Million
Team Members Involved: Jay Jung- Project Manager, Sam Lee - Project Engineer, Michael Assadourian - Electrical and I&C Engineer



ESTADO RESERVOIR MANAGEMENT INSTALLATION SYSTEM
SANTA MARGARITA WATER DISTRICT

Reference:
Tricia Butler, Chief Engineer
(949) 456-6554
triciab@smwd.com

Santa Margarita Water District (District) currently owns and operates the 1.3 MG capacity Estado Domestic Water Reservoir in Coto de Caza. The water in the reservoir is disinfected with chloramines. The District performed extensive pilot testing of disinfection system equipment at various reservoir sites and decided to change their disinfection system at the Talega Reservoir from on-site generation (OSG) systems to 12.5% bulk sodium hypochlorite and 38% bulk ammonium sulfate. Based on the pilot testing that was performed, the District has selected the Monoclor RCS Residual Control System for installation at the Estado Reservoir site. LEE + RO is providing engineering, design, and construction support services for the conversion of on-site generation to the bulk system. Engineering services include designs for construction of new bulk sodium hypochlorite and ammonium sulfate systems, including all equipment, double-walled chemical storage tanks, pumps, analyzers and controllers, connected piping, valves, electrical and instrumentation. The Estado Reservoir facility is not equipped with an RMS building, and a new RMS building will be constructed. The design will include all components necessary for complete and operational reservoir management systems. The existing Tank Shark mixer at the Estado Reservoir will be replaced with a new PAX mixer.

Location of the Project: Santa Margarita, CA
Project Start Date: July 2018
Duration of Construction: Ongoing
Cost: \$1 Million
Team Members Involved: Jay Jung- Project Manager, Sam Lee - Project Engineer



TALEGA ZONE I RESERVOIR MANAGEMENT INSTALLATION SYSTEM
SANTA MARGARITA WATER DISTRICT

Reference:
Tricia Butler, Chief Engineer
(949) 456-6554
triciab@smwd.com

Santa Margarita Water District (District) currently owns and operates the 6.0 Million Gallon (MG) capacity Talega Zone 1 Domestic Water Reservoir in San Clemente. The water in the reservoir is disinfected with chloramines. The District performed extensive pilot testing of disinfection system equipment at various reservoir sites and decided to change their disinfection system at the Talega Reservoir from onsite generation (OSG) systems to 12.5% bulk sodium hypochlorite and 38% bulk ammonium sulfate. Based on the pilot testing that was performed, the District has selected the Monoclor RCS Residual Control System for installation at the Talega Reservoir site. LEE + RO is providing engineering, design, and construction support services for the conversion of onsite generation to the bulk system. Engineering services include designs for construction of new bulk sodium hypochlorite and ammonium sulfate systems, including all equipment, double-walled chemical storage tanks, pumps, analyzers and controllers, connected piping, valves, electrical and instrumentation.

Location of the Project: Santa Margarita, CA
Project Start Date: August 2018
Duration of Construction: Ongoing
Cost: \$750,000
Team Members Involved: Jay Jung- Project Manager, Sam Lee - Project Engineer



EARL SCHMIDT INTAKE PUMP STATION MODIFICATIONS
SANTA CLARITA VALLEY WATER DISTRICT

Reference:
Jason Yim, Principal Engineer
(661) 513-1277
jyim@scvwa.com

The existing ESIPS, constructed in 2006, is equipped with two vertical diffusion vane pumps, each is rated for 12,000 gpm at 80 feet TDH and driven by 350 HP motor. The station was built with three suction and discharge pipe headers for three future pumps. SCVWA noticed that the 54-in dia. suction and discharge headers were leaking and discharge header was vibrating abnormally. LEE + RO was retained to perform a comprehensive system condition assessment and leak/misalignment/vibration investigation. LEE + RO located and confirmed differential settlements in the buried pump discharge header. Using ultrasonic leak detection instrumentation with a non-destructive and minimally invasive air/vacuum potholing, LEE + RO also located underground leaks. In the subsequent geotechnical evaluation, it was concluded that the cause of the 54-in dia. header misalignment and differential settlement were due to poor construction. Upon excavation of the affected area, the leaks were discovered at pipe joints (e.g. restrained coupling joints) on the 54-in pipe headers. LEE + RO designed corrective backfill and compaction and split-type couplings and a rigid welded welding band joints to replace the leaky coupling. Welded band joint solution resulted minimum shutdown of the pump station. LEE + RO also provided continuous inspection of the construction work including specialty welding installed. Due to difficulty in achieving proper compaction, controlled low-strength material (CLSM) was used as the backfill material up to the spring line of the 24-in dia. discharge piping. Finally, LEE + RO was also tasked to design and provide construction support services for the installation of third pump to increase the station capacity to firm 24,000 gpm. The total construction cost for correction of the header settlement was \$1.9 million and addition of the third pump was \$900,000. The construction was completed in 2015.

Location of the Project: Carson, CA
Project Start Date: 2013
Duration of Construction: 2015
Cost: \$2.6 Million
Team Members Involved: Jay Jung - Project Manager, Sam Lee - Project Engineer

E. BUDGET

Separate Sealed Envelope

Per the RFP's requirements, the budget has been provided in a separate sealed envelope.

February 12, 2021

Mr. Alex Murphy, Project Manager
Irvine Ranch Water District
3512 Michelson Drive
Irvine, CA 92618

Subject: Request for Proposal – Engineering Design Services for the Turtle Rock Chloramine Booster Station

Dear Mr. Murphy:

LEE + RO, Inc. is pleased to submit this fee proposal for engineering services for the subject project. The total not-to-exceed fee proposed is \$347,511. There is an option for additional services for CFD analysis, geotechnical investigation and permitting assistance for \$27,966, which if included would bring the total-not-to-exceed fee to \$375,477.

The enclosed spreadsheet (Exhibit 1) shows the breakdown of our fee in detail. Our current billing rate schedule (Exhibit 2), and other direct costs (Exhibit 3), are enclosed with this letter.

Thank you for the opportunity to submit this proposal. Please do not hesitate to call if you have any questions or comments.

Respectfully Submitted,



Eric Lovering, PE,
Principal-in-Charge/Vice President
LEE + RO, Inc.

Encl: Exhibit 1 - Fee Estimate, Exhibit 2 - Billing Rate Schedule, Exhibit 3 – Other Direct Costs



Exhibit 1: Engineering Design Services for the Turtle Rock Chloramine Booster Station

TASK NO.	ENGINEERING CLASSIFICATIONS: E8 Managing Eng, E7 Supervising Eng, E6 Principal Eng, E5 Senior Eng, E3 Associate Engineer, T4 Designer, T3 Associate Designer, A2 Word Processor II (See Billing Rate Schedule for Entire Labor Classifications).	LEE & RO Hours per Labor Category									Total Hours	Labor Cost	Other Direct Costs (ODCs)	Subs (hrs)	Subs	TOTAL FEES
		E8	E7	E6	E5	E4	E3	T4	T3	A2						
		Billing Rates (\$/Hour)														
PROJECT TASK DESCRIPTION		\$274	\$249	\$229	\$206	\$191	\$172	\$149	\$133	\$133		1.00				
1	Project Management															
1.A	Preparation of Project Status Reports	4	42								46	\$11,554				\$11,554
1.B, 2.M	Meetings and Workshops (includes site visits)	4	32	4		4	4			4	52	\$11,964	\$100			\$12,064
1.C	Quality Assurance/Quality Control	4	32								36	\$9,064				\$9,064
SUBTOTAL TASK 1 - PROJECT MANAGEMENT		12	106	4	0	4	4	0	0	4	134	\$32,582	\$100	0	\$0	\$32,682
2	Preliminary Design															
2.A	Chloramine Booster Station	2	16	8	16	20	24			40	126	\$22,928				\$22,928
2.B	Reservoir Mixing System		4	12		12	4				32	\$6,724				\$6,724
2.D	Chlorine Analyzer System		2	4		2	2				10	\$2,140				\$2,140
2.E	Site Survey		2			2					4	\$880	\$3,000	36	\$5,450	\$9,330
2.F	Potholing underground Utilities		2				2				4	\$842		68	\$8,600	\$9,442
2.G	Geotechnical Investigation		8								8	\$1,992				\$1,992
2.I	Permitting Assistance						12			8	20	\$3,128				\$3,128
2.K	Project Schedule		2			6					8	\$1,644				\$1,644
2.L	Opinion of Probable Construction Cost		4			8					12	\$2,524				\$2,524
2.N	Technical Specifications		8			16					24	\$5,048				\$5,048
2.O	Construction Plans		28	14	24	58	34	16	194		368	\$60,234				\$60,234
2.P	Preliminary Design Report (PDR)		8			40			16		64	\$11,760	\$100			\$11,860
SUBTOTAL TASK 2 - PRELIMINARY DESIGN		2	84	38	40	164	78	16	250	8	680	\$119,844	\$3,100	104	\$14,050	\$136,994
3	Final Design															
3.A	Project Manual		14	14		32					60	\$12,804				\$12,804
3.B	Construction Plans		32	51	12	96	78	20	308		597	\$97,815				\$97,815
3.C	Electrical/Instrumentation	2	28			40	24	16	120		230	\$37,632				\$37,632
3.D	Project Schedule		6								6	\$1,494				\$1,494
3.E	Opinion of Probable Construction Cost		2	12		4					18	\$4,010				\$4,010
3.F	Design Deliverables		2						12	6	20	\$2,892	\$300			\$3,192
3.G	Addenda Preparation and Pre-Bid Meeting		6	8	12	24			24		74	\$13,574				\$13,574
SUBTOTAL TASK 3 - FINAL DESIGN		2	90	85	24	196	102	36	464	6	1,005	\$170,221	\$300	0	\$0	\$170,521
TOTAL NOT TO EXCEED		16	280	127	64	364	184	52	714	18	1,819	\$ 322,647	\$3,500	104	\$ 14,050	\$ 340,197
Optional Tasks																
2.C	CFD Analysis		4								4	\$996		72	\$12,600	\$13,596
2.H	Geotechnical Investigation		4								4	\$996		52	\$8,650	\$9,646
3.B(o)	Design of Steel Chain Link Fence and Widening of the Access Road			2	12			8	24		46	\$7,314				\$7,314
2.J	Permitting Assistance						12			20	32	\$4,724				\$4,724
TOTAL-OPTIONAL TASKS		0	8	2	12	0	12	8	24	20	86	\$14,030	\$0	124	\$21,250	\$35,280

EXHIBIT 2
FY 2020 -2021 HOURLY BILLING RATE SCHEDULE

(Effective from November 1, 2020 to October 31, 2021)

This schedule will be subject to change at the beginning of the new fiscal year (November 1st).

PERSONNEL CLASSIFICATION			BILLING RATES (\$/HOUR)
ENGINEERS			
Engineer 8	E8	Managing Engineer	\$274
Engineer 7	E7	Supervising Engineer	\$249
Engineer 6	E6	Principal Engineer	\$229
Engineer 5	E5	Senior Engineer	\$206
Engineer 4	E4	Engineer	\$191
Engineer 3	E3	Associate Engineer	\$172
Engineer 2	E2	Assistant Engineer	\$149
Engineer 1	E1	Junior Engineer	\$133
CAD / DESIGNERS			
Designer 6	T6	Principal Designer	\$191
Designer 5	T5	Senior Designer	\$172
Designer 4	T4	Designer	\$149
Designer 3	T3	Associate Designer	\$133
Designer 2	T2	Assistant Designer	\$112
Designer 1	T1	Junior Designer	\$93
FIELD PROFESSIONALS			
Field Professional 5	F5	Senior Resident Engineer	\$206
Field Professional 4	F4	Resident Engineer	\$191
Field Professional 3	F3	Senior Inspector	\$172
Field Professional 2	F2	Inspector	\$149
Field Professional 1	F1	Assistant Inspector	\$133
ADMINISTRATIVE			
Administrative 4	A4	Senior Contract Manager	\$149
Administrative 3	A3	Contract Manager	\$138
Administrative 2	A2	Senior Word Processor	\$133
Administrative 1	A1	Word Processor / Admin. Assistant	\$118

March 22, 2021

Prepared by: R. Burk / M. Cortez

Submitted by: K. Burton

Approved by: Paul A. Cook



ACTION CALENDAR

MICHELSON WATER RECYCLING PLANT TERTIARY FILTER IMPROVEMENTS BUDGET INCREASE AND CONSULTANT SELECTION

SUMMARY:

The Michelson Water Recycling Plant (MWRP) Tertiary Filter Improvements project will rehabilitate the MWRP tertiary filters to improve performance and reliability by replacing deteriorating and obsolete equipment and infrastructure at the tertiary filters' tanks area, air scour blower area, and the backwash supply pumps area. Staff recommends the Board:

- Authorize a budget increase in the amount of \$9,409,600, from \$466,000 to \$9,875,600, and
- Authorize the General Manager to execute a Professional Services Agreement with HDR in the amount of \$735,163 for engineering design services for the MWRP Tertiary Filter Improvements, Project 07892.

BACKGROUND:

This project will rehabilitate the MWRP tertiary filters to improve performance and reliability by replacing deteriorating and obsolete infrastructure and equipment. Last year, IRWD retained Hazen and Sawyer to complete a condition assessment of the existing infrastructure and equipment to confirm the scope of the rehabilitation for the tertiary filter tanks, backwash system, air scour system, mechanical equipment, electrical equipment, instrumentation, programmable logic controller (PLC) and communication system. Based on the assessment's recommendations and feedback from MWRP Operations and Mechanical Maintenance, staff developed the scope of the design including improvements to replace deteriorating and obsolete equipment and infrastructure at the tertiary filters' tanks area, air scour blower area, and the backwash supply pumps area, including valves, slide gates, instrumentation, aboveground piping, air compressor, air scour blower, backwash supply pumps, PLC, electrical equipment, and conduits. The scope will also include detailed construction sequencing, temporary backwash supply pumping, and temporary instrumentation and control systems to allow the work to proceed while maintaining operation of the tertiary filters.

A site plan is shown in Exhibit "A".

Consultant Selection:

Staff issued a request for proposal for the design to three consultants: Black & Veatch, Carollo Engineers, and HDR. All three firms submitted proposals on December 10, 2020. Staff evaluated the proposals based on each consultant's project approach, project team and relevant experience; staff recommends the selection of HDR. A few differentiators are discussed as follows.

HDR and Black & Veatch provided proposals that reflected a good understanding of the scope of work, the work effort and commensurate fees required to complete the design. Both HDR and Black & Veatch included the design scope for fully rehabilitating the Backwash Supply Tank, whereas Carollo did not. This task will design the temporary pumping and tank isolation necessary to allow concrete and coating repair for the entirety of the tank. Based on this, the proposed design fees are \$708,000 from HDR, \$656,928 from Black & Veatch, and \$594,970 from Carollo (who did not include the design scope and fee to fully rehabilitate the Backwash Supply Tank).

HDR also separated itself from Black & Veatch and Carollo by proposing an optional task to address operational issues affecting chlorine addition at the Chlorine Contact Chamber (based on conversations with IRWD Operations staff). This task would assess alternatives to move the intake supplying water for the Backwash Supply Tank. Staff believes this would be an opportune time to review this operational issue. If this task is included in HDR's proposal, its fee becomes \$735,163.

With HDR's past history of working on the MWRP Phase 2 Expansion and other projects at MWRP, staff believes its experience and superior knowledge of MWRP is highly advantageous and will result in the best design for this project. Staff therefore recommends the selection of HDR based on the design concepts, project approach presented within its proposal, and the strength of its project team. The consultant evaluation matrix is provided as Exhibit "B", and HDR's proposal is provided as Exhibit "C".

FISCAL IMPACTS:

Project 07892 is included in the FY 2021-22 Capital Budget. The original budget was created to perform the condition assessment for the tertiary filters. Staff has updated the budget based on the scope of work from the condition assessment and the estimated cost to complete the rehabilitation improvements at the tertiary filters. A budget increase is required to fund the design and construction phases for the project as shown in the table below.

Project No.	Current Budget	Budget Addition	Total Budget
07892	\$466,000	\$9,409,600	\$9,875,600

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. It is expected that preliminary analysis will lead to the preparation of a Notice of Exemption for the project.

Action Calendar: Michelson Water Recycling Plant Tertiary Filter Improvements Budget Increase and Consultant Selection
March 22, 2021
Page 3

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 16, 2021.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE IN THE AMOUNT OF \$9,409,600, FROM \$466,000 TO \$9,875,600, AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH HDR IN THE AMOUNT OF \$735,163 FOR ENGINEERING DESIGN SERVICES FOR THE MWRP TERTIARY FILTER IMPROVEMENTS, PROJECT 07892.

LIST OF EXHIBITS:

Exhibit "A" – Site Plan
Exhibit "B" – Consultant Selection Evaluation Matrix
Exhibit "C" – HDR's Proposal

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EXHIBIT "A"
PROJECT SITE PLAN
MICHELSON WATER RECYCLING PLANT TERTIARY FILTER IMPROVEMENTS



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EXHIBIT "B"

Michelson Water Recycling Plant (MWRP) Tertiary Filter Improvements Consultant Selection Matrix
2-Mar-21

	Weights	Black and Veatch	Carollo	HDR
TECHNICAL APPROACH	60%			
*Project Approach	50%	2	3	1
*Scope of Work	50%	2	3	1
Weighted Score (Technical Approach)		2.00	3.00	1.00
EXPERIENCE	40%			
*Firm/Team	60%	3	2	1
*Project Manager	40%	1	3	2
Weighted Score (Experience)		2.20	2.40	1.40
Principal-in-Charge/Technical Advisor Project Manager Project Engineer		Jeff Neemann David Kurtti Roxanne Massey	Patrick Carlson, Andy Salveson Jim Meyerhofer Danny Murphy	Gregorio Estrada Amy Omae
QA/QC		Mark Wilson Sandeep Sathyamoorthy, Raghu Kadava, Julie Gass	Jeff Weishaar	John Koch, Dan Ellison, Oskar Agustsson
Process Mechanical/ Mechanical			Danny Murphy, Michael Bundy,	Chandrikaa Balendhran Rich Stratton,
Tertiary Filters		Gary Hunter	Taylor Romenesko	Mandira Sudame
Electrical		Holly Murakami	Ron Burdick, Robert	Dan Gott
I&C		Marc Zamora	Morrone, Monte Richard	Brandon Erndt
Structural		Mark Lowe	James Doering	Tom Hamlin Lucy Jaramillo, Adam McGinnis, Bradley Stuart Pete Bredehoeft Gregorio Estrada Gregorio Estrada
Condition Assessment (Optional) Cost Estimating Construction Sequence Permitting		Bethany McDonald Kirk Johnson	subconsultant (see below)	
<u>Subconsultants:</u> Surveying		The Prizm Group	O'day Consultants, Inc. Underground Solutions, Inc.	Borchard Surveying
Potholing Geotechnical (Optional) Condition Assessment (Optional)		C-Below Ninyo & Moore V&A Consulting	Ninyo & Moore Corrpro	T2 Utility Engineers Ninyo & Moore
COMBINED WEIGHTED SCORE		2.08	2.76	1.16
		Hours	Hours	Hours
Task 1 Project Management		299	292	419
Task 2 Preliminary Design		1,227	782	1,251
Task 3 Final Design		2,114	1,740	2,331
Task 4 Pre-bid Phase Services		44	Included in Task 3	Included in Task 3
TOTAL HOURS		3,684	2,814	4,001

Michelson Water Recycling Plant (MWRP) Tertiary Filter Improvements Consultant Selection Matrix
2-Mar-21

	Weights	Black and Veatch	Carollo	HDR
Number of Construction Drawings		81	71	71
FEE				
Task 1 Project Management		\$61,553	\$61,550	\$100,500
Task 2 Preliminary Design		\$228,895	\$222,950	\$235,900
Task 3 Final Design		\$343,360	\$310,470	\$359,300
Task 4 Pre-bid Phase Services		\$7,280	Included in Task 3	Included in Task 3
Additional Tasks Included in Total Fee:				
Permitting Assistance		\$4,320	Included in Task 2	\$12,300
Final Design of New PLC Platform		\$11,520	Included in Task 3	Included in Task 3
Study for New BWS Connection from CCC		-	-	\$27,163
TOTAL FEE		\$656,928	\$594,970	\$735,163
Average \$/hour		\$178	\$211	\$184
Professional Liability Insurance		YES	YES	YES
General Liability Insurance		YES	YES	YES
FORCED RANKINGS:		2	3	1
1 - First				
2 - Second				
3 - Third				



Irvine Ranch
WATER DISTRICT

Engineering Design Services

Michelson Water Recycling Plant Tertiary Filters Rehabilitation

PR 07892

December 10, 2020



SECTION A



SCOPE

A



C-2

SCOPE

The Irvine Ranch Water District (IRWD or District) originally constructed the dual-media tertiary filters at the Michelson Water Recycling Plant (MWRP) over 40 years ago and have since experienced several upgrades and rehabilitation work. A condition assessment was performed earlier this year for the tertiary filters, backwash supply, spent backwash, and air scour blower systems as well as the associated electrical equipment located in the Filter Pump Station No. 2 (FPS-2). The 2020 Condition Assessment Report identified many of the mechanical, electrical, instrumentation and controls (I&C), and structural assets as having little or no remaining useful life (RUL). The MWRP Tertiary Filters Rehabilitation project (Project) will rejuvenate the system to improve treatment efficiency and system reliability.

The HDR Team brings an overall understanding of the District’s objectives for this project based upon knowledge and experience gained on similar projects, including the MWRP Phase 2 Expansion and MWRP FPS-2 Header Replacement recently designed by HDR’s team. Our team has been actively and continuously engaged in various upgrades and improvement projects at MWRP since 2005, resulting in a thorough understanding of the MWRP process configuration, mechanical and electrical interconnections, and operational challenges. This makes our team uniquely qualified to complete this project successfully.

The Phase 2 Expansion design included a process validation study that explored upgrade and expansion alternatives for the tertiary filters and resulted in the decision to construct the MBR and HRC. This study provided key members of our team (Amy, Gregorio, and Rich) with insights to system configuration and operational approach, which provides our team with a “heads start” on the review of previous documents.



WE UNDERSTAND THE PRIMARY OBJECTIVES OF THIS PROJECT WHICH INCLUDE:



Rehabilitate the tertiary filters, backwash supply, spent backwash, air scour blower, and associated electrical and controls systems to extend the RUL beyond 15+ years.



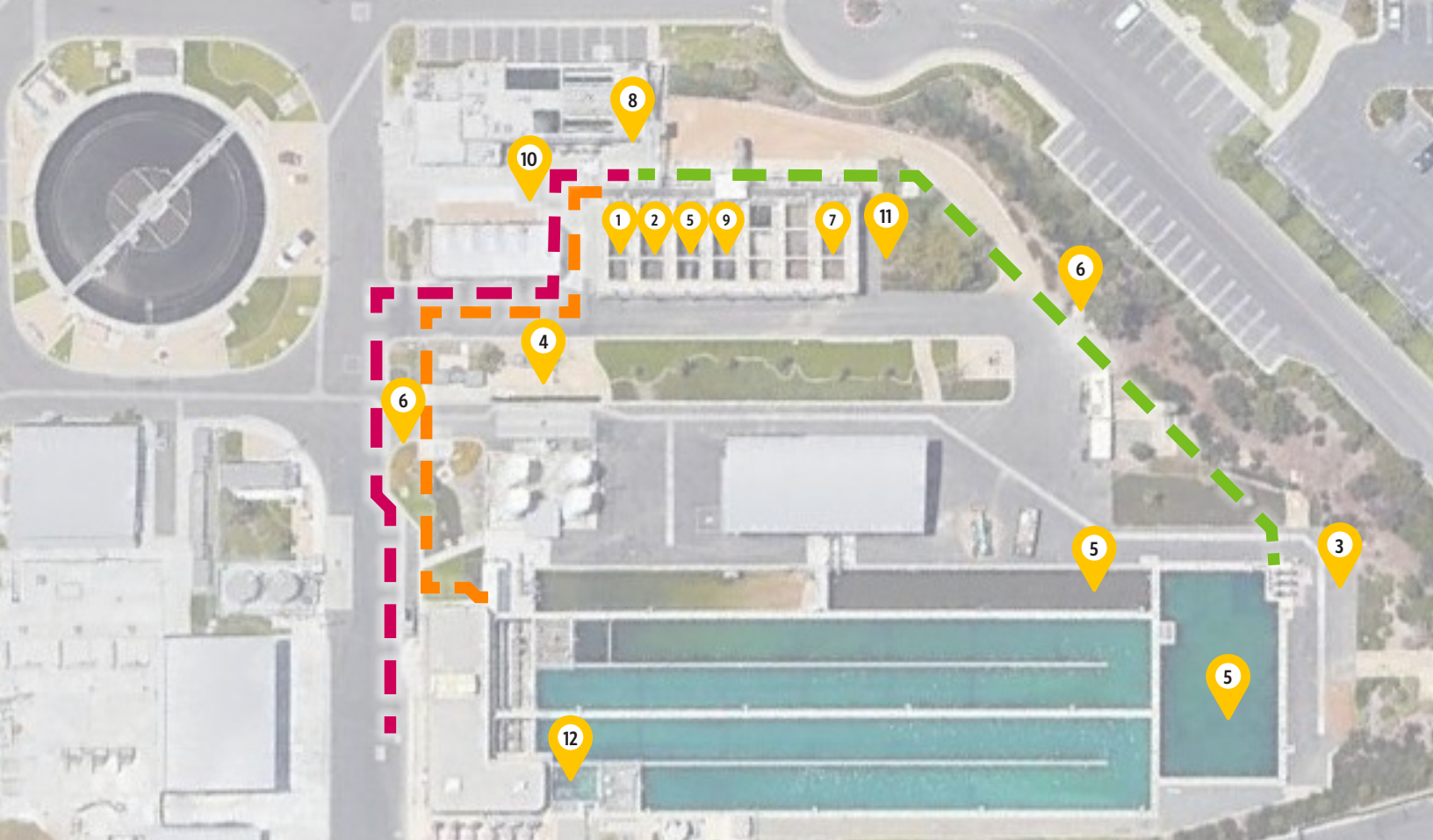
Maintain consistent and reliable performance of the filters during construction and have a strategy in place in the event of a failure at the MBR treatment train.



