El Dorado Irrigation District

AGENDA
REGULAR MEETING OF THE BOARD OF DIRECTORS

District Board Room, 2890 Mosquito Road, Placerville, California
February 12, 2024 — 9:00 A.M.

Board of Directors

Alan Day—Division 5
President

Pat Dwyer—Division 2
Vice President

George Osborne—Division 1
Director

Brian K. Veerkamp—Division 3
Director

Lori Anzini—Division 4
Director

Executive Staff

Jim Abercrombie
General Manager

Brian D. Poulsen
General Counsel

Jennifer Sullivan
Clerk to the Board

Jesse Saich
Communications

Brian Mueller
Engineering

Jamie Bandy
Finance

Jose Perez
Human Resources

Aaron Kennedy
Information Technology

Dan Corcoran
Operations

PUBLIC COMMENT: Anyone wishing to comment about items not on the Agenda may do so during the public comment period. Those wishing to comment about items on the Agenda may do so when that item is heard and when the Board calls for public comment. Public comments are limited to five minutes per person.

PUBLIC RECORDS DISTRIBUTED LESS THAN 72 HOURS BEFORE A MEETING: Any writing that is a public record and is distributed to all or a majority of the Board of Directors less than 72 hours before a meeting shall be available for immediate public inspection in the office of the Clerk to the Board at the address shown above. Public records distributed during the meeting shall be made available at the meeting.

AMERICANS WITH DISABILITIES ACT: In accordance with the Americans with Disabilities Act (ADA) and California law, it is the policy of El Dorado Irrigation District to offer its public programs, services, and meetings in a manner that is readily accessible to everyone, including individuals with disabilities. If you are a person with a disability and require information or materials in an appropriate alternative format, or if you require any other accommodation for this meeting, please contact the EID ADA coordinator at 530-642-4045 or email at adacoordinator@eid.org at least 72 hours prior to the meeting. Advance notification within this guideline will enable the District to make reasonable accommodations to ensure accessibility.

District Board Meetings are open to in-person attendance by the public and conducted virtually. The public may participate in the District's Board meeting by teleconference or web conference via the instructions below. Members of the public who participate in the meeting via teleconference or web conference will be given the opportunity to speak and address the Board, and their comments will be included in the recording of the meeting.

While the District makes efforts to facilitate remote participation, please be aware that remote Zoom involvement is offered solely for convenience. In the event of a technological malfunction, the Board can only guarantee the receipt of live comments through in-person attendance. With the exception of a noticed teleconference meeting, the Board retains the right to proceed with the meeting without remote access in case of a malfunction.

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PUBLIC PARTICIPATION INSTRUCTIONS

Instructions to join the Board Meeting by telephone only

No accompanying computer or mobile device is required. This option will allow participants to listen to Board meeting audio and address the Board during public comment periods by pressing *9 on the telephone keypad.

Dial ***1.669.900.6833*** and enter Meeting ID ***945 6360 8941*** when prompted.

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Click the following join link or copy and paste into your browser https://zoom.us/j/94563608941.

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CALL TO ORDER

Roll Call
Pledge of Allegiance
Moment of Silence

ADOPT AGENDA

COMMUNICATIONS

General Manager's Employee Recognition

PUBLIC COMMENT

COMMUNICATIONS

General Manager

Brief reports on District activities or items of interest to the public, including activities or developments that occur after the agenda is posted.

Clerk to the Board

Board of Directors

Brief reports on community activities, meetings, conferences and seminars attended by the Directors of interest to the District and the public.

APPROVE CONSENT CALENDAR

Action on items pulled from the Consent Calendar

CONSENT CALENDAR

1. **Clerk to the Board (Sullivan)**
   Consider approving the minutes of the January 22, 2024, regular meeting of the Board of Directors.

   Option 1: Approve as submitted.
   Option 2: Take other action as directed by the Board.
   Option 3: Take no action.

   Recommended Action: Option 1.

2. **Office of the General Counsel (Sarge)**
   Consider adopting a resolution quitclaiming an unused easement to the landowners of Assessor Parcel No. 046-330-047.

