

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

October 24, 2022

CALL TO ORDER 5:00 p.m.

PLEDGE OF ALLEGIANCE

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

This meeting will be held in-person at the District’s headquarters located at 15600 Sand Canyon Avenue, Irvine, California. The meeting will also be broadcasted via Webex for those wanting to observe the meeting virtually.

To observe this meeting virtually, please join online using the link and information below:

Via Web: <https://irwd.webex.com/irwd/j.php?MTID=me94975bb693ac2a655576bb7e77f0db5>
Meeting Number (Access Code): 2492 147 4169
Meeting Password: TUhRPCip242

PLEASE NOTE: Webex observers of 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. Observers joining the meeting while the Board is in closed session will receive a notice that the meeting has been locked. They will be able to observe the meeting once the closed session has concluded.

PUBLIC COMMENT NOTICE

Public comments are limited to three minutes per speaker on each subject. If you wish to address the Board of Directors on any item, you may attend the meeting in person and submit a “speaker slip” to the Secretary. Forms are provided outside of IRWD’s Board Room. If attending via Webex, please submit your request to speak, or your comment, via the “chat” feature and your remarks will be read into the record at the meeting. You may also submit a public comment in advance of the meeting by emailing comments@irwd.com before 12:00 p.m. on Monday, October 24, 2022.

COMMUNICATIONS TO THE BOARD

1. A. Written:
2. B. Oral:
3. ITEMS RECEIVED TOO LATE TO BE AGENDIZED

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

CONSENT CALENDAR, ITEMS 4-10

4. BOARD MEETING MINUTES

Recommendation: That the minutes of the September 26, 2022 Regular Board meeting be approved as presented.

5. 2022 LEGISLATIVE AND REGULATORY UPDATE

Recommendation: Receive and file.

6. 2023-2024 LOBBYING AND ADVOCACY SERVICES

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with Kadash & Associates for Federal Advocacy Services for the period of January 1, 2023, through December 31, 2024, at a rate of \$10,506 per month in 2023 and \$10,821 per month in 2024 plus reasonable reimbursement of direct expenses for a total contract amount not to exceed \$265,000.

7. 2022 IRWD TRIENNIAL SALARY SURVEY RESULTS AND ADOPTION OF REVISED SCHEDULE OF POSITIONS AND SALARY RATE RANGES

Reso. No. 2022-14

Recommendation: That the Board approve the Salary Grade and Classification title changes recommended and adopt a resolution superseding Resolution No. 2022-9 and adopting a revised schedule of positions and salary rate ranges.

8. GUIDING PRINCIPLES SCORECARD DASHBOARD

Recommendation: Receive and file.

9. HARVARD AVENUE TRUNK SEWER DIVERSION STRUCTURE REHABILITATION AND MICHELSON WATER RECYCLING PLANT PRIMARY CLARIFIERS CHANNEL LINING FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Harvard Avenue Trunk Sewer Diversion Structure Rehabilitation and Michelson Water Recycling Plant Primary Clarifiers Channel Lining, authorize the General Manager to file a Notice of Completion; and authorize the payment of the retention 35 days after recording the Notice of Completion for Project 11122.

CONSENT CALENDAR, ITEMS 4-10, continued

10. PLANNING AREA 51 HERITAGE FIELDS CAPITAL FACILITIES

Recommendation: That the Board authorize the General Manager to execute a Supplemental Reimbursement Agreement with Heritage Fields for Planning Area 51, Great Park Neighborhoods, Districts 2, 5 and 6, for Domestic Water, Sanitary Sewer and Recycled Water Capital Improvements; authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$2,703,650.50 for the Serrano Creek Capital Sanitary Sewer Improvements, Project 12146; authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$1,525,023.85 for the Marine Way Capital Domestic Water and Recycled Water Improvements, Projects 11176, 11177 and 11939; authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$413,651 for the GP-5 Street Capital Domestic Water and Recycled Water Improvements, Projects 12143 and 12145; authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$1,523,222.25 for Districts 5 South and 6 North Domestic Water, Sanitary Sewer and Recycled Water Improvements Projects, 12228, 12229, 12230, 12231 and 12232; authorize the addition of Projects 12143, 12145 and 12146 to the FY 2022-23 Capital Budget in the respective amounts of \$468,000, \$372,000 and \$3,435,000; authorize budget increases for Projects 11176, 11177, 11939, 12228, 12229, 12230, 12231 and 12232 in the respective amounts of \$200,000, \$150,000, \$500,000, \$267,000, \$350,000, \$100,000, \$150,000 and \$150,000.

ACTION CALENDAR

11. CONSULTANT SELECTIONS FOR UPDATING IRWD'S WATER SUPPLY RELIABILITY EVALUATION

Recommendation: That the Board authorize an increase to the Fiscal Year 2022-23 Capital Budget for Project 11799 in the amount of \$405,000, from \$1,470,000 to \$1,875,000, and authorize the General Manager to execute Professional Services Agreements with DCSE, Inc. in the amount of \$194,360 and HDR Engineering, Inc. in the amount of \$316,800 to conduct IRWD's 2022 Water Supply Reliability Evaluation.

ACTION CALENDAR, continued

12. IRVINE DESALTER PROJECT PRINCIPAL AQUIFER PLANT AND SHALLOW GROUNDWATER UNIT OPTIMIZATION FOR PFAS TREATMENT CONSULTANT SELECTION AND CONSTRUCTION AWARD

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with Tetra Tech in the amount of \$335,000 for engineering services during construction, reject the bid of R.C. Foster Corporation as non-responsive, and authorize the General Manager to execute a construction contract with Pacific Hydrotech Corporation in the amount of \$5,973,835 for the Irvine Desalter Project Principal Aquifer Plant and Shallow Groundwater Unit Optimization for per and polyfluoroalkyl substances treatment, Project Nos. 11171 and 11864.


OTHER BUSINESS

Pursuant to Government Code Section 54954.2, members of the Board of Directors or staff may ask questions for clarification, make brief announcements, and make brief reports on his/her own activities. The Board or a Board member may provide a reference to staff or other resources for factual information, request staff to report back at a subsequent meeting concerning any matter, or direct staff to place a matter of business on a future agenda. Such matters may be brought up under the General Manager's Report or Directors' Comments.

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

Meeting to be adjourned in memory of South Coast Water District's Board Member Wayne Rayfield who served on its Board since 2008 and Orange County Water District's former General Manager Bill Mills.

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.

October 24, 2022
Prepared and
submitted by: L. Bonkowski
Approved by: Paul A. Cook 

CONSENT CALENDAR

BOARD MEETING MINUTES

SUMMARY:

Provided are the minutes of the September 26, 2022 Regular Board meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE SEPTEMBER 26, 2022 REGULAR BOARD MEETING BE
APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – September 26, 2022 Minutes

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EXHIBIT "A"

MINUTES OF REGULAR MEETING –SEPTEMBER 26, 2022

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President LaMar on September 26, 2022 at the District offices, 15600 Sand Canyon Avenue, Irvine.

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

Directors Absent: None.

Written and Oral Communications: None.

Also Present: General Manager Cook, Executive Director of Operations Chambers, Executive Director of Finance and Administration Clary, Executive Director of Technical Services Burton, Executive Director of Water Policy Weghorst, Director of Treasury and Risk Management Jacobson, Director of Strategic Communications and Advocacy / Deputy General Counsel Compton, Director of Recycling Operations Zepeda, Director of Water Quality and Regulatory Compliance Colston, Director of Water Resources Sanchez, Director of Human Resources Mitcham, Director of Maintenance Manning, Director of Safety and Security Choi, Director of Information Services Kaneshiro, Secretary Bonkowski, Assistant Secretary Swan, General Counsel Collins, Consultant Newell and members of the staff and public.

CONSENT CALENDAR

On MOTION by Withers, seconded by Withers, and unanimously carried, CONSENT CALENDAR ITEMS 4 THROUGH 9 WERE APPROVED AS FOLLOWS:

4. BOARD MEETING MINUTES

Recommendation: That the minutes of the August 22, 2022 Regular Board meeting be approved as presented.

5. REIMBURSEMENT TO BOARD MEMBER FOR BUSINESS EXPENSES

Recommendation: That the Board approve the expenses submitted for reimbursement incurred by Director Peer Swan.

6. AUGUST 2022 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 August 2022 summary of payroll ACH payments in the total amount of \$2,396,625, and approve the August 2022 accounts payable disbursement summary of warrants 429431 through 430167, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$27,806,268.

CONSENT CALENDAR (CONTINUED)

7. 2022 LEGISLATIVE AND REGULATORY UPDATE

Recommendation: Receive and file.

8. MORSE / GILLETTE DOMESTIC WATER PIPELINE REPLACEMENT FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Morse / Gillette Domestic Water Relocation, Project 11567, 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.

9. CYBERSECURITY THREAT DETECTION AND RESPONSE SERVICES

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with AT&T for a not-to-exceed amount of \$442,400 for a duration of three years for cybersecurity threat detection and response services.

ACTION CALENDAR

REHABILITATION OF DYER ROAD WELLFIELD WELLS 10 AND 12 BUDGET INCREASE AND CONSTRUCTION AWARD

Executive Director of Technical Services Burton reported that the Dyer Road Wellfield (DRWF) Wells 10 and 12 require rehabilitation to improve their hydraulic performance and remove foulants and scale from the wells. Mr. Burton said that DRWF Well 10 was constructed in 1994 with copper bearing steel casing and the capacity has decreased from its original 112 gallons per minute per foot of drawdown (gpm/ft-dd) to the current specific capacity of 20 gpm/ft-dd. He said that DRWF Well 12 was constructed in 1981 with mild steel casing and steel Johnson screens and the capacity has decreased from its original 88 gpm/ft-dd to 20 gpm/ft-dd.

Mr. Burton said the project was advertised for construction to a select bidders list of five contractors; the bid opening held on September 8, 2022 and one bid was received. He said that Best Drilling and Pump, Inc. is the apparent low bidder with a bid amount of \$2,133,834; the engineer's estimate was \$2,228,054. He said that the other potential bidders informed IRWD that they decided to not submit a bid due to their heavy workloads through the end of the calendar year 2023. The bid amount for Well 10 was \$1,071,849 and for Well 12 was \$1,061,985, and Mr. Burton said that staff believes the bid from Best is fair based on comparison to other well rehabilitation contracts in the past few years. In response to Director Swan's comment, Mr. Burton reported that since the one bid was close to the engineer's estimate, and that this contractor's past bids for projects are consistently lower than other contractors' bids, staff does not see a benefit of rebidding the project. There being no further comments, on **MOTION** by Withers, seconded by McLaughlin and unanimously carried, **THE BOARD AUTHORIZED A BUDGET INCREASE IN THE AMOUNT OF \$600,000, FROM \$810,000 TO \$1,410,000, FOR PROJECT 07087, AND IN THE AMOUNT OF \$600,000, FROM \$770,000 TO \$1,370,00, FOR PROJECT 11845; AND AUTHORIZED THE GENERAL**

MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH BEST DRILLING AND PUMP, INC. IN THE AMOUNT OF \$2,133,834 FOR REHABILITATION OF DYER ROAD WELLFIELD WELLS 10 AND 12, PROJECTS 07087 AND 11845.

TERMS FOR LETTER AGREEMENT TO ALLOW METROPOLITAN WATER DISTRICT TO BORROW WATER

Executive Director of Water Resources Weghorst reported that in June 2022, Metropolitan Water District requested concepts for short- and long-term projects that could help make up shortfalls in Metropolitan's ability to deliver water to the State Water Project (SWP)-dependent areas. Mr. Weghorst said that one of the concepts submitted by IRWD included Metropolitan borrowing SWP water stored in IRWD's Kern Water Bank (KWB) account that must be used in Dudley Ridge.

Mr. Weghorst said that staff proposes to structure the terms for Metropolitan borrowing IRWD's KWB supplies as a two-for-one exchange, whereby Dudley Ridge would deliver banked SWP water to Metropolitan and within five years Metropolitan would return twice the amount, net of losses, to Dudley Ridge for IRWD's benefit. Based on this structure, staff has prepared draft terms for a letter agreement that would provide for Metropolitan's use of the 1,803 AF from IRWD's KWB account.

Mr. Weghorst said that IRWD would benefit by receiving twice the amount of water as the original amount, net of losses. Approximately half of the water would be returned to KWB and the other half to the IRWD Water Bank. The returned SWP water would be held by Dudley Ridge on behalf of IRWD, which would provide future exchange and use flexibility to IRWD.

Director Reinhart said that this item was reviewed and approved by the Supply Reliability Programs Committee on September 14, 2022. In response to Director Swan's inquiry, General Manager Cook said that an earlier payback can be discussed with MWD as an option. There being no further comments, on MOTION by Reinhart seconded by Swan, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A LETTER AGREEMENT WITH METROPOLITAN WATER DISTRICT ALLOWING IT TO BORROW WATER FROM IRWD'S ACCOUNT IN THE KERN WATER BANK, BASED ON THE PROPOSED TERMS AND SUBJECT TO SUBSTANTIVE CHANGES APPROVED BY THE SUPPLY RELIABILITY PROGRAMS COMMITTEE.**

GENERAL MANAGER'S REPORT

General Manager Cook reported there were four COVID-19 cases since late last week.

Mr. Cook announced that under the urgent necessity policy where the cost of a repair exceeds the General Manager's authority, A&Y Paving was hired for a 12" domestic AC pipe break occurred on Irvine Center Drive at a cost estimated to be under \$400,000.

Mr. Cook said that the District will be holding a Health and Wellness Fair on Wednesday and that flu shots will be available.

COMMUNITY UPDATES

Consultant Newell reported that SCE's work in the Canyon area is underway. He further said a cleanup effort is ongoing at Wildcat and Silverado Creek where last year's rain events caused serious damage. He said that 50 loads of green waste were accumulated along with 464 man-hours to perform this task.

DIRECTORS' COMMENTS

Director Withers said he attended the meetings listed along with an OCSD meeting this Wednesday. He said that a recruitment effort for a new OCSD General Manager is ongoing. He further said that he will be attending an ISDOC Executive Committee meeting next week.

Director Swan reported on his attendance at an Urban Water Institute conference, MWDOC Committee meetings, a Southern California Water Committee meeting, an OCBC Infrastructure Committee meeting, a Groundwater Banking JPA Board meeting, and a Newport Bay Watershed Executive Committee meeting.

Director Reinhart reported on the meetings listed along with OCWD and MWDOC meetings and an OCBC meeting. He said he was unable to attend the South Orange County Agencies Group meeting.

Director McLaughlin had nothing to report.

Director LaMar reported that he attended the meetings listed.

CLOSED SESSION

Legal Counsel Collins reported that the following Closed Session items would be held:

A. CLOSED SESSION CONFERENCE WITH REAL PROPERTY NEGOTIATORS – Pursuant to Government Code Section 54956.8:

Property: APN 610-691-41

Agency Negotiator: Paul A. Cook, General Manager

Negotiating Party: Keith Neves, Assistant City Manager, City of Lake Forest

Under Negotiation: Price and terms of property

B. CONFERENCE WITH LEGAL COUNSEL- ANTICIPATED LITIGATION (Gov. Code § [54956.9\(d\)\(4\)](#)) *Initiation of litigation:* 1 case

Director Reinhart said he would recuse himself from the second Closed Session item listed on the agenda. Following the first Closed Session at 5:54 p.m., Director Reinhart left the room.

OPEN SESSION

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

ADJOURNMENT

President LaMar adjourned the meeting.

APPROVED and SIGNED this 24th day of October 2022.

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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October 24, 2022
Prepared and
submitted by: C. Compton
Approved by: Paul A. Cook



CONSENT CALENDAR

2022 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 receive and file this report.

BACKGROUND:

On August 31, 2022, the California Legislature adjourned for Final Recess of the 2021-22 legislative session. A total of 4,476 bills were introduced during the two-year session. A total of 2,421 bills were introduced in 2021, comprising 828 Senate bills and 1,593 Assembly bills. A total of 2,055 bills in 2022, consisting of 672 Senate bills and 1,383 Assembly bills, were introduced in 2022. The Governor had until September 30 to act on any bills from the end of the 2021-2022 legislation session. The Legislature will convene for the 2023-24 Regular Session on December 5, when newly-elected members will be sworn in. The Legislature will then reconvene for the 2023-24 session at the beginning of January.

A copy of the 2022 Legislative Matrix is provided as Exhibit “A”. Staff will provide an update on key bills of interest to IRWD and the Governor’s recent actions on legislation. Links to the bills discussed below are included with each discussion unless a separate exhibit is noted.

2023 Legislative Planning:

Legislative Planning and Call for Legislative Proposals:

Staff has begun planning for the 2023 legislative session. As has been done in previous years, staff will seek the Board’s input in the coming months on proposed 2023 regional, state, and federal legislative issues of interest to IRWD.

Staff is also participating in 2023 legislative planning for IRWD’s associations. Each year the Association of California Water Agencies (ACWA), Bioenergy Association of California (BAC), California Municipal Utilities Association (CMUA), California Association of Sanitation Agencies (CASA), California Special Districts Association (CSDA) and WateReuse California conduct annual legislative planning for the next year and solicit legislative proposals from their members. The ACWA State Legislative Committee, the CMUA Legislative Committee, and the CSDA Legislative Committee have set September 30 as the deadline for their members to submit proposals for consideration. They have also set dates for their legislative planning meetings: CSDA’s is October 27, ACWA’s on October 28, and CMUA’s on November 10. The other associations have not set their proposal deadline and planning meeting dates.

2022 State and Regional 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 discussions regarding over the next three to 12 months:

- Executive and regulatory actions on COVID-19;
- Executive and regulatory actions related to the drought;
- California Air Resources Board (CARB) [AB 32 Climate Change Scoping Plan Update](#);
- CARB's [Proposed Advanced Clean Fleets Regulation](#);
- CARB's [Proposed In-use Off-road Diesel-Fueled Fleets Regulation Amendments](#);
- California Endangered Species Act Listing for the Southern California steelhead;
- California Natural Resources Agency (CNRA) [30 x 30 California Implementation](#);
- CNRA's [Water Resilience Portfolio Implementation](#) and Resiliency 2.0 Implementation;
- DWR's [2023 California Water Plan Update](#);
- DWR and the State Board's implementation of the "[Making Water Conservation a California Way of Life](#)" legislation;
 - DWR and the State Board's Indoor Water Use Study and Indoor Water Use Standard Recommendations;
 - DWR's Outdoor Standard Recommendations;
 - DWR's Work Group on CII performance measures; and
 - State Board's [Water Loss Performance Standards Regulations](#);
- OPR's [Integrated Climate Adaptation and Resiliency Program \(ICARP\) Grant Programs](#);
- State Board's development of a "Cross Connection Policy Handbook;"
- State Board's [Direct Potable Reuse Regulations](#);
- State Board's actions on lead service lines;
- State Board's [Draft Statewide Sanitary Sewer System General Order](#);
- State Board's [Safe and Affordable Funding for Equity and Resilience \(SAFER\) Drinking Water Program](#);
- State Board's [Proposed Vapor Intrusion Assessment Amendment to Resolution 92-49](#);
- and
- South Coast AQMD's [Cumulative Impacts from Air Toxics for CEQA Projects](#).

As the next drafts of the regulations or reports are released for public review and comment, staff will engage, as appropriate.

2022 Federal Legislative and Regulatory Update:

Kern Fan Groundwater Storage Project Outreach:

IRWD's federal advocacy efforts in 2022 continue to largely focus on seeking federal funding for the Kern Fan Groundwater Storage Project and advocating for an increased funding authorization for the federal Water Storage Program. Staff will provide an update on those efforts.

Syphon Reservoir Funding:

On August 18, 2022, IRWD received notice of funding for the Syphon Reservoir Improvement Project under the WaterSMART: Title XVI Water Reclamation and Reuse Program Funding in the amount of \$12,245,625. The Final Environmental Impact Report for the project was prepared in accordance with CEQA-Plus considerations to fulfill the requirements under the National Environmental Policy Act (NEPA). Staff has initiated discussions with the Bureau of Reclamation on the NEPA compliance for the project and will be developing a schedule to complete this work.

Proposed Designation of PFOA and PFOS as Hazardous Substances Under CERCLA:

On September 6, 2022, the U.S. Environmental Protection Agency (EPA) published a proposed rule designating Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). This proposed designation has been discussed and debated for at least a few years and was included in the EPA's PFAS Strategic Roadmap, released in October 2021.

The hazardous substances designation, if finalized, would trigger a requirement for facilities to report on PFOA and PFOS releases that meet or exceed the one pound or more in a 24-hour period reportable quantity, and would enhance the ability of federal, Tribal, state, and local authorities to obtain information about the location and extent of PFOA and PFOS releases. The designation would also enable the EPA, other agencies, and others to seek recovery of costs incurred for cleanup.

The EPA has emphasized that it is focused on holding responsible those who have manufactured and released significant amounts of PFOA and PFOS into the environment, and "not taxpayers," but the proposed rule does not provide an exemption for water or wastewater utilities. The EPA claims that it does not have authority to exempt specific entities from liability, and it references "various enforcement tools" that it could use to address liability concerns.

The agency acknowledged that some stakeholders, including water utilities and entities using biosolids, have significant concerns, and stated in its news release for the proposed rule that it is committed to doing further outreach and engagement. The news release cites wastewater utilities among stakeholders in connection with that outreach and engagement.

The 60-day public comment period is open until November 7, 2022, and the EPA plans to publish the final rule in August 2023. Staff will continue to engage with the District's associations to address liability concerns associated with the PFOA and PFOS CERCLA hazardous substances designation.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on October 6, 2022.

RECOMMENDATION:

Receive and file.

LIST OF EXHIBITS:

Exhibit "A" – IRWD Legislative Matrix

EXHIBIT “A”
IRWD 2022 LEGISLATIVE MATRIX
Updated 10/03/2022

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 84</u> Budget Cmt	COVID 19: Supplemental Paid Sick Leave		Provides for COVID 19 supplemental paid sick leave for covered employees who are unable to work or telework due to certain reasons related to COVID 19, including that the employee is attending a COVID 19 vaccine or vaccine booster appointment for themselves or a family member, or is experiencing symptoms, or caring for a family member experiencing symptoms, related to a COVID 19 vaccine or vaccine booster. Entitles a covered employee to a specified number of hours of COVID 19 supplemental paid sick leave.	02/09/2022 - Re-referred to SENATE Committee on BUDGET AND FISCAL REVIEW.
<u>AB 154</u> Ting (D)	Budget Act		Makes appropriations for the support of state government for specified fiscal year.	08/15/2022 - In SENATE. To Inactive File.
<u>AB 284</u> Rivas R (D)	Global Warming Solutions Act of 2006: Climate Goal		Requires the state board, as part of the next scoping plan update, in collaboration with the Natural Resources Agency and other relevant state agencies and departments and no later than a specified date, to identify a 2045 climate goal, with interim milestones, for the state's natural and working lands, as defined, and to integrate into the scoping plan update recommendations developed by the Natural Resources Agency and the Department of Food and Agriculture.	09/02/2021 - In SENATE. From third reading. To Inactive File.
<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 a critically overdrafted basin, as defined, in reaching water use reduction goals established pursuant to the Sustainable Groundwater Management Act. Authorizes the department to use specified guidelines to administer this program.	09/02/2021 - In SENATE. From third reading. To Inactive File.
<u>AB 649</u> Bennett (D)	Department of Resources Recycling and Recovery		Establishes the Office of Environmental Justice and Tribal Relations within the Department of Resources Recycling and Recovery. Prescribes the duties of the office, including, among	09/23/2022 - Signed by GOVERNOR.;09/23/2022 - Chaptered

IRWD 2022 LEGISLATIVE MATRIX
Updated 10/03/2022

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			others, ensuring that the department's programs effectively address the needs of disadvantaged communities, low-income communities, California Native American tribes, and farmworkers.	by Secretary of State. Chapter No. 2022-492
<u>AB 975</u> Rivas (D)	Filing Requirements and Gifts		Permits a filing officer to retain a report or statement filed in a paper format as a copy on microfilm or other space-saving materials or as an electronic copy, as specified, without a two-year waiting period. Permits a filing officer to retain a report or statement as an electronic copy before the Secretary of State certifies an online filing and disclosure system.	08/22/2022 - In SENATE. From third reading. To Inactive File.
<u>AB 1041</u> Wicks (D)	Employment Leave		Expands the class of people for whom an employee may take leave to care for to include a designated person. Defines "designated person" to mean any individual related by blood or whose association with the employee is the equivalent of a family relationship. Authorizes a designated person to be identified at the time the employee requests the leave. Expands the definition of the term "family member" to include a designated person.	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-748
<u>AB 1164</u> Flora (R)	Publicly Owned or Operated Regulating Basins		Excludes from being considered a dam a regulating basin, as defined, owned or operated by a public entity that is not across a stream channel, watercourse, or natural drainage if certain criteria are met. Includes that the owner or operator of the regulating basin, before the construction of the regulating basin, submit to the department an inundation map, stamped by a licensed civil engineer, identifying the flow and depth of water from the regulating basin in the event of a failure.	09/30/2022 - Chaptered by Secretary of State. Chapter No. 2022-943
<u>AB 1384</u> Gabriel (D)	Resiliency Through Adaptation, Economic Vitality		Requires the Natural Resources Agency to release a draft of the state's climate adaptation strategy, known as the Safeguarding California Plan, by specified date and every 3 years thereafter,	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-338

IRWD 2022 LEGISLATIVE MATRIX
Updated 10/03/2022

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			and to update the plan by July 1, 2024, and every 3 years thereafter.	
<u>AB 1395</u> Muratsuchi (D)	The State Climate Crisis Act		Declares the policy of the state both to achieve net zero greenhouse gas emissions as soon as possible, but no later than a specified year, and achieve and maintain net negative greenhouse gas emissions thereafter, and to ensure that by a specified year, statewide anthropogenic greenhouse gas emissions are reduced to at least 90% below the 1990 levels.	08/23/2022 - In SENATE. Read second time. To third reading.
<u>AB 1604</u> Holden (D)	Civil Service: The Upward Mobility Act of 2022		Requires the State Personnel Board to post notices of proposed changes to regulations for public comment. Requires the Department of Human Resources and the board to enter into a memorandum of understanding to determine areas of compliance for nonmerit-related audits and to train board staff on the areas of compliance. Requires the Department of Human Resources to establish best practices for each aspect of the design, announcement, and administration of the examinations.	09/13/2022 - Chaptered by Secretary of State. Chapter No. 2022-313
<u>AB 1642</u> Salas (D)	California Environmental Quality Act: Water System Well		Exempts from the California Environmental Quality Act a well project, as defined, that meets specified conditions, including that the domestic well or the water system to which the well is connected has been designated by the state board as high risk or medium risk in the state board's drinking water needs assessment.	09/30/2022 - Chaptered by Secretary of State. Chapter No. 2022-859
<u>AB 1687</u> Seyarto (R)	California Emergency Services Act: Governor's Powers		Provides that the Governor may only suspend a statute or regulation during a state of emergency or state of war emergency in connection with the specific conditions of emergency proclaimed by the Governor or state of war emergency, as applicable.	09/27/2022 - Vetoed by GOVERNOR.
<u>AB 1711</u> Seyarto (R)	Privacy: Breach		Requires an agency to post a notice on the agency's internet website when a person or business operating a system on behalf	09/23/2022 - Vetoed by GOVERNOR.

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			of the agency is required to issue a security breach notification for that system.	
<u>AB 1717</u> Aguiar-Curry (D)	Public Works: Definition		Expands the definition of public works to include fuel reduction work done under contract and paid for in whole or in part out of public funds performed as part of a fire mitigation project, as specified. Limits those provisions to work that falls within an apprenticeship occupation in the building and construction trades for which an apprenticeship program has been approved and to contracts in excess of \$100,000. Delays the application of those provisions until specified date for nonprofits.	09/28/2022 - Vetoed by GOVERNOR.
<u>AB 1747</u> Quirk (D)	Contractors: Disciplinary Action		Provides that the list of violations that constitute cause for a disciplinary action by the Contractors State License Board includes a willful or deliberate disregard of any state or local law relating to the issuance of building permits, and authorizes a civil penalty not to exceed \$30,000 for any violation included on the list.	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-757
<u>AB 1749</u> Garcia (D)	Community Emissions Reduction Programs		Requires the State Air Resources Board to identify in each statewide strategy update measures to reduce criteria air pollutants and toxic air contaminants. Authorizes an air district that is required to adopt a community emissions reduction program to take up to one additional year to adopt the program, if the state board and a majority of the persons who are designated by the district to participate in the development and adoption of the program agree.	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-340
<u>AB 1751</u> Daly (D)	Workers' Compensation: COVID-19: Critical Workers		Extends specified workers' compensation provisions relating to COVID-19 until specified date. Expands the specified provisions applicable to firefighters and police officers to include active firefighting members of a fire department at the State Department of State Hospitals, the State Department of Developmental Services, the Military Department, and the	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-758

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			Department of Veterans Affairs and to officers of a state hospital under the jurisdiction of the State Department of State Hospitals.	
<u>AB 1780</u> Chen (R)	Corporations: Shareholders' Meetings		Authorizes a corporation to conduct a meeting of shareholders solely by electronic transmission by and to the corporation, electronic video screen communication, conference telephone, or other means of remote communication if the meeting is conducted on or before specified date, as specified, and includes a live audiovisual feed for the duration of the meeting. Incorporates additional changes to Section 600 of the Corporations Code proposed by SB 1202 to be operative only under specified circumstances.	09/30/2022 - Chaptered by Secretary of State. Chapter No. 2022-951
<u>AB 1783</u> Levine (D)	Lobbying: Administrative Actions		Expands the definition of "administrative action" under the Political Reform Act of 1974 to include any decision or approval by the Insurance Commissioner or the Director of the Department of Managed Health Care under these provisions.	09/22/2022 - Chaptered by Secretary of State. Chapter No. 2022-456
<u>AB 1793</u> Quirk (D)	Hazardous Waste: Acute Aquatic Toxicity Criterion		Requires the Department of Toxic Substances Control, subject to an appropriation by the Legislature in the Budget Act of 2022 that implements a proposal to review the department's hazardous waste criteria, and as part of the department's comprehensive evaluation of its criteria and guidelines for the identification of hazardous wastes and extremely hazardous wastes, to review its acute toxicity criterion, as provided.	09/13/2022 - Chaptered by Secretary of State. Chapter No. 2022-274
<u>AB 1811</u> Fong M (D)	Local Flood Protection: Planning: Climate Change		Relates to authorization of a local agency to prepare a local plan of flood protection, including a strategy to meet the urban level of flood protection. Requires this strategy, if a plan is prepared by a local agency, to also include planning for climate change and rainwater and stormwater management. Requires the plan to additionally include an update on the status of coordination with water suppliers on how the management of flood waters can bolster local water supplies.	08/26/2022 - Signed by GOVERNOR.;08/26/2022 - Chaptered by Secretary of State. Chapter No. 2022-176

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 1817</u> Ting (D)	Product Safety: Textile Articles: PFAS		Prohibits, beginning specified date, any person from manufacturing, distributing, selling, or offering for sale in the state any new, not previously owned, textile articles that contain regulated perfluoroalkyl and polyfluoroalkyl substances, except as specified, and requires a manufacturer to use the least toxic alternative when removing regulated PFAS in textile articles.	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-762
<u>AB 1824</u> Public Employment and Retirement Cmt	Public Employees' Retirement		Relates to the Teachers' Retirement Law, the State Teachers' Retirement System and the Defined Benefit Program of the State Teachers' Retirement Plan. Relates to the Cash Balance Benefit Program which provides a retirement plan for the benefit of participating employees who provide creditable service for less than 50% of full time. Revises the description of trustee service. Specifies that termination of creditable services does not include retired member activities or retired participant activities.	09/02/2022 - Signed by GOVERNOR.;09/02/2022 - Chaptered by Secretary of State. Chapter No. 2022-231
<u>AB 1845</u> Calderon (D)	Metropolitan Water District of Southern California		Authorizes the Metropolitan Water District of Southern California to use the design-build procurement process for certain regional recycled water projects or other water infrastructure projects. Defines "design-build" to mean a project delivery process in which both the design and construction of a project are procured from a single entity. Requires the district to use a specified design-build procedure to assign contracts for the design and construction of a project, as defined.	09/13/2022 - Chaptered by Secretary of State. Chapter No. 2022-275
<u>AB 1851</u> Rivas R (D)	Public Works: Prevailing Wage: Hauling		Expands the definition of public works certain purposes to include the on-hauling of materials used for paving, grading, and fill onto a public works site if the individual driver's work is integrated into the flow process of construction.	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-764
<u>AB 1857</u> Garcia (D)	Solid Waste		Requires the Department of Resources Recycling and Recovery, upon appropriation by the Legislature, to establish and administer the Zero-Waste Equity Grant Program as a	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-342

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			competitive grant program to support targeted strategies and investments in communities transitioning to a zero-waste circular economy. Requires the department to provide grants to eligible zero-waste projects, as described.	
<u>AB 1879</u> Mathis (R)	Water Quality Control Boards Frivolous Complaints		Authorizes a regional board to develop a plan or policy to address unfounded or frivolous complaints.	09/13/2022 - Vetoes by GOVERNOR.
<u>AB 1886</u> Cooper (D)	Public Works: Definition		Expands the definition of public works to include street sweeping, as defined, maintenance performed for the routine cleaning of any publicly owned or publicly operated street, road, or highway done under contract and paid for in whole or in part out of public funds.	08/31/2022 - In ASSEMBLY. ASSEMBLY refused to concur in SENATE amendments.;08/31/2022 - In ASSEMBLY. Motion to reconsider.;08/31/2022 - In ASSEMBLY. Reconsideration granted.;08/31/2022 - In ASSEMBLY. ASSEMBLY refused to concur in SENATE amendments.
<u>AB 1906</u> Stone (D)	Voluntary Stream Restoration: Property Owner Liability		Requires costs incurred by a qualifying state agency in settling, in addition to investigating and defending against, a claim by a real property owner to be paid from the General Fund.	09/15/2022 - Chaptered by Secretary of State. Chapter No. 2022-325
<u>AB 1933</u> Friedman (D)	Property Taxation: Welfare Exemption: Nonprofit		Requires a nonprofit corporation that utilizes welfare exemption to be subject to an annual independent audit and to make the audit available to specified entities in order to continue to qualify for the exemption. Makes a nonprofit corporation liable for property tax for the years for which the property was exempt from taxation pursuant to the bill's provisions under specified conditions.	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-643
<u>AB 1949</u> Low (D)	Employees: Bereavement Leave		Makes it an unlawful employment practice for an employer to refuse to grant a request by an eligible employee to take up to 5 days of bereavement leave upon the death of a family member, as defined. Requires that leave be completed within 3 months of the	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-767

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			date of death. Requires that leave be taken pursuant to any existing bereavement leave policy of the employer.	
<u>AB 1985</u> Rivas R (D)	Organic Waste: Recovered Organic Waste Product		Requires any penalties imposed by the Department of Resources Recycling and Recovery, on a local jurisdiction that fails to meet its recovered organic waste procurement target to be imposed pursuant to a specified schedule based on the percentage of the local jurisdiction's recovered organic waste product procurement target achieved. Exempts jurisdictions in possession of a specified rural exemption from these requirements until specified date.	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-344
<u>AB 2059</u> Carrillo (D)	Hazardous Materials Business and Area Plans		Expands the scope of hazardous materials subject to regulation pursuant to the hazardous waste control laws by narrowing the definition of "consumer product" to require that the commodity be present in the same form, concentration, and quantity as a product prepackaged for distribution to a consumer for personal, family, or household purposes, instead of for use by the general public, and by otherwise narrowing the exemption for consumer products from regulation of hazardous materials, as provided.	09/13/2022 - Chaptered by Secretary of State. Chapter No. 2022-278
<u>AB 2061</u> Ting (D)	Transportation Electrification: Electric Vehicle Charge		Requires the Energy Commission, in consultation with the Public Utilities Commission, to develop uptime recordkeeping and reporting standards for electric vehicle chargers and charging stations by specified date.	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-345
<u>AB 2075</u> Ting (D)	Energy: Electric Vehicle Charging Standards		Specifies the State Energy Resources Conservation and Development Commission (Energy Commission) is an interested party that the California Building Standards Commission and the Department of Housing and Community Development are required to consult with in proposing and adopting standards related to electric vehicle charging standards.	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-346

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 2106</u> Rivas R (D)	Water Quality: Permits		Requires the State Water Resources Control Board to establish a statewide commercial, industrial, and institutional national pollutant discharge elimination system order regulating stormwater and authorized nonstormwater discharges from facilities with impervious surfaces that are significant contributors of pollutants to federally protected surface waters. Requires the board to contemporaneously develop a model memorandum of understanding.	09/28/2022 - Vetoed by GOVERNOR.
<u>AB 2108</u> Rivas R (D)	Water Policy: Environmental Justice		Requires the State Water Resources Control Board and each regional board to engage in equitable, culturally relevant community outreach to promote meaningful civic engagement from potentially impacted communities of proposed discharges of waste that may have disproportionate impacts on water quality in disadvantaged communities or tribal communities and ensure that outreach and engagement shall continue throughout the waste discharge planning, policy, and permitting processes.	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-347
<u>AB 2133</u> Quirk (D)	California Global Warming Solutions Act of 2006		Requires the State Air Resources Board to ensure that statewide greenhouse gas emissions are reduced to at least 55% below the 1990 level by no later than specified date.	08/31/2022 - In SENATE. Read third time. Passed SENATE. *****To ASSEMBLY for concurrence.;08/31/2022 - In ASSEMBLY. ASSEMBLY refused to concur in SENATE amendments.
<u>AB 2135</u> Irwin (D)	Information Security		Requires state agencies to adopt and implement information security and privacy policies, standards, and procedures based upon standards issued by the National Institute of Standards and Technology and the Federal Information Processing Standards. Requires to certify, to the President pro Tempore of the Senate and the Speaker of the Assembly that the agency is in compliance with all adopted policies, standards, and procedures and to include a plan of action and milestones.	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-773

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 2142</u> Gabriel (D)	Income Taxes: Exclusion: Turf Replacement Program	SUPPORT	Relates to the Personal Income Tax Law and the Corporation Tax Law. Provides that this bill would, for taxable years beginning on or after January 1, 2022, and before January 1, 2027, under both of these laws, provide an exclusion from gross income for any amount received as a rebate, voucher, or other financial incentive issued by a public water system, as defined, local government, or state agency for participation in a turf replacement water conservation program.	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-674
<u>AB 2143</u> Carrillo (D)	Net Energy Metering		Applies specified public works project requirements to the construction of any renewable electrical generation facility, and any associated battery storage, after specified date, that receives service pursuant to the 2nd standard contract or tariff, with specified exceptions.	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-774
<u>AB 2146</u> Bauer-Kahan (D)	Neonicotinoid Pesticides: Prohibited Nonagricultural		Prohibits, beginning January 1, 2024, the sale, possession, or use of neonicotinoid pesticides, as defined, for application to outdoor ornamental plants, trees, or turf, except for use on on, or for the protection of, an agricultural commodity, as defined. Authorizes a certified qualified applicator to possess or use a neonicotinoid pesticide and a licensed pest control dealer to sell a neonicotinoid pesticide as provided.	09/28/2022 - Vetoed by GOVERNOR.
<u>AB 2154</u> Cooley (D)	California Insurance Guarantee Association		Provides that under existing law, if a natural disaster results in covered claim obligations currently payable and owed to the California Insurance Guarantee Association in excess of its capacity to pay from current funds and current premium assessment, the board of CIGA may ask the Department of Insurance to issue bonds. Authorizes CIGA to ask the California Infrastructure and Economic Development Bank to issue bonds if CIGA makes specified determinations.	09/18/2022 - Chaptered by Secretary of State. Chapter No. 2022-508

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 2188</u> Quirk (D)	Discrimination in Employment: Use of Cannabis		Makes it unlawful for an employer to discriminate against a person in hiring, termination, or any term or condition of employment, or otherwise penalize a person, if the discrimination is based upon the person's use of cannabis off the job and away from the workplace, except for preemployment drug screening, as specified, or upon an employer-required drug screening test that has found the person to have nonpsychoactive cannabis metabolites in their hair, blood, urine, or other bodily fluids.	09/18/2022 - Chaptered by Secretary of State. Chapter No. 2022-392
<u>AB 2201</u> Bennett (D)	Groundwater Sustainability Agency: Extraction Permit		Prohibits a county, city, or any other water well permitting agency from approving a permit for a new groundwater well or for an alteration to an existing well in a basin subject to the act and classified as medium or high priority unless specified conditions are met.	08/29/2022 - In SENATE. Read third time. Passed SENATE. *****To ASSEMBLY for concurrence.
<u>AB 2206</u> Lee (D)	Nonattainment Basins: Employee Parking		Revises the definitions of employer, parking cash-out program, and parking subsidy. Requires an employer to maintain a record of communication with each employee who receives a parking subsidy that those employees have been informed of their right to receive the cash equivalent of the parking subsidy. Imposes specified duties upon the State Air Resources Board.	09/30/2022 - Chaptered by Secretary of State. Chapter No. 2022-866
<u>AB 2208</u> Kalra (D)	Fluorescent Lamps: Sale and Distribution: Prohibition		Prohibits, on and after specified date, a screw or bayonet base type compact fluorescent lamp, as defined, and, on and after specified date, a pin base type compact fluorescent lamp or a linear fluorescent lamp, as defined, from being offered for final sale, sold at final sale, or distributed in this state as a new manufactured product. Exempts various lamps that meet specified criteria from that prohibition.	09/18/2022 - Chaptered by Secretary of State. Chapter No. 2022-409
<u>AB 2221</u> Quirk-Silva (D)	Accessory Dwelling Units		Specifies that an accessory dwelling unit that is detached from the proposed or existing primary dwelling may include a detached garage. Requires a permitting agency to approve or deny an application to serve an accessory or junior accessory	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-650

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			dwelling unit within the specified timeframes. Provides that if an application for an accessory dwelling unit or junior accessory dwelling unit is denied, an agency shall return to the applicant a list of items that are defective or deficient and describe remedies.	
<u>AB 2233</u> Quirk-Silva (D)	Excess State Land: Development of Affordable Housing		Requires the Department of General Services to develop, in consultation with the Department of Housing and Community Development, a set of criteria to consistently evaluate state-owned parcels for suitability as affordable housing sites. Requires, on or before July 1, 2024, and every 4 years thereafter, the DGS to, among other things, conduct a review of all state-owned property and identify state-owned parcels that are potentially viable for affordable housing based on those criteria.	09/19/2022 - Chaptered by Secretary of State. Chapter No. 2022-438
<u>AB 2234</u> Rivas R (D)	Planning and Zoning: Housing: Postentitlement Phase		Relates to the Housing Accountability Act. Requires a local agency to compile a list of information needed to approve or deny a postentitlement phase permit, as defined, to post an example of a complete, approved application and an example of a complete set of postentitlement phase permits for at least 5 types of housing development projects, as defined, in the jurisdiction, as specified, and to make those items available to all applicants for these permits no later than January 1, 2024.	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-651
<u>AB 2238</u> Rivas (D)	Extreme Heat: Statewide Extreme Heat Ranking System		Requires the California Environmental Protection Agency to develop a statewide extreme heat ranking system in coordination with the ICARP, the State Department of Public Health, and the Department of Insurance, as provided. Requires the Department of Insurance to transmit a study of, among other things, past extreme heat events and the effectiveness of insurance coverages, as specified, to prevent losses or help communities plan public health initiatives related to combating the effects of extreme heat.	09/09/2022 - Signed by GOVERNOR.;09/09/2022 - Chaptered by Secretary of State. Chapter No. 2022-264

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<u>AB 2243</u> Garcia E (D)	Occupational Safety and Health Standards: Heat Illness		Requires the Division of Occupational Safety and Health, before December 1, 2025, to submit to the Health Standards Board a rulemaking proposal to consider revising the heat illness standard and wildfire smoke standard. Requires a rulemaking proposal to consider revising the wildfire smoke standard, with regard to farmworkers, to reduce the existing air quality index threshold for PM2.5 particulate matter at which control by respiratory protective equipment becomes mandatory for farmworkers.	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-778
<u>AB 2247</u> Bloom (D)	Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)		Requires, as part of the hazardous waste control laws, the Department of Toxic Substances Control to contract with an existing multistate chemical data collection entity that is used by other states and jurisdictions to implement, by January 1, 2026, a publicly accessible data collection interface to collect information about perfluoroalkyl and polyfluoroalkyl substances (PFAS) and products or product components containing intentionally added PFAS.	09/29/2022 - Vetoed by GOVERNOR.
<u>AB 2248</u> Garcia E (D)	Water Quality: California Mexico Cross Border Rivers		Makes specified sum available from the General Fund, upon appropriation by the Legislature in the annual Budget Act or another statute, to the State Water Resources Control Board for grants and direct expenditures to address water quality problems arising in California-Mexico cross-border rivers.	09/18/2022 - Vetoed by GOVERNOR.
<u>AB 2260</u> Rodriguez (D)	Emergency Response: Trauma Kits		Defines trauma kit to mean a first aid response kit that contains specified items, including, among other things, a tourniquet. Allows medical materials and equipment and any additional items that are approved by the medical director of the local emergency medical services agency to be included as supplements in addition to the specified items that are required to be included in a trauma kit if they adequately treat a traumatic injury and can be stored in a readily available kit.	09/27/2022 - Chaptered by Secretary of State. Chapter No. 2022-586

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<u>AB 2278</u> Kalra (D)	Natural Resources: Biodiversity and Conservation Report		Requires the Natural Resources Agency, in implementing actions to achieve the goal to conserve at least 30% of the state's lands and coastal waters by 2030 established by the executive order, to prioritize specified actions. Requires the Secretary of the Natural Resources Agency to prepare and submit an annual report to the Legislature on the progress made during the prior calendar year toward achieving that goal, as provided.	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-349
<u>AB 2316</u> Ward (D)	Public Utilities Commission: Customer Renewable Energy		Requires the Public Utilities Commission, on or before specified date, to evaluate each customer renewable energy subscription program to determine if the program meets specified goals, to authorize the termination or modification of a program that does not meet those goals, to determine whether it would be beneficial to ratepayers to establish a community renewable energy program, and to establish that program if doing so would be beneficial to ratepayers.	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-350
<u>AB 2319</u> Bonta M (D)	Surplus Land: Former Military Base Land		Adds to the definition of exempt surplus land, land that is a former military base conveyed by the federal government to a local agency, is subject to certain provisions governing the Alameda Naval Air Station and the Fleet Industrial Supply Center, and meets other specified conditions.	09/30/2022 - Chaptered by Secretary of State. Chapter No. 2022-963
<u>AB 2334</u> Wicks (D)	Density Bonus Law: Affordability: Incentives		Relates to the Density Bonus Law. Applies amendment regarding maximum controls on density only to the Counties of Alameda, Contra Costa, Los Angeles, Marin, Napa, Orange, Riverside, Sacramento, San Bernardino, San Diego, San Francisco, San Mateo, Santa Barbara, Santa Clara, Solano, Sonoma, and Ventura.	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-653
<u>AB 2362</u> Mullin (D)	Publicly and Environmentally Beneficial Projects		Requires the Natural Resources Agency, on or before specified date, in coordination with the California Environmental Protection Agency, to convene the Interagency Working Group comprised of regulatory agencies under the auspices of the	08/22/2022 - In SENATE. From third reading. To Inactive File.