Improve IRWD’s ability to operate and monitor the tertiary filters by upgrading the outdated controls system.



Assess and evaluate the potential root cause(s) of poor performance from Filter No. 7, the condition of buried pipelines and system layout, and recommend improvements to optimize system performance.



In the table below, we've identified key issues, our approach to solving those key issues, and the benefits to the District our solutions bring. Each key issue is supplemented with figure(s) that help illustrate the issues and considerations in greater depth.

#	KEY ISSUE	HDR'S APPROACH	BENEFITS TO IRWD
1	Aging mechanical, electrical, and instrumentation assets have signs of corrosion, performance issues, and need to be replaced with little to no remaining useful life.	<ul style="list-style-type: none"> Thorough review of existing tertiary facility to gain comprehensive understanding of project scope and quantities. Incorporate clear delineation of project scope of work into bid package (drawings and specifications). 	<ul style="list-style-type: none"> Reduces risk of unexpected failures and increases system reliability to control the system and respond to failures or water quality issues. More accurate bid estimates and clarity to reduce potential change orders.
2	Must maintain consistent and reliable performance of filters during construction.	<ul style="list-style-type: none"> Collaborate with IRWD staff to develop detailed construction sequence to clearly define tasks, anticipated work durations, and identify opportunities or limitations to performing concurrent work. Identify points of isolation to replace assets and maintain operation with only one filter offline at a time under normal and failure scenarios. Avoid doing high-risk work during wet season. If needed, operate the high-rate clarifier (HRC). Perform work on each filter one-by-one to replace assets concurrently with underdrain inspection. 	<ul style="list-style-type: none"> Clear understanding of the work sequence and durations to minimize surprises and maintain compliance. Avoids high-risk situations by having a backup strategy ready to treat additional 5 mgd in case of an MBR failure. Potentially avoids need for temporary bypass pumping and piping. Establish a methodical procedure to rehab each filter for clarity and efficiency.
3	Remote location of the MCC and PLC in FPS-2 electrical room does not allow IRWD staff to have eyes on the pumps when changing controls and operations.	<ul style="list-style-type: none"> Install NEMA 3R walk-in enclosure with VFDs and remote PLC cabinet in landscaped area near the pumps. Route ductbank from FPS-2 electrical room to new enclosure and then to pumps prior to removal of existing pumps, motors, etc. Sequence the removal of one pump and associated infrastructure at a time. Coordinate siting with potential MWRP capital improvements as a result of the IRWD Sewage Treatment Master Plan (STMP). 	<ul style="list-style-type: none"> Remote PLC cabinet located closer to pumps to more easily confirm and test operation. Backwash supply pumps remain online with minimal downtime. Reduces potential future costs by optimizing site layout with the STMP.

<p>4 Air scour blower system has no backup and must be kept online.</p>	<ul style="list-style-type: none"> Evaluate MCC electrical loads to confirm if new blower can be added on existing MCC or if need to remove load from Backwash Pumps first. Provide, connect, and commission one of the new air scour blowers prior to removal of existing air scour blower. Consider alternate locations that provide better access and facilitate installation. 	<ul style="list-style-type: none"> Air scour blower system remains online with minimal downtime.
<p>5 Concrete structures are showing signs of corrosion with cracking, exposed aggregate, exposed rebar, discoloration, and/or spalling.</p>	<ul style="list-style-type: none"> Rehabilitate concrete and repair. Consider applying a coating to areas where extensive corrosion is found. 	<ul style="list-style-type: none"> Extends RUL of existing structures at significantly less cost than future replacement.
<p>6 Condition of large buried piping is unknown (Backwash Supply, Spent Backwash, and Filter Effluent). Some above-ground piping is in good condition while others have signs of corrosion. HDR's work on filter influent pipe identified soil corrosivity to vary within a short distance.</p>	<ul style="list-style-type: none"> Review existing record drawings and previous reports, including previous soil corrosivity analyses to understand existing conditions. Perform external corrosion direct assessment (ECDA), collect soil samples, and conduct in-house laboratory testing for corrosivity. OPTIONAL TASK: Perform Emag and cell-to-cell testing along the alignments to identify potential "hot spots" with highest likelihood of active corrosion and prioritize them. 	<ul style="list-style-type: none"> Comprehensive understanding of this site provides holistic recommendations if the pipes are in good condition or in need of recoating or replacement. OPTIONAL TASK: Saves money and assists identifying the worst-case condition of buried pipe through informed decision-making to prioritize "hot spots" before digging.
<p>7 The 2020 Condition Assessment and Filter Surveillance Report could not identify a root cause for Filter No. 7's poor performance. Media was replaced and it continues to require more backwashing than other filters.</p>	<ul style="list-style-type: none"> Conduct thorough investigation by understanding the history (evaluate previous reports, review record drawings, discuss history with Operations staff), evaluate influent hydraulics to confirm equal distribution, and bring lessons learned from other tertiary filter design/rehab projects. OPTIONAL TASK: Develop and execute Performance Testing Plan to evaluate impacts of changing operational parameters. 	<ul style="list-style-type: none"> Restore Filter No. 7 performance, to save energy costs and reduce media loss due to excessive backwashing. Restore redundancy and reliability of the tertiary filtration system to meet Title 22 standards.
<p>8 Limited available space on top of tertiary filters for new filter control panel (FCP) while keeping existing FCP operational.</p>	<ul style="list-style-type: none"> Evaluate installation of permanent FCP at alternate locations (on top of HRC or at ground-level on west side of filters). After demolishing existing FCP, then install OIT in same location. Alternatively, install a temporary FCP to allow demolition of the existing FCP, then install replacement in same location. 	<ul style="list-style-type: none"> Avoids need for temporary FCP and simplifies construction sequence. Frees up space for more working area. Operators have more control over the system from the top deck or at ground level.
<p>9 Surface wash system is not functional and may not be needed in conjunction with the air scour blower system.</p>	<ul style="list-style-type: none"> Remove the surface wash system. Adding a redundant blower to the air scour system significantly reduces the likelihood of air scour system failure, and the subsequent need for a backup surface wash system. 	<ul style="list-style-type: none"> Reduces cost and schedule by removing scope not needed for reliable filter operation. Clears the area. Less O&M and likelihood of installing assets that will be stranded due to lack of use.
<p>10 Moisture in compressed air system that is used for high-pressure air for pneumatic actuators.</p>	<ul style="list-style-type: none"> Design replacement of compressed air system with dryer (120% capacity of compressor) and filters (particulate and coalescing). Provide condensate drain valves in piping. 	<ul style="list-style-type: none"> Improved reliability for pneumatic actuators to operate properly without delay, sticking, or failure due to excess moisture/air quality.
<p>11 Tertiary filter overflow pipeline discharges to surface of road.</p>	<ul style="list-style-type: none"> Review record drawings, identify underground utilities, and evaluate gravity hydraulic calculations to verify viability of alternative routes. Identify potential layout(s) to route buried gravity overflow pipe to spent backwash channel in consideration of potential capital improvements from IRWD STMP. 	<ul style="list-style-type: none"> Reduce O&M by safely routing unforeseen overflow events to the spent backwash channel. Avoid potential future costs by optimizing conceptual layout to consider future changes at MWRP.
<p>12 Elevated risks associated with meeting NPDES and Title 22 standards during construction.</p>	<ul style="list-style-type: none"> Tertiary Filter Expert, Rich Stratton, will work with Gregorio Estrada to identify and evaluate potential treatment issues during specific phases of construction. Collaborate with IRWD staff to meet permit requirements throughout, and obtain temporary permit, if necessary. 	<ul style="list-style-type: none"> Develop risk mitigation strategies. Avoid being out of compliance with existing regulatory permits.

METHODOLOGY

To accomplish these objectives we have developed a comprehensive methodology based on our experience with the design and performance of the facility and understanding of the operational challenges. The following sections identify key issues associated with the work, our methodology to solving these issues, and the benefits that our solutions bring to the District.

Additionally, we propose several innovative ideas to provide added value to the project. These opportunities to improve the system can be accomplished while already performing work in the area and are offered as optional tasks for your consideration.



Rehabilitate the Tertiary Filters Facility to Last the Next 25 Years

The mechanical, electrical, and instrumentation components of the Tertiary Filters Facility have little to no remaining useful life and require replacement. As documented in the 2020 Condition Assessment Report, most assets are showing signs of corrosion and some are having performance issues. The increasing age of assets leads to increasing risk of unexpected failures and reduced reliability to implement response plans to those failures during an emergency.

HDR will perform a detailed review of the record drawings and reports to capture each asset in the detailed rehabilitation design as identified in the RFP. The design will clearly identify components (equipment, valves, actuators, piping, conduit, wiring, cables, supports, instrumentation, etc.) to be replaced as well as components (e.g. concrete tanks) to be repaired and the method of repair as applicable. Our team has a long history of working with IRWD and are familiar with your standards and expectations. We will engage your staff

in several discussions to identify limitations/constraints, communicate design intent, collaborate on strategy, and obtain consensus on the project approach.

The filter media and diffuser assemblies will be replaced while rehab work is being done inside each of the filters. Filter underdrains will be inspected during construction with photo documentation. During our coordination meetings with your staff, we will identify points of isolation to replace mechanical process equipment to keep the tertiary filtration system operational.

Concrete structures are showing signs of corrosion with cracking, exposed aggregate, exposed rebar, discoloration, and/or spalling. The concrete will be rehabilitated and repaired to avoid continued deterioration of concrete and structural rebar and more significant costs for repair (or replacement) later. The rehabilitation design may also consider applying a coating to areas where extensive corrosion is found, which will further extend the RUL of existing structures.



Timely and Relevant Experience

HDR designed the rehabilitation for the City of Thousand Oaks Digester No. 3, which included a condition assessment, valve replacement, and repair and rehabilitation of structural concrete, miscellaneous metals, and coatings. This led to a follow-on design to do the rehabilitation work for Digester No. 2 and a Secondary Clarifier.



The surface wash system was originally intended to provide redundancy and serve as a backup to the air scour blower system. However, the air scour system has been operating consistently and the surface wash system has not been needed. As such, it has fallen into disrepair and no longer functional. Adding a redundant blower to the air scour system significantly reduces the likelihood of failure and the need for a backup surface wash system. Therefore, HDR's recommendation would be to remove the surface wash system. **This decreases cost and schedule by removing scope that is not needed for reliable filter operation, and clears the congested area by reducing piping, valves, and instrumentation.** Removing the surface wash system reduces O&M and avoids installing assets that will be stranded due to lack of use. In our recent experience with tertiary media filters, surface wash systems are no longer frequently implemented into current designs and the air scour systems have become the more conventional approach.

IRWD staff indicated that there is a lot of moisture present in the compressed air system that supplies high-pressure air to the pneumatic actuators, which can cause issues with the proper functioning of pneumatic actuators. Moisture may also cause corrosion in distribution piping and components, such as the receiver tank, which can result in failures at these higher pressures. The design to replace the compressed air system can improve the quality of air going to the pneumatic actuators. **Based on lessons learned, dryers should be sized to 120% capacity of the air compressor and incorporate upstream and downstream particulate and coalescing filters.** A refrigerated dryer should be sufficient for this application, but if preferred, a desiccant dryer may be installed as well. Condensate drain valves will be incorporated at low points in piping. Reduced moisture in high-pressure air system allows the pneumatic actuators operate without delay, sticking, or being overwhelmed with moisture.



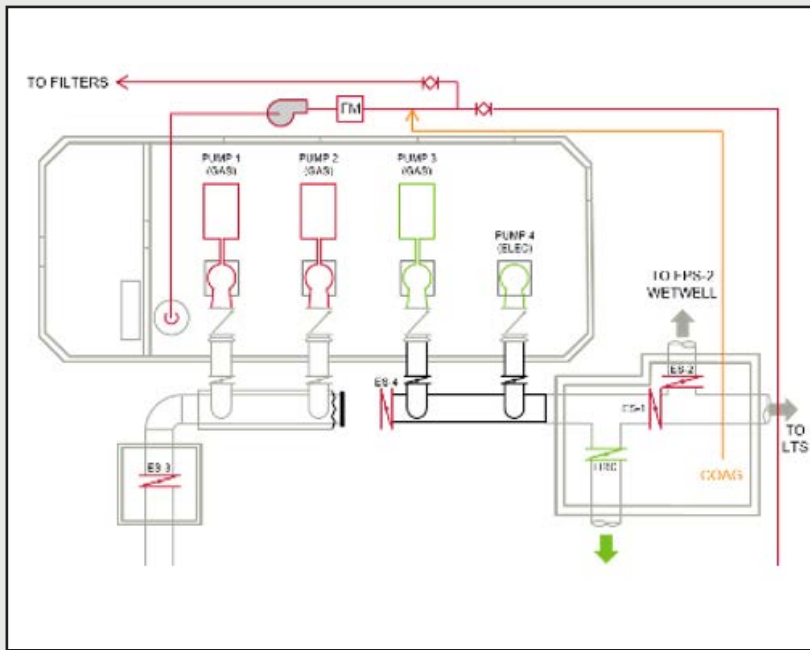
Detailed Construction Sequence for Consistent and Reliable Treatment Performance of the Tertiary Filters During Construction

The Tertiary Filters Facility is critical to the conventional treatment process train at MWRP to produce recycled water and meet NPDES and Title 22 standards. For consistent and reliable treatment performance, only one filter may be taken offline at any given time and the remaining six filters must maintain normal operation, allowing for one filter to be in a backwash cycle. There are two key aspects of developing a robust implementation plan: a detailed construction sequence that is tied to schedule performance requirements in the contract documents, and an operational plan that includes mitigation strategies should something unexpected occur. By developing a "routine" procedure to rehabilitate each filter one-by-one while the remaining filters maintain normal operation will improve consistency in the quality and efficiency of the Contractor's work. **Each phase of work will include an isolation/decommissioning step to confirm reliable operation of the remaining filter cells before work begins, and a commissioning step to confirm reliable operation of the rehabilitated filter cell before the next filter cell is taken offline.** The construction sequencing plan must also have a backup strategy in the event of a failure in the MBR train.

Gregorio Estrada is our task lead to develop the construction sequence in consideration of the potential risks to performing certain tasks. He is a trusted partner to IRWD staff and is intimately familiar with IRWD standards and procedures with his work on the MWRP Phase 2 Expansion project. HDR will facilitate several coordination meetings with IRWD staff to develop and review the construction sequence based on our combined

Gregorio is intimately familiar with the MWRP treatment processes, capabilities, and needs as well as IRWD standards and procedures; he has a long history of working with IRWD staff to resolve difficult challenges and he will work with you to develop a construction sequence that minimizes IRWD risk.





Construction Sequence that Maintains Operation

HDR developed a detailed construction sequence to replace the MWRP FPS-2 discharge header while maintaining the capability to discharge to the tertiary filters or HRC to meet effluent requirements. The workshop-driven approach resulted in a robust sequencing and bypass plan that integrated with existing plant controls and provided uninterrupted operation. This approach led to identification of potential failure scenarios and provided mitigation strategies for each. Since the workshops included key members of operation, electrical, and engineering teams there was clear understanding and buy-in of each step of the plan. The plan included proactive communication with plant operations staff to seek their input on facility needs and to establish operational protocols at each phase of the plan.

knowledge of MWRP treatment limitations, capacities, and staff needs for reliability and redundancy. The detailed construction sequence will clearly define tasks, anticipated work durations, and identify opportunities or limitations to performing concurrent work. Additionally, we will discuss potential risks associated with the work to avoid doing high risk work during wet season or anticipated storms. Part of the strategy to reliably meet effluent limits will likely include the operation of the HR, which effectively reduces filter influent turbidity. This will be especially beneficial if an additional 5 to 10 mgd of flow needs to be routed to the conventional activated sludge (CAS) in the event of a failure in the MBR train. A clear understanding of the sequence of work and durations to execute the plan will minimize surprises and maintain compliance. We will work with you to identify the isolation points and limitations to avoid or limit the need for temporary bypass pumping and piping if possible.

The air scour blower system must be kept online and operational during construction. During normal operation, one filter is usually in backwash cycle and there is no redundant blower providing scour air. The back-up surface wash system is not operational. The construction sequence will plan to provide, connect, and commission one of the new air scour blowers prior to removal of existing air scour blower. Alternate locations may be considered that provide better access, improved air distribution, and facilitate installation. In doing so,

the air scour blower system remains online with minimal downtime. **As part of the MWRP Phase 2 Expansion, HDR added one additional aeration blower for the CAS train. While the mechanical installation was simple, the electrical integration of the new blower required sequence planning and coordination with Operations staff to ensure uninterrupted operation. Similar to the replacement of the scour blower, our approach will simplify the mechanical installation, but the more challenging aspect is the electrical integration.**

The backwash supply pumps must also be kept online and operational during construction. Prior to removal of the existing pumps, motors, etc., the replacement will be sequenced to remove one pump and associated infrastructure at a time to minimize the downtime.

OPTIONAL PERMITTING ASSISTANCE.

Tertiary filters are a significant treatment component to meet NPDES and Title 22 standards. While there are mitigation strategies to maintain reliable treatment, such as operation of the HR, there is still added risk with one filter offline during construction. Our Tertiary Filter Expert, Rich Stratton, will work with Gregorio Estrada to determine if there is an elevated risk during construction to meet discharge requirements. By working together with IRWD Regulatory Compliance staff, we will

determine capability to meet permit requirements throughout construction, and if necessary, coordinate with the RWQCB to obtain temporary permit conditions. This avoids the potential risk of being out of compliance with regulatory discharge permits.

Updating Electrical and Controls Systems is an Opportunity to Improve Operator Access and System Monitoring

There is limited available space on the deck of the Tertiary Filters to install a new filter control panel (FCP) while keeping the existing FCP operational during construction. Space will not be freed up until after demolition of existing FCP. HDR has identified options to install a permanent FCP at alternative locations to avoid having to install a temporary FCP during construction, and thereby reducing the construction schedule and project cost. Potential locations include on top of the HRC or at ground-level on the west or north side of the filters. The design may also incorporate the installation of an operator interface terminal (OIT) in same location as the existing FCP after demolition to serve as a local operation station. **Identifying a more permanent location for the FCP reduces the number of cutovers needed during construction to simplify sequencing and reduces cost.** During our Coordination meetings and site visits, HDR will vet these proposed locations with your staff to determine their viability. If none prove to be acceptable, then alternatively, we will install a temporary FCP to allow demolition of the existing FCP, and install permanent replacement in same location on top of the filters.

The variable frequency drives (VFDs) for the Backwash Supply Pump system are located in the Filter Pump Station No. 2 (FPS-2) electrical room. During normal operation, one filter is usually in backwash cycle requiring continuous availability of the backwash supply pumps, and there is no redundant pipeline providing backwash supply water from the pump station. The remote location of the VFDs does not allow IRWD staff to have eyes on the pumps when changing controls and operations. As indicated in the RFP, the design will provide a NEMA 3R walk-in enclosure with VFDs and remote PLC cabinet in an area nearby the

pumps. **Our team's current work on the IRWD Sewage Treatment Master Plan project will provide more insight towards coordinating potential future MWRP capital improvements with the location of this new enclosure and the routing of the ductbank from the FPS-2 electrical room to the new enclosure and to the backwash supply pumps.** The remote PLC cabinet located closer to the pumps will allow staff to more easily confirm and test operation. There is also potential for avoiding future costs by optimizing site layout and coordinating with the Sewage Treatment Master Plan.



IRWD Emergency Discharge HDR provided technical and regulatory guidance in negotiating with the Regional Board to allow discharge of treated effluent to the San Diego Creek during emergency conditions. The work included water quality modeling of Newport Bay, development of reasonable treatment objectives and assistance in negotiations with the Regional Board. HDR worked closely with IRWD Regulatory Staff in the development of approaches and background information in support of the revised permit conditions. This experience working directly with your regulatory staff will streamline the strategy development and coordination effort with Regional Board staff.



Our Experts will Collaborate with Operations to Diagnose the Problem and Recommend the Right Solution

INVESTIGATE CAUSE OF POOR PERFORMANCE FOR FILTER NO. 7.

The 2020 Condition Assessment and the 2020 Filter Surveillance Report could not identify a root cause for the poor performance of Filter No. 7. Media was replaced and continues to require more backwashing than other filters. Filter No. 7 reduces reliability of the tertiary filter system as a whole because only one filter may be in backwash at a time, which is an issue when one filter is in backwash twice as much as the others. More energy is being used due to excessive backwashing, and potentially less treated water is being produced.

Mandira Sudame will lead and coordinate our investigation with our Tertiary Filter Expert, **Rich Stratton**, to evaluate previous reports, review record drawings, visit the site, and discuss operational history with District staff. **Rich has designed over 10 tertiary filtration projects and will bring lessons learned to optimize the performance of Filter No. 7.** Our investigation team will evaluate influent hydraulics for potential unequal flow distribution to the tertiary filters, whereby too much flow is sent to Filter No. 7 and may be a contributing factor to its poor performance. Unequal flow distribution could be increasing loading to the cell, which would also contribute to media loss. Discussions with your staff will identify methods already tried, the resulting impact based on readily available data, and any potential outliers or considerations for a holistic understanding of the history associated with Filter No. 7.

Based on our investigation, HDR will develop informed recommendations for improvements to restore the performance of Filter No. 7 to be similar to the other tertiary filters, which saves energy costs, potentially improves treatment efficiency, and reduces media loss due to excessive backwashing. This also restores operational efficiency, redundancy, and reliability of the tertiary filtration system to reduce turbidity to below Title 22 standards. Maintaining low turbidity in filter effluent is important to increase disinfection efficiency and reduce chlorine usage at the chlorine contact basin.

OPTIONAL TASK:



If a culprit cannot be identified based on readily available data, we will work with you to develop a Filter Test Plan to change operational parameters and observe the resulting impact on tertiary filter performance. Additionally, we can collect samples and perform bench-scale tests to confirm consistent water quality into the filters. For the IRWD Los Alisos Water Recycling Plant (LAWRP) Total Suspended Solids Investigation Study, HDR performed bench- and pilot-scale investigations and recommended modifications that successfully solved water quality issues in LAWRP's tertiary effluent.

UNDERGROUND PIPELINE CONDITION ASSESSMENT.