   Option 1: Adopt a resolution quitclaiming an unused easement to the landowners of Assessor Parcel No. 046-330-047.
   Option 2: Take other action as directed by the Board.
   Option 3: Take no action.

   Recommended Action: Option 1.

3. Engineering (Delongchamp/Deason)

Consider authorizing additional funding in the amounts of $35,000 for capitalized labor and $3,200 for water pollution control plan inspections, for a total funding request of $38,200 for the Diversion Facility Upgrades Project, Project No. 21008.01; $20,000 for professional services for Federal Energy Regulatory Commission (FERC) C44 Noxious Weed Monitoring, Project No. 08025H; $30,000 in capitalized labor for FERC C38 Adaptive Management, Project No. 07011H; $10,000 for professional services for FERC C37.8 Water Temperature Monitoring, Project No. 06021H; $60,000 for professional services and $25,000 for laboratory services for a total funding request of $85,000 for FERC C37.9 Water Quality, Project No. 07003H.

Option 1: Authorize additional funding in the amounts of $35,000 for capitalized labor and $3,200 for water pollution control plan inspections, for a total funding request of $38,200 for the Diversion Facility Upgrades Project, Project No. 21008.01; $20,000 for professional services for Federal Energy Regulatory Commission (FERC) C44 Noxious Weed Monitoring, Project No. 08025H; $30,000 in capitalized labor for FERC C38 Adaptive Management, Project No. 07011H; $10,000 for professional services for FERC C37.8 Water Temperature Monitoring, Project No. 06021H; $60,000 for professional services and $25,000 for laboratory services for a total funding request of $85,000 for FERC C37.9 Water Quality, Project No. 07003H.

Option 2: Take other action as directed by the Board.

Option 3: Take no action.

Recommended Action: Option 1.

4. Engineering (Delongchamp)

Consider awarding a contract to Water Works Engineers, LLC in the not-to-exceed amount of $241,090 for design of the 2024 Collections System Rehabilitation Project and authorize additional funding of $11,000 for on-call environmental services, $10,000 for regulatory permitting application fees, $65,000 for capitalized labor, and $32,700 for contingencies for a total funding request of $359,790 for the 2024 Collections System Rehabilitation Project, Project No. 24008.01.

Option 1: Award a contract to Water Works Engineers, LLC in the not-to-exceed amount of $241,090 for design of the 2024 Collections System Rehabilitation Project and authorize additional funding of $11,000 on-call environmental services, $10,000 for regulatory permitting application fees, $65,000 for capitalized labor, and $32,700 for contingencies for a total funding request of $359,790 for the 2024 Collections System Rehabilitation Project, Project No. 24008.01.

Option 2: Take other action as directed by the Board.

Option 3: Take no action.

Recommended Action: Option 1.

5. **Office of the General Counsel (Leeper)**
   Consider awarding on-call contracts to JLR Environmental Consultants, 4Leaf Inc. and Blackburn Consulting for as-needed construction inspection services from February 12, 2024 through December 31, 2025.

   Option 1: Award on-call contracts to JLR Environmental Consultants, 4Leaf Inc. and Blackburn Consulting for as-needed construction inspection services from February 12, 2024 through December 31, 2025.
   Option 2: Take other action as directed by the Board.
   Option 3: Take no action.

   Recommended Action: Option 1.

6. **Engineering (Kelsch)**
   Consider awarding a contract to Domenichelli and Associates, Inc. in the not-to-exceed amount of $122,216 for design of the Strolling Hills Pipeline Improvements Project and authorize additional funding of $50,000 for on-call environmental services, $10,000 for regulatory permitting application fees, $41,000 for capitalized labor, and $21,000 for contingencies for a total funding request of $244,216 for the Strolling Hills Pipeline Improvements Project, Project No.17046.01.

   Option 1: Award a contract to Domenichelli and Associates, Inc. in the not-to-exceed amount of $122,216 for design of the Strolling Hills Pipeline Improvements Project and authorize additional funding of $50,000 for on-call environmental services, $10,000 for regulatory permitting application fees, $41,000 for capitalized labor, and $21,000 for contingencies for a total funding request of $244,216 for the Strolling Hills Pipeline Improvements Project, Project No.17046.01.
   Option 2: Take other action as directed by the Board.
   Option 3: Take no action.