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			agency and the California Environmental Protection Agency that are responsible for permitting environmentally beneficial projects, that include procedures and ongoing management for the protection of the environment.	
<u>AB 2449</u> Rubio (D)	Open Meetings: Local Agencies: Teleconferences		Relates to law that authorizes a local agency to use teleconferencing without complying with specified teleconferencing requirements in specified circumstances when a declared state of emergency is in effect, or in other situations related to public health. Revises and recasts those teleconferencing provisions and, until January 1, 2026, authorizes a local agency to use teleconferencing without complying with certain teleconferencing requirements.	09/13/2022 - Chaptered by Secretary of State. Chapter No. 2022-285
<u>AB 2463</u> Lee (D)	Public Works: Exemption		Relates to existing law defines "public works," for purposes of regulating public works contracts, as, among other things, construction, alteration, demolition, installation, or repair work that is performed under contract and paid for in whole or in part out of public funds. Relates to pursuant to existing law, all workers employed on public works projects are required to be paid not less than the general prevailing rate of per diem wages for work, except as specified.	08/29/2022 - Signed by GOVERNOR.;08/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-210
<u>AB 2503</u> Garcia (D)	Landlords and Tenants: California Law Revision		Requires the California Law Revision Commission to, on or before specified date, deliver to the Legislature a study regarding, among other things, the establishment of consistent terminology across the California codes to describe the parties to an agreement, lease, or other contract for the rental of residential real property, including in mobilehome parks, that meets certain criteria, specifically, among other things, that the study addresses whether the continued use of the terms landlord and tenant.	09/22/2022 - Chaptered by Secretary of State. Chapter No. 2022-462
<u>AB 2556</u> O'Donnell (D)	Local Public Employee Organizations		Authorizes a recognized employee organization to charge an employee covered by the Firefighters Procedural Bill of Rights	09/18/2022 - Chaptered by Secretary of State. Chapter No. 2022-412

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			Act for the reasonable cost of representation when the employee holds a conscientious objection, as specified, or declines membership in the organization and requests individual representation in a discipline, grievance, arbitration, or administrative hearing from the organization.	
<u>AB 2559</u> Ward (D)	Reusable Tenant Screening Reports		Defines the term reusable tenant screening report to mean a consumer report, as defined, that was prepared within the previous 30 days by a consumer reporting agency at the request and expense of an applicant, is made directly available to the landlord for use in the rental application process or is provided through a third-party website that regularly engages in the business of providing reusable tenant screening reports that are available to landlords and complies with all state and federal laws.	09/13/2022 - Chaptered by Secretary of State. Chapter No. 2022-288
<u>AB 2582</u> Bennett (D)	Recall Elections: Local Offices		Requires a recall election for a local officer to include only the question of whether the officer sought to be recalled shall be removed from office. Provides that if a local officer is removed from office in a recall election, the bill would provide that the office is vacant until it is filled according to law. Incorporates additional changes to Section 11041 of the Elections Code proposed by AB 2584 to be operative only if this bill and AB 2584 are enacted and this bill is enacted last.	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-790
<u>AB 2638</u> Bloom (D)	School Facilities: Drinking Water: Filling Stations		Requires new construction or modernization project submitted to the Division of the State Architect by a school district or the governing body of a charter school to include water bottle filling stations, as specified. Requires, for modernization projects, a minimum of one water bottle filling station for each school undergoing modernization, and for new construction projects, a minimum of one water bottle filling station per 350 people at each school being constructed.	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-793

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 2647</u> Levine (D)	Local Government: Open Meetings		Requires a local agency to make certain writings distributed to the members of the governing board available for public inspection at a public office or location that the agency designates and list the address of the office or location on the agenda for all meetings of the legislative body of the agency unless the local agency meets certain requirements, including the local agency immediately posts the writings on the local agency's internet website in a position and manner that makes it clear.	09/30/2022 - Chaptered by Secretary of State. Chapter No. 2022-971
<u>AB 2667</u> Friedman (D)	Distributed Energy Resources: Incentives		Requires the Energy Commission to use funds appropriated by the Legislature to provide incentives to eligible customers who install behind-the-meter energy storage systems, or self-generation systems paired with energy storage systems, to support statewide customer adoption of clean distributed energy resources, as specified. Requires the Energy Commission to establish a system to equitably award incentives and set incentive levels, as specified, and to prioritize certain resources.	08/29/2022 - In SENATE. Read third time. Failed to pass SENATE.;08/29/2022 - In SENATE. Motion to reconsider.;08/29/2022 - In SENATE. Reconsideration granted.;08/30/2022 - In SENATE. Read third time. Failed to pass SENATE.
<u>AB 2677</u> Gabriel (D)	Information Practices Act of 1977		Relates to law that provides that the intentional disclosure of medical, psychiatric, or psychological information in violation of the Information Practices Act, that is not permitted by law, is punishable as a misdemeanor if the wrongful disclosure results in economic loss or personal injury to the individual to whom the information pertains. Provides that this bill would, for a violation to be punishable as a misdemeanor, require that the disclosure be known or should be known to be in violation.	09/19/2022 - Vetoed by GOVERNOR.
<u>AB 2693</u> Reyes (D)	COVID-19: Exposure		Provides that if an employer or representative of the employer receives a notice of potential exposure to COVID-19, the employer is required to take specified actions within one business day of the notice of potential exposure, including providing written notice to all employees on the premises that they may have been exposed. Revises and recasts those notification requirements to, among other things, authorize an	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-799

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			employer to satisfy the notification requirements by prominently display a notice.	
<u>AB 2780</u> Arambula (D)	Enhanced Infrastructure Financing Districts		Authorizes the City of Selma to initiate, participate in, govern, or finance an enhanced infrastructure financing district if specified events have occurred, except the requirement to have received a finding of completion, and if the City of Selma, acting as the successor agency to the former Selma Redevelopment Agency, has paid in full the amount outstanding demanded by the county auditor-controller from the funds of the successor agency for subsequent distribution to taxing entities, as specified.	09/27/2022 - Chaptered by Secretary of State. Chapter No. 2022-598
<u>AB 2805</u> Bauer-Kahan (D)	Department of Fish and Wildlife: Advance Mitigation		Authorizes a federally recognized tribe to propose a regional conservation investment strategy, as provided. Eliminates a restriction on the Department of Fish and Wildlife that authorizes the department to approve a regional conservation investment strategy only if one or more state agencies request approval through a letter sent to the Director of Fish and Wildlife.	09/22/2022 - Chaptered by Secretary of State. Chapter No. 2022-463
<u>AB 2877</u> Garcia E (D)	Safe and Affordable Drinking Water Fund: Tribes		Specifies that any waiver of tribal sovereignty that is required by the Water Resources Control Board for a tribe that is an eligible recipient to access funding from the Safe and Affordable Drinking Water Fund shall be narrowly drafted to serve both the individual needs of the tribe and make the funding agreement enforceable. Requires the board to include its designated tribal liaison, as defined, in all discussions with eligible recipients, except as specified.	09/23/2022 - Signed by GOVERNOR.;09/23/2022 - Chaptered by Secretary of State. Chapter No. 2022-481
<u>AB 2895</u> Arambula (D)	Water: Permits and Licenses: Temporary Changes		Establishes a new process for petitions for which notice is submitted to the State Water Resources Control Board no later than January 31 for a temporary change due to a transfer or exchange of water rights initiated in the same year, and imposes on the State Water Resources Control Board related notice, decision, and hearing requirements.	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-675

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<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.	04/22/2021 - To ASSEMBLY Committees on LOCAL GOVERNMENT and APPROPRIATIONS.
<u>ACA 13</u> Mathis (R)	Water Infrastructure Projects: Minimum Funding		Requires the Treasurer to annually transfer an amount equal to 2% of all state revenues from the General Fund to the Water Infrastructure Trust Account, which the measure would create. Continuously appropriates moneys in the account to the California Water Commission for its actual costs of implementing these provisions and for specified water infrastructure projects. Enacts the Water Infrastructure Bond Act of 2022.	04/07/2022 - To ASSEMBLY Committees on WATER, PARKS AND WILDLIFE and NATURAL RESOURCES.
<u>SB 37</u> Cortese (D)	Contaminated Site Cleanup and Safety Act		Repeals the requirement for the State Department of Health Care Services to compile a list of all public drinking water wells. Provides that a project located on a site that is included on any list compiled by the state agencies specified above and posted on the California Environmental Protection Agency' s internet website is exempted from CEQA if the project meets specified conditions.	08/29/2022 - In ASSEMBLY. To Inactive File.
<u>SB 45</u> Portantino (D)	Short-Lived Climate Pollutants: Organic Waste Reduction		Requires the Department of Resources Recycling and Recovery, in consultation with the State Air Resources Board, to assist local jurisdictions in complying with specified provisions, including any regulations adopted by the department.	09/19/2022 - Chaptered by Secretary of State. Chapter No. 2022-445

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 222</u> Dodd (D)	Water Rate Assistance Program	OPPOSE UNLESS AMENDED	Establishes the Water Rate Assistance Fund in the State Treasury to help provide water affordability assistance, for both drinking water and wastewater services, to low-income residential ratepayers. Makes moneys in the fund available upon appropriation by the Legislature to the state board to provide direct water bill assistance to low-income residential ratepayers served by eligible systems, as defined, and would require 80% of total expenditures from the fund to be directly applied.	09/28/2022 - Vetoed by GOVERNOR.
<u>SB 230</u> Portantino (D)	State Water Resources Control Board		Requires the State Water Resources Control Board to build upon its existing work dealing with, and work to improve its knowledge of, constituents of emerging concern (CEC) in water and, waters of the state and drinking water. Requires, as part of this work, the deputy director appointed by the state board, to work to improve its the knowledge of CECs in drinking water by assessing the state of information, as specified.	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-676
<u>SB 459</u> Allen (D)	Political Reform Act of 1974: Lobbying		Relates to periodic reports related to lobbying. Requires lobbyists, lobbying firms, and lobbyist employers to include information in the periodic reports that identifies each bill or administrative action subject to lobbying activity during that period. Provides that for certain activities involving issue lobbying advertisements, the bill would require disclosure of the position on the bill or administrative action advocated by the advertisement.	09/30/2022 - Chaptered by Secretary of State. Chapter No. 2022-873
<u>SB 649</u> Cortese (D)	Local Governments: Affordable Housing: Local Tenant		Provides that the low-income housing tax credit program and tax-exempt bonds for qualified residential rental property used for affordable housing may be used to support access to housing that would allow households at risk of displacement to remain in the community. Specifies that a local tenant preference adopted pursuant to the bill's provisions is subject to the duty of public agencies to affirmatively further fair housing, as specified.	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-660

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 844</u> Min (D)	Cybersecurity Improvement: Reports		Establishes a program to award grants to eligible entities to address cybersecurity risks and cybersecurity threats to information systems owned or operated by, or on behalf of, state, local, or tribal governments. Requires the center to create four reports, to be delivered to the Legislature. Relates to federal State and Local Cybersecurity Improvement Act.	09/23/2022 - Chaptered by Secretary of State. Chapter No. 2022-505
<u>SB 852</u> Dodd (D)	Climate Resilience Districts: Formation: Funding		Authorizes a city, county, city and county, special district, or a combination of any of those entities to form a climate resilience district, as defined, for the purposes of raising and allocating funding for eligible projects and the operating expenses of eligible projects.	09/09/2022 - Signed by GOVERNOR.;09/09/2022 - Chaptered by Secretary of State. Chapter No. 2022-266
<u>SB 867</u> Laird (D)	Sea Level Rise: Planning and Adaptation		Requires a local government lying, in whole or in part, within the coastal zones or within the jurisdiction of the San Francisco Bay Conservation and Development Commission to implement sea level rise planning and adaptation through either submitting, and receiving approval for, a local coastal program to the California Coastal Commission or submitting, and receiving approval for, a subregional San Francisco Bay shoreline resiliency plan.	09/29/2022 - Vetoed by GOVERNOR.
<u>SB 880</u> Laird (D)	Water Diversion: Monitoring and Reporting		Extends indefinitely existing law which requires any diverter, who has completed an instructional course regarding the devices or measurement method administered by the University of California Cooperative Extension, including passage of a proficiency test before the completion of the course, to be considered a qualified individual when installing and maintaining devices or implementing methods of measurement that were taught in the course for the diverter's diversion.	08/29/2022 - Signed by GOVERNOR.;08/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-221
<u>SB 892</u> Hurtado (D)	Cybersecurity Preparedness: Food and Agriculture Sector		Requires the Office of Emergency Services to direct Cybersecurity Integration Center to prepare, and OES to submit to the Legislature a strategic, multiyear outreach plan to assist the food and agriculture sector and the water and wastewater sector	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-820

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			in their efforts to improve cybersecurity and an evaluation of options for providing grants or alternative forms of funding to, and potential voluntary actions that do not require funding and that assist, those sectors in their efforts to improve cybersecurity.	
SB 896 Dodd (D)	Wildfires: Defensible Space: Grant Programs		Requires any local governmental entity that is qualified to conduct defensible space assessments in very high and high fire hazard severity zones, as specified, and that reports that information to the Department of Forestry and Fire Protection, to report that information using the common reporting platform.	08/29/2022 - Signed by GOVERNOR.;08/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-222
SB 897 Wieckowski (D)	Accessory Dwelling Units: Junior Units Dwelling Units		Relates to law that authorizes a local agency to impose standards on accessory dwelling units that include, but are not limited to, parking, height, setback, landscape, architectural review, and maximum size of a unit. Requires that the standards imposed on accessory dwelling units be objective. Increases the maximum height limitation that may be imposed by a local agency on an accessory dwelling unit to 18 feet if the accessory dwelling unit meets specified requirements.	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-664
SB 931 Leyva (D)	Deterring Union Membership: Violations		Authorizes an employee organization, as described, to bring a claim before the Public Employment Relations Board alleging that a public employer committed certain violations. Provides for civil penalties for violations. Requires the board to apply specified criteria when assessing the civil penalty.	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-823
SB 954 Archuleta (D)	Public Works: Wages: Electronic Payroll Records		Requires the Department of Industrial Relations to establish an online database of electronic certified payroll records, which the bill requires to be accessible only to certain trust funds established under federal law and certain committees established under federal law, as specified. Requires that this online database contain only nonredacted information that may be provided to those trust funds and committees.	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-824

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 984</u> Archuleta (D)	Military Service: Leave of Absence: Pay and Benefits		Relates to law that authorizes National Guard employee members to elect to use vacation time or accumulated compensatory time off to attend scheduled reserve drill periods or perform other inactive duty reserve obligations. Recasts those provisions to instead require that employee members of reserve military units and the National Guard required to perform inactive duty obligations, other than inactive and active duty training drill periods, as specified, be granted military leave of absence without pay.	09/17/2022 - Chaptered by Secretary of State. Chapter No. 2022-384
<u>SB 991</u> Newman (D)	Public Contracts: Progressive Design-Build		Authorizes local agencies, defined as any city, county, city and county, or special district authorized by law to provide for the production, storage, supply, treatment, or distribution of any water from any source, to use the progressive design-build process for up to 15 public works projects in excess of a specified amount for each project, similar to the progressive design-build process authorized for use by the Director of General Services.	09/02/2022 - Signed by GOVERNOR.;09/02/2022 - Chaptered by Secretary of State. Chapter No. 2022-243
<u>SB 1010</u> Skinner (D)	Air Pollution: State Vehicle Fleet		Requires the Department of General Services to develop criteria to evaluate bidders, at least in part, based on the number of zero-emission vehicles or plug-in hybrid electric vehicles in their rental car fleet when seeking to award a contract for commercial rental car services. States that the installation of electric vehicle supply equipment or supporting electrical and hydrogen fueling infrastructure by state entities to support specified state fleet operations do not constitute gifts of public funds.	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-360
<u>SB 1017</u> Eggman (D)	Leases: Termination of Tenancy: Abuse or Violence		Relates to law that authorizes a tenant to provide a landlord with 180-day written notice, as specified, that the tenant, household member, or immediate family member was a victim of an act of domestic violence or other specified crimes, and that the tenant intends to terminate the tenancy. Makes a landlord or agent liable to the tenant for actual damages and, except as specified,	09/27/2022 - Chaptered by Secretary of State. Chapter No. 2022-558

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			statutory damages of not less than specified amount and more than specified amount in a civil action for violations.	
<u>SB 1020</u> Laird (D)	Clean Energy, Jobs, and Affordability Act of 2022		Relates to the state Global Warming Solutions Act, which requires the State Air Resources Board to conduct a series of public workshops to give interested parties an opportunity to comment on the plan and requires a portion of those workshops to be conducted in regions of the state that have the most significant exposure to pollutants. Includes as regions for these workshops federal extreme nonattainment areas that have communities with minority populations, communities with low-income populations, or both.	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-361
<u>SB 1044</u> Durazo (D)	Employers: Emergency Condition: Retaliation		Prohibits an employer, in the event of an emergency condition, as defined, from taking or threatening adverse action against any employee for refusing to report to, or leaving, a workplace or worksite within the affected area because the employee has a reasonable belief that the workplace or worksite is unsafe, except as specified.	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-829
<u>SB 1058</u> Durazo (D)	Disability Insurance: Paid Family Leave: Demographic		Requires the Employment Development Department to collect demographic data for individuals who claim disability benefits under those programs, including race and ethnicity data and sexual orientation and gender identity data. Requires the department to adopt and update demographic data collection standards, procedures, and processes to implement the bill, as prescribed.	09/13/2022 - Chaptered by Secretary of State. Chapter No. 2022-317
<u>SB 1063</u> Skinner (D)	Energy: Appliance Standards and Cost-Effective Measures		Authorizes the State Energy Resources Conservation and Development Commission, upon considering specified factors and making a finding of good cause, to make appliance standards effective sooner than one year after their date of adoption or revision, as specified. Requires that those other cost-effective measures prescribed by the commission also not result in any	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-362

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			added total costs for consumers over the designed life of the impacted appliances.	
<u>SB 1066</u> Hurtado (D)	State Farmworkers Drought Resilience Pilot Project		Requires the State Department of Social Services, subject to an appropriation by the Legislature, to administer the California Farmworkers Drought Resilience Pilot Project to provide supplemental pay in the form of cash assistance for eligible households to help meet their basic needs. Defines terms. Requires the department to implement the pilot project by awarding grants to eligible entities, as defined.	09/29/2022 - Vetoed by GOVERNOR.
<u>SB 1075</u> Skinner (D)	Hydrogen: Green Hydrogen: Emissions of Greenhouse Gases		Relates to the California Global Warming Solutions Act of 2006, which designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases. Requires the state board, in consultation with the State Energy Resources Conservation and Development Commission and Public Utilities Commission, to prepare an evaluation posted to the state board's internet website by specified date, that includes specified information.	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-363
<u>SB 1078</u> Allen (D)	Sea Level Rise Revolving Loan Pilot Program		Requires the Ocean Protection Council in consultation with the Coastal Conservancy, to develop the Sea Level Rise Revolving Loan Pilot Program, within 12 months of receiving specified requests from local jurisdictions to do so, for purposes of providing low-interest loans to local jurisdictions, as defined, for the purchase of coastal properties in their jurisdictions identified as vulnerable coastal property, as defined, located in specified communities. Establishes the Sea Level Rise Revolving Loan Fund.	09/29/2022 - Vetoed by GOVERNOR.
<u>SB 1084</u> Hurtado (D)	Agricultural Land: Foreign Ownership and Interests		Prohibits a foreign government from purchasing, acquiring, or holding an interest, as defined, in agricultural land within the State of California. Exempts land held by foreign governments before specified date, from that prohibition, and specifies that it	09/27/2022 - Vetoed by GOVERNOR.

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			does not apply to federally recognized Indian tribes or their government units and enterprises.	
<u>SB 1100</u> Cortese (D)	Open Meetings: Orderly Conduct		Authorizes the presiding member of the legislative body conducting a meeting to remove an individual for disrupting the meeting. Requires removal to be preceded by a warning to the individual by the presiding member of the legislative body or their designee that the individual's behavior is disrupting the meeting and that the individual's failure to cease their behavior may result in their removal.	08/22/2022 - Signed by GOVERNOR.;08/22/2022 - Chaptered by Secretary of State. Chapter No. 2022-171
<u>SB 1101</u> Caballero (D)	Carbon Sequestration		Establishes the State Air Resources Board as the state agency responsible for monitoring and regulating sources emitting greenhouse gases. Requires the state board to ensure that statewide greenhouse gas emissions are reduced to at least 40% below the 1990 level by 2030. Requires the state board to prepare and approve a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions and, as part of its scoping plan.	08/31/2022 - In ASSEMBLY. To Inactive File.
<u>SB 1109</u> Caballero (D)	California Renewables Portfolio Standard Program		Extends the electrical corporations' obligation to collectively procure their proportionate share of 125 megawatts of cumulative rated generating capacity from existing bioenergy projects commencing operation before specified date, through financial commitments of 5 to 15 years, inclusive. Exempts from these requirements a local publicly owned electric utility that previously entered into a 5-year financial commitment under existing law under certain conditions.	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-364
<u>SB 1127</u> Atkins (D)	Workers Compensation: Liability Presumptions		Requires, if liability for an injury has been unreasonably rejected for specified claims of injury or illness, including hernia, heart trouble, pneumonia, or tuberculosis, among others, sustained in the course of employment of a specified member of law enforcement or a specified first responder, the amount of the	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-835

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			penalty to be 5 times the amount of the benefits unreasonably delayed due to the rejection of liability.	
SB 1136 Portantino (D)	Expedited Environmental Review: Climate Change		Requires specified public agencies, at the time of adoption of a rule or regulation requiring the reduction in emissions of greenhouse gases, criteria air pollutants, or toxic air contaminants, to perform an environmental analysis of the reasonably foreseeable methods of compliance.	09/28/2022 - Vetoed by GOVERNOR.
SB 1144 Wiener (D)	Water Efficiency and Quality Assessment Reports		Requires, no later than January 1, 2027, except as provided, an operating agency, as defined, to complete a water efficiency and quality assessment report, as specified, for each covered building. Requires various mitigation and remediation actions with respect to lead-contaminated potable water systems, lead pipes, and non-lead-free pipes, as determined in the water efficiency and quality assessment reports, dependent on funding expressly earmarked for specified actions.	09/29/2022 - Vetoed by GOVERNOR.
SB 1157 Hertzberg (D)	Urban Water Use Objectives	OPPOSE	Eliminates the option of using the greater of 52.5 gallons per capita daily and the greater of 50 gallons per capita daily, as applicable, or a standard recommended by the Department of Water Resource and the Water Resources Control Board as the standard for indoor residential water use the department, in coordination with the board, to summarize the findings of these studies and investigations in a report to the Legislature.	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-679
SB 1162 Limon (D)	Employment: Salaries and Wages		Requires a private employer that has 100 or more employees to submit a pay data report to the Civil Rights Department. Revises the timeframe in which a private employer is required to submit specified information to require that it be provided on or before the second Wednesday of May 2023, and for each year thereafter on or before the second Wednesday of May.	09/27/2022 - Chaptered by Secretary of State. Chapter No. 2022-559

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<u>SB 1168</u> Cortese (D)	Public Employees' Retirement: Beneficiary Payment		Relates to Public Employees' Retirement System (PERS) required payment of \$500 to be made to a beneficiary upon the death of a member after retirement and while receiving a retirement allowance from PERS, unless otherwise provided. Increases this benefit to specified amount.	08/26/2022 - Signed by GOVERNOR.;08/26/2022 - Chaptered by Secretary of State. Chapter No. 2022-193
<u>SB 1188</u> Laird (D)	Safe Drinking Water State Revolving Fund: Assistance		Deletes provisions of the Safe Drinking Water State Revolving Fund relating to 0% financing and interest and would instead generally authorize the board, to the extent authorized by federal law, to provide reduced or 0% financing to further the purposes of the Safe Drinking Water State Revolving Fund Law of 1997. Deletes certain limitations on the financial assistance provided to water corporations regulated by the Public Utilities Commission.	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-680
<u>SB 1194</u> Allen (D)	Public Restrooms: Building Standards		Authorizes jurisdiction be designed to serve all genders, as specified, instead of complying with the plumbing standards set forth in the California Building Standards Code. Provides that this authority will become inoperative and be repealed on the date that standards that address all gender multiuser facilities take effect in the California Building Standards Code.	09/29/2022 - Chaptered by Secretary of State. Chapter No. 2022-839
<u>SB 1205</u> Allen (D)	Water Rights: Appropriation		Requires the State Water Resources Control Board to develop and adopt regulations to govern consideration of climate change effects in water availability analyses used in the board's review of applications for water rights permits, including consideration of the effects of climate change, as specified, upon watershed hydrology, as specified.	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-369
<u>SB 1224</u> Bates (R)	Watersheds: Wildlife Habitat: Orange and San Diego		Authorizes the Wildlife Conservation Board, upon an appropriation by the Legislature, to make grants to acquire fee title or conservation easements or to perform restoration, or a combination thereof, in watersheds with habitats for sensitive wildlife populations in specified regions in the Counties of Orange and San Diego, as provided.	09/28/2022 - Vetoed by GOVERNOR.

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<u>SB 1230</u> Limon (D)	Zero Emission and Near Zero Emission Vehicle Incentive		Requires the State Air Resources Board, with respect to the various zero emission and near zero emission vehicle incentive programs administered or funded by the state board, to adopt certain revisions to those programs if the state board finds those revisions to be feasible.	09/16/2022 - Chaptered by Secretary of State. Chapter No. 2022-371
<u>SB 1253</u> Melendez (R)	Infrastructure Plan: Flood Control: Delta Levees		Require the plan to set out infrastructure priorities relating to specified flood prevention and maintenance projects.	08/26/2022 - Signed by GOVERNOR.;08/26/2022 - Chaptered by Secretary of State. Chapter No. 2022-195
<u>SB 1254</u> Hertzberg (D)	Drinking Water: Administrator: Managerial Services		Revises the definition of designated water system and limits the liability of an administrator when the State Water Resources Control Board appoints an administrator to a designated water system, as prescribed.	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-681
<u>SB 1372</u> Stern (D)	Sustainable Groundwater Management Act		Provides that the approval of a groundwater sustainability plan by the department shall not be construed to be a determination by or otherwise an opinion of the department that the allocation of groundwater pumping rights in the plan are consistent with groundwater rights law.	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-682
<u>SB 1373</u> Kamlager (D)	Surplus Land Disposal		Extends the date by which the disposition of property must be completed to specified date if the property is located in a charter city with a population of over 2,000,000 persons and a local agency has an option agreement duly authorized by the local agency's governing body to purchase the property from the former redevelopment agency.	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-724
<u>SB 1396</u> Bradford (D)	Tenancy: Credit Reporting: Lower Income Households		Relates to law that requires a landlord of an assisted housing development, as defined, to offer tenants obligated on the lease of units in the development the option of having their rental payments reported to at least one consumer reporting agency. Requires an independent evaluator, upon appropriation by the	09/28/2022 - Chaptered by Secretary of State. Chapter No. 2022-670

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			Legislature for this purpose, to be selected by the Department of Financial Protection and Innovation and to be responsible for conducting an evaluation on the impact of rental payment reporting.	
<u>SB 1439</u> Glazer (D)	Campaign Contributions: Agency Officers		Relates to the prohibition of an officer of an agency from accepting, soliciting, or directing a contribution of more than \$250 from any party, participant, or their agent, while a proceeding involving a license, permit, or other entitlement for use is pending before the agency and for 3 months following the date a final decision is rendered in the proceeding, under certain circumstances. Requires the party to a proceeding to disclose whether the party has made a contribution of more than \$250.	09/29/2022 - Chapted by Secretary of State. Chapter No. 2022-848
<u>SB 1494</u> Governance and Finance Cmt	Property Taxation: Revenue Allocations: Property Sales		Provides that existing property tax law defines fiscal adjustment period for specified purposes as the period beginning with the 2004-05 fiscal year and continuing through the later of the fiscal year in which the Director of Finance notifies the State Board of Equalization, or the fiscal year in which an additional countywide adjustment amount, as described, is determined. Changes the references above to the State Board of Equalization to the California Department of Tax and Fee Administration.	09/19/2022 - Chapted by Secretary of State. Chapter No. 2022-451
<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 referendum, thus requiring a majority vote in favor of the referendum to reject the statute or part of the statute subject to the referendum.	09/01/2021 - In SENATE. From third reading. To Inactive File.
<u>SCA 9</u> Gonzalez (D)	Personal Rights: Right to Housing		Declares that the fundamental human right to housing exists in this state. Specifies that it is the shared obligation of state and local jurisdictions to respect, protect, and fulfill this right through	03/23/2022 - To SENATE Committees on HOUSING and ELECTIONS AND

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			progressively implemented measures, consistent with available resources, within an aggressive but reasonable timeframe.	CONSTITUTIONAL AMENDMENTS.
<u>HR 616</u> Tlaib (D)	Water Shutoffs Prohibition		Prohibits water shutoffs during the Coronavirus disease 2019 emergency period, provides drinking and waste water assistance to households.	01/28/2021 - INTRODUCED.;01/28/2021 - To HOUSE Committee on ENERGY AND COMMERCE.;01/28/2021 - To HOUSE Committee on EDUCATION AND LABOR.
<u>HR 737</u> Valadao (R)	California Operational Flexibility and Drought Relief		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	SUPPORT	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>HR 1352</u> Lawrence (D)	Trust Fund for Water and Sewer Infrastructure		Establishes a trust fund to provide for adequate funding for water and sewer infrastructure.	04/05/2021 - In HOUSE Committee on AGRICULTURE: Referred to Subcommittee on CONSERVATION AND FORESTRY.
<u>HR 1848</u> Pallone (D)	National Infrastructure		Rebuilds and modernizes the Nation's infrastructure to expand access to broadband and Next Generation 9-1-1, rehabilitate drinking water infrastructure, modernize the electric grid and energy supply infrastructure, redevelop brownfields, strengthen health care infrastructure, create jobs, and protect public health and the environment.	01/20/2022 - In HOUSE Committee on NATURAL RESOURCES: Referred to Subcommittee on INDIAN, INSULAR AND ALASKA NATIVE AFFAIRS.;01/20/2022 - In HOUSE Committee on NATURAL RESOURCES: Referred to Subcommittee on ENERGY AND MINERAL RESOURCES.
<u>HR 1915</u> DeFazio (D)	Federal Water Pollution Control Act		Amends the Federal Water Pollution Control Act to reauthorize certain water pollution control programs.	06/22/2021 - From HOUSE Committee on TRANSPORTATION AND INFRASTRUCTURE: Reported as

IRWD 2022 LEGISLATIVE MATRIX
Updated 10/03/2022

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
				amended.;06/22/2021 - In HOUSE. Placed on HOUSE Union Calendar.
<u>HR 2238</u> Lowenthal A (D)	Single Use Plastic Production Reduction		Amends the Solid Waste Disposal Act to reduce the production and use of certain single-use plastic products and packaging, to improve the responsibility of producers in the design, collection, reuse, recycling, and disposal of their consumer products and packaging, to prevent pollution from consumer products and packaging from entering into animal and human food chains and waterways.	03/29/2021 - In HOUSE Committee on TRANSPORTATION & INFRASTRUCTURE: Referred to Subcommittee on WATER RESOURCES AND ENVIRONMENT.
<u>HR 2467</u> Dingell D (D)	Hazardous Substances		Requires the Administrator of the Environmental Protection Agency to designate per- and polyfluoroalkyl substances as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.	07/22/2021 - In SENATE. Read second time.;07/22/2021 - To SENATE Committee on ENVIRONMENT AND PUBLIC WORKS.
<u>HR 2468</u> Garamendi (D)	Federal Infrastructure Aid Program Materials		Ensures that certain materials used in carrying out federal infrastructure aid programs are made in the United States.	06/07/2021 - In HOUSE Committee on AGRICULTURE: Referred to Subcommittee on COMMODITY EXCHANGES, ENERGY, AND CREDIT.
<u>HR 3291</u> Tonko (D)	Water System Assistance		Amends the Safe Drinking Water Act to provide assistance for states, territories, areas affected by natural disasters, and water systems and schools affected by PFAS or lead, and to require the Environmental Protection Agency to promulgate national primary drinking water regulations for PFAS, microcystin toxin, and 1,4-dioxane.	06/29/2021 - From HOUSE Committee on ENERGY AND COMMERCE: Reported as amended.;06/29/2021 - In HOUSE. Placed on HOUSE Union Calendar.
<u>HR 3292</u> Dingell D (D)	Residential Emergency Relief Program		Requires the Administrator of the Environmental Protection Agency to carry out a residential emergency relief program to provide payment assistance for households to retain water service.	05/18/2021 - INTRODUCED.;05/18/2021 - To HOUSE Committee on ENERGY AND COMMERCE.;05/19/2021 - In HOUSE Committee on ENERGY AND COMMERCE: Referred to Subcommittee on ENVIRONMENT.

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Updated 10/03/2022

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>HR 3293</u> Blunt Rochester (D)	Drinking Water and Wastewater Service Assistance		Amends the Safe Drinking Water Act and the Federal Water Pollution Control Act to establish programs to assist low-income households in maintaining access to drinking water and wastewater services.	06/29/2021 - From HOUSE Committee on ENERGY AND COMMERCE: Reported as amended.
<u>HR 3404</u> Huffman (D)	Drought Preparedness	SEEK AMENDMENTS	Provides drought preparedness and improved water supply reliability to the nation.	07/05/2021 - In HOUSE Committee on NATURAL RESOURCES: Referred to Subcommittee on WATER, OCEANS AND WILDLIFE.
<u>HR 3622</u> Pappas (D)	Water Quality Criteria		Requires the Administrator of the Environmental Protection Agency to develop effluent limitations guidelines and standards and water quality criteria for PFAS under the Federal Water Pollution Control Act, provides Federal grants to publicly owned treatment works to implement such guidelines and standards.	06/01/2021 - In HOUSE Committee on TRANSPORTATION & INFRASTRUCTURE: Referred to Subcommittee on WATER RESOURCES AND ENVIRONMENT.
<u>HR 4099</u> Napolitano (D)	Water Recycling and Reuse Projects		Directs the Secretary of the Interior to establish a grant program to provide grants on a competitive basis to eligible entities for large-scale water recycling and reuse projects.	06/29/2021 - Subcommittee on WATER, POWER AND OCEANS hearings held.
<u>HR 4602</u> Lowenthal A (D)	Do Not Flush Labeling	SUPPORT	Directs the Federal Trade Commission to issue regulations requiring certain products to have "Do Not Flush" labeling.	07/21/2021 - INTRODUCED.;07/21/2021 - To HOUSE Committee on ENERGY AND COMMERCE.;07/22/2021 - In HOUSE Committee on ENERGY AND COMMERCE: Referred to Subcommittee on DIGITAL COMMERCE AND CONSUMER PROTECTION.
<u>HR 5118</u> Neguse (D)	Continental Divide National Scenic Trail		Directs the Secretary of Agriculture to prioritize the completion of the Continental Divide National Scenic Trail, and for other purposes.	07/29/2022 - In HOUSE. HA Amendment offered by Representative Westerman.;07/29/2022 - In HOUSE. HA . Representative Westerman amendment agreed to on HOUSE floor.;07/29/2022 - In HOUSE. HA

IRWD 2022 LEGISLATIVE MATRIX
Updated 10/03/2022

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
				Amendment offered by Representative Schrier.;07/29/2022 - In
HR 5689 DeFazio (D)	Private Nonprofit Organizations	SUPPORT	Improves the provision of Federal resources to help build capacity and fund risk-reducing, cost-effective mitigation projects for eligible state, local, tribal, and territorial governments and certain private nonprofit organizations.	04/06/2022 - In SENATE. Read second time.;04/06/2022 - To SENATE Committee on HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS.
HR 6591 McClain (R)	Disposable Nonwoven Wipes Flushability	SUPPORT	Requires the Administrator of the Environmental Protection Agency to publish a rule that establishes standards for the flushability of disposable nonwoven wipes.	02/03/2022 - INTRODUCED.;02/03/2022 - To HOUSE Committee on ENERGY AND COMMERCE.
HR 6705 Blunt Rochester (D)	Improvements to Rivers and Harbors		Provides for improvements to the Rivers and harbors of the United States, to provide for the conservation and development of water and related resources.	02/14/2022 - In HOUSE Committee on TRANSPORTATION & INFRASTRUCTURE: Referred to Subcommittee on WATER RESOURCES AND ENVIRONMENT.
HR 7900 Smith A (D)	Department of Defense Appropriations		Authorizes appropriations for Fiscal Year 2023 for military activities of the Department of Defense and for military construction, prescribes military personnel strengths for such fiscal year.	08/03/2022 - In SENATE. Read second time. Placed on Legislative Calendar under General Orders.
S 914 Duckworth (D)	Safe Drinking Water Act		Amends the Safe Drinking Water Act and the Federal Water Pollution Control Act to reauthorize programs under those Acts.	04/29/2021 - In SENATE. Amendment SA 1471 proposed by Senator Rubio to Amendment SA 1460.;04/29/2021 - In SENATE. Amendment SA 1461 proposed by Senator Shaheen to Amendment SA 1460.;04/29/2021 - In SENATE. Amendment SA 1469 proposed by Senator Kennedy
S 1907 Gillibrand (D)	Water Quality Criteria		Requires the Administrator of the Environmental Protection Agency to develop effluent limitations guidelines and standards and water quality criteria for PFAS under the Federal Water	05/27/2021 - INTRODUCED.;05/27/2021 - In SENATE. Read second

IRWD 2022 LEGISLATIVE MATRIX
Updated 10/03/2022

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			Pollution Control Act, to provide Federal grants to publicly owned treatment works to implement such guidelines and standards.	time.;05/27/2021 - To SENATE Committee on ENVIRONMENT AND PUBLIC WORKS.
S 2334 Cortez-Masto (D)	Water Recycling and Reuse Project Grants		Directs the Secretary of the Interior to establish a grant program to provide grants on a competitive basis to eligible entities for large-scale water recycling and reuse projects, amends the Omnibus Public Land Management Act of 2009 to make certain modifications to the Cooperative Watershed Management Program, provides emergency drought funding.	05/25/2022 - Subcommittee on WATER AND POWER hearings held.
S 2454 Padilla (D)	Alternative Water Source Projects		Amends the Federal Water Pollution Control Act to reauthorize the pilot program for alternative water source projects.	07/22/2021 - In SENATE. Read second time.;07/22/2021 - To SENATE Committee on ENVIRONMENT AND PUBLIC WORKS.
S 3600 Peters G (D)	Cybersecurity Improvement		Improves the cybersecurity of the Federal Government.	03/01/2022 - In SENATE. Amendment SA 4953 proposed by Senator Peters.;03/01/2022 - In SENATE. SA 4953 agreed to on SENATE floor by unanimous consent.;03/01/2022 - In SENATE. Amendment SA 4954 proposed by Senator Peters for Senator Wicker.;03/01/2022 -
S 3624 Carper (D)	Improvements to Rivers and Harbors		Provides for improvements to the rivers and harbors of the United States, to provide for the conservation and development of water and related resources.	02/10/2022 - INTRODUCED.;02/10/2022 - In SENATE. Read second time.;02/10/2022 - To SENATE Committee on ENVIRONMENT AND PUBLIC WORKS.
S 3956 Merkley (D)	Do Not Flush Labeling Requirements	SUPPORT	Directs the Administrator of the Environmental Protection Agency to establish a grant program to improve the effectiveness of education and outreach on Do Not Flush labeling, and to require the Federal Trade Commission, in consultation with the	03/30/2022 - INTRODUCED.;03/30/2022 - In SENATE. Read second time.;03/30/2022 - To SENATE

IRWD 2022 LEGISLATIVE MATRIX
Updated 10/03/2022

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			Administrator, to issue regulations requiring certain products to have Do Not Flush labeling.	Committee on COMMERCE, SCIENCE, AND TRANSPORTATION.
S 4231 Feinstein (D)	Water Infrastructure	SUPPORT	Supports water infrastructure in reclamation States.	05/25/2022 - Subcommittee on WATER AND POWER hearings held.

October 24, 2022
Prepared and
submitted by: C. Compton
Approved by: Paul A. Cook

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CONSENT CALENDAR

2023-2024 LOBBYING AND ADVOCACY SERVICES

SUMMARY:

IRWD has retained Kadesh & Associates for federal lobbying and consulting services, The Oñate Group and Resolute for state legislative lobbying and consulting services, and Cliff Moriyama Consulting for State regulatory agency lobbying and consulting services. Each of these firms has provided a high level of service, knowledge, credibility, and access to the federal and state officials and agencies it engages with on behalf of IRWD. Based on the effectiveness of these consultants, staff recommends that IRWD enter into new 24-month agreements with each of these firms for the 2023-2024 legislative sessions. Specifically:

- Staff recommends the Board authorize the General Manager to execute sole-source, 24-month Professional Services Agreements, from January 1, 2023, to December 31, 2024, with Kadesh & Associates for federal lobbying and advocacy services during the 118th Congress.
- The General Manager, within his authority, will executive execute sole-source 24-month Professional Services Agreements, from January 1, 2023, to December 31, 2024, with The Oñate Group and Resolute for State legislative lobbying and advocacy services during the 2023-2024 legislative session.
- The General Manager will also execute a sole-source 24-month Professional Services Agreements, from January 1, 2023, to December 31, 2024, with Cliff Moriyama Consulting for State regulatory lobbying and advocacy services during the 2023-2024 legislative session.

BACKGROUND:

IRWD continues to be a leader in water resources public policy and governance. During 2021 and 2022, the District engaged in a number of federal and state policy discussions regarding water infrastructure, supply reliability and governance. The District was assisted in these discussions by both its federal and state lobbyists and consultants.

Many of the policy discussions are expected to carry over into the 2023-2024 legislative sessions. Entering into 24-month contracts with Kadesh & Associates, The Oñate Group, Resolute, and Cliff Moriyama Consulting will allow the District to maintain continuity in its Washington, D.C. and Sacramento representation throughout the 2023-2024 session. IRWD's current 24-month contracts with Kadesh & Associates for federal lobbying and consulting services with The Oñate Group and Resolute for state legislative lobbying and consulting services, and Cliff Moriyama Consulting for State regulatory agency lobbying and consulting services, will expire on December 31, 2022.

Federal Lobbyist and Advocate:

Kadesh & Associates provides IRWD with a high level of service, knowledge, credibility and access in Washington, D.C. Additionally, Kadesh & Associates assists the District in ongoing efforts to build and maintain relationships with key policymakers in Congress, the Administration and within federal agencies.

To aid IRWD in its federal advocacy efforts, staff recommends the Board authorize the execution of new Professional Services Agreements with Kadesh & Associates for a 24-month period, beginning January 1, 2023, through December 31, 2024. The new contract would each include a \$10,506 monthly retainer for 2023 and a \$10,821 month retainer for 2024 plus reimbursement of reasonable direct expenses for a total amount not to exceed \$265,000. The proposed new agreement reflects a three percent increase per year in the amount of the monthly retainer, but not an increase in the total contract amount.

State Legislative Lobbyist and Advocate:

The Oñate Group and Resolute provide IRWD with a high level of service, knowledge, credibility and access in Sacramento. Additionally, The Oñate Group and Resolute assist the District in ongoing efforts to build and maintain relationships with key policymakers in the Governor's Office and the Legislature.

To aid IRWD in its state advocacy efforts, the General Manager, within his authority, will execute a new sole-source Professional Services Agreement with The Oñate Group and with Resolute for a 24-month period, beginning January 1, 2023, through December 31, 2024. The new contracts would each include a \$5,800 monthly retainer plus reimbursement of reasonable direct expenses for a total amount not to exceed \$145,000. The proposed new agreement reflects a 12.6 percent increase in the amount of the currently monthly retainer, which was set in October 2020.

State Regulatory Lobbyist and Advocate:

Cliff Moriyama Consulting provides IRWD with a high level of service, knowledge, credibility and access in Sacramento. Additionally, Cliff Moriyama Consulting assists the District in ongoing efforts to build and maintain relationships with key policymakers in the Governor's Office and State agencies.

To aid IRWD in its state advocacy efforts, the General Manager, within his authority, will execute a new sole-source Professional Services Agreement with Cliff Moriyama Consulting for a 24-month period, beginning January 1, 2023, through December 31, 2024. The new contract would include a \$5,000 monthly retainer plus reimbursement of reasonable direct expenses for a total contract amount not to exceed \$125,000. The proposed new agreement reflects a 25 percent increase in the amount of the monthly retainer, which has not been increased since 2018.

Next Steps – Planning:

Once the 2023-2024 agreements are in place, staff will engage with Kadesh & Associates, The Oñate Group, Resolute and Cliff Moriyama Consulting to plan for the 2023 legislative year and provide to the Water Resources, Policy and Communications Committee and the Board an overview of expected 2023 legislative and regulatory issues in Washington, D.C., Sacramento, and regionally, and an initial 2023 staff resource allocation plan for legislative and regulatory issues of importance to IRWD in the coming year. As has been done in the past, the District's advocates will attend one of those discussions.

FISCAL IMPACTS:

The current contracts with Kadesh & Associates, The Oñate Group, Resolute, and Cliff Moriyama Consulting expire on December 31, 2022. Cumulatively, they are \$24,500 per month plus reimbursement of reasonable direct expenses. The current contract is for a 24-month term and has a not-to-exceed value of \$622,000.

The proposed contract with Kadesh & Associates, The Oñate Group, Resolute, and Cliff Moriyama Consulting would be effective from January 1, 2023, through December 31, 2024, and is proposed at a cumulative amount of \$27,106 in 2023 and \$27,421 in 2024 per month plus reimbursement of reasonable direct expenses. If approved by the Board, the new contract will be charged against the Fiscal Year (FY) 2022-2023, FY 2023-2024 and FY 2024-2025 Operating Budgets. The total requested contract authorization is \$680,000.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on October 6, 2022.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH KADESH & ASSOCIATES FOR FEDERAL ADVOCACY SERVICES FOR THE PERIOD OF JANUARY 1, 2023, THROUGH DECEMBER 31, 2024, AT A RATE OF \$10,506 PER MONTH IN 2023 AND \$10,821 PER MONTH IN 2024 PLUS REASONABLE REIMBURSEMENT OF DIRECT EXPENSES FOR A TOTAL CONTRACT AMOUNT NOT TO EXCEED \$265,000.

LIST OF EXHIBITS:

None.

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CONSENT CALENDAR

2022 IRWD TRIENNIAL SALARY SURVEY RESULTS AND ADOPTION OF REVISED SCHEDULE OF POSITIONS AND SALARY RATE RANGES

SUMMARY:

Staff has summarized data collected from IRWD's 2022 triennial salary survey conducted by Ralph Andersen & Associates. The results are presented in this write-up, along with a description of the survey methodology and recommendations to adjust salary ranges for specific job classifications. Also presented are other changes recommended by staff. Staff recommends that the Board supersede Resolution No. 2022-9 and adopt a revised schedule of positions and salary rate ranges.

BACKGROUND:

A competitive compensation plan is foundational to delivering quality services because it is through the District's ability to attract and retain a capable and talented workforce that services are provided efficiently and effectively. A salary survey of comparable agencies, coupled with an assessment of external and internal job content and complexity, provides current and objective compensation data necessary to assist us in making administrative decisions related to the workforce.

In June 2021, IRWD retained Ralph Andersen & Associates to conduct a comprehensive salary survey. Ralph Andersen & Associates is a public-sector management consulting firm with extensive experience in job classification and compensation work. The salary survey was conducted to ensure that salary range assignments are internally equitable and competitive within our employment markets.

The objectives of the salary survey were to:

- Provide understanding and anticipation of market conditions by conducting a salary survey with like organizations;
- Provide a data-driven process for allocating salaries;
- Maintain an objective method to compare internal equity, compaction, Fair Labor Standards Act (FLSA) rules, and external competitiveness of District job classifications; and
- Ensure public accountability for employee compensation.

The methodology used for the 2022 survey included:

- Comparison to similarly situated public sector agencies with common job matches;
- All job classifications were tied to a survey benchmark based on job family, similarity of duties and organizational unit;
- Salary range control point top of range as industry best-practice;

Consent Calendar: 2022 Triennial Salary Survey Results and Adoption of Revised Schedule of Positions and Salary Rate Ranges

October 24, 2022

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- Market data comparison to median of market as a stable statistical measure;
- Internal equity, and compaction between classifications; and
- Periodic time frame of at least every three years.

Included in the 2022 salary survey were 15 public agencies and 55 benchmark positions. A list of the agencies surveyed is provided in Exhibit “A”. Results of the 2022 salary survey have been compiled, analyzed, and summarized by Ralph Andersen & Associates, and were further evaluated by Human Resources and the Executive Management Team.

Findings, Conclusions, and Salary Grade Changes:

The benchmark classifications that were surveyed as part of the 2022 salary survey and where each benchmark falls in relation to the survey median is provided in Exhibit “B”.

Recommendations for changes to benchmark and other positions were developed based on a review of the external market data collected, an analysis of positions qualified for exemption under the FLSA as well as an internal equity and compaction analysis of job classification placement within the District’s salary grade schedule. The salary survey review included benchmark positions that fell 2.5% or more below the survey median, a review of positions within each salary grade, salary differences between classifications, and FLSA exemption tests. As a result of this analysis, 49 separate job classifications are being recommended for salary grade changes. These job classifications represent approximately 140 employees, as shown in Exhibit “C”.

The survey conclusions represent an analysis of the District’s current compensation plan, the salary grade placement of positions, and the salary difference between the entry, journey, supervisor, and management levels within job families. The survey represents collaborative work among Ralph Andersen & Associates, Human Resources staff, and the Executive Management Team. The recommendations resulting from the survey data are the result of due diligence, careful analysis, and dedicated work representing a focus on talent management, recruitment, and retention initiatives.

Other Changes:

In addition to the recommended salary grade changes, the following classification title changes are also being proposed:

- Administrative Assistant to Senior Executive Assistant;
- Electrical Technician and Instrumentation Technician to Electrical & Instrumentation Technician;
- Electrical Supervisor and Instrumentation Supervisor to Electrical & Instrumentation Supervisor;
- Public Affairs Assistant to Community Relations Assistant;
- Public Affairs Manager to Communications Manager;
- Public Affairs Specialist to Communications Specialist;

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October 24, 2022

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- Senior Electrical Technician and Senior Instrumentation Technician to Senior Electrical & Instrumentation Technician.

In addition to the title changes described above, the Risk Assistant position is recommended be eliminated and a new Safety and Security Specialist position is recommended to be added at U29.N to equitably meet the needs of the Safety Department.

Revised Schedule of Positions and Salary Rate Ranges:

California Public Employee Retirement System (CalPERS) requirements (CalPERS Regulations, 2 CCR 570.5) stipulate that member agencies must identify each employment position and pay rate in a publicly available salary schedule. Staff prepared a revised IRWD Schedule of Positions and Salary Rate Ranges to incorporate the recommended changes. This schedule is provided as Exhibit “D”. A resolution adopting the changes and superseding Resolution 2022-9 is attached as Exhibit “E”.

FISCAL IMPACTS:

There is no immediate fiscal impact associated with the recommendation, as only the salary ranges will be adjusted. As a result of the salary survey, no employee’s current salary will need to be adjusted by adopting the new salary ranges.

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:

The salary survey results and associated salary grade changes were reviewed by the Finance and Personnel Committee on October 4, 2022. The other changes described above were not reviewed by the Committee.

RECOMMENDATION:

THAT THE BOARD APPROVE THE SALARY GRADE AND CLASSIFICATION TITLE CHANGES RECOMMENDED AND ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2022-14

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, SUPERSEDING
RESOLUTION NO. 2022-9 AND ADOPTING A REVISED
SCHEDULE OF POSITIONS AND SALARY RATE RANGES

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LIST OF EXHIBITS:

Exhibit “A” – List of Surveyed Agencies

Exhibit “B” – Summary of Benchmark Positions

Exhibit “C” – Proposed Salary Grade Changes

Exhibit “D” – Schedule of Positions and Salary Rate Ranges

Exhibit “E” – Resolution

Exhibit “A”

IRWD

2022 SALARY SURVEY AGENCIES

City of Anaheim
City of Corona
City of Irvine
City of Long Beach
City of Riverside
Eastern Water District
Elsinore Valley Municipal Water District
Inland Empire Utility Agency
Mesa Consolidated Water District
Moulton Niguel Water District
Orange County Sanitation District
Orange County Water District
Santa Margarita Water District
South Coast Water District
Western Municipal Water District

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**Irvine Ranch Water District
Labor Market Benchmark Summary**

Class Title	Range Max	# of Obs.	Market Median	% +/- Median	Market Mean	% +/- Mean	Market 75th P	% +/- 75th P	Percentile
Accountant	8,132	14	7,942	2.3%	7,989	1.8%	8,699	-7.0%	57
Accounting Supervisor	10,589	14	11,107	-4.9%	10,992	-3.8%	12,480	-17.9%	46
Applications Analyst	10,986	13	9,993	9.0%	10,018	8.8%	11,073	-0.8%	67
Automation Manager	13,196	5	13,711	-3.9%	13,649	-3.4%	13,744	-4.2%	39
Buyer	7,444	13	7,822	-5.1%	7,786	-4.6%	8,577	-15.2%	41
Collection Systems Technician II	6,591	12	6,863	-4.1%	6,661	-1.1%	7,241	-9.9%	40
Collections Systems Supervisor	9,428	10	9,819	-4.1%	9,908	-5.1%	10,627	-12.7%	35
Construction Inspection Manager	11,820	8	10,367	12.3%	10,589	10.4%	11,894	-0.6%	71
Construction Inspector	8,374	14	8,730	-4.3%	8,395	-0.3%	9,254	-10.5%	43
Cross Connection Specialist	7,901	9	7,821	1.0%	7,910	-0.1%	8,124	-2.8%	63
Customer Service Field Technician	5,919	10	6,259	-5.7%	6,276	-6.0%	6,631	-12.0%	32
Customer Service Manager	11,820	9	11,766	0.5%	12,006	-1.6%	13,712	-16.0%	50
Customer Service Specialist II	6,065	11	6,315	-4.1%	5,940	2.1%	6,514	-7.4%	47
Director of Human Resources	17,588	15	17,499	0.5%	17,005	3.3%	18,826	-7.0%	52
Director of Information Services	17,588	13	16,114	8.4%	16,666	5.2%	19,010	-8.1%	66
Director of Recycling Operations(water)	17,588	8	17,213	2.1%	17,341	1.4%	18,184	-3.4%	66
Electrical Supervisor	9,970	9	11,457	-14.9%	11,188	-12.2%	11,873	-19.1%	17
Engineer	11,820	15	11,873	-0.4%	11,644	1.5%	12,261	-3.7%	49
Engineering Manager	15,286	13	15,704	-2.7%	15,741	-3.0%	17,564	-14.9%	32
Environmental Compliance Analyst	9,840	7	10,254	-4.2%	10,101	-2.7%	10,302	-4.7%	25
Executive Assistant	7,916	15	7,920	0.0%	8,200	-3.6%	8,992	-13.6%	50
Executive Director of Finance & Administration	20,529	15	19,453	5.2%	19,270	6.1%	20,132	1.9%	85
Executive Director of Technical Services	20,529	13	19,958	2.8%	20,076	2.2%	20,573	-0.2%	73
Facilities Supervisor	9,157	8	9,053	1.1%	9,763	-6.6%	11,159	-21.9%	57
Fleet Supervisor	9,157	11	9,714	-6.1%	9,551	-4.3%	10,544	-15.1%	43
GIS Technician II	7,672	9	7,790	-1.5%	7,798	-1.6%	8,532	-11.2%	45
Graphic Design Specialist	8,872	8	8,101	8.7%	8,187	7.7%	8,555	3.6%	100
Human Resources Analyst	9,157	14	8,820	3.7%	8,591	6.2%	9,115	0.5%	78
Instrumentation Technician	8,374	13	8,227	1.8%	8,348	0.3%	9,017	-7.7%	53
Laboratory Supervisor	10,986	7	11,766	-7.1%	11,706	-6.5%	12,580	-14.5%	27
Maintenance Mechanic	7,005	13	7,516	-7.3%	7,483	-6.8%	8,124	-16.0%	23
Manager of Risks and Contract Administration	12,723	10	12,443	2.2%	12,634	0.7%	13,427	-5.5%	57
Material Control Clerk II	6,229	12	5,681	8.8%	5,866	5.8%	6,243	-0.2%	74
Mechanical Services Supervisor	9,428	10	10,566	-12.1%	10,408	-10.4%	11,326	-20.1%	23
Network & Cybersecurity Manager	14,180	4	12,631	10.9%	12,635	10.9%	13,286	6.3%	100
Network Administrator	9,702	13	10,774	-11.0%	10,246	-5.6%	11,073	-14.1%	24
Operations Manager (Recycling)	13,196	9	14,116	-7.0%	14,755	-11.8%	16,928	-28.3%	20
Operations Supervisor Water Ops	10,270	9	10,813	-5.3%	10,895	-6.1%	11,873	-15.6%	31
Operator II (Water)	8,132	12	8,188	-0.7%	8,039	1.1%	8,490	-4.4%	42
Operator III (Recycling)	8,618	9	8,438	2.1%	8,562	0.7%	8,958	-3.9%	59
Public Affairs Manager	12,270	13	12,354	-0.7%	12,893	-5.1%	13,610	-10.9%	39
Purchasing Manager	11,820	11	12,241	-3.6%	12,601	-6.6%	13,551	-14.6%	43
Recycled Water Development Manager	12,723	1	I.D.	--	I.D.	--	I.D.	--	--
Regulatory Compliance Administrator	9,840	9	10,254	-4.2%	10,044	-2.1%	11,102	-12.8%	35
Regulatory Compliance Manager	12,270	3	12,853	-4.8%	12,572	-2.5%	12,913	-5.2%	20
Scientist	8,374	7	8,646	-3.2%	8,703	-3.9%	8,781	-4.9%	28
Senior Office Specialist	6,387	14	5,551	13.1%	5,294	17.1%	5,859	8.3%	98
Senior SCADA Network Administrator	10,986	6	10,876	1.0%	10,981	0.0%	11,408	-3.8%	60
Treasury Manager	12,723	9	12,979	-2.0%	13,275	-4.3%	13,496	-6.1%	37
User Support Manager	13,196	8	13,073	0.9%	11,997	9.1%	13,354	-1.2%	60
Water Maintenance Tech II	7,005	12	7,019	-0.2%	7,014	-0.1%	7,436	-6.2%	49
Water Efficiency Manager	12,270	5	13,610	-10.9%	12,947	-5.5%	13,711	-11.7%	26
Water Efficiency Specialist	7,901	10	8,011	-1.4%	7,846	0.7%	8,868	-12.2%	46
Water Maintenance Supervisor	9,702	10	10,115	-4.3%	10,018	-3.3%	10,931	-12.7%	40
Water Resources Manager	12,723	4	14,662	-15.2%	14,460	-13.7%	15,756	-23.8%	18
Average		10		-1.3%		-0.9%		-8.8%	48

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Exhibit "C"
IRVINE RANCH WATER DISTRICT
2022 SALARY SURVEY

Job Title	Current Range	Proposed Range	% Change
Automation Manager	U20.E	U22.E	7.46
Automation Specialist	32.N	34.N	5.77
Automation Supervisor	S34.N	S36.N	6.22
Buyer	24.N	25.N	3.05
Collection Systems CCTV Technician	21.N	23.N	6.28
Collection Systems Supervisor	S32.N	S33.N	2.90
Collection Systems Technician II	20.N	21.N	3.02
Construction Inspector	28.N	29.N	2.92
Construction Services Manager	U18.E	U19.E	3.69
Customer Service Field Technician	16.N	17.N	2.46
Customer Service Manager	U17.E	U18.E	3.81
Customer Service Specialist II	17.N	18.N	2.72
Customer Service Supervisor	U10.E	U11.E	3.69
Development Services Specialist	19.N	20.N	3.20
Electrical & Instrumentation Manager	U18.E	U19.E	3.69
Electrical & Instrumentation Supervisor	S34.N	S36.N	6.10
Environmental Compliance Analyst	U12.E	U13.E	3.62
Facilities Services Supervisor	S31.N	S32.N	2.95
Facilities Services Technician	22.N	23.N	3.04
Financial Analyst	U12.E	U13.E	3.62
Fleet Supervisor	S31.N	S32.N	2.95
Human Resources Analyst	U31.N	U11.E	3.47
Lab Supervisory	U15.E	U16.E	3.77
Mail Coordinator	6.N	7.N	2.77
Maintenance Mechanic	22.N	23.N	3.04
Mechanical Services Supervisor	S32.N	S34.N	5.75
Natural Resources Manager	U18.E	U19.E	3.69
Network Administrator	U33.N	U35.N	5.86
Operations Manager	U20.E	U21.E	3.61
Operations Supervisor	S35.N	S36.N	3.00
Operator I	20.N	22.N	6.26
Operator III	29.N	30.N	2.94
Purchasing Coordinator	19.N	20.N	3.20
Purchasing Manager	U17.E	U18.E	3.81
Regulatory Compliance Administrator	U12.E	U13.E	3.62
Regulatory Compliance Manager	U18.E	U19.E	3.69
Risk Analyst	30.N	U10.E	3.01
Scientist	28.N	29.N	2.92
Senior Electrical & Instrumentation Technician	30.N	31.N	3.03
Senior Vehicle/Equipment Mechanic	27.N	28.N	2.96
Senior Water Efficiency Analyst	U12.E	U13.E	3.62
Sr. Facilities Services Technician	27.N	28.N	2.96
User Support Administrator	U33.N	U35.N	5.86
Vehicle/Equipment Mechanic	22.N	23.N	3.04
Water Efficiency Supervisor	U12.E	U14.E	7.61
Water Maintenance Supervisor	S33.N	S34.N	2.77
Water Monitoring Supervisor	S34.N	S35.N	3.01
Water Quality Manager	U18.E	U19.E	3.69
Water Resources Manager	U19.E	U20.E	3.72