While the 2020 Condition Assessment identified most of the existing assets for rehabilitation, there are several assets still with an unknown condition because it was only a visual assessment. Several buried pipelines are critical to the normal operation of the tertiary filters. The 30-inch Backwash Supply (DIP), 36-inch Spent Backwash (DIP),

and 42-inch Filter Effluent (CMLC steel) are over 40 years old, and the 30-inch Backwash Supply (CMLC steel) is over 20 years old. The Condition Assessment visually assessed above-ground piping to determine filter influent piping was in good condition, but other piping showed signs of corrosion. Our team knows from our previous condition assessment work on the IRWD FPS-2 Header Replacement project that the buried piping is likely not connected and soil corrosivity can vary in a short distance. Certain areas are severely corrosive while others 50-feet away may be only mildly corrosive. Review of existing record drawings and previous reports will be performed, including previous soil corrosivity analyses, to understand existing conditions.

HDR IS A RECOGNIZED LEADER IN THE FIELD OF CONDITION ASSESSMENT.

Our team will perform external corrosion direct assessments (ECDA) of the three buried pipelines to estimate the percentage loss of wall thickness based on ultrasonic thickness (UT) measurements and evaluate condition of the cement mortar coating. Soil and mortar samples will be collected and analyzed by our in-house laboratory. Soil will be tested for corrosivity and mortar testing will consist of the determination of chloride concentration and pH to provide unbiased recommendations for incorporation into the detailed design. Based on our findings from the condition assessment, our report will identify recommendations for these buried pipes, which may include continued monitoring, repair, rehabilitation, or replacement.

OPTIONAL TASK:

 Our condition assessment team may perform electromagnetic conductivity/resistivity (Emag) testing along the existing pipe alignments to identify potential “hot spots” for

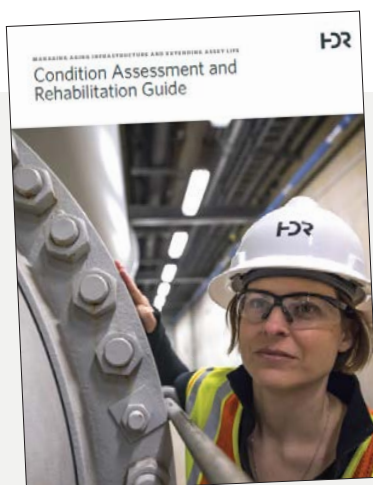
active corrosion. More focused cell-to-cell testing may also be performed to verify those “hot spots” and prioritize them to as potential excavations for ECDA. These “hot spots” are the locations with highest likelihood for active corrosion sites. Excavations are expensive. By performing these assessments along the surface first to identify the “hot spots” informs the decision-making to select locations for ECDA that have the highest likelihood of active corrosion cells. This approach saves money and assists with potential identification of the worst-case condition of the buried pipe. These results will inform IRWD if the pipes are in good condition or in need of recoating/rehab or replacement.

FILTER UNDERDRAINS.

The underdrain for Filter No. 7 was inspected this year and found to be in good condition, so there is potential that the underdrains for Filters 1-6 are in a similar condition. Most of the underdrains were replaced in 1999, except for Filters 4 and 6 that are still original from 1978 construction. Our design will incorporate the inspection of all the underdrains during construction. Our strategy is to sequence the rehabilitation work to allow early inspection of one underdrain installed in 1978 and one from 1999 towards the beginning of the project. This will inform the likely condition and expectations for the remaining filter underdrains and incorporate potential replacement of the underdrains if found to be in poor condition as an optional bid item in the contract documents to limit IRWD exposure to unforeseen change orders during construction.

EXTENSION OF OVERFLOW PIPELINE CONCEPTUAL LAYOUT.

Tertiary filter overflow pipeline discharges to surface of road. Unforeseen overflow events cause flooding of the road surface and introduces potential safety issue. Identifying the optimal conceptual layout to bury and extend the overflow pipe to the spent backwash channel

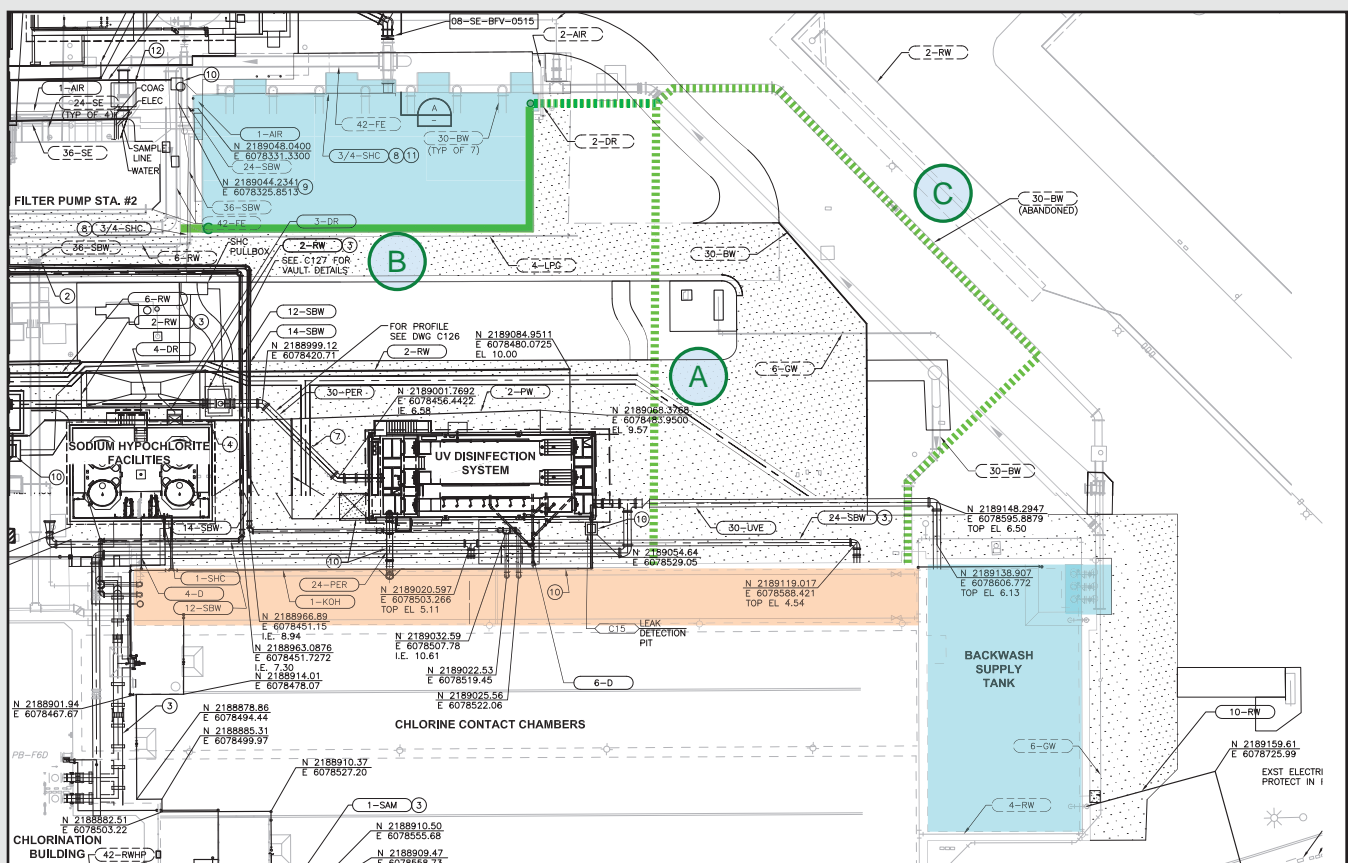


In the last half of 2019, HDR published our latest Condition Assessment and Rehabilitation Guide, to provide our clients and others with readily available summarized information. We will leverage this expertise and collaborate with you to select and implement the most appropriate and most cost effective technology or combination of technologies.

should consider more than the gravity hydraulics and existing subsurface utilities, but also the potential future capital improvements at MWRP resulting from HDR's work with the IRWD Sewage Treatment Master Plan. We will review record drawings to identify underground utilities, perform potholing if needed, and evaluate gravity hydraulic calculations to verify viability. The preferred conceptual layout will be selected and ready for design and consider future changes at MWRP. Unforeseen overflow events will be safely routed to the spent backwash channel to not flood the road surface and reduce O&M efforts.

Holistic Approach to Future Savings

Developing the conceptual layout in consideration of HDR's current work with IRWD on the Sewage Treatment Master Plan can save significant costs by avoiding conflicts with potential future MWRP improvements and the need to re-route the new overflow pipeline.



OPTION A

is a new buried pipeline and new concrete penetration into the spent backwash tank. This requires significant underground work and a new penetration to the spent backwash channel, requiring isolation and temporary rerouting of the backwash supply surge tower overflow.

OPTION B

routes the overflow pipe above-grade along the wall of the tertiary filters before going below ground to connect into the existing 24-inch spent backwash pipe. Need to consider concurrent head conditions to ensure spent backwash flow is not disrupted during an overflow. This option requires the least underground work.

OPTION C

is routed underground to an abandoned 30-inch backwash pipe and to the backwash supply surge tower overflow pipe to discharge into the spent backwash tank. This takes advantage of existing pipelines and reduces underground work and eliminates new penetrations to the spent backwash channel.

DETAILED SCOPE OF WORK

Based on our review of the RFP and exhibits, site walk, and discussions with IRWD staff, we have developed a scope of work for the Tertiary Filters Rehabilitation project. The scope of work is organized and detailed to provide a clear understanding of the project work and so that progress can be monitored and verified. We would welcome the opportunity to discuss the addition, deletion, or modification of any of the individual scope items during negotiations with the District.

The scope of work identified below generally follows that provided in Section II of the RFP with the noted exceptions and changes to facilitate an efficient flow of the required analyses, evaluations, decisions, and documentation.

Task 1 Project Management

Our project management approach is built on trust, a clear definition of shared goals, and a mutual understanding of the necessary steps to achieve those goals. Our proposed Project Manager, Amy Omae, has been working with IRWD for over 13 years and continues to effectively deliver quality products that IRWD can be proud of. She will develop, execute, and update the mainstay of the project—the Project Management Plan (PMP). Even the most brilliant technical approach to a project will be stifled if not counterbalanced by an equally detailed and well-planned approach to project management. It is this recognition that enables us to successfully deliver projects on-time with creative solutions. Weekly check-ins between Rachael, Amy, and critical staff as needed, and monthly status reports will provide IRWD with regular progress updates as well as identify potential risks early to mitigate cost or schedule impacts.

HDR will organize and facilitate project meetings and workshops identified in the RFP by providing timely meeting agendas and minutes for IRWD review. The meeting minutes will document the list of participants, action items, key decisions, and highlights of discussions.

Our approach to quality assurance and quality control (QA/QC) starts on day one of the project. HDR administers a quality management system (QMS) focused on the achievement of our strategic and tactical business objectives that is rooted in the principles and guidelines set forth by ISO 9001:2015. Our policy is to consistently provide professional services that uphold

our objectives, satisfy applicable statutory and regulatory requirements, and meet or exceed our client expectations. HDR has assembled a uniquely qualified team for this project, many of whom have worked on IRWD projects for over a decade. Our team has analyzed the project requirements, developed specific tasks, and paired them with the correct staff to assure our ability to have the right people doing the right thing at the right time.

All deliverables will receive rigorous QC reviews before submittal to the District. In addition, the management team will perform regular quality assurance (QA) audits of the project files, document control systems, technical memoranda, calculations, specifications, invoices, progress reports, and correspondence to confirm the procedures and systems put in place by the PMP are being followed. If deviations are found, corrective measures will be made or the PMP will be modified to memorialize the new procedures.

DELIVERABLES:

- Weekly Status Reports – Brief summary email transmitted on Mondays, including activities completed the previous week, activities planned for the upcoming week and critical decisions.
- Monthly Status Reports – Transmitted with monthly billing invoice summarizing the work completed, reviewing work status relative to budget and schedule, and updated project schedule.
- Meeting Agendas – Submitted at least five days prior to the meeting.
- Draft Meeting Minutes – Submitted within two working days following the meeting.
- Final Meeting Minutes – Submitted within one week following the meeting.

ASSUMPTIONS:

- The level of effort for Task 1B is limited to meeting attendance and development of agendas and meeting minutes. The level of effort for meeting preparation are included in the corresponding preliminary design (Task 2) or final design (Task 3) phase. IRWD will provide review comments on within 1 to 2 days of draft meeting minutes submittal.
- Key staff to attend the meetings include the HDR Project Manager and up to three task leads.
- The Preliminary Design Kickoff, Coordination Meeting #1, and Coordination Meeting #2 will be attended in-person. All other meetings and workshops will be

facilitated via HDR's virtual meeting platform (Cisco Webex). Alternatively, IRWD may opt to setup the meetings through their preferred virtual meeting platform (i.e. Microsoft Teams) as the host, and HDR will conduct the meeting.

- If Monday is a recognized holiday, then the weekly status report will be transmitted on the following business day.

Task 2 Preliminary Design

The HDR Team brings an overall understanding of IRWD's objectives for this project based upon knowledge and experience gained on previous IRWD projects, including the MWRP Phase 2 Expansion and the FPS-2 Header Replacement Project. As such, we know IRWD's expectations for a comprehensive Preliminary Design Report (PDR) that compiles information and knowledge gained and serves as the justifiable basis of design with identified design criteria.

A. Tertiary Treatment Facility. Identify and define design criteria for the rehabilitation or replacement of the process mechanical, electrical, instrumentation and control (I&C), and structural assets identified in the RFP that comprise the Tertiary Treatment Facility.

1. Tertiary Filters Tanks Area:
 - a. Filter media for all tertiary filters tanks.
 - b. Air diffuser assemblies for all tertiary filters tanks.
 - c. Surface wash systems for all tertiary filters tanks. HDR will consider replacement of the surface wash systems; however, it is our understanding that the original intent of the surface wash system, which has rarely (if ever) been used, was to act as a backup to the air scour system. Since this project

will incorporate a redundant blower, the potential for air scour system failure is unlikely; therefore, we propose to demolish the surface wash systems.

- d. Wall wash system assemblies for all tertiary filters tanks.
- e. All effluent sluice gates.
- f. All valves at tertiary filters tanks and valve vaults.
- g. All valve actuators at tertiary filters tanks and valve vaults.
- h. Exposed piping at valve vaults noted to be in poor condition in the Condition Assessment.
- i. Air compressors for pneumatic actuators: compressors, air dryer, filters, and compressed air storage tanks
- j. All above-ground electrical conduit at the Tertiary Filters Tanks Area;
- k. Upgraded filter control panel to provide full automated and manual control of the Filters through the District's PLC to the SCADA system.
 - l. Purge control panels;
 - m. Level transmitters;
 - n. Pressure switches;
 - o. Structural repairs to cracks, exposed aggregate, spalling and scaling: filter structure and tanks, four (4) effluent wet wells, and four (4) valve vaults (based on the V&A assessment of concrete structures included in appendix of the 2020 Condition Assessment);
 - p. Filter underdrain inspection. A discussion of options associated with the condition of the filter underdrain upon inspection during construction will be included in the PDR and incorporated into the design documents;
 - q. Temporary filter control system. The RFP identifies provisions to provide a temporary filter control system with communication to the District's existing PLC so the existing PLC cabinet can be replaced and tested. However, HDR will provide alternate locations for a permanent filter control panel and operator interfaces to avoid the need for temporary panels during construction and to perform cut overs twice.



Amy places an emphasis on collaboration and communication to get projects completed on-time and within budget.

2. Air Scour Blower Area
 - a. Fully replace the air scour blower system, including the blower, motor, enclosure, disconnect, mass flow transmitter, intake filter assembly, muffler, temperature switches, valves, and valve actuators; and incorporate a redundant blower
 - b. Verify if the existing electrical feed is adequate for the new blower and verify a new feed for the additional blower.
3. Backwash Supply Pumps Area
 - a. Fully replace the backwash supply pumps system, including the pumps, motors, disconnects, level transmitter, flow meter, and valves;
 - b. Structural repairs to exposed aggregate at the Backwash Supply Tank;
 - c. Analyze the power supply to the backwash supply pumps. HDR's knowledge obtained from our work

INNOVATIVE IDEA AND OPTIONAL TASK:

The inlet to the backwash supply tank draws off of the first pass of the chlorine contact basin (CCB), which results in additional chlorine usage and affects the CT calculation for Title 22 disinfection. HDR can evaluate potential relocation of the backwash supply tank inlet towards the end of the CCB to reduce chlorine residual loss and minimize impact to CT.

on the IRWD Sewage Treatment Master Plan will also inform the proposed placement of the new NEMA 3R walk-in enclosure containing VFDs and remote PLC cabinet and the routing of underground conduit to avoid conflict with potential future improvements and additional cost.

- d. Electrical conduit:
 - » Provide underground power, control and signal conduits from the FPS2 electrical room to the backwash supply pump area.

B. Underground Pipeline Condition Assessment.

Summarize findings and recommendations from the condition assessment to be performed on the buried backwash supply pipe (30-inch DIP and 30-inch CMLC steel), spent backwash pipe (36-inch DIP), and filter effluent (42-inch CMLC steel). HDR is a recognized leader in the corrosion and cathodic protection industry. Our team has extensive experience performing external corrosion direct assessments (ECDA) and soil corrosivity analyses as we did with the IRWD FPS-2 Header Replacement project. Based on this previous work, we know the soil corrosivity near the Tertiary Treatment Facility can vary significantly within a short distance (less than 50 feet).

INNOVATIVE IDEA AND OPTIONAL TASK:

As an Optional Task, HDR proposes to perform surface evaluations to identify locations along the buried pipelines that have the highest likelihood of active corrosion cells prior to ECDA. These surface evaluations include electromagnetic (Emag) testing and/or cell-to-cell testing. These evaluations can be performed within a single day, and in conjunction with the soil corrosivity analyses, the findings can provide valuable insight regarding recommending excavation locations for ECDA. As we have done for many other clients, this will help IRWD prioritize locations where corrosion is actively occurring. This reduces the risk of spending money on excavating an area to expose pipes perfectly intact while further along the same pipe may be experiencing more significant corrosion.

C. Investigate Cause of Poor Performance for Filter No.

7. Summarize findings and recommendations from the investigation of the poor performance for Filter No. 7. Our proposed task lead, Mandira Sudame, has been involved in several troubleshooting and startup of wastewater treatment processes and will work closely with Rich Stratton, HDR's Tertiary Filter Expert, to review existing record drawings, reports, and data to identify the potential root cause(s) leading to the reduced run time from Filter No. 7. This will likely involve interviews with IRWD staff to understand methods and operational correction measures that have already been attempted and to vet ideas. **Rich will bring lessons learned from his extensive experience with tertiary filter rehabilitation and design to provide recommendations to restore Filter No. 7 performance run times to be similar to Filter No. 1-6.**

D. Extension of Overflow Pipeline Conceptual Layout.

Utilizing our team's intimate knowledge of the IRWD Sewage Treatment Master Plan, HDR will provide a conceptual layout to route the overflow pipeline underground to the spent backwash tank in consideration not only of existing utilities and features but also future capital improvement projects at MWRP as well. **This foresight allows IRWD to avoid locating new or recently rehabilitated assets in areas that may conflict with future modifications and reduces additional costs for relocation.**

E. Electrical. The existing above-ground, exposed conduit at the tertiary filters is corroded and will be replaced as part of this project. It is assumed that the existing wiring is near its end of useful life and is experiencing corrosion and degradation similar to the conduits they are in. Replacing the exposed conduit will require the existing conductors to be removed and will be a good opportunity to replace them at the same time in consideration of the fact that only one filter can be offline at any given time. HDR's electrical engineer will participate in two coordination meetings and site visits to discuss electrical and control improvements and construction sequencing. Sequencing the work in the backwash supply area to install the new variable frequency drives, remote PLC cabinet, and ductbanks prior to replacing the pumps allows the pumps to be replaced and connected to the new electrical system one at a time, thereby minimizing downtime.

Similarly, installing and commissioning the new blower prior to replacement of the existing blower will allow the air scour system to remain fully functional and minimize downtime as well.

F. Instrumentation and Control. Based on our understanding of the project objectives, the I&C design in the PDR will include:

- a. Replacement of mature current Modicon Quantum PLC with District Standard PLC
- b. Replacement of PLC panel on the Tertiary Filter Deck
- c. Replacement of annunciator panel in PLC panel on the Tertiary Filter Deck to current standard OIT (Maple Systems OMI6815A)
- d. Provide a new PLC within the new enclosure to support the Backwash Supply Pump Area.
- e. Development of updated process control descriptions (PCDs) for each impacted process area

- f. Development of current and consolidated documentation for impacted process area including process control descriptions (PCDs), P&IDs, and communication block diagrams.
- g. Identification and implementation of process improvements in coordination with plant Operations and Maintenance (O&M) to right-size process operation taking advantage of automation, monitoring, and process mechanical improvements

If proposed alternate control panel locations are acceptable by IRWD staff, then there may be no need for temporary control improvements.

G. Construction Sequence. Our task lead, Gregorio Estrada, will participate in two coordination meetings and develop a preliminary construction sequence based on those discussions in collaboration with IRWD Operations and Automation staff to maintain continuous operation and permit compliance of the tertiary filters. Key considerations, such as performing work concurrently so that only one filter being offline at any given time and potential response in the event of an MBR failure (reliable treatment capacity at 12 to 18 mgd), will be factored into the construction sequence. He was a significant contributor to the development of detailed construction sequencing for several successful IRWD projects, such as the MWRP Phase 2 Expansion and the FPS-2 Header Replacement. **Gregorio is intimately familiar with IRWD staff, treatment processes, capability, and needs as well as IRWD standards and procedures; he will work with you to develop a construction sequence that minimizes IRWD risk.** Although the RFP allows for temporary pumps, piping, control, or power facilities to be considered, there is potential to avoid temporary facilities if proposed locations for permanent options are acceptable to District staff.

H. Site Survey. Our team will perform an aerial survey and verify spot elevations of visible features and up to ten (10) potholes to create a topographic map with one-foot contours based on NAVD 88 and NAD 83 coordinate system.

I. Potholing Underground Utilities. Our team will perform up to ten (10) potholes to identify subsurface utilities or other physical features.



J. Geotechnical Investigation. Our subconsultant Ninyo & Moore has performed extensive geotechnical work at MWRP and understands the soil conditions on-site. Based on these previous reports, the HDR team will determine if additional soils investigation is needed.

INNOVATIVE IDEA AND OPTIONAL TASK:

As an additional Optional Task, and potential alternative to this optional geotechnical investigation, the HDR team proposes to collect and analyze soil samples during the potholing effort. This provides more results covering a broader area at minimal additional cost.

K. Optional Geotechnical Investigation: In accordance with the RFP, the level of effort to perform additional geotechnical investigation and drill one soil boring with a hand auger is included as an optional task.

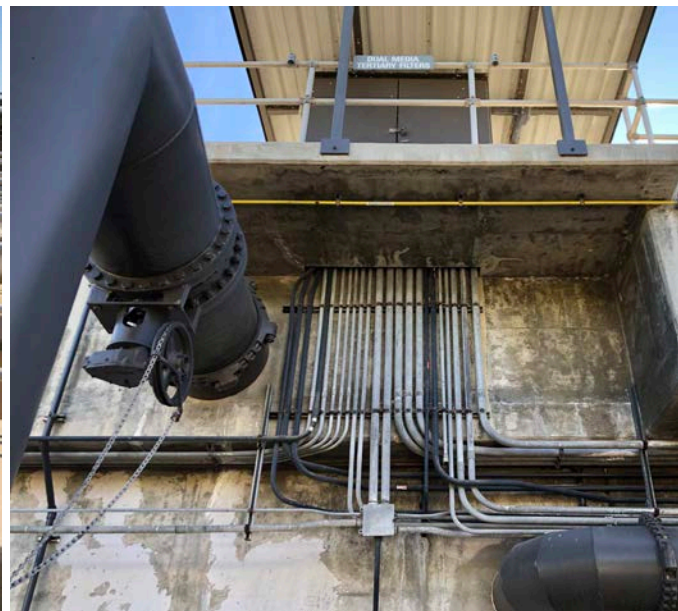
L. Optional Permitting Assistance. During the preliminary design phase, HDR will determine if there is a need for IRWD to obtain a temporary permit variance from meeting current NPDES and Title 22 discharge requirements during construction and apply for temporary permits, if necessary. Gregorio Estrada and Rich Stratton will identify and outline potential exceedances or risk of exceeding permitted limits in consideration of typical influent variations during the construction sequence.

M. Project Schedule. HDR will develop a preliminary construction project schedule identifying key milestones and critical path issues based on anticipated design completion, preliminary construction sequence, and recommendations within the PDR.