   Recommended Action: Option 1.

END OF CONSENT CALENDAR

ACTION ITEMS

7. **Finance (Lane)**
   Consider ratifying EID General Warrant Registers for the periods ending January 16, January 23, and January 30, 2024, and Employee Expense Reimbursements for these periods.

   Option 1: Ratify the EID General Warrant Registers and Employee Expense Reimbursements as submitted.
   Option 2: Take other action as directed by the Board.
   Option 3: Take no action.

   Recommended Action: Option 1.

8. **Engineering (Carrington)**
   Consider approving a contract amendment to Water Works Engineers, Inc. in the not-to-exceed amount of $199,724 for additional engineering services and authorize additional funding in the amounts of $200,000 for easement acquisitions and $75,000 for capitalized labor for a total funding request of $474,724 for the Sly Park Intertie Improvements Project, Project No. 21079.

   Option 1: Approve a contract amendment to Water Works Engineers, Inc. in the not-to-exceed amount of $199,724 for additional engineering services and authorize additional funding in the amounts of $200,000 for easement acquisitions and $75,000 for capitalized labor for a total funding request of $474,724 for the Sly Park Intertie Improvements Project, Project No. 21079.
   Option 2: Take other action as directed by the Board.
   Option 3: Take no action.

   Recommended Action: Option 1.

CLOSED SESSION

A. **Conference with General Counsel – Real Property Negotiations**
   Government Code Section 54956.8
   Property: District water rights (including pre-1914, licensed and permitted, and contract-based rights (Central Valley Project Water Service Contract No. 14-06-200-1357A-LTR1; Warren Act Contract No. 06-WC-20-3315))
   District negotiators: General Manager, General Counsel, Senior Deputy General Counsel
   Under negotiation: price and terms of payment for purchase
   Negotiating parties: any interested party

REVIEW OF ASSIGNMENTS

ADJOURNMENT

TENTATIVELY SCHEDULED ITEMS FOR FUTURE MEETINGS

Engineering

- Reservoir A Valve Replacement professional services agreement change order and Capital Improvement Plan funding request, Action, February 26 (Eden-Bishop)
- Flume 45 Abutment Capital Improvement Plan funding request, Consent, February 26 (Money)

Engineering/Operations

- Drinking water unregulated contaminant update, Information, February 26 (Graham/Wilson)

Office of the General Counsel

- Easement Quitclaim Assessor Parcel No. 126-490-002, Consent, February 26 (Sarge)

Operations

- Federal Energy Regulatory Commission license required projects Capital Improvement Plan funding request, Consent, February 26 (Heape/Bertram)

EL DORADO IRRIGATION DISTRICT
February 12, 2024

General Manager Communications

Awards and Recognitions

a) The District received a call from a local plumber working at an EID customer's residence, prompting the need to involve EID. Don Holland, EID Distribution Operator was called to facilitate a water shut-off. The plumber commended Don for his "professionalism and outstanding customer service", demonstrating Don's steadfast dedication to the District's guiding principle of Excellent Customer Service. Thank you for your good work, Don!

Staff Reports and Updates

a) Time Extension for Water Right Permit 21112 – Summary by Elizabeth Leeper

Summary by Elizabeth Leeper

General Manager Communications

February 12, 2024

Time Extension for Water Right Permit 21112

District staff has secured a 20-year time extension to achieve full utilization of a critical water right, Water Right Permit 21112. Permit 21112 is an existing water right that allows diversion to storage in multiple reservoirs, as well as annual consumptive use of up to 17,000 acre-feet of water per year diverted out of Folsom Lake. This water right is a drought work-horse and has provided reliable storage supplies during recent drought periods to meet our customer demands.

In late 2020, staff filed a petition for extension of time with the State Water Resources Control Board (Water Board), seeking a 20-year extension of the time period authorized to complete infrastructure and put the water right to full beneficial use. Several parties filed protests with the Water Board, but District staff was able to address their concerns, and the protests were ultimately withdrawn. In December 2023, the Water Board issued an order granting the requested time extension, which allows the District until 2040 to reach full utilization of this water right in response to the water needs of a growing population.