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Exhibit "D"
IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE
Managers, Exempt Supervisors, Confidential & Exempt Employees
Effective October 29, 2022

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
<u>NON-EXEMPT</u>			
Salary Grade U1.N	\$3,415	\$4,235	\$4,446
Salary Grade U2.N	\$3,489	\$4,351	\$4,569
Salary Grade U3.N	\$3,562	\$4,470	\$4,694
Salary Grade U4.N	\$3,628	\$4,600	\$4,831
Salary Grade U5.N	\$3,713	\$4,729	\$4,964
Salary Grade U6.N	\$3,784	\$4,864	\$5,106
Salary Grade U7.N	\$3,860	\$4,999	\$5,249
Salary Grade U8.N	\$3,945	\$5,143	\$5,399
Salary Grade U9.N	\$4,018	\$5,285	\$5,548
Salary Grade U10.N	\$4,101	\$5,431	\$5,703
Salary Grade U11.N	\$4,183	\$5,569	\$5,848
Salary Grade U12.N	\$4,264	\$5,732	\$6,018
Salary Grade U13.N	\$4,345	\$5,895	\$6,190
Salary Grade U14.N	\$4,443	\$6,063	\$6,367
Salary Grade U15.N	\$4,538	\$6,224	\$6,536
Salary Grade U16.N	\$4,645	\$6,398	\$6,718
Salary Grade U17.N	\$4,742	\$6,559	\$6,887
Salary Grade U18.N	\$4,848	\$6,734	\$7,070
Salary Grade U19.N	\$4,957	\$6,904	\$7,249
Safety Assistant			
Salary Grade U20.N	\$5,089	\$7,127	\$7,485

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U21.N	\$5,235	\$7,342	\$7,710
Salary Grade U22.N	\$5,377	\$7,575	\$7,954
Executive Secretary Human Resources Assistant			
Salary Grade U23.N	\$5,521	\$7,803	\$8,193
Salary Grade U24.N	\$5,677	\$8,046	\$8,448
Salary Grade U25.N	\$5,826	\$8,292	\$8,707
Human Resources Technician			
Salary Grade U26.N	\$6,006	\$8,542	\$8,968
Executive Assistant			
Salary Grade U27.N	\$6,178	\$8,791	\$9,232
Salary Grade U28.N	\$6,360	\$9,051	\$9,504
Salary Grade U29.N	\$6,550	\$9,315	\$9,781
Safety & Security Specialist Safety Specialist Senior Executive Assistant			
Salary Grade U30.N	\$6,748	\$9,592	\$10,072
Salary Grade U31.N	\$6,947	\$9,880	\$10,374
Salary Grade U32.N	\$7,147	\$10,173	\$10,681
Salary Grade U33.N	\$7,356	\$10,468	\$10,991
Salary Grade U34.N	\$7,575	\$10,757	\$11,294
Salary Grade U35.N	\$7,803	\$11,081	\$11,636
Network Administrator User Support Administrator			

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
EXEMPT			
Salary Grade U1.E	\$5,492	\$7,056	\$7,409
Salary Grade U2.E	\$5,676	\$7,330	\$7,697
Salary Grade U3.E	\$5,857	\$7,603	\$7,983
Salary Grade U4.E	\$6,040	\$7,895	\$8,290
Salary Grade U5.E	\$6,224	\$8,187	\$8,596
Salary Grade U6.E	\$6,438	\$8,505	\$8,930
Salary Grade U7.E	\$6,644	\$8,820	\$9,261
Salary Grade U8.E	\$6,861	\$9,164	\$9,622
Salary Grade U9.E	\$7,071	\$9,501	\$9,976
Salary Grade U10.E	\$7,305	\$9,860	\$10,353
	Asset Systems Analyst		
	Assistant Engineer		
	Digital Communications Specialist		
	Management Analyst		
	Risk Analyst		
Salary Grade U11.E	\$7,540	\$10,224	\$10,735
	Customer Service Supervisor		
	Human Resources Analyst		
	Purchasing Supervisor		
Salary Grade U12.E	\$7,784	\$10,617	\$11,148
	Senior Accountant		
Salary Grade U13.E	\$8,036	\$11,001	\$11,551
	Communications Analyst/Deputy PIO		
	Environmental Compliance Analyst		
	Financial Analyst		
	GIS Supervisor		
	Legislative Analyst		
	Regulatory Compliance Administrator		
	Right of Way Agent		
	Senior Human Resources Analyst		
	Senior Water Efficiency Analyst		
	Treasury Analyst		
	Water Resources Planner		

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U14.E Accounting Supervisor Associate Engineer District Secretary QA/QC Compliance Administrator Water Efficiency Supervisor	\$8,296	\$11,426	\$11,997
Salary Grade U15.E Applications Analyst Automation Programmer Senior Network Administrator Senior Regulatory Compliance Administrator Senior SCADA Network Administrator	\$8,561	\$11,854	\$12,447
Salary Grade U16.E Laboratory Supervisor	\$8,847	\$12,301	\$12,916
Salary Grade U17.E Construction Inspection Manager Engineer Facilities/Fleet Manager Safety Manager Senior Energy and Water Resources Planner	\$9,128	\$12,754	\$13,392
Salary Grade U18.E Collection Systems Manager Communications Manager Community Relations Manager Customer Service Manager Cybersecurity Analyst Field Services Manager Purchasing Manager Senior Applications Analyst Senior Applications Developer Senior Database Administrator Water Efficiency Manager	\$9,425	\$13,239	\$13,901
Salary Grade U19.E Construction Services Manager Electrical and Instrumentation Manager Manager of Risk & Contracts Administration Mechanical Services Manager Natural Resources Manager Recycled Water Development Manager Regulatory Compliance Manager Treasury Manager Water Quality Manager	\$9,723	\$13,728	\$14,414

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U20.E Reliability Engineer Senior Engineer User Support Manager Water Resources Manager	\$10,026	\$14,238	\$14,950
Salary Grade U21.E Controller Manager of Strategic Planning and Analysis Operations Manager	\$10,331	\$14,752	\$15,490
Salary Grade U22.E Automation Manager Applications Manager Network and Cybersecurity Manager	\$10,663	\$15,300	\$16,065
Salary Grade U23.E	\$11,000	\$15,855	\$16,648
Salary Grade U24.E Engineering Manager	\$11,299	\$16,494	\$17,319
Salary Grade U25.E	\$11,648	\$17,116	\$17,972
Salary Grade U26.E	\$12,180	\$18,021	\$18,922
Salary Grade U27.E Director of Field Operations Director of Human Resources Director of Information Services Director of Maintenance Director of Strategic Communications & Advocacy/Dep. General Counsel Director of Recycling Operations Director of Safety & Security Director of Water Quality & Regulatory Compliance Director of Water Resources Treasurer/Director of Risk Management	\$12,737	\$18,977	\$19,926
Salary Grade U28.E	\$13,322	\$19,976	\$20,975
Salary Grade U29.E	\$13,931	\$21,033	\$22,085

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U30.E Executive Director of Finance Executive Director of Technical Services Executive Director of Operations Executive Director of Water Policy	\$14,574	\$22,151	\$23,259
Salary Grade U31.E	\$15,299	\$23,407	\$24,577
Salary Grade U32.E	\$16,065	\$24,739	\$25,976
Salary Grade U33.E	\$16,865	\$26,144	\$27,451
Salary Grade U34.E General Manager	\$17,711	\$27,628	\$30,599

IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE
Non-Exempt Supervisors Unit
Effective October 29, 2022

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
<u>NON-EXEMPT</u>			
Salary Grade S26.N	\$6,006	\$8,542	\$8,968
Salary Grade S27.N	\$6,178	\$8,791	\$9,232
Salary Grade S28.N	\$6,360	\$9,051	\$9,504
Salary Grade S29.N	\$6,550	\$9,315	\$9,781
Salary Grade S30.N	\$6,748	\$9,592	\$10,072
Salary Grade S31.N	\$6,947	\$9,880	\$10,374
Salary Grade S32.N Facilities Services Supervisor Fleet Supervisor	\$7,147	\$10,173	\$10,681
Salary Grade S33.N Cross Connection Supervisor Collection Systems Supervisor	\$7,356	\$10,468	\$10,991
Salary Grade S34.N Construction Inspection Supervisor Mechanical Services Supervisor Water Maintenance Supervisor	\$7,575	\$10,757	\$11,294
Salary Grade S35.N Water Monitoring Supervisor	\$7,803	\$11,081	\$11,636
Salary Grade S36.N Automation Supervisor Electrical & Instrumentation Supervisor Operations Supervisor	8,296	11,426	11,997

IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE
General Employees Unit
Effective October 29, 2022

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
<u>NON-EXEMPT</u>			
Salary Grade 1.N	\$3,409	\$4,228	\$4,439
Salary Grade 2.N	\$3,482	\$4,342	\$4,559
Salary Grade 3.N	\$3,557	\$4,462	\$4,685
Salary Grade 4.N	\$3,623	\$4,592	\$4,820
Salary Grade 5.N	\$3,701	\$4,718	\$4,954
Salary Grade 6.N	\$3,777	\$4,855	\$5,098
Office Assistant			
Salary Grade 7.N	\$3,850	\$4,990	\$5,240
Mail Coordinator			
Salary Grade 8.N	\$3,936	\$5,134	\$5,391
Salary Grade 9.N	\$4,014	\$5,276	\$5,540
Salary Grade 10.N	\$4,092	\$5,418	\$5,689
Salary Grade 11.N	\$4,172	\$5,559	\$5,836
Material Control Clerk I Utility Worker			
Salary Grade 12.N	\$4,255	\$5,720	\$6,006
Salary Grade 13.N	\$4,335	\$5,886	\$6,181
Customer Service Specialist I			
Salary Grade 14.N	\$4,434	\$6,051	\$6,354
Salary Grade 15.N	\$4,527	\$6,211	\$6,521
Collection Systems Technician I Office Specialist			

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade 16.N Accounting Clerk Metering Systems Technician I Water Maintenance Technician I	\$4,635	\$6,387	\$6,706
Salary Grade 17.N Customer Service Field Technician	\$4,732	\$6,543	\$6,871
Salary Grade 18.N Customer Service Specialist II Material Control Clerk II	\$4,836	\$6,722	\$7,058
Salary Grade 19.N Senior Office Specialist	\$4,947	\$6,892	\$7,237
Salary Grade 20.N Construction Compliance Specialist Development Services Specialist Engineering Technician GIS Technician I Purchasing Coordinator Senior Accounting Clerk	\$5,080	\$7,112	\$7,467
Salary Grade 21.N Collection Systems Technician II Customer Service Specialist III Senior Customer Service Field Technician	\$5,223	\$7,329	\$7,694
Salary Grade 22.N Metering Systems Technician II Operator I Senior Purchasing Coordinator Water Maintenance Technician II	\$5,368	\$7,557	\$7,935
Salary Grade 23.N Collection Systems CCTV Technician Facilities Services Technician Maintenance Mechanic Vehicle/Equipment Mechanic	\$5,509	\$7,788	\$8,178

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade 24.N Community Relations Assistant Recycled Water Specialist Water Loss Prevention Specialist Wetlands Specialist	\$5,663	\$8,032	\$8,434
Salary Grade 25.N Buyer GIS Technician II Senior Collection Systems CCTV Technician	\$5,814	\$8,278	\$8,693
Salary Grade 26.N Cross Connection Specialist Metering Systems Technician III Water Efficiency Specialist Water Maintenance Technician III Water Resources Specialist	\$5,992	\$8,525	\$8,951
Salary Grade 27.N Accountant Operator II Senior Maintenance Mechanic Senior Water Loss Prevention Specialist	\$6,165	\$8,776	\$9,214
Salary Grade 28.N Electrical & Instrumentation Technician Landscape Contracts Administrator Senior Facilities Services Technician Senior Vehicle/Equipment Maintenance Mechanic	\$6,346	\$9,036	\$9,488
Salary Grade 29.N Communications Specialist Construction Inspector GIS Technician III Scientist Senior Buyer Senior Recycled Water Specialist Senior Wetlands Specialist	\$6,535	\$9,299	\$9,764
Salary Grade 30.N Graphic Design Specialist Operator III	\$6,734	\$9,571	\$10,050

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade 31.N Information Services Coordinator Payroll Administrator Recycled Water Project Specialist Senior Construction Inspector Senior Electrical & Instrumentation Technician Senior Water Efficiency Specialist	\$6,932	\$9,863	\$10,357
Salary Grade 32.N Asset Maintenance Coordinator Process Specialist Senior Scientist Wetlands Scientist	\$7,131	\$10,152	\$10,660
Salary Grade 33.N Water Efficiency Analyst	\$7,341	\$10,447	\$10,969
Salary Grade 34.N Automation Specialist	\$7,557	\$10,738	\$11,275
Salary Grade 35.N	\$7,786	\$11,059	\$11,612

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EXHIBIT "E"

RESOLUTION NO. 2022 –14

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, SUPERSEDING
RESOLUTION NO. 2022-9 AND ADOPTING A REVISED
SCHEDULE OF POSITIONS AND SALARY RATE RANGES

The Board of Directors of Irvine Ranch Water District, by adoption of Resolution No. 2022-9 on June 13, 2022, established a Schedule of Positions and Salary Rate Ranges of the Irvine Ranch Water District; and

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

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

Section 1. That the Schedule of Positions and Salary Rate Ranges adopted by Resolution No. 2022-9 on June 13, 2022, is hereby superseded effective October 29, 2022.

Section 2. That the revised Schedule of Positions and Salary Rate Ranges for the Irvine Ranch Water District as set forth in Exhibit "A" attached to this Resolution, and is effective October 29, 2022, for all classifications, is hereby approved and adopted.

ADOPTED, SIGNED and APPROVED on October 24, 2022.

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

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

APPROVED AS TO FORM:

Hanson Bridgett LLP

By: _____

District Counsel

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October 24, 2022
Prepared by: D. Pardee / C. Smithson
Submitted by: C. Clary
Approved by: Paul A. Cook



CONSENT CALENDAR

FISCAL YEAR 2022-23 IRWD GUIDING PRINCIPLES SCORECARD

SUMMARY:

Provided as Exhibit “A” is the IRWD Guiding Principles Scorecard through the first quarter of Fiscal Year (FY) 2022-23. This report reflects the critical performance measures that gauge the District’s key business objectives and is based on the Board-adopted Guiding Principles.

BACKGROUND:

IRWD’s Guiding Principles Scorecard is based on four Board-adopted Guiding Principles used to achieve its vision. These principles relate to: 1) Customer Service, 2) Resource Management, 3) Employee Development, and 4) Community Leadership. The Scorecard includes measures that reflect operating performance, financial, customer and other key measures that provide an overview of the ongoing operations of IRWD. Staff has also included additional detailed information on certain selected key indicators.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

RECEIVE AND FILE.

LIST OF EXHIBITS:

Exhibit “A” – IRWD Guiding Principles Scorecard

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Exhibit "A"
IRVINE RANCH WATER DISTRICT
Guiding Principles Scorecard
 Through the First Quarter of Fiscal Year 2022-23

Customer Service		
We are dedicated to delivering superior service to our customers.		
Measure	Last Year	This Year
Customer Satisfaction	99%	96%
Electronic Payments Received	85%	88%
Customer Contacts	16,890	19,336
Delinquent Customers on Payment Arrangements	113	524
Residential Customers within Water Budget	79%	84%
All Customers within Water Budget	78%	83%
Occupancy Certificates	735	255
Verified Odor Complaints	1	1
Verified Water Quality Complaints	3	5

Employee Development		
We are committed to recruiting and retaining top quality employees and to providing a workplace environment, training, and a recognition and reward system that enhances employee performance and satisfaction.		
Measure	Last Year	This Year
Participation in 457 Retirement	89%	89%
Employee Retention	98%	98%
OSHA Days Away, Restricted, or Transferred per 100 employees	8.4	3.3
Cross Training Opportunities	1	2
Interns Employed	8	13
Recognition Awards Given	36	43

Community Leadership		
We will share our resources with the community through education, policy leadership and employee involvement.		
Measure	Last Year	This Year
Water Efficiency Website Hits*	13	37
Billing Website hits*	171	54
Social Media Impressions*	56	5,318
Student Participation in Water Education Programs	0	0
State Legislative & Regulatory Hours Spent	371	348
Outreach Events	13	7
Industry Awards and Honors	2	4



Resource Management		
We are dedicated to providing, conserving, and maximizing the efficient use and reuse of water and renewable resources to the benefit of our customers and to enhance the environment.		
Measure	Last Year	This Year
Planned Maintenance Completed	76%	68%
Potable Water Supply (AF)	17,223	16,497
Non-Potable Water Supply (AF)	13,322	12,507
Irvine Lake Storage (AF)	2,817	5,020
Recycled Water Storage (AF)	924	893
Sewage Treatment Cost per MG	\$3,019	\$3,384
Capital Spending vs Budget	67%	74%
AQMD Reported Incidents	9	3
Plant Incidents (NPDES)	0	0
Sewer Spills (Non-private)	0	0

* In Thousands

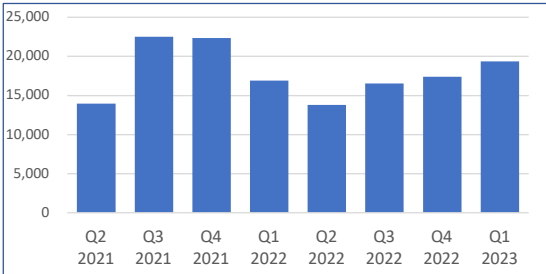
IRVINE RANCH WATER DISTRICT

Guiding Principles Closer Perspective

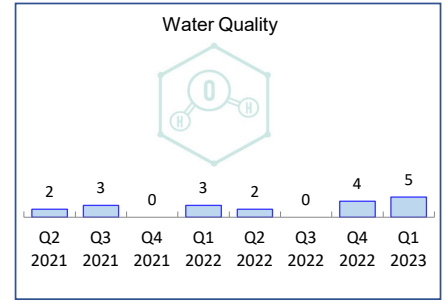
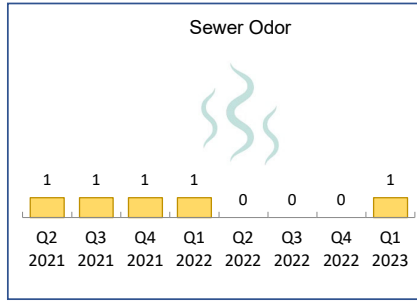
Through the First Quarter of Fiscal Year 2022-23

Customer Service

Customer Contacts



Verified Complaints

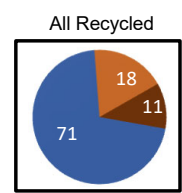
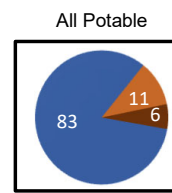
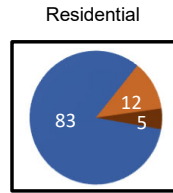


Certificates of Occupancy



	Apartment	Condominium	House
FY 2022-23	0	116	139
FY 2021-22	285	335	115

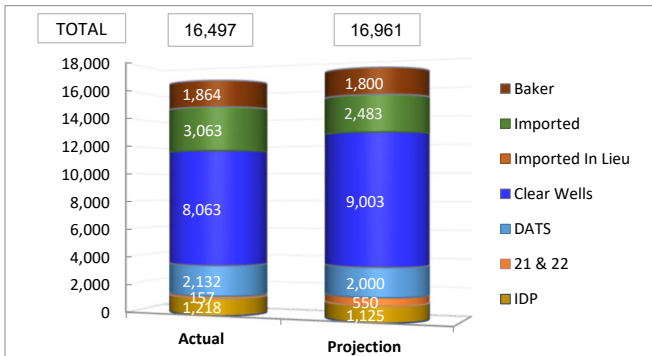
Percentage of Customers within Water Budget



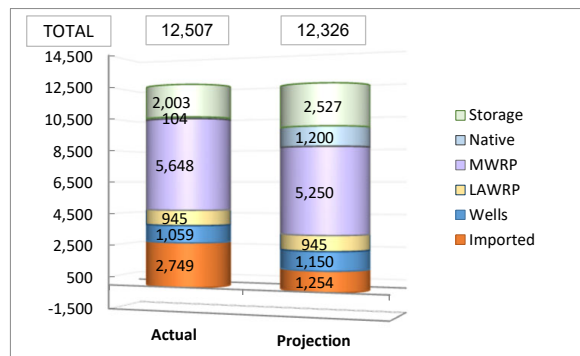
Resource Management

Water Supply (in Acre Feet)*

Potable

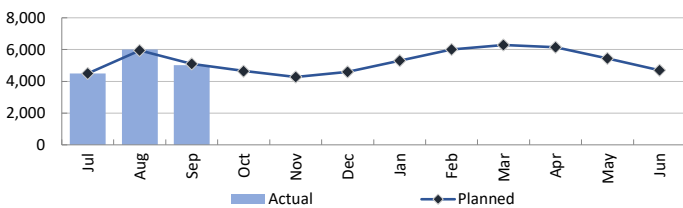


Recycled

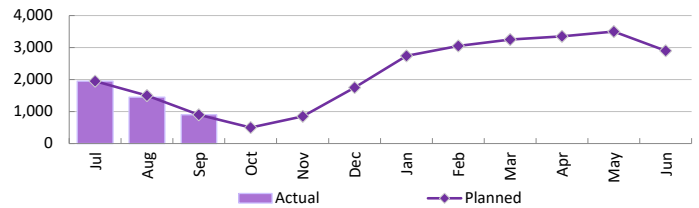


Reservoir Storage (in Acre Feet)

Irvine Lake



Recycled

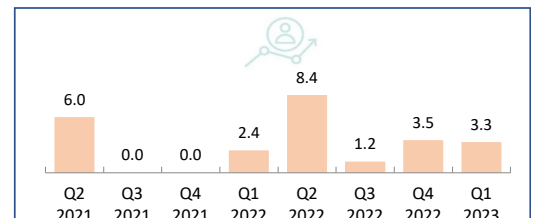


Regulatory Compliance

	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
AQMD	3	1	3	9	4	7	6	3
Plants	0	0	1	0	0	0	2	0
Sewer Spills	1	3	1	0	0	2	2	0

Employee Development

Safety: Days Away, Restricted, Transferred



October 24, 2022
Prepared by: R. Burk / M. Cortez
Submitted by: K. Burton
Approved by: Paul A. Cook *PAC*

CONSENT CALENDAR

HARVARD AVENUE TRUNK SEWER DIVERSION STRUCTURE REHABILITATION AND
MICHELSON WATER RECYCLING PLANT PRIMARY CLARIFIERS CHANNEL LINING
FINAL ACCEPTANCE

SUMMARY:

The Harvard Avenue Trunk Sewer (HATS) Diversion Structure Rehabilitation and Michelson Water Recycling Plant (MWRP) Primary Clarifiers Channel Lining project is complete. IRWD’s contractor, Pacific Hydrotech Corporation, completed the required work and all punch list items. The project has received final inspection and acceptance of construction is recommended.

BACKGROUND:

This project included removal of the existing liner, repair of all spalled concrete, relining the structure, and replacing both slide gates at the HATS Diversion Structure. To perform this work, an average of 11 million gallons per day of flow was bypassed around the HATS structure to Orange County Sanitation District for just over six weeks. This project also relined the nearby Bypass Manhole and Junction Structure located at the intersection of Main Street and Harvard Avenue as well as the MWRP Primary Clarifiers influent and effluent channels at Primary Clarifiers 1-5.

Tetra Tech, Inc. completed design in March 2021, and Pacific Hydrotech was awarded the construction contract on May 24, 2021. Pacific Hydrotech mobilized in May 2021 and completed construction of all improvements on September 30, 2022.

Four change orders were issued throughout construction. Most of the change order items were added at the direction of IRWD. There was an opportunity to repair the concrete along the top edge of the effluent channel prior to relining the channel, and additional work was required to raise the aluminum covers at the channel after all concrete and coating repairs were made. In addition, an abandoned slide gate at the effluent channel was able to be removed as part of the project prior to relining the channel. A summary of construction change orders is provided as Exhibit “A”.

Project Title:	Harvard Avenue Trunk Sewer Diversion Structure Rehabilitation and Michelson Water Recycling Plant Primary Clarifiers Channel Lining
Project No.:	11122
Design Engineer:	Tetra Tech, Inc.
Construction Management by:	IRWD Staff

Contractor:	Pacific Hydrotech Corporation
Original Contract Cost:	\$1,827,750.00
Final Contract Cost:	\$1,945,857.22
Original Contract Days:	450
Final Contract Days:	493
Final Change Order Approved On:	September 21, 2022

FISCAL IMPACTS:

Project 11122 is included in the FY 2022-23 Capital Budget. The existing budget is sufficient to fund the final payment for the project.

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act 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 Orange County Clerk-Recorder on October 2, 2020.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE HARVARD AVENUE TRUNK SEWER DIVERSION STRUCTURE REHABILITATION AND MICHELSON WATER RECYCLING PLANT PRIMARY CLARIFIERS CHANNEL LINING, AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION; AND AUTHORIZE THE PAYMENT OF THE RETENTION 35 DAYS AFTER RECORDING THE NOTICE OF COMPLETION FOR PROJECT 11122.

LIST OF EXHIBITS:

Exhibit "A" – Construction Change Order Summary

EXHIBIT "A"

**Harvard Avenue Trunk Sewer (HATS) Diversion Structure Rehabilitation and Michelson Water Recycling Plant (MWRP) Primary Clarifiers Channel Lining
PR 11122
Construction Change Order Summary**

Date: October 12, 2022
Contractor: Pacific Hydrotech Corporation
Design Engineer: Tetra Tech, Inc.

			Contract Amount						Contract Days				Original Completion Date:
			Original Contract Amount: \$1,827,750.00						Original Days: 450				8/18/2022
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 Orders	Cum. Change Order Days	Revised Total Contract Days	Revised Completion Date
1	Approved by Executive Director of Technical Services Approved on 6/27/2022 CR-1: Remove and replace influent and effluent channel lids, remove lid embed angle at effluent channel and remove splitter box grating. CR-2: Installation of additional 36-inch plug at HATS Diversion Structure.	A A	\$ 20,816.04 \$ 4,644.26	\$25,460.30	\$0.00	\$25,460.30	1.39%	\$1,853,210.30	6 6 0	0	6	456	8/24/2022
2	Approved by Executive Director of Technical Services Approved on 7/25/2022 CR-3: Remove the existing abandoned slide gate at the effluent channel and replace with a concrete reinforced bulkhead. CR-4: Xypex coating at channel bulkhead.	B B	\$ 14,117.80 \$ 916.68	\$15,034.48	\$25,460.30	\$40,494.78	2.22%	\$1,868,244.78	6 5 1	6	12	462	8/30/2022
3	Approved by Executive Director of Technical Services Approved on 9/4/2022 CR-5: Fabricate and install temporary lumber covers on the MWRP Primary Clarifiers effluent channel. CR-6: Fabricate and install pressure treated lumber spacers for the existing aluminum covers on the MWRP Primary Clarifiers effluent channel.	A A	\$ 15,243.72 \$ 11,692.44	\$26,936.16	\$40,494.78	\$67,430.94	3.69%	\$1,895,180.94	5 2 3	12	17	467	9/4/2022
4	Approved by Executive Director of Technical Services Approved on 9/21/2022 CR-7: New Upstream Junction Structure Lid CR-8: Remove pressure treated lumber spacer and install new aluminum tubing spacer for effluent channel lids.	B A	\$ 34,027.20 \$ 16,649.08	\$50,676.28	\$67,430.94	\$118,107.22	6.46%	\$1,945,857.22	26 8 18	17	43	493	9/30/2022

Category	Total Amount	% of Original Contract
A - Owner Directed Change	\$69,045.54	3.78%
B - Differing/Unknown Condition	\$49,061.68	2.68%
C - External Agency, Regulatory, and/or Permit Required Change	\$0.00	0.00%
D - Design Oversight	\$0.00	0.00%
TOTAL (A + B + C + D)	\$ 118,107.22	6.46%

Note: This page is intentionally left blank.

October 24, 2022

Prepared by: B. Rios / E. Akiyoshi

Submitted by: K. Burton

Approved by: Paul A. Cook



CONSENT CALENDAR

PLANNING AREA 51 HERITAGE FIELDS CAPITAL FACILITIES

SUMMARY:

Heritage Fields, LLC is proceeding with development of Planning Area 51 (Great Park), which includes the construction of streets, storm drains, domestic water, sanitary sewer, and recycled water improvements. As part of the development, Heritage Fields will construct IRWD capital facilities under a proposed Supplemental Reimbursement Agreement (SRA). Staff recommends that the Board:

- Authorize the General Manager to execute a SRA with Heritage Fields for Planning Area 51, Great Park Neighborhoods, Districts 2, 5, and 6 for Domestic Water, Sanitary Sewer and Recycled Water Capital Improvements;
- Authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$2,703,650.50 for the Serrano Creek Capital Sanitary Sewer Improvement project;
- Authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$1,525,023.85 for the Marine Way Capital Domestic Water and Recycled Water Improvement projects;
- Authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$413,651 for the GP-5 Street Capital Domestic Water and Recycled Water Improvement projects;
- Authorize the General Manager to accept Heritage Fields' construction contract with FYDAQ Company, Inc. in the amount of \$1,523,222.25 for Districts 5 South and 6 North Domestic Water, Sanitary Sewer and Recycled Water Improvements projects;
- Authorize the addition of the GP-5 Domestic Water Improvements, Project 12143 in the amount of \$468,000 to the FY 2022-23 Capital Budget;
- Authorize the addition of the GP-5 Recycled Water Improvements, Project 12145 in the amount of \$372,000 to the FY 2022-23 Capital Budget;
- Authorize the addition of the Serrano Creek Capital Sanitary Sewer Improvements, Project 12146 in the amount of \$3,435,000 to the FY 2022-23 Capital Budget;
- Authorize a budget increase for Project 11176 in the amount of \$200,000, from \$488,000 to \$688,000, for the Marine Way Domestic Water Improvements;
- Authorize a budget increase for Project 11177 in the amount of \$150,000, from \$813,000 to \$963,000, for the Marine Way Recycled Water Improvements;
- Authorize a budget increase for Project 11939 in the amount of \$500,000, from \$163,000 to \$663,000, for the Marine Way Domestic Water Improvements;
- Authorize a budget increase for Project 12228 in the amount of \$267,000, from \$496,000 to \$763,000, for the District 5 and 6 Domestic Water Improvements;
- Authorize a budget increase for Project 12229 in the amount of \$350,000, from \$213,000 to \$563,000, for the District 5 and 6 Sanitary Sewer Improvements;

- Authorize a budget increase for Project 12230 in the amount of \$100,000, from \$303,000 to \$403,000, for the District 5 and 6 Recycled Water Improvements;
- Authorize a budget increase for Project 12231 in the amount of \$150,000, from \$84,000 to \$234,000, for the District 5 and 6 Domestic Water Improvements; and
- Authorize a budget increase for Project 12232 in the amount of \$150,000, from \$215,000 to \$365,000, for the District 5 and 6 Recycled Water Improvements.

BACKGROUND:

Heritage Fields is moving forward with the residential development of Districts 2, 5 and 6. District 2 is bounded by Alton Parkway to the north, Muirlands Parkway to the east, Bake Parkway to the south and the I-5 Freeway to the west. District 5 South is south of Cadence, west of Lynx, north of Harrier and east of Treble. District 6 North is north of Marine Way, south of Harrier and east of Treble. The project location map is shown as Exhibit “A”. As part of this development, Heritage Fields will design and construct IRWD’s domestic water, sanitary sewer, and recycled water capital improvements. The required IRWD capital facilities are documented in the September 2016 Planning Area 51 Sub-Area Master Plan Update and all subsequent addendums and updates prepared by Stantec.

The design and construction of the IRWD facilities will be performed under the terms of the Master Reimbursement Agreement approved by the Board in August 2012 and as further refined in the SRA. The SRA, which covers capital facilities in Districts 2, 5 and 6 is attached as Exhibit “B” and has been reviewed by IRWD’s legal counsel.

Serrano Creek Capital Sanitary Sewer Improvements:

The Serrano Creek Capital Sanitary Sewer improvements consist of installing approximately 3,360 feet of 24-inch sewer pipeline parallel to the recently reconstructed Serrano Creek between Muirlands Drive and the I-5 Freeway. This portion of the creek sewer replaces a previously abandoned sewer alignment within the creek and connects several inflows from the planned, future commercial development in District 2. Heritage Fields retained ProActive Engineering Consultants to prepare the plans and also received bids from three contractors. Heritage Fields recommends awarding the construction contract to the low bidder, FYDAQ Company Inc., for a bid amount of \$2,703,650.50 as shown in Exhibit “C”. In addition, Heritage Fields has received consultant proposals for design engineering, surveying, and construction support services. Geotechnical observation and testing, field archeological and paleontological monitoring were previously provided on other reimbursable projects and are not required or included in the bid. Staff has reviewed the consultant proposals and the construction bids and find the amounts to be acceptable. A summary of the Serrano Creek Capital Sanitary Sewer Improvement costs is shown as follows.

Design (ProActive)	\$ 68,700.00
Construction (FYDAQ)	\$2,703,650.50
Surveying (Hunsaker and Associates)	\$ 58,400.00
Construction Engineering (ProActive)	\$ 15,560.00
Heritage Fields Administration Fee (1%)	<u>\$ 27,036.51</u>
	\$2,873,347.01

Marine Way Capital Domestic Water and Recycled Water Improvements:

The Marine Way Capital Domestic and Recycled Water Improvements consist of installing approximately 3,957 feet of 12-inch domestic water pipeline and 3,675 feet of 16-inch recycled water pipeline in Marine Way from the Alton Parkway to Bake Parkway. A portion of the work requires jack and bore installation across Bake parkway for the domestic water installation. Heritage Fields retained Hunsaker and Associates to prepare the plans and received bids from three contractors. Heritage Fields recommends awarding the construction contract to the low bidder, FYDAQ Company Inc., for a bid amount of \$1,525,023.85 as shown in Exhibit “D”. In addition, Heritage Fields has received consultant proposals for geotechnical observation and testing, surveying, and construction support services. Field archeological and paleontological monitoring were provided during mass grading and are not included in the bid. Staff has reviewed the consultant proposals and the construction bids and find the amounts to be acceptable. A summary of the Marine Way Capital Domestic Water and Recycled Water Improvement costs are shown below:

Design (Hunsaker and Associates)	\$ 124,100.00
Construction (FYDAQ)	\$1,525,023.85
Geotechnical Services (Engeo)	\$ 27,000.00
Construction Engineering/Surveying (Hunsaker)	\$ 71,300.00
Heritage Fields Administration Fee (1%)	<u>\$ 15,250.24</u>
	\$1,762,674.09

GP-5 Street Capital Domestic Water and Recycled Water Improvements:

The GP-5 Street Domestic Water and Recycled Water Improvements consist of installing approximately 2,250 feet of 12-inch domestic water pipeline and 2,200 feet of 8-inch recycled water pipeline on GP-5 Street from Skyhawk to Treble. Heritage Fields retained Hunsaker and Associates to prepare the plans and received bids from four contractors. Heritage Fields recommends awarding the construction contract to FYDAQ Company Inc., for a bid amount of \$413,651 as shown in Exhibit “E”. FYDAQ Company was the second low bidder on the IRWD portion of the work, but the low bidder for the non-IRWD portion of the work. In addition, Heritage Fields has received consultant proposals for geotechnical observation and testing, surveying, and construction support services. Field archeological and paleontological monitoring were provided during mass grading and are not included in the bid. Staff has reviewed the consultant proposals and the construction bids and find the amounts to be acceptable. A summary of the GP-5 Street Capital Domestic Water and Recycled Water Improvement costs are shown below:

Design (Hunsaker)	\$ 69,160.00
Construction (FYDAQ)	\$413,651.00
Geotechnical Services (Engeo)	\$ 7,200.00
Construction Engineering (DMc Engineering)	\$ 4,500.00
Surveying (Hunsaker)	\$ 22,805.00
Heritage Fields Administration Fee (1%)	<u>\$ 4,136.51</u>
	\$521,452.51

Districts 5 South and 6 North Domestic Water, Sanitary Sewer and Recycled Water Improvements:

The Districts 5 South and 6 North Domestic Water, Sanitary Sewer and Recycled Water Improvements consist of installing approximately 2,286 feet of 12-inch domestic water pipeline, 711 feet of 12-inch sanitary sewer pipeline, and 3,509 feet of 10-inch recycled water pipeline in Harrier and Chinon within Districts 5 and 6 of the Great Park. Heritage Fields retained DMC Engineering to prepare the plans and received bids from three contractors. Heritage Fields recommends awarding the construction contract to the low bidder, FYDAQ Company Inc., for a bid amount of \$1,523,222.25 as shown in Exhibit “F”. In addition, Heritage Fields has received consultant proposals for geotechnical observation and testing, surveying, and construction support services. Field archeological and paleontological monitoring were provided during mass grading and are not included in the bid. Staff has reviewed the consultant proposals and the construction bids and find the amounts to be acceptable. A summary of the Districts 5 South and 6 North Domestic Water, Sanitary Sewer and Recycled Water Improvement costs are shown below:

Design (Hunsaker)	\$ 158,000.00
Construction (FYDAQ)	\$1,523,222.25
Geotechnical Services (Engeo)	\$ 27,000.00
Construction Eng and Surveying (Hunsaker)	\$ 64,200.00
Heritage Fields Administration Fee (1%)	<u>\$ 15,232.22</u>
	\$1,787,654.47

FISCAL IMPACTS:

Staff requests the addition of Projects 12143, 12145 and 12146 to the FY 2022-23 Capital Budget as follows:

Project No.	Current Budget	Addition <Reduction>	Total Budget
12143	\$0	\$ 468,000	\$ 468,000
12145	\$0	\$ 372,000	\$ 372,000
12146	\$0	\$3,435,000	\$3,435,000
Total	\$0	\$4,275,000	\$4,275,000

Projects 11176, 11177, 11939, 12228, 12229, 12230, 12231 and 12232 are included in the FY 2022-23 Capital Budget and require budget increases as follows:

Project No.	Current Budget	Addition <Reduction>	Total Budget
11176	\$488,000	\$200,000	\$688,000
11177	\$813,000	\$150,000	\$963,000
11939	\$163,000	\$500,000	\$663,000
12228	\$496,000	\$267,000	\$763,000
12229	\$213,000	\$350,000	\$563,000
12230	\$303,000	\$100,000	\$403,000
12231	\$ 84,000	\$150,000	\$234,000
12232	\$215,000	\$150,000	\$365,000
Total	\$2,775,000	\$1,867,000	\$4,642,000

ENVIRONMENTAL COMPLIANCE:

Construction of capital domestic water, sewer, and recycled water facilities for the Great Park Development is subject to CEQA. In conformance with the California Code of Regulations Title 14, Chapter 3, Article 7 an Environmental Impact Report was certified by the City of Irvine, the lead agency on April 4, 2012 (SCH# 2002101020).

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on October 18, 2022.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A SUPPLEMENTAL REIMBURSEMENT AGREEMENT WITH HERITAGE FIELDS FOR PLANNING AREA 51, GREAT PARK NEIGHBORHOODS, DISTRICTS 2, 5 AND 6, FOR DOMESTIC WATER, SANITARY SEWER AND RECYCLED WATER CAPITAL IMPROVEMENTS; AUTHORIZE THE GENERAL MANAGER TO ACCEPT HERITAGE FIELDS' CONSTRUCTION CONTRACT WITH FYDAQ COMPANY, INC. IN THE AMOUNT OF \$2,703,650.50 FOR THE SERRANO CREEK CAPITAL SANITARY SEWER IMPROVEMENTS, PROJECT 12146; AUTHORIZE THE GENERAL MANAGER TO ACCEPT HERITAGE FIELDS' CONSTRUCTION CONTRACT WITH FYDAQ COMPANY, INC. IN THE AMOUNT OF \$1,525,023.85 FOR THE MARINE WAY CAPITAL DOMESTIC WATER AND RECYCLED WATER IMPROVEMENTS, PROJECTS 11176, 11177 AND 11939; AUTHORIZE THE GENERAL MANAGER TO ACCEPT HERITAGE FIELDS' CONSTRUCTION CONTRACT WITH FYDAQ COMPANY, INC. IN THE AMOUNT OF \$413,651 FOR THE GP-5 STREET CAPITAL DOMESTIC WATER AND RECYCLED WATER IMPROVEMENTS, PROJECTS 12143 AND 12145; AUTHORIZE THE GENERAL MANAGER TO ACCEPT HERITAGE FIELDS' CONSTRUCTION CONTRACT WITH FYDAQ COMPANY, INC. IN THE AMOUNT OF \$1,523,222.25 FOR DISTRICTS 5 SOUTH AND 6 NORTH DOMESTIC WATER, SANITARY SEWER AND RECYCLED WATER IMPROVEMENTS PROJECTS, 12228, 12229, 12230, 12231 AND 12232; AUTHORIZE THE ADDITION OF PROJECTS 12143, 12145 AND 12146 TO THE FY 2022-23 CAPITAL BUDGET IN THE RESPECTIVE AMOUNTS OF \$468,000, \$372,000 AND \$3,435,000; AUTHORIZE BUDGET INCREASES FOR PROJECTS 11176, 11177, 11939, 12228, 12229, 12230, 12231 AND 12232 IN THE RESPECTIVE AMOUNTS OF \$200,000, \$150,000, \$500,000, \$267,000, \$350,000, \$100,000, \$150,000 AND \$150,000.

LIST OF EXHIBITS:

Exhibit "A" – Location Map

Exhibit "B" – SRA with Heritage Fields for Planning Area 51, Great Park Neighborhoods, Districts 2, 5 South and 6 North, Domestic Water, Sanitary Sewer and Recycled Water Capital Improvements.

Exhibit "C" – Bid Summary, Serrano Creek Capital Sanitary Sewer Improvements, Project 12146.

Exhibit "D" – Bid Summary, Marine Way Capital Domestic Water and Recycled Water Improvements, Projects 11176, 11177 and 11939.

Exhibit “E” – Bid Summary, GP-5 Street Capital Domestic Water and Recycled Water Improvements, Projects 12143 and 12145.

Exhibit “F” – Bid Summary, Districts 5 South and 6 North Domestic Water, Sanitary Sewer and Recycled Water Improvements, Projects 12228, 12229, 12230, 12231 and 12232.

EXHIBIT "A"

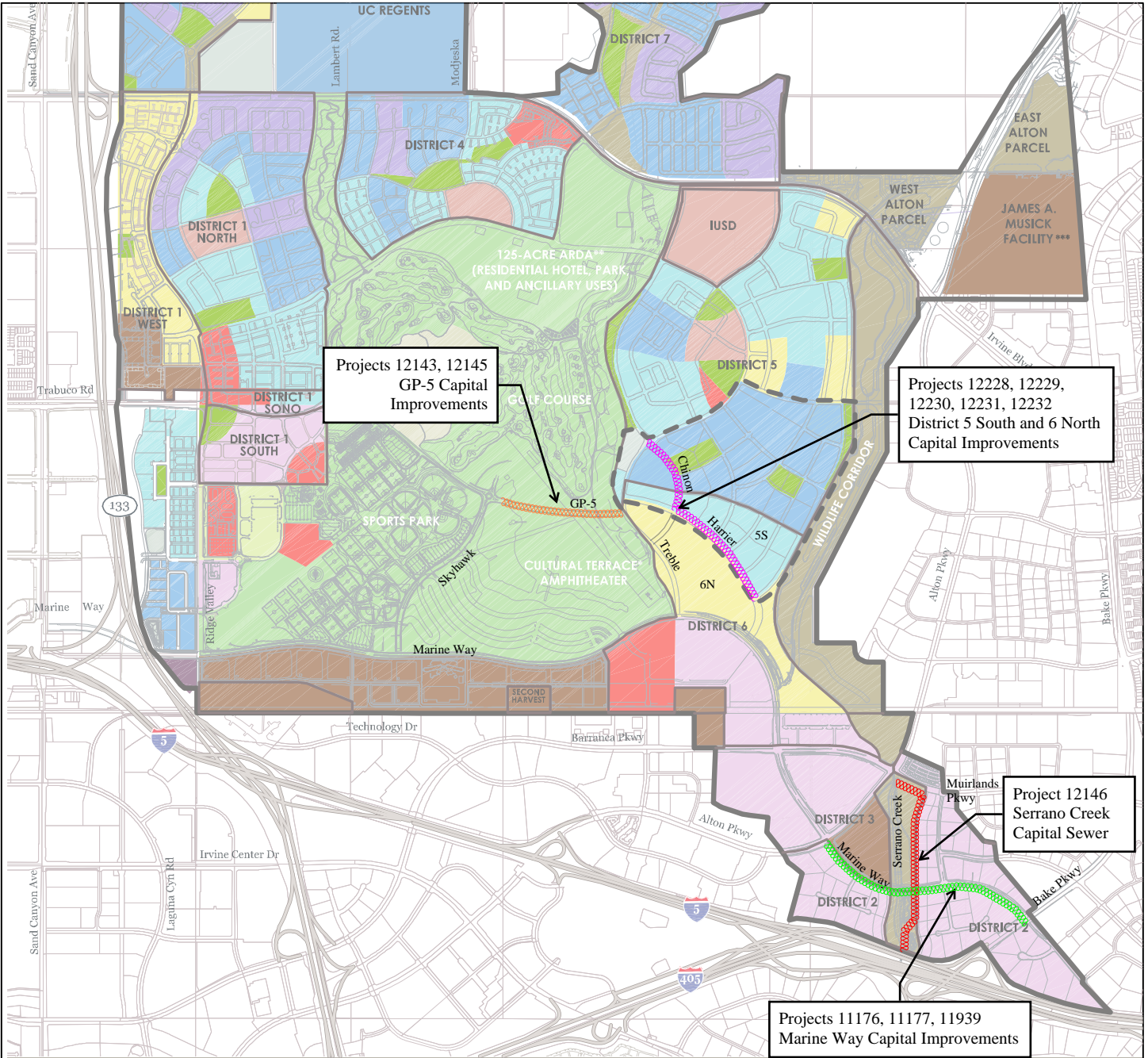


EXHIBIT A

LOCATION MAP

not to scale

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EXHIBIT B

SUPPLEMENTAL REIMBURSEMENT AGREEMENT
BY AND BETWEEN
IRVINE RANCH WATER DISTRICT
AND
HERITAGE FIELDS EL TORO, LLC

This SUPPLEMENTAL REIMBURSEMENT AGREEMENT ("Agreement") is entered into as of this _____ day of _____, 20__, by and between Irvine Ranch Water District, a California water district formed and existing pursuant to the California Water District Law of the State of California ("IRWD"), and Heritage Fields El Toro, LLC, a Delaware limited liability company ("COMPANY"). All capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Reimbursement Agreement.

WHEREAS, IRWD and COMPANY have previously entered into that certain Reimbursement Agreement dated August 13, 2012 ("Reimbursement Agreement") respecting construction of Capital Facilities; and

WHEREAS, said Reimbursement Agreement made reference to the fact that certain supplemental agreements would be entered into by the parties regarding construction of Capital Facilities and reimbursement therefor consistent with the provisions of said Reimbursement Agreement; and

WHEREAS, the parties now wish to enter this Agreement regarding the construction of Capital Facilities described below, subject to all of the terms of the Reimbursement Agreement, except as provided herein.

NOW, THEREFORE, the parties agree, in consideration of the mutual promises and covenants hereinafter set forth, do agree as follows:

1. Except as provided herein, the parties hereby incorporate by reference all of the terms and conditions of the Reimbursement Agreement into this Agreement.

2. The name of the Project to which this Agreement pertains is: Planning Area 51, Great Park Neighborhoods, Districts 5 South, District 6 North and District 2 Domestic Water, Sanitary Sewer and Recycled Water Capital Improvements.

The Project is depicted on Exhibit 1 attached to this Agreement.

3. The Capital Facilities to be constructed pursuant to this Agreement are as follows: Approximately 15,570 lineal feet of 12-inch domestic water, 3,360 lineal feet of 24-inch sewer, 2 sewer diversion vault structures, and 15,750 lineal feet of 8-inch and 10-inch recycled water pipelines as shown in Exhibit 1.

4. The total costs for the Capital Facilities shall include, but not limited to, the actual costs for construction, surveying, compaction testing, permits, construction bonds, legal fees and

an administration fee equal to one percent (1%) of the actual cost of construction (all such actual costs are collectively referred to as the "Costs"). The estimated amount of the Costs is \$5,206,594.

5. The following special terms apply to the construction of the Capital Facilities under this Agreement and supersede the provisions of the original Reimbursement Agreement referenced above: None.

6. In accordance with Section 10 of the Reimbursement Agreement, COMPANY is executing concurrently herewith an Assignment Agreement in the form of Exhibit 2, to be effective upon the Effective Date specified in the Assignment Agreement.

IN WITNESS WHEREOF, the parties have entered this Agreement as of the date set forth above.