N. Estimates of Probable Construction Costs. HDR will develop an opinion of probable construction cost estimate (OPCC) as a Class 3 estimate as defined by American Association Cost Engineering International. This cost estimate will be a built-up of cost elements with productivity adjustments for the work's complexity. This will include major equipment quotations on process and electrical equipment, media, and large valves. The OPCC consists of a written basis of estimate, which provides major assumptions, estimate methodology, cost basis, and excluded items. The OPCC will consist of a summary table in the main body of the PDR with detailed cost reports provided in the appendix.

O. Team Meetings. Meetings, workshops, and site visits during the preliminary design phase are important to provide a smooth approach to the development and clear direction to execute the detailed final design work. Active engagement in these meetings by the IRWD and HDR team are important to understand project constraints/limitations and existing control and operations as well as collaborate and communicate construction sequence. During Draft Technical Memorandum (TM) Submittal Meetings, HDR will develop a presentation to provide a summary of the draft submittal to communicate findings and results of the Filter Performance Evaluation and the Underground Pipeline Condition Assessment. HDR will conduct meetings to summarize and discuss recommendations in the Draft and Final Preliminary Design Report (PDR).

HDR will organize and facilitate project meetings and workshops identified in the RFP by providing timely meeting agendas and minutes for IRWD review. The meeting minutes will document the list of participants, action items, key decisions, and highlights of discussions.



P. Technical Specifications. HDR will develop an outline of the project manual and technical specifications. The main body of the PDR will include a list of technical specifications anticipated to be added to the Project Manual that are not part of IRWD’s Construction Manual. The complete outline of the Project Manual will be incorporated as an appendix.

Q. Construction Plans. Based on our project understanding and scope, we expanded on the drawings list identified in the RFP to develop our proposed list of design drawings (78 sheets total) shown in the table below. This drawings list serves as the basis for our level of effort. From this, we identified 16 sheets that will be developed as part of the preliminary design submittal. The drawings marked with an asterisk were not included in the RFP and are recommend to be included in the design package.

We understand the importance of meeting project schedules.

Often the most difficult aspect of a project is keeping it moving forward promptly. Many projects these days fall victim to gridlock, either from public protest, permitting, loss of leadership and/or loss of momentum or funding. Diligence, flexibility, credibility and tact are needed to work through these potential delays or stopping points. **Our proposed project manager, Amy Omae, understands your policies, procedures, standards of expected work and overall organization structure, and has worked closely on previous projects with many of the staff members assigned to this project.**

Proposed List of Drawings

SHEET COUNT	DISCIPLINE	DRAWING NUMBER	INCLUDED IN PDR	DRAWING NAME
1	General	G001	X	Title Sheet
2	General	G002	X	Vicinity and Location Maps, Sheet Index
3	General	G003		General Symbols, Notes and Legends
4	General	G004	X	Construction Sequencing Plan 1
5	General	G005		Construction Sequencing Plan 2*
6	General	G006		Construction Sequencing Details
7	Demolition	X001	X	Demolition Site Plan
8	Demolition	X002		Demolition Plan Tertiary Filter
9	Demolition	X003		Demolition Plan Air Scour Blowers
10	Demolition	X004		Demolition Plan Back Wash Pumps, Sections and Details
11	Demolition	X005		Tertiary Filter Demolition Sections
12	Demolition	X006		Tertiary Filter Demolition Details
13	Demolition	X007		Tertiary Filter Demolition Photographs*
14	Demolition	X008		Air Scour Blowers Sections & Details
15	Civil	C001		General Civil Notes*
16	Civil	C002	X	Site Plan - Paving & Grading
17	Civil	C003		Yard Piping
18	Civil	C004		Details, Enlarged Plans, and Sections
19	Civil	C005		Details, Sections*
20	Structural	S001		Structural Notes



SHEET COUNT	DISCIPLINE	DRAWING NUMBER	INCLUDED IN PDR	DRAWING NAME
21	Structural	S002		Special Inspections, Structural Observations & Abbrevs*
22	Structural	S003		Structural Details
23	Structural	S004		Tertiary Filters Plan
24	Structural	S005		Tertiary Filters - Sections
25	Structural	S006		Tertiary Filters - Sections/Details*
26	Structural	S007		Air Scour Blowers Plan
27	Structural	S008		Air Scour Blowers - Sections/Details
28	Structural	S009		Back Wash Pumps Plan
29	Structural	S010		Back Wash Pumps - Sections/Details
30	Process	D001		Process General Notes
31	Process	D002		Process Standard Details I
32	Process	D003	X	Tertiary Filter Plan
33	Process	D004		Tertiary Filter Partial Plan*
34	Process	D005		Tertiary Filter - Sections
35	Process	D006		Tertiary Filter - Details
36	Process	D007		Tertiary Filter - Details*
37	Process	D008	X	Air Scour Blowers Plan
38	Process	D009		Air Scour Blowers- Sections
39	Process	D010		Air Scour Blowers - Details*
40	Process	D011	X	Back Wash Pumps Plan
41	Process	D012		Back Wash Pumps- Sections
42	Electrical	E001	X	Electrical Legend and Symbols
43	Electrical	E002	X	Electrical Site Plan
44	Electrical	E003		Equipment Elevations
45	Electrical	E004		Details I*
46	Electrical	E005		Details II*
47	Electrical	E006		Ductbank Sections*
48	Electrical	E007		Ductbank Foldouts*
49	Electrical	E008	X	Electrical Single Line Diagram
50	Electrical	E009		Panel Schedules
51	Electrical	E010		Conduit Schedule I
52	Electrical	E011		Conduit Schedule II*
53	Electrical	E012		Schematics I
54	Electrical	E013		Schematics II*
55	Electrical	E014		Schematics III*
56	Electrical	E015		Tertiary Filters Power Plan

SHEET COUNT	DISCIPLINE	DRAWING NUMBER	INCLUDED IN PDR	DRAWING NAME
57	Electrical	E016		Tertiary Filters Control and Signal Plan
58	Electrical	E017		Tertiary Filters Lighting and Grounding Plan
59	Electrical	E018		Backwash Supply Pump Station Power Plan
60	Electrical	E019		Backwash Supply Pump Station Enlarged Plan
61	Electrical	E020		Backwash Supply Pump Station Control and Signal Plan
62	Electrical	E021		Backwash Supply Pump Station Lighting and Grounding Plan
63	Electrical	E022		Air Scour Blowers Power, Control, and Signal Plan
64	Electrical	E023		Air Scour Blowers Lighting and Grounding Plan
65	Instrumentation and Control	Y001	X	Instrumentation Notes
66	Instrumentation and Control	Y002		Typical Details 1*
67	Instrumentation and Control	Y003	X	SCADA Network Architecture
68	Instrumentation and Control	Y004		Standard Control Panel I/O Wiring Diag. DI*
69	Instrumentation and Control	Y005		Standard Control Panel I/O Wiring Diag. DO*
70	Instrumentation and Control	Y006		Standard Control Panel I/O Wiring Diag. AI*
71	Instrumentation and Control	Y007		Standard Control Panel I/O Wiring Diag. AO*
72	Instrumentation and Control	Y008		Standard Control Panel Rack Bill of Material
73	Instrumentation and Control	Y009		Standard Control Panel Cabinet Layout
74	Instrumentation and Control	Y010		Control Panel Elevation
75	Instrumentation and Control	Y011		Control Panel Backpanel
76	Instrumentation and Control	Y012	X	Tertiary Filters
77	Instrumentation and Control	Y013	X	Air Scour Blowers
78	Instrumentation and Control	Y014	X	Backwash Pumps

R. Preliminary Design Report (PDR). HDR will provide a Draft and Final PDR to document and summarize the discussions with IRWD staff, findings of the preliminary design subtasks, basis of recommendations, and establish design criteria that is comprehensive to provide a seamless transition into the Final Design phase.

DELIVERABLES:

- Draft TM for the Underground Pipeline Condition Assessment (in electronic format)
- Draft TM for the Investigation of Poor Performance of Filter No. 7 (in electronic format)
- Draft PDR (eight hard copies and one electronic PDF copy)
 - Outline of the Project Manual including Technical Specifications (in electronic PDF format)
 - » Preliminary control descriptions to facilitate programing for improvements.
 - Preliminary Design Drawings (in electronic PDF format; 22-inch x 34-inch to be consistent with Final Design)
 - Final TM for the Underground Pipeline Condition Assessment
 - Final TM for the Investigation of Poor Performance of Filter No. 7
- Final PDR (eight hard copies and one electronic PDF copy)
 - Outline of the Project Manual including Technical Specifications (in electronic PDF format)
 - » Preliminary control descriptions to facilitate programing for improvements.
 - Preliminary Design Drawings (in electronic PDF format; 22-inch x 34-inch to be consistent with Final Design)
 - Final TM for the Underground Pipeline Condition Assessment
 - Final TM for the Investigation of Poor Performance of Filter No. 7

ASSUMPTIONS:

- The level of effort includes meeting preparation. The level of effort for participation and development of agendas and minutes.
- The excavations and safety measures needed for HDR's team to perform the ECDAs (up to four) will be provided by IRWD. If selected, this may be discussed during contract negotiation to be incorporated into HDR's scope of work and level of effort.
- Implementation of the recommendations from the

Filter Performance Evaluation and Underground Pipeline Condition Assessment are not currently included in the level of effort.

- The Electrical and I&C design and associated level of effort to develop the preliminary design associated with Task 2.A (Tertiary Treatment Facility) is allocated to Task 2.E (Electrical) and Task 2.F (I&C), respectively, in the proposed fee.
- No additional changes to the Final TMs will be made from the Draft PDR to the Final PDR submittals.
- IRWD review comments on draft submittals will be compiled into one version and identify resolution and/or direction for any conflicting comments between multiple reviewers.
- IRWD will directly pay the permitting agency for any application fees associated with acquiring the temporary permit.

Task 3 Final Design

Based on the recommendations in the Preliminary Design Phase, the HDR team will prepare contract documents during the Final Design Phase for the 60-percent, 90-percent, 100-percent, and Final Design Submittals). The 60-percent design phase will put the key building blocks in place for the complete set of contract documents and design documentation for the project. It will establish the framework for the drawings and specifications. Development of the 60-percent drawings will provide an opportunity for project reviews and to make refinements and address project issues before a more detailed design is developed. HDR will coordinate and conduct a meeting with IRWD staff at each design submittal (60-percent, 90-percent, 100-percent, and Final) to review the contract documents, obtain review comments and concurrence, and discuss how comments from the previous design submittal were addressed.

The final design shall result in the preparation of the Contract Documents. In the final design phase, the Engineer shall address the items discussed below:

A. Project Manual: HDR will prepare a Project Manual in standard IRWD format for the Contract Documents. IRWD's front end documents shall be utilized, and determine any needed supplemental special provisions that should be added to comply with IRWD's general provisions and front-end requirements. Based on discussions with IRWD staff, the Project Manual will describe the allowable shutdown durations and sequencing associated with construction activities. The Project Manual will include the IRWD General Technical

Specifications, identify any modifications, and any project specific technical specifications.

B. Construction Plans: HDR will develop detailed construction drawings in AutoCAD and using NCS V4.0 layering standards on 22" x 34" sheets utilizing IRWD's standard border template. The table shown previously on pages 16 to 18 identifies our proposed list of final design drawings and serves as the basis for our level of effort. This list is based on our project understanding of the scope, which increased the number of drawings from that identified in the RFP to 78 sheets total. From our experience and familiarity with IRWD's expectations, we believe that this is the number of sheets required to meet this project's needs. Construction notes will be used (callouts on the plans are not allowed) on all construction drawings. Construction plans will be prepared using the NAVD 88 and NAD 83 survey standards.

C. Electrical/Instrumentation. HDR will coordinate with IRWD staff to incorporate IRWD's standard operations, programming, security, and tagging requirements into the design. We will develop P&IDs, single line diagrams, control equipment list, control loop descriptions, and method of integrating the proposed temporary and permanent facilities into IRWD's existing SCADA system. An operational scheme and functional descriptions (in plain English) will be developed and submitted for District review and approval.

D. Project Schedule. HDR will regularly maintain and update the project schedule to include detailed schedules for both design and construction activities. Key milestones and critical factors impacting the project schedule including implementation, permitting, and coordination activities will be incorporated into the proposed schedule to stay on track. The schedule shall be prepared in Microsoft Project. A preliminary schedule outlining the preliminary and final design phase activities shall be included in the proposal.

E. Opinion of Probable Construction Cost. HDR will update the OPCC at the 60-percent, 90-percent, and 100-percent design submittals providing more detail as the design is further defined. The deliverable will include a written basis of estimate. The OPCC will consist of a summary and detailed cost reports delivered in a PDF.

F. Design Deliverables. HDR will produce design deliverables at the 60-percent, 90-percent, 100-percent, and Final Design Submittals as listed below.

DELIVERABLES:

- 60-Percent Design Submittal
 - Construction Plans (Civil/site, demolition, process mechanical, structural, and electrical plans. Basic mechanical equipment, structural layouts, pipeline alignments, preliminary profiles, and existing utilities will be shown, at a minimum.)
 - » Six 11"x17" bound hard copies
 - » Two 22"x34" bound hard copies
 - » One CD containing a single PDF file of the entire plan set
 - Project Manual (Complete table of contents)
 - » Electronic PDF file transmitted via email.
 - Updated OPCC (AACE Class 2 estimate)
 - » Electronic PDF file transmitted via email.
- 90-Percent Design Submittal
 - Construction Plans (Concepts of each component of the design such as civil, structural, demolition, process mechanical, electrical and instrumentation. Plan, profile, connections, details, and location of appurtenances will be shown. Plan and profile drawings and process mechanical details/drawings will be developed to a high level of detail.)
 - » Six 11"x17" bound hard copies
 - » Two 22"x34" bound hard copies
 - » One CD containing a single PDF file of the entire plan set
 - Project Manual (Contract documents, general provisions, special provisions, general requirements, technical specifications, and appendix)
 - » Five color coded hard copies.
 - Updated OPCC (AACE Class 1 estimate)
 - » Electronic PDF file transmitted via email.
- 100-Percent Design Submittal
 - Construction Plans (Concepts of each component of the design such as civil, structural, demolition, process mechanical, electrical and instrumentation. Plan, profile, connections, details, and location of appurtenances will be shown. Plan and profile drawings and process mechanical details/drawings will be developed to a high level of detail.)
 - » Six 11"x17" bound hard copies
 - » Two 22"x34" bound hard copies
 - » One CD containing a single PDF file of the entire plan set
 - » One CD containing AutoCAD files for the entire plan set
 - Project Manual (Contract documents, general provisions, special provisions, general requirements, technical specifications, and appendix)

- » Five color coded hard copies.
- » One CD containing all MS Word files used in the preparation of the Project Manual
- o Notebook with the design calculations (including, but not limited to, process mechanical, civil, structural, electrical, pipe thickness and restraint).
 - » Five color coded hard copies.
- o Updated OPCC (AACE Class 1 estimate)
 - » Electronic PDF file transmitted via email.
- o Final Design Submittal
- o Construction Plans
 - » PDF files of the final submittal transmitted electronically.
 - » One 22"x34" final stamped and signed reproducible plan set (mylar title sheet and all remaining sheets on bond paper)
- o Project Manual (Contract documents, general provisions, special provisions, general requirements, technical specifications, and appendix)
 - » PDF files of the final submittal transmitted electronically.
 - » One original signed Project Manual for IRWD's signatures.

ASSUMPTIONS:

- The level of effort includes meeting preparation. The level of effort for participation and development of agendas and minutes is included in Task 1.
- The Electrical and I&C design and associated level of effort to develop the preliminary design associated with Task 3.A (Project Manual) and Task 3.B (Construction Plans) is allocated to Task 3.C (Electrical/Instrumentation) in the proposed fee.
- IRWD review comments on draft submittals will be compiled into one version and identify resolution and/or direction for any conflicting comments between multiple reviewers.

G. Addenda Preparation and Pre-Bid Meeting: During the bidding period, HDR will assist the District with providing information and clarification of bid documents to prospective bidders. The estimated level of effort includes the preparation of up to three addenda including revisions to the design plans and specifications and assistance with addressing bidder questions based on the requirements identified in the RFP.

DELIVERABLES:

- Plan Revisions (in electronic PDF format).
- Specification Revisions (in electronic PDF format).
- Bidder Questions (in email and/or electronic PDF format, as appropriate).

ASSUMPTIONS:

- Plan Revisions. Up to 24 hours of appropriate staff time for plan revisions to the construction drawings.
- Specification Revisions. Up to 24 hours of appropriate staff time for revisions or additions to the project specifications.
- Bidder Questions. Up to 24 hours of appropriate staff time to address and respond to bidder questions.
- Pre-Bid Meeting duration is two-hours, inclusive of a site visit with potential bidding contractors. HDR's Project Manager and up to two task leads, as appropriate, will attend the meeting and site visit.

The partnership between IRWD and HDR is based on a foundation of teamwork, collaboration, and technical excellence.

Our team will work with you to successfully deliver a high-quality product to accomplish IRWD's goals. We welcome the opportunity to discuss any part of our proposed approach, scope, and level of effort to deliver this important project that meets your needs.

SECTION B



TEAM

B



C-24

TEAM

We have assembled an experienced team of fully committed staff that will work in partnership with your staff. Our core team members have been working with IRWD for 10+ years. Our expertise in similar projects combined with our thorough knowledge of the MWRP will help provide rehabilitation and improvement recommendations.

The organizational chart below provides the names and job title of each proposed team member, including subconsultants. The individuals proposed for this project represent our best and most qualified staff to support the District with this important project. The organization of the HDR team profiles for key team members are provided on the following pages.

Our proposed Project Manager and your primary point of contact for this project is Amy Omae. She has demonstrated technical expertise, leadership and ability to deliver this Project. She will lead the HDR team and partner with IRWD staff to envision innovative ideas and cost effective solutions for your wastewater facility.



Amy has worked with you for over 13 years and will leverage her knowledge of your facilities, relationships with staff and understanding of your standards to lead the team in delivering a cost effective, innovative project.

Amy will be backed by core team of technical experts who also have holistic knowledge from their history of working for IRWD that allows us to advance prior work efforts. Our proposed project leadership and core team will not be reassigned without prior IRWD approval.



Project Manager
Rachael L. Burk, PE

PROJECT LEADERSHIP

Principal-in-Charge
Gregorio Estrada, PE, LEED AP
(Irvine, CA)

Project Manager
Amy Omae, PE, LEED AP
(Irvine, CA)

Quality Control
John Koch, PE (Bellevue, WA)
Dan Ellison, PE, SE (Ventura, CA)
Oskar Agustsson, PE (Bellevue, WA)

CORE TEAM

Electrical
Dan Gott, PE
(Folsom, CA)

I&C
Brandon Erndt, PE
(Phoenix, CA)

Process Mechanical
Chandrikaa Balendhran, PE,
BCEE
(Irvine, CA)

Tertiary Filter Expert
Rich Stratton, PE
(Folsom, CA)

Filter Performance Investigation
Mandira Sudame, PE
(San Diego, CA)

Structural
Tom Hamlin, SE
(Phoenix, AZ)

SUPPORT TEAM

Electrical/I&C
Justin Lee, EIT
(Irvine, CA)

Condition Assessment
Lucy Jaramillo, NACE CP-2 (Claremont, CA)
Adam McGinnis, NACE CP-2 (Claremont, CA)
Bradley Stuart, EIT, CP-2, CIP-1 (Claremont, CA)

Construction Sequence
Gregorio Estrada, PE,
LEED AP
(Irvine, CA)

Cost Estimate
Pete Bredehoeft, CEP
(Atlanta, GA)

Surveying
Borchard Surveying*
(San Clemente, CA)

Patholing
T2 Utility Engineers*
(Huntington Bch., CA)

Geotechnical (Optional)
Ninyo & Moore*
(Irvine, CA)

Permitting (Optional)
Gregorio Estrada, PE,
LEED AP
(Irvine, CA)

Key Staff
**** denotes subconsultant

The key to efficient project delivery is assigning qualified professional staff who can deliver results. Our proposed key personnel will not be reassigned without prior approval from IRWD.



AMY OMAE, PE, LEED AP
PROJECT MANAGER

Amy is a proven Project Manager with 13 years of experience in water and wastewater master planning, design, and engineering services during construction projects throughout California. Amy has the demonstrated project management and leadership skills necessary to manage the team of technical experts and deliver

this important rehabilitation. Her dedication to delivering quality projects has made her one of IRWD's most trusted project managers. **Amy has a long history of working with IRWD on critical projects, such as the MWRP FPS-2 Header Replacement, MWRP Phase 2 Expansion, Sewage Treatment Master Plan, Salt Management Plan, LAW RP TSS Investigation, and Cienega Selenium Treatment Facility Pilot Test and Verification Study. Her knowledge of IRWD's facilities and treatment systems will be invaluable in guiding the successful delivery of this project.**

RELEVANT EXPERIENCE

- ✓ Irvine Ranch Water District, Michelson Water Recycling Plant Phase 2 Expansion
- ✓ Irvine Ranch Water District, Michelson Water Recycling Plant Filter Pump Station 2 Header Replacement Design
- ✓ City of Thousand Oaks, Digesters No. 2 and 3 Rehabilitation



RICH STRATTON, PE
TERTIARY FILTER EXPERT

Rich has more than 43 years of water and wastewater engineering experience, which includes master planning, design, and construction of treatment plants, pumping stations, pipelines, storage tanks, wells, biosolids handling, and reverse osmosis and brine management. He is considered one of HDR's top water, wastewater, and advanced wastewater treatment plant engineers,

and typically involved with HDR's largest and most complex nationwide. He has served as project manager, quality assurance/quality control (QA/QC) reviewer, technical advisor, or project engineer on more than 90 water treatment plant projects. **Rich is familiar with the IRWD's facilities and treatment systems having provided design support for the Phase 2 expansion of the Michelson Water Recycling Plant.**

RELEVANT EXPERIENCE

- ✓ Irvine Ranch Water District, Michelson Water Reclamation Plant Phase 2 Expansion
- ✓ City of San Jose, Filter Rehabilitation Condition Assessment
- ✓ Clean Water Services, Durham Advanced Wastewater Treatment Facility, Tertiary Treatment Systems Improvements



MANDIRA SUDAME, PE
FILTER PERFORMANCE INVESTIGATION

Mandira has 15 years of experience in planning, design, construction, condition assessment, and management of wastewater and recycled water facilities. Specialization includes wastewater process design for biological nutrient removal, membrane technology, disinfection and solids handling. She has

managed designs of large diameter pipeline, sewer pumps stations, and wastewater facilities condition assessment along with construction support services. **Mandira served as the lead design engineer for the 10 mgd membrane bioreactor process (MBR) including two, 35 mgd each mixed liquor pumping system during the Michelson Water Recycling Plant Phase 2 Expansion. Mandira will leverage her knowledge and experience with IRWD's systems to recommend filter operation improvements.**

RELEVANT EXPERIENCE

- ✓ Irvine Ranch Water District, Michelson Water Recycling Plant Phase 2 Expansion
- ✓ Orange County Sanitation District, Sludge Dewatering and Odor Control at Plant No. 1 (P1-101)
- ✓ City of San Diego, As-Needed Engineering Wastewater Facilities Condition Assessment



GREGORIO ESTRADA, PE, LEED AP
PRINCIPAL IN CHARGE

Gregorio has been working with IRWD for over 14 years on critical projects ranging from planning, design, and construction. In these past 14 years, he has worked onsite at both the Los Alisos and Michelson plants and has acquired extensive knowledge of your collections system, treatment processes, and reuse practices.

His history and relationships with IRWD staff brings a solid understanding of all of IRWD's facilities, design standards, company culture, and staff preferences that will increase our team's efficiency and understanding for this project. As the Principal-in-Charge and Construction Sequencing Lead, Gregorio will be involved continuously throughout the project. He will provide project oversight and serve as an advisor throughout the project.