In addition, the District is currently developing a change petition for Permit 21112 to add an upstream point of diversion and place of storage to further enhance the utility and flexibility of this water right. Such efforts are necessary to ensure a resilient water supply that can serve the future needs of District customers.

El Dorado Irrigation District

MINUTES
REGULAR MEETING OF THE BOARD OF DIRECTORS

District Board Room, 2890 Mosquito Road, Placerville, California
January 22, 2024 — 9:00 A.M.

Board of Directors

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President

Pat Dwyer—Division 2
Vice President

George Osborne—Division 1
Director

Brian K. Veerkamp—Division 3
Director

Lori Anzini—Division 4
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CALL TO ORDER

President Day called the meeting to order at 9:02 A.M.

Roll Call
Board

Present: Directors Osborne, Dwyer, Veerkamp, Anzini and Day

Staff

Present: General Manager Abercrombie, General Counsel Poulsen and Board Clerk Sullivan

Pledge of Allegiance and Moment of Silence

Director Veerkamp led the Pledge of Allegiance and Moment of Silence for peace in the Middle East.

ADOPT AGENDA

ACTION: Agenda was adopted.

MOTION PASSED

Ayes: Directors Dwyer, Anzini, Osborne, Veerkamp and Day

COMMUNICATIONS

Awards and Recognitions

None

PUBLIC COMMENT

None

COMMUNICATIONS

General Manager

None

Clerk to the Board

None

Board of Directors

Director Veerkamp reported on his attendance at the recent El Dorado Local Agency Formation Commission meeting.

Director Dwyer reported on his attendance at the El Dorado Water Agency meeting as a guest considering his recent appointment to the Board. He also reported on his attendance at the El Dorado County Fire Safe Council meeting.

APPROVE CONSENT CALENDAR

ACTION: Consent Calendar was approved.

MOTION PASSED

Ayes: Directors Anzini, Osborne, Dwyer, Veerkamp and Day

CONSENT CALENDAR

1. **Clerk to the Board (Sullivan)**
   Consider approving the minutes of the December 11, 2023 regular meeting of the Board of Directors.

   ACTION: Option 1: Approved as submitted.

   MOTION PASSED
   Ayes: Directors Anzini, Osborne, Dwyer, Veerkamp and Day

2. **Office of the General Counsel (Sarge)**
   Consider adopting a resolution quitclaiming an unused easement to the landowner of Assessor Parcel No. 051-210-011.

   ACTION: Option 1: Adopted Resolution No. 2024-003 quitclaiming an unused easement to the landowner of Assessor Parcel No. 051-210-011.

   MOTION PASSED
   Ayes: Directors Anzini, Osborne, Dwyer, Veerkamp and Day

3. **Engineering (Carrington)**
   Consider approving a contract amendment to Teichert Construction in the not-to-exceed amount of $108,802.50 for an extension of hard rock quantity for the Motherlode Force Main Phase 3 Project, Project No. 21081.01.

   ACTION: Option 1: Approved a contract amendment to Teichert Construction in the not-to-exceed amount of $108,802.50 for an extension of hard rock quantity for the Motherlode Force Main Phase 3 Project, Project No. 21081.01.

   MOTION PASSED
   Ayes: Directors Anzini, Osborne, Dwyer, Veerkamp and Day

4. **Operations (Smith)**
   Consider awarding a one-year contract to Veolia Water Technologies Treatment Solutions USA, Inc. in the not-to-exceed amount of $105,000 for the purchase of ultraviolet disinfection system parts and equipment for the Deer Creek and El Dorado Hills Wastewater Treatment Plants and authorize the General Manager to extend the agreement for up to four one-year terms in the not-to-exceed amount of $105,000 for each additional year.

   ACTION: Option 1: Awarded a one-year contract to Veolia Water Technologies Treatment Solutions USA, Inc. in the not-to-exceed amount of $105,000 for the purchase of ultraviolet disinfection system parts and equipment for the Deer Creek and El Dorado Hills Wastewater Treatment Plants and authorized the General Manager to extend the agreement for up to four one-year terms in the not-to-exceed amount of $105,000 for each additional year.