IRVINE RANCH WATER DISTRICT

By: _____
General Manager

[SIGNATURES CONTINUED]

HERITAGE FIELDS EL TORO, LLC,
a Delaware limited liability company

By: Heritage Fields El Toro Sole Member LLC,
a Delaware limited liability company
Its: Sole Member

By: Heritage Fields LLC,
a Delaware limited liability company
Its: Sole Member

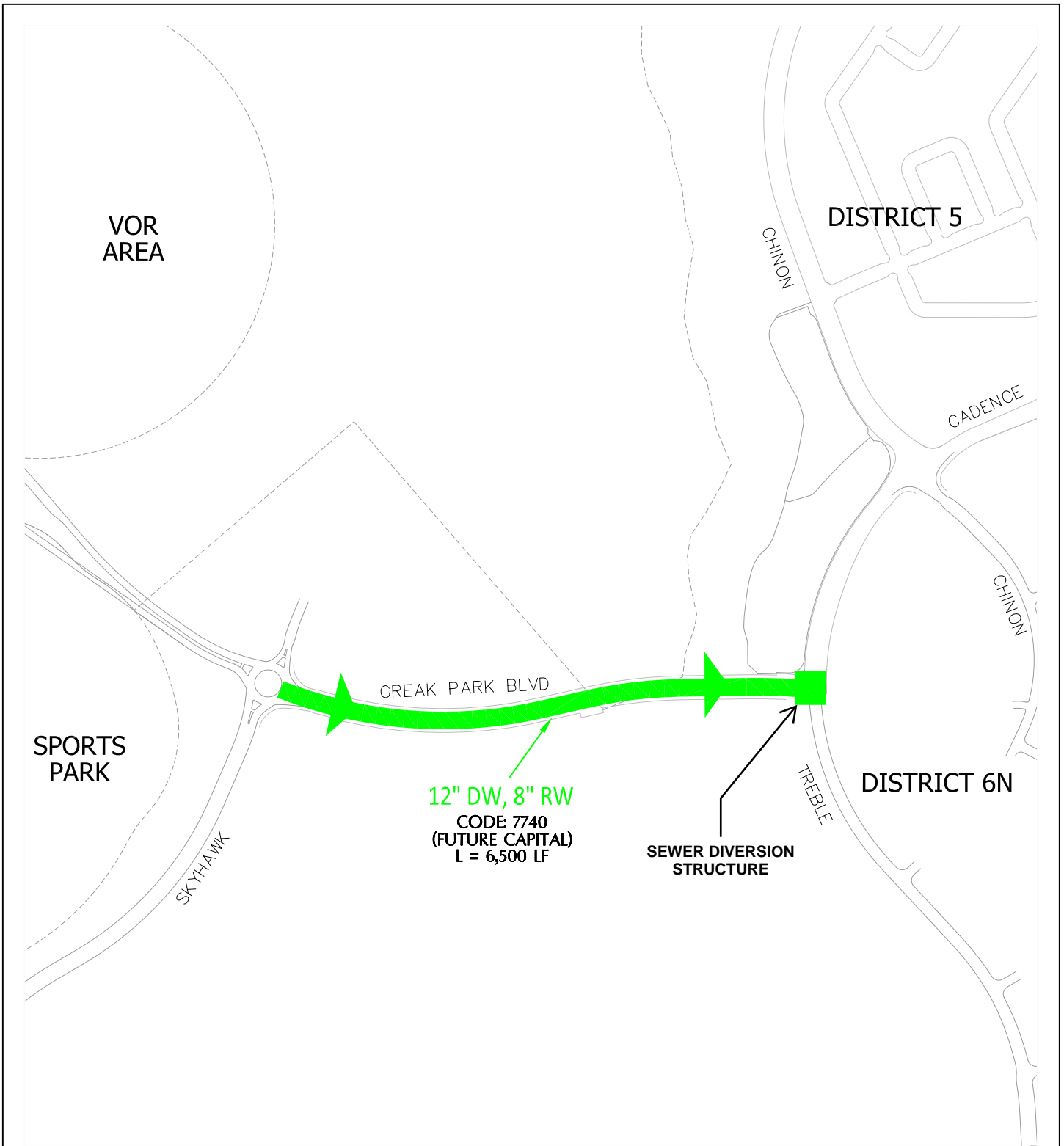
By: Lennar Heritage Fields, LLC,
a California limited liability company
Its: Administrative Member

By: Lennar Homes of California, Inc.,
a California corporation
Its: Sole Member

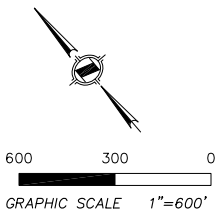
By: _____

Print Name: _____

Print Title: _____



DISTRICT 5 & 6
CAPITAL DOMESTIC WATER,
RECYCLED WATER, SANITARY SEWER



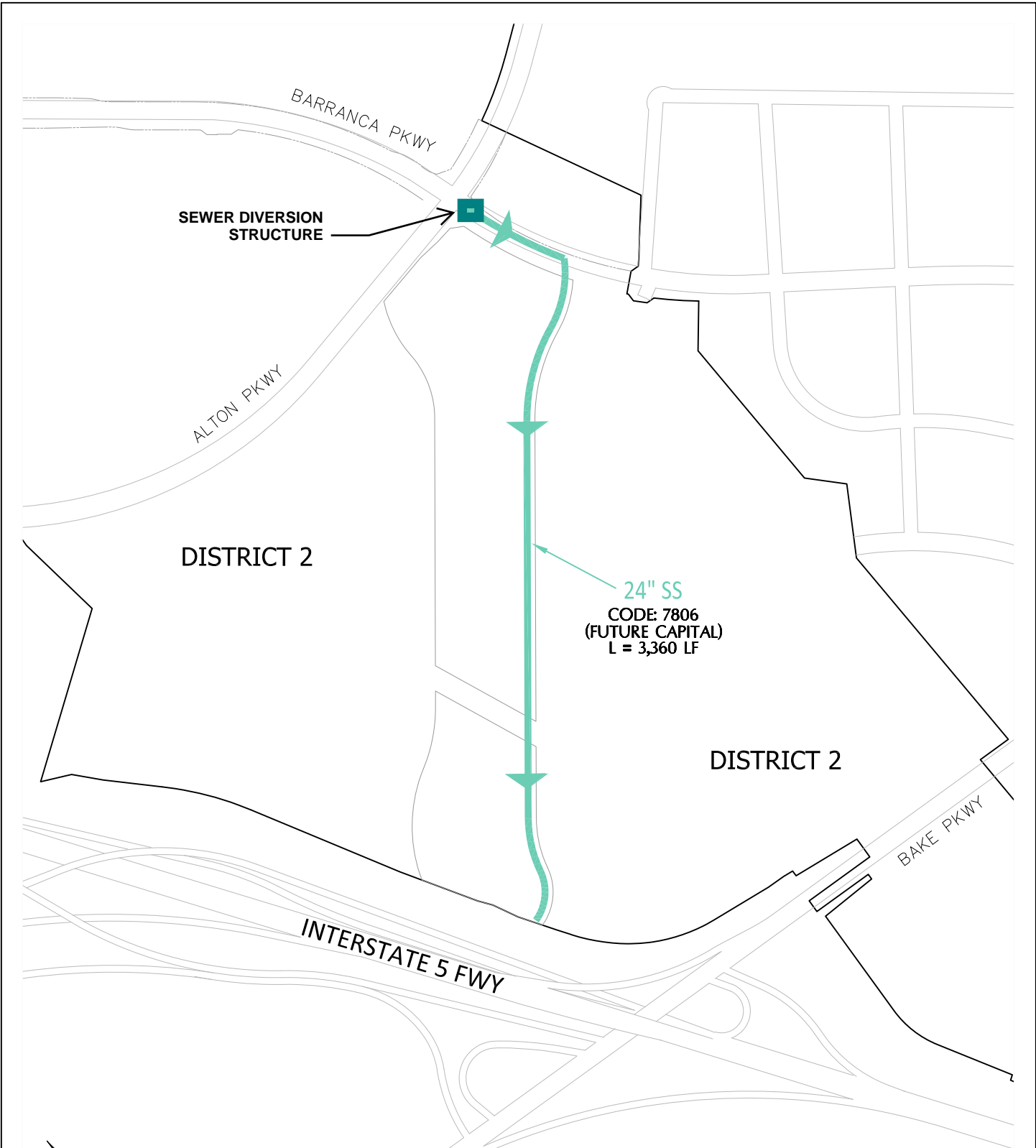
Prepared By:

FIVEPOINT
2000 Fivepoint, 4th Floor
Irvine, CA 92618

Prepared For:



DATE: 10/3/2022



SEWER DIVERSION
STRUCTURE

BARRANCA PKWY

ALTON PKWY

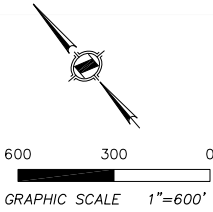
DISTRICT 2

DISTRICT 2

BAKE PKWY

INTERSTATE 5 FWY

24" SS
CODE: 7806
(FUTURE CAPITAL)
L = 3,360 LF



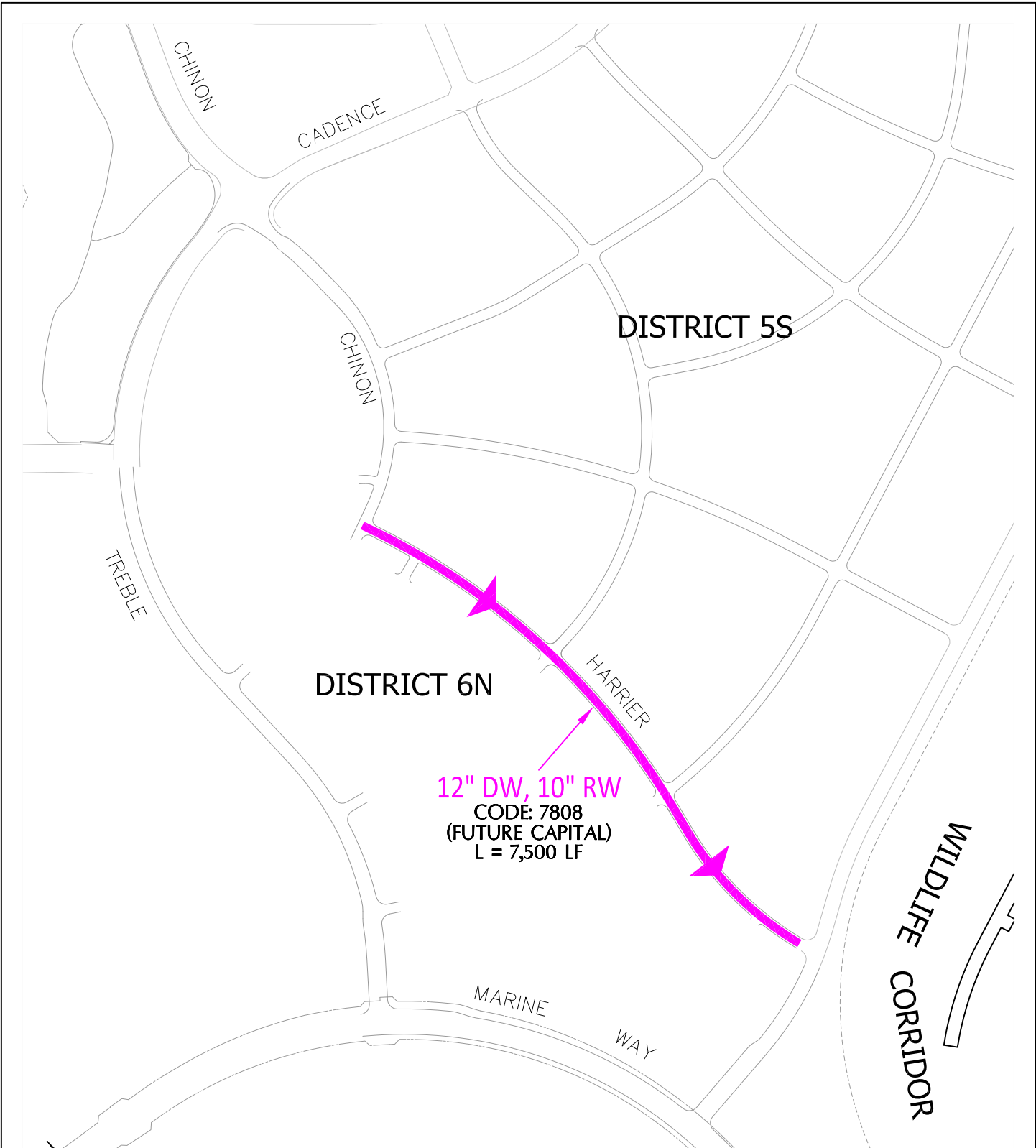
DISTRICT 2
CAPITAL SANITARY SEWER



Prepared By:
FIVEPOINT
2000 Fivepoint, 4th Floor
Irvine, CA 92618

Prepared For:
Heritage Fields El Toro, LLC
Great Park
NEIGHBORHOODS.

DATE: 8/30/2022



**DISTRICT 5 & 6
CAPITAL DOMESTIC WATER,
RECYCLED WATER**

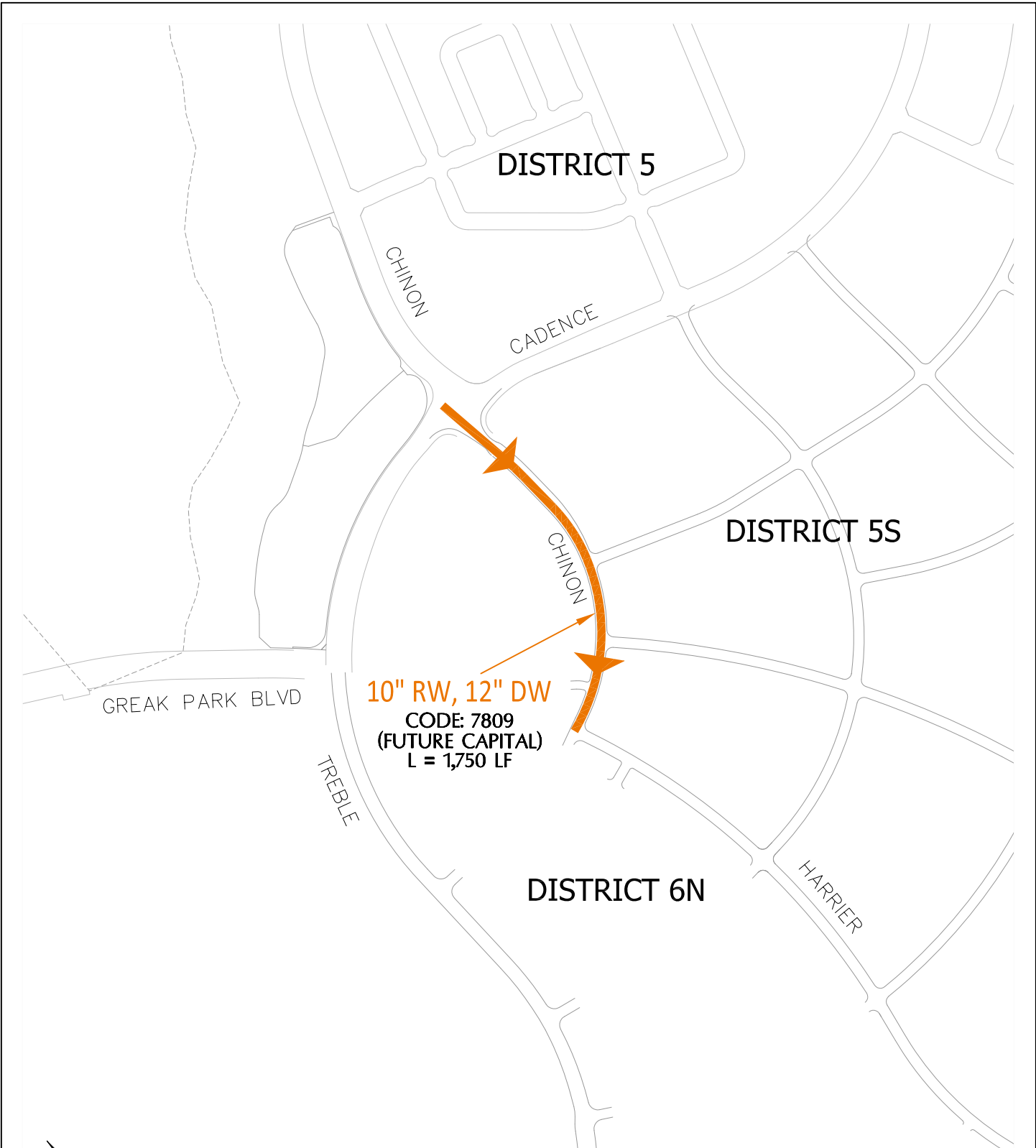
500 250 0
GRAPHIC SCALE 1"=500'



Prepared By:
FIVEPOINT
2000 Fivepoint, 4th Floor
Irvine, CA 92618

Prepared For:
Heritage Fields El Toro, LLC
Great Park
NEIGHBORHOODS.

DATE: 8/25/2022



**DISTRICT 5 & 6
CAPITAL DOMESTIC WATER,
RECYCLED WATER**

Prepared By:

FIVEPOINT
2000 Fivepoint, 4th Floor
Irvine, CA 92618

Prepared For:

Heritage Fields El Toro, LLC
Great Park
NEIGHBORHOODS.

DATE: 8/25/2022

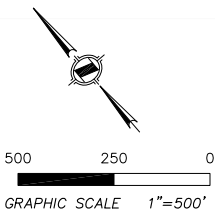


EXHIBIT "2"
to
Supplemental Reimbursement Agreement

Assignment Agreement

This Assignment Agreement is made as of _____, 20__ , by and between HERITAGE FIELDS EL TORO, LLC, a Delaware limited liability company ("Assignor"), to IRVINE RANCH WATER DISTRICT, a California water district formed and existing pursuant to the California Water District Law of the State of California ("Assignee") based upon the following recitals:

A. Assignor has previously (or will, prior to the Effective Date hereof, have) entered into that certain Construction Contract to the Project and Capital Facilities identified in Schedule A hereto (the "Construction Contract").

B. Assignee desires to acquire (I) Assignor's right, title and interest in and to the Capital Facilities constructed under the Construction Contract, and (II) the warranty rights of Assignor as to the Capital Facilities under the Construction Contract, and Assignor desires to assign such rights to Assignee.

NOW, THEREFORE, in consideration of the foregoing, the covenants and agreements contained herein and other valuable consideration, receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. ASSIGNMENT. Effective upon the date specified in Section 2 hereof (the "Effective Date"), Assignor assigns and transfers to Assignee all of Assignor's right, title, claim and interest in and to (a) the Capital Facilities constructed pursuant to the Construction Contract, and (b) the warranties and guarantees of contractor as to the Capital Facilities constructed pursuant to the Construction Contract. This Assignment is made by Assignor pursuant to the provisions of Section 10, entitled "Assignment of Interest", contained in that certain Reimbursement Agreement between Assignor and Assignee dated as of _____.

2. EFFECTIVE DATE. The Effective Date shall be the date of the filing of the Notice of Completion for the Construction Contract unless a different date is inserted in the following space: _____.

3. TRANSFER OF DOCUMENTATION. On or prior to the Effective Date, Assignor shall provide Assignee with a copy of the Construction Contract.

IN WITNESS WHEREOF, Assignor has executed this Assignment Agreement as of the date first above written.

ASSIGNOR:

HERITAGE FIELDS EL TORO, LLC,
a Delaware limited liability company

By: Heritage Fields El Toro Sole Member LLC,
a Delaware limited liability company
Its: Sole Member

By: Heritage Fields LLC,
a Delaware limited liability company
Its: Sole Member

By: Lennar Heritage Fields, LLC,
a California limited liability company
Its: Administrative Member

By: Lennar Homes of California, Inc.,
a California corporation
Its: Sole Member

By: _____

Print Name: _____

Print Title: _____

Schedule A
to
Assignment Agreement

This Schedule A to Assignment Agreement relates to the assignment of certain matters pursuant to the Supplemental Reimbursement Agreement between Assignor and Assignee dated _____ ("Supplemental Reimbursement Agreement").

Insert name of Project from Section 2 of Supplemental Reimbursement Agreement: Planning Area 51, Great Park Neighborhoods, Districts 5 South, District 6 North and District 2 Domestic Water, Sanitary Sewer and Recycled Water Capital Improvements.

Insert description of Capital Facilities from Section 3 of Supplemental Reimbursement Agreement: Approximately 15,570 lineal feet of 12-inch domestic water, 3,360 lineal feet of 24-inch sewer, 2 sewer diversion vault structures, and 15,750 lineal feet of 8-inch and 10-inch recycled water pipelines.

Contractor's Name: _____

License No.: _____

Address: _____

Phone #: _____ Fax #: _____

Contact Person: _____

EXHIBIT "C"

PROJECT: Serrano Sewer IRWD Capital - Code 7806
V2a
Addendum 1

OWNER: Heritage Fields El Toro, LLC

BID SPREAD

ENGINEER'S ESTIMATE

FYDAQ - LOW

L&S

LEATHERWOOD

District 2 - SERRANO CREEK 24" SEWER LINE - CAPITAL

OPTION 1 - SERRANO CREEK 24" SEWER LINE (VCP PIPE)			
A. 130-00 SW SEWER - SERRANO SEWER			
A.1	130-01 SW Sewer-General	\$	90,000.00
A.2	130-05 SW Mainline	\$	1,943,105.00
A.3	130-10 SW Manholes	\$	604,500.00
A.4	130-02 SW Site Preparation	\$	90,264.00
PHASE 1 - SERRANO CREEK 24" SEWER LINE - TOTAL			\$ 2,727,869.00

		\$	70,095.00
		\$	1,934,451.00
		\$	565,950.00
		\$	82,742.00
			\$ 2,653,238.00

		\$	88,000.00
		\$	1,818,528.00
		\$	766,550.00
		\$	60,176.00
			\$ 2,733,254.00

		\$	102,000.00
		\$	2,035,506.00
		\$	524,200.00
		\$	75,220.00
			\$ 2,736,926.00

OPTION 2 - SERRANO CREEK 24" SEWER LINE (PVC AND VCP PIPE)			
B. 130-00 SW SEWER - SERRANO SEWER			
B.1	130-01 SW Sewer-General	\$	-
B.2	130-05 SW Mainline	\$	-
B.3	130-10 SW Manholes	\$	-
B.4	130-02 SW Site Preparation	\$	-
PHASE 2 - SERRANO CREEK 24" SEWER LINE - TOTAL			\$ -

		\$	-
		\$	-
		\$	-
		\$	-
			\$ -

		\$	-
		\$	-
		\$	-
		\$	-
			\$ -

		\$	-
		\$	-
		\$	-
		\$	-
			\$ -

MANHOLE RAISE/LOWER DELETABLE			
C. 130-00 SW SEWER - SERRANO SEWER			
C.1	130-01 SW Sewer-General	\$	2,500.00
C.2	130-25 SW Manhole Raise	\$	50,000.00
PHASE 2 - SERRANO CREEK 24" SEWER LINE - TOTAL			\$ 52,500.00

		\$	2,412.50
		\$	48,000.00
			\$ 50,412.50

		\$	2,900.00
		\$	47,000.00
			\$ 49,900.00

		\$	3,000.00
		\$	50,000.00
			\$ 53,000.00

GRAND TOTAL WITH (VCP) OPTION 1, Sections A + C	\$	2,780,369.00
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	\$	2,703,650.50
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	\$	2,783,154.00
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	\$	2,789,926.00
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GRAND TOTAL WITH (PVC) OPTION 2, Sections B + C	\$	-
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	\$	-
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	\$	-
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	\$	-
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EXHIBIT C

PROJECT: Serrano Sewer IRWD Capital - Code 7806
V2a
Addendum 1

OWNER: Heritage Fields El Toro, LLC

BID SPREAD

ENGINEER'S ESTIMATE

FYDAQ - LOW

L&S

LEATHERWOOD

OPTION 1 SERRANO CREEK 24" SEWER LINE

ITEM NO.	COST CODE	A.1 130-01 SW Sewer-General	QUAN	UNIT	UNIT PRICE	AMOUNT
1.	130-01	Mobilization, (Not to Exceed 2% of Bid)	1	LS	\$40,000.00	\$ 40,000.00
2.	130-01	Performance, Labor & Payment Bond	1	LS	\$30,000.00	\$ 30,000.00
3.	130-01	SWPPP & BMP's - Interim Erosion Control	1	LS	\$10,000.00	\$ 10,000.00
4.	130-01	Development & Application of Construction Water	1	LS	\$10,000.00	\$ 10,000.00
SUB-TOTAL, SUBSECTION A.1 - 130-01 SW Sewer-General.....						\$ 90,000.00

ITEM NO.	COST CODE	A.2 130-05 SW Mainline	QUAN	UNIT	UNIT PRICE	AMOUNT
5.	130-05	Furnish and install 24" extra strength VCP sewer main with sewer indicator tape per IRWD std. dwg. S-6 and specifications, complete.	2,968	LF	600.00	\$ 1,780,800.00
6.	130-05	Furnish and install 21" extra strength VCP sewer main with sewer indicator tape per IRWD std. dwg. S-6 and specifications, complete.	46	LF	1,000.00	\$ 46,000.00
7.	130-05	Join existing 21" extra strength VCP sewer line, including removing broken or partial pipes back to the closest joint, complete.	1	EA	10,000.00	\$ 10,000.00
8.	130-05	Join existing 24" extra strength VCP sewer line, including removing existing plug complete.	2	EA	10,000.00	\$ 20,000.00
9.	130-05	Air test and video sewer per IRWD standards and specifications, complete	3,387	LF	15.00	\$ 50,805.00
10.	130-05	Remove interfering portions of existing sewer, 18" VCP and 18" PCV and reconnect to vault per IRWD standard drawing S-1	2	EA	10,000.00	\$ 20,000.00
11.	130-05	Abandon in place existing 24" Line C sewer with slurry seal from manhole #15 to manhole # 17 per IRWD specification 01045 and notes per plan, complete	31	LF	500.00	\$ 15,500.00
SUB-TOTAL, SUBSECTION A.2 - 130-05 SW Mainline.....						\$ 1,943,105.00

ITEM NO.	COST CODE	A.3 130-10 SW Manholes	QUAN	UNIT	UNIT PRICE	AMOUNT
12.	130-10	Construct 72" diameter manhole per IRWD sdk.dwg.S-1 with 36" diameter manhole frame and cover with reinforcing per detail on plans, complete.	3	EA	30,000.00	\$ 90,000.00
13.	130-10	Construct 60" diameter manhole per IRWD sdk.dwg.S-1 with 36" diameter manhole frame and cover with reinforcing per detail on plans, complete.	2	EA	25,000.00	\$ 50,000.00
14.	130-10	Construct 60" diameter manhole per IRWD sdk.dwg.S-1 with 30" diameter manhole frame and cover, complete.	9	EA	17,500.00	\$ 157,500.00
15.	130-10	Furnish and install Jensen 8x8 precast vault including manhole covers, stop logs, concrete channel, manhole liner, non skid surface on shelf, pipe connection through wall per IRWD std	1	EA	150,000.00	\$ 150,000.00
16.	130-10	Construct 60" diameter manhole per IRWD sdk.dwg.S-1 with 30" diameter manhole frame and cover over existing 18" VCP including temporary 18" plug, complete.	1	EA	30,000.00	\$ 30,000.00
17.	130-10	Remove and dispose existing 60" manhole and foundation, place into CFD stockpile (within 4 miles of the project site) for crushing, complete.	2	EA	15,000.00	\$ 30,000.00
18.	130-10	Manhole lining per IRWD specification 09900, System No. B=4 and per IRWD standard drawing s-1, complete	16	EA	5,000.00	\$ 80,000.00
19.	130-05	Remove top of existing manhole #16 to minimum 8 feet below finished grade and abandon in place per IRWD specification 01045, complete	1	EA	10,000.00	\$ 10,000.00
20.	130-10	Repair openings and rechannel the base of manhole # 15 and #17 for the abandonments of Line C, complete	2	EA	3,500.00	\$ 7,000.00
SUB-TOTAL, SUBSECTION A.3 - 130-10 SW Manholes.....						\$ 604,500.00

ITEM NO.	COST CODE	A.4 130-02 SW Site Preparation	QUAN	UNIT	UNIT PRICE	AMOUNT
18.	130-02	Construct 14" CMB all weather access road per detail on plans from owners CMB stockpile (within 4 miles of project site) over compacted subgrade, compaction of subgrade and CMB per Geotechnical Engineers recommendations, including wood header, complete	7,522	SF	12.00	\$ 90,264.00
SUB-TOTAL, SUBSECTION A.4 - 130-02 SW Site Preparation.....						\$ 90,264.00

A TOTAL OPTION 1 - SERRANO CREEK 24" SEWER LINE SECTION A \$ 2,727,869.00

UNIT PRICE	AMOUNT
\$27,500.00	\$ 27,500.00
\$25,095.00	\$ 25,095.00
\$10,000.00	\$ 10,000.00
\$7,500.00	\$ 7,500.00
\$ 70,095.00	

UNIT PRICE	AMOUNT
597.00	\$ 1,771,896.00
1,000.00	\$ 46,000.00
8,900.00	\$ 8,900.00
8,900.00	\$ 17,800.00
15.00	\$ 50,805.00
11,000.00	\$ 22,000.00
550.00	\$ 17,050.00
\$ 1,934,451.00	

UNIT PRICE	AMOUNT
29,750.00	\$ 89,250.00
21,000.00	\$ 42,000.00
14,500.00	\$ 130,500.00
142,500.00	\$ 142,500.00
25,000.00	\$ 25,000.00
18,500.00	\$ 37,000.00
5,200.00	\$ 83,200.00
11,000.00	\$ 11,000.00
2,750.00	\$ 5,500.00
\$ 565,950.00	

UNIT PRICE	AMOUNT
11.00	\$ 82,742.00
\$ 82,742.00	

\$ 2,653,238.00

UNIT PRICE	AMOUNT
\$40,000.00	\$ 40,000.00
\$31,000.00	\$ 31,000.00
\$11,500.00	\$ 11,500.00
\$5,500.00	\$ 5,500.00
\$ 88,000.00	

UNIT PRICE	AMOUNT
552.00	\$ 1,638,336.00
890.00	\$ 40,940.00
28,500.00	\$ 28,500.00
31,250.00	\$ 62,500.00
11.00	\$ 37,257.00
3,560.00	\$ 7,120.00
125.00	\$ 3,875.00
\$ 1,818,528.00	

UNIT PRICE	AMOUNT
37,000.00	\$ 111,000.00
28,500.00	\$ 57,000.00
35,000.00	\$ 315,000.00
145,000.00	\$ 145,000.00
24,500.00	\$ 24,500.00
7,200.00	\$ 14,400.00
4,300.00	\$ 68,800.00
3,850.00	\$ 3,850.00
13,500.00	\$ 27,000.00
\$ 766,550.00	

UNIT PRICE	AMOUNT
8.00	\$ 60,176.00
\$ 60,176.00	

\$ 2,733,254.00

UNIT PRICE	AMOUNT
\$50,000.00	\$ 50,000.00
\$32,000.00	\$ 32,000.00
\$10,000.00	\$ 10,000.00
\$10,000.00	\$ 10,000.00
\$ 102,000.00	

UNIT PRICE	AMOUNT
630.00	\$ 1,869,840.00
950.00	\$ 43,700.00
8,500.00	\$ 8,500.00
8,500.00	\$ 17,000.00
18.00	\$ 60,966.00
10,000.00	\$ 20,000.00
500.00	\$ 15,500.00
\$ 2,035,506.00	

UNIT PRICE	AMOUNT
27,500.00	\$ 82,500.00
19,500.00	\$ 39,000.00
13,500.00	\$ 121,500.00
135,500.00	\$ 135,500.00
23,500.00	\$ 23,500.00
16,000.00	\$ 32,000.00
4,700.00	\$ 75,200.00
10,000.00	\$ 10,000.00
2,500.00	\$ 5,000.00
\$ 524,200.00	

UNIT PRICE	AMOUNT
10.00	\$ 75,220.00
\$ 75,220.00	

\$ 2,736,926.00

PROJECT: Serrano Sewer IRWD Capital - Code 7806
 V2a
 Addendum 1

OWNER: Heritage Fields El Toro, LLC

BID SPREAD

ENGINEER'S ESTIMATE

FYDAQ - LOW

L&S

LEATHERWOOD

NO.	CODE	130-01 SW Sewer-General	QUAN	UNIT	UNIT PRICE	AMOUNT
1.	130-01	Mobilization, (Not to Exceed 2% of Bid)	1	LS	\$1,000.00	\$ 1,000.00
2.	130-01	Performance, Labor & Payment Bond	1	LS	\$500.00	\$ 500.00
3.	130-01	SWPPP & BMP's - Interim Erosion Control	1	LS	\$500.00	\$ 500.00
4.	130-01	Development & Application of Construction Water	1	LS	\$500.00	\$ 500.00
SUB-TOTAL, SUBSECTION C.1 - 130-01 SW Sewer-General.....						\$ 2,500.00

ITEM NO.	COST CODE	C.2 130-25 SW Manhole Raise	QUAN	UNIT	UNIT PRICE	AMOUNT
5.	130-25	Raise/lower existing sewer manhole to grade per IRWD std. dwg. S-1	2	EA	25,000.00	\$ 50,000.00
SUB-TOTAL, SUBSECTION C.2 - 130-25 SW Manhole Raise.....						\$ 50,000.00

c	MANHOLE RAISE/LOWER DELETEABLE TOTAL					\$ 52,500.00
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UNIT PRICE	AMOUNT
\$950.00	\$ 950.00
\$462.50	\$ 462.50
\$500.00	\$ 500.00
\$500.00	\$ 500.00
\$	2,412.50

UNIT PRICE	AMOUNT
24,000.00	\$ 48,000.00
\$	48,000.00

\$	50,412.50
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UNIT PRICE	AMOUNT
\$1,100.00	\$ 1,100.00
\$650.00	\$ 650.00
\$500.00	\$ 500.00
\$650.00	\$ 650.00
\$	2,900.00

UNIT PRICE	AMOUNT
23,500.00	\$ 47,000.00
\$	47,000.00

\$	49,900.00
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UNIT PRICE	AMOUNT
\$1,000.00	\$ 1,000.00
\$1,000.00	\$ 1,000.00
\$500.00	\$ 500.00
\$500.00	\$ 500.00
\$	3,000.00

UNIT PRICE	AMOUNT
25,000.00	\$ 50,000.00
\$	50,000.00

\$	53,000.00
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EXHIBIT "D"

PROJECT: DISTRICT 2
MARINE WAY - WET IMPROVEMENTS - CAPITAL
 7388 & 7607 only

OWNER: Heritage Fields El Toro, LLC

CAP Bid Spread

ENGINEERS ESTIMATE

FYDAQ

L&S

LEATHERWOOD

WET IMPROVEMENTS - MARINE WAY - CAPITAL

CONSTRUCTION PLANS FOR THE IMPROVEMENT OF PLANNING AREA 51, GREAT PARK NEIGHBORHOODS CAPITAL IMPROVEMENTS MARINE WAY (ALTON PARKWAY TO BAKE PARKWAY) 12" DOMESTIC WATER ZONE 3 (400 HGL) & 16" RECYCLED WATER ZONE B (460 HGL) CAPITAL PROJECT NOS. 11176 & 11177 NON-CAPITAL PROJECT NOS. 10670 & 10672, IRWD CODE 7388

A MARINE WAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7388

A.1	SUB-TOTAL, SUBSECTION A.1 - 131-01 DW DOMESTIC WATER-GENERAL	\$ 22,218.75	\$ 15,085.00	\$ 37,500.00	\$ 24,050.00
A.2	SUB-TOTAL, SUBSECTION A.2 - 131-02 DW SITE PREPARATION	\$ 3,951.00	\$ 2,517.00	\$ 5,500.00	\$ 5,700.00
A.3	SUB-TOTAL, SUBSECTION A.3 - 131-05 DW MAINLINE PIPE	\$ 268,697.75	\$ 311,466.25	\$ 327,272.00	\$ 167,355.00
A.4	SUB-TOTAL, SUBSECTION A.4 - 131-15 DW GATE/BFV VALVES	\$ 46,650.00	\$ 36,900.00	\$ 48,150.00	\$ 54,900.00
A.5	SUB-TOTAL, SUBSECTION A.5 - 131-20 DW BLOW OFF ASSEMBLIES	\$ 34,800.00	\$ 30,000.00	\$ 32,400.00	\$ 42,000.00
A.6	SUB-TOTAL, SUBSECTION A.6 - 131-95 DW SYSTEM ACCEPTANCE	\$ 8,375.00	\$ 7,500.00	\$ 9,750.00	\$ 7,875.00
A.7	SUB-TOTAL, SUBSECTION A.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$ -	\$ -	\$ -	\$ -
MARINE WAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7388 - SUB-TOTAL.....		\$ 384,692.50	\$ 403,468.25	\$ 460,572.00	\$ 301,880.00

B MARINE WAY RECYCLED WATER IMPROVEMENTS - CAPITAL

B.1	SUB-TOTAL, SUBSECTION B.1 - 132-01 RW RECYCLED WATER-GENERAL	\$ 38,748.23	\$ 17,100.00	\$ 42,000.00	\$ 32,750.00
B.2	SUB-TOTAL, SUBSECTION B.2 - 132-02 RW SITE PREPARATION	\$ 1,362.00	\$ 3,085.00	\$ 7,500.00	\$ 6,500.00
B.3	SUB-TOTAL, SUBSECTION B.3 - 132-05 RW MAINLINE PIPE	\$ 553,000.00	\$ 544,152.00	\$ 470,208.00	\$ 644,840.00
B.4	SUB-TOTAL, SUBSECTION B.4 - 131-15 RW GATE/BFV VALVES	\$ 52,091.67	\$ 38,075.00	\$ 53,000.00	\$ 65,200.00
B.5	SUB-TOTAL, SUBSECTION B.5 - 132-30 RW FIRE HYDRANTS	\$ 9,356.33	\$ 12,069.00	\$ 8,200.00	\$ 7,500.00
B.6	SUB-TOTAL, SUBSECTION B.6 - 132-20 RW BLOW OFF ASSEMBLIES	\$ 33,198.67	\$ 40,795.00	\$ 22,400.00	\$ 36,400.00
B.7	SUB-TOTAL, SUBSECTION B.7 - 132-95 RW SYSTEM ACCEPTANCE	\$ 10,050.00	\$ 9,000.00	\$ 11,700.00	\$ 9,450.00
B.8	SUB-TOTAL, SUBSECTION B.8 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$ -	\$ -	\$ -	\$ -
MARINE WAY RECYCLED WATER IMPROVEMENTS - CAPITAL - SUB-TOTAL.....		\$ 697,806.89	\$ 664,277.00	\$ 615,008.00	\$ 802,740.00

CONSTRUCTION PLANS FOR THE IMPROVEMENT OF PLANNING AREA 51, GREAT PARK NEIGHBORHOODS CAPITAL IMPROVEMENTS BAKE PARKWAY (@ MARINE WAY) 12" DOMESTIC WATER ZONE 3 (400 HGL) CAPITAL PROJECT NO. 11939, IRWD CODE 7607

C BAKE PARKWAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7607

C.1	SUB-TOTAL, SUBSECTION C.1 - 131-01 DW DOMESTIC WATER-GENERAL	\$ 49,459.83	\$ 57,500.00	\$ 39,300.00	\$ 52,300.00
C.2	SUB-TOTAL, SUBSECTION C.2 - 131-02 DW SITE PREPARATION	\$ 99,124.20	\$ 59,996.60	\$ 115,550.00	\$ 137,190.00
C.3	SUB-TOTAL, SUBSECTION C.3 - 131-05 DW MAINLINE PIPE	\$ 257,565.33	\$ 318,701.00	\$ 308,875.00	\$ 239,200.00
C.4	SUB-TOTAL, SUBSECTION C.4 - 131-15 DW GATE/BFV VALVES	\$ 24,628.67	\$ 17,886.00	\$ 26,800.00	\$ 29,200.00
C.5	SUB-TOTAL, SUBSECTION C.5 - 131-20 DW BLOW OFF ASSEMBLIES	\$ 2,048.33	\$ 1,195.00	\$ 2,650.00	\$ 2,300.00
C.6	SUB-TOTAL, SUBSECTION C.6 - 131-95 DW SYSTEM ACCEPTANCE	\$ 2,266.67	\$ 2,000.00	\$ 2,600.00	\$ 2,200.00
C.7	SUB-TOTAL, SUBSECTION C.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$ -	\$ -	\$ -	\$ -
BAKE PARKWAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7607 - SUB-TOTAL.....		\$ 435,093.03	\$ 457,278.60	\$ 495,775.00	\$ 462,390.00

Subtotal excluding 7806 \$ 1,517,592.42

\$ 1,525,023.85

\$ 1,571,355.00

\$ 1,567,010.00

MARINE WAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7388

CONSTRUCTION PLANS FOR THE IMPROVEMENT OF PLANNING AREA 51, GREAT PARK NEIGHBORHOODS CAPITAL IMPROVEMENTS MARINE WAY (ALTON PARKWAY TO BAKE PARKWAY) 12" DOMESTIC WATER ZONE 3 (400 HGL) & 16" RECYCLED WATER ZONE B (460 HGL) CAPITAL PROJECT NOS. 11176 & 11177 NON-CAPITAL PROJECT NOS. 10670 & 10672, IRWD CODE 7388

ITEM	CODE	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	
131-01 DW DOMESTIC WATER-GENERAL													
001	131-01	Mobilization (Maximum of 2% of Section B)	1	LS	\$ 7,170.46	\$ 7,170.46	\$ 1,250.00	\$ 1,250.00	\$ 9,500.00	\$ 9,500.00	\$ 5,800.00	\$ 5,800.00	
002	131-01	Performance, Labor & Payment Bond	1	LS	\$ 3,585.23	\$ 3,585.23	\$ 5,835.00	\$ 5,835.00	\$ 8,500.00	\$ 8,500.00	\$ 5,000.00	\$ 5,000.00	
003	131-01	Erosion Control - SWPPP & BMP's	1	LS	\$ 2,688.92	\$ 2,688.92	\$ 250.00	\$ 250.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	
004	131-01	Development and Application of Construction Water	1	LS	\$ 2,688.92	\$ 2,688.92	\$ 250.00	\$ 250.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	
005	131-01	Traffic Control	1	LS	\$ 2,500.00	\$ 2,500.00	\$ 250.00	\$ 250.00	\$ 2,500.00	\$ 2,500.00	\$ 250.00	\$ 250.00	
006	131-01	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and Specifications, Complete	1	LS	\$ 3,585.23	\$ 3,585.23	\$ 7,250.00	\$ 7,250.00	\$ 12,000.00	\$ 12,000.00	\$ 8,000.00	\$ 8,000.00	
A.1		SUB-TOTAL, SUBSECTION A.1 - 131-01 DW DOMESTIC WATER-GENERAL					\$ 22,218.75	\$ 15,085.00		\$ 37,500.00		\$ 24,050.00	
131-02 DW SITE PREPARATION													
007	131-02	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS	\$ 462.00	\$ 462.00	\$ 250.00	\$ 250.00	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00	
008	131-02	Remove Existing Temporary Flush-out and Join Existing 12" Pipe, Complete	1	EA	\$ 3,489.00	\$ 3,489.00	\$ 2,267.00	\$ 2,267.00	\$ 4,000.00	\$ 4,000.00	\$ 4,200.00	\$ 4,200.00	

A.2		SUB-TOTAL, SUBSECTION A.2 - 131-02 DW SITE PREPARATION				\$	3,951.00
131-05 DW MAINLINE PIPE							
009	131-05	Furnish and Install 12" PVC Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the	3,719	LF	\$	72.25	\$ 268,697.75
A.3		SUB-TOTAL, SUBSECTION A.3 - 131-05 DW MAINLINE PIPE				\$	268,697.75
131-15 DW GATE/BFV VALVES							
010	131-15	Furnish and Install 12" Butterfly Valve, Cl. 150B, Fig'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	9	EA	\$	5,183.33	\$ 46,650.00
A.4		SUB-TOTAL, SUBSECTION A.4 - 131-15 DW GATE/BFV VALVES				\$	46,650.00
131-20 DW BLOW OFF ASSEMBLIES							
011	131-20	Furnish and Install 2" Air Vac Assembly, Case 3, Per IRWD Std. W-11, including 1 Raise, Complete	6	EA	\$	5,800.00	\$ 34,800.00
A.5		SUB-TOTAL, SUBSECTION A.5 - 131-20 DW BLOW OFF ASSEMBLIES				\$	34,800.00
131-95 DW SYSTEM ACCEPTANCE							
012	131-95	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	15	EA	\$	558.33	\$ 8,375.00
A.6		SUB-TOTAL, SUBSECTION A.6 - 131-95 DW SYSTEM ACCEPTANCE				\$	8,375.00
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)							
			QTY	UNIT	UNIT PRICE	AMOUNT	
					\$	\$	
					\$	\$	
					\$	\$	
					\$	\$	
A.7		SUB-TOTAL, SUBSECTION A.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)				\$	-
A		TOTAL MARINE WAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7388 CONTRACT PRICE SCHEDULE.....				\$	384,692.50

\$		2,517.00
\$	83.75	\$ 311,466.25
\$		311,466.25
\$	4,100.00	\$ 36,900.00
\$		36,900.00
\$	5,000.00	\$ 30,000.00
\$		30,000.00
\$	500.00	\$ 7,500.00
\$		7,500.00
UNIT PRICE		AMOUNT
\$	-	\$ -
\$	-	\$ -
\$	-	\$ -
\$	-	\$ -
\$	-	\$ -
\$		-
\$		403,468.25

\$		5,500.00
\$	88.00	\$ 327,272.00
\$		327,272.00
\$	5,350.00	\$ 48,150.00
\$		48,150.00
\$	5,400.00	\$ 32,400.00
\$		32,400.00
\$	650.00	\$ 9,750.00
\$		9,750.00
UNIT PRICE		AMOUNT
\$	-	\$ -
\$	-	\$ -
\$	-	\$ -
\$	-	\$ -
\$	-	\$ -
\$		-
\$		460,572.00

\$		5,700.00
\$	45.00	\$ 167,355.00
\$		167,355.00
\$	6,100.00	\$ 54,900.00
\$		54,900.00
\$	7,000.00	\$ 42,000.00
\$		42,000.00
\$	525.00	\$ 7,875.00
\$		7,875.00
UNIT PRICE		AMOUNT
\$	-	\$ -
\$	-	\$ -
\$	-	\$ -
\$	-	\$ -
\$	-	\$ -
\$		-
\$		301,880.00

MARINE WAY RECYCLED WATER IMPROVEMENTS - CAPITAL							
ITEM	CODE	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	
132-01 RW RECYCLED WATER-GENERAL							
013	132-01	Mobilization (Maximum of 2% of Section D)	1	LS	\$ 13,181.17	\$ 13,181.17	
014	132-01	Performance, Labor & Payment Bond	1	LS	\$ 6,590.59	\$ 6,590.59	
015	132-01	Erosion Control - SWPPP & BMP's	1	LS	\$ 4,942.94	\$ 4,942.94	
016	132-01	Development and Application of Construction Water	1	LS	\$ 4,942.94	\$ 4,942.94	
017	132-01	Traffic Control	1	LS	\$ 2,500.00	\$ 2,500.00	
018	132-01	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and Specifications, Complete	1	LS	\$ 6,590.59	\$ 6,590.59	
B.1		SUB-TOTAL, SUBSECTION B.1 - 132-01 RW RECYCLED WATER-GENERAL				\$	38,748.23
132-02 RW SITE PREPARATION							
019	132-02	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS	\$ 462.00	\$ 462.00	
020	132-02	Remove Existing Temporary Flush-out and Join Existing 16" PVC RW Line, Complete	1	EA	\$ 900.00	\$ 900.00	
B.2		SUB-TOTAL, SUBSECTION B.2 - 132-02 RW SITE PREPARATION				\$	1,362.00
132-05 RW MAINLINE PIPE							
021	132-05	Furnish and Install 16" PVC (Purple) Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans, Complete	3,792	LF	\$ 145.83	\$ 553,000.00	
B.3		SUB-TOTAL, SUBSECTION B.3 - 132-05 RW MAINLINE PIPE				\$	553,000.00
131-15 RW GATE/BFV VALVES							
022	131-15	Furnish and Install 6" Resilient Gate Valve, Cl. 150, Fig'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	6	EA	\$ 2,091.67	\$ 12,550.00	
023	131-15	Furnish and Install 6" Butterfly Valve, Cl. 150B, Fig'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	3	EA	\$ 3,158.33	\$ 9,475.00	
024	131-15	Furnish and Install 16" Butterfly Valve, Cl. 150, Fig'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	4	EA	\$ 7,516.67	\$ 30,066.67	
B.4		SUB-TOTAL, SUBSECTION B.4 - 131-15 RW GATE/BFV VALVES				\$	52,091.67
132-30 RW FIRE HYDRANTS							
025	132-30	Furnish and Install Water Wharf Hydrant, Condition 2, With 6" x 4" D.I. Eccentric Reducer (Invert Flat), FEXFE, and per IRWD Std. W-9, including Initial Can Raise, Complete	1	EA	\$ 9,356.33	\$ 9,356.33	
B.5		SUB-TOTAL, SUBSECTION B.5 - 132-30 RW FIRE HYDRANTS				\$	9,356.33
132-20 RW BLOW OFF ASSEMBLIES							
026	132-20	Furnish and Install 2" Air Vac Assembly, Case 3, Per IRWD Std. W-11 and Per Detail on Plan, including 1 Raise, Complete	4	EA	\$ 8,299.67	\$ 33,198.67	
B.6		SUB-TOTAL, SUBSECTION B.6 - 132-20 RW BLOW OFF ASSEMBLIES				\$	33,198.67
132-95 RW SYSTEM ACCEPTANCE							
027	132-95	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	18	EA	\$ 558.33	\$ 10,050.00	
B.7		SUB-TOTAL, SUBSECTION B.7 - 132-95 RW SYSTEM ACCEPTANCE				\$	10,050.00
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)							
			QTY	UNIT	UNIT PRICE	AMOUNT	
					\$	\$	
					\$	\$	

UNIT PRICE		AMOUNT
\$	1,250.00	\$ 1,250.00
\$	9,350.00	\$ 9,350.00
\$	250.00	\$ 250.00
\$	250.00	\$ 250.00
\$	250.00	\$ 250.00
\$	5,750.00	\$ 5,750.00
\$		17,100.00
\$	143.50	\$ 544,152.00
\$		544,152.00
\$	1,575.00	\$ 9,450.00
\$	2,875.00	\$ 8,625.00
\$	5,000.00	\$ 20,000.00
\$		38,075.00
\$	12,069.00	\$ 12,069.00
\$		12,069.00
\$	10,199.00	\$ 40,796.00
\$		40,796.00
\$	500.00	\$ 9,000.00
\$		9,000.00
UNIT PRICE		AMOUNT
\$	-	\$ -
\$	-	\$ -

UNIT PRICE		AMOUNT
\$	11,500.00	\$ 11,500.00
\$	9,500.00	\$ 9,500.00
\$	4,500.00	\$ 4,500.00
\$	2,500.00	\$ 2,500.00
\$	4,000.00	\$ 4,000.00
\$	10,000.00	\$ 10,000.00
\$		42,000.00
\$	124.00	\$ 470,208.00
\$		470,208.00
\$	2,100.00	\$ 12,600.00
\$	2,600.00	\$ 7,800.00
\$	8,150.00	\$ 32,600.00
\$		53,000.00
\$	8,200.00	\$ 8,200.00
\$		8,200.00
\$	5,600.00	\$ 22,400.00
\$		22,400.00
\$	650.00	\$ 11,700.00
\$		11,700.00
UNIT PRICE		AMOUNT
\$	-	\$ -
\$	-	\$ -

AMOUNT		
\$	15,500.00	
\$	5,000.00	
\$	2,500.00	
\$	2,500.00	
\$	250.00	
\$	7,000.00	
\$		32,750.00
\$	1,500.00	
\$	5,000.00	
\$		6,500.00
\$	170.00	
\$		644,640.00
\$	2,600.00	
\$	4,000.00	
\$	9,400.00	
\$		65,200.00
\$	7,800.00	
\$		7,800.00
\$	9,100.00	
\$		36,400.00
\$	525.00	
\$		9,450.00
UNIT PRICE		AMOUNT
\$	-	
\$	-	

C.7	SUB-TOTAL, SUBSECTION C.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$	-	\$	-	\$	-	\$	-
C	TOTAL BAKE PARKWAY DOMESTIC WATER IMPROVEMENTS - CAPITAL 7607 CONTRACT PRICE SCHEDULE.....	\$	435,093.03	\$	457,278.60	\$	495,775.00	\$	462,390.00

EXHIBIT "E"

OWNER: Heritage Fields El Toro, LLC Project GP-5 - IRWD Capital Wet Utility Improvements Bid Date: November 30, 2021
 IRWD CODE: 7740

GP-5 - WET IMPROVEMENTS

ITEM NO.	IRWD CODE 7740 12" SANITARY SEWER	UNIT	QTY
001	Mobilization (Maximum of 2% of Section A)	4	LS
002	Performance, Labor & Payment Bond	1	LS
003	Erosion Control - SWPPP & BMP's	1	LS
004	Development and Application of Construction Water	4	LS
005	Traffic Control	1	LS
006	Air Test and Video Pipeline Per IRWD Standards & Specifications, Complete	1	LS
007	Clearing and Grubbing (All Vegetation Within the Project Site)	4	LS
008	Remove Existing Temporary Cleanout and Join Existing Pipe, Complete	1	EA
009	Remove Existing Sewer Plug and Join Existing Pipe, Complete	1	EA
010	Join Existing Casing and Match Size, Welding Method of New Casing Requires IRWD Inspection, Contractor to Perform Work Effort for Connection, per IRWD Inspection for Both Casing and Sewer, Complete	1	EA
011	Relocate Anode Behind New Curb, per IRWD Inspector, Complete	2	EA
012	Sawcut and Remove Existing AC Pavement, Dispose of Pavement in CFD Stockpile within 4 Miles of Project, Complete	71	LF
013	Replace Existing AC Pavement Per City Std. 223, Alt "A", Complete	71	LF
014	Furnish and Install 12" PVC (Green), C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S 6, Depth = 15' 20', Complete	202	LF
015	Furnish and Install 12" PVC (Green), C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S 6, Depth = 20' 25', Complete	1,398	LF
016	Furnish and Install 12" PVC (Green), C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S 6, Depth = 25' 30', Complete	302	LF
017	Install 18" PVC (Green), [Pre-Ordered Pipe provided by Owner] C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S 6, Depth = 15' 20', Complete	66	LF
018	Furnish and Install 29.5" O.D. Steel Casing with CPTS at Each End, per IRWD Std. DWGS. S 7 & CP 3, Depth = 16' 17', Complete	62	LF
019	Furnish and Install 12" PVC (Green), C900, DR 18, Sewer Pipe Within Existing 29.5" O.D. Steel Casing, including Casing and End Seals per IRWD Std. Dwg. S 7, Depth = 23' 25', Complete	80	LF
020	ALTERNATE: Construct Jack and Bore Pits per Plan, including Engineering, Permits, Excavation, Shoring, Backfill, Compaction, Temporary Safety and Security Fence (For Pit and Work Area), and Any Other Appurtenant Work, Complete	2	EA
021	ALTERNATE: Furnish and Install 29.5" O.D. Steel Casing per IRWD Std. Dwg. W 21 (Jack & Bore), Depth = 23' 25', Complete	80	EA
022	ALTERNATE: Jack and Bore 18" PVC (Green), C900, DR 14, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S 6, Depth = 23' 25', Complete	80	EA
023	Furnish and Install Casing Test Station, per IRWD Std. DWG. S 7, Complete	4	EA
024	Construct 60" DIA. Manhole per IRWD Std. DWG. S 1 including 1 Raise, Depth = 15' 20', Complete	2	EA
025	Construct 60" DIA. Manhole With Modified Base per IRWD Std. DWG. S 1 and Per Detail on Plan, including 1 Raise, Depth = 20' 25', Complete	4	EA
026	Construct 72" DIA. Manhole With Modified Base per IRWD Std. DWG. S 1 and Per Detail on Plan, including 1 Raise, Depth = 20' 25', Complete	1	EA
027	Construct 72" DIA. Manhole With Modified Base per IRWD Std. DWG. S 1 and Per Detail on Plan, including 1 Raise, Depth = >25', Complete	1	EA
028	Furnish & Install Temporary 8" Terminal Cleanout Per IRWD Std. S 5, Including 1 Raise to Grade, Complete	1	EA
029	Raise Manhole to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	8	EA