BRANDON ERNDT, PE
I&C LEAD

Brandon Erndt has over 20 years of experience as a controls engineer, project manager, and I&C/Programming department manager. He has been responsible for managing several SCADA Master Plans and I&C Design projects to maintain project budgets and schedules. Brandon's additional experience includes the planning, design, PLC and HMI programming, system

migration, and upgrading planning, and maintenance of control systems networks and software logic diagrams. **He has been responsible for developing several vendor software programs including Modicon, Wonderware, FactoryTalk, View SW, RSView32, Cimplicity, Proficy (Intellution) iFix, and Visual Basic.**



DAN GOTT, PE
ELECTRICAL LEAD

Daniel Gott has more than 28 years of experience administering and directing all aspects of electrical, instrumentation, and control systems for water, wastewater, and industrial facilities and systems. His experience has included planning, design, programming and configuration, construction support, equipment inspection and testing, facility startup, and training in system operations and

maintenance (O&M) for water, wastewater treatment plants and pumping stations. **Dan has served as electrical engineer on more than 60 water and wastewater treatment plant projects nationwide.**

RELEVANT EXPERIENCE

- ✓ Irvine Ranch Water District, Michelson Water Recycling Plant Phase 2 Expansion
- ✓ Irvine Ranch Water District, Sewage Treatment Plant Master Plan
- ✓ Irvine Ranch Water District, Michelson Water Recycling Plant, Emergency Discharge Design

RELEVANT EXPERIENCE

- ✓ City of Chandler, SCADA Standards and Plant Control Network Audit
- ✓ City of Glendale, Cholla Water Treatment Plant Booster Pump Station and Admin Building Improvements
- ✓ City of Spokane, SCADA Upgrades

RELEVANT EXPERIENCE

- ✓ Irvine Ranch Water District, Michelson Water Recycling Plant Phase 2 Expansion
- ✓ Irvine Ranch Water District, Cienega Selenium Treatment Facility
- ✓ Orange County Sanitation District, Sludge Dewatering and Odor Control at Plant No. 1 (P1-101)



CHANDRIKAA BALENDRAN, PE, BCEE

PROCESS MECHANICAL LEAD

Chandrikaa Balendhran has over 19 years of experience with membrane bioreactors (MBRs), biosolids management and construction support services. She has prepared hydraulic profiles, civil and mechanical design drawings, cost estimates, life cycle cost analyses, and various agency reports. Chandrikaa was responsible for the mechanical design for agencies such as Orange

County Sanitation District, South Orange County Wastewater Authority, Goleta and City of Bastow. **Chandrikaa has worked with IRWD on multiple projects, including MWRP Phase 2 Expansion, MWRP FPS-2 Header Replacement Design, MWRP Biosolids & Energy Recovery Facility Construction Management Support Services, Cienega Selenium Treatment Facility, Biosolids/Energy Management Plan, and Los Alisos Water Reclamation Plant Upgrades allowing her to have a solid understanding of IRWD’s design standards.**



TOM HAMLIN, PE, SE

STRUCTURAL LEAD

Tom is the Design Center Manager in the Desert Southwest and has more than 16 years of experience as a structural engineer. His experience includes structural design, plan development, quality control reviews, and construction administration for a wide range of structure types including water/wastewater facilities, mining, and industrial facilities. **Tom has extensive experience in performing**

structural investigations and rehabilitations of existing water/ wastewater facilities for clients, including Irvine Ranch Water District, Orange County Sanitation District and City of San Diego.

RELEVANT EXPERIENCE

- ✓ *Irvine Ranch Water District, Michelson Water Reclamation Plant Phase 2 Expansion*
- ✓ *Irvine Ranch Water District, Michelson Water Recycling Plant Biosolids & Energy Recovery Construction Management Support Services*
- ✓ *Irvine Ranch Water District, Michelson Water Recycling Plant FPS-2 Header Replacement*

RELEVANT EXPERIENCE

- ✓ *Irvine Ranch Water, District, Michelson Water Recycling Plant Emergency Discharge*
- ✓ *Orange County Sanitation District - Sludge Dewatering and Odor Control at Plant No. 1 Job No. P1-101*
- ✓ *City of San Diego, As-Needed Engineering Wastewater Facilities Condition Assessment*

Technical Support Staff

Our team offers a full range of related engineering services provided by technical professionals with years of experience in their disciplines. We will work with IRWD to carefully identify engineering needs, develop work plans that fully and efficiently address those needs, and implement engineering tasks in a manner that provides best solutions in a cost-effective manner. Some of our engineering specialties include:

QA/QC

John Koch, Dan Ellison and Oskar Agutsson will provide ongoing and consistent quality reviews with their extensive knowledge of rehabilitation project.

Electrical/I&C

Justin Lee will assist in the update and replacement of the electrical and instrumentation and control systems. Justin assisted with the review of MWRP Phase 2 Electrical Record Drawings and is familiar with IRWD’s standards.

Condition Assessment

Lucy Jamarillo, Adam McGinnis and Bradley Stuart will perform a condition assessment of underground backwash supply, spent backwash and filter effluent piping. Our team is familiar with your systems having surveyed multiple pipelines and reservoir tanks under IRWD’s 3-Year Cathodic Protection Monitoring Program. Our team will leverage that experience with your facilities to provide recommendations for improvements to the pipelines.

Cost Estimating

Pete Bredehoeft will be responsible for providing estimates of probable construction costs. Having completed more than 3,300 cost estimates on all levels, Pete will utilize his expertise in cost estimating process and procedures to prepare IRWD for future costs.

Team Commitment to the Project

Current project workload allows the members of our proposed team to begin on this project immediately upon selection. With this in mind, our team members were carefully selected not only for their expertise, but also for their availability to work on the project for its duration. We follow well established and time proven procedures to manage our project workload. Our strong team is available to begin work upon Notice-to-Proceed.

The requirements and commitment of our team members will vary over the duration of the project as the technical needs change. The table below shows the estimated time we expect our team members to dedicate to delivering the MWRP Tertiary Filters Rehabilitation project.



PROJECT TEAM MEMBERS ROLE	LOCATION	% OF TIME CONTRIBUTE
Amy Omae, PE, LEED AP Project Manager	Irvine, CA	40
Gregorio Estrada, PE, LEED AP Principal in Charge	Irvine, CA	20
Rich Stratton, PE Tertiary Filter Expert	Folsom, CA	20
Mandira Sudame, PE Filter Performance Investigation	San Diego, CA	30
Brandon Erndt, PE I&C Lead	Phoenix, AZ	40
Dan Gott, PE Electrical Lead	Folsom, CA	30
Chandrikaa Balendhran, PE, BCEE Process Mechanical Lead	Irvine, CA	40
Tom Hamlin, PE, SE Structural Lead	Phoenix, AZ	30
John Koch, PE, BCEE QA/QC	Bellevue, WA	10
Dan Ellison, PE, SE QA/QC	Ventura, CA	10
Oskar Agustsson, PE QA/QC	Olympia, WA	10
Justin Lee, EIT Electrical/I&C	Irvine, CA	50
Lucy Jaramillo, NACE CP-2 Condition Assessment	Claremont, CA	20
Adam McGinnis, NACE CP-2 Condition Assessment	Claremont, CA	20
Bradley Stuart, EIT, CP-2, CIP-1 Condition Assessment	Claremont, CA	20
Pete Bredehoeft, CEP Cost Estimate	Atlanta, GA	20

SECTION E

BUDGET

(One hard-copy is submitted under separate cover in a sealed envelope)





January 28, 2021

Irvine Ranch Water District
Ms. Rachael Burk, PE, Project Manager
Michelson Water Recycling Plant
3512 Michelson Drive
Irvine, California 92618

Sent Via Email: burk@irwd.com

**Regarding: Clarification to Follow-up Questions for the Michelson Water Recycling Plant
Tertiary Filters Rehabilitation, PR 07892**

Dear Ms. Burke,

Thank you for setting up the meeting with Irvine Ranch Water District (IRWD or District) electrical and controls staff to clarify the additional scope as it pertains to the follow-up questions #4 and #8 and the Task 1 Project Management level of effort. We also received your email indicating that Task 2B Underground Pipeline Condition Assessment was removed from the scope of work. Based on these communications, we have revised our responses to the follow-up questions (below) and the associated level of effort as shown in the attached table. An updated summary table is provided at the end for the previously proposed optional tasks.

In addition, Task 1 Project Management level of effort was reduced to reflect only the meetings identified in the RFP and the required attendees. Note that Task 1 of our original proposed fee and our revised proposed fee included additional scope to perform up to three site visits (\$10,812). These site visits were not identified in the RFP, but HDR anticipates they will be needed during the preliminary design and design phase.

Response to Questions

The following responses are offered to the questions posed by email on December 23, 2020 and updated based on subsequent clarification discussion on January 21, 2021 and email on January 26, 2021. We are available to discuss these questions further. The questions are reproduced below for reference and our responses are shown in blue text.

Question 1: How will the backwash tank be rehabilitated? Will temporary pumps be needed for a period of time to address the lower portions of the tank? If not, what is your approach for rehabilitating the backwash supply tank without temporary pumping while still providing system redundancy?

Rehabilitation of the Backwash Supply Tank will require isolation and dewatering of the tank to allow concrete and coating repair. During this time, temporary pumping will be required to supply the filters with backwash supply water. We have identified two options for temporary

pumping that are summarized below. Please refer to the attached Figure 1.1 for illustrations of these options.

Option 1: Convert east half of Spent Backwash Tank to serve as the temporary Backwash Supply Tank. Temporary backwash supply pumps can be installed in the tank and connected to plant controls with a header branching to the existing above-ground pump discharge lines connecting to the existing below-ground portion of the backwash supply header. The temporary backwash supply tank can be supplied using one of the Chlorine Contact Chamber (CCC) drain pumps and installing a simple float actuated control scheme to keep the tank above a minimum level.

Note that we investigated the use of the existing submersible spent backwash bypass pumps, but these pumps do not have adequate capacity to supply the filter backwash demands.

Option 2: Use the CCC as a direct source for backwash supply water by installing temporary backwash supply pumps at the end of the third pass. The temporary backwash supply pumps can be connected to plant controls with a header branching to the existing above-ground pump discharge lines connecting to the existing below-ground portion of the backwash supply header.

Question 2: Excavations for ECDAs should be completed by HDR rather than the District.

Based on January 26, 2021 email from IRWD, Task 2B Underground Pipeline Condition Assessment was removed from the scope of work. As such, the meeting to report on the findings from this work was also removed under Task 1B Meetings.

Question 3: The District would prefer to locate the new control panel at the tertiary filters area. What would be HDR's thoughts of extending the platform at the existing control panel location to locate a new control panel adjacent to the existing panel thereby eliminating the need for a temporary panel?

Extending the platform would provide closer proximity of the controls to the operation of the filter cells in addition to not requiring temporary panel. To place the control panel in the tertiary filter area would require some structural modifications to the concrete platform as noted in your question but could be accomplished and would eliminate the need for a temporary panel for control of the filters during construction.

These structural modifications would require additional effort to develop one additional design drawing to show the plan, section, and details for these modifications. There would be no additional effort for either the electrical or controls disciplines to accomplish to revision to the proposal.

Question 4: Did HDR consider using a local control panel (LCP) for each tertiary filter? The LCP panel for each filter could be connected to a permanent (preferred) or temporary PLC as each filter is rehabilitated greatly reducing the number of connections or reconnections.

Based on January 21, 2021 virtual meeting, IRWD staff clarified the intent of the filter LCPs is to function as an remote I/O based on the ASCO Numatic controller at each filter, connected and controlled by the main control panel via Modbus TCP/IP. Based on the meeting, HDR understands that the IRWD preference is to have two (2) LCP panels for each filter to simplify installation and routing of lines, and maintenance of the Filters. Attached is the updated Drawings List to provide these drawings, which are highlighted.

Question 5: Please provide fee estimates for all of the optional tasks.

A. Study for New Backwash Supply Connection to CCC

Modifications to address operational issues with withdrawing water at the end of the first pass of the Chlorine Contact Chamber to fill the Backwash Supply Tank require evaluation of multiple alternatives. We propose to provide a brief study to develop and evaluate alternatives and arrive at cost impacts and benefits/considerations for each alternative. The study will be performed concurrent to the investigatory phase of the work and prior to completion of the preliminary design. Recommendations can then be incorporated into the final design effort and impacts to design will be better defined so that a variance to the contract can be issued.

B. Surface Evaluations (Emag and Cell-to-Cell)

Based on January 26, 2021 email from IRWD, Task 2B Underground Pipeline Condition Assessment was removed from the scope of work.

C. Filter Test Plan

As part of the Filter 7 investigation, HDR will develop a Filter Test Plan and perform the water quality sampling and testing. HDR will rent three automatic composite samplers that will be located at:

1. The influent to the filter complex
2. Influent to Filter 7
3. Effluent from Filter 7

We plan to collect composite samples at these locations for seven consecutive days and they will be tested for the following parameters:

- TSS

- TOC
- FOG
- pH
- Alkalinity
- Iron & Manganese
- Turbidity

Testing of the samples will be contracted with Eurofins and results will be summarized in the Investigation of Poor Performance of Filter No. 7 TM.

Based on the results of the proposed water quality testing, HDR may suggest additional work that may be required to determine the cause of performance issues at Filter 7. This may include additional water quality sampling and testing or investigations into operational procedures. The extent and nature of this effort won't be known until HDR is able to further evaluate the water quality and operational data.

D. Pothole soils testing

Based on January 26, 2021 email from IRWD, Task 2B Underground Pipeline Condition Assessment was removed from the scope of work.

Question 6: What are the limitations to the proposed Emag study to determine the optimal locations for excavations (i.e. does it work with the pipe materials and depths and existing access points that we have along these pipelines)? Also, please verify that the required effort to perform this task is included in your optional task fee.

The Emag will identify soil resistivity along the entire length of pipe over which the study is performed at simultaneous depths of 1, 2, and 3 meters or 2, 4, and 6 meters depending on the configuration. This provides a strong indication of soil corrosivity towards ferrous metal piping and should be used to help determine where soil samples are collected for further testing. Important additional criteria involved in selection of sample locations are accessibility, pipe depth, etc.

Question 7: On page 10 of the proposal, why would Option A for the overflow piping require temporary bypass of the backwash supply surge tower overflow? The locations of the new and existing penetrations in the tank appear to be far apart.

Option A on Page 10 of our proposal requires a new penetration into the Spent Backwash Tank, which would require confined space entry into the tank. During this time all sources of flow need to be isolated. While all other sources have a positive isolation device (valve or gate), the overflow from the constant head tower does not. As such, a temporary bypass redirecting the flow to the backwash supply tank will be required. This can be accomplished with a bypass plug and a goose neck pipe to get over the tank wall. See attached Figure 7.1 for a

representation of the bypass configuration. The tower would provide enough head to get over the gooseneck if an overflow occurs.

Question 8: Does the scope of work and fee proposal include the effort to include all existing I/O on the drawings for the project areas?

Based on January 21, 2021 virtual meeting, HDR understands that the I/O will be handled via an I/O list in the specifications and individual I/O drawings are not required. The I/O list is based on identifying all I/O impacted by the work. The updated fee estimate reduced the level of effort for drawings production to reflect the deletion of the I/O drawings.

Impacts to Fee Estimate

We have updated our fee based on the questions and attached an updated fee estimate. Below is a summary of the fee impacts by question.

Question	Fee Impact	Comments
1	None	
2	None	Removed from scope of work.
3	+ \$ 6,283	Based on additional structural design effort.
4	+ \$ 24,244	Based on additional electrical and instrumentation & controls design effort.
5A	+ \$ 27,553	Study for New Backwash Supply Connection to CCC
5B	None	Removed from scope of work
5C	+ \$ 22,852	Filter Test Plan
5D	None	Removed from scope of work
6	None	
7	None	
8	None	

In addition to the fee impacts noted in the table above, other changes to the level of effort were identified resulting from the January 21 meeting:

Task	Fee Impact	Comments
1	+ \$ 1,783	Additional PM coordination and management for the additional work elements
1	- \$ 10,309	Reduction to meetings requirements
1	- \$ 1,722	Reduction in QA/QC effort
2	- \$ 6,085	Deletion of I/O Drawings and reduction in effort for design
2	- \$ 9,567	Deletion of Underground Pipeline Condition Assessment
3	- \$ 13,851	Deletion of I/O Drawings and reduction in effort for design

An updated level of effort table and fee estimate is included as an attachment, which highlights the hours and costs that changed from our originally submitted proposal. A modest increase to Task 1 Project Management was still included to capture the oversight needed for project management, coordination, quality assurance, and administration for these potential scope items.

We appreciate the opportunity to provide additional information regarding our proposed approach and look forward to hearing from you. If you have any other questions please contact Amy Omae at 714.730.2344 or amy.omaе@hdrinc.com.

Sincerely,
HDR Engineering, Inc.

A handwritten signature in blue ink, appearing to read "Kip Field".

Kip Field, PE
Senior Vice President

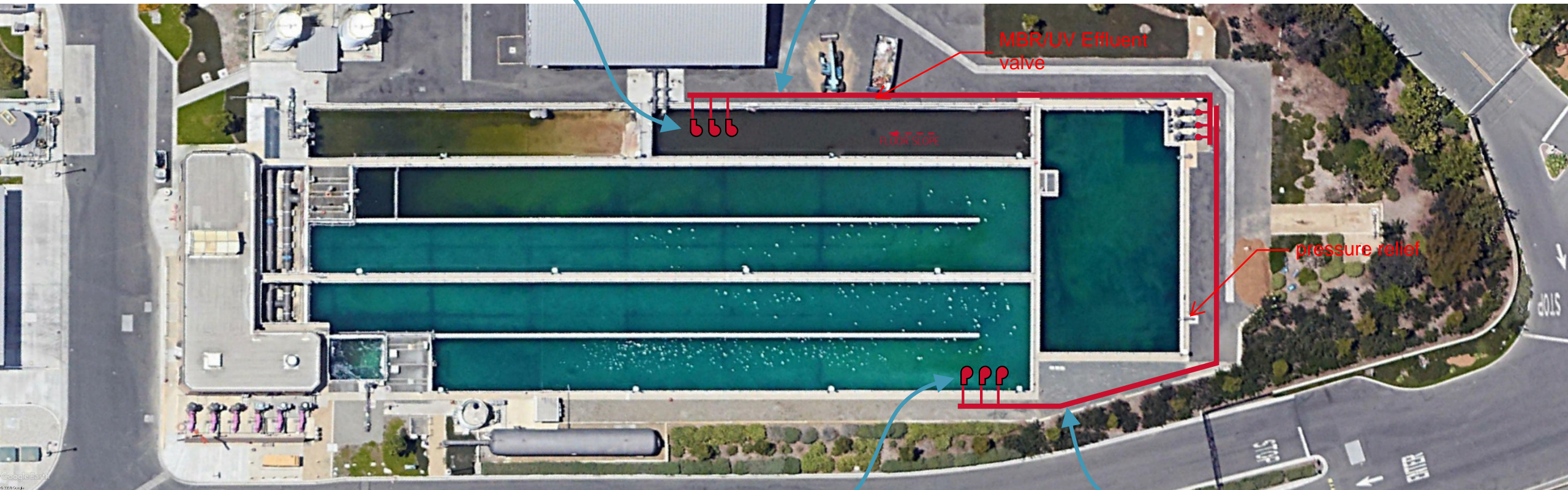
A handwritten signature in blue ink, appearing to read "Amy Omae".

Amy Omae, PE, LEED AP
Project Manager, Point of Contact

Irvine Ranch Water District
MWRP Tertiary Filters Rehabilitation
Figure 1.1

OPTION 1: TEMPORARY BWS
PUMPS IN EAST SBW TANK

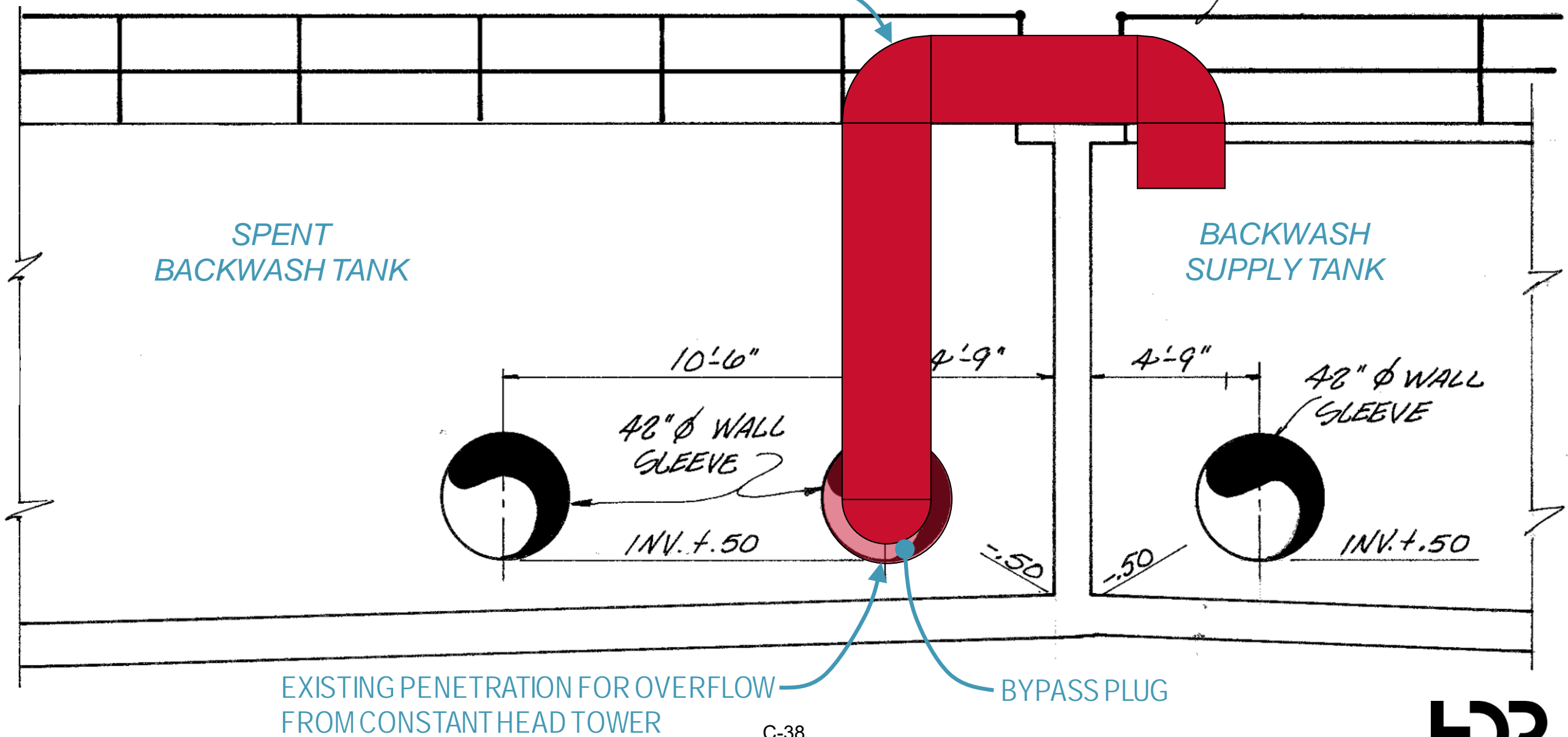
ROUTE TEMPORARY
HEADER ON GROUND



OPTION 2: TEMPORARY BWS
PUMPS IN THIRD PASS OF CCB

ROUTE TEMPORARY
HEADER ON GROUND

Irvine Ranch Water District
MWRP Tertiary Filters Rehabilitation
Figure 7.1



TEMPORARY
BYPASS PIPE

ALUM. HANDRAIL

SPENT
BACKWASH TANK

BACKWASH
SUPPLY TANK

10'-6"

4'-9"

4'-9"