   MOTION PASSED
   Ayes: Directors Anzini, Osborne, Dwyer, Veerkamp and Day

5. **Engineering (Delongchamp)**
   Consider awarding a contract to Peterson Brustad, Inc. in the not-to-exceed amount of $99,997 for design of the Pleasant Oak Main Pressure Reducing Station #2 Upgrade and authorize additional funding of $35,000 for capitalized labor and $14,000 for contingencies for a total funding request of $148,997 for the Pleasant Oak Main Pressure Reducing Station #2 Upgrade Project, Project No. 22019.01.

   ACTION: Option 1: Awarded a contract to Peterson Brustad, Inc. in the not-to-exceed amount of $99,997 for design of the Pleasant Oak Main Pressure Reducing Station #2 Upgrade and authorized additional funding of $35,000 for capitalized labor and $14,000 for contingencies for a total funding request of $148,997 for the Pleasant Oak Main Pressure Reducing Station #2 Upgrade Project, Project No. 22019.01.

   MOTION PASSED
   Ayes: Directors Anzini, Osborne, Dwyer, Veerkamp and Day

6. **Engineering (Delongchamp/Money)**
   Consider authorizing additional funding of $46,052 for additional geotechnical investigation, $23,196 for grant application assistance, and $11,500 for capitalized labor for a total funding request of $80,748 for the Reservoir 1 and Pollock Pines Reservoir Replacement Project, Project No. 23009.01; and $5,000 for mediation services, $5,000 for construction management services, and $10,000 for capitalized labor for a total funding request of $20,000 for the Flume 45 Abutment Replacement Project, Project No. 17025.01.

   ACTION: Option 1: Authorized additional funding of $46,052 for additional geotechnical investigation, $23,196 for grant application assistance, and $11,500 for capitalized labor for a total funding request of $80,748 for the Reservoir 1 and Pollock Pines Reservoir Replacement Project, Project No. 23009.01; and $5,000 for mediation services, $5,000 for construction management services, and $10,000 for capitalized labor for a total funding request of $20,000 for the Flume 45 Abutment Replacement Project, Project No. 17025.01.

   MOTION PASSED
   Ayes: Directors Anzini, Osborne, Dwyer, Veerkamp and Day

7. Human Resources (Calvert)

Consider adopting revised pay schedules for the Association of El Dorado Irrigation District Employees, El Dorado Irrigation District Managers and Supervisors Association, and the Confidential Non-Represented and Contract Employees pursuant to contractual obligations, including the October 2023 Consumer Price Index used to set Cost-of-Living Adjustments.

ACTION: Option 1: Adopted revised pay schedules for the Association of El Dorado Irrigation District Employees, El Dorado Irrigation District Managers and Supervisors Association, and the Confidential Non-Represented and Contract Employees pursuant to contractual obligations, including the October 2023 Consumer Price Index used to set Cost-of-Living Adjustments for 2024.

MOTION PASSED

Ayes: Directors Anzini, Osborne, Dwyer, Veerkamp and Day

8. Finance (Royal)

Consider ratifying the General Manager's award of a contract to Corning Ford in the not-to-exceed amount of $565,763.01 for the purchase of seven vehicles for the 2024 Vehicle Replacement Program, Project No. 24003.

ACTION: Option 1: Ratified the General Manager's award of a contract to Corning Ford in the not-to-exceed amount of $565,763.01 for the purchase of seven vehicles for the 2024 Vehicle Replacement Program, Project No. 24003.

MOTION PASSED

Ayes: Directors Anzini, Osborne, Dwyer, Veerkamp and Day

9. Clerk to the Board (Sullivan)

Consider Board President Day’s recommendation for 2024 association and community organization assignments.

ACTION: Option 1: Concurred with Board President Day’s recommendation of 2024 association and community organization assignments.

MOTION PASSED

Ayes: Directors Anzini, Osborne, Dwyer, Veerkamp and Day

10. Operations (Wilson)

Consider awarding contracts to Sterling Water Technologies, LLC in the not-to-exceed amount of $411,947 and NTU Technologies, Inc. in the not-to-exceed amount of $75,864 for the annual purchase of drinking water treatment chemicals for 2024.