ENGINEER ESTIMATE		FYDAQ - LOW Attn: Greg Huntley Tel: 714.447.9760		L&S Attn: Elton Welham Tel: 714.528.3232	
PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
\$ 13,089.80	\$ 13,089.80	\$ 1,665.00	\$ 1,665.00	\$ 15,500.00	\$ 15,500.00
\$ 9,162.86	\$ 9,162.86	\$ 3,550.00	\$ 3,550.00	\$ 11,400.00	\$ 11,400.00
\$ 6,414.00	\$ 6,414.00	\$ 325.00	\$ 325.00	\$ 1,750.00	\$ 1,750.00
\$ 3,207.00	\$ 3,207.00	\$ 325.00	\$ 325.00	\$ 1,060.00	\$ 1,060.00
\$ 1,603.60	\$ 1,603.60	\$ 1,000.00	\$ 1,000.00	\$ 300.00	\$ 300.00
\$ 10,240.00	\$ 10,240.00	\$ 5,638.00	\$ 5,638.00	\$ 6,200.00	\$ 6,200.00
\$ 1,000.00	\$ 1,000.00	\$ 325.00	\$ 325.00	\$ 750.00	\$ 750.00
\$ 5,000.00	\$ 5,000.00	\$ 3,832.00	\$ 3,832.00	\$ 4,000.00	\$ 4,000.00
\$ 3,500.00	\$ 3,500.00	\$	\$	\$ 3,200.00	\$ 3,200.00
\$ 2,000.00	\$ 2,000.00	\$ 1,065.00	\$ 1,065.00	\$ 3,200.00	\$ 3,200.00
\$ 2,000.00	\$ 4,000.00	\$ 4,358.00	\$ 8,716.00	\$ 4,200.00	\$ 8,400.00
\$ 50.00	\$ 3,550.00	\$ 47.25	\$ 3,354.75	\$ 35.00	\$ 2,485.00
\$ 100.00	\$ 7,100.00	\$ 157.00	\$ 11,147.00	\$ 75.00	\$ 5,325.00
\$ 200.00	\$ 40,400.00	\$ 104.50	\$ 21,109.00	\$ 180.00	\$ 36,360.00
\$ 225.00	\$ 314,550.00	\$ 100.00	\$ 139,900.00	\$ 225.00	\$ 314,550.00
\$ 250.00	\$ 75,500.00	\$ 133.25	\$ 40,241.50	\$ 260.00	\$ 78,520.00
\$ 190.00	\$ 12,540.00	\$ 223.75	\$ 14,767.50	\$ 360.00	\$ 23,760.00
\$ 425.00	\$ 26,350.00	\$ 406.25	\$ 25,187.50	\$ 560.00	\$ 34,720.00
\$ 175.00	\$ 14,000.00	\$ 189.50	\$ 15,160.00	\$ 205.00	\$ 16,400.00
\$	\$	\$	\$	\$	\$
\$	\$	\$	\$	\$	\$
\$	\$	\$	\$	\$	\$
\$ 2,750.00	\$ 11,000.00	\$ 3,925.00	\$ 15,700.00	\$ 2,450.00	\$ 9,800.00
\$ 10,500.00	\$ 21,000.00	\$ 9,593.00	\$ 19,186.00	\$ 13,500.00	\$ 27,000.00
\$ 15,000.00	\$ 60,000.00	\$ 14,548.00	\$ 58,192.00	\$ 18,000.00	\$ 72,000.00
\$ 21,000.00	\$ 21,000.00	\$ 19,802.00	\$ 19,802.00	\$ 25,500.00	\$ 25,500.00
\$ 25,000.00	\$ 25,000.00	\$ 21,062.00	\$ 21,062.00	\$ 27,050.00	\$ 27,050.00
\$ 2,000.00	\$ 2,000.00	\$ 2,875.00	\$ 2,875.00	\$ 1,350.00	\$ 1,350.00
\$ 625.00	\$ 5,000.00	\$ 525.00	\$ 4,200.00	\$ 840.00	\$ 6,720.00
\$	\$ 698,207.16	\$	\$ 438,226.25	\$	\$ 737,300.00

ENGINEER ESTIMATE		FYDAQ - LOW Attn: Greg Huntley Tel: 714.447.9760		L&S Attn: Elton Welham Tel: 714.528.3232	
PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
\$ 4,581.88	\$ 4,581.88	\$ 1,665.00	\$ 1,665.00	\$ 3,300.00	\$ 3,300.00
\$ 3,207.32	\$ 3,207.32	\$ 3,550.00	\$ 3,550.00	\$ 3,000.00	\$ 3,000.00
\$ 3,207.32	\$ 3,207.32	\$ 325.00	\$ 325.00	\$ 1,500.00	\$ 1,500.00
\$ 1,603.66	\$ 1,603.66	\$ 325.00	\$ 325.00	\$ 700.00	\$ 700.00
\$ 1,603.66	\$ 1,603.66	\$ 325.00	\$ 325.00	\$ 300.00	\$ 300.00
\$ 2,760.00	\$ 2,760.00	\$ 4,490.00	\$ 4,490.00	\$ 3,500.00	\$ 3,500.00
\$ 500.00	\$ 500.00	\$ 325.00	\$ 325.00	\$ 410.00	\$ 410.00
\$ 3,500.00	\$ 3,500.00	\$ 2,765.00	\$ 2,765.00	\$ 4,600.00	\$ 4,600.00
\$ 83.75	\$ 188,437.50	\$ 82.50	\$ 185,625.00	\$ 62.00	\$ 139,500.00

ITEM NO.	IRWD CODE 7740 DOMESTIC WATER	UNIT	QTY
030	Mobilization (Maximum of 2% of Section C)	1	LS
031	Performance, Labor & Payment Bond	1	LS
032	Erosion Control - SWPPP & BMP's	1	LS
033	Development and Application of Construction Water	1	LS
034	Traffic Control	1	LS
035	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and	1	LS
036	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS
037	Remove Existing Temporary Flush-out and Join Existing 12" Pipe, Complete	1	EA
038	Furnish and Install 12" PVC Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans, Complete	2,250	LF

<u>Leatherwood</u>		<u>KEC</u>	
Attn: Bobby Kawai Tel: 714.593.6575		Attn: Khoi Khai Tel: 951.734.3010	
PRICE	AMOUNT	PRICE	AMOUNT
\$ 17,000.00	\$ 17,000.00	-\$ 2,000.00	\$ 2,000.00
-\$ 6,500.00	-\$ 6,500.00	-\$ 21,000.00	-\$ 21,000.00
-\$ 2,000.00	-\$ 2,000.00	-\$ 7,000.00	-\$ 7,000.00
-\$ 2,500.00	-\$ 2,500.00	-\$ 6,500.00	-\$ 6,500.00
-\$ 18,000.00	-\$ 18,000.00	-\$ 7,000.00	-\$ 7,000.00
-\$ 3,000.00	-\$ 3,000.00	-\$ 38,000.00	-\$ 38,000.00
-\$ 10,000.00	-\$ 10,000.00	-\$ 5,000.00	-\$ 5,000.00
-\$ 6,900.00	-\$ 6,900.00	-\$ 7,500.00	-\$ 7,500.00
-\$ 6,900.00	-\$ 6,900.00	-\$ 6,800.00	-\$ 6,800.00
-\$ 6,500.00	-\$ 6,500.00	-\$ 12,500.00	-\$ 12,500.00
-\$ 15,600.00	-\$ 31,200.00	-\$ 14,000.00	-\$ 28,000.00
-\$ 100.00	-\$ 7,100.00	-\$ 735.00	-\$ 52,185.00
-\$ 140.00	-\$ 9,940.00	-\$ 1,800.00	-\$ 127,800.00
-\$ 215.00	-\$ 43,430.00	-\$ 690.00	-\$ 139,380.00
-\$ 230.00	-\$ 321,540.00	-\$ 435.00	-\$ 608,130.00
-\$ 385.00	-\$ 116,270.00	-\$ 505.00	-\$ 152,510.00
-\$ 105.00	-\$ 6,930.00	-\$ 730.00	-\$ 48,180.00
-\$ 700.00	-\$ 43,400.00	-\$ 2,750.00	-\$ 170,500.00
-\$ 935.00	-\$ 74,800.00	-\$ 1,750.00	-\$ 140,000.00
-\$	-\$	-\$	-\$
-\$	-\$	-\$	-\$
-\$	-\$	-\$	-\$
-\$ 2,600.00	-\$ 10,400.00	-\$ 35,000.00	-\$ 140,000.00
-\$ 9,700.00	-\$ 19,400.00	-\$ 78,500.00	-\$ 157,000.00
-\$ 14,300.00	-\$ 57,200.00	-\$ 67,500.00	-\$ 270,000.00
-\$ 21,400.00	-\$ 21,400.00	-\$ 95,500.00	-\$ 95,500.00
-\$ 22,500.00	-\$ 22,500.00	-\$ 104,000.00	-\$ 104,000.00
-\$ 3,100.00	-\$ 3,100.00	-\$ 10,000.00	-\$ 10,000.00
-\$ 790.00	-\$ 5,600.00	-\$ 2,000.00	-\$ 16,000.00
	\$ 873,510.00		\$ 2,372,485.00

<u>Leatherwood</u>		<u>KEC</u>	
Attn: Bobby Kawai Tel: 714.593.6575		Attn: Khoi Khai Tel: 951.734.3010	
PRICE	AMOUNT	PRICE	AMOUNT
\$ 7,400.00	\$ 7,400.00	\$ 2,000.00	\$ 2,000.00
\$ 6,500.00	\$ 6,500.00	\$ 9,000.00	\$ 9,000.00
\$ 2,000.00	\$ 2,000.00	\$ 7,000.00	\$ 7,000.00
\$ 2,500.00	\$ 2,500.00	\$ 6,500.00	\$ 6,500.00
\$ 500.00	\$ 500.00	\$ 7,000.00	\$ 7,000.00
\$ 16,000.00	\$ 16,000.00	\$ 57,500.00	\$ 57,500.00
\$ 10,000.00	\$ 10,000.00	\$ 5,000.00	\$ 5,000.00
\$ 4,200.00	\$ 4,200.00	\$ 4,500.00	\$ 4,500.00
\$ 125.00	\$ 281,250.00	\$ 230.00	\$ 517,500.00

GP-5 - WET IMPROVEMENTS

039	Furnish and Install 12" Butterfly Valve, Cl. 250B, Flg'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	2	EA
040	Furnish and Install 4" Blow-Off Assembly, Case 3, per IRWD Std. W-14, Complete	1	EA
041	Furnish and Install Temporary Flush-Out Assembly per IRWD Std. W-12, including 1 Raise, Complete	2	EA
042	Furnish and Install 2" Air-Vac Assembly, Case 3, per IRWD Std. W-11, Complete	1	EA
043	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	9	EA

A SUBTOTAL IRWD CAPITAL CODE 7740 DOMESTIC WATER IMPROVEMENTS

ENGINEER ESTIMATE		FYDAQ - LOW Attn: Greg Huntley		L&S Attn: Elton Welham	
\$ 5,183.33	\$ 10,366.66	\$ 4,230.00	\$ 8,460.00	\$ 5,300.00	\$ 10,600.00
\$ 11,855.00	\$ 11,855.00	\$ 14,454.00	\$ 14,454.00	\$ 18,900.00	\$ 18,900.00
\$ 1,805.00	\$ 3,610.00	\$ 1,917.00	\$ 3,834.00	\$ 2,150.00	\$ 4,300.00
\$ 5,800.00	\$ 5,800.00	\$ 5,732.00	\$ 5,732.00	\$ 6,800.00	\$ 6,800.00
\$ 558.33	\$ 5,024.97	\$ 475.00	\$ 4,275.00	\$ 600.00	\$ 5,400.00
	\$ 246,057.97		\$ 236,150.00		\$ 202,810.00

ITEM NO.	IRWD CODE 7740 RECYCLED WATER	UNIT	QTY
044	Mobilization (Maximum of 2% of Section D)	1	LS
045	Performance, Labor & Payment Bond	1	LS
046	Erosion Control - SWPPP & BMP's	1	LS
047	Development and Application of Construction Water	1	LS
048	Traffic Control	1	LS
049	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and	1	LS
050	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS
051	Remove Existing Flange/Thrust Block and Connect to Existing Recycled Waterline, Complete	1	EA
052	Furnish and Install 8" PVC Purple Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans, Complete	2,195	LF
053	Furnish and Install 2" Copper Service & Meter Box for Future 2" Meter (Meter Purchased by Others) per IRWD Std W-2, Complete	3	EA
054	Furnish and Install 4" Blow-Off Assembly, Case 3, per IRWD Std. W-14, Complete	1	EA
055	Furnish and Install 2" Air-Vac Assembly, Case 3, per IRWD Std. W-11, Complete	1	EA
056	Furnish and Install Temporary Flush-Out Assembly per IRWD Std. W-12, including 1 Raise, Complete	1	EA
057	Furnish and Install TFO Marker, Complete	1	EA
058	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	3	EA

A SUBTOTAL IRWD CAPITAL CODE 7740 RECYCLED WATER IMPROVEMENTS

ENGINEER ESTIMATE		FYDAQ - LOW Attn: Greg Huntley Tel: 714.447.9760		L&S Attn: Elton Welham Tel: 714.528.3232	
PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
\$ 3,371.72	\$ 3,371.72	\$ 1,665.00	\$ 1,665.00	\$ 1,550.00	\$ 1,550.00
\$ 2,360.20	\$ 2,360.20	\$ 3,550.00	\$ 3,550.00	\$ 1,500.00	\$ 1,500.00
\$ 2,360.20	\$ 2,360.20	\$ 325.00	\$ 325.00	\$ 1,000.00	\$ 1,000.00
\$ 1,180.10	\$ 1,180.10	\$ 325.00	\$ 325.00	\$ 600.00	\$ 600.00
\$ 1,180.10	\$ 1,180.10	\$ 325.00	\$ 325.00	\$ 300.00	\$ 300.00
\$ 2,500.00	\$ 2,500.00	\$ 3,245.00	\$ 3,245.00	\$ 2,100.00	\$ 2,100.00
\$ 500.00	\$ 500.00	\$ 325.00	\$ 325.00	\$ 410.00	\$ 410.00
\$ 2,500.00	\$ 2,500.00	\$ 2,770.00	\$ 2,770.00	\$ 3,250.00	\$ 3,250.00
\$ 60.00	\$ 131,700.00	\$ 58.00	\$ 127,310.00	\$ 60.00	\$ 131,700.00
\$ 4,142.00	\$ 12,426.00	\$ 4,915.00	\$ 14,745.00	\$ 5,800.00	\$ 17,400.00
\$ 11,855.00	\$ 11,855.00	\$ 12,929.00	\$ 12,929.00	\$ 17,900.00	\$ 17,900.00
\$ 5,800.00	\$ 5,800.00	\$ 5,532.00	\$ 5,532.00	\$ 6,800.00	\$ 6,800.00
\$ 1,805.00	\$ 1,805.00	\$ 2,530.00	\$ 2,530.00	\$ 2,150.00	\$ 2,150.00
\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 180.00	\$ 180.00
\$ 500.00	\$ 1,500.00	\$ 475.00	\$ 1,425.00	\$ 600.00	\$ 1,800.00
	\$ 181,538.33		\$ 177,501.00		\$ 188,640.00

ITEM NO.	IRWD CODE 7740 18" SANITARY SEWER	UNIT	QTY
059	Mobilization (Maximum of 2% of Section A)	1	LS
060	Performance, Labor & Payment Bond	1	LS
064	Erosion Control - SWPPP & BMP's	4	LS
062	Development and Application of Construction Water	4	LS
063	Traffic Control	1	LS
064	Air Test and Video Pipeline Per IRWD Standards & Specifications, Complete	4	LS
065	Clearing and Grubbing (All Vegetation Within the Project Site)	4	LS
066	Remove Existing Temporary Cleanout and Join Existing Pipe, Complete	1	EA
067	Remove Existing Sewer Plug and Join Existing Pipe, Complete	4	EA
068	Join Existing Casing and Match Size, Welding Method of New Casing Requires IRWD Inspection, Contractor to Perform Work Effort for Connection, per IRWD Inspection for Both Casing and Sewer, Complete	4	EA
069	Relocate Anode Behind New Curb, per IRWD Inspector, Complete	2	EA
070	Sawcut and Remove Existing AC Pavement, Dispose of Pavement in CFD Stockpile within 4 Miles of Project, Complete	74	LF
074	Replace Existing AC Pavement Per City Std. 223, Alt "A", Complete	74	LF
072	Furnish and Install 18" PVC (Green), C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S-6, Depth - 16'-20', Complete	268	LF
073	Furnish and Install 18" PVC (Green), C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S-6, Depth - 20'-25', Complete	898	LF
074	Install 18" PVC (Green), [Pre-Ordered Pipe provided by Owner] C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S-6, Depth - 20'-25', Complete	500	LF
075	Furnish and Install 18" PVC (Green), C900, DR 18, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S-6, Depth - 25'-30', Complete	302	LF

ENGINEER ESTIMATE		FYDAQ - LOW Attn: Greg Huntley Tel: 714.447.9760		L&S Attn: Elton Welham Tel: 714.528.3232	
PRICE	AMOUNT	PRICE	AMOUNT	PRICE	AMOUNT
\$ 11,688.60	\$ 11,688.60	\$ 1,665.00	\$ 1,665.00	\$ 15,500.00	\$ 15,500.00
\$ 8,182.02	\$ 8,182.02	\$ 3,550.00	\$ 3,550.00	\$ 11,400.00	\$ 11,400.00
\$ 8,182.02	\$ 8,182.02	\$ 325.00	\$ 325.00	\$ 1,750.00	\$ 1,750.00
\$ 4,091.01	\$ 4,091.01	\$ 325.00	\$ 325.00	\$ 1,060.00	\$ 1,060.00
\$ 4,091.01	\$ 4,091.01	\$ 1,000.00	\$ 1,000.00	\$ 300.00	\$ 300.00
\$ 2,500.00	\$ 2,500.00	\$ 5,638.00	\$ 5,638.00	\$ 6,200.00	\$ 6,200.00
\$ 1,000.00	\$ 1,000.00	\$ 325.00	\$ 325.00	\$ 750.00	\$ 750.00
\$ 5,000.00	\$ 5,000.00	\$ 3,832.00	\$ 3,832.00	\$ 4,000.00	\$ 4,000.00
\$ 3,500.00	\$ 3,500.00	\$	\$	\$ 3,200.00	\$ 3,200.00
\$ 2,000.00	\$ 2,000.00	\$ 1,065.00	\$ 1,065.00	\$ 3,200.00	\$ 3,200.00
\$ 2,000.00	\$ 4,000.00	\$ 4,358.00	\$ 8,716.00	\$ 4,200.00	\$ 8,400.00
\$ 50.00	\$ 3,550.00	\$ 47.25	\$ 3,354.75	\$ 35.00	\$ 2,485.00
\$ 100.00	\$ 7,100.00	\$ 157.00	\$ 11,147.00	\$ 75.00	\$ 5,325.00
\$ 185.00	\$ 49,580.00	\$ 163.50	\$ 43,818.00	\$ 300.00	\$ 80,400.00
\$ 200.00	\$ 179,600.00	\$ 162.60	\$ 146,014.80	\$ 295.00	\$ 264,910.00
\$ 150.00	\$ 75,000.00	\$ 45.85	\$ 22,925.00	\$ 200.00	\$ 100,000.00
\$ 225.00	\$ 67,950.00	\$ 172.00	\$ 51,944.00	\$ 332.00	\$ 100,264.00

Leatherwood		KEC	
<i>Attn: Bobby Kawai</i>		<i>Attn: Khoi Khai</i>	
\$ 7,000.00	\$ 14,000.00	\$ 23,800.00	\$ 47,600.00
\$ 14,500.00	\$ 14,500.00	\$ 29,700.00	\$ 29,700.00
\$ 3,000.00	\$ 6,000.00	\$ 9,700.00	\$ 19,400.00
\$ 10,000.00	\$ 10,000.00	\$ 20,800.00	\$ 20,800.00
\$ 525.00	\$ 4,725.00	\$ 2,000.00	\$ 18,000.00
	\$ 379,575.00		\$ 751,500.00

Leatherwood		KEC	
<i>Attn: Bobby Kawai</i>		<i>Attn: Khoi Khai</i>	
<i>Tel: 714.593.6575</i>		<i>Tel: 951.734.3010</i>	
PRICE	AMOUNT	PRICE	AMOUNT
\$ 5,500.00	\$ 5,500.00	\$ 2,000.00	\$ 2,000.00
\$ 6,500.00	\$ 6,500.00	\$ 8,000.00	\$ 8,000.00
\$ 2,000.00	\$ 2,000.00	\$ 7,000.00	\$ 7,000.00
\$ 2,500.00	\$ 2,500.00	\$ 6,500.00	\$ 6,500.00
\$ 500.00	\$ 500.00	\$ 7,000.00	\$ 7,000.00
\$ 6,200.00	\$ 6,200.00	\$ 57,500.00	\$ 57,500.00
\$ 3,500.00	\$ 3,500.00	\$ 5,000.00	\$ 5,000.00
\$ 4,500.00	\$ 4,500.00	\$ 10,000.00	\$ 10,000.00
\$ 90.00	\$ 197,550.00	\$ 190.00	\$ 417,050.00
\$ 5,800.00	\$ 17,400.00	\$ 14,000.00	\$ 42,000.00
\$ 14,000.00	\$ 14,000.00	\$ 27,000.00	\$ 27,000.00
\$ 10,200.00	\$ 10,200.00	\$ 21,000.00	\$ 21,000.00
\$ 3,000.00	\$ 3,000.00	\$ 9,500.00	\$ 9,500.00
\$ 250.00	\$ 250.00	\$ 4,000.00	\$ 4,000.00
\$ 525.00	\$ 1,575.00	\$ 2,000.00	\$ 6,000.00
	\$ 275,175.00		\$ 629,550.00

Leatherwood		KEC	
<i>Attn: Bobby Kawai</i>		<i>Attn: Khoi Khai</i>	
<i>Tel: 714.593.6575</i>		<i>Tel: 951.734.3010</i>	
PRICE	AMOUNT	PRICE	AMOUNT
\$ 20,000.00	\$ 20,000.00	\$ 2,000.00	\$ 2,000.00
\$ 7,500.00	\$ 7,500.00	\$ 21,000.00	\$ 21,000.00
\$ 2,000.00	\$ 2,000.00	\$ 7,000.00	\$ 7,000.00
\$ 2,500.00	\$ 2,500.00	\$ 6,500.00	\$ 6,500.00
\$ 18,000.00	\$ 18,000.00	\$ 7,000.00	\$ 7,000.00
\$ 3,000.00	\$ 3,000.00	\$ 38,000.00	\$ 38,000.00
\$ 10,000.00	\$ 10,000.00	\$ 5,000.00	\$ 5,000.00
\$ 6,900.00	\$ 6,900.00	\$ 7,500.00	\$ 7,500.00
\$ 6,900.00	\$ 6,900.00	\$ 6,800.00	\$ 6,800.00
\$ 6,500.00	\$ 6,500.00	\$ 12,500.00	\$ 12,500.00
\$ 15,600.00	\$ 31,200.00	\$ 14,000.00	\$ 28,000.00
\$ 100.00	\$ 7,100.00	\$ 735.00	\$ 52,185.00
\$ 140.00	\$ 9,940.00	\$ 1,800.00	\$ 127,800.00
\$ 275.00	\$ 73,700.00	\$ 680.00	\$ 182,240.00
\$ 340.00	\$ 305,320.00	\$ 495.00	\$ 444,510.00
\$ 160.00	\$ 80,000.00	\$ 615.00	\$ 307,500.00
\$ 500.00	\$ 151,000.00	\$ 740.00	\$ 223,480.00

GP-5 - WET IMPROVEMENTS

076	Furnish and Install 29.5" O.D. Steel Casing with CPTS at Each End, per IRWD Std. DWGS. S 7 & CP 3, Depth=15'-17', Complete-	62	LF
077	Furnish and Install 18" PVC (Green), C900, DR 18, Sewer Pipe Within Existing 29.5" O.D. Steel Casing, including Casing and End Seals per IRWD Std. Dwg. S 7, Depth= 23'-25', Complete-	80	LF
078	ALTERNATE: Construct Jack and Bore Pits per Plan, including Engineering, Permits, Excavation, Shoring, Backfill, Compaction, Temporary Safety and Security Fence (For Pit and Work Area), and Any Other Appurtenant Work, Complete	2	EA
079	ALTERNATE: Furnish and Install 29.5" O.D. Steel Casing per IRWD Std. Dwg. W 24 (Jack & Bore), Depth= 23'-25', Complete	80	EA
080	ALTERNATE: Jack and Bore 18" PVC (Green), C900, DR 14, Sewer Pipe with Sewer Indicator Tape, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S 6, Depth = 23'-25', Complete-	80	EA
084	Furnish and Install Casing Test Station, per IRWD Std. DWG. S 7, Complete-	4	EA
082	Construct 60" DIA. Manhole per IRWD Std. DWG. S 1 including 1 Raise, Depth = 15'-20', Complete-	2	EA
083	Construct 60" DIA. Manhole With Modified Base per IRWD Std. DWG. S 1 and Per Detail on Plan, including 1 Raise, Depth = 20'-25', Complete	4	EA
084	Construct 72" DIA. Manhole With Modified Base per IRWD Std. DWG. S 1 and Per Detail on Plan, including 1 Raise, Depth = 20'-25', Complete	1	EA
085	Construct 72" DIA. Manhole With Modified Base per IRWD Std. DWG. S 1 and Per Detail on Plan, including 1 Raise, Depth = >25', Complete	4	EA
086	Furnish & Install Temporary 8" Terminal Cleanout Per IRWD Std. S 5, Including 1 Raise to Grade, Complete-	4	EA
087	Raise Manhole to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	8	EA

ENGINEER ESTIMATE		FYDAQ - LOW Attn: Greg Huntley		L&S Attn: Elton Welham	
\$ 425.00-	\$ 26,350.00-	\$ 406.25-	\$ 25,187.50-	\$ 560.00-	\$ 34,720.00-
\$ 185.00-	\$ 14,800.00-	\$ 268.00-	\$ 21,440.00-	\$ 260.00-	\$ 20,800.00-
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 2,750.00-	\$ 11,000.00-	\$ 3,925.00-	\$ 16,700.00-	\$ 2,450.00-	\$ 9,800.00-
\$ 10,500.00-	\$ 24,000.00-	\$ 9,593.00-	\$ 19,186.00-	\$ 13,500.00-	\$ 27,000.00-
\$ 15,000.00-	\$ 60,000.00-	\$ 14,548.00-	\$ 58,192.00-	\$ 18,000.00-	\$ 72,000.00-
\$ 21,000.00-	\$ 21,000.00-	\$ 19,802.00-	\$ 19,802.00-	\$ 25,500.00-	\$ 25,500.00-
\$ 25,000.00-	\$ 25,000.00-	\$ 21,062.00-	\$ 21,062.00-	\$ 27,050.00-	\$ 27,050.00-
\$ 2,000.00-	\$ 2,000.00-	\$ 3,317.00-	\$ 3,317.00-	\$ 1,350.00-	\$ 1,350.00-
\$ 625.00-	\$ 5,000.00-	\$ 525.00-	\$ 4,200.00-	\$ 840.00-	\$ 6,720.00-
\$ -	\$ 623,164.66	\$ -	\$ 493,731.05	\$ -	\$ 834,084.00

A SUBTOTAL IRWD CODE 7740 CAPITAL 18" SEWER IMPROVEMENTS

AMOUNTS READ AT BID OPENING:

	ENGINEER ESTIMATE	FYDAQ - LOW Attn: Greg Huntley Tel: 714.447.9760	L&S Attn: Elton Welham Tel: 714.528.3232
GRAND TOTAL ORANGE COUNTY GREAT PARK GP-5 -WET IMPROVEMENTS - 12"SEWER - CONTRACT PRICE SCHEDULE	\$ 1,125,803.46	\$ 851,876.25	\$ 1,128,750.00
GRAND TOTAL ORANGE COUNTY GREAT PARK GP-5 -WET IMPROVEMENTS - 18"SEWER - CONTRACT PRICE SCHEDULE	\$ 1,050,760.96	\$ 907,382.05	\$ 1,225,534.00
GRAND TOTAL ORANGE COUNTY GREAT PARK GP-5 -WET IMPROVEMENTS - DOMESTIC AND RECYCLED WATER ONLY - CONTRACT PRICE SCHEDULE	\$ 427,596.30	\$ 413,651.00	\$ 391,450.00

Leatherwood <i>Attn: Bobby Kawai</i>		KEC <i>Attn: Khoi Khai</i>	
\$ 700.00	\$ 43,400.00	\$ 2,750.00	\$ 170,500.00
\$ 935.00	\$ 74,800.00	\$ 1,800.00	\$ 144,000.00
\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -
\$ 2,600.00	\$ 10,400.00	\$ 35,000.00	\$ 140,000.00
\$ 10,300.00	\$ 20,600.00	\$ 78,500.00	\$ 157,000.00
\$ 15,100.00	\$ 60,400.00	\$ 67,500.00	\$ 270,000.00
\$ 22,300.00	\$ 22,300.00	\$ 95,500.00	\$ 95,500.00
\$ 23,400.00	\$ 23,400.00	\$ 104,000.00	\$ 104,000.00
\$ 3,100.00	\$ 3,100.00	\$ 10,000.00	\$ 10,000.00
\$ 700.00	\$ 5,600.00	\$ 2,000.00	\$ 16,000.00
	<u>\$ 1,005,560.00</u>		<u>\$ 2,586,015.00</u>

Leatherwood <i>Attn: Bobby Kawai</i> <i>Tel: 714.593.6575</i>	KEC <i>Attn: Khoi Khai</i> <i>Tel: 951.734.3010</i>
<u>\$ 1,528,260.00</u>	<u>\$ 3,753,535.00</u>
<u>\$ 1,660,310.00</u>	<u>\$ 3,967,065.00</u>

<u>\$ 654,750.00</u>	<u>\$ 1,381,050.00</u>
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EXHIBIT F

PROJECT: DISTRICT 5 SOUTH, 6 NORTH
 MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL
 OWNER: Heritage Fields El Toro, LLC

D5 SOUTH CAPITAL IMPS

BID SPREAD

ENGINEER'S ESTIMATE	FYDAQ	L&S	LEATHERWOOD
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D5S6N MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL

PLANNING AREA 51, GREAT PARK NEIGHBORHOODS DISTRICT 5(SOUTH) & 6 (NORTH) - CAPITAL IMPROVEMENTS HARRIER (FROM CHINON TO LYNX) 8" & 12" DOMESTIC WATER (ZONE 3 & 4R) 8", 10", 12", & 15" SANITARY SEWER 4" & 10" RECYCLED WATER (ZONE C) CAPITAL PROJECT NOS. ___ & ___ NON-CAPITAL PROJECT NOS. 11965, 11966 & 11967 IRWD CODE 7808				
A1 12229				
A1.1 SUB-TOTAL, SUBSECTION A1.1 - 130-01 SW SEWER-GENERAL	\$ 21,089.89	\$ 8,373.00	\$ 15,150.00	\$ 24,700.00
A1.2 SUB-TOTAL, SUBSECTION A1.2 - 130-02 SW SITE PREPARATION	\$ 3,500.00	\$ 3,800.00	\$ 7,600.00	\$ 15,000.00
A1.3 SUB-TOTAL, SUBSECTION A1.3 - 130-05 SW MAINLINE	\$ 249,373.00	\$ 296,061.00	\$ 327,460.00	\$ 394,800.00
A1.4 SUB-TOTAL, SUBSECTION A1.4 - 130-10 SW MANHOLES	\$ 82,500.00	\$ 71,270.00	\$ 73,800.00	\$ 95,500.00
A1.5 SUB-TOTAL, SUBSECTION A1.5 - 130-25 SW MANHOLE RAISE	\$ 2,625.00	\$ 2,625.00	\$ 4,250.00	\$ 3,850.00
A1.6 SUB-TOTAL, SUBSECTION A1.6 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$ -	\$ -	\$ -	\$ -
MS 16 - SANITARY SEWER IMPROVEMENTS - CAPITAL - SUB-TOTAL.....	\$ 359,087.89	\$ 382,129.00	\$ 428,260.00	\$ 533,850.00
A2 12228				
A2.1 SUB-TOTAL, SUBSECTION A2.1 - 131-01 DW DOMESTIC WATER-GENERAL	\$ 27,490.69	\$ 14,193.00	\$ 8,590.00	\$ 31,100.00
A2.2 SUB-TOTAL, SUBSECTION A2.2 - 131-02 DW SITE PREPARATION	\$ 7,500.00	\$ 12,150.00	\$ 9,400.00	\$ 21,000.00
A2.3 SUB-TOTAL, SUBSECTION A2.3 - 131-05 DW MAINLINE PIPE	\$ 363,726.25	\$ 466,872.50	\$ 521,160.00	\$ 564,590.00
A2.4 SUB-TOTAL, SUBSECTION A2.4 - 131-15 DW GATE/BFV VALVES	\$ 51,840.00	\$ 43,500.00	\$ 48,000.00	\$ 90,000.00
A2.5 SUB-TOTAL, SUBSECTION A2.5 - 131-20 DW BLOW OFF ASSEMBLIES	\$ 26,810.00	\$ 34,288.00	\$ 47,500.00	\$ 49,000.00
A2.6 SUB-TOTAL, SUBSECTION A2.6 - 131-95 DW SYSTEM ACCEPTANCE	\$ 4,500.00	\$ 4,500.00	\$ 6,750.00	\$ 5,400.00
A2.7 SUB-TOTAL, SUBSECTION A2.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$ -	\$ -	\$ -	\$ -
MS 16 - DOMESTIC WATER IMPROVEMENTS - CAPITAL - SUB-TOTAL.....	\$ 481,866.94	\$ 575,503.50	\$ 641,400.00	\$ 761,090.00
A3 12230				
A3.1 SUB-TOTAL, SUBSECTION A3.1 - 132-01 RW RECYCLED WATER-GENERAL	\$ 18,118.19	\$ 9,967.00	\$ 11,050.00	\$ 24,100.00
A3.2 SUB-TOTAL, SUBSECTION A3.2 - 132-02 RW SITE PREPARATION	\$ 4,000.00	\$ 6,325.00	\$ 4,300.00	\$ 13,000.00
A3.3 SUB-TOTAL, SUBSECTION A3.3 - 132-05 RW MAINLINE PIPE	\$ 251,362.00	\$ 203,607.00	\$ 218,600.00	\$ 326,500.00
A3.4 SUB-TOTAL, SUBSECTION A3.4 - 132-15 RW GATE/BFV VALVES	\$ 13,200.00	\$ 16,800.00	\$ 21,600.00	\$ 34,000.00
A3.5 SUB-TOTAL, SUBSECTION A3.5 - 132-20 RW BLOW OFF ASSEMBLIES	\$ 13,405.00	\$ 17,002.00	\$ 23,750.00	\$ 13,500.00
A3.6 SUB-TOTAL, SUBSECTION A3.6 - 132-95 RW SYSTEM ACCEPTANCE	\$ 2,000.00	\$ 2,000.00	\$ 3,000.00	\$ 2,400.00
A3.7 SUB-TOTAL, SUBSECTION A3.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$ -	\$ -	\$ -	\$ -
MS 16 - RECYCLED WATER IMPROVEMENTS - CAPITAL - SUB-TOTAL.....	\$ 302,085.19	\$ 255,701.00	\$ 282,300.00	\$ 413,500.00

PROJECT: DISTRICT 5 SOUTH, 6 NORTH
 MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL

OWNER: Heritage Fields El Toro, LLC

D5 SOUTH CAPITAL IMPS

BID SPREAD

ENGINEER'S ESTIMATE	FYDAQ	L&S	LEATHERWOOD
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PLANNING AREA 51, GREAT PARK NEIGHBORHOODS DISTRICT 5(SOUTH) & 6 (NORTH) CAPITAL IMPROVEMENTS CHINON (HARRIER TO TREBLE) 12" & 8" DOMESTIC WATER (ZONE 4R) 12" DOMESTIC WATER (ZONE 3) 10" & 4" RECYCLED WATER (ZONE C) CAPITAL PROJECT NOS. ___ & ___ NON-CAPITAL PROJECT NOS. 11965 & 11966 IRWD CODE

B1	12231				
B1.1	SUB-TOTAL, SUBSECTION B1.1 - 131-01 DW DOMESTIC WATER-GENERAL	\$ 5,119.36	\$ 9,060.00	\$ 8,590.00	\$ 17,100.00
B1.2	SUB-TOTAL, SUBSECTION B1.2 - 131-02 DW SITE PREPARATION	\$ 500.00	\$ 500.00	\$ 400.00	\$ 5,000.00
B1.3	SUB-TOTAL, SUBSECTION B1.3 - 131-05 DW MAINLINE PIPE	\$ 17,168.75	\$ 30,985.75	\$ 28,700.00	\$ 79,950.00
B1.4	SUB-TOTAL, SUBSECTION B1.4 - 131-15 DW GATE/BFV VALVES	\$ 20,736.00	\$ 17,400.00	\$ 19,200.00	\$ 36,000.00
B1.5	SUB-TOTAL, SUBSECTION B1.5 - 131-20 DW BLOW OFF ASSEMBLIES	\$ 7,220.00	\$ 9,632.00	\$ 16,600.00	\$ 12,000.00
B1.6	SUB-TOTAL, SUBSECTION B1.6 - 131-95 DW SYSTEM ACCEPTANCE	\$ 2,000.00	\$ 2,000.00	\$ 3,000.00	\$ 2,400.00
B1.7	SUB-TOTAL, SUBSECTION B1.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$ -	\$ -	\$ -	\$ -
	MS 21 - DOMESTIC WATER IMPROVEMENTS - CAPITAL - SUB-TOTAL.....	\$ 52,744.11	\$ 69,577.75	\$ 76,490.00	\$ 152,450.00
B2	12232				
B2.1	SUB-TOTAL, SUBSECTION B2.1 - 132-01 RW RECYCLED WATER-GENERAL	\$ 17,804.80	\$ 8,505.00	\$ 12,550.00	\$ 35,600.00
B2.2	SUB-TOTAL, SUBSECTION B2.2 - 132-02 RW SITE PREPARATION	\$ 41,520.00	\$ 12,806.00	\$ 42,885.00	\$ 532,400.00
B2.3	SUB-TOTAL, SUBSECTION B2.3 - 132-05 RW MAINLINE PIPE	\$ 202,044.00	\$ 169,500.00	\$ 135,600.00	\$ 298,320.00
B2.4	SUB-TOTAL, SUBSECTION B2.4 - 132-15 RW GATE/BFV VALVES	\$ 23,100.00	\$ 31,500.00	\$ 33,600.00	\$ 69,500.00
B2.5	SUB-TOTAL, SUBSECTION B2.5 - 132-20 RW BLOW OFF ASSEMBLIES	\$ 7,605.00	\$ 14,000.00	\$ 13,950.00	\$ 13,500.00
B2.6	SUB-TOTAL, SUBSECTION B2.6 - 132-95 RW SYSTEM ACCEPTANCE	\$ 4,000.00	\$ 4,000.00	\$ 6,000.00	\$ 4,800.00
B2.7	SUB-TOTAL, SUBSECTION B2.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)	\$ -	\$ -	\$ -	\$ -
	MS 21 - RECYCLED WATER IMPROVEMENTS - CAPITAL - SUB-TOTAL.....	\$ 296,073.80	\$ 240,311.00	\$ 244,585.00	\$ 944,120.00
GRAND TOTAL DISTRICT 5 SOUTH, 6 NORTH MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL - CONTRACT PRICE SCHEDULE		\$ 1,491,857.93	\$ 1,523,222.25	\$ 1,673,035.00	\$ 2,805,010.00

D5 SOUTH CAPITAL IMPS

ENGINEER'S ESTIMATE	FYDAQ	L&S	LEATHERWOOD
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BID SPREAD

D5S6N MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL

MS 16 - WET UTILITY IMPROVEMENTS - CAPITAL	PLANNING AREA 51, GREAT PARK NEIGHBORHOODS DISTRICT 5(SOUTH) & 6 (NORTH) - CAPITAL IMPROVEMENTS HARRIER (FROM CHINON TO LYNX) 8" & 12" DOMESTIC WATER (ZONE 3 & 4R) 8", 10", 12", & 15" SANITARY SEWER 4" & 10" RECYCLED WATER (ZONE C) CAPITAL PROJECT NOS. _____ & NON-CAPITAL PROJECT NOS. 11965, 11966 & 11967 IRWD CODE 7808			
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MS 16 - SANITARY SEWER IMPROVEMENTS - CAPITAL											
ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	T P	AMOUNT	T F	AMOUNT	T P I	AMOUNT
130-01 SW SEWER-GENERAL											
001	Mobilization (Maximum of 2% of Section A1)	1	LS	\$6,759.96	\$ 6,759.96		\$ 1,800.00		\$ 2,500.00	#	\$ 10,600.00
002	Performance, Labor & Payment Bond	1	LS	\$ 3,379.98	\$ 3,379.98		\$ 3,195.00		\$ 4,100.00	#	\$ 5,600.00
003	Erosion Control - SWPPP & BMP's	1	LS	\$2,534.99	\$ 2,534.99		\$ 500.00		\$ 1,500.00	#	\$ 2,000.00
004	Development and Application of Construction Water	1	LS	\$2,534.99	\$ 2,534.99		\$ 500.00		\$ 1,750.00	#	\$ 2,500.00
005	Traffic Control	1	LS	\$2,500.00	\$ 2,500.00		\$ 500.00		\$ 800.00	#	\$ 1,000.00
006	Air Test and Video Pipeline Per IRWD Standards & Specifications, Complete	1	LS	\$ 3,379.98	\$ 3,379.98		\$ 1,878.00		\$ 4,500.00	#	\$ 3,000.00
A1.1	SUB-TOTAL, SUBSECTION A1.1 - 130-01 SW SEWER-GENERAL				\$ 21,089.89		\$ 8,373.00		\$ 15,150.00		\$ 24,700.00
130-02 SW SITE PREPARATION											
007	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS	\$ 500.00	\$ 500.00		\$ 500.00		\$ 400.00	#	\$ 5,000.00
008	Remove Existing Temporary Cleanout and Join Existing Pipe, Complete	2	EA	\$ 1,500.00	\$ 3,000.00		\$ 3,300.00		\$ 7,200.00	#	\$ 10,000.00
A1.2	SUB-TOTAL, SUBSECTION A1.2 - 130-02 SW SITE PREPARATION				\$ 3,500.00		\$ 3,800.00		\$ 7,600.00		\$ 15,000.00
130-05 SW MAINLINE											
009	Furnish and Install 12" PVC (Green), C900, DR 14, Sewer Pipe, including Trenching, Bedding, Backfill & Compact per IRWD Std. DWG. S-6, Depth = 15'-20', Complete	34	LF	\$ 87.00	\$ 2,958.00		\$ 6,562.00		\$ 4,760.00	#	\$ 9,350.00
010	Furnish and Install 12" PVC (Green), C900, DR 14, Sewer Pipe, including Trenching, Bedding, Backfill & Compact per IRWD Std. DWG. S-6, Depth = 20'-25', Complete	600	LF	\$ 150.00	\$ 90,000.00		\$ 115,800.00		\$ 96,000.00	#	\$ 198,000.00
011	Furnish and Install 15" PVC, SDR 35, Sewer Pipe, including Trenching, Bedding, Backfill & Compaction per IRWD Std. DWG. S-6, Depth = 15'-20', Complete	298	LF	\$ 105.00	\$ 31,290.00		\$ 48,574.00		\$ 44,700.00	#	\$ 119,200.00
012	Furnish and Install 16" PVC (Green), C900, DR 14, Sewer Pipe, including Trenching, Bedding, Backfill & Compact per IRWD Std. DWG. S-6, Depth = 15'-20', Complete	455	LF	\$ 275.00	\$ 125,125.00		\$ 125,125.00		\$ 182,000.00	#	\$ 68,250.00
A1.3	SUB-TOTAL, SUBSECTION A1.3 - 130-05 SW MAINLINE				\$ 249,373.00		\$ 296,061.00		\$ 327,460.00		\$ 394,800.00
130-10 SW MANHOLES											
013	Construct 60" DIA. Manhole per IRWD Std. DWG. S-1 including 1 Raise, Depth = 15'-20', Complete	1	EA	\$10,500.00	\$ 10,500.00		\$ 8,910.00		\$ 9,800.00	#	\$ 11,500.00
014	Construct 60" DIA. Manhole With Modified Base per IRWD Std. DWG. S-1 and Per Detail on Plan, including 1 Raise Depth = 20'-25', Complete	2	EA	\$15,000.00	\$ 30,000.00		\$ 28,670.00		\$ 29,000.00	#	\$ 34,000.00
015	Construct 72" DIA. Manhole With Modified Base per IRWD Std. DWG. S-1 and Per Detail on Plan, including 1 Raise Depth = 20'-25', Complete	2	EA	\$21,000.00	\$ 42,000.00		\$ 33,690.00		\$ 35,000.00	#	\$ 50,000.00
A1.4	SUB-TOTAL, SUBSECTION A1.4 - 130-10 SW MANHOLES				\$ 82,500.00		\$ 71,270.00		\$ 73,800.00		\$ 95,500.00
130-25 SW MANHOLE RAISE											
016	Raise Manhole to Final Grade After Improvements are Complete or Requested by Developer including Extra Move Complete	5	EA	\$ 525.00	\$ 2,625.00		\$ 2,625.00		\$ 4,250.00	#	\$ 3,850.00
A1.5	SUB-TOTAL, SUBSECTION A1.5 - 130-25 SW MANHOLE RAISE				\$ 2,625.00		\$ 2,625.00		\$ 4,250.00		\$ 3,850.00
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)											
					\$ -		\$ -		\$ -	#	\$ -
					\$ -		\$ -		\$ -	#	\$ -
					\$ -		\$ -		\$ -	#	\$ -
					\$ -		\$ -		\$ -	#	\$ -
					\$ -		\$ -		\$ -	#	\$ -
A1.6	SUB-TOTAL, SUBSECTION A1.6 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)				\$ -		\$ -		\$ -		\$ -
A1	TOTAL MS 16 - SANITARY SEWER IMPROVEMENTS - CAPITAL - CONTRACT PRICE SCHEDULE.....				\$ 359,087.89		\$ 382,129.00		\$ 428,260.00		\$ 533,850.00

MS 16 - DOMESTIC WATER IMPROVEMENTS - CAPITAL											
ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	T P	AMOUNT	T F	AMOUNT	T P I	AMOUNT
131-01 DW DOMESTIC WATER-GENERAL											
017	Mobilization (Maximum of 2% of Section A2)	1	LS	\$9,087.53	\$ 9,087.53		\$ 1,800.00		\$ 740.00	#	\$ 10,000.00
018	Performance, Labor & Payment Bond	1	LS	\$ 4,543.76	\$ 4,543.76		\$ 3,195.00		\$ 1,000.00	#	\$ 5,600.00
019	Erosion Control - SWPPP & BMP's	1	LS	\$3,407.82	\$ 3,407.82		\$ 500.00		\$ 1,500.00	#	\$ 2,000.00
020	Development and Application of Construction Water	1	LS	\$3,407.82	\$ 3,407.82		\$ 500.00		\$ 650.00	#	\$ 2,500.00
021	Traffic Control	1	LS	\$2,500.00	\$ 2,500.00		\$ 500.00		\$ 200.00	#	\$ 1,000.00
022	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and Specifications, Complete	1	LS	\$ 4,543.76	\$ 4,543.76		\$ 7,698.00		\$ 4,500.00	#	\$ 10,000.00
A2.1	SUB-TOTAL, SUBSECTION A2.1 - 131-01 DW DOMESTIC WATER-GENERAL				\$ 27,490.69		\$ 14,193.00		\$ 8,590.00		\$ 31,100.00

PROJECT: DISTRICT 5 SOUTH, 6 NORTH
 MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL
 OWNER: Heritage Fields El Toro, LLC

D5 SOUTH CAPITAL IMPS

BID SPREAD

ENGINEER'S ESTIMATE	FYDAQ	L&S	LEATHERWOOD
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131-02 DW SITE PREPARATION									
023	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS	\$ 500.00	\$ 500.00	\$ 500.00	\$ 400.00	# \$ 5,000.00	
024	Remove Existing Temporary Flush-out and Join Existing 12" Pipe, Complete	2	EA	\$ 3,500.00	\$ 7,000.00	\$ 11,650.00	\$ 9,000.00	# \$ 16,000.00	
A2.2 SUB-TOTAL, SUBSECTION A2.2 - 131-02 DW SITE PREPARATION					\$ 7,500.00	\$ 12,150.00	\$ 9,400.00	\$ 21,000.00	
131-05 DW MAINLINE PIPE									
025	Furnish and Install 12" PVC Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans Complete	4,343	LF	\$ 83.75	\$ 363,726.25	\$ 466,872.50	\$ 521,160.00	# \$ 564,590.00	
A2.3 SUB-TOTAL, SUBSECTION A2.3 - 131-05 DW MAINLINE PIPE					\$ 363,726.25	\$ 466,872.50	\$ 521,160.00	\$ 564,590.00	
131-15 DW GATE/BFV VALVES									
026	Furnish and Install 12" Butterfly Valve, Cl. 150B, Flg'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	10	EA	\$ 5,184.00	\$ 51,840.00	\$ 43,500.00	\$ 48,000.00	# \$ 90,000.00	
A2.4 SUB-TOTAL, SUBSECTION A2.4 - 131-15 DW GATE/BFV VALVES					\$ 51,840.00	\$ 43,500.00	\$ 48,000.00	\$ 90,000.00	
131-20 DW BLOW OFF ASSEMBLIES									
027	Furnish and Install Temporary Flush-Out Assembly per IRWD Std. W-12, including 1 Raise, Complete	2	EA	\$ 1,805.00	\$ 3,610.00	\$ 4,816.00	\$ 8,300.00	# \$ 7,000.00	
028	Furnish and Install 2" Air-Vac Assembly, Case 3, per IRWD Std. W-11, Complete	4	EA	\$ 5,800.00	\$ 23,200.00	\$ 29,472.00	\$ 39,200.00	# \$ 42,000.00	
A2.5 SUB-TOTAL, SUBSECTION A2.5 - 131-20 DW BLOW OFF ASSEMBLIES					\$ 26,810.00	\$ 34,288.00	\$ 47,500.00	\$ 49,000.00	
131-95 DW SYSTEM ACCEPTANCE									
029	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	9	EA	\$ 500.00	\$ 4,500.00	\$ 4,500.00	\$ 6,750.00	# \$ 5,400.00	
A2.6 SUB-TOTAL, SUBSECTION A2.6 - 131-95 DW SYSTEM ACCEPTANCE					\$ 4,500.00	\$ 4,500.00	\$ 6,750.00	\$ 5,400.00	
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)				QTY	UNIT	AMOUNT	T P AMOUNT	T F AMOUNT	T P AMOUNT
						\$ -	\$ -	\$ -	# \$ -
						\$ -	\$ -	\$ -	# \$ -
						\$ -	\$ -	\$ -	# \$ -
						\$ -	\$ -	\$ -	# \$ -
						\$ -	\$ -	\$ -	# \$ -
A2.7 SUB-TOTAL, SUBSECTION A2.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)						\$ -	\$ -	\$ -	\$ -
A2 TOTAL MS 16 - DOMESTIC WATER IMPROVEMENTS - CAPITAL - CONTRACT PRICE SCHEDULE.....						\$ 481,866.94	\$ 575,503.50	\$ 641,400.00	\$ 761,090.00

MS 16 - RECYCLED WATER IMPROVEMENTS - CAPITAL								
ITEM	DESCRIPTION	QTY	UNIT	AMOUNT	T P AMOUNT	T F AMOUNT	T P AMOUNT	
132-01 RW RECYCLED WATER-GENERAL								
030	Mobilization (Maximum of 2% of Section A3)	1	LS	\$ 5,679.34	\$ 5,679.34	\$ 1,800.00	\$ 1,500.00	# \$ 5,000.00
031	Performance, Labor & Payment Bond	1	LS	\$ 2,839.67	\$ 2,839.67	\$ 3,195.00	\$ 2,700.00	# \$ 5,600.00
032	Erosion Control - SWPPP & BMPs	1	LS	\$ 2,129.75	\$ 2,129.75	\$ 500.00	\$ 1,500.00	# \$ 2,000.00
033	Development and Application of Construction Water	1	LS	\$ 2,129.75	\$ 2,129.75	\$ 500.00	\$ 650.00	# \$ 2,500.00
034	Traffic Control	1	LS	\$ 2,500.00	\$ 2,500.00	\$ 500.00	\$ 200.00	# \$ 1,000.00
035	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and Specifications, Complete	1	LS	\$ 2,839.67	\$ 2,839.67	\$ 3,472.00	\$ 4,500.00	# \$ 8,000.00
A3.1 SUB-TOTAL, SUBSECTION A3.1 - 132-01 RW RECYCLED WATER-GENERAL					\$ 18,118.19	\$ 9,967.00	\$ 11,050.00	\$ 24,100.00
132-02 RW SITE PREPARATION								
036	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS	\$ 500.00	\$ 500.00	\$ 500.00	\$ 400.00	# \$ 5,000.00
037	Remove Existing Temporary Flush-out and Join Existing 10" PVC, Complete	1	EA	\$ 3,500.00	\$ 3,500.00	\$ 5,825.00	\$ 3,900.00	# \$ 8,000.00
A3.2 SUB-TOTAL, SUBSECTION A3.2 - 132-02 RW SITE PREPARATION					\$ 4,000.00	\$ 6,325.00	\$ 4,300.00	\$ 13,000.00
132-05 RW MAINLINE PIPE								
038	Furnish and Install 10" DIP, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans, Complete	8	LF	\$ 514.00	\$ 4,112.00	\$ 4,732.00	\$ 3,600.00	# \$ 4,000.00
039	Furnish and Install 10" PVC Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans Complete	2,150	LF	\$ 115.00	\$ 247,250.00	\$ 198,875.00	\$ 215,000.00	# \$ 322,500.00
A3.3 SUB-TOTAL, SUBSECTION A3.3 - 132-05 RW MAINLINE PIPE					\$ 251,362.00	\$ 203,607.00	\$ 218,600.00	\$ 326,500.00

PROJECT: DISTRICT 5 SOUTH, 6 NORTH
 MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL
 OWNER: Heritage Fields El Toro, LLC