42" ϕ WALL
SLEEVE

42" ϕ WALL
SLEEVE

INV. +.50

INV. +.50

EXISTING PENETRATION FOR OVERFLOW
FROM CONSTANT HEAD TOWER

BYPASS PLUG

Irvine Ranch Water District

MWRP Tertiary Filters Rehabilitation Design

Drawings List

Updated 2/23/2021

Sheet Number	Discipline	Drawing Number	Included in PDR	Drawing Name
1	General	G001	X	Title Sheet
2	General	G002	X	Vicinity and Location Maps, Sheet Index
3	General	G003	X	General Symbols, Notes and Legends
4	General	G004	X	Construction Sequencing Plans
5	General	G005	X	Construction Sequencing Plans and Details
	General			Construction Sequencing Details
6	Demolition	X001	X	Demolition Site Plan
7	Demolition	X002	X	Tertiary Filters - Demolition Plan
8	Demolition	X003		Tertiary Filters - Demolition Sections
9	Demolition	X004	X	Tertiary Filters - Demolition Details
	Demolition			Tertiary Filters - Demolition Photographs
10	Demolition	X005	X	Backwash Supply Pump Station - Demolition Plan
11	Demolition	X006		Backwash Supply Pump Station - Demolition Sections & Details
12	Demolition	X007	X	Air Scour Blowers - Demolition Plan
13	Demolition	X008		Air Scour Blowers - Demolition Sections & Details
	Civil			General Civil Notes
14	Civil	C001	X	Site Plan - Paving & Grading
15	Civil	C002	X	Site Plan - Yard Piping
16	Civil	C003		Details, Enlarged Plans, and Sections
	Civil			Details, Sections
17	Structural	S001	X	Structural Notes
	Structural			Special Inspections, Structural Observations & Abbrevs
18	Structural	S002		Structural Details
19	Structural	S003	X	Tertiary Filters - Plan
20	Structural	S004		Tertiary Filters - Plans and Sections
21	Structural	S005	X	Tertiary Filters - Sections
22	Structural	S006		Tertiary Filters - Sections & Details
23	Structural	S007	X	Air Scour Blowers - Plan
24	Structural	S008		Air Scour Blowers - Sections & Details
25	Structural	S009	X	Backwash Pumps - Plan
26	Structural	S010		Backwash Pumps - Sections & Details
	Process			Process General Notes
27	Process	D001	X	Process Mechanical Details
28	Process	D002	X	Tertiary Filters - Plan
29	Process	D003		Tertiary Filters - Enlarged Plans
30	Process	D004	X	Tertiary Filters - Sections
31	Process	D005		Tertiary Filters - Sections & Details
	Process			Tertiary Filter - Details
32	Process	D006	X	Air Scour Blowers - Plan
33	Process	D007		Air Scour Blowers - Sections & Details
	Process			Air Scour Blowers - Details
34	Process	D008	X	Backwash Pumps - Plan
35	Process	D009		Backwash Pumps - Sections & Details
36	Electrical	E001	X	Electrical Legend and Symbols
37	Electrical	E002	X	Electrical Site Plan
38	Electrical	E003		Equipment Elevations
39	Electrical	E004	X	Electrical Details I
40	Electrical	E005		Electrical Details II
41	Electrical	E006		Ductbank Sections & Foldouts
	Electrical			Ductbank Foldouts
42	Electrical	E007	X	Electrical Single Line Diagram
43	Electrical	E008		Panel Schedules

Irvine Ranch Water District

MWRP Tertiary Filters Rehabilitation Design

Drawings List

Updated 2/23/2021

Sheet Number	Discipline	Drawing Number	Included in PDR	Drawing Name
44	Electrical	E009	X	Conduit Schedule I
45	Electrical	E010		Conduit Schedule II
46	Electrical	E011	X	Schematics I
47	Electrical	E012	X	Schematics II
48	Electrical	E013		Schematics III
49	Electrical	E014	X	Tertiary Filters Power Plan
50	Electrical	E015		Tertiary Filters Control and Signal Plan
51	Electrical	E016		Tertiary Filters Lighting and Grounding Plan
52	Electrical	E017	X	Backwash Supply Pump Station Power Plan
	Electrical			Backwash Supply Pump Station Enlarged Plan
53	Electrical	E018		Backwash Supply Pump Station Control and Signal Plan
54	Electrical	E019		Backwash Supply Pump Station Lighting and Grounding Plan
55	Electrical	E020	X	Air Scour Blowers Power, Control, and Signal Plan
56	Electrical	E021		Air Scour Blowers Lighting and Grounding Plan
57	Instr & Control	Y001	X	Instrumentation Notes, Legend, Symbols
58	Instr & Control	Y002		Instrumentation Details
59	Instr & Control	Y003	X	SCADA Network Architecture
60	Instr & Control	Y004	X	Filter "Front" LCP Valve Rack I/O and Valve Manifold Wiring
61	Instr & Control	Y005	X	Filter "Back" LCP Valve Rack I/O and Valve Manifold Wiring
62	Instr & Control	Y006	X	Backwash Pump PLC Panel Layout
63	Instr & Control	Y007		Backwash Pump PLC Bill of Material
64	Instr & Control	Y008		Backwash Pump PLC Backpanel
65	Instr & Control	Y009		Standard Control Panel Rack Bill of Material
66	Instr & Control	Y010	X	Standard Control Panel Cabinet Layout
67	Instr & Control	Y011		Control Panel Elevation
68	Instr & Control	Y012	X	Control Panel Backpanel - Main PLC
69	Instr & Control	Y013	X	Tertiary Filters P&ID
70	Instr & Control	Y014	X	Air Scour Blowers P&ID
71	Instr & Control	Y015	X	Backwash Pumps P&ID

NO.	TASK DESCRIPTION	LEVEL OF EFFORT (HOURS)																	FEE (DOLLARS)					
		Principal	Project Manager	Quality Manager	Quality Reviewer	Technical Expert	Cost Estimator	Sr Corrosion Engineer	Senior Engineer	Project Engineer	Staff Engineer	Corrosion Engineer	Corrosion Technician	BIM Manager	BIM Technician	Document Specialist	Accountant	Project Coordinator	Total Labor	Labor	Subs	Direct Costs	Total	TOTAL
1 Project Management																								
1.A	Preparation of Project Status Reports																							
1.A.1	Project Administration (including Initiation and Reviews)	2	16	2													25	45	7,540	0	189	7,729		
1.A.2	Project Coordination		30					18									16	64	13,120	0	328	13,448		
1.A.3	Weekly and Monthly Reports		48													24		72	15,120	0	378	15,498		
1.B Meetings/Workshops																								
1.B.1	Kickoff Meeting and Site Visit		4			2		6										12	3,000	0	324	3,324		
1.B.2	Coordination Meeting #1		4			2		4										10	2,520	0	474	2,994		
1.B.3	Coordination Meeting #2		4			2		4										10	2,520	0	474	2,994		
1.B.4	Workshop Draft TM - Filter Performance Evaluation		3			2		2										7	1,800	0	24	1,824		
1.B.5	Not Used																	0	0	0	0	0		
1.B.6	Workshop Draft PDR		4			2		4										10	2,520	0	24	2,544		
1.B.7	Workshop Final PDR		2			1		1										4	1,020	0	24	1,044		
1.B.8	Workshop 60% Design Submittal		4			2		2										8	2,040	0	24	2,064		
1.B.9	Workshop 90% Design Submittal		4			2		2										6	1,440	0	24	1,464		
1.B.10	Workshop 100% Design Submittal		3			1		1										4	960	0	24	984		
1.B.11	Meeting - Final design Plan Signing		2							1								3	600	0	16	616		
1.B.12	Site Visits		12					12	12	8								44	8,520	0	972	9,492		
1.C	QA/QC			4	116													120	33,680	0	842	34,522		
Subtotal 1 Project Management		2	140	6	116	13	0	0	56	12	9	0	0	0	0	24	41	419	96,400	0	4,141	100,541	100,500	
2 Preliminary Design																								
Tertiary Treatment Facility																								
2.A.1	Tertiary Filters Tank Area					10		8	8	16								42	8,040	0	201	8,241		
2.A.2	Air Scour Blower Area							4	4	4								8	1,440	0	36	1,476		
2.A.3	Backwash Supply Pumps Area							2	2	2								4	720	0	18	738		
2.B	Not Used																	0	0	0	0	0		
Performance Investigation of Filter 7																								
2.C.1	Investigation					6		12										18	4,680	0	152	4,832		
2.C.2	Meeting					2		4										6	1,560	0	92	1,652		
2.C.3	Draft and Final TM		2			2		24										28	6,840	0	171	7,011		
2.D	Extension of Overflow Pipe Conceptual layout					2		8	16				16					42	6,920	0	173	7,093		
2.E	Electrical							28	28									56	10,920	0	273	11,193		
2.F	Instrumentation & Control							46	74									120	22,140	0	554	22,694		
2.G	Construction Sequence							20	28									70	15,480	0	387	15,867		
2.H	Site Survey		2			20		2	2	2								4	540	11,250	14	11,804		
2.I	Potholing							4	1	1								5	720	10,290	18	11,028		
2.J	Geotechnical Investigation							8	2	2								10	2,220	0	56	2,276		
2.M	Project Schedule		2					14	16									32	6,240	0	156	6,396		
2.N	Estimates of Probable Construction Costs						16	6	24									46	8,720	0	218	8,938		
2.O	Team Meetings (Covered under Task 1B)																	0	0	0	0	0		
2.P	Technical Specifications		2					6	8									16	3,120	0	78	3,198		
2.Q	Construction Plans		10					60	124	168			80	200				642	95,360	0	91	95,451		
2.R	Preliminary Design Report		4					10	32	32					24			102	15,600	0	396	15,996		
Subtotal 2 Preliminary Design		0	22	0	0	42	16	0	260	342	249	0	0	80	216	24	0	1,251	211,260	21,540	3,084	235,884	235,900	
3 Final Design																								
3.A	Project Manual		4					20	40	40								104	16,560	0	414	16,974		
Construction Plans																								
3.B.1	60% Design		8					96	160	240			120	360				984	144,960	0	457	145,417		
3.B.2	90% Design		8					72	120	170	0		120	240				733	110,535	0	787	111,322		
3.B.3	100% Design		8					3	20	60	80	0	42	124				337	49,325	0	2,366	51,691		
3.C	Electrical & Instrumentation							16	8	8								32	6,000	0	150	6,150		
3.D	Project Schedule		4					8	8	8								20	3,840	0	96	3,936		
3.E	Opinion of Probable Construction Cost		1				28		16									45	9,860	0	247	10,107		
Addenda Preparation and Pre-bid meeting																								
3.G.1	Plan Revisions		4						8	4				8				24	4,120	0	103	4,223		
3.G.2	Specification Revisions		2						4	20								26	3,480	0	87	3,567		
3.G.3	Bidder Questions		4						16	4								24	5,280	0	132	5,412		
3.G.4	Pre-Bid Meeting		2															2	480	0	12	492		
Subtotal 3 Final Design		0	45	0	0	0	28	6	248	400	590	0	0	290	724	0	0	2,331	354,440	0	4,851	359,291	359,300	
TOTAL, hours		2	207	6	116	55	44	6	564	754	848	0	0	370	940	24	24	4,001	662,100	21,540	12,076	695,716	695,700	
TOTAL, dollars																								
Optional Tasks																								
Preliminary Design																								
2.K	Optional Geotechnical Investigation		2															2	480	5,756	12	6,248		
2.L	Optional Permitting Assistance					40												40	12,000	0	300	12,300		
Subtotal 2 Preliminary Design		0	2	0	0	40	0	0	0	0	0	0	0	0	0	0	0	42	12,480	5,756	312	18,548	18,500	
Additional Optional Tasks																								
Study for New BWS Connection from CCC (Question 5A)																								
4.A.1	Alternatives Development					16	8		8	20			12					64	12,100	0	303	12,403		
4.A.2	Workshop		2			4			4									10	2,160	0	54	2,214		
4.A.3	Draft and Final TM		2		4	12			12	32			4	6				72	12,240	0	306	12,546		
4.B	Not Used																	0	0	0	0	0		
4.C	Filter Test Plan (Question 5C)		6			8		24	56									94	16,320	5,193	1,099	22,612		
4.D	Not Used																	0	0	0	0	0		
Subtotal 4 Additional Optional Tasks		0	10	0	4	40	8	0	24	20	112	0	0	0	16	6	0	240	42,820	5,193	1,762	49,775	49,800	
TOTAL for Optional Tasks, hours		0	12	0	4	80	8	0	24	20	112	0	0	0	16	6	0	282	55,300	10,949	2,074	68,323	68,300	
TOTAL for Optional Tasks, dollars																								
TOTAL for all Tasks (including Optional Tasks), hours		2	219	6	120	135	52	6	588	774	960	0	0	370	956	30	24	4,283	717,400	32,489	14,150	764,039	764,000	
TOTAL for all Tasks (including Optional Tasks), dollars																								

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March 22, 2021

Prepared by: C. Spangenberg / M. Cortez

Submitted by: K. Burton

Approved by: Paul A. Cook



ACTION CALENDAR

DEEP AQUIFER TREATMENT SYSTEM MISCELLANEOUS REHABILITATION CONSTRUCTION AWARD

SUMMARY:

The Deep Aquifer Treatment System (DATS) facility is almost 20 years old, and several repair and rehabilitation items have been identified to maintain the operability of the facility. Staff recommends the Board authorize the General Manager to execute a construction contract with Pascal and Ludwig Constructors in the amount of \$1,410,717 for the Deep Aquifer Treatment System (DATS) Miscellaneous Rehabilitation.

BACKGROUND:

The Deep Aquifer Treatment System (DATS) facility was constructed in 2002 and has operated continuously without any major replacement or repair work. The DATS facility utilizes nanofiltration membranes and supplies approximately eight million gallons per day of treated water to IRWD's domestic water system. A location map is provided as Exhibit "A". Staff has identified several items that require repair and rehabilitation.

Staff has observed an increased amount of cracking and spalling on the structural concrete that surrounds the three degasifying units. Severe concrete cracking is also occurring elsewhere within the facility, particularly in the area contiguous to the clean-in-place (CIP) cartridge filter system. An assessment by structural engineer Cho Design determined the corrective work required to reestablish the original structural integrity of the concrete support and slab within the facility. The second issue identified by specialty coating consultant Harper Engineering is that the interior coating of the three-fiber glass degasifiers in the post treatment system had failed and needs to be re-coated to maintain the integrity of the degasifiers. The cause is likely due to the continuous injection of chlorine for use in establishing a residual in the Dyer Road Wellfield transmission main. Additional repair and rehabilitation work is also required to improve the integrity and operability of the DATS in addition to the structural and coating work.

Engineering consultant Tetra Tech was retained to complete the design for the DATS repair work. The additional work required at the facility includes addition of chlorine leak detectors/alarms at the degasifier feed injection points, liquid sodium hypochlorite leak collectors, replacement of the CIP pretreatment system's cartridge filters, replacement of all support components for the membrane pressure vessels of the three DATS trains, installation of platforms to allow staff to safely access the CIP tank, demolition of the existing concrete CIP tank pad, reconstruction of the reinforced concrete CIP tank pad to meet updated structural requirements, and replacement of the CIP tank with the addition of a chemical mixer. The technical specifications and drawings prepared by Cho Design and Harper Engineering for their respective disciplines were incorporated into the project manual completed by Tetra Tech.

Construction Award:

Tetra Tech completed the design in January 2021 and the project was originally advertised on January 14, 2021. No bids were received, and the project was re-bid on February 18, 2021. Bids were opened on March 11, 2021 and one bid was received from Pascal and Ludwig Constructors. Other potential bidders were contacted by staff, and all lack the manpower to complete the project properly. Pascal and Ludwig Constructors is the apparent low bidder with a bid of \$1,410,717; the engineer's estimate is \$1,368,000. The bid was found to be acceptable and reasonable. The bid results are provided in Exhibit "B".

FISCAL IMPACTS:

Project 11483 is included in the FY 2020-21 Capital Budget and sufficient funds exist to complete the rehabilitation and repair work.

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 which provides exemption for minor alterations of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. A Notice of Exemption for the project was filed with the County of Orange on October 2, 2020.

COMMITTEE STATUS:

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

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH PASCAL AND LUDWIG CONSTRUCTORS IN THE AMOUNT OF \$1,410,717 FOR THE DEEP AQUIFER TREATMENT SYSTEM MISCELLANEOUS REHABILITATION, PROJECT 11483.

LIST OF EXHIBITS:

Exhibit "A" – Location Map
Exhibit "B" – Pascal and Ludwig Constructors Bid Results

Exhibit "A" - Deep Aquifer Treatment System (DATS) Location Map



Carl Thornton Park

W. Segerstrom Avenue

Bear Street

S. Bristol Street

Alton Avenue

DATS

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EXHIBIT "B"

Bid Results

Bidder Details

Vendor Name Pascal & Ludwig
Address 2049 E. Francis Street
Ontario, California 91761
United States
Respondee Rob Temple
Respondee Title President
Phone 909-947-4631
Email rtemple@pascalludwig.com
Vendor Type CADIR
License # 373525
CADIR 1000000192

Bid Detail

Bid Format Electronic
Submitted 03/11/2021 1:36 PM (PST)
Delivery Method
Bid Responsive
Bid Status Submitted
Confirmation # 245567
Ranking 0

Attachments

File Title	File Name	File Type
Bid Form.pdf	Bid Form.pdf	General Attachments

Subcontractors

Showing 3 of undefined Subcontractors

Name & Address	Desc	License Num	CADIR	Amount	Type
Howard Ridley Co., Inc. 3936 Chino Ave. Chino, California 91710	Crack Injection	304198	1000410714	\$33,000.0000	CADIR
Hydrotech Electric 37707 Green Knolls Road Winchester, California 92596	Electrical	977838	1000001266	\$97,100.0000	CADIR
Murphy Industrial Coatings, Inc. 2704 Gundry Ave Signal Hill, California 90755	Painting & Coating	310594	1000005885	\$93,923.0000	

Line Items

Item #	Item Code	Section	Type	Item Description	UOM	QTY	Unit Price	Line Total	Response	Comment
1		BASE BID ITEMS		Mobilization, Demobilization and Cleanup (Not to Exceed 4% of Contract Price)	LS	1	\$54,637.0000	\$54,637.0000	Yes	
2		BASE BID ITEMS		Payment and Performance Bonds, and Insurance	LS	1	\$20,000.0000	\$20,000.0000	Yes	
3		BASE BID ITEMS		Start-up Testing and Training	LS	1	\$20,000.0000	\$20,000.0000	Yes	
4		BASE BID ITEMS		Prepare Operations and Maintenance Manuals	LS	1	\$1,200.0000	\$1,200.0000	Yes	
5		BASE BID ITEMS		Prepare Record Drawings	LS	1	\$1,200.0000	\$1,200.0000	Yes	
6		BASE BID ITEMS		Demolition of CIP Tank, Tank Foundation, Equipment, Miscellaneous Piping and Appurtenances	LS	1	\$75,000.0000	\$75,000.0000	Yes	
7		BASE BID ITEMS		Perform DATS NF System Flush; Removal and Storage of NF Membranes and Vessels; Furnish and Install NF Vessel Supports, Replacement Parts, and Re-install Membranes	LS	1	\$439,000.0000	\$439,000.0000	Yes	
8		BASE BID ITEMS		Furnish and Install NF CIP Train Piping and Valve Modifications	LS	1	\$93,000.0000	\$93,000.0000	Yes	
9		BASE BID ITEMS		Furnish and Install CIP System Modifications	LS	1	\$242,000.0000	\$242,000.0000	Yes	
10		BASE BID ITEMS		Furnish and Install Structural Modifications and Rolling Ladders at NF Train Skid and CIP System	LS	1	\$87,000.0000	\$87,000.0000	Yes	
11		BASE BID ITEMS		Furnish and Install Electrical, Telemetry, and Controls	LS	1	\$118,000.0000	\$118,000.0000	Yes	
12		BASE BID ITEMS		Clean and Repair Concrete Cracks (>20mils)	LF	600	\$79.0000	\$47,400.0000	Yes	
13		BASE BID ITEMS		Clean and Repair Concrete Spalls	SF	30	\$566.0000	\$16,980.0000	Yes	
14		BASE BID ITEMS		Clean, Remove, and Replace Joint Sealant	LF	107	\$290.0000	\$31,030.0000	Yes	
15		BASE BID ITEMS		Degasifiers Coating (Lower 9 ft. of Wall, Bottom, and 18" Effluent Pipe and Vortex Breaker)	LS	1	\$96,000.0000	\$96,000.0000	Yes	
16		BASE BID ITEMS		Degasifiers Coating (Upper 2ft. of Wall, Roof, Manifold and Laterals- spot prep and abrade surface, epoxy coat)	LS	1	\$7,560.0000	\$7,560.0000	Yes	
17		BASE BID ITEMS		Degasifiers Coating-(Alternative Bid Item- Upper 2ft. of Wall, Roof, Manifold and Laterals- remove ALL coating, epoxy coat)	LS	1	\$10,710.0000	\$10,710.0000	Yes	
18		BASE BID ITEMS		Fiberglass Repair (Alternative Bid Item)	SF	750	\$56.0000	\$42,000.0000	Yes	
19		BASE BID ITEMS		Degasifiers Disinfection	LS	1	\$8,000.0000	\$8,000.0000	Yes	
20		ADDITIVE AND DEDUCTIVE BID ITEMS		ADDITION (+) OR DEDUCTION (-)	LS	1	\$0.0000	\$0.0000	Yes	

Line Item Subtotals

Section Title	Line Total
BASE BID ITEMS	\$1,410,717.0000
ADDITIVE AND DEDUCTIVE BID ITEMS	\$0.0000
Grand Total	\$1,410,717.0000

March 22, 2021
Prepared and
submitted by: P. Weghorst
Approved by: Paul A. Cook



ACTION CALENDAR

GROUNDWATER WELLS AND TREATMENT AGREEMENT WITH EAST ORANGE COUNTY WATER DISTRICT AND THE CITY OF ORANGE

SUMMARY:

IRWD and Orange County Water District (OCWD) are currently designing treatment facilities at IRWD's Well OPA-1 that will be used to clean up per- and poly-fluoroalkyl substance (PFAS) contamination in the Orange County Groundwater Basin. OCWD is also designing PFAS treatment facilities for a new well to be constructed by East Orange County Water District (EOCWD) and two new wells to be constructed by the City of Orange (City). To facilitate the mutual interests of IRWD, EOCWD, and the City in pumping and treating groundwater from these wells, a Groundwater Wells and Treatment Agreement has been prepared. Staff recommends the Board authorize the General Manager to execute the agreement subject to substantive changes approved by the Engineering and Operations Committee.

BACKGROUND:

IRWD owns and operates Well OPA-1, located within the City of Orange, which can provide groundwater to IRWD's customers within the City's sphere of influence. IRWD proposes to increase pumping at Well OPA-1 from 900 acre-feet per year (AFY) to 3,200 AFY. This will allow OCWD to construct treatment facilities at the well to clean up PFAS contamination in the Basin. The increased pumping would be used to serve IRWD customers outside the City's sphere of influence. To provide for the environmental review of the increased pumping and PFAS treatment at Well OPA-1, staff expects to prepare an addendum to the Initial Study / Mitigated Negative Declaration (IS/MND) that was adopted by the Board in June 2012 for the Orange Park Acres Well Replacement Project.

EOCWD proposes to construct a new well and will also work with OCWD to construct PFAS treatment facilities at that well. With this new well, EOCWD would increase groundwater pumping from 890 AFY to 1,050 AFY. By the end of March 2021, EOCWD is expected to adopt an IS/MND for the construction and operation of the new well, the anticipated increased pumping and the construction and operation of the PFAS treatment facilities.

The City of Orange is currently planning to construct two new wells in its service area. OCWD would construct PFAS treatment facilities at these new wells. The City's preparation of an IS/MND for the construction and operation of the new City wells and treatment facilities is anticipated to occur in 2021.

OCWD Groundwater Modeling:

OCWD has modeled the well drawdown impacts of the proposed increased pumping at Well OPA-1 and the proposed increased pumping by EOCWD. OCWD's modeling results

demonstrate that the groundwater drawdown resulting from the projects will have a less-than-significant impact on IRWD's, EOCWD's and the City's wells. OCWD will be modeling pumping from the City's new wells, and OCWD expects the modeling will demonstrate that the drawdown impacts from the City's new wells will also have a less-than-significant impact.

Wells and Treatment Agreement:

To facilitate the mutual interests of IRWD, EOCWD and the City in pumping water from the wells described above and cleaning up PFAS contamination in the Basin, the agreement provided as Exhibit "A" has been prepared where the parties would acknowledge and agree that:

1. Pumping of the wells will have a less-than-significant impact;
2. The agencies will not challenge any aspect of their respective well and treatment projects or related CEQA documents;
3. Should any of the three agencies have difficulty pumping from one of the wells, the parties would meet to discuss and evaluate the problems, and would develop and implement a mutually acceptable solution to any identified impacts; and
4. IRWD's additional pumping at Well OPA-1 could be used to serve water outside the sphere of influence of the City of Orange and inside IRWD's service area.

FISCAL IMPACTS:

OCWD will pay for the capital facilities to treat for PFAS at Well OPA-1. IRWD and OCWD will share equally in the operations and maintenance costs of the treatment facilities.

ENVIRONMENTAL COMPLIANCE:

To provide for the environmental review of the increased pumping and PFAS treatment at Well OPA-1, staff expects to prepare an addendum to the IS/MND that was adopted by the Board in June 2012 for the Orange Park Acres Well Replacement Project.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on March 16, 2021.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE GROUNDWATER WELLS AND TREATMENT AGREEMENT WITH EAST ORANGE COUNTY WATER DISTRICT AND THE CITY OF ORANGE SUBJECT TO SUBSTANTIVE CHANGES APPROVED BY THE ENGINEERING AND OPERATIONS COMMITTEE.

LIST OF EXHIBITS:

Exhibit "A" – Draft Groundwater Wells and Treatment Agreement Between IRWD, East Orange County Water District and the City of Orange

EXHIBIT "A"

DRAFT - Groundwater Wells and Treatment Agreement

This Groundwater Wells and Treatment Agreement ("**Agreement**") is effective March 22, 2021 and is between Irvine Ranch Water District ("**IRWD**"), East Orange County Water District ("**EOCWD**"), and the City of Orange ("**City**") (together the "**Parties**" and each a "**Party**").

The Parties and Orange County Water District ("**OCWD**") met in February 2021 to discuss how each of the agencies could support the others in connection with remediating per- and poly-fluoroalkyl substances ("**PFAS**") contamination in the Orange County Groundwater Basin, including coordinating and supporting the environmental review of the parties' proposed well and PFAS treatment projects.

Each of the Parties have near-term plans to construct wells or increase groundwater pumping, and install PFAS treatment, in areas that are hydrogeologically interconnected and impacted by PFAS contamination, as follows:

- IRWD plans to increase pumping at its Well OPA-1 from 900 acre feet per year ("**AFY**") to 3,200 AFY for use in IRWD's service area, and to add wellhead PFAS treatment ("**IRWD Project**").
- EOCWD plans to construct a new production well (Vanderwerff Well) increase pumping from 890 AFY to 1,050 AFY, and add PFAS treatment ("**EOCWD Project**").
- The City plans to construct two new wells in its service area ("**City Wells Project**") resulting in a pumping increase by the City of [REDACTED] AFY, at which the City will add PFAS treatment. The closest new City well will be located [REDACTED] miles from the IRWD Project and [REDACTED] miles from the EOCWD Project.

OCWD has modeled the well drawdown impacts of the proposed increased pumping under the IRWD Project and the proposed increased pumping under the EOCWD Project. OCWD's modeling demonstrates that the groundwater drawdown resulting from those projects will have a less than significant impact on IRWD's, EOCWD's and the City's existing wells. OCWD will model pumping from the City Wells Project, and OCWD expects the modeling to demonstrate that the drawdown impacts from the City's new wells will also have a less-than-significant impact on IRWD's and EOCWD's wells.

In an effort to facilitate the Parties' mutual interests in effectively pumping and treating groundwater under the projects described above, the Parties acknowledge and agree to the following:

1. Projected Pumping Impacts Not Significant. The Parties have each determined that the other Parties' projects and pumping as described above will have a less-than-significant impact on that Party's own projects or pumping identified above.
2. CEQA. Each Party will comply with the California Environmental Quality Act ("**CEQA**") in connection with its own project, including responding to all comments submitted by the other Parties on CEQA documentation. However, the Parties shall not challenge any aspect of the projects or the CEQA documents associated with the IRWD Project, the EOCWD Project, or the City Wells Project. The Parties acknowledge that each of their projects will proceed on different timelines, and in an effort to ensure all Parties' compliance with this provision and in order to discourage breach, the Parties hereby agree to toll the statute of limitations in connection with challenging any of the projects under CEQA until 36 days following the last Notice of Exemption or Notice of Determination filed for any of the three projects.

3. City of Orange-IRWD Matters. This Term No. 3 applies only to the City and IRWD, and not to EOCWD. EOCWD's approval of this letter agreement does not imply approval or concurrence with the details of this term.

3.1 IRWD and the City entered into a Second Amended Agreement for Water Supply and Service, Sewer and Reclaimed Water Supply and Service, and Natural Treatment System Service ("**Second Amended Agreement**") dated August 28, 2006. Under the Second Amended Agreement, IRWD provides retail services to customers in the Santiago Hills II and East Orange Area I developments within the City's jurisdiction, subject to certain limitations. Section 11 of the Second Amended Agreement provides (emphasis in original):

Groundwater Production. ORANGE and IRWD will review and evaluate cooperative groundwater production opportunities. Any municipal groundwater production wells operated by IRWD within the Sphere of Influence of ORANGE shall only serve water customers within the Sphere of Influence of ORANGE (to be determined on the basis of water accounting, showing no net export) unless otherwise authorized by ORANGE's prior written consent.

3.2 The City hereby authorizes IRWD to serve the additional water produced as part of the IRWD Project outside of the sphere of influence of the City of Orange and inside IRWD's service area. Section 11 of the Second Amended Agreement is hereby deleted and superseded by this letter agreement.

4. Other Limitations. The Parties each acknowledge that their groundwater well pumping is subject to OCWD's Basin Production Limitation, Basin Production Percentage, any assessment and surcharge validly imposed by OCWD and other contractual obligations.

5. Cooperation; Meet and Confer. If any Party experiences difficulties in pumping from one of its wells described above, then the Parties shall meet to discuss and evaluate the problems and shall develop and implement a mutually-acceptable solution to any identified impacts, which could include changing pumping patterns or providing each other temporary water supply assistance.

6. Attorneys' Fees. If any Party brings a declaratory or other legal or equitable action against another Party in connection with this letter agreement, then the prevailing party will be entitled to recover from the losing party all of its costs and expenses, including court costs and reasonable attorneys' fees.

The Parties hereby agree to the terms set out above.

East Orange County Water District

By: _____
Print Name/Title:

City of Orange

By: _____
Print Name/Title:

Irvine Ranch Water District

By: _____
Paul A. Cook, General Manager

March 22, 2021
Prepared by: F. Sanchez
Submitted by: P. Weghorst
Approved by: Paul A. Cook



ACTION CALENDAR

ONE-FOR-ONE EXCHANGE WITH DUDLEY RIDGE WATER DISTRICT REQUIRING WATER TO BE USED IN KERN COUNTY

SUMMARY:

IRWD's long-term unbalanced exchange program with Buena Vista Water Storage District allows Buena Vista to store its high-flow Kern River supplies on a two-for-one basis in the Strand Ranch Integrated Banking Project (Water Bank). In 2017, IRWD entered into a long-term one-for-one exchange agreement with Dudley Ridge Water District. This mutually beneficial agreement allows IRWD to exchange its stored non-State Water Project (SWP) supplies for an equal amount of Dudley Ridge's SWP Table A water. Dudley Ridge landowners are currently evaluating their water needs for the year and may be interested in using IRWD's non-SWP supplies in Kern County consistent with the exchange agreement. Staff recommends the Board approve delivery of up to 15,000 acre-feet (AF) of IRWD's stored non-SWP water for use in Kern County by Dudley Ridge landowners. In exchange, Dudley Ridge would return an equal amount of Table A water to IRWD within five years.

BACKGROUND:

IRWD's long-term unbalanced exchange program with Buena Vista provides IRWD access to high-flow supplies, which are non-SWP supplies stored in the Water Bank. As of March 2021, IRWD has 20,685 AF of non-SWP supplies in storage. In 2017, IRWD entered into a mutually beneficial long-term one-for-one exchange program with Dudley Ridge that allows IRWD to exchange its non-SWP water for an equal amount of Dudley Ridge's SWP Table A water. This agreement, which is provided as Exhibit "A", allows IRWD to make up to 40,000 AF of non-SWP water available for delivery to Dudley Ridge landowners. This one-for-one exchange program provides water supply assistance to Dudley Ridge landowners with agricultural operations in both Kern County and the Dudley Ridge service area through the use of IRWD's non-SWP water in Kern County during water-short years.

This year's SWP allocation is currently set at 10% and, although this may be increased, this year is expected to be dry. Consistent with the terms of the long-term one-for-one exchange agreement, staff recommends the Board approve delivery of up to 15,000 AF of IRWD's stored non-SWP water for use by Dudley Ridge landowners in Kern County. In exchange, Dudley Ridge would return an equal amount of Table A water to IRWD within five years (unless extended) when the SWP allocation is 65% or greater. IRWD would benefit from the exchange by being able to use the SWP water in IRWD's service area consistent with the Coordinated Operating and Exchange Agreement with Metropolitan Water District and MWDOC.

FISCAL IMPACTS:

All costs associated with the program will be allocated on an equitable basis between IRWD and Dudley Ridge as set forth in the one-for-one exchange agreement between the two parties. IRWD is responsible for all costs for the acquisition, storage, recovery and conveyance of non-SWP water made available to Dudley Ridge. DRWD is responsible for all costs for the acquisition, conveyance and recharge of SWP water returned to IRWD. Per the terms of the agreement, costs are reconciled and equalized once the water is returned.

ENVIRONMENTAL COMPLIANCE:

Both the Strand Ranch and Stockdale Integrated Banking Projects are subject to the California Environmental Quality Act (CEQA). In compliance with CEQA, the California Public Resources Code Section 21000 et. seq., and per the California CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3, Rosedale as a lead agency, filed Notices of Determinations with the County of Kern and with the California State Clearinghouse for the Strand Ranch Integrated Banking Project Final Environmental Impact Report (EIR) and the Stockdale Integrated Banking Project Final EIR. IRWD, as a Responsible Agency, filed Notices of Determinations with the Counties of Orange and Kern and with the California State Clearinghouse for both the Strand Ranch and Stockdale Integrated Banking Projects Final EIRs.

COMMITTEE STATUS:

This item was reviewed by the Supply Reliability Programs Committee on March 18, 2021.

RECOMMENDATION:

THAT THE BOARD APPROVE DELIVERY OF UP TO 15,000 ACRE-FEET OF IRWD'S STORED NON-SWP WATER FOR USE BY DUDLEY RIDGE WATER DISTRICT LANDOWNERS IN KERN COUNTY IN EXCHANGE FOR STATE WATER PROJECT TABLE A WATER FROM DUDLEY RIDGE WATER DISTRICT CONSISTENT WITH THE TERMS OF THE 2017 AGREEMENT BETWEEN DUDLEY RIDGE WATER DISTRICT AND IRVINE RANCH WATER DISTRICT FOR A LONG-TERM EXCHANGE PROGRAM.

LIST OF EXHIBITS:

Exhibit "A" – 2017 Agreement Between Dudley Ridge Water District and IRWD for Long-Term Exchange Program

Exhibit "A"

2017 AGREEMENT BETWEEN DUDLEY RIDGE WATER DISTRICT AND IRVINE RANCH WATER DISTRICT FOR LONG-TERM EXCHANGE PROGRAM

THIS AGREEMENT (the "Agreement"), dated this 31 day of May, 2017, is made and entered into by and between DUDLEY RIDGE WATER DISTRICT ("DRWD") and IRVINE RANCH WATER DISTRICT ("IRWD"), each of the foregoing a California Water District formed under and existing pursuant to Section 34000 *et seq.* of the California Water Code (together, the "Parties" and each a "Party").

RECITALS:

WHEREAS, IRWD has developed and continues to develop the Integrated Banking Project (defined below) in Kern County with storage, recharge and recovery capacities which it operates with Rosedale-Rio Bravo Water Storage District ("Rosedale"); and

WHEREAS, DRWD as an agricultural district holds a long-term Water Supply Contract with the California Department of Water Resources ("DWR") dated December 13, 1963, as amended, pursuant to which it is entitled to receive certain quantities of water from the State Water Project ("SWP"), including without limitation water derived from DRWD's Table A Amount ("Table A Water"); and

WHEREAS, IRWD has entered into the agreement entitled "Coordinated Operating, Water Storage, Exchange and Delivery Agreement" dated as of April 21, 2011 (the "COA"), by and among the Metropolitan Water District of Southern California ("Metropolitan"), the Municipal Water District of Orange County and IRWD; and

WHEREAS, each Party seeks to increase its flexibility and improve water management and reliability by implementing a long term exchange program beginning in 2017, in which IRWD, as a landowner in DRWD, will, at its discretion, recover up to 40,000 acre feet of non-SWP water from the Integrated Banking Project for delivery to DRWD, for use within DRWD's service area or within Kern County, in exchange for which IRWD will receive an equal amount of DRWD's Table A Water in accordance with the COA as provided herein; and

WHEREAS, DRWD will implement such program as a part of, and consistent with, the 2015 Update to its 2012 Agricultural Water Management Plan ("2015 AWMP"); and

WHEREAS, IRWD and DRWD desire to enter into this Agreement for the purpose of setting forth the terms and conditions of the Exchange Program (defined below); and

WHEREAS, Kern County Water Agency ("KCWA") supports a portion of IRWD's non-SWP water originating from Kern River supplies to be used by DRWD landowners within DRWD's service area or within Kern County.

WHEREAS, the Parties intend that this Agreement shall be consistent with that certain Water Banking and Exchange Program Agreement between Rosedale and IRWD dated as of January 13, 2009, as amended (the "Banking Agreement"), and that certain Water Banking, Recovery and Exchange Program Agreement [Stockdale West and Stockdale East Properties] between Rosedale and IRWD dated as of February 4, 2016, understanding that DRWD is not a party to nor bound by either of such agreements.

NOW, THEREFORE, in consideration of the promises and covenants herein contained, DRWD and IRWD agree as follows:

AGREEMENT:

Section 1. Definitions of Certain Terms.

1.1 COA means the agreement entitled "Coordinated Operating, Water Storage, Exchange and Delivery Agreement", dated as of April 21, 2011, by and among Metropolitan, the Municipal Water District of Orange County and IRWD.

1.2 Exchange Program means the program generally described in Section 2 and implemented under this Agreement.

1.3 Exchange Water means the amount of up to 40,000 acre feet of non-SWP water that IRWD determines, at its discretion, is available to recover from the Integrated Banking Project for delivery to DRWD under the Exchange Program while this Agreement is in effect.

1.4 Integrated Banking Project means, consistent with the COA, the project described in the Banking Agreement and such other banking assets or components or interests as IRWD may determine to operate in conjunction with the recharge, storage and recovery facilities on the property known as "Strand Ranch" and other property.

1.5 DRWD POD means the Integrated Banking Project turn-ins on the Cross Valley Canal (the "CVC"), to which IRWD delivers Exchange Water to DRWD or for its account pursuant to Section 3.

1.6 IRWD POD means the Integrated Banking Project turn-outs in Reach 2 of the CVC to which DRWD delivers Return Water to IRWD or for its account pursuant to the option for physical delivery of Return Water to the Integrated Banking Project described in Section 4.1.

1.7 Return Water means Table A Water or other SWP supplies available to or controlled by DRWD that will be delivered to IRWD in exchange for Exchange Water as provided herein.

1.8 Table A Water means water derived from DRWD's Table A Amount under DRWD's long-term Water Supply Contract with DWR.

Section 2. Exchange Program. IRWD shall make up to 40,000 AF of Exchange Water available at IRWD's discretion for delivery to DRWD over the term of this Agreement when and if DRWD requests Exchange Water and such request is approved by IRWD, in exchange for an equal amount of Return Water, to be delivered by DRWD to IRWD pursuant to Section 4 of this Agreement. IRWD may use for this purpose any water supplies that IRWD banks under a program that may be recovered and delivered to or as directed by DRWD in a manner acceptable to DRWD for its use either in or out of Kern County.

Section 3. Conveyance of Exchange Water.

3.1 IRWD will utilize its recovery capacity to recover and deliver the Exchange Water to the DRWD POD.

3.2 DRWD will take possession of the Exchange Water at the DRWD POD, when it is physically able to take delivery of Exchange Water, and will be responsible for conveying the Exchange Water for use by DRWD landowners.

Section 4. Return Water.

4.1 General. The timing and the location for the delivery of Return Water shall be as provided in this Section 4.1.

4.1.1 Within five (5) years of receiving a delivery of Exchange Water (the "Return Period"), and when the June 1 SWP allocation is 65% or greater, at a time of the year selected by DRWD, DRWD shall deliver an equivalent amount of Return Water, as provided herein, to IRWD. If the Return Period ends without a year with a June 1 SWP allocation of 65% or greater, then the Return Period will be extended one year at a time until a year occurs with the June 1 SWP allocation of 65% or greater which will trigger the delivery of the Return Water to IRWD. No more than five (5) one-year extensions would be provided. In the event five (5) extensions occur, DRWD's delivery of the Return Water shall be completed prior to the end of the fifth extension year. DRWD may also deliver Return Water to IRWD in any year when the June 1 SWP allocation is less than 65%.

4.1.2 With IRWD's approval, at the request of DRWD, DRWD may also pre-deliver Return Water prior to receiving a delivery of Exchange Water, up to an amount equal to, but not greater than, the amount of non-SWP water then stored by IRWD in the Integrated Banking Project. Within five (5) years of receiving a pre-delivery of Return Water, at a time of year selected by IRWD, and when DRWD is physically able to take delivery of Exchange Water and has demand therefor, IRWD shall, unless otherwise mutually agreed upon by IRWD and DRWD, deliver an equivalent amount of Exchange Water, as provided in Section 3. Exchange Water delivered as a result of a pre-delivery of Return Water shall be at an annual rate of twenty (20) percent of the pre-delivered amount until the return obligation has been fulfilled. At DRWD's request, IRWD may at IRWD's sole discretion provide Exchange Water at an increased rate per year. If by the end of the fifth year of a pre-delivery of Return Water, DRWD has not had the physical ability and demand to take delivery of all Exchange Water, then not more than one additional year would be allowed for Exchange Water deliveries.

4.1.3 Delivery of Return Water shall be made by either (i) if preferred by DRWD, an in-ground transfer of DRWD Table A Water from DRWD's Kern Water Bank account to the Integrated Banking Project, or otherwise (ii) as directed by Metropolitan, (A) delivery of Return Water from the California Aqueduct to the IRWD POD or (B) delivery to Metropolitan for subsequent delivery to Southern California. DRWD shall provide thirty (30) days written notice to IRWD before it delivers Return Water and will confer with IRWD as to the date(s) and location(s) of delivery.

4.2 Return Water To Constitute Program Water. The Parties acknowledge and agree that Return Water shall be deemed by IRWD to be Program Water, as defined in the COA, including Return Water delivered by in-ground transfer as provided in clause (i) of Section 4.1 and Return Water delivered as directed by Metropolitan as provided in clause (ii) of Section 4.1. However, all obligations to comply with the COA with respect to Return Water shall be borne by IRWD.

4.2.1 In accordance with the COA, Program Water delivered to the Metropolitan service area shall be under the control of Metropolitan, and any transfer, exchange or other transaction for water to be moved to Metropolitan's service area or to be made Program Water requires Metropolitan's prior consent; Metropolitan's consent to the Exchange Program shall be obtained as provided in Section 7 below.

4.2.2 Any provisions of Sections 10.2 and 10.3 to the contrary notwithstanding, control, carriage, handling, use, disposal, or distribution of water that has been delivered to Metropolitan for subsequent delivery to Southern California turnouts shall be governed as provided in the COA and DRWD shall have no responsibility therefor.

Section 5. Delivery Schedule.

5.1 General. As and when requested by DRWD and approved by IRWD, and pursuant to a schedule established pursuant to Section 5.2, IRWD may deliver Exchange Water and DRWD may pre-deliver Return Water within the first fifteen (15) years of the execution of this Agreement. DRWD shall provide Return Water on a first-in and first-out basis as provided in Section 4 and any pre-delivered Return Water shall be credited to DRWD as directed by DRWD for such purpose. All Return Water shall be delivered to IRWD by the end of the term of this Agreement. All Exchange Water to be provided upon the pre-delivery of Return Water shall be delivered as provided in Section 3 by the end of the term of this Agreement.

5.2 Exchange Water. At DRWD's request, IRWD will provide a preliminary accounting of the amount of Exchange Water that IRWD has determined to be available. In any calendar year when DRWD requests and IRWD approves an Exchange Water delivery, DRWD shall supply a preliminary delivery schedule with dates and amounts to IRWD by May 1. IRWD will confirm its determination of the quantity of Exchange Water available, the Parties will meet and confer as necessary and shall finalize the delivery schedule by June 1 of such calendar year. Exchange Water delivery shall be scheduled in coordination with the KCWA.

5.3 Return Water. The delivery of Return Water shall be scheduled in accordance with the applicable agreements governing Table A Water and the COA, and also in coordination with KCWA when the Return Water is returned to the Integrated Banking Project.

Section 6. Losses. Losses will be accounted for on an equitable basis. Exchange Water will be delivered to DRWD's POD net of losses determined in accordance with the applicable "Memorandum of Understanding" between Rosedale and adjoining entities which amount to 15 percent for water that was diverted to the Integrated Banking Project by IRWD. DRWD may incur other losses up to 2 % through the CVC conveyance as assigned by KCWA or any other losses that may be incurred with delivery to DRWD's service area. To ensure a 1-for-1 exchange, all Return Water (including water pre-delivered in accordance with this Agreement) will be delivered to IRWD considering applicable losses, such that the quantity of Return Water delivered by in-ground transfer or delivered to the IRWD POD or to the point where Metropolitan takes control of the water under the COA if delivered to Southern California, as determined pursuant to Section 4.1, is equal to the amount necessary to provide for the applicable losses associated with the method of return. For example, if the Return Water is delivered by in-ground transfer or delivered to Southern California, then there would be no losses to provide for. If the Return Water is delivered to the IRWD POD by DRWD, then 10% losses associated with the Memorandum of Understanding will need to be provided for in the Return Water deliveries. Exhibit "A" provides the adjustment factors to be used in providing for losses for each method of delivering Return Water. Exhibit "A" also includes examples of adjusting for losses associated with each method of making Return Water deliveries to ensure a 1-for-1 exchange. IRWD may incur other losses up to 2 % through the CVC conveyance as assigned by KCWA or any other losses that may be incurred with delivery to the IRWD POD.

Section 7. Coordination of Approvals and Agreements.

7.1 Coordination and Costs. The Exchange Program will require approvals from DWR, KCWA, and Metropolitan. IRWD and DRWD shall jointly coordinate using their respective staff resources in the development of all agreements necessary to deliver Exchange Water to DRWD and to deliver Return Water to IRWD. IRWD and DRWD shall each be responsible for their own costs associated with such coordination. IRWD and DRWD shall each execute reasonable indemnification agreements, consistent with their respective responsibilities as set forth in Section 10, to the extent required in connection with such approvals; provided, that neither Party shall be required to execute any such agreement that is unacceptable to its board of directors.

7.2 Contingent Effectiveness. The effectiveness of this Agreement shall be contingent upon consent to the herein-described Exchange Program by Metropolitan, as indicated by its signature below, and approval of the herein-described Exchange Program by DWR as required for SWP delivery between SWP contractors, and approval by KCWA to the extent required by such DWR authorizing agreement(s). If within one (1) year of the execution of this Agreement by the Parties (the "Contingent Effectiveness Period"), any of the approvals described in the preceding sentence are not obtained, this Agreement shall cease to be effective; provided, the Parties may mutually agree to and make any modifications of this Agreement that they determine are necessary to gain such consent or approval.

Section 8. Costs.

8.1 Per Acre Foot Costs. All per acre foot costs associated with the Exchange Program will be paid as set forth in this Section. An illustrative table that assumes that Return Water is delivered to the IRWD POD using current approximate costs is set forth in Exhibit "B" attached and incorporated herein. As indicated in Exhibit "B", the use of assumed non-SWP water costs and SWP allocation percentage reflect the Parties' overall intent to approximately equalize to each Party the per acre foot cost, and if the assumptions materially change, the Parties agree to make adjustments to the cost responsibilities in Sections 8.1.1 and 8.1.2 to approximately equalize the allocation of costs. The costs listed in Exhibit "B" are by way of example and not limitation, and if a new per acre foot cost attributed to the Exchange Program is incurred that was not anticipated in the costs listed in Exhibit "B", each of the Parties shall be responsible for one-half of the new cost unless the Parties agree otherwise.

8.1.1 Exchange Water Costs. Notwithstanding any other provision of this Agreement, IRWD shall be responsible for all per acre foot costs for acquisition and storage of Exchange Water prior to its delivery to the DRWD POD. IRWD shall be responsible for all costs of recovery of the Exchange Water, including recovery operation and maintenance, Rosedale administrative charges for recovery and CVC conveyance to the DRWD POD. Each of the Parties shall be responsible for one-half of all KCWA fees, including transaction set-up fees, per acre foot transaction request fees and third-party out-of-county fees.