D5 SOUTH CAPITAL IMPS
BID SPREAD

ENGINEER'S ESTIMATE	FYDAQ	L&S	LEATHERWOOD
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132-15 RW GATE/BFV VALVES												
040	Furnish and Install 10" Butterfly Valve, Cl. 150B, Fig'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	4	EA	\$ 3,300.00	\$ 13,200.00	\$	16,800.00	\$	21,600.00	#	\$ 34,000.00	
A3.4 SUB-TOTAL, SUBSECTION A3.4 - 132-15 RW GATE/BFV VALVES				\$ 13,200.00		\$ 16,800.00		\$ 21,600.00		\$ 34,000.00		
132-20 RW BLOW OFF ASSEMBLIES												
041	Furnish and Install 2" Air-Vac Assembly, Case 3, per IRWD Std. W-11, Complete	2	EA	\$ 5,800.00	\$ 11,600.00	\$	14,594.00	\$	19,600.00	#	\$ 10,000.00	
042	Furnish and Install Temporary Flush-Out Assembly per IRWD Std. W-12, including 1 Raise, Complete	1	EA	\$ 1,805.00	\$ 1,805.00	\$	2,408.00	\$	4,150.00	#	\$ 3,500.00	
A3.5 SUB-TOTAL, SUBSECTION A3.5 - 132-20 RW BLOW OFF ASSEMBLIES				\$ 13,405.00		\$ 17,002.00		\$ 23,750.00		\$ 13,500.00		
132-95 RW SYSTEM ACCEPTANCE												
043	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Movs, Complete	4	EA	\$ 500.00	\$ 2,000.00	\$	2,000.00	\$	3,000.00	#	\$ 2,400.00	
A3.6 SUB-TOTAL, SUBSECTION A3.6 - 132-95 RW SYSTEM ACCEPTANCE				\$ 2,000.00		\$ 2,000.00		\$ 3,000.00		\$ 2,400.00		
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)				QTY	UNIT	AMOUNT	T P	AMOUNT	T F	AMOUNT	T P I	AMOUNT
						\$ -		\$ -		\$ -	#	\$ -
						\$ -		\$ -		\$ -	#	\$ -
						\$ -		\$ -		\$ -	#	\$ -
						\$ -		\$ -		\$ -	#	\$ -
						\$ -		\$ -		\$ -	#	\$ -
A3.7 SUB-TOTAL, SUBSECTION A3.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)				\$ -		\$ -		\$ -		\$ -		
A3 TOTAL MS 16 - RECYCLED WATER IMPROVEMENTS - CAPITAL - CONTRACT PRICE SCHEDULE.....				\$ 302,085.19		\$ 255,701.00		\$ 282,300.00		\$ 413,500.00		

MS 21 - WET UTILITY IMPROVEMENTS - CAPITAL	PLANNING AREA 51, GREAT PARK NEIGHBORHOODS DISTRICT 5(SOUTH) & 6 (NORTH) CAPITAL IMPROVEMENTS CHINON (HARRIER TO TREBLE) 12" & 8" DOMESTIC WATER (ZONE 4R) 12" DOMESTIC WATER (ZONE 3) 10" & 4" RECYCLED WATER (ZONE C) CAPITAL PROJECT NOS. & NON-CAPITAL PROJECT NOS. 11965 & 11966 IRWD CODE 7809		
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MS 21 - DOMESTIC WATER IMPROVEMENTS - CAPITAL											
ITEM	DESCRIPTION	QTY	UNIT	AMOUNT	T P	AMOUNT	T F	AMOUNT	T P I	AMOUNT	
131-01 DW DOMESTIC WATER-GENERAL											
044	Mobilization (Maximum of 2% of Section B1)	1	LS	\$952.50	\$	952.50	\$	1,800.00	#	\$ 3,000.00	
045	Performance, Labor & Payment Bond	1	LS	\$ 476.25	\$	476.25	\$	3,195.00	#	\$ 5,600.00	
046	Erosion Control - SWPPP & BMP's	1	LS	\$357.19	\$	357.19	\$	500.00	#	\$ 2,000.00	
047	Development and Application of Construction Water	1	LS	\$357.19	\$	357.19	\$	500.00	#	\$ 2,500.00	
048	Traffic Control	1	LS	\$2,500.00	\$	2,500.00	\$	500.00	#	\$ 1,000.00	
049	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and Specifications, Complete	1	LS	\$ 476.25	\$	476.25	\$	2,565.00	#	\$ 3,000.00	
B1.1 SUB-TOTAL, SUBSECTION B1.1 - 131-01 DW DOMESTIC WATER-GENERAL				\$ 5,119.36		\$ 9,060.00		\$ 8,590.00		\$ 17,100.00	
131-02 DW SITE PREPARATION											
050	Cleaning and Grubbing (All Vegetation Within the Project Site)	1	LS	\$ 500.00	\$	500.00	\$	500.00	#	\$ 5,000.00	
B1.2 SUB-TOTAL, SUBSECTION B1.2 - 131-02 DW SITE PREPARATION				\$ 500.00		\$ 500.00		\$ 400.00		\$ 5,000.00	
131-05 DW MAINLINE PIPE											
051	Furnish and Install 12" PVC Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans Complete	205	LF	\$ 83.75	\$	17,168.75	\$	30,985.75	#	\$ 79,950.00	
B1.3 SUB-TOTAL, SUBSECTION B1.3 - 131-05 DW MAINLINE PIPE				\$ 17,168.75		\$ 30,985.75		\$ 28,700.00		\$ 79,950.00	
131-15 DW GATE/BFV VALVES											
052	Furnish and Install 12" Butterfly Valve, Cl. 150B, Fig'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	4	EA	\$ 5,184.00	\$	20,736.00	\$	17,400.00	#	\$ 36,000.00	
B1.4 SUB-TOTAL, SUBSECTION B1.4 - 131-15 DW GATE/BFV VALVES				\$ 20,736.00		\$ 17,400.00		\$ 19,200.00		\$ 36,000.00	
131-20 DW BLOW OFF ASSEMBLIES											
053	Furnish and Install Temporary Flush-Out Assembly per IRWD Std. W-12, including 1 Raise, Complete	4	EA	\$ 1,805.00	\$	7,220.00	\$	9,632.00	#	\$ 12,000.00	
B1.5 SUB-TOTAL, SUBSECTION B1.5 - 131-20 DW BLOW OFF ASSEMBLIES				\$ 7,220.00		\$ 9,632.00		\$ 16,600.00		\$ 12,000.00	

PROJECT: DISTRICT 5 SOUTH, 6 NORTH
 MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL
 OWNER: Heritage Fields El Toro, LLC

D5 SOUTH CAPITAL IMPS


ENGINEER'S ESTIMATE	FYDAQ	L&S	LEATHERWOOD
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BID SPREAD

131-95 DW SYSTEM ACCEPTANCE									
054	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	4	EA	\$ 500.00	\$ 2,000.00	\$ 2,000.00	\$ 3,000.00	# \$ 2,400.00	
B1.6 SUB-TOTAL, SUBSECTION B1.6 - 131-95 DW SYSTEM ACCEPTANCE					\$ 2,000.00	\$ 2,000.00	\$ 3,000.00	\$ 2,400.00	
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)				QTY	UNIT	AMOUNT	T P AMOUNT	T F AMOUNT	T P I AMOUNT
						\$ -	\$ -	\$ -	# \$ -
						\$ -	\$ -	\$ -	# \$ -
						\$ -	\$ -	\$ -	# \$ -
						\$ -	\$ -	\$ -	# \$ -
						\$ -	\$ -	\$ -	# \$ -
B1.7 SUB-TOTAL, SUBSECTION B1.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)						\$ -	\$ -	\$ -	# \$ -
B1 TOTAL MS 21 - DOMESTIC WATER IMPROVEMENTS - CAPITAL - CONTRACT PRICE SCHEDULE						\$ 52,744.11	\$ 69,577.75	\$ 76,490.00	\$ 152,450.00

MS 21 - RECYCLED WATER IMPROVEMENTS - CAPITAL										
ITEM	DESCRIPTION	QTY	UNIT	AMOUNT	T P AMOUNT	T F AMOUNT	T P I AMOUNT			
132-01 RW RECYCLED WATER-GENERAL										
055	Mobilization (Maximum of 2% of Section B2)	1	LS	\$ 5,565.38	\$ 5,565.38	\$ 1,800.00	# \$ 18,500.00			
056	Performance, Labor & Payment Bond	1	LS	\$ 2,782.69	\$ 2,782.69	\$ 3,195.00	# \$ 5,600.00			
057	Erosion Control - SWPPP & BMP's	1	LS	\$ 2,087.02	\$ 2,087.02	\$ 500.00	# \$ 2,000.00			
058	Development and Application of Construction Water	1	LS	\$ 2,087.02	\$ 2,087.02	\$ 500.00	# \$ 2,500.00			
059	Traffic Control	1	LS	\$ 2,500.00	\$ 2,500.00	\$ 500.00	# \$ 1,000.00			
060	Chlorinate & Pressure Test Pipeline, including Disposal of Chlorinated Water, per IRWD Standards and Specifications, Complete	1	LS	\$ 2,782.69	\$ 2,782.69	\$ 2,010.00	# \$ 6,000.00			
B2.1 SUB-TOTAL, SUBSECTION B2.1 - 132-01 RW RECYCLED WATER-GENERAL					\$ 17,804.80	\$ 8,605.00	\$ 12,550.00	\$ 35,600.00		
132-02 RW SITE PREPARATION										
061	Clearing and Grubbing (All Vegetation Within the Project Site)	1	LS	\$ 500.00	\$ 500.00	\$ 500.00	# \$ 5,000.00			
062	Sawcut and Remove Existing AC Pavement, Dispose of Pavement in CFD Stockpile within 4 Miles of Project, Complete	293	LF	\$ 39.00	\$ 11,427.00	\$ 8,790.00	# \$ 205,100.00			
063	Replace Existing AC Pavement After Wet Utility Operations (Includes Jack and Bore Pit and all Utility Extensions within Existing AC pavement) Per City Std. 223, Alt "A", Complete	293	LF	\$ 101.00	\$ 29,593.00	\$ 3,516.00	# \$ 322,300.00			
B2.2 SUB-TOTAL, SUBSECTION B2.2 - 132-02 RW SITE PREPARATION					\$ 41,520.00	\$ 12,806.00	\$ 42,885.00	\$ 532,400.00		
132-05 RW MAINLINE PIPE										
064	Furnish and Install 10" PVC Waterline Pipe, C-900, DR 14, w/ Trenching, Bedding & Backfill per IRWD Std. W-17 including all Fittings, Appurtenances and Thrust Blocks per IRWD Std. W-16 and W-19 and as Shown on the Plans Complete	1,356	LF	\$ 149.00	\$ 202,044.00	\$ 169,500.00	# \$ 298,320.00			
B2.3 SUB-TOTAL, SUBSECTION B2.3 - 132-05 RW MAINLINE PIPE					\$ 202,044.00	\$ 169,500.00	\$ 135,600.00	\$ 298,320.00		
132-15 RW GATE/BFV VALVES										
065	Furnish and Install 10" Butterfly Valve, Cl. 150B, Fig'd, w/ Thrust Block per IRWD Std. DWG. W-16, including Initial Can Raise, Valve Box per IRWD Std. W-22, Complete	7	EA	\$ 3,300.00	\$ 23,100.00	\$ 31,500.00	# \$ 59,500.00			
B2.4 SUB-TOTAL, SUBSECTION B2.4 - 132-15 RW GATE/BFV VALVES					\$ 23,100.00	\$ 31,500.00	\$ 33,600.00	\$ 59,500.00		
132-20 RW BLOW OFF ASSEMBLIES										
066	Furnish and Install 2" Air-Vac Assembly, Case 3, per IRWD Std. W-11, Complete	1	EA	\$ 5,800.00	\$ 5,800.00	\$ 9,000.00	# \$ 10,500.00			
067	Furnish and Install Temporary Flush-Out Assembly per IRWD Std. W-12, including 1 Raise, Complete	1	EA	\$ 1,805.00	\$ 1,805.00	\$ 5,000.00	# \$ 3,000.00			
B2.5 SUB-TOTAL, SUBSECTION B2.5 - 132-20 RW BLOW OFF ASSEMBLIES					\$ 7,605.00	\$ 14,000.00	\$ 13,950.00	\$ 13,500.00		
132-95 RW SYSTEM ACCEPTANCE										
068	Raise Valve Can to Final Grade After Improvements are Complete or Requested by Developer including Extra Move, Complete	8	EA	\$ 500.00	\$ 4,000.00	\$ 4,000.00	# \$ 4,800.00			
B2.6 SUB-TOTAL, SUBSECTION B2.6 - 132-95 RW SYSTEM ACCEPTANCE					\$ 4,000.00	\$ 4,000.00	\$ 6,000.00	\$ 4,800.00		
ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)				QTY	UNIT	UNIT PRICE	AMOUNT	T P AMOUNT	T F AMOUNT	T P I AMOUNT
						\$ -	\$ -	\$ -	\$ -	# \$ -
						\$ -	\$ -	\$ -	\$ -	# \$ -
						\$ -	\$ -	\$ -	\$ -	# \$ -
						\$ -	\$ -	\$ -	\$ -	# \$ -
						\$ -	\$ -	\$ -	\$ -	# \$ -
B2.7 SUB-TOTAL, SUBSECTION B2.7 - ADDITIONAL CONSTRUCTION ITEMS ON PLANS NOT IDENTIFIED IN THE BID CPS (LIST ITEMS)						\$ -	\$ -	\$ -	\$ -	# \$ -
B2 TOTAL MS 21 - RECYCLED WATER IMPROVEMENTS - CAPITAL - CONTRACT PRICE SCHEDULE						\$ 296,073.80	\$ 240,311.00	\$ 244,585.00	\$ 944,120.00	

GRAND TOTAL DISTRICT 5 SOUTH, 6 NORTH MASTER STREET 16 & 21 - WET IMPROVEMENTS - CAPITAL - CONTRACT PRICE SCHEDULE	\$ 1,491,857.93	\$ 1,523,222.25	\$ 1,673,035.00	\$ 2,805,010.00
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October 24, 2022
Prepared by: R. Huang
Submitted by: F. Sanchez / P. Weghorst
Approved by: Paul A. Cook 

ACTION CALENDAR

CONSULTANT SELECTIONS FOR UPDATING IRWD'S WATER SUPPLY RELIABILITY EVALUATION

SUMMARY:

Staff is preparing to update IRWD's 2016 Water Supply Reliability Evaluation to assess potential impacts of various hydrologic, system outage and emergency scenarios on the District's water supply reliability. Significant long-term drought and climate change impacts have occurred since the 2016 evaluation resulting in reductions in State Water Project (SWP) and Colorado River supplies. Changes to IRWD's facilities and distribution system have also occurred. Updating the 2016 Reliability Evaluation will require updating supply and demand projections, developing new hydrologic, system outage and emergency scenarios and simulating the scenarios using the District's Integrated Resources and Planning Distribution System Model (IRPDSM). The update will also require developing conclusions and recommendations. Once completed, the 2022 Water Supply Reliability Evaluation will be integrated with the District's Energy and Greenhouse Gas Master Plan into an IRWD Climate Action Plan. Staff has negotiated scopes of work and cost estimates with two consulting firms that will work with staff to prepare the 2022 Water Supply Reliability Evaluation. Staff recommends that the Board:

- Authorize the General Manager to execute a Professional Services Agreement with DCSE, Inc. in the amount of \$194,360 for Project 11799 to update and run the IRPDSM to support the preparation of the 2022 Water Supply Reliability Evaluation;
- Authorize the General Manager to execute a Professional Services Agreement with HDR Engineering, Inc. in the amount of \$316,800 for Project 11799 to prepare the 2022 Water Supply Reliability Evaluation; and
- Authorize an increase to Project 11799 in the amount of \$405,000, from \$1,470,000 to \$1,875,000, to the FY 2022-23 Capital Budget.

BACKGROUND:

In 2016, IRWD completed a Water Supply Reliability Evaluation to analyze IRWD's ability to maintain a minimum level of potable water service under reasonably foreseeable hydrologic, system outage and emergency scenarios, or combination of such scenarios. The preparation of the evaluation required rigorous analysis. The 2016 Reliability Evaluation included development of the District's IRPDSM that simulates and optimizes IRWD supplies, storage and demands under various shortage scenarios. The model uses Monte Carlo simulation methods to assess the probabilities, frequencies and durations of independent events that comprise separate scenarios. The model solves for multiple objectives and the optimization of goals such as minimizing shortages or using certain supplies preferentially. The 2016 Reliability Evaluation was completed at a cost of approximately \$614,000.

The scenarios modeled in the 2016 Reliability Evaluation involved long-term drought, climate change, regional water treatment and conveyance facility failures or disruptions of service, and environmental restrictions that result in reduced allocations of water supply from the SWP.

Conclusions of 2016 Reliability Evaluation:

The 2016 Water Supply Reliability Evaluation concluded that in various scenarios:

- No future water supply shortages were to be expected given the projections of water supplies available to IRWD;
- Groundwater is an important element of IRWD's potable water supply portfolio;
- IRWD would likely need to rely on "extraordinary supplies" from the IRWD Water Bank to meet projected demands; and
- Various Metropolitan Water District efforts to increase supply and alternative Delta conveyance could reduce reliance on the IRWD Water Bank.

The 2016 Reliability Evaluation recommended that the District periodically update the IRPDSM to incorporate new and updated information for demands, key water resources and associated assumptions.

Need for 2022 Reliability Evaluation:

Since the completion of the 2016 Reliability Evaluation, IRWD water supply and demand estimates have shifted. Local, state and federal water policies to address long-term resiliency and drought are also evolving. Furthermore, supplies are decreasing from the Colorado River and the SWP. A 2022 Water Supply Reliability Evaluation will be prepared to incorporate changed conditions and to evaluate the impacts of various hydrologic, system outage and emergency scenarios. Changes that have occurred since 2016 that may affect IRWD's supply and system reliability include:

- Significant reductions to imported water supplies from the Colorado River and the SWP;
- Uncertainty as to whether the Delta Conveyance Project will be permitted and constructed;
- Proposed development of the Kern Fan Groundwater Storage Project in the Central Valley and participation in the Sites Reservoir Project;
- Updates to Metropolitan's Integrated Resource Plan and corresponding updates to Municipal Water District of Orange County's (MWDOC) water supply reliability projections;
- Recent updates to IRWD's Groundwater Workplan and potential changes to the Orange County Water District (OCWD) Basin Production Percentage;
- Accumulating risks of Delta Levee failures as well as local, regional and state conveyance facility failures due to major earthquakes;
- IRWD service area projects currently under construction or in the planning phase;

- Potential IRWD commitments to other agencies through emergency inter-ties or shared reliability programs;
- Potential development of local and regional potable reuse projects; and
- Foreseeable regional water supply projects to be implemented by Metropolitan.

Ultimately, the results, conclusions and recommendations from the 2022 Reliability Evaluation will be integrated with the results of an ongoing update to IRWD's Energy and Greenhouse Gas Master Plan into a Climate Action Plan for the District.

Consultant Selection Process:

Two separate consultants will be needed to prepare IRWD's 2022 Reliability Evaluation. The IRPDSM is a custom model that was originally developed by DCSE as part of the 2016 evaluation. Because of its unique capabilities, staff proposes that DCSE serve as the modeling consultant that will provide IRPDSM modeling results to a separate consultant that will prepare the 2022 Reliability Evaluation.

Staff issued a request for proposal (RFP) to various consulting firms to solicit proposals to prepare the 2022 Reliability Evaluation using modeling information provided by DCSE. HDR was the only firm that proposed to conduct the work. Following is an overview of the negotiated scopes of work and cost estimates with DCSE and HDR to work together to prepare the 2022 Reliability Evaluation.

Modeling Scope of Work with DCSE:

To leverage IRWD's previous investment in the IRPDSM, staff recommends using the same modeling approach and tool in the 2022 Reliability Evaluation that was used in the 2016 evaluation. DCSE originally developed the IRPDSM model for Metropolitan and then adapted it for IRWD's use in the 2016 Reliability Evaluation. Accordingly, DCSE is uniquely qualified to update the IRPDSM for the 2022 Reliability Evaluation. Staff negotiated the scope of work and cost estimate with DCSE, summarized in Exhibit "A". The complete scope of work and cost estimate to update and run the IRPDSM for the 2022 Reliability Evaluation is provided as Exhibit "B". Staff believes that DCSE's cost for completing the work, in the amount of \$194,360, is appropriate. The amount is within staff's expectation for completing work. Key DCSE tasks include:

- Updating the IRPDSM network schematic to represent changes to IRWD's potable distribution system and demands that have occurred since 2016;
- Collaborating with staff and the consultant selected to prepare the 2022 Reliability Evaluation to develop the supply and demand inputs for the IRPDSM;
- Formulate and perform up to 10 IRPDSM scenario runs and summarize the results and associated reliability curves;
- Conduct a statistical analysis to assess the sensitivity of the results;
- Prepare a modeling-related technical memorandum; and

- Train IRWD staff on the use of the IRPDSM.

2022 Reliability Evaluation Scope of Work with HDR:

In addition to updating and running the IRPDSM model, additional work on the 2022 Reliability Evaluation includes collecting information, updating the supply and demand projections, developing scenarios to reflect changed conditions since 2016, assessing risks and probabilities associated with the scenarios, developing recommendations based on the IRPDSM results and preparing a report. Staff issued an RFP to 11 firms to perform this work. HDR was the only firm to submit a proposal. Staff has negotiated a scope of work and cost estimate for HDR to prepare the 2022 Reliability Evaluation using modeling information to be provided by DCSE. HDR provides the following key strengths to preparing the 2022 evaluation:

- A team with specialized expertise in Colorado River, SWP and Bay-Delta issues;
- Strong relationships with the Department of Water Resources, Metropolitan, MWDOC and the OCWD;
- A thorough understanding of IRWD’s water systems and supplies including work on prior studies for IRWD, such as the 2016 Reliability Evaluation and the Sewage Treatment Master Plan;
- Technical expertise in climate change, water banking, water conservation and risk analysis;
- A fresh approach to collaborative thinking, strategic discussions, and conducting project workshops that will be key to reliability scenario development; and
- Previous work and collaboration with modeling consultants at DCSE on the 2016 Reliability Evaluation.

HDR’s negotiated scope of work and cost estimate, summarized in Exhibit “C”, are reasonable and within staff’s expectations. HDR’s full scope of work and cost estimate is provided as Exhibit “D”.

The total combined cost of DSCE’s and HDR’s proposed work is \$511,160, which is approximately \$100,000 less than the cost of the 2016 evaluation and reflects the ability of both firms to leverage prior modeling work and technical expertise.

FISCAL IMPACTS:

The total cost to prepare the 2022 Reliability Evaluation is \$566,160 including \$50,000 for staff time and \$5,000 for legal costs. This cost will be funded by Project 11799, which is included in the FY 2022-23 Capital Budget. Staff recommends a budget increase in the amount of \$405,000, as shown below:

Project No.	Current Budget	Addition <Reduction>	Total Budget
11799	\$1,470,000	\$405,000	\$1,875,000

ENVIRONMENTAL COMPLIANCE:

This study is exempt from the California Environmental Quality Act as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15262, which provides exemption for planning studies.

COMMITTEE STATUS:

This item was reviewed at the Water Resources Policy and Communications Committee meeting on October 6, 2022.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE AN INCREASE TO THE FISCAL YEAR 2022-23 CAPITAL BUDGET FOR PROJECT 11799 IN THE AMOUNT OF \$405,000 FROM \$1,470,000 TO \$1,875,000 AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE PROFESSIONAL SERVICES AGREEMENTS WITH DCSE, INC. IN THE AMOUNT OF \$194,360 AND HDR ENGINEERING, INC. IN THE AMOUNT OF \$316,800 TO CONDUCT IRWD'S 2022 WATER SUPPLY RELIABILITY EVALUATION.

LIST OF EXHIBITS:

- Exhibit "A" – DCSE Proposal Summary
- Exhibit "B" – DCSE Scope of Work and Cost Estimate
- Exhibit "C" – HDR Proposal and Cost Summary
- Exhibit "D" – HDR Scope of Work and Cost Estimate

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Exhibit "A"

Summary of DCSE's Proposal and Costs

Item	Description	DCSE Evaluation	
A <u>TECHNICAL APPROACH</u>			
1	Understanding of required services/ project details	Excellent. DCSE project team has extensive experience with IRWD's distribution system and has configured the IRPDSM to quantify water reliability concerns at multiple water agencies.	
2	Approach and Methodology	Excellent. DCSE project team developed a detailed scope of work with not only DCSE tasks but with specific roles and responsibilities for HDR and IRWD.	
3	Schedule	Not applicable.	
B <u>QUALIFICATIONS AND EXPERIENCE</u>			
1	Principal Engineer:	<i>Ali Diba (PE, PhD, 40 yrs. exp)</i>	Dr. Diba has worked with over 50 agencies both public and private in the California region in addressing all aspects of data management and systems integration in the GIS environment.
2	Supervising GIS Analyst:	<i>Haritha Vendra (PE, GISP,MS, 20 yrs. exp)</i>	Ms. Vendra is an expert in GIS and hydraulic modeling and has analyzed data for more than 60 municipal agencies for data conversion, migration and workflow designs.
3	Senior Software Engineer:	<i>Ming-Chin Jeng (PE, PhD, 28 yrs. exp)</i>	Dr. Jeng has developed an integrated resources planning model using both C and Java languages whose core code has been used by numerous water agencies.
4	Project Team Experience:	DCSE project team has forged a strong working relationship with IRWD across a series of complex projects (e.g., demand forecasting tool, numerous hydraulic models, GIS data conversion and maintenance). In addition, the project team is comprised of the original developers of the first IRPDSM, built for the Metropolitan Water District of Southern California in 1998, and adapted for IRWD in 2016.	
5	Firm's Relevant Experience:	DCSE has extensive experience in water resources planning and engineering and the incorporation of computer technology into this process. The firm has developed integrated resources planning and management models, GIS-based water supply master plans and decision support systems for numerous water agencies.	
C <u>SCOPE OF WORK</u>			
	TASK	Task Hours	FEE
1	Assist IRWD with IRPDSM Introduction to Potential Consultants	16	\$3,760
2	Update IRPDSM Schematic representing IRWD water transmission system	160	\$33,440
3	Collaborate with Selected Consultant to Prepare input (Supply & Demand) for IRPDSM model	124	\$25,920
4	Formulate disruption scenarios into up to 10 IRPDSM scenarios	168	\$34,000
5	Perform up to 10 IRPDSM scenario runs	164	\$32,440
6	Evaluate IRPDSM results and create supply sources reliability curves	92	\$19,040
7	Prepare Statistical Analysis of Potable Water Supply Sources	36	\$7,120
8	Prepare TM summarizing model results for each scenario using the SQL Server database spreadsheet tool and the Statistical Analysis results.	136	\$24,080
9	Provide training to IRWD staff	72	\$14,560
10	SUB-TOTAL ENGINEERING SERVICES, FEES (Does Not Include Optional Items)	968	\$194,360
11	Optional Items		
12	TOTAL ENGINEERING SERVICES, FEE	968	\$194,360
13	Avg \$/hr. (Does not include optional tasks)		\$201
D <u>OTHER</u>			
1	Miscellaneous Items		
2	Multiplier	None	
3	Conflict of Interest	No	
4	Joint Venture	No	
5	Scope of Work Exclusions	No	
6	Exceptions taken to IRWD Std. Contract	No	
7	Insurance (Professional & General Liability)	Yes	

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Irvine Ranch Water District

IRWD IRPDSM Reliability Model Update

August 3, 2022

Introduction

DCSE developed IRWD's Integrated Resources and Planning Distribution System Model (IRPDSM) reliability model (Model) as part of IRWD's 2016 Water Supply Reliability Evaluation. The model was used to identify areas of IRWD potable system expected to incur water supply shortages based on estimated future demands and a series of water supply scenarios. IRPDSM is based on a combination of Monte Carlo simulations used to derive probabilities and multi-objective optimization of achieving planning goals such as minimizing shortage or using preferred supplies. IRWD intends to update the 2016 Water Supply Reliability Evaluation in light of supply, demand, and system infrastructure changes since 2016. The following scope of work and cost estimate document the approach and necessary resources required to update the IRPDSM as a component of updating IRWD's reliability study.

Approach

The following input is required to run IRPDSM:

- Distribution System Configuration - This defines the elements of the model, including supplies, demands, surface and groundwater storage, transmission and distribution facilities, and their associated configuration. The system configuration also includes the operational rules of the system, if any. The existing system configuration of the model will be reviewed against IRWD's latest hydraulic model configuration to update the distribution system configuration.
- Supply Data – The supply data for IRWD is comprised of different sources, including imported water, local groundwater, and groundwater banking. Supply data for IRWD is tied to the supply data from MWDOC (for the imported water) and Orange County Water District (for the local groundwater).
- Demand Data – Water demand data at the IRPDSM nodes. This data is typically linked to the adjusted demands in the IRWD's Demand Forecasting Tool (DFT). A Demand Adjustment Tool (DAT) was developed in the 2016 study to perform these adjustments.
- Scenario Configuration – Scenario configuration configures a model run by combining a system configuration, supply, and demand data.

Another goal of this project is to set up the model and train the IRWD staff to conduct their own modeling analyses.

Tasks

Task 1 - Assist IRWD with IRPDSM Introduction to Potential Consultants

The purpose of this task is to prepare and provide a presentation to potential IRWD consultants that will be conducting the reliability study. This presentation aims to provide sufficient background on the modeling aspect of the reliability study so that the consultants can estimate the level of work necessary to prepare the input data and analyze the model results.

Assumptions: None

District Responsibility: Review draft presentation. Coordinate the consultant meeting.

Deliverables: Prepare draft and final presentation on IRPDSM, including showing sample input and results from IRPDSM.

Task 2 - Update IRPDSM Schematic representing the IRWD water transmission system

This task aims to review and update the schematic representation of the IRWD's system to reflect the changes since the 2016 study. DCSE will also review the IRWD's Demand Forecasting Tool (DFT) and Demand Adjustment Tool (DAT) to verify and update the mappings of the IRPDSM demand model nodes and those of the DAT. DCSE will also review the latest hydraulic model from IRWD to update the IRPDSM model nodes and connectivity. The proposed subtasks are:

- Task 2.1: Update the schematic to include new/future infrastructures (Compare with the Latest Hydraulic Model).
- Task 2.2: Update Demand/Supply nodes restrictions.
- Task 2.3: Update transmission capacities.
- Task 2.4: Update model run objectives.

Assumptions: None

District Responsibility: Provide the latest hydraulic, DFT, and DAT models. Assist by responding to project team questions related to the IRPDSM model configuration.

Deliverables: IRPDSM model demand nodes setup.

Task 3 - Collaborate with Selected Consultant to Prepare input (Supply & Demand) for the IRPDSM model

This task covers collaborating with the selected consultant to prepare supply and demand data for IRPDSM. The selected consultant will be responsible, in coordination with IRWD, for providing DCSE with updated supply and demand data. DCSE will assist the consultant in setup and verifying the supply and demand data for the cases and scenarios identified by IRWD and the selected consultant. The proposed subtasks are:

- Task 3.1: Review Objectives and Propose Configuration on Schematic.
- Task 3.2: Review Objectives and Propose Configuration on Supply, Demand, and Timings.

Assumptions: Selected Consultants and IRWD will identify the scenarios to be evaluated by

District Responsibility: Participate in defining the supply and demand scenarios. IRWD and selected consultant to provide updated supply and demand data.

Deliverables: IRPDSM model supply and demand nodes setup.

Task 4 - Formulate disruption scenarios into up to ten IRPDSM scenarios

This task covers the formulation of up to ten IRPDSM scenarios identified by IRWD and the selected consultant. This includes the model input, structure, demand, and supply scenarios. The task includes setting up and verification of the input data. The proposed subtask are:

Task 4.1: Formulate Structural Disruptions.

Task 4.2: Formulate Supply Disruptions.

Task 4.3: Formulate Other User-Defined Constraints.

Assumptions: Selected Consultants and IRWD will identify the scenarios to be evaluated by IRPDSM.

District Responsibility: Identify the scenarios to be evaluated.

Deliverables: IRPDSM model input for up to ten scenarios.

Task 5 - Perform up to ten IRPDSM scenario runs

This task covers the running of up to ten IRPDSM scenarios based on input data prepared in Task 4. The model runs will be monitored and the results collected and saved for further evaluation in Task 6. The proposed subtask are:

Task 5.1: Utilize Water Demand Forecasting (WDF) model water demands for IRWD through 2045.

Task 5.2: Utilize the un-adjusted demands to calculate an updated Basin Production Percentage (BPP) and corresponding OCWD supply available to IRWD for each year of the Model runs.

Task 5.3: Update the supply and demand inputs for every Model scenario.

Task 5.4: Run all model scenarios using the updated schematic, demand, and supply data.

Task 5.5: Summarize model results for each scenario.

Assumptions: Selected Consultants and IRWD will identify the scenarios to be evaluated by IRPDSM.

District Responsibility: Identify the scenarios to be evaluated.

Deliverables: IRPDSM model results for up to ten scenarios. The results will be documented and presented using Microsoft Excel.

Task 6 - Evaluate IRPDSM results and create supply sources reliability curves

This task covers evaluating the results and the creation of supply-demand reliability curves for each run based on the ten IRPDSM scenarios prepared in Tasks 4 and 5. The reliability curves will be checked against the input data, and any anomalies will be identified. The draft results will be shared with IRWD and the selected consultant. The proposed subtask are:

Task 6.1: Develop and configure Excel charts.

Task 6.2: Dynamic Data Connection from Excel to SQL Server DB.

Assumptions: None

District Responsibility: None.

Deliverables: IRPDSM model results for up to ten scenarios shared with the selected consultant. The results will be shared using Microsoft Excel.

Task 7 – Statistical Analysis of Potable Water Supply Sources

This task will perform additional statistical analysis on the model results to identify the range of each water supply source's contribution to meeting the simulated demands. DCSE will use monthly supply results to calculate the annual supply for each year and trials for up to 10 selected supply sources. DCSE will perform statistical analysis to identify the Maximum, Mean, Minimum, and 95th Percentile of each supply source for all trials. The results will be tabulated and graphed for up to 10 scenarios. The proposed subtask are:

Task 7.1: Calculate annual supplies for each of the 25 years, for each of the 94 trials for all supply sources

Task 7.2: Perform statistical analysis for each of the 25 years

Assumptions: None

District Responsibility: The district identifies the supply sources and scenarios to be used for the statistical analysis.

Deliverables: Statistical analysis, tabulations, and graphs for up to 10 supply sources and four scenarios

Task 8 – Prepare a Technical Memorandum that summarizes model results for each scenario using the SQL Server database spreadsheet tool and the results of the Statistical Analysis.

This task intends to summarize and document the scenario modeling and statistical analysis results in a Technical Memorandum. It will also include the MS Excel result files for incorporation into the selected consultant's overall water reliability study project report. DCSE will provide a draft and final version of the Technical Memorandum and excel files after incorporating comments from IRWD and the selected consultant. The proposed subtask are:

Task 8.1: Prepare a draft report.

Task 8.2: Prepare the final report.



Assumptions: None

District Responsibility: Selected Consultant and District to provide comments on the Draft Report.

Deliverables: Summarization of the model results, statistical analysis, draft, and final Technical Memorandum. MS Excel files contain the model output.

Task 9 - Provide training to IRWD staff

This task intends to set up the model on two desktop environments with a shared database at IRWD. Once the model is set up, hands-on training sessions will be provided to designated IRWD staff. The training will review some of the modeled scenarios as sample runs. The training will provide IRWD with sufficient understanding to adjust the model, re-run scenarios, or create new scenarios with updated datasets. DCSE also will provide a user training guidebook to IRWD. The proposed subtask are:

Task 9.1: Prepare training material.

Task 9.2: Conduct on-site training.

Assumptions: None

District Responsibility: The district identifies the individuals to be trained. District to provide MS SQL Server access to host the IRPDSM database. District to assist with the installation of the system on two desktops.

Deliverables: Installation, testing, and training of the IRWD project team and a user training guidebook.



Project Cost

The labor rates used to estimate the cost are approved in the 2020 GIS On-Call Support contract.

DCSE Labor Rates

Labor Classifications	Labor Rates (\$/hr.)
Principal Engineer	\$260
Supervising GIS Analyst	\$210
Sr. Software Engineer	\$170
Technical Writer	\$100

The table on the following page shows project costs broken down at the sub-task level. A cost estimate of \$6,000 per average scenario run is also provided.

DCSE Cost Proposal
IRWD IRPDSM Reliability Model Update

Tasks	Project Manager	Supervising Engineer	Sr. Software Engineer	Technical Writer	Hours	Cost
	\$260	\$210	\$170	\$100		
Task 1 - Assist IRWD with IRPDSM Introduction to Potential Consultants	8	8			16	\$3,760
Task 2 - Update IRPDSM Schematic representing IRWD water transmission system	48	48	64	0	160	\$33,440
<i>Task 2.1 – Update the schematic to include new/future infrastructures (Compare with the Latest Hydraulic Model)</i>	16	16	24		56	\$11,600
<i>Task 2.2 – Update Demand/Supply nodes restrictions</i>	8	8	12		28	\$5,800
<i>Task 2.3 – Update transmission capacities</i>	8	8	12		28	\$5,800
<i>Task 2.4 – Update model run objectives</i>	16	16	16		48	\$10,240
Task 3 - Collaborate with Selected Consultant to Prepare input (Supply & Demand) for IRPDSM model	36	40	48	0	124	\$25,920
<i>Task 3.1 – Review Objectives and Propose Configuration on Schematic</i>	12	16	16		44	\$9,200
<i>Task 3.2 – Review Objectives and Propose Configuration on Supply, Demand, and Timings</i>	24	24	32		80	\$16,720
Task 4 - Formulate disruption scenarios into up to 10 IRPDSM scenarios	32	64	72	0	168	\$34,000
<i>Task 4.1 – Formulate Structural Disruptions</i>	8	16	20		44	\$8,840
<i>Task 4.2 – Formulate Supply Disruptions</i>	8	16	20		44	\$8,840
<i>Task 4.3 – Formulate Other User-Defined Constraints</i>	16	32	32		80	\$16,320
Task 5 - Perform up to 10 IRPDSM scenario runs	24	60	80	0	164	\$32,440
<i>Task 5.1 - Utilize Water Demand Forecasting (WDF) model water demands for IRWD through year 2045</i>	4	8	12		24	\$4,760
<i>Task 5.2 - Utilize the un-adjusted demands to calculate an updated Basin Production Percentage (BPP) and corresponding OCWD supply available to IRWD for each year of the Model runs</i>	8	8	12		28	\$5,800
<i>Task 5.3 - Update the supply and demand inputs for every Model scenario</i>	4	16	32		52	\$9,840
<i>Task 5.4 - Run all model scenarios using the updated schematic, demand and supply data</i>	4	16	12		32	\$6,440
<i>Task 5.5 - Summarize model results for each scenario</i>	4	12	12		28	\$5,600
Task 6 - Evaluate IRPDSM results and create supply sources reliability curves	20	40	32	0	92	\$19,040
<i>Task 6.1 - Develop and Configure Excel Charts</i>	10	20	16		46	\$9,520
<i>Task 6.2 - Dynamic Data Connection from Excel to SQL Server DB</i>	10	20	16		46	\$9,520
Task 7 -Statistical Analysis of Potable Water Supply Sources	4	16	16	0	36	\$7,120
<i>Task 7.1 – Calculate annual supplies for each of the 25 years, for each of the 94 trials for all supply sources</i>	2	8	8		18	\$3,560
<i>Task 7.2 – Perform statistical analysis for each of the 25 years</i>	2	8	8		18	\$3,560
Task 8 - Prepare a Technical Memorandum that summarizes model results for each scenario using the SQL Server database spreadsheet tool, and the results of the Statistical Analysis.	24	40	32	40	136	\$24,080
<i>Task 8.1 – Prepare draft report</i>	16	32	24	32	104	\$18,160
<i>Task 8.2 – Prepare the final report</i>	8	8	8	8	32	\$5,920
Task 9 - Provide training to IRWD staff	8	40	24	0	72	\$14,560
<i>Task 9.1 – Prepare training material</i>	2	16	16		34	\$6,600
<i>Task 9.2 – Conduct on-site training</i>	6	24	8		38	\$7,960
Total	204	356	368	40	968	\$194,360

* Average Cost per Scenario for Tasks 5-7 is \$6,000.



Project Duration

The duration of this project will be estimated once the overall project is defined and scheduled. The schedule may be revised based on findings in the kick-off meeting, availability of IRWD staff, time to formulate the different scenarios, and other project requirements.

Exhibit "C"

Summary of HDR's Proposal and Costs

Item	Description	HDR Evaluation		
A	TECHNICAL APPROACH			
1	Adherence to RFP Requirements	Met requirements.		
2	Understanding of required services/ project details	Excellent. Demonstrated strong and thorough understanding.		
3	Approach and Methodology	Excellent. Comprehensive approach and strong technical expertise.		
4	Schedule	Very Good. Meets requested timeframe.		
B	QUALIFICATIONS AND EXPERIENCE			
1	Project Manager :	Leanne Hammond (PE, ENV SP, BS, 20 yrs. exp)	Ms. Hammond has managed many large-scale planning projects over the last decade.	
2	Principal-in-Charge:	Amy Omae (PE, LEED AP, MS, 18 yrs. exp)	Ms. Omae has worked with IRWD for over a decade and managed development of IRWD's Sewage Treatment Master Plan and the Recycled Water Salt Management Plan.	
3	Technical Leads:	Chris Behr (LEED AP, MS, 28 yrs. exp) Risk/Statistical Analysis	Each technical lead provides deep experience (ranging from 16 to 42 years) and expertise in complicated policy, science, and engineering issues that inform inputs to the IRPDSM.	
		Yu Jung Chang (PhD, 38 yrs. exp) Water Quality Vulnerability		
		Blaine Dwyer (PE, MS, 42 years exp) Colorado River		
		Joey Engleson (PhD, 19 yrs. exp) Hydraulic Modeling		
		Gregorio Estrada (PE, LEED AP, BS, 16 yrs. exp) QA/QC		
		Jafar Faghih (PE, MS, 23 yrs. exp) Demand and Supply Inputs		
		Steve Friedman (PE, PhD., 20 yrs. exp) MWD, Groundwater		
		Jeff Hanson (PE, MS, 24 yrs. exp) Water Conservation		
		Les Harder (PE, GE, PhD, 30 yrs. exp) Bay Delta Vulnerability		
		Mike McMahon (ENV SP, BS, 37 years exp) Climate Change		
4	Project Team Experience:	HDR project team has the technical, public policy, planning, and facilitation expertise and experience needed for the Reliability Evaluation Update.		
5	Firm's Relevant Experience:	Having worked with IRWD for the past 16 years and delivered 35 projects, HDR has strong institutional knowledge and understanding of working with IRWD.		
C	SCOPE OF WORK			
	TASK	Task Hours	FEE	
1	Project Management and Meetings	262	\$67,000	
2	Develop Demand Input	76	\$18,700	
3	Develop Existing and Future Supply Input	110	\$29,400	
4	Develop Scenarios for Supply System Disruption or Constraint	170	\$45,300	
5	Water Supply and System Requirements Analysis and Report	144	\$35,800	
6	Preliminary Evaluation Update Recommendations	52	\$14,000	
7	Final Evaluation Update Recommendations	72	\$19,300	
8	Deliverables	374	\$87,300	
9	SUB-TOTAL ENGINEERING SERVICES, FEES (Does Not Include Optional Items)	1,260	\$316,800	
10	Optional Items			
11	TOTAL ENGINEERING SERVICES, FEE	1,260	\$316,800	
12	Avg \$/hr. (Does not include optional tasks)		\$251	
D	OTHER			
1	Miscellaneous Items			
2	Multiplier		2.5%	
3	Conflict of Interest		No	
4	Joint Venture		No	
5	Scope of Work Exclusions		No	
6	Exceptions taken to IRWD Std. Contract		No	
7	Insurance (Professional & General Liability)		Yes	

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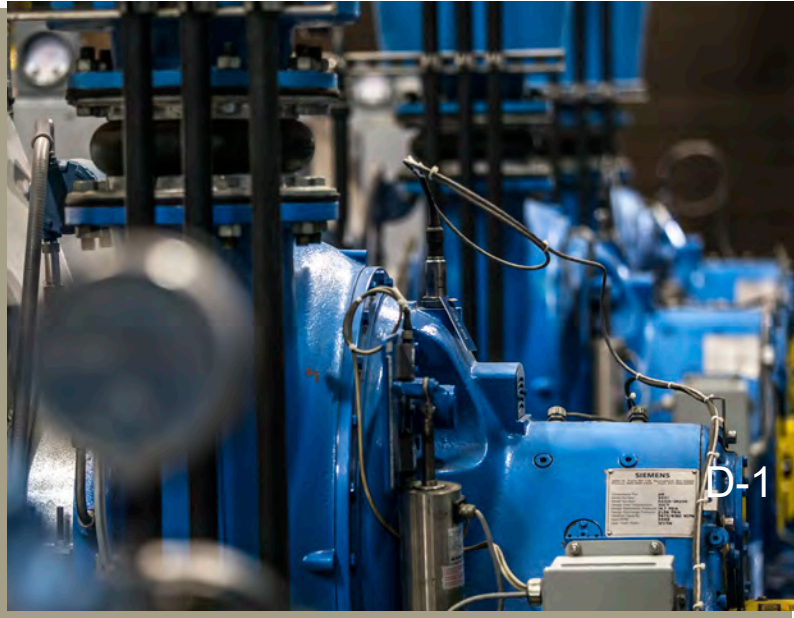


Proposal

Water Supply Reliability Evaluation Update

Irvine, California

September 21, 2022





I | Cover
Letter



September 21, 2022

Irvine Ranch Water District
Robert Huang, Project Manager
15600 Sand Canyon Avenue
Irvine, CA, 92618

RE: Request for Proposal - Water Supply Reliability Evaluation Update

Dear Mr. Huang and Members of the Selection Committee,

Thank you for inviting HDR Engineering, Inc. (HDR) to propose on your Water Supply Reliability Evaluation Update Project. We are excited about this opportunity and have met with your staff over the course of the last year to fully understand your goals for this project. This project is important because changes in local and regional water supply sources, as well as new Irvine Ranch Water District (District) facilities and emerging climate change impacts, warrant an updated perspective in managing your water supply system. Similar to the previous study, we understand that the District desires an updated understanding of how current and projected conditions, such as imported water supply shortages, climate change, facility outages and emergencies, affect water supply and to develop a plan for assessing water supply reliability and risk.

The HDR team has a long history of successfully working with the District on many critical issues. We have assembled a multi-disciplinary team, bringing history and knowledge from working on the previous study, that will deliver in-depth and defensible water resiliency planning documents and risk analyses. Selecting HDR will provide the District the following key benefits to deliver your project goals:

Leadership to Deliver Innovative Water Reliability - HDR's project manager, Leanne Hammond, PE, brings proven success in water planning and supply assessment studies in southern California. Her experience will provide the District insight to local and regional water supply issues.


District Experienced Team - The HDR Team includes Amy Omae, Gregorio Estrada, Steve Friedman, Joel Engleson and others who have worked on many District projects; we will leverage their knowledge of District operations and future planned facilities to drive innovative ideas.

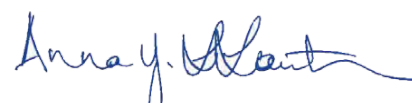
Specialized Resources - HDR's team of experts include Ed Winkler, formerly with CA DWR, who will address State Water Project and Bay Delta vulnerabilities; Mike McMahon, HDR's very own expert in climate change, Blaine Dwyer for Colorado River strategies, and Kristi Shaw who is our National Groundwater Banking and Augmentation Lead. These experts offer the most up-to-date technical (and political) knowledge to the District.

Relationships - Our relationships and past work with the regional water agencies, including Metropolitan Water District, Orange County Water District, Municipal Water District of Orange County, DWR and the Colorado River Basin, bring insight to regional vulnerabilities that may affect your system. We will leverage these relationships to obtain their most current resiliency planning ideas and test those ideas and assumptions against our own expertise and modeling results.

Thank you for inviting us to propose on this project. HDR has been partnering with the District for many years bringing knowledge of your systems and successful project delivery, and we are excited for the opportunity to collaborate and partner with you. Leanne and her team have the full support of HDR and our personal commitment that we will deliver a successful project that will evaluate and analyze various impacts to projected water demands through to serve the District for years to come in maintaining minimum service levels through drought and emergency scenarios. Please contact Leanne Hammond at 858.712.8203 or Leanne.Hammond@hdrinc.com if you have any questions regarding our proposal.

Sincerely,
HDR Engineering, Inc.


Leanne Hammond, PE, ENV SP
Project Manager


Anna Lantin, PE
Vice President

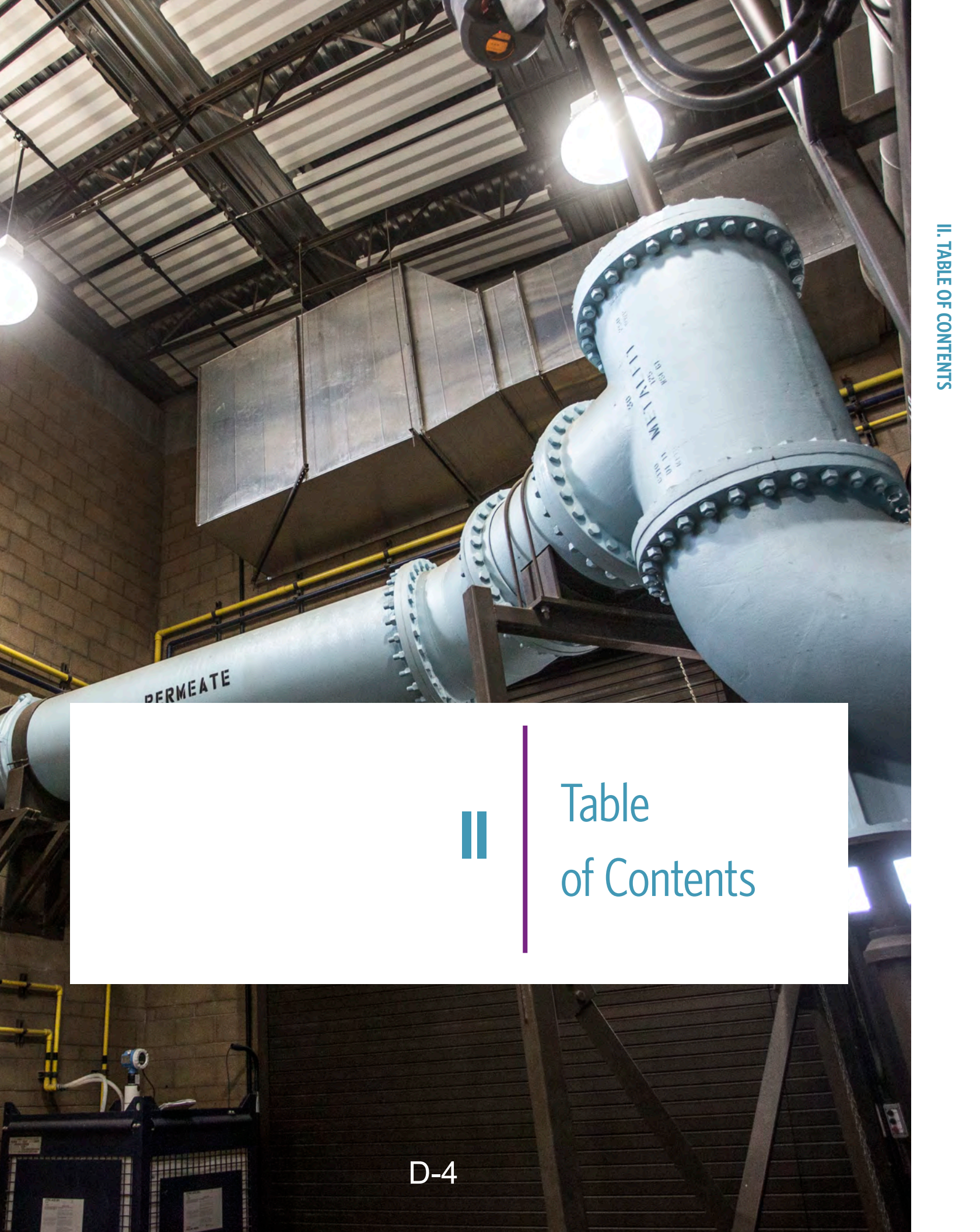


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Section 1

Scope of Work



PROJECT UNDERSTANDING

Irvine Ranch Water District (District or IRWD) has taken a diligent approach to developing a reliable and resilient water supply system to serve its growing community and provide sufficient supply under normal operating conditions through buildout. The 2016 Water Supply Reliability Study identified a variety of drought and emergency scenarios that could impact the District’s ability to deliver water to its customers and, subsequently, put into place a prioritized portfolio of sound and cost-effective responses.

This Water Supply Reliability Evaluation Update (Evaluation Update) will reanalyze and improve upon the District’s 2016 Water Reliability Study, focusing on the District’s ability to maintain a minimum level of service under various emergency scenarios that include multiple outages occurring simultaneously, based on a rigorous and transparent probability of risk analysis. Changing conditions suggest a potential for emergency conditions could be more severe than historic data could predict, and changes in the regional water supply landscape have evolved, suggesting that an update to the 2016 Study is warranted. With recent findings in climate change research and the projected reliability of imported water sources, including conservation mandates from the Colorado River, the District is reassessing their definition of risk and level of service expectations, and developing improved and robust mitigation strategies. This analysis will provide sufficient documentation to justify future operational and capital

water reliability improvements, and investments, from both a local and regional perspective.

HDR has a thorough understanding of the challenges facing Evaluation Update and has developed a winning approach to help District meet the objectives of the project. **Table 1** below presents our understanding of the key challenges or issues that will be addressed by this project. Our approach provides the District with a fresh perspective to the project while addressing issues with innovative solutions.

PROJECT APPROACH

We believe that the workshop elements of the project are critical to meeting IRWD’s goal of a robust and scientifically based assessment of risk and the development of cost- effective mitigation recommendations. To achieve buy-in, these workshops will be facilitated by our Project Manager, Leanne Hammond, and include presentations and discussion with our technical experts. These workshops will serve to provide IRWD decision makers with a fresh understanding of the overlying complexities of water supply risks, and to elicit their input on establishing level of service goals under a variety of supply and demand conditions.

Table 1 below presents our understanding and approach to helping IRWD develop a robust Evaluation Update. We have highlighted the benefit of choosing HDR to address these challenges.

Table 1: HDR’s understanding of the key issues surrounding the Water Reliability Project.

PROJECT CHALLENGE	HDR’S APPROACH	BENEFIT TO IRWD
To maintain a minimum level of water supply to provide system reliability during various drought and emergency scenarios or combination of scenarios	Develop robust, scientifically defensible planning documents and modeling tools to predict water shortages and develop solutions to optimize investments and minimize risk.	HDR has assembled a multi-disciplinary team that will deliver in-depth and scientifically defensible water resiliency planning documents and risk analyses. Our proven experience in water reliability planning are critical to developing cost- effective solutions for IRWD.
To understand and mitigate impacts of regional and local water supply vulnerabilities on District supply scenarios	Re-evaluate IRWD’s supply reliability through a collaborative approach, capturing District staff knowledge of their system and desired levels of service during single or multiple water shortage scenarios and enhancing that knowledge with technical expert experience and recommendations	Our workshops will include District decision makers and HDR experts to develop a comprehensive understanding of system vulnerabilities, and minimum level of service criteria for a variety of shortage scenarios. This collaborative approach creates buy in among your decision makers regarding service levels and prioritization of investment strategies. The workshops also provide the opportunity to examine supply priorities and present alternative solutions for mitigating potential shortages.
To support evaluation tools that will continue to help the District address evolving water shortage scenarios for years to come.	Coordinate updated demand and supply inputs with the scenario model developed under the 2016 Water Reliability Study to provide a new analysis that incorporates hydraulic constraints in delivering water supply to the District and its users under multiple demand input scenarios.	The Integrated Resource Planning Distribution System Model is a comprehensive tool that simulates and optimizes delivery and storage of imported water specifically through Metropolitan Water District’s system. HDR will develop new demand forecast and water supply scenarios to be used as inputs to the model while developing solutions to water shortage scenarios based on model data.

A successful approach to the Evaluation Update requires: 1) an in-depth understanding of IRWD’s water supply availability and demands under a variety of conditions; 2) an ability to evaluate the parameters of risk associated with those conditions; 3) the comprehension of data from the reliability model that simulates the risk and assesses the probability of supply shortages; and 4) innovative thinking in proposing solutions to offset potential shortfall scenarios.

The HDR Team will develop a comprehensive reliability study that evaluates three categories of variables:

- **Demand Variables:** Changes in demand may be based on land use development, population growth, and economic conditions; water conservation programs; climate change; rate sensitivity; and/or mandatory cutbacks.
- **Supply Variables:** Changes in supply may be based on drought; water quality issues; and/or policy changes in water management throughout the state of California and across the Colorado River Lower Basin. Supplies will incorporate changes in imported water from MWDOC, including SWP, interagency agreements, and any recent facility improvements.
- **Transmission Variables:** Changes in infrastructure’s ability to deliver supply may be based on routine shut down of facilities for maintenance; and/or disruption of service for varying lengths of time due to earthquakes or other natural disasters.

We will coordinate with findings from the District’s reliability assessment model, which optimized imported water delivery and storage for Metropolitan Water District (MWD), to analyze water reliability for IRWD. We will rely on the statistical analysis developed in the Municipal Water District of Orange County’s (MWDOC) Water Reliability Study to enhance the input data used to evaluate reliability, and also use HDR’s local and regional experts on the State Water Project, Colorado River water supply, climatology, water banking, demand forecasting, water conservation, risk assessment and sustainable return on investment. They will provide input into developing the reliability scenarios and risk parameters, which will be provided to the District’s modeling consultant for model analysis. We

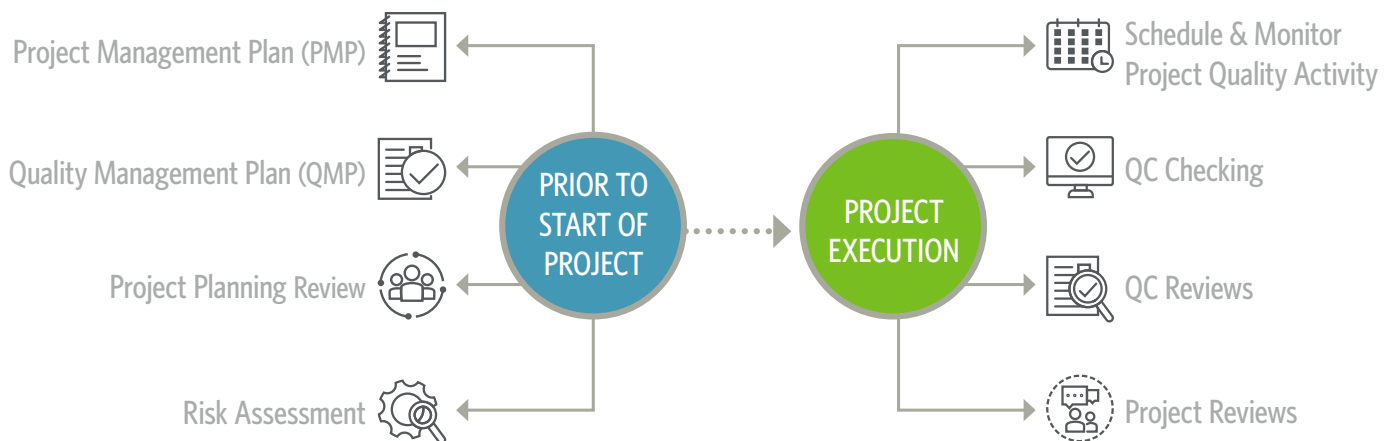
QUALITY CONTROL & ASSURANCE

will leverage our local knowledge with national expertise to develop risk assessment scenarios and generate innovative solutions.

Our expectation is to set the industry benchmark for excellence in services we provide to our clients. We accomplish this through work well done, staying true to purpose, and exercising discipline. It is our policy to consistently provide professional services that satisfy statutory and regulatory requirements that meet or exceed your expectations. To achieve quality in our work, we have developed a Quality Management System (QMS) that provides an important framework for ensuring that we are reaching the highest levels of quality—both for you and for ourselves. We remain focused on continual opportunities for improvement throughout our daily activities to achieve client satisfaction and meet performance expectations.

Our rigorous Quality Assurance and Quality Control (QA/QC) process builds quality into every step of the plan. **Gregorio Estrada** will serve as QA/QC lead. Gregorio has an extensive background in facility planning and plant design in California, and has been at HDR more than 20 years.

Our QA/QC Plan will be incorporated into the PMP and presented at the kick-off meeting. Implementation of the plan will be documented throughout the project. The QA/QC Program promotes prevention rather than detection, and being proactive rather than reactive. This project-specific approach begins even before the project is awarded. Project reviews begin during project initiation at 0% complete and is continuous throughout the project. This QA/QC program involves the preparation of project guides that monitor communications, project fling, reviews, delivery of documents, document productions standards, and project close-out.



SCOPE OF WORK

Based on our understanding of the project, we have developed a detailed scope of work for the preparation of the Evaluation Update. The following tasks describe our proposed approach to executing the project. The following sections of this scope of work describe the proposed model in great detail. We are confident the Evaluation Update will address all the objectives set forth by IRWD in this RFP and will provide additional functionality that will benefit both the planners and operators of the system.

Task 1 - Project Management & Meetings

HDR recognizes the importance of customizing and implementing a strong project management approach led by experienced project managers. Leanne Hammond has managed dozens of large scale planning projects in the past decade. She brings a strong sense of teamwork and the ability to recognize and expediently solve project challenges. Communication is a critical component of her management style and she will work closely with IRWD staff in implementing this project in accordance with your schedule and budget. Regular telephone and email communications will be supplemented with periodic team meetings to provide status updates, discuss and resolve project issues and verify that the study is on schedule.

We believe that the facilitation of the Project Workshops is a critically important element of this project. Through collaborative thinking and strategic discussion, we will capture innovative and fresh approaches to water reliability planning for IRWD. We believe that the best value of these workshops is in gathering your staff, decision makers and stakeholders to define the District's anticipated level of service under different durations and magnitudes of failure and potential mitigation measures, which will guide the development of the scenarios to be modeled. In order to do that, the participants will need a full understanding of the water demands within the District, and the risk elements associated with IRWD's current supply portfolio.

Our proposed approach is to include the two 4-hour workshops at the onset of the Scenario Planning task (Task 4). These workshops will be held on two separate half-days to allow for attendees to digest the information, and for HDR staff to assimilate information elicited from the group. We will work with District staff to identify attendees from both within the District and from other agencies, such as MWD or the Municipal Water District of Orange County (MWDOC), if their input is deemed beneficial to the discussion. The Scenario Planning Workshop will include presentations and discussion with our technical experts.

At the first workshop, we will present water demand and supply characteristics developed in Tasks 2 and 3 (Demand and Supply Input), discuss existing documentation and proposed updates to this information and facilitate initial discussion on the reliability factors that could impact the Evaluation Update scenarios. This is where our technical experts will prove their value. As discussed in much more detail in our Task 4 approach, HDR's experts bring a thorough understanding of the vulnerabilities associated with each of the supply and demand elements within IRWD's tool box. They offer a fresh perspective from outside of the regional planning arena, and an opportunity to vet the assumptions and analyses conducted by MWD, MWDOC and other regional planning agencies. In addition to being able to understand and articulate the risk factors, they also offer solutions to mitigating these risk factors.

At the second workshop, we will facilitate the development of the scenarios to be modeled, building from the scenarios presented in MWDOC's draft Water Reliability Study. Building on the information provided in the first workshop, the workshop will elicit level of service goals, as well as the key parameters and variables that the attendees agree will define the scenarios to be assessed in the model. While we can't anticipate all risk factors for every scenario, in collaboration with the Workshop attendees, we can use our expert evaluation of the system and demands to efficiently define and evaluate the risks with the largest exposure. There could likely be several levels of failure in terms of magnitude and duration of loss. For each type of failure, we would discuss how such a failure could occur and what mitigating

Where Have We Done This?

Through successful collaboration developed via project workshops with LBWD, all stakeholder perspectives and desired goals were reviewed to achieve consensus and, most importantly, gain buy-in across invested parties.



measures can be taken to offset the potential water shortage. There are a multitude of potential mitigation measures, so the order of implementation would also need to be prioritized. At the conclusion of this workshop, the HDR team will be able to move forward with a fully vetted list of scenarios to model in Task 5. We propose using the second workshop to outline probability of occurrence scenarios, which will be further developed and reviewed in a follow up meeting with IRWD.

The Scenario Planning Workshop is an extraordinary effort that will take close coordination with IRWD staff to be successful. Leanne Hammond's experience in organizing Workshops for the Long Beach Water Department Water Supply Optimization Study, which set the foundation for the Department's groundwater program and well development schedule, will be invaluable in bringing technical resources together with utility staff, decision makers and stakeholders, and eliciting valuable discussion and consensus.

And finally, as part of our Project Management task, we present our approach to quality control. Quality is a mindset that is shared by every member of the HDR Team. It starts with clearly understanding your expectations and making a commitment to meeting them. Additionally, HDR conducts internal Project Approach and Resource Review (PARR) on every project. PARR is a comprehensive technical review of our projects in the early stages of development to confirm the right expertise is involved, appropriate alternatives and concepts are being considered, and the project is on the right track to meet or exceed our client's needs. It is performed by one or more individuals with extensive experience in the key technical issues associated with the project. For this task HDR will perform the following:

1.1 Project Work Plan & Administration

Develop a comprehensive project management plan (PMP) containing project expectations and key issues, detailed scope, budget, schedule, meeting schedule, deliverables, communication protocols, contact details, and safety protocols. Perform the required tasks to confirm effective project management. Project administration tasks include contract administration, preparation of invoices, and management of project resources, budget and schedule.

HDR will maintain and update the project schedule using MS Project. The schedule will track all tasks and milestones including critical data requests, workshops and meetings, reports and key deliverables. Project meetings and workshops will be scheduled in accordance with the District's availability with meeting invites sent in-advance via MS Outlook. The project schedule will be presented at the project meetings.

1.2 Data Request & Review

Provide a data request list at the onset of the project. Meet with IRWD and MWDOC staff to gather the latest information regarding resiliency and reliability plans and policies. The project team will collect, track and review data provided. Data gaps will be noted and

expeditiously resolved in coordination with IRWD staff. The data review will include review and assumptions with the Integrated Resources and Planning Distribution Model (IRPDSM).

1.3 Project Meetings & Progress Reports

Coordinate and attend a Project Kick-off meeting with the District to review project objectives and introduce key members of the project team. Coordinate and attend regular meetings, Project Coordination Meetings with the District. Prepare and submit an agenda at least one week in advance of the meeting. Within one week after the meeting, provide meeting minutes to the District. At each project meeting, submit a Project Progress Report that provides a summary of the project's progress. A presentation to the Board is included in Task 6 and Task 7.

1.4 Project Workshops

HDR will coordinate and conduct two 4-hour workshops at IRWD's offices at the onset of Task 4, Scenario Planning. Facilitate workshops and provide collateral materials and technical presentations to workshop attendees.

1.5 QA/QC

Organize and develop an effective QA/QC program specific to the project to confirm project success and accuracy. Present a draft QA/QC plan at the kickoff meeting for review and approval by IRWD staff. Conduct technical reviews throughout the project for the various deliverables. A qualified technical review team and sufficient schedule and budget to coordinate a thorough review of work products shall be provided.

DELIVERABLES

- Evaluation Update Project Management Plan, including QA/QC Plan
- Data Request and Tracking List
- Regularly Scheduled Status Reports and Schedules
- Agendas and Minutes for all Meetings and Workshops
- Workshop Presentations/Collateral Materials
- Monthly invoices

Task 2 - Develop Input Data: Demands

The District uses a GIS based Demand Forecasting Tool (DFT), developed for IRWD, for projecting average year demands through build-out. Under this task, HDR will develop baseline demands for the District's DFT by their modeling consultant. With input from IRWD staff, based on their inherent knowledge of the system and the community demand patterns, the HDR team will develop demand multipliers for a variety of factors that will be used as input for the DFT, as well as develop new projection scenarios. Considerations in developing the demand multipliers under a variety of demand conditions are provided in **Table 2** on the following page.

Table 2: HDR will collaborate with IRWD staff to develop demand multipliers for factors that will be used as input for the demand forecast and IPRDSM.

FACTOR	CONSIDERATIONS/APPROACH
Conservation efforts during droughts and emergencies, including demand reductions	To assess the magnitude of short-term responses by the public to requests/mandates for emergency water use reduction, assess IRWD’s experiences over recent years that have reduced per capita demands to 95 gpcd. Assess permanency of these reduced demands during drought recovery periods using historic data. MWD is currently considering conservation efforts regarding functional vs. non-functional turf irrigation.
Compliance with 2018 “Conservation as a Way of Life” legislation, local and regional mandates, and changes to plumbing codes and standards	IRWD has observed the impact of changes to plumbing codes and standards that have reduced water demand. The impact of these codes and standards will be assessed for their impact on future demands for new construction. New state legislation proposes future indoor water use reductions to 42 gallons per capita per day (GPCD) by year 2030. MWD is updating their Integrated Water Resources Plan, which develops assumptions related to new plumbing standard, the number of devices per household, compliance rate and natural replacement rate. This approach can also be applied to IRWD to develop projected decreases in demand, as more devices are replaced.
Economic impacts	Consider lingering effects of the 2008 economic recession and increasing inflation costs on household formation and household size. Model future changes in households related to recovery from the recession. Potentially link historic changes in local unemployment percentages with per capita water use.
Customer Rate impacts	IRWD is well-known for using innovative rate structures to encourage water conservation. Correlate past rate increases with decreases in demand to assess degree of influence of price elasticity.
Weather and multiple dry-year demand impacts	Include local climate change effects on evapotranspiration (E-T) and outdoor landscape irrigation requirements, as one of the factors for adjusting demand projections. Use the best available science related to downscaled climate change models for southern California. Integrate the District’s Water Shortage Contingency Plan and mitigation strategies under dry-year scenarios.
Unaccounted for water system losses.	The District is taking a proactive approach to evaluating their water system with recent asset management and condition assessment efforts. A water supply balance provides a look at unaccounted for water; coordination with condition assessment recommendations will provide strategies for reducing potential water system losses in the future.

In addition to adding factors to the list above, uncertainty analysis can be applied to the multipliers that are developed (e.g., varying levels of climate change impacts on demand). Once the demand factors are established and the model is developed, the District’s proposed modeling consultant will use the demand input to evaluate projections of demands, imported supplies, and storage portfolio based on an assumed pattern of future climate. Climate change models, aligned with scenarios developed by MWDOC, will be incorporated into the demand and supply inputs and further refined during the scenario planning probability evaluation. The baseline demand scenario will include both current demands and a buildout demand projection; in addition, HDR will develop a range of demand scenarios that take into consideration imported supplies and interagency agreements, emergency response actions, new growth

forecasts, and new facilities constructed or planned for construction in the near-term.

For this task HDR will perform the following:

DELIVERABLES

- Technical Memorandum summarizing the development process of the demand inputs
- Baseline demand input, including one low and one high range demand projection, for use as input to the DFT and IPRDSM. HDR assumes that the District and/or separate consultant will update and run the DFT and IPRDSM and provide output data to HDR to refine for use in this study.

Task 3 – Develop Input Data – Existing and Future Supply Sources

The IPRDSM evaluates the probability of being in shortage or surplus for each scenario over a designated time period. Infrastructure upgrades or new supply sources developed and prioritized as part of the development of scenarios in Task 4 will be modeled to assess their impact on system reliability. In addition, the analysis will indicate the amount of surplus capacity that IRWD might be able to provide to other agencies through existing inter-tie facilities. The final supply recommendations will be characterized in terms of a percent of normal year demands (e.g. supply requirement = 150% of normal year demands). As part of the 90% draft report, the analysis will be presented with alternatives and cost estimates for achieving various levels of supply and system reliability.

Under this task, the HDR team will fully explore the characteristics of each of these water supply sources and identify the opportunities and constraints associated with each. We will use these characteristics and documented risk parameters to develop the scenarios in Task 4.

IRWD has developed a diverse array of water supply sources to meet demand conditions in both wet and dry year conditions. Supplies include imported water, local groundwater, and groundwater banking and the Evaluation Update will integrate supply data from MWD, MWDOC and Orange County Water District (OCWD). As demands grow and external factors impact the reliability of imported and local potable water resources, the risks associated with these supply sources should re-analyzed. With the most recent update of MWD's Integrated Resources Plan, MWDOC's draft Water Reliability Study Update, the District's Water Resources planning documents and the most recent Urban Water Management Plan, much of this information is anticipated to be available through existing documentation. We will vet this information with the regional agencies that deliver water to IRWD and with our HDR experts in State Water Project and Colorado River Basin operations, and climatological modeling, and update any assumptions we find to be appropriate.

IRWD's current supply sources of potable water include:

- Local groundwater wells
- Colorado River Water
- State Water Project (SWP) Water
- Imported water from MWD
- Imported water from MWDOC
- Local runoff stored in Irvine Lake
- Local Interagency Agreements
- Water Banking in Kern County with the Rosedale Rio Bravo Water Storage District

IRWD is also dependent on the transmission, treatment and storage facilities that deliver potable water to the District. Short term disruptions in service for annual routine maintenance, as well as potential long term emergency disruptions, will be included in this analysis. These transmission facilities include:

- Diemer Regional Water Treatment Plant
- Baker Water Treatment Plant
- Aqueduct Systems that deliver imported water, including pumping facilities
- Local Storage Facilities/Reservoirs

Future supply sources of water, or infrastructure projects that will make the transmission system more resilient, will be assessed in the Evaluation Update. Opportunities to maximize future supply sources and increase availability of current sources under emergency conditions may include:

- Proposed 2.6 cfs capacity within the Delta Conveyance Project tunnel
- Kern Fan Groundwater Storage Project
- Raw water augmentation at Baker Water Treatment Plant
- Participation in the Sites Reservoir Project
- Policy changes that allow increased use of resources
- Offsets gained through increased recycled use
- Additional storage of potable and non-potable water

Short-term and long-term impacts and documented risk factors for service disruption associated with each of these supply sources and infrastructure facilities will be presented at the Scenario Planning Workshop. At that workshop, we will seek to include additional input from the participants, which will be used to develop the supply constraint scenarios in Task 4.

3.1 Characterize Existing and Future Water Supply Source Inputs

Characterize available supply sources and conveyance facilities for delivering potable supplies to the District including hydraulic and contracted capacities, age and expected useful life of current facilities, and potential for risk of service disruption. Existing supply sources will be reviewed and updated based on changes to data on imported water from MWDOC, water from the Colorado River or SWP, interagency agreements, and planned facilities or facility improvements. Updated supplies and future supply impacts presented in MWDOC's draft Water Reliability Study update will be reviewed and incorporated into the supply input data.

Characterize potential future supply sources and conveyance facilities for delivering potable supplies to the District including capacities and interagency agreements or contracts required. Potential for mitigating service disruptions associated with the District's current water supply sources will also be evaluated.

HDR will provide supply source data as inputs for the District's modeling consultant to use with the IPRDSM.

3.2 Coordinate with Regional Agencies

HDR will organize, attend, and up to two (2) meetings in total for coordination with MWDOC and/or OCWD to obtain other information as required for imported facilities or changes in supplies.

For this task HDR will perform the following:

DELIVERABLES

- Technical memorandum characterizing existing and future water supply sources and assumptions considered for supply input
- Meeting agendas and minutes

Task 4 – Develop Scenarios for Supply System Disruption or Constraint

Water reliability at IRWD depends on the independent functioning of a series of components that include multiple sources, pipelines, reservoirs, and pumping stations. Failures to one or more of these components have the potential to cause overall system failure.

At the onset of Task 4, the HDR team will facilitate two separate 4-hour Scenario Planning Workshops. At that workshop, we will present our findings from Task 2 (Water Demand Input) and 3 (Water Supply Input). We will also present a summary of current local and regional agencies reliability studies and describe their approach and assumptions in evaluating water supply reliability. Our team of experts will be on-hand to validate or provide additional data to consider regarding these assumptions and approaches. Following the presentation, the HDR team will facilitate a brainstorming session with IRWD staff and stakeholders to develop a comprehensive list of scenarios that could impact IRWD's water reliability. Factors considered in the comprehensive list will be prioritized to develop an appropriate list of scenarios that cover outages and constraints of varying duration and magnitude. HDR will document eliminated scenarios for reconsideration at a later time.

Imported water from the SWP and the Colorado River Basin is delivered to IRWD through the MWD system. Potential issues affecting the reliability of these systems include:

- Delta failure
- Environmental restrictions (i.e. Delta smelt)
- SWP delivery failure (includes major earthquake)
- Colorado River basin drought
- Colorado Aqueduct delivery failure (includes major earthquake)

Climate change impacts potentially pose significant long-term risks to the IRWD through supply and system disruption and constraint. Mike McMahon performed an impact analysis of climate change on the Bay Delta Conservation Plan (BDCP) using the factors quantified by global climate model (GCM) data for 112 different climate scenarios and he has learned from experience to appreciate the importance of scenario characterization.

The far-reaching impacts of climate change and their relationship to the operations of IRWD will need to be addressed on several levels of geographic scale (global to community), as well as in a way that addresses climate change impacts on the consequential interaction with other risks such as system failures, evolving environmental restrictions, or changes in regulatory guidance. As has been learned during other studies, the risks posed by climate change and variability will be there regardless of the consequences of the other identified risks. Climate change/variability impacts on supply and demand scenarios include changes in:

- Precipitation patterns that will impact water supply storage as well as decision making for flood control, minimum in-stream flows, and reservoir operation
- Temperature regimes that will have a profound impact on demand, as well as watershed ecology and water quality
- Snowpack and snowmelt timing in the Sierras and the Rockies, which may have the greatest impact on water supply resiliency within the region
- Intensity and duration of storm events, which could significantly alter design criteria (design storm) for infrastructure projects
- Groundwater supply, which would work in concert with demand changes to potentially deplete aquifers and result in land subsidence
- Flood recurrence, which could greatly impact reservoir/levee and water management in the region
- Drought cycles that would become an issue for water management from the watershed to the end user

The Scenario Planning Workshop will collaboratively derive a set of reasonable climate change scenarios, that will be used as model input for water supply and demand. MWDOC's Water Reliability Study update developed five planning scenarios to determine impacts of climate change on water demands and supplies, considering Warm/Wet, Warm/Dry, and Hot/Dry climate futures. This Evaluation Update will determine, through the Scenario Planning Workshops, which climate scenarios from MWDOC's draft study to use for inputs to the IPRDSM.

Water banking is already being practiced by IRWD by capturing low cost water for underground storage during wet periods and recovering this water for later use and importation into the IRWD service area during emergency periods. The goal of IRWD's water banking program is to provide enough water to meet approximately 15 percent of IRWD customers' needs during critically dry years. The water bank is an important part of IRWD's commitment to meet the water customers' needs during critical shortage conditions while maintaining reasonable rates. Water banking provides an opportunity to provide water storage of water that is not local and does not rely on local climate. In developing our scenarios for water banking, we will summarize the current IRWD program and assess available water supply from this resource in future years. These scenarios will also consider IRWD's access to up to 2.6 cfs of supply via the DCP tunnel and future participation in the Sites Reservoir project.

Water quality vulnerabilities could come in many forms. For the second Scenario Planning Workshop, we propose potential water quality problems be considered initially for all sources and locations. We would then screen the potential problems based on likelihood of occurrence and degree of consequence, to identify the largest vulnerabilities and risks. The types of water quality issues vary by type of source, but they generally include:

- Short term incident, which might include intentional contamination, accidental chemical spills or fire impacts to water quality

- Longer term problems, which might include reservoir stratification, groundwater contamination, or increasing salinity due to drought
- Changing regulations that may identify new contaminants of concern

Once the potential water quality vulnerabilities are identified, mitigation or prevention measures would be developed. A comprehensive list of water quality prevention and mitigation measures would be developed for assessment and screening. Assessment would include evaluation of feasibility and cost, as well as performance in reducing vulnerability to water quality problems. Some of the strategies and mitigation measures that could be considered at the Scenario Planning Workshop include:

1. Evaluation of the flexibility in use of existing sources considering potential outages due to water quality problems
2. Evaluation of alternative sources of supply;
 - a. Including potential connections to adjacent water suppliers
3. Coordination with other water suppliers and authorities to develop an early warning network;
4. Public education and communication
5. Early warning water quality systems / instrumentation;
6. Treatment upgrades;
7. Provision of additional raw or finished water storage
8. Watershed access controls / wellhead protection

For this task HDR will perform the following:

4.1 Review and document past reliability assessments associated with IRWD’s current or potential water supply sources and transmission facilities.

To be efficient, we will draw on past studies to document past reliability assessments as they affect the components of IRWD’s water supply system. We will also rely on scenarios and analysis already developed under MWDOC’s Water Reliability Study update.

4.2 Update reliability factors based on input from our experts.

Evaluate documents reviewed in Task 4.1 to determine if the assumptions and data used in those assessments is still valid, or if more recent data or information is available that will make the analysis more current. Update those reliability factors and assumptions for use in the development of the model in Task 5.

4.3 Develop water supply constraint scenarios and potential mitigation measures.

Following the Scenario Planning Workshops described in Task 1, develop up to ten (10) supply and system disruption scenarios for review by IRWD. The supply disruptions may include drought allocations of imported or groundwater supplies or emergency shutdown of their respective production or conveyance facilities. The outage scenarios will include a probability of the outages and the probability of multiple outage scenarios occurring simultaneously.

Short-term outages, and longer-term multi-year scenarios will be identified. Potential scenarios and factors that could be considered include, but are not limited to:

- Major earthquakes;
- Delta levee failures;
- State Water Project (SWP) facility failures;
- Colorado River Aqueduct facility failures;
- Long term drought on the Colorado River;
- Climate change impacts;
- Lake Mead water levels and water shortage triggers, as determined through Bureau of Reclamation (BOR) conservation mandates;
- MWD treatment and conveyance facility failures;
- IRWD well, treatment and conveyance facility failures;
- Environmental restrictions, such as implementing actions in the Bay Delta Conservation Plan (BDCP), taking into consideration various alternative conveyance scenarios; and
- Changes to the OCWD groundwater basin production percentage, including a long- term accumulated overdraft of over 500,000 acre-feet (AF).

Potential mitigation measures for each scenario will be developed and prioritized to offset any water shortages that result from the scenarios modeled. Costs and benefits of each mitigation measure will be developed.

DELIVERABLES

- Technical Memo that documents the Scenario Planning process and outcome; develops a range of scenarios and prioritized mitigation measures that will be modeled in Task 5; and establishes the cost and benefits of the proposed mitigation measures.

Task 5 – Water Supply and System Requirements Analysis and Report

Supply sources and regional demands are greatly impacted by the weather patterns, development and redevelopment plans, and water related policies. Additionally, natural disasters such as earthquake that may disrupt a supply requires that the transmission capacity of the system for different areas of the system to be taken into account to ensure that alternative supplies can be transferred to the impacted areas. This reliability analysis will evaluate the independent and combined effects of risks to each of these systems and assess whether existing redundancy is sufficient or if options for new supply sources would be required, and at what cost.

The District’s modeling consultant will provide the results and supply-demand reliability curves for the ten scenarios developed in Task 4. Draft results will be presented and HDR will review and provide comments to the modeling consultant for incorporation into the model. The modeling consultant will provide statistical analysis results (Maximum, Mean, Minimum and 95th Percentile of each supply source) for up to four (4) selected scenarios.

HDR will incorporate the District's modeling consultant's Technical Memorandum with summarized results of their analysis into Task 5 deliverables.

HDR worked successfully with the District's proposed modeling consultant under the 2016 Water Reliability Study, so we understand how the proposed modeling consultant utilizes demand and supply inputs, as well as how to prepare the water system reliability analysis based on results from the IPRDSM and statistical results. The water supply and system reliability recommendations will provide strategies for each scenario or alternative to support the District's plan for reliable and achievable service.

DELIVERABLES

- Technical Memorandum summarizing the development process scenarios, a description of the scenarios evaluated and findings of the model runs. The Technical Memorandum deliverable from the District's modeling consultant summarizing the results of the scenario modeling and statistical analysis will be incorporated into the draft and final report.

Task 6 – Preliminary Evaluation Update Recommendations

As described below in Task 8, report chapters will be compiled and submitted for a 75% and 90% draft review, as requested in the RFP. Upon completion of the 90%, the HDR team will prepare and present an overview of the study and preliminary recommendations to the IRWD Board of Directors in a workshop. Findings, recommendations and justification for the recommendations will be presented. Minutes will be taken, and responses to the Board's comments will be recorded and incorporated into the Final Draft Report.

For this task HDR will perform the following:

6.1 Conduct Board Workshop

Prepare and present study overview and preliminary recommendations to the IRWD Board. Prepare presentation, handouts and boards, as needed to convey findings. Facilitate workshop to elicit comments from the Board, and respond to those comments. Prepare workshop minutes. Incorporate Board comments into Final Draft Report.

DELIVERABLES

- Workshop Agenda and Minutes
- Workshop Presentations/Collateral Materials

Task 7 – Final Evaluation Update Recommendations

For this task HDR will perform the following:

7.1 Finalize Report

Following the Board Workshop, and upon receipt of the District staff's comments, prepare a tabular response to comments for District's review. Upon resolution of comments, incorporate appropriate edits to the preliminary report and finalize a draft report, including report text, figures, tables and appendices.

7.2 Prepare Executive Summary

Prepare a clear, concise Executive Summary of the report findings and recommendations for inclusion in the Final Draft Report.

DELIVERABLES

- Table with Response to Comments
- Executive Summary
- Final Evaluate Update report

Task 8 – Deliverables

None of the work above means much if it cannot be compiled into a clearly written, transparent and comprehensive report document. HDR's proposed team members are experts at consolidating data into readable and easily referenced formats, with tables and figures to illustrate key points. A draft report outline will be presented at the kickoff meeting for your review. Our intent is to prepare the technical memoranda required in each of the above tasks as report chapters so that they can be transitioned easily into the final report. This allows IRWD staff to review draft work products as the work is being accomplished and not all at once toward the end of the project. Report chapters will be compiled and submitted for a 75% and 90% draft review, as requested in the RFP. At each submittal a project meeting will be scheduled to preview and discuss the report with District staff. Responses to District comments on the draft reports will be tabularized, for ease of review.

For this task HDR will perform the following:

8.1 Prepare 75% Draft Report

Prepare and submit a 75% complete report document, following the completion of Tasks 1 through 4. Five (5) copies of the draft report will be provided to the District. It is assumed that the District will compile their comments into a single set of comments for inclusion in the 90% draft report.

8.2 Prepare 90% Draft Report

Prepare and submit a 90% complete report document following the completion of Task 5. Five (5) copies of the report will be provided to the District. It is assumed that the District will compile their comments into a single set of comments for inclusion in the Final Draft Report.

8.3 Prepare Final Draft Report

Prepare and submit ten (10) copies of the Final Draft Reports and Appendices and an electronic copy will be submitted on CD in PDF format. The Final Draft Report will be tabbed in a 3-ring binder, with appropriately labeled Figures and Tables, and supporting documents will be included in a tabbed Appendices.

DELIVERABLES

- 75% Draft Report, 5 hard copies
- 90% Draft Report, 5 hard copies
- Final Draft Report, 10 hard copies in a 3 ring binder and appropriately tabbed
- Electronic files in PDF format of final deliverables, including their native file formats



Section 2

Team



TEAM

HDR has developed a team to deliver high-quality services to IRWD. Our team includes professionals well known to IRWD staff, including Amy Omae, Gregorio Estrada, and Steve Friedman, who will facilitate positive communications and help reach consensus on project elements. We are backed by over 300 professional engineers, scientists, planners, and other multi-disciplinary staff in southern California. We have also included national experts in scenario planning, integrated resource model and risk analysis, water banking, climate change, Colorado River, and Water Conservation. The HDR Team proposed for IRWD’s Evaluation Update offers the strength of industry leading expertise, unmatched local and regional knowledge, and a project approach designed to develop innovative, fresh perspectives.

HDR’s Resiliency Services

Never has the need for long-term resiliency and reliability been greater. We have crafted a holistic approach for considering long-term community and environmental resiliency. Viewing resiliency actions through this model of human-environmental-infrastructure governance systems gives our leaders an effective strategic tool for taking action.

With our depth of expertise comes the power to craft bold and creative approaches that will address resilience management and safety while yielding cost and schedule performance. As shown in **Exhibit 1**, HDR’s full suite of services allows our clients to focus on what you do best – delivering sound resiliency solutions to protect your communities and support economic growth.

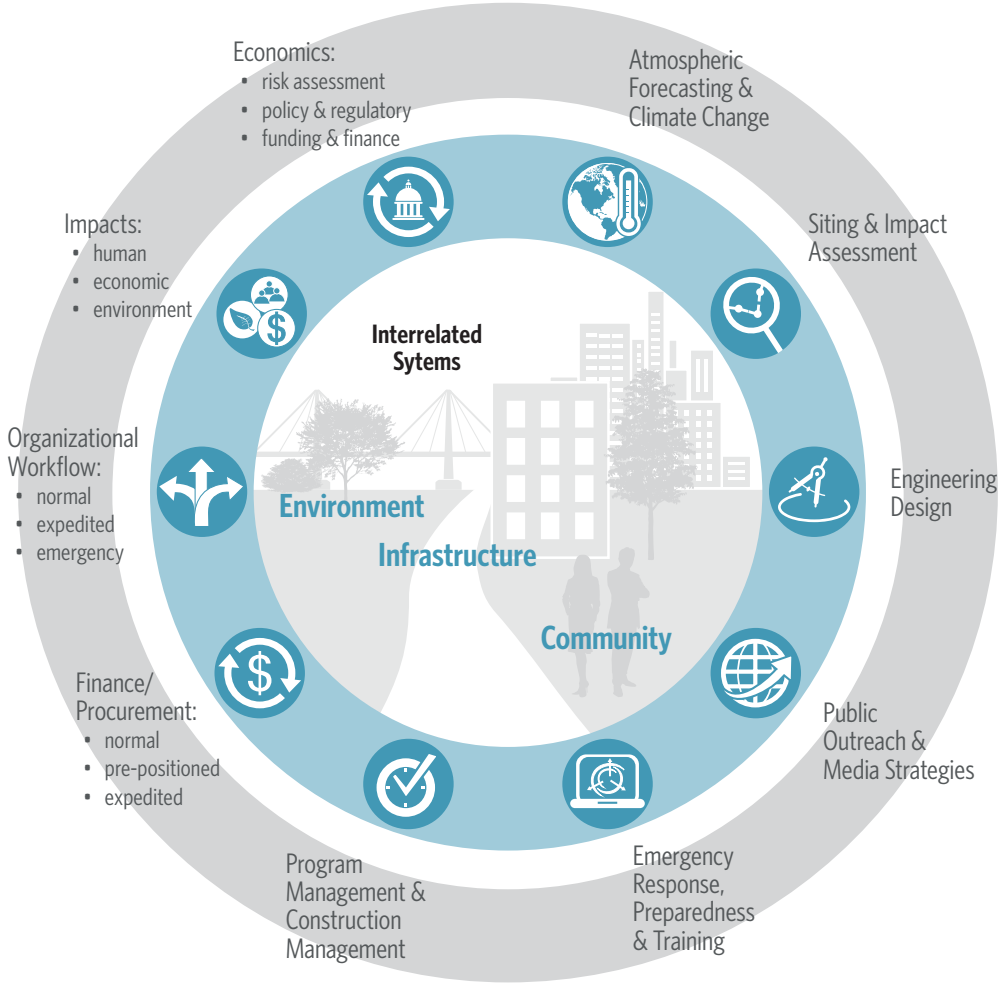


Exhibit 1. HDR will leverage our resiliency approach with our innovative project approach to deliver an Evaluation Update that meets all of IRWD’s needs.



Team Organization Chart

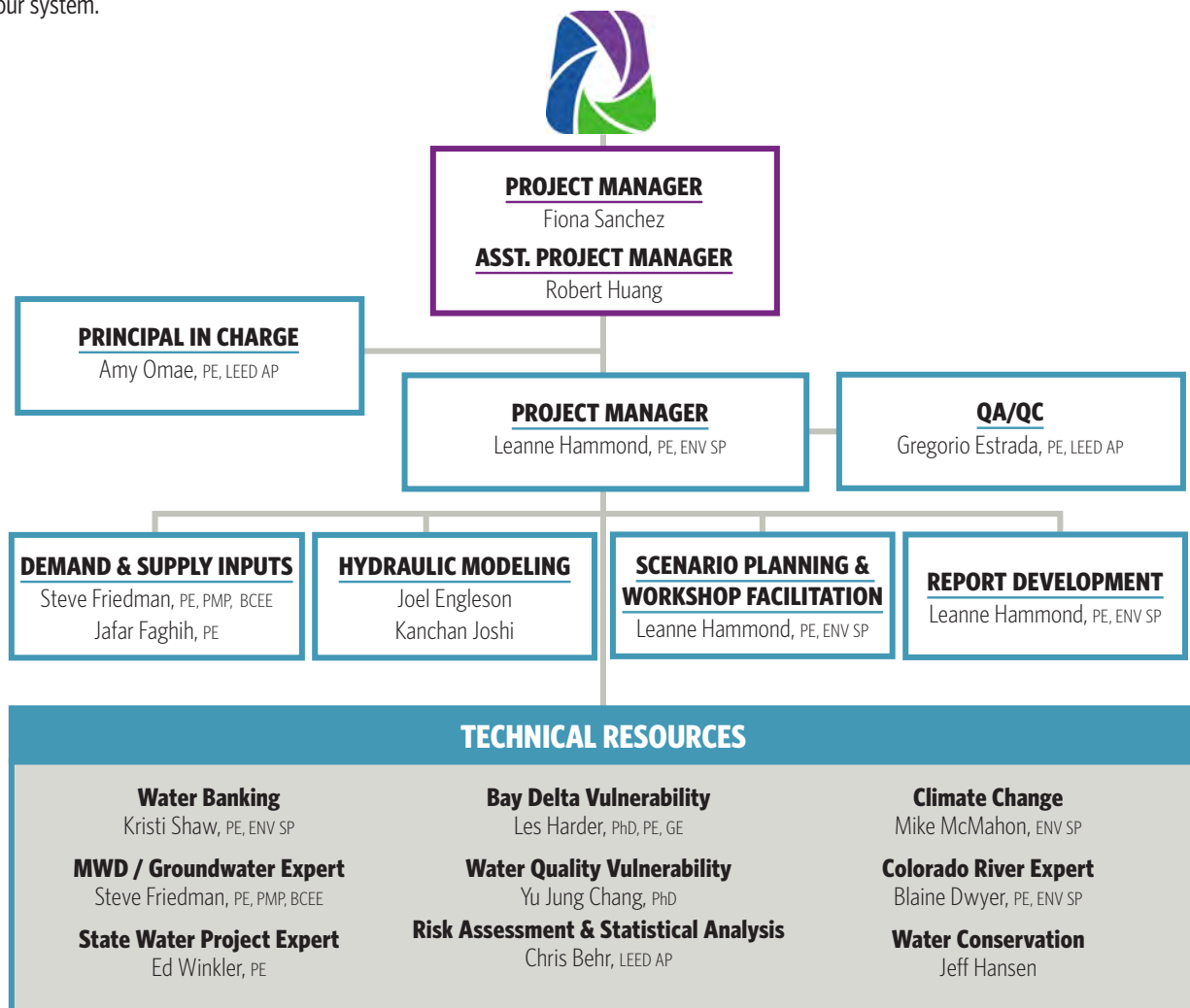
Irvine Ranch Water District requires a highly qualified, capable team of experts that can develop the Evaluation Update and develop feasible supply scenarios. HDR is proposing an experienced team of fully committed staff that will work in partnership with your staff. The organization of the HDR team profiles for key team members are provided below, including a high-level view of staff commitment to your Project. Key personnel assigned to this project shall not be reassigned without the prior written approval from IRWD.

Our proposed Project Manager and your primary point of contact for this project is **Leanne Hammond**. Leanne brings the perfect blend of technical and managerial skills and will provide technical coordination and oversight for the project. She has the confidence and corporate support to make decisions and to be accountable for the performance of this team. Leanne has over 20 years of experience leading various water planning efforts, including master plans, urban water management plans, water supply assessments, and water supply optimization studies. She will lead the HDR team and partner with IRWD staff to develop innovative ideas and cost-effective solutions for your system.

Leanne will be backed by a core team of technical experts who also have holistic knowledge from their history working for IRWD, including the 2016 Water Reliability Study, that allows us to update and advance prior work efforts.

HDR is committed to provide the right resources to achieve the District’s goals for the Evaluation Update. We have selected a team of experts who are experts in water supply assessment, integrated resource modeling and risk analysis, demand assessment and scenario planning—key technical elements of this project. Staff proposed for this assignment will be committed to the project and task completion.

The organizational chart below shows our proposed Evaluation Update team and the key staff associated with each role on the project. The staff matrix on the following page summarizes these team members’ qualifications and expertise. Key staff qualifications are provided on the following page.





Leanne Hammond, PE, ENV SP
Project Manager
B.S. Environmental Engineering, Cal Poly SLO
CA PE No. 73622 | ENV SP

Leanne has 20 years of experience with potable, recycled water, and wastewater master plans and hydraulic model development, urban water management plans, water and sewer technical studies. She is well-versed in engineering and project management duties including resource allocation, team performance, coordination with clients and subconsultants, and technical oversight so that quality goals are met, and budgets and schedule are maintained and achieved. She will leverage her experience and expertise to assist the District in this key assessment.

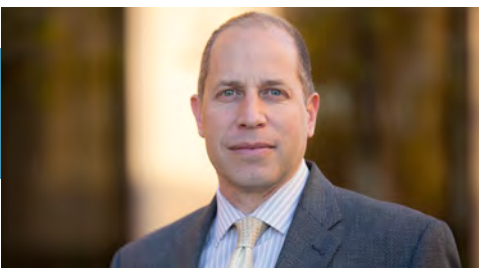
- **Recycled Water Master Plan Update**, *West Basin Municipal Water District*, Project Manager
- **Urban Water Management Plan**, *Vallecitos Water District*, Project Manager
- **Recycled Water System Condition Assessment & Optimization Plan**, *City of San Diego Municipal Wastewater Department*, Project Manager
- **Water Supply Optimization Study**, *Long Beach Water Department*, Project Manager



Amy Omae, PE, LEED AP
Principal in Charge
M.S. Environmental Engineering,
University of Miami
CA PE No. 76824 | LEED AP No. 10328834

Amy is HDR's market sector lead with 18 years of experience in wastewater and water master planning, design, and engineering services during construction projects. She recognizes that the institutional knowledge retained by her clients' engineering, operations, and maintenance staff is extensive and invaluable. Amy has worked with the District for nearly a decade and is familiar with your staff, standards, procedures, and processes. Most notably, Amy managed the Michelson WRP Tertiary Filter Improvements project and developed your Sewage Treatment Plant Master Plan.

- **Michelson WRP Tertiary Filters Improvements**, *Irvine Ranch Water District*, Project Manager
- **Sewage Treatment Master Plan**, *Irvine Ranch Water District*, Basis of Design Task Lead
- **Recycled Water Salt Management Plan**, *Irvine Ranch Water District*, Deputy Project Manager



Steve Friedman, PE, PMP, BCEE
Demand & Supply Inputs, MWD Liaison
M.S. Civil Engineering, UC Berkeley
CA PE No. 055566 | BCEE No. 7337470 | Risk Assessment Methodology for Water (CA)

Steve has 29 years of experience in engineering planning and design of water, recycled water, industrial waste, and wastewater facilities. He has both management and design experience in projects concerning transmission and distribution system piping, wastewater treatment plant upgrades, pumping stations, pressure-control stations, and water treatment. Steve has also been instrumental in conducting several hydraulic network modeling assignments including integrating results with ongoing planning and/or design efforts with MWD and other SoCal water agencies.

- **Carlsbad Seawater Desalination Plant New Intake Preliminary Design**, *Poseidon Resources*, Project Manager
- **Santa Ana River Interceptor Line Realignment, Protection, & Siphons**, *Orange County Sanitation District*, Project Manager
- **On-Call Engineering Services for Water Treatment Facilities, Conveyance, Storage & Distribution Facilities, and Large Rotating Equipment**, *Metropolitan Water District*, Project Manager



Gregorio Estrada, PE, LEED AP QA/QC
B.S. Civil Engineering, Stanford University
CA PE No. 67066 | LEED Accredited Professional

Gregorio has extensive experience in the planning, design, construction, and management of wastewater, water, and stormwater projects. He is an adept leader in wastewater treatment and has expertise in advanced treatment solutions including: nutrient removal, filtration, membranes, and disinfection. He has successfully delivered large-scale projects in advanced treatment. He is highly-skilled in building group-consensus amongst key stakeholders, performing economic evaluations and risk assessments, and assisting in negotiations with regulatory agencies.

- **Michelson WRP Ph. 2 Expansion**, *Irvine Ranch Water District*, Project Manager, Task Lead
- **Sewage Treatment Master Plan**, *Irvine Ranch Water District*, Project Manager
- **Michelson WRP Tertiary Filters Improvements**, *Irvine Ranch Water District*, Task Lead
- **Biosolids/Energy Master Plan**, *Irvine Ranch Water Department*, Project Manager



Staff Availability

The time commitment of our team members will vary over the duration of the project, as the technical effort evolves, ranging from 100 to 0 percent as tasks are completed. The table below illustrates their percentage of time available and committed to this project over the total 15 month project schedule. Our team is available and ready to begin the Evaluation Update and is dedicated to see it through to completion.

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. As your trusted partner, you can rely on us to successfully manage and deliver an innovative, cost effective Evaluation Update, as we have successfully done on numerous projects for IRWD.

Team Member	Role	% Time Commitment for this Project
Leanne Hammond, PE, ENV SP	Project Manager Report Development Scenario Planning	30%
Amy Omae, PE, LEED AP	Principal in Charge Scenario Planning	15%
Gregorio Estrada, PE, LEED AP	QA/QC	15%
Steve Friedman, PE, BCEE	Demand & Supply Inputs MWD/Groundwater Expert	20%
Joel Engleson	Hydraulic Modeling	25%
Jafar Faghieh, PE	Demand & Supply Inputs	25%
Kanchan Joshi	Hydraulic Modeling	25%
Kristi Shaw, PE, ENV SP	Water Banking	20%
Chris Behr, LEED AP	Risk Assessment & Statistical Analysis	15%
Les Harder, PhD, PE	Bay Delta Vulnerability	15%
Yu Jung Chang, PhD	Water Quality Vulnerability	15%
Mike McMahon, ENV SP	Climate Change	15%
Blaine Dwyer, PE	Colorado River Expert	15%
Ed Winkler, PE	State Water Project Expert	15%
Jeff Hansen	Water Conservation	15%



We understand the importance of meeting project schedules.

The capacity to accomplish work in a strict timeframe requires strong and experienced leaders backed by skilled team members. Our personnel are dedicated to providing sufficient time and effort to produce a quality product. 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 work and have assembled a strong team that is available to begin work upon Notice-to-Proceed. You can rely on us to successfully deliver this project.



Section 3

Experience

EXPERIENCE

Record of Performance on Similar Projects

Our depth of water planning expertise brings the ability to identify the right alternatives for your system with a focus on operational efficiency, long-term reliability, and institutional independence. The following pages demonstrate our expertise on previous projects with IRWD and other similar projects. Detailed project descriptions and client reference information can also be found on the following pages.

There is no better team for the job. The HDR Team includes the right mix of staff with the specialized experience and qualifications to deliver the Evaluation Update. The core members of this team have local offices and extensive experience at your facilities. This longstanding local expertise is supported by national resources with the ability to bring expertise and manpower to all tasks. HDR has been along side IRWD helping you make decisions and setting strategy for your system and facilities. With this knowledge, we will partner with you to bring a fresh look and provide new innovative solutions and re-evaluating decisions based on current issues with updated information and changing water supplies and customer needs.

As demonstrated throughout our proposal, HDR has worked with IRWD for the past 16 years on a wide variety of projects. **We bring with us a successful history of delivering 35 projects and institutional knowledge and understanding of your entire system.** We will tailor our approach to the specific needs of IRWD, drawing upon our experience on similar projects to provide guidance and lessons learned throughout project delivery.



FOUNDED in 1917, HDR has



10,500+
Employees Worldwide

200+ Offices
Globally



2022 ENR Top 500 Design Firms Rankings

- No. 5** Top 20 in Design Firms
- No. 3** Top 100 Pure Designers
- No. 5** Top 20 in Water
- No. 6** Top 20 in Sewer & Waste
- No. 7** Top 50 Designer in International Markets

Experience Counts.

The HDR team has a long history of working with you to develop and implement your planning goals, improve your processes, and maintain your systems for the future.



LAWRP Solids Handling and Odor Control

This memorandum evaluated alternatives for addressing solids handling and alleviating the production of odors from the lagoons.

LAWRP Lagoon Dredging

Prepared contract documents for dredging and dewatering of LAWRP lagoon solids by private contractor.

SOCWA Pump Station

Although this was part of the LAWRP 2005 Improvements contract, IRWD had HDR expedite design of the SOCWA pump station and develop separate construction documents.

MWRP Phase 2 Expansion Preliminary Design Report

Second phase of the MWRP Phase 2 Expansion Final Design Prepared 60%, 90% and final design documents for the Phase 2 Expansion.

MWRP Aeration and Sedimentation Basin Optimization

Increased capacity of rectangular secondary clarifiers by 45% through modeling and installation of baffles and launder modifications. Installed 500 HP Turblex blower to improve energy efficiency and meet process demands.

Study to Allocate Costs of Collection System Odor Control Between OCSD and IRWD

Identified contribution of the IRWD discharge to the formation and release of hydrogen sulfide in the OCSD collection system.

MWRP Phase 2 Expansion Engineering Services During Construction

Provided engineering services during construction.

Energy Efficiency Master Plan and Biosolids Handling Preliminary Design Report

First component of the Biosolids Program and Energy Efficiency Master Plan which provides a comprehensive approach to the management of biosolids and energy at IRWD's treatment facilities.

Preliminary Evaluation of System-Wide Biosolids Management Alternatives

Identified, screened, and evaluated overall strategies for treating, reusing, and/or disposing of the biosolids generated at MWRP and LAWRP.

LAWRP Biosolids Management Plan

Identified and evaluated alternatives for improving solids handling at LAWRP. Builds on prior decisions made during the System-Wide Alternatives Study.

MWRP Energy Control Procedures

Prepared energy control procedures for all process areas based on review of record drawings and field investigations.

Recycled Water Salt Management Plan

Developed Salt Balance Model to identify sources of TDS and develop mitigation strategies.

2016 Water Supply Reliability Evaluation

Updated the District's 2008 Draft Water Reliability Study, focusing on the District's ability to maintain a minimum level of service under various emergency scenarios.

MWRP Operational Support Services

Analysis and evaluation of operational costs associated with CAS and MBR process.

MWRP Emergency Diversion Support Services

Provided water quality analysis, hydrodynamic modeling, permitting support, and system design services for the diversion of MWRP effluent to San Diego Creek.

Embedded Energy Tool Update

HDR is providing updates to the embedded energy tool developed for the District in 2014.