8.1.2 Return Water Costs. Notwithstanding any other provision of this Agreement, DRWD shall be responsible for all per acre foot costs for Return Water. DRWD shall be responsible for all costs of delivery of the Return Water to the IRWD POD, including CVC pumping to the IRWD POD, CVC conveyance to the IRWD POD, and Rosedale administrative charges for recharge in the Integrated Banking Project. For water delivered to the IRWD POD via the CVC or to Southern California, the water delivery costs charged by the DWR (variable OMP&R and off-Aqueduct charges) are to be paid by Metropolitan under the COA. The costs of providing for applicable losses upon the delivery of Return Water to the IRWD POD can be allocated to equalize the cost per acre foot paid by the Parties as shown in the example provided as Exhibit "B".

8.2 Out of Pocket Costs Other Than Coordination Costs Or Per Acre Foot Costs. Without limiting the generality of Section 10.1 of this Agreement in any way, each Party shall bear its own expenses and costs incurred in connection with activities undertaken by such Party relating to the Exchange Program, except for costs of coordination otherwise provided for in Section 7.1 or per acre foot costs described and otherwise provided for in Section 8.1. A Party's expenses to be borne by such Party under this Section include without limitation (i) actual out-of-pocket expenses incurred by such Party (including costs of its staff), (ii) the actual amount of legal fees, consulting fees and similar third-party charges incurred by such Party in connection with the Exchange Program, including without limitation the costs incurred by such Party in connection with preparing and reviewing any environmental documentation, (iii) all costs of litigation (including without limitation attorneys' fees) actually incurred by such Party in defending any action brought by a third party as the result of or challenging such Party's actions in connection with the Exchange Program, and (iv) damages actually payable by such Party relating to any activities such Party undertakes in connection with the Exchange Program, except

to the extent such damages were the direct result of the willful misconduct of the other Party that would otherwise be indemnified under Section 10 unless otherwise mutually agreed by the Parties.

8.3 Payments. The Parties agree to promptly process statements, invoices, payments, and reimbursements as needed to effectuate this Section 8 and Section 7.1.

Section 9. Environmental Compliance. On May 27, 2008 Rosedale certified an environmental impact report (SCH 2007041080) for the Integrated Banking Project (“Strand Ranch EIR”) and subsequently on said date IRWD approved the Strand Ranch EIR as a responsible agency. On January 14, 2010 IRWD certified a Negative Declaration (SCH 2009111097) for the IRWD / Jackson Ranch Water Allocation Project (“Jackson ND”). On December 8, 2015 Rosedale certified an environmental impact report (SCH 2010091076) for the Stockdale Integrated Banking Project (“Stockdale EIR”) and subsequently on December 14, 2015 IRWD approved the Stockdale EIR as a responsible agency. The Strand Ranch and Stockdale EIRs evaluated, among other things, the banking project facilities and the delivery of water from the facilities to IRWD for use in the IRWD service area.

DRWD has adopted a Negative Declaration (SCH 201621110) for DRWD’s 2015 AWMP that addresses long-term banking and exchange programs, including the (a) IRWD Strand Ranch and Stockdale Integrated Banking Projects, (b) transfers with other SWP contractors or their member units, and (3) transfers with other SWP contractors or their member units with established water banking or exchange programs. Accordingly DRWD has determined that the Exchange Program has been adequately addressed by California Environmental Quality Act (“CEQA”) action(s). Additionally, not as a requirement, but as an accommodation to approval agencies, DRWD has adopted a Notice of Exemption prior to DRWD taking action on this Agreement.

Section 10. Indemnification.

10.1. In the event of an administrative challenge and/or litigation related to the Exchange Program, this Agreement or either of the Parties’ environmental compliance in connection therewith (a “Challenge”), the Parties will promptly meet and confer to perform a risk assessment of the Challenge and cooperate in good faith to determine how to proceed in light of the Challenge. In the event of a Challenge, either Party may at any time elect to terminate the Agreement by 20 days’ written notice to the other Party; provided, that upon any such termination, this Agreement shall remain in effect solely with respect to any Return Water that must be provided as of the date of the termination notice. If neither Party elects to terminate the Agreement and the Challenge is not withdrawn, the Parties shall jointly defend the Challenge with counsel mutually acceptable to the Parties. All out of pocket costs of the joint defense and any damages, awards or losses resulting therefrom shall be split equally by the Parties. Any costs associated with a Challenge incurred by counsel or other third parties engaged by only one of the Parties shall be borne solely by that Party.

10.2 IRWD, its officers, agents, and employees shall not be liable for the control, carriage, handling, use, disposal, or distribution of Exchange Water downstream of the DRWD POD, or for the control, carriage, handling, use, disposal, or distribution of Return Water upstream of the IRWD POD, nor for any claim of damage of any nature whatsoever, including

but not limited to property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal or distribution of such water, unless such damages or claims are a result of negligent, intentional or reckless misconduct on the part of IRWD.

10.3 DRWD, its officers, agents, and employees shall not be liable for the control, carriage, handling, use, disposal, or distribution of Return Water downstream of the IRWD POD or downstream of the point of delivery of Return Water to Metropolitan for delivery to Southern California or for the control, carriage, handling, use, disposal, or distribution of Exchange Water upstream of the DRWD POD, nor for any claim of damage of any nature whatsoever, including, but not limited to, property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal, or distribution of such water, unless such damages or claims are a result of negligent, intentional or reckless misconduct on the part of DRWD.

10.4 In-ground transfers which are accounting transfers not involving a physical delivery or POD are not deemed to be subject to the provisions of the preceding two paragraphs.

10.5 Neither IRWD nor DRWD shall be liable to the other for any claims related to the impairment of the quality of water as a result of storage in any Party's banking facilities or the aquifer from any cause.

10.6 Except as otherwise provided in Section 10.1, each Party shall at all times indemnify, defend and save the other Party free and harmless from, and pay in full, any and all causes of action, claims, liabilities, obligations, demands, losses, judgments, damages or expenses, including reasonable attorney fees and costs ("claims") in any manner arising out of or connected with the indemnifying Party's activities in its performance under the Agreement or its diversion, control, carriage, handling, use, disposal or distribution of water into and out of storage, and any claims relating to any third party claiming a prior right, or interference with their right, to water delivered from one Party to the other, and any claims made by landowners in the respective Party's service area as a result of activities of the indemnifying party or its diversion, control, carriage, handling, use, disposal or distribution of water into and out of storage, excepting any loss, damage or expense and claims for loss, damage or expense resulting in any manner from the negligent act or acts of the other Party, or its Board of Directors, officers, representatives, consultants, contractors, agents or employees.

10.7 In the event a Party entitled to indemnification is made a party to any action, lawsuit, or other adversarial proceeding alleging negligent or wrongful conduct on the part of an indemnifying Party, then (1) the indemnifying Party shall provide a defense to the other or, at the indemnitee's option, reimburse the indemnitee its costs of defense, including reasonable attorneys' fees, incurred in defense of such claims, and (2) the indemnifying Party shall promptly pay any final judgment or portion thereof rendered against the indemnitee(s).

Section 11. **Notices.** All written notices required to be given pursuant to the terms of the Agreement shall be either (i) personally delivered, (ii) deposited in the United States express mail or first class mail, registered or certified, return receipt requested, postage prepaid, (iii) delivered by overnight courier service, or (iv) delivered by facsimile transmission or e-mail, provided that the original of such notice is sent by certified United States mail, postage prepaid, or by overnight courier, no later than one (1) business day following such facsimile transmission

or email. All such notices shall be deemed delivered upon actual receipt (or upon first attempt at delivery pursuant to the methods specified in clauses (i), (ii) or (iii) above if the intended recipient refuses to accept delivery). All such notices shall be delivered to the addresses shown in the Agreement or to such other address as the receiving Party may from time to time specify by written notice to the other Party given in the manner provided herein.

Section 12. Mediation. The Parties agree that any and all disputes, claims or controversies regarding the Exchange Program or this Agreement shall be submitted to mediation in a mutually agreeable venue and if the matter is not resolved through mediation, then it may be submitted to any court of competent jurisdiction. Any affected Party may commence mediation by providing the other Party a written request for mediation, setting forth the subject of the dispute and the relief requested. The Parties shall cooperate with one another in selecting a mediator and in scheduling the mediation proceedings. The Parties covenant that they shall participate in the mediation in good faith, and that they shall share equally in costs charged by the mediator. All offers, promises, conduct and statements, whether oral or written, made in the course of the mediation by any of the Parties, their agents, employees, experts and attorneys, and by the mediator or any of the mediator's employees, are confidential, privileged and inadmissible for any purpose, including impeachment, in any arbitration or other proceeding involving the Parties, provided that evidence that is otherwise admissible or discoverable shall not be rendered inadmissible or non-discoverable as a result of its use in the mediation. The provisions of this Agreement with respect to mediation may be enforced by any Court of competent jurisdiction, and the Party seeking such enforcement shall be entitled to an award of all costs, fees and expenses, including attorneys' fees, to be paid by the Party against whom such enforcement is ordered.

Section 13. Entire Agreement. This Agreement constitutes the entire agreement between the IRWD and DRWD with respect to the subject matter hereof. This Agreement supersedes all prior negotiations, discussions, contracts, agreements or understandings between the parties hereto, and no evidence of any prior or contemporaneous parol agreement or understanding shall be admissible to vary its terms. This Agreement shall not be amended or modified in any way except by a written instrument executed by each party hereto. The foregoing notwithstanding, this Agreement shall not supersede the Agreement Between Dudley Ridge Water District and Irvine Ranch Water District, dated February 25, 2010.

Section 14. Termination For Breach. Either Party may terminate the Agreement if the other Party breaches any material obligation under the Agreement and such breach continues for a period of sixty (60) days, or such other period as may be reasonable under the circumstances, after the date on which written notice is issued by the non-breaching Party. The non-breaching Party shall be entitled to seek any and all legal or equitable damages and/or remedies as a result of the breaching Party's breach.

In the event that either IRWD or DRWD is in material default of the Agreement, the non-defaulting Party shall provide written notice to the defaulting Party, identifying with reasonable specificity the nature of the claimed default. If the defaulting Party has not cured the event(s) of material default which is (are) identified in the notice required by this section within twenty (20) business days after receipt of written notification, or such other period as is reasonable under the circumstances, the non-defaulting Party shall be entitled to any and all remedies which may be

available to it at law or in equity. This provision is not intended to provide a separate termination right, which is set forth in the first paragraph of this Section.

Section 15. Choice of Laws; Venue. The Agreement shall be governed and construed in accordance with the laws of the State of California. Venue for any action brought for the purpose of enforcing any provision of the Agreement shall be in Kern County, California.

Section 16. Cumulative Rights; Waiver. No failure by either Party to exercise, and no delay in exercising any rights, shall be construed or deemed to be a waiver thereof, nor shall any single or partial exercise by either Party preclude any other or future exercise thereof or the exercise of any other right. Any waiver of any provision or of any breach of any provision of this Agreement must be in writing, and any waiver by either party of any breach of any provision of this Agreement shall not operate as or be construed to be a waiver of any other breach of that provision or of any breach of any other provision of this Agreement.

Section 17. Further Action. The Parties agree to and shall take such further action and execute and deliver such additional documents as may be reasonably required to effectuate the Exchange Program, consistent with each and all of the terms and conditions of this Agreement.

Section 18. Assignment. Neither Party shall assign or otherwise transfer its rights or obligations in, under or to the Exchange Program or this Agreement, in whole or in part, without the prior written consent of the other Party, which may be withheld in such other Party's sole and absolute discretion.

Section 19. Force Majeure; Change In Law. The respective obligations of each Party hereto shall be suspended while it is prevented from complying by acts of God; war; riots; civil insurrection; acts of civil or military authority; fires; floods; earthquakes; labor accidents or incidents; rules and regulations of any federal, state, or other governmental agency (other than the Parties themselves); changes in law, rules, or regulations of any federal, state or other governmental agency (other than the Parties themselves); or other cause of the same or other character any of which are beyond the reasonable control of such Party (collectively, "Force Majeure"). In the event of a suspension due to the foregoing, the Party whose obligations are suspended shall promptly notify the other Party in writing of such suspension and the cause and estimated duration of such suspension.

The Party providing such notice shall be excused from fulfilling its obligations under the Agreement until such time as the Force Majeure has ceased to prevent performance or other remedial action is taken, at which time the Party shall promptly notify the other Party of the resumption of its obligations under the Agreement. Any Party rendered unable to fulfill any of its obligations by reason of a Force Majeure shall exercise due diligence to remove such inability with reasonable dispatch within a reasonable time period and mitigate the effects of the Force Majeure. The relief from performance shall be of no greater scope and of no longer duration than is required by the Force Majeure.

Section 20. Interpretation. It is agreed and acknowledged by the parties that the Agreement has been arrived at through negotiation involving their respective counsel, and that each Party has had a full and fair opportunity to revise the terms of the Agreement. Consequently, the

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DUDLEY RIDGE WATER DISTRICT

By 
Manager-Engineer

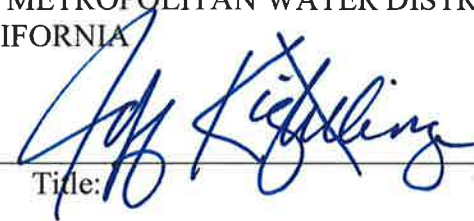
IRVINE RANCH WATER DISTRICT

By 
General Manager

CONSENT:

In accordance with Paragraph 3.2 of that agreement entitled “Coordinated Operating, Water Storage, Exchange and Delivery Agreement,” (the “COA”) dated as of April 21, 2011, by and among The Metropolitan Water District of Southern California (“Metropolitan”), the Municipal Water District of Orange County and the Irvine Ranch Water District, and in accordance with Section 15(d) of Metropolitan’s State Water Project Contract with the California Department of Water Resources, THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA hereby provides its written consent to IRWD’s acquisition of State Water Project Water on Metropolitan’s behalf as described in the Exchange Program defined herein, so long as that water meets the requirements of the COA.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

By: 
Title:

By: _____
Secretary

EXHIBIT “A”

**Adjustment Factors for Losses Associated with
Methods of Delivery of Return Water to
Ensure a 1-for-1 Exchange¹**

Method of Delivery of Return Water	In-ground Transfer from Kern Water Bank to IRWD Integrated Banking Project	Metropolitan Takes Delivery to Southern California	Delivery to IRWD Integrated Banking Project via Cross Valley Canal²
Adjustment Factor for Losses	1.0	1.0	1.10

1/ IRWD and DRWD may each incur their own conveyance losses up to 2% through the Cross Valley as assigned by KCWA.

2/ Deliveries to the IRWD Integrated Banking Project are subject to losses defined in the “Memorandum of Understanding” between Rosedale and adjoining entities. Accordingly, Return Water deliveries to the Integrated Banking Project by DRWD as a *SWP Agricultural Contractor* will be subject to 10% losses.

Example 1: If IRWD provides Exchange Water in an amount of 1,000 AF and Return Water is delivered to IRWD’s Integrated Banking Project via the Cross Valley Canal, then the following calculations would provide for Memorandum of Understanding losses upon the delivery of Return Water (10% percent losses would be required):

Exchange Water delivered = 1,000 AF
 Return Water delivered = 1,000 AF * 1.10 = 1,100 AF
 Net Return Water = 1,000 AF

Example 2: If IRWD provides Exchange Water in an amount of 1,000 AF and Return Water is delivered through in-ground transfer, then the following calculations would provide for losses upon the delivery of Return Water:

Exchange Water delivered = 1,000 AF
 Return Water delivered = 1,000 AF * 1.0 = 1,000 AF
 Net Return Water = 1,000 AF

Example 3: If IRWD provides Exchange Water in an amount of 1,000 AF and Return Water is delivered to Southern California, then the following calculations would provide for losses upon the delivery of Return Water:

Exchange Water delivered = 1,000 AF
 Return Water delivered = 1,000 AF * 1.0 = 1,000 AF
 Net Return Water = 1,000 AF

EXHIBIT “B”

**Example of Equalizing the Cost Per Acre-Foot
Associated with the Exchange Program**

All per acre foot costs associated with the Exchange Program will be paid as set forth in Section 8. An illustrative table using current approximate costs for Exchange Water delivered to DRWD and Return Water delivered (or pre-delivered) to IRWD’s Integrated Banking Project via Cross Valley Canal is set forth in this Exhibit B

Estimated per Acre-Foot Costs by Participant (in current dollars)

	DRWD	IRWD	Metropolitan
Exchange Water Costs			
Stored Exchange Water		\$ 84.00	
KCWA Fees: transaction set up fee, per AF transaction request fees, third party out of county fee	\$ 2.50	\$ 2.50	
Recovery of Exchange Water		\$ 72.00	
Recovery operations, maintenance costs		\$ 2.00	
Rosedale admin. charge for recovery at Integrated Banking Project		\$ 3.00	
CVC conveyance of Exchange Water to DRWD		\$ 3.00	
Return Water Costs			
DRWD Table A (assumes 65% SWP allocation)	\$151.00		
Water Toll			\$ 28.00
CVC pumping to Integrated Banking Project	\$ 7.00		
CVC conveyance of Return Water to Integrated Banking Project	\$ 3.00		
Rosedale admin charge for recharge at Integrated Banking Project	\$ 3.00		
Estimated cost with 10% losses associated with delivery of Return Water to Integrated Banking Project via the Cross Valley Canal. Calculated in this example as: $(\$151+\$7+\$3+\$3)*0.10/2$	\$ 8.20	\$ 8.20	
Totals	\$ 174.70	\$ 174.70	\$ 28.00

March 22, 2021
Prepared by: K. Welch
Submitted by: F. Sanchez / P. Weghorst
Approved by: Paul A. Cook



ACTION CALENDAR

OPTIONS FOR USE OF DUDLEY RIDGE WATER DISTRICT SUPPLIES STORED IN IRWD'S WATER BANK

SUMMARY:

IRWD receives an allocation of State Water Project (SWP) water supplies through ownership of the Jackson Ranch, located within the Dudley Ridge Water District. Currently, IRWD is limited by the SWP Contract to making use of 50% of the allocated SWP Table A supplies in the IRWD service area. Any portion of the water not deliverable to IRWD must be returned to Dudley Ridge for use on IRWD's Jackson Ranch or on other lands in Dudley Ridge. Using the water that must be returned to Dudley Ridge in a way that results in additional water being available to IRWD in its service area and that also results in funds to offset IRWD's capital investments in its water banking projects is recommended at this time. Staff recommends the Board authorize the General Manager to execute an agreement with Dudley Ridge for the sale of up to 5,000 AF, at \$650 per AF, of the SWP water that must be returned to Dudley Ridge contingent upon Dudley Ridge exchanging a minimum of 10,000 AF for use of Kern River water in Kern County.

BACKGROUND:

In 2010, IRWD purchased the 883-acre Jackson Ranch for the purpose of providing an SWP water supply to IRWD's Strand and Stockdale Integrated Banking Projects (IRWD Water Bank) located in Kern County. Jackson Ranch is located within the service area of Dudley Ridge, which is an SWP contractor located in Kings County. Through Dudley Ridge, IRWD has the right to receive delivery of up to 1,749 acre-feet (AF) per year of SWP Table A water and to receive Article 21 water when it is available.

Existing Unbalanced Exchange Programs:

IRWD is currently able to make use of up to 50% of its Table A water supplies received from Dudley Ridge in IRWD's service area. These deliveries are facilitated through two unbalanced exchange agreements implemented between the California Department of Water Resources (DWR), Metropolitan Water District, Dudley Ridge, and the Kern County Water Agency (KCWA). The other 50% of the water must be returned for use in Dudley Ridge on the Jackson Ranch or other lands in Dudley Ridge. Currently, a total of 5,011 AF of SWP supplies must be returned to Dudley Ridge.

2013 Unbalanced Exchange Agreement:

In 2013, an unbalanced exchange agreement was approved, allowing IRWD to deliver up to 8,700 AF of its allocated SWP supplies for the years 2013 through 2017 to be stored either in the IRWD Water Bank or in Metropolitan's system. Fifty percent of this water must be returned to Dudley Ridge by December 31, 2022. Under this agreement, 6,704 AF was delivered (net of

losses), with 3,721 AF being Table A water and 2,983 AF being Article 21 water. Fifty percent of the Table A water can be delivered to IRWD's service area in accordance with IRWD's Coordinated, Operating and Exchange Agreement with Metropolitan (Coordinated Agreement). The remaining Table A water and all of the Article 21 water must be returned for use within the Dudley Ridge service area. As of the end of 2020, a total of 974 AF has been returned to IRWD's Jackson Ranch within Dudley Ridge under this agreement.

2018 Unbalanced Exchange Agreement:

In 2018, a second unbalanced exchange program was approved to provide for the delivery of up to 12,240 AF of IRWD's allocated SWP supplies for the years 2018 through 2027. Similarly, 50% of this water must be returned to Dudley Ridge by December 31, 2035. Under this agreement, a total of 2,284 AF was delivered, net of losses, of IRWD's allocated Table A water including the projected 2021 allocated water. Fifty percent of this water can be delivered to IRWD's service area and the remaining Table A water must be returned to Dudley Ridge.

Water Use on Jackson Ranch:

The current lessee of the Jackson Ranch utilizes an average of 250 AF per year for crop irrigation. The 5,011 AF balance of water that must be returned to Dudley Ridge for use on the Jackson Ranch exceeds the current annual average use on the Jackson Ranch.

Recommendation for Use of Existing Stored SWP Water:

On March 15, 2021, staff received a proposal from Dudley Ridge where it would exercise the existing one-for-one exchange program that is described in a separate agenda item, and also purchase water from IRWD at up to \$650 per AF. Staff proposes a counteroffer to Dudley Ridge which commits Dudley Ridge to the minimum exchange of 10,000 AF of water under the one-for-one exchange program with an option to purchase up to 5,000 AF. By requiring that Dudley Ridge exercise a minimum quantity of water under the one-for-one exchange program along with a potential sale of SWP water that must be returned to Dudley Ridge, IRWD could benefit by offsetting a portion of its capital investment while making additional water available to IRWD's service area.

This use of the existing SWP supplies that must be returned to Dudley Ridge would assist Dudley Ridge within a dry year and result in additional water stored in IRWD's Water Bank that could be used in IRWD's service area. It would also result in funds to offset a portion of IRWD's capital investment in its water banking projects.

Staff recommends the Board authorize the General Manager to execute an agreement with Dudley Ridge for the sale of up to 5,000 AF of SWP water, at \$650 per AF, that must be returned to Dudley Ridge contingent upon Dudley Ridge exercising the one-for-one exchange program for a minimum of 10,000 AF for use of Kern River water in Kern County.

FISCAL IMPACTS:

Under the one-for-one exchange program, costs are equalized between IRWD and Dudley Ridge. Dudley Ridge expects to pay up to \$650 per AF for supplies this year. For the 5,000 AF of water sold to Dudley Ridge, IRWD would receive up to \$3.25 million. IRWD would pay all recovery costs in the amount of less than \$500,000. Consistent with the Coordinated Agreement, IRWD would pay Metropolitan the full-service Tier-1 rate for either treated or untreated water delivered to IRWD's service area as a result of the subsequent transfer of Table A water from Dudley Ridge. Proceeds from the sale of water under this agreement will be applied to offset capital expenses incurred to date.

ENVIRONMENTAL COMPLIANCE:

The Jackson Ranch Water Allocation Project Negative Declaration was prepared and circulated for public review in compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended), codified at California Public Resources Code Section 21000 et. seq. and the state CEQA guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3. A Notice of Determination for the final Negative Declaration for the purchase of the property was filed with Kings County on January 14, 2010.

COMMITTEE STATUS:

This item was reviewed by the Supply Reliability Programs Committee on March 18, 2021.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE AN AGREEMENT WITH DUDLEY RIDGE WATER DISTRICT FOR THE SALE OF UP TO 5,000 AF OF STATE WATER PROJECT WATER AT \$650 PER ACRE-FOOT THAT MUST BE RETURNED TO DUDLEY RIDGE WATER DISTRICT CONTINGENT UPON DUDLEY RIDGE WATER DISTRICT EXERCISING THE ONE-FOR-ONE EXCHANGE PROGRAM FOR A MINIMUM OF 10,000 AF OF KERN RIVER WATER FOR USE IN KERN COUNTY.

LIST OF EXHIBITS:

None.

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