Pump Stations & Storage Tanks Condition Assessment and Rehabilitation

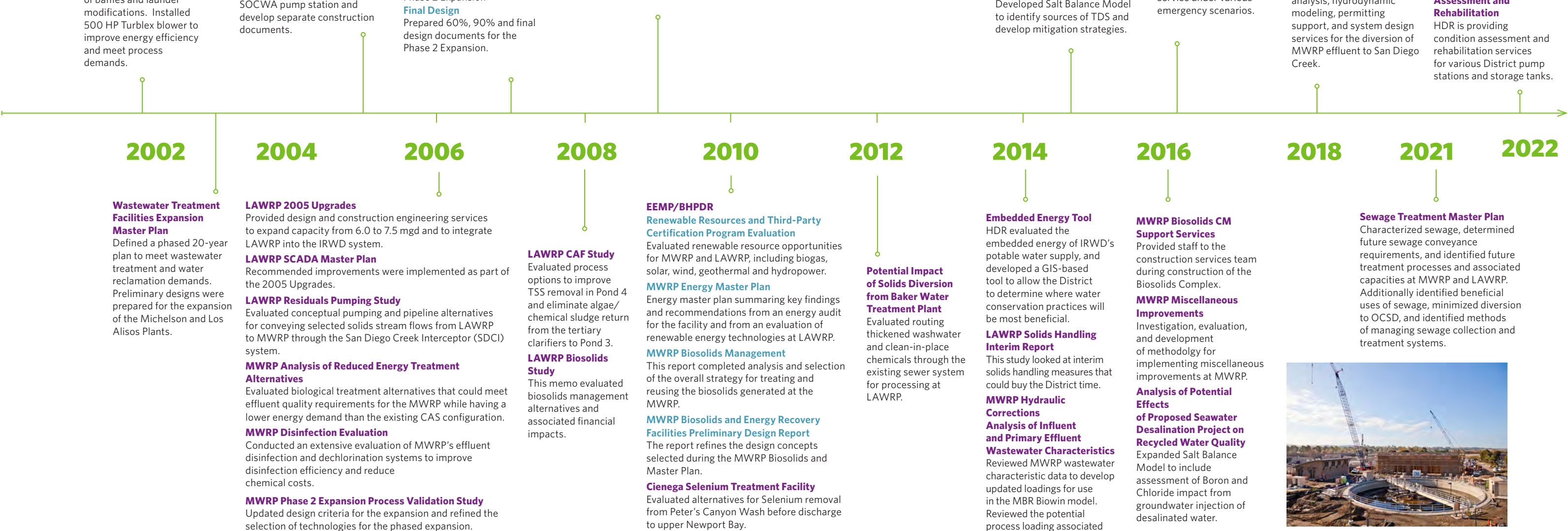
HDR is providing condition assessment and rehabilitation services for various District pump stations and storage tanks.

A History of Dedicated Client Service to IRWD

Of the numerous studies completed for IRWD, HDR was the author of 14! The staff who wrote those studies are still at HDR and are thoroughly invested in seeing IRWD through the next phase of water supply planning and management. In addition to the reports listed in the RFP, our work on the Sewage Treatment Master Plan, Energy Efficiency Master Plan, Recycled Water Salt Management Study, the Salt Model Update, the 2016

Water Reliability Study, and other projects is also essential to the thorough understanding of where you have been over the past two decades and what your vision is for the next 30 years.

The timeline below illustrates HDR's involvement on IRWD projects. There is no learning curve needed for us to get up to speed on past projects, alternatives considered, and lessons learned. The HDR Client Services Team, has been there every step of the way!





Water Reliability Study

IRVINE RANCH WATER DISTRICT

Irvine Ranch Water District (the District) has taken a diligent approach to developing a reliable and resilient water supply system to serve its growing community. Assuming that planned capital improvement projects are constructed, the District has secured a surplus of water that provides sufficient supply under normal operating conditions through build-out. Through the Water Reliability Study the District sought to identify and evaluate a variety of drought and emergency scenarios that could threaten the District's ability to deliver water to its customers and put into place a prioritized portfolio of sound and cost-effective responses. The Water Reliability Study focused on the District's ability to maintain a minimum level of service under various emergency scenarios based on a rigorous and transparent risk analysis. With recent findings in climate change research and the projected reliability of imported water sources, the District needed to reassess its definition of risk and level of service expectations to develop improved and robust mitigation strategies. With the potential for emergency conditions to be more severe than historic data could predict, an updated model was required. HDR provided modeling and evaluation of local and imported water supply reliability under a variety of emergency scenarios. The comprehensive resource and supply distribution model simulates and optimizes deliveries and storage of potable water taking into account hydraulic constraints associated with the delivery system. Using an indexed sequential Monte Carlo simulation and 83 years of historical hydrology, the model projects demands supply and

storage needs based on an assumed pattern of future climate. Level of service expectations were established and mitigation strategies were developed.

Control of Costs: HDR completed project scope and achieved project goals within the authorized budget.

Quality of Work: Client continues to invite HDR to collaborate because of our quality performance.

Ability to Meet Schedule: HDR routinely met interim and final milestones.

CLIENT REFERENCE

Paul Cook, General Manager;
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA
P: 949.453.5300
E: cook@irwd.com

DATES

2018 - 2021

CONTRACT VALUE

\$401K

Recent climate change research and projected reliability of imported water resources were incorporated into the analysis.

Water System Optimization & Supply Management Study

LONG BEACH WATER DEPARTMENT

Long Beach Water Department (LBWD) historically prioritized local water resources over imported water supplies and developed plans that have presented opportunities to diversify its local water supply portfolio and build system resiliency by increasing its current well field capacity. HDR was selected to prepare their Water System Optimization and Supply Management Report to compile and expand upon these discrete studies and develop a comprehensive strategic management approach, with a short and long term implementation plan for maximizing their local water resource supplies as a coordinated effort across LBWD. The Water System Optimization and Supply Management Study provides evaluates the benefits of shifting toward more local supplies while balancing water quality impacts on portions of the water system currently fed by imported water, utilizing local resources to the maximum potential, identifying potential adjustments for operational improvement and capital investment, as well as developing planning tools for both future and day to day decision-making.

As part of the project, HDR reviewed LBWD's existing hydraulic model using available data and information to identify potential data gaps and validated system boundary conditions based on planning criteria and assumptions. Following the model review and boundary conditions update, a hydraulic analysis of the existing system was performed to identify potential deficiencies and recommend system improvements and operational changes required for the shift to increased groundwater-based supply. Distribution system capacity was evaluated and operational strategies were developed and reviewed to address the constraints relevant to the supply portfolio shift. Solutions were focused on minimizing infrastructure improvements, simplifying operations, and optimizing energy use while satisfying hydraulic criteria.

HDR facilitated a series of technical workshops with LBWD stakeholders that led to the development and refinement of well capacity targets, the development of possible supply scenarios to meet those targets, and identified strategies and projects to increase local supplies into the existing water system.



The supply scenarios and project alternatives were vetted using a Decision Support System (DSS) to provide a means of comparing each scenario in a rigorous and quantifiable manner. The DSS was developed so that it can be updated as conditions change, and to serve as a long-term planning tool for years to come. The alternatives analysis resulted in a prioritized list of projects for LBWD to build into their capital planning budget and schedule. Each component of the study was summarized in a technical memorandum at key milestones throughout the project to streamline the review process and development of draft report chapters.

Control of Costs: HDR is fulfilling scoped tasks and is on track to achieve project goals within the authorized budget.

Quality of Work: Client engages in key submittal reviews and is aware of HDR's internal quality control process that contributes to successful delivery of the project.

Ability to Meet Schedule: To date, HDR conducts bi-weekly progress meetings to manage project schedule and meet project delivery milestones.

CLIENT REFERENCE

Heather Rhee, Sr. Civil Engineer
Long Beach Water Department,
Long Beach, CA
P: 562.570.2312
E: Heather.Rhee@lbwater.org

DATES

2020 - Ongoing

CONTRACT VALUE

To date: \$307K

On-Call Engineering Services for Water Treatment Facilities, Conveyance, Storage & Distribution Facilities, and Large Rotating Equipment

METROPOLITAN WATER DIST. OF SOUTHERN CALIFORNIA

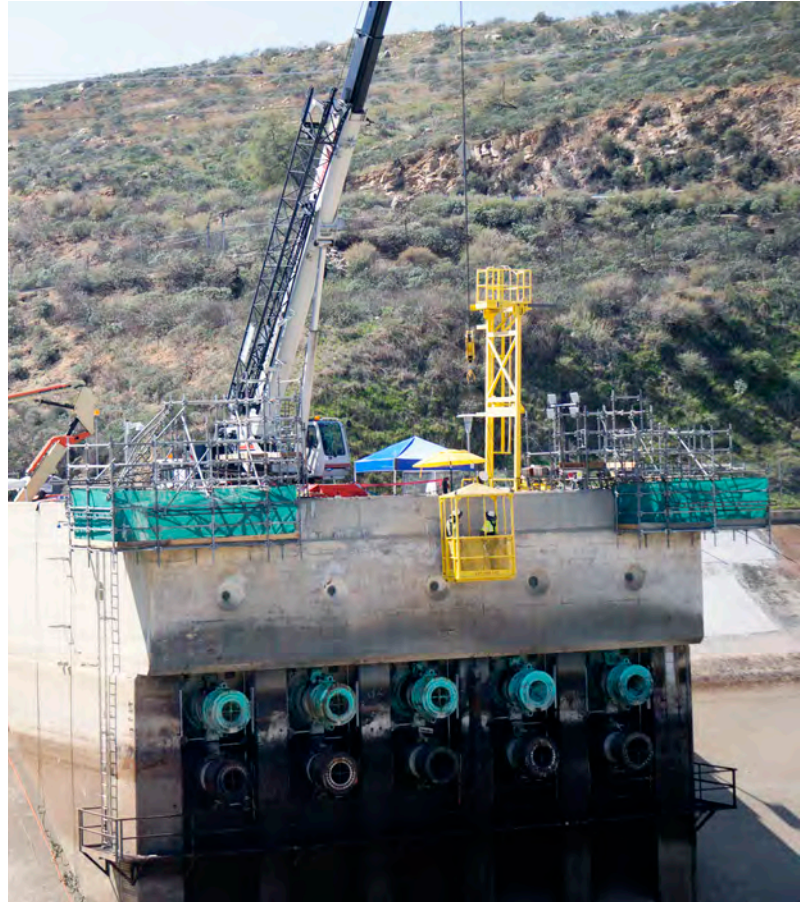
HDR provided engineering services on an on-call basis that include conceptual, preliminary, and final design services for new facilities and rehabilitation of existing facilities related to Water Treatment Facilities, Conveyance, Storage, and Distribution Facilities, and Large Equipment Services. Key task orders include:

Technical Support for Delta Conveyance, Sites Reservoir, Delta Islands, and Other Bay-Delta Matters: The Delta Conveyance project will modernize the State Water Project infrastructure in the Delta that diverts fresh water to consumers in the Bay Area, the San Joaquin Valley, along the central coast, and to Southern California. The project would add new diversions in the north Delta to provide a more resilient and reliable State Water Project in the face of changing climate, earthquake risks and other uncertain future conditions. Metropolitan has an interest in supporting Delta Conveyance planning and would like to ensure that appropriate analyses are conducted to better understand and mitigate risks commonly associated with infrastructure projects of this size.

The Sites Reservoir is an environmentally beneficial, off-river reservoir that will capture excess water from major storms and save it for drier periods, helping California's farms, businesses and cities continue to supply reliable water when other sources are low.

Lake Mathews Forebay Bypass Study: The Lake Mathews discharge facility consists of an intake system, energy dissipation structures, a forebay, a small hydroelectric power plant, and outlet structures facilitating power generation and water supply.

Several factors including aging, lack of regular equipment assessment and routine maintenance, and corrosion negatively impacted the physical condition of the discharge facility and equipment. To ensure satisfactory and reliable operation of the facility and avoid potential future disruption to water delivery, five alternative energy dissipation configurations were developed, evaluated and presented to MWDSC for consideration. The alternatives were developed to span a range of construction costs and capabilities, with a similar range of flexibility provided to the Lake Mathews forebay operation and all alternatives needed to fit within the existing infrastructure at the site, and could not necessitate the shutdown of the facility for construction. The primary goal of these alternatives was to maintain water supply during construction and future maintenance activities.



Control of Costs: HDR has successfully achieved delivery of task order scopes of work within authorized budgets.

Quality of Work: Task orders have been conducted according to HDR internal quality control processes which align with Client expectations.

Ability to Meet Schedule: To date, HDR has consistently met project milestones and delivery goals within the allocated schedules by maintaining regular status check-ins with Client teams.

CLIENT REFERENCE

Tom Campbell, Contract Admin.
Metropolitan Water Dist. of
Southern California,
Los Angeles, CA
P: 213.217.6767
E: TCampbell@mwdh2o.com

DATES

2020 - Ongoing

CONTRACT VALUE

To date: \$606K

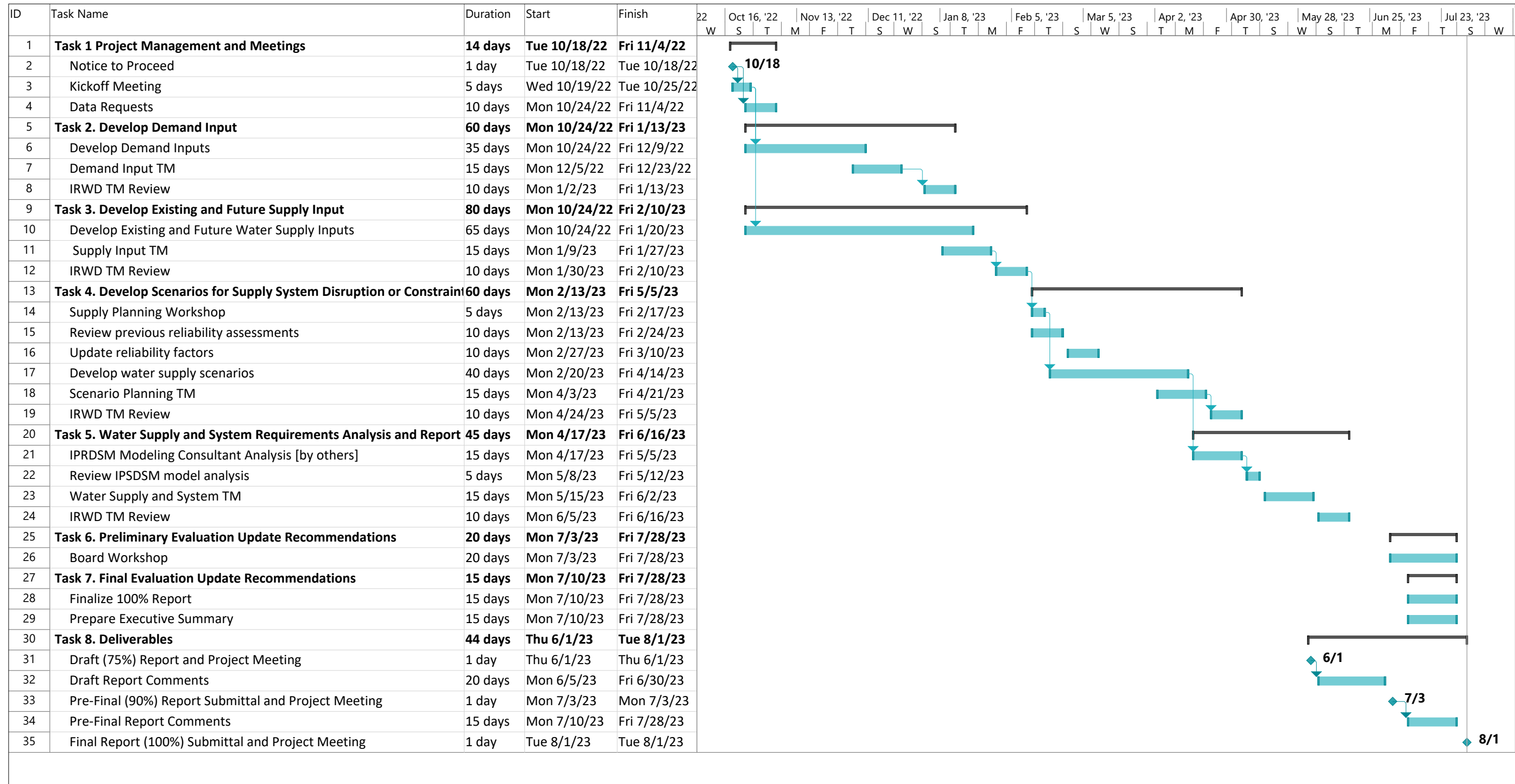


Section 4

Schedule



SCHEDULE





Section 5

Budget



BUDGET

NO.	TASK DESCRIPTION	LEVEL OF EFFORT (HOURS)										FEE (DOLLARS)					
		Principal	Project Manager	Quality Reviewer	Sr Technical Expert	Sr Engineer	Project Engineer	Staff Engineer	GIS Technician	Document Specialist	Accountant	Project Coordinator	Total Labor	Labor	Direct Costs	Total	TOTAL
	<i>Client Billing Rates</i>	\$315	\$325	\$345	\$320	\$290	\$230	\$130	\$175	\$125	\$130	\$125	\$245				
1	Project Management																
	Project																
1.1	Management/Administration		24									24	12	60	12,420	311	12,731
1.2	Data Request and Review		2			4	8	16	16					46	8,530	213	8,743
1.3	Project Meetings and Progress		24			12	12							48	14,040	351	14,391
1.4	Project Workshops (2)		24	4	24	4	24	8						88	24,580	615	25,195
1.5	QA/QC	6	2	8									4	20	5,800	145	5,945
	Subtotal 1 Project Management	6	76	12	24	20	44	24	16	0	24	16	262	65,370	1,635	67,005	67,000
2	Develop Demand Input																
2.1	Develop Demand Input		8	2		8	16	16						50	11,370	284	11,654
2.2	Demand Input TM		8	2		4	8		2	2				26	6,890	172	7,062
	Subtotal 2 Develop Demand Input	0	16	4	0	12	24	16	2	2	0	0	76	18,260	456	18,716	18,700
3	Develop Supply Input																
3.1	Existing and Future Water Supply Source Input Coordinate with Regional Agencies		8	2	16	8	16	16						66	16,490	312	16,802
3.2	Agencies		8	2		4	8							22	6,290	157	6,447
3.3	Supply Input TM		8	2		4	4		2	2				22	5,970	149	6,119
	Subtotal 3 Develop Supply Input	0	24	6	16	16	28	16	2	2	0	0	110	28,750	618	29,368	29,400
4	Develop Scenarios for Supply System																
4.1	Review previous reliability assessments		4			4	8	16	16					48	9,180	230	9,410
4.2	Update reliability factors			2	24	4	8							38	11,370	284	11,654
4.3	Develop water supply constraint scenarios	2	16	4	4	4	8	8						46	12,530	313	12,843
4.4	Scenario Planning TM		8	2	16	4	4		2	2				38	11,090	277	11,367
	Subtotal 4 Develop Scenarios for Supply System	2	28	8	44	16	28	24	18	2	0	0	170	44,170	1,104	45,274	45,300
5	Water Supply and System Analysis																
5.1	Review model analysis results		4		24	16	16	8	36					104	24,640	616	25,256
5.2	Analysis TM		8	2	8	4	8	8	2					40	10,240	256	10,496
	Subtotal 5 Water Supply and System Analysis	0	12	2	32	20	24	16	38	0	0	0	144	34,880	872	35,752	35,800
6	Preliminary Evaluation Update Recommendations																
6.1	Board Workshop	2	12	2	8	8	8	4	4	4				52	13,660	342	14,002
	Subtotal 6 Preliminary Evaluation Update Recommendations	2	12	2	8	8	8	4	4	4	0	0	52	13,660	342	14,002	14,000
7	Final Evaluation Update Recommendations																
7.1	Final Report	2	4	2		8	8			4				28	7,280	182	7,462
7.2	Executive Summary	2	8	2		12	16			4				44	11,580	290	11,870
	Subtotal 7 Final Evaluation Update Recommendations	4	12	4	0	20	24	0	0	8	0	0	72	18,860	472	19,332	19,300
8	Deliverables																
8.1	75% Report	2	16	4	10	20	24	24	24	16				140	31,050	776	31,826
8.2	90% Report	2	16	4	10	20	24	24	16	8				124	28,650	716	29,366
8.3	Final Draft Report	2	16	4	8	16	24	24	8	8				110	25,450	636	26,086
	Subtotal 8 Deliverables	6	48	12	28	56	72	72	48	32	0	0	374	85,150	2,128	87,278	87,300
TOTAL, hours		20	228	50	152	168	252	172	128	50	24	16	1,260				
TOTAL, dollars														309,100	7,627	316,727	316,800
TOTAL for all Tasks (including Optional Tasks), hours		20	228	50	152	168	252	172	128	50	24	16	1,260				
TOTAL for all Tasks (including Optional Tasks), dollars														309,100	7,627	316,727	316,800



STAFF ROLES & RATES

Role	Staff	Billable Rate
Principal	Amy Omae	\$315
Project Manager	Leanne Hammond	\$325
Quality Reviewer	Gregorio Estrada	\$345
Sr. Technical Expert	Steve Friedman, Chris Behr, Les Harder, Michael McMahon, Jeff Hansen, Yu Jung Chang, Blaine Dwyer, Ed Winkler	\$320
Sr. Engineer	Kristi Shaw	\$290
Project Engineer	Joel Engleson	\$230
Staff Engineer	Kanchan Joshi	\$130
GIS Technician	Anders Burvall	\$175
Document Specialist	Katherine Turner	\$125
Accountant	Brenan Nagamine	\$130
Project Coordinator	Patti Pittman	\$125

Section 6

Joint Venture



JOINT VENTURE

HDR is submitting as the prime consultant and not as a joint venture.

We will not be utilizing any subconsultants on this project.

Section 7

Conflict of Interest



CONFLICT OF INTEREST

We know there is potential for a conflict of interest when a firm works with a number of clients. And because we work with a lot of public agencies, the possibility of working with two agencies simultaneously that have conflicting interests does exist.

We are not aware of any projects or relationships that would cause a conflict-of-interest on this project. We have a strong set of protocols and guidelines in place to handle possible conflicts of interest. The following four points are keys to our Policy for Conflict of Interest Resolution:

EDUCATION

We educate employees on the principles of conflict-of-interest prevention. Employees are provided with a written policy outlining Engineering Business without Conflict.

DISCLOSURE

We fully disclose to each client any relationships, contracts, or teaming agreements that might present a conflict of interest or provide an unfair business advantage. Each person working on a project is responsible to disclose any circumstances that could present a conflict of interest.

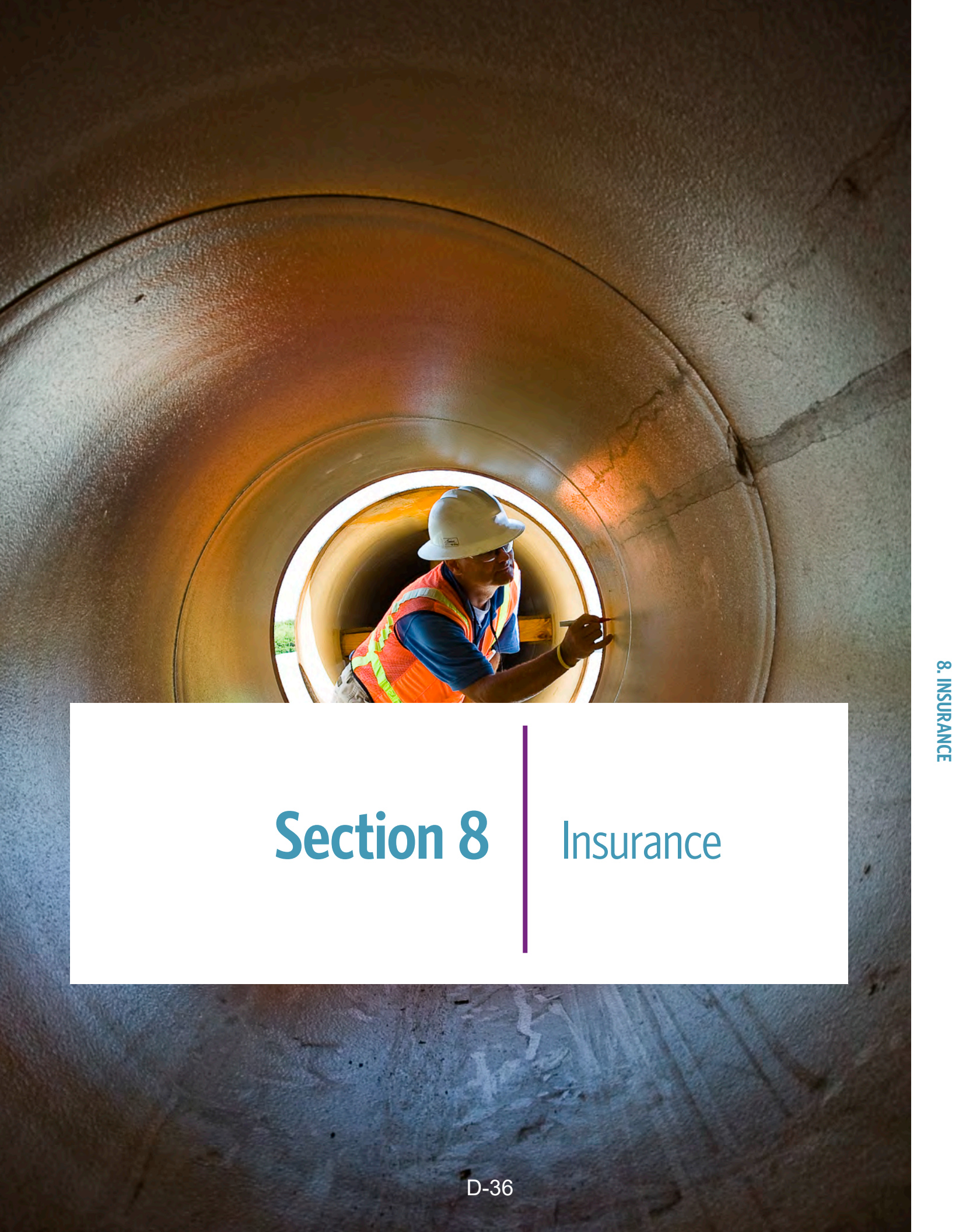
DELINEATION

We structure teams and assign personnel in ways that avoid inappropriate sharing or crossover of confidential or sensitive information. When necessary due to project circumstances, individuals who are positioned on teams where information-sharing would present a conflict are reassigned to maintain clear separation between project teams.

DOCUMENTATION

We require formal commitment from our personnel with regard to avoiding conflict of interest. When necessary due to project circumstances, we require employees to sign a "Firewall Agreement Form" tailored to the client/project in question to formalize their commitment to maintaining separation between internal teams and/or sources of information that could give rise to a conflict of interest or unfair business advantage.

It is our understanding that HDR does not have any existing conflicts of interest prohibited by law to submit for the Water Supply Evaluation Update.



Section 8

Insurance



INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
06/16/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Willis Towers Watson Midwest, Inc. c/o 26 Century Blvd P.O. Box 305191 Nashville, TN 372305191 USA	CONTACT NAME: Willis Towers Watson Certificate Center PHONE (A/C, No, Ext): 1-877-945-7378 FAX (A/C, No): 1-888-467-2378 E-MAIL ADDRESS: certificates@willis.com														
	<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A: Liberty Mutual Fire Insurance Company</td> <td>23035</td> </tr> <tr> <td>INSURER B: Ohio Casualty Insurance Company</td> <td>24074</td> </tr> <tr> <td>INSURER C: Liberty Insurance Corporation</td> <td>42404</td> </tr> <tr> <td>INSURER D:</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </tbody> </table>		INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Liberty Mutual Fire Insurance Company	23035	INSURER B: Ohio Casualty Insurance Company	24074	INSURER C: Liberty Insurance Corporation	42404	INSURER D:		INSURER E:		INSURER F:
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INSURER C: Liberty Insurance Corporation	42404														
INSURER D:															
INSURER E:															
INSURER F:															
INSURED HDR Engineering, Inc. 1917 South 67th Street Omaha, NE 68106															

COVERAGES **CERTIFICATE NUMBER:** W21262337 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY	Y	Y	TB2-641-444950-031	06/01/2021	06/01/2022	EACH OCCURRENCE \$ 2,000,000	
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000	
	<input checked="" type="checkbox"/> Contractual Liability						MED EXP (Any one person) \$ 10,000	
	<input checked="" type="checkbox"/> Deductible: \$100,000						PERSONAL & ADV INJURY \$ 2,000,000	
GEN'L AGGREGATE LIMIT APPLIES PER:							GENERAL AGGREGATE \$ 4,000,000	
<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC							PRODUCTS - COMP/OP AGG \$ 4,000,000	
OTHER:							\$	
A	AUTOMOBILE LIABILITY	Y	Y	AS2-641-444950-041	06/01/2021	06/01/2022	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000	
	<input checked="" type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$	
	<input type="checkbox"/> OWNED AUTOS ONLY HIRED AUTOS ONLY AUTOS ONLY comp/coil						<input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY Ded. \$1,000	BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>	PROPERTY DAMAGE (Per accident) \$
B	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR	Y	Y	EUO(22)57919363	06/01/2021	06/01/2022	EACH OCCURRENCE \$ 10,000,000	
	<input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE						AGGREGATE \$ 10,000,000	
	DED <input checked="" type="checkbox"/> RETENTION \$ 0						\$	
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	N/A	Y	WA7-64D-444950-011	06/01/2021	06/01/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)						E.L. EACH ACCIDENT \$ 1,000,000	
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$ 1,000,000	
							E.L. DISEASE - POLICY LIMIT \$ 1,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Workers Compensation Deductible - \$250,000

Certificate Holder is named as Additional Insured on General Liability, Automobile Liability and Umbrella/Excess Liability on a Primary, Non-contributory basis where required by written contract. Waiver of Subrogation applies on General Liability, Automobile Liability, Umbrella/Excess Liability and Workers Compensation where required by written contract. Umbrella/Excess policy is Follows Form over General Liability, Auto Liability and Employers Liability.

CERTIFICATE HOLDER Sample	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE



Section 9

Contract



CONTRACT

We have no modifications to the standard terms and conditions.

Note: This page is intentionally left blank.

October 24, 2022

Prepared by: M. Marcacci / J. McGehee / R. Mori

Submitted by: K. Burton

Approved by: Paul A. Cook



ACTION CALENDAR

IRVINE DESALTER PROJECT PRINCIPAL AQUIFER PLANT AND SHALLOW GROUNDWATER UNIT OPTIMIZATION FOR PFAS TREATMENT CONSULTANT SELECTION AND CONSTRUCTION AWARD

SUMMARY:

The design for the Irvine Desalter Project Principal Aquifer Plant (PAP) and Shallow Groundwater Unit (SGU) Optimization for per-and polyfluoroalkyl substances (PFAS) Treatment project is complete. To facilitate construction of the PAP and SGU PFAS treatment systems, staff recommends the Board:

- Authorize the General Manager to execute a Professional Services Agreement in the amount of \$335,000 with Tetra Tech, Inc. for engineering support services during construction;
- Reject the bid of R.C. Foster Corporation as non-responsive; and
- Authorize the General Manager to execute a construction contract with Pacific Hydrotech Corporation, in the amount of \$5,973,835, for the PAP and SGU Optimization for PFAS Treatment project.

BACKGROUND:

IRWD operates and maintains the existing PAP, including Well ET-1 and its associated volatile organic compound (VOC) treatment facilities in accordance with the 2001 Settlement Agreement. Water from Well ET-1 is treated at a maximum flow of 1,000 gallons-per-minute (gpm) through air stripping, and the off-gas from the air strippers is delivered to a vapor phase granular-activated carbon (GAC) treatment system where the VOCs are removed. The treated water is then delivered into the recycled water distribution system.

IRWD also operates and maintains the existing SGU treatment facility that provides treatment for 43 Department of Navy (DON) extraction wells located within the boundary of the former Marine Corps Air Station El Toro site that contains elevated levels of VOCs. The existing treatment system consists of a packed-tower air stripper and vapor phase GAC adsorbers. The facility is capable of treating a maximum flow of 550 gpm. Treated water from the facility is pumped into the South Irvine Brine Line, which conveys the water to the Los Alisos Water Recycling Plant, where the treated water is conveyed to the South Orange County Wastewater Authority ocean outfall for disposal. The location of the facilities is shown on Exhibit "A".

In recent years, elevated levels of PFAS compounds have been detected at both Well ET-1 and SGU which cannot be removed by the existing treatment systems. As such, improvements at the facilities are required to allow the effective removal of both VOCs and PFAS compounds. The recommended improvements include installation of a liquid phase GAC treatment system, which will effectively remove both VOCs and PFAS compounds. The recommended improvements

will be incorporated at both the PAP and SGU facilities. In accordance with the 2001 Settlement Agreement with the DON, IRWD has maintained a \$20,000,000 pollution insurance policy to reasonably cover risks associated with the facilities included in this agreement. Staff submitted a claim to the insurance carrier to cover the cost associated with implementing modifications at both PAP and SGU to incorporate PFAS treatment optimization. The insurance carrier accepted the claim and all costs associated with the design, construction, and implementation of PFAS treatment facilities are to be reimbursed by them. The insurance policy carries a \$250,000 deductible, which has already been satisfied through the ongoing work associated with implementing PFAS treatment improvements at the sites.

Consultant Selection:

Tetra Tech performed all elements of the preliminary and final design for the project including geotechnical, civil, mechanical, structural, electrical, and instrumentation and control. Tetra Tech was also the engineer of record for the initial design of both facilities. At staff's request, Tetra Tech submitted a proposal for engineering services during construction in the amount of \$335,000. The proposal, provided as Exhibit "B", includes the scope for submittal reviews, responses to contractor requests for information, site visits, record drawing preparation, updating the DON operation and maintenance manuals for both sites, and construction coordination and engineering support commensurate with the requirements of the project.

Staff reviewed the proposal and recommends the Board authorize the General Manager to execute a Professional Services Agreement in the amount of \$335,000 with Tetra Tech for engineering services during construction for the Irvine Desalter Project PAP and SGU Optimization for PFAS Treatment project.

Construction Award:

The project was advertised for construction bids on August 31, 2022 to the IRWD Bidders List totalling 18 contractors. The bid opening was held October 5, 2022 with bids received from R.C. Foster Corporation, Pacific Hydrotech Corporation, Steve P. Rados, Incorporated, and Shimmick Construction Company, Incorporated. R.C. Foster Corporation was the apparent low bidder with a bid amount of \$5,874,360.25. The engineer's estimate, prepared by Tetra Tech, was \$6,688,000. A summary of the four bids received is provided in the following table.

Bidder	Bid Amount
R.C. Foster Corporation	\$5,874,360.25
Pacific Hydrotech Corporation	\$5,973,835.00
Steve P. Rados, Inc.	\$6,750,070.00
Shimmick Construction Company, Inc.	\$7,145,000.00
<i>Engineer's Estimate</i>	<i>\$6,688,000.00</i>

After review of the bid documents, staff determined that the apparent low bid from R.C. Foster Corporation contained an irregularity. R.C. Foster Corporation failed to include the required performance and qualification documentation for the GAC supplier with the bid documents as

required by the Contract Documents. Staff conferred with legal counsel, and legal counsel concurred that there is a sufficient basis for a factual finding by the Board that the irregularity in the bid may have provided the apparent low bidder with a significant competitive advantage over the other bidders. Legal counsel recommends that the bid from R.C. Foster Corporation be rejected as non-responsive.

The next apparent low bidder, with a bid amount of \$5,973,835, is Pacific Hydrotech Corporation. Staff reviewed the bid from Pacific Hydrotech Corporation and determined that it is responsive. Pacific Hydrotech Corporation's bid information is attached as Exhibit "C". Staff recommends the Board authorize the General Manager to award a construction contract to Pacific Hydrotech Corporation in the amount of \$5,973,835.

Material Sole Source:

Certain materials are routinely sole sourced on IRWD projects in order to match other products in use on a particular public improvement or in order to obtain a necessary item that is only available from one source. While most sole sourced items are individually under \$35,000 and only require a single bid per the District's procurement policy, there are occasionally items that are of higher value. On this project, there are no sole sourced items exceeding \$35,000 in value.

FISCAL IMPACTS:

The PAP PFAS Treatment System, Project 11171, and the SGU PFAS Treatment System, Project 11864, are included in the FY 2022-23 Capital Budget and will be funded through an insurance reimbursement. The existing budgets are sufficient to fund the recommendations presented herein.

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act 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 PAP site was filed with the County of Orange on December 2, 2021 and for the SGU site on April 4, 2022.

COMMITTEE STATUS:

The consultant selection recommendation was reviewed by the Engineering and Operations Committee on October 18, 2022. Construction awards are not routinely taken to Committee prior to submittal to the Board.

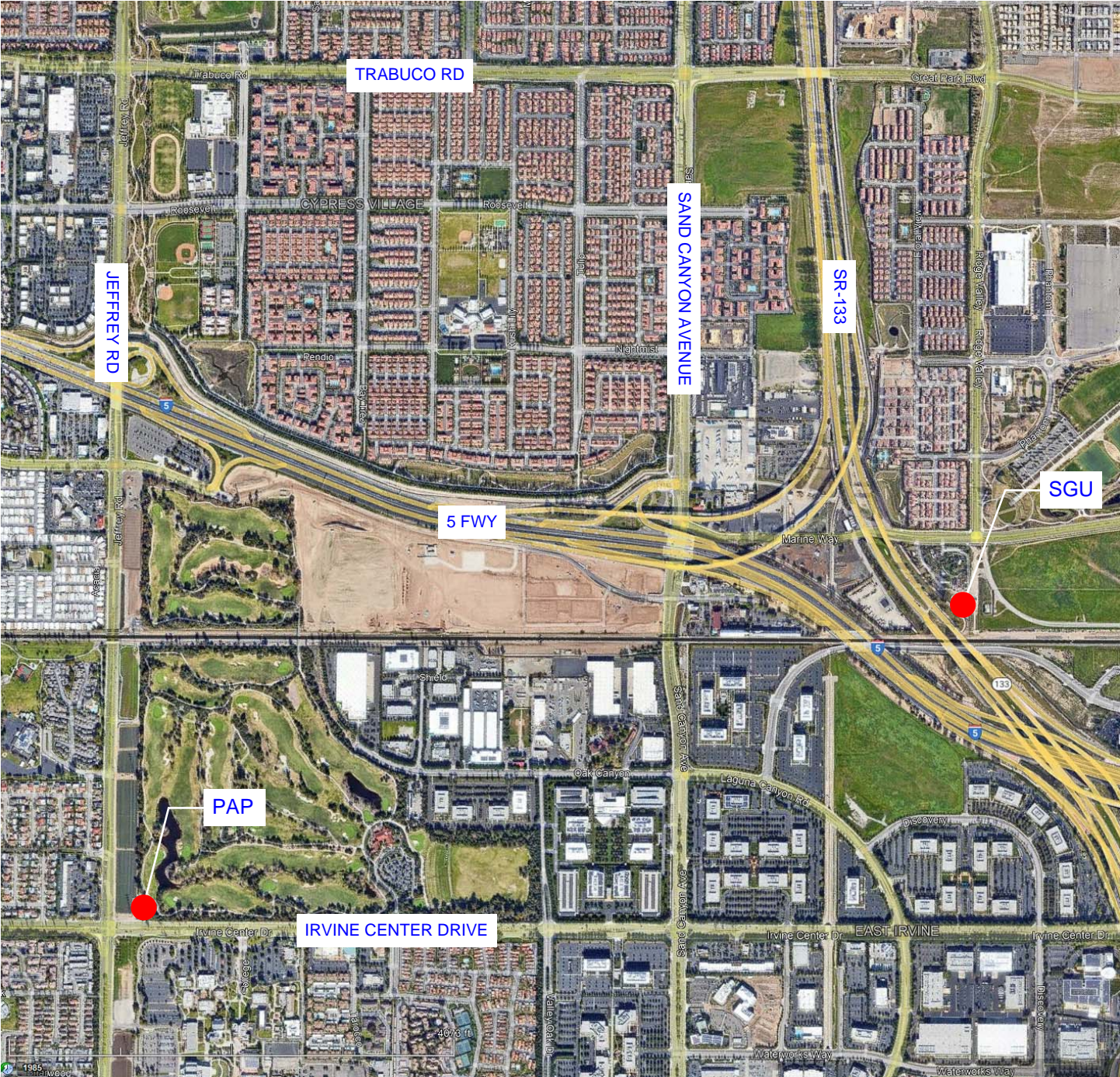
RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH TETRA TECH IN THE AMOUNT OF \$335,000 FOR ENGINEERING SERVICES DURING CONSTRUCTION, REJECT THE BID OF R.C. FOSTER CORPORATION AS NON-RESPONSIVE, AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH PACIFIC HYDROTECH CORPORATION IN THE AMOUNT OF \$5,973,835 FOR THE IRVINE DESALTER PROJECT PRINCIPAL AQUIFER PLANT AND SHALLOW GROUNDWATER UNIT OPTIMIZATION FOR PER- AND POLYFLUOROALKYL SUBSTANCES TREATMENT, PROJECT NOS. 11171 AND 11864.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Tetra Tech Scope of Work and Fee Proposal
- Exhibit "C" – Bid Results

Exhibit "A"
PAP and SGU Facilities
Location Map



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October 4, 2022

Mr. Richard K. Mori, PE
Engineering Manager – Capital Projects
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

Reference: Proposal to Provide Engineering Services during Construction for Shallow Groundwater Unit (SGU) and ET-1 PFAS Water Treatment Plants

Dear Mr. Mori,

Thank you for providing Tetra Tech with the opportunity to submit our proposal for engineering services during construction for SGU and ET-1 PFAS Water Treatment Plants. We plan to use the same experienced, local team of water quality experts and design engineers who completed the design of the SGU and ET-1 PFAS Plants. Our team is very familiar with the requirements during construction for these types of projects. Additionally, our team has recently completed similar services on three PFAS projects for Orange County Water District.

Our team will work closely with the Irvine Ranch Water District (IRWD) throughout the construction to ensure that submittals, RFIs and other project related issues are handled in accordance with the approved plans, and specifications.

This proposal includes information on the following:

- Scope of Work
- Price Proposal

Our team is available to begin work on the project immediately upon receipt of your authorization to proceed. We are assuming that the project will begin on approximately November 15, 2022, and will be completed on approximately September 15, 2023.

A detailed breakdown of tasks, labor hours and expenses are also included. Tetra Tech will provide the services listed in our Scope of Work for a not to exceed fee of \$335,000.

If you have any questions regarding our proposal, please feel free to contact us.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Steve Tedesco', written over a blue line.

Steve Tedesco, PE
Senior Vice President

M:\Marketing\Proposals\FY 2023\IRWD_ConstSvcsSGU_ET1_WTP

SCOPE OF WORK

Tetra Tech proposes to provide the following Scope of Work for services during construction of the SGU and ET-1 PFAS Water Treatment Plants. Our proposal is based on the information provided by IRWD.

All work performed on the project will conform to the approved plans and specifications for the project including: IRWD Project Manual, IRWD Construction Manual, and IRWD Electrical and Instrumentation and Control Design Standards.

1.0 Engineering Services During Construction

- 1.1 Project Management - Tetra Tech will conduct project management activities to ensure adherence to scope, schedule, and budget; promote efficient communication between Tetra Tech, IRWD, Construction Contractor and others as required; and implement an effective quality assurance/quality control program.
- 1.2 Meetings – We have included a total of 16 meetings as requested by IRWD staff. Tetra Tech will prepare the meeting agenda, meeting minutes and lead the meeting as required.
- 1.3 Conformed Contract Documents – Tetra Tech will prepare a conformed set of design drawings and specifications that include all changes from the time of the date the design documents were signed including changes made through permitting and bidding.
- 1.4 Request for Information (RFI) – Tetra Tech will respond to RFIs from the Contractor during the construction phase of the project. All RFIs will be reviewed within 2 business days and responded within 4 business days. If an RFI requires extensive work or a major design change, we will respond with our proposed solution and the number of days required to complete the redesign.
- 1.5 Submittals – Our team will review all submittals within the contract required time frame. If the Contractor requests a rush placed on a submittal our team will respond as quickly as possible to meet the Contractor’s request. In accordance with IRWD staff request we have assumed a total of 150 submittals (including resubmittals) will be required for the project.
- 1.6 Minor Plan Changes – Tetra Tech will provide minor plan changes as required during construction. As requested, we have assumed 100 hours for delta drawings.
- 1.7 Site Visits – Tetra Tech will perform visits to the site during construction to confirm the construction is being performed as required by the contract documents and to view any construction issues or potential changed conditions. As requested, we have assumed 8 visits to the project sites.
- 1.8 Energy Control Procedures and Asset Management – Tetra Tech will provide services for energy control and asset management on the project. Since the exact scope of work is not defined at this time, we included a budget of \$7,500 as requested by IRWD staff.
- 1.9 Record Drawings – Tetra Tech will produce record drawings based on redlines received from the Contractor. Completed record drawings will be provided in electronic format.

- 1.10 Additional Construction Coordination – Tetra Tech will provide miscellaneous construction support that is not related to the above tasks. The support will be provided as a result of IRWD or Contractor general inquiries rather than submitted RFIs, submittals, or plan revisions. Support will be provided as directed by IRWD. A budget of \$50,000 was included as requested by IRWD staff.
- 1.11 Operations and Maintenance Manuals (O&M) – Tetra Tech will revise the existing O&M manuals for SGU and ET-1 treatment plants to include the new equipment and construction performed. Submittals of the O&M manuals shall be as follows:
- 1.11.1 Draft O&M manuals will be prepared by Tetra Tech and sent to IRWD for review.
 - 1.11.2 Revised draft O&M manuals will be prepared addressing all IRWD comments. The revised draft will be submitted to Department of Navy (DON) for review.
 - 1.11.3 Final O&M manuals incorporating both DON and any additional IRWD comments will be prepare for DON intended filing.

Price Proposal		Revision Date: Oct 04, 2022		Labor Plan 12 Resource														Price Summary / Totals												
IRWD SGU & ET-1- PFAS Water Treatment Plants				Bill Rate >	235.00	190.00	135.00	150.00	225.00	125.00	145.00	225.00	110.00	125.00	120.00	185.00	Task Pricing Totals			335,000										
<i>Engineering Services during Construction for SGU and ET-1 PFAS Treatment Plants</i>				Proj Area >													Specify Add'l Fees on Setup			0										
Submitted to: Irvine Ranch Water District (Attn: Richard K. Mori, PE)																	Total Price			335,000										
Contract Type: T&M					Pricing by Resource																			Task Pricing Totals						
Project Phases / Tasks	Schedule			Work Days Off	Work Days	Total Labor Hrs	Project Manager 2	Civil & Process	Sr Engineer 2	Engineer 3	Sr CAD Designer 2	Structural	Sr Engineer 3	Engineer 3	Sr CAD Designer 2	Elect & Insant	Sr Engineer 3	Engineer 1	Engineer 2	Administration	Sr Project Administrator	Traffic	Sr Engineer 2	Labor Rate Esc.	Labor	Subs	Travel	Mat'ls & Equip	ODCs	Task Pricing Totals
	From	Thru	Months																											
1.0 Engineering Services During Construction						2,233	200	202	536	56	84	404	60	92	396	137	54	12							334,320	680			335,000	
1.1 Project Management	11/15/22	09/30/23	10.3	23	205	60	60																		14,100				14,100	
1.2 Meetings (16)	11/15/22	06/30/23	7.3	17	146	80	48				8			8							16				16,800				16,800	
1.3 Conformed Contract Documents	11/15/22	12/15/22	1.0	3	19	72	2		20	8		20						20			2				9,310				9,310	
1.4 Requests for Information (40)	11/15/22	06/30/23	7.3	17	146	372	12	36	80		32	80		36	80					16					56,480				56,480	
1.5 Submittals (150)	11/15/22	06/30/23	7.3	17	146	750	16	80	200		16	200		16	200					18		4			103,060				103,060	
1.6 Minor Plan Revisions (100 Hours)	11/15/22	07/30/23	8.3	19	165	100	12	12	24		4	24		4	16							4			15,640				15,640	
1.7 Site Visits (8)	11/15/22	07/30/23	8.3	19	165	112	16		20		16	20		16	20							4			19,100	680			19,780	
1.8 Energy Control Procedures & Asset Management	11/15/22	12/15/22	1.0	5	39	49	4	12	16										16		1				7,500				7,500	
1.9 Record Drawings	07/30/23	09/15/23	1.5	4	30	73	2	2	20	8		20						20		1					9,570				9,570	
1.10 Additional Construction Coordination	11/15/22	07/30/23	8.3	19	165	345	8	40	60	40	8	40	60	4	40	45									50,000				50,000	
1.11 O&M Manuals (2)						220	20	20	96					8	76										32,760				32,760	
1.11.1 Draft for IRWD Review	04/30/23	05/20/23	0.6	2	13	76	4	8	40					4	20										11,260				11,260	
1.11.2 Revised Draft for DON	06/01/23	06/20/23	0.6	2	12	82	8	8	32					2						32					12,170				12,170	
1.11.3 Final Incorporating IRWD & DON Comments	08/01/23	08/25/23	0.8	2	16	62	8	4	24					2											9,330				9,330	
Totals	11/15/22	09/30/23	10.3			2,233	200	202	536	56	84	404	60	92	396	137	54	12						0.00%	334,320	680			335,000	

Bid Results

Bidder Details

Vendor Name Pacific Hydrotech Corp
Address 314 E 3rd Street
 Perris, California 92507
 United States
Respondee Ozzie Garibaldo
Respondee Title Senior Estimator
Phone 951-943-8803
Email Ozzie@pachydro.com
Vendor Type CADIR
License # 518355
CADIR 1000002987

Bid Detail

Bid Format Electronic
Submitted 10/05/2022 1:50 PM (PDT)
Delivery Method
Bid Responsive
Bid Status Submitted
Confirmation # 306559

Respondee Comment

Buyer Comment

Attachments

File Title	File Name	File Type
PHC Bid for Irvine Desalter Project.pdf	PHC Bid for Irvine Desalter Project.pdf	Bid Form

Subcontractors

Showing 6 Subcontractors

Name & Address	Desc	License Num	CADIR	Amount	Type
Halcyon Electric, inc. 1055-A Ortega Way Placentia, California 92870	Electrical and Instrumentation	717223	1000001849	\$393,000.00	CADIR
PARADA PAINTING INC. 14281 PALISADES DRIVE POWAY, California 92064	Coatings	742112	1000004724	\$33,600.00	CADIR
Quality Rebar Inc. P O BOX 501877 SAN DIEGO, California 92150	Rebar	818593	1000000745	\$52,290.00	
Standard Demolition 1905 Lirio Ave Ventura, California 93004	Demolition	1020712	1000047290	\$59,814.00	CADIR
Superior Paving Company Inc dba U 1880 N. Delilah St. Corona, California 92879	AC Paving	865828	1000002563	\$95,555.50	
T. E. Roberts, Inc. 17771 Mitchell North Irvine, California 92614	Offsite Pipe Work	603008	1000000280	\$605,064.00	CADIR

Line Items

Discount Terms No Discount

Item #	Item Code	Type	Item Description	UOM	QTY	Unit Price	Line Total	Response	Comment
BASE BID ITEMS							\$499,600.00		
1			Mobilization, Demobilization, and Cleanup	LS	1	\$459,500.00	\$459,500.00	Yes	
2			Payment and Performance Bonds and Insurance	LS	1	\$40,100.00	\$40,100.00	Yes	
Principal Aquifer Plant (PAP) Optimization for PFAS Treatment							\$2,781,900.00		
3			Demolition	LS	1	\$61,900.00	\$61,900.00	Yes	
4			GAC Treatment System	LS	1	\$1,512,100.00	\$1,512,100.00	Yes	
5			Well Piping Modifications	LS	1	\$206,600.00	\$206,600.00	Yes	
6			Potable Water Piping and Connection	LS	1	\$270,200.00	\$270,200.00	Yes	
7			Sewer Piping and Connection	LS	1	\$136,000.00	\$136,000.00	Yes	
8			Recycled Water Piping and Connection	LS	1	\$220,500.00	\$220,500.00	Yes	
9			Sitework	LS	1	\$72,800.00	\$72,800.00	Yes	
10			Electrical and Utility Power	LS	1	\$199,900.00	\$199,900.00	Yes	
11			Slurry Seal	SF	3800	\$2.00	\$7,600.00	Yes	
12			Start-up, Testing and Training	LS	1	\$18,000.00	\$18,000.00	Yes	
13			Erosion Control Measures	LS	1	\$20,300.00	\$20,300.00	Yes	
14			Traffic Control	LS	1	\$34,500.00	\$34,500.00	Yes	
15			Trench Safety Measures	LS	1	\$1,500.00	\$1,500.00	Yes	
16			Operations and Maintenance Manuals	LS	1	\$10,000.00	\$10,000.00	Yes	
17			Record Drawings	LS	1	\$10,000.00	\$10,000.00	Yes	
Shallow Groundwater Unit (SGU) Optimization for PFAS Treatment							\$2,692,335.00		
18			Demolition	LS	1	\$50,900.00	\$50,900.00	Yes	
19			GAC Treatment System	LS	1	\$1,252,400.00	\$1,252,400.00	Yes	
20			Pretreatment System	LS	1	\$266,100.00	\$266,100.00	Yes	
21			Domestic Water Piping and Connection	LS	1	\$398,100.00	\$398,100.00	Yes	
22			Sewer Piping and Connection	LS	1	\$239,000.00	\$239,000.00	Yes	
23			Influent and Effluent Buried Piping and Connections	LS	1	\$39,700.00	\$39,700.00	Yes	
24			Sitework	LS	1	\$65,300.00	\$65,300.00	Yes	
25			Electrical and Utility Power	LS	1	\$283,200.00	\$283,200.00	Yes	
26			Slurry Seal	SF	11035	\$1.00	\$11,035.00	Yes	
27			Start-up, Testing and Training	LS	1	\$18,000.00	\$18,000.00	Yes	
28			Erosion Control Measures	LS	1	\$23,500.00	\$23,500.00	Yes	
29			Traffic Control	LS	1	\$24,100.00	\$24,100.00	Yes	
30			Trench Safety Measures	LS	1	\$1,000.00	\$1,000.00	Yes	
31			Operations and Maintenance Manuals	LS	1	\$10,000.00	\$10,000.00	Yes	
32			Record Drawings	LS	1	\$10,000.00	\$10,000.00	Yes	
ADDITIVE AND DEDUCTIVE ITEMS							\$0.00		
33			ADDITION (+) OR DEDUCTION (-)	LS	1	\$0.00	\$0.00	Yes	

Line Item Subtotals

Section Title	Line Total
BASE BID ITEMS	\$499,600.00
Principal Aquifer Plant (PAP) Optimization for PFAS Treatment	\$2,781,900.00
Shallow Groundwater Unit (SGU) Optimization for PFAS Treatment	\$2,692,335.00
ADDITIVE AND DEDUCTIVE ITEMS	\$0.00
Grand Total	\$5,973,835.00