ACTION: Option 1: Awarded contracts to Sterling Water Technologies, LLC in the not-to-exceed amount of $411,947 and NTU Technologies, Inc. in the not-to-exceed amount of $75,864 for the annual purchase of drinking water treatment chemicals for 2024.

MOTION PASSED
Ayes: Directors Anzini, Osborne, Dwyer, Veerkamp and Day

11. Finance (Lane)

Consider adopting two resolutions to certify signatures for the District's checking accounts at Bank of America and El Dorado Savings Banks.

ACTION: Option 1: Adopted Resolution Nos. 2024-001 and 2024-002 to certify signatures for the District's checking accounts at Bank of America and El Dorado Savings Bank.

MOTION PASSED
Ayes: Directors Anzini, Osborne, Dwyer, Veerkamp and Day

12. Office of the General Counsel (Poulsen)

Consider approving sponsorship of legislative proposals to help local agencies comply with the Surplus Lands Act and provide funding through a climate resilience bond provision for water system infrastructure modeled after Senate Bill 470 from 2023.

ACTION: Option 1: Approved sponsorship of legislative proposals to help local agencies comply with the Surplus Lands Act and provide funding through a climate resilience bond provision for water system infrastructure modeled after Senate Bill 470 from 2023.

MOTION PASSED
Ayes: Directors Anzini, Osborne, Dwyer, Veerkamp and Day

END OF CONSENT CALENDAR

DIRECTOR ITEMS

13. Board of Directors (Dwyer)

Consider limiting Board member compensation.

MOTION: Option 1: Limit Board member compensation.

MOTION FAILED
Ayes: Directors Dwyer and Osborne
Noes: Directors Veerkamp, Anzini and Day

ACTION ITEMS

14. Operations (Wilson)

Consider authorizing funding in the amounts of $1,364,647 for capitalized labor, $562,526 for asphalt patch paving, $347,694 for materials and supplies, $222,376 for sand and gravel, $67,319 for compaction testing and El Dorado County inspections and $185,438 for concrete remediation services for a total funding request of $2,750,000 for the Service Line Replacement Project, Project No. 24002.01.

ACTION: Option 1: Authorized funding in the amounts of $1,364,647 for capitalized labor, $562,526 for asphalt patch paving, $347,694 for materials and supplies, $222,376 for sand and gravel, $67,319 for compaction testing and El Dorado County inspections and $185,438 for concrete remediation services for a total funding request of $2,750,000 for the Service Line Replacement Project, Project No. 24002.01.

MOTION PASSED

Ayes: Directors Dwyer, Veerkamp, Osborne, Anzini and Day

15. Operations (Sutter)

Consider awarding a one-year contract to Synagro West, LLC in the not-to-exceed amount of $898,774 for wastewater biosolids hauling and disposal services for the El Dorado Hills and Deer Creek wastewater treatment plants and authorize the General Manager to extend the contract for up to three additional single-year periods subject to the annual contract amount increasing by no more than the U.S. Bureau of Labor Statistics West Region Consumer Price Index for Urban Wage Earners and Clerical Workers.

ACTION: Option 1: Awarded a one-year contract to Synagro West, LLC in the not-to-exceed amount of $898,774 for wastewater biosolids hauling and disposal services for the El Dorado Hills and Deer Creek wastewater treatment plants and authorized the General Manager to extend the contracts for up to three additional single-year periods subject to the annual contract amount increasing by no more than the U.S. Bureau of Labor Statistics West Region Consumer Price Index for Urban Wage Earners and Clerical Workers.

MOTION PASSED

Ayes: Directors Osborne, Anzini, Dwyer, Veerkamp and Day

16. Engineering (Kessler)

Consider authorizing additional funding in the amount of $932,836 for the State Division of Safety of Dams application fee for the Silver Lake Dam Replacement Project, Project No. 19031.

ACTION: Option 1: Authorized additional funding in the amount of $932,836 for the State Division of Safety of Dams application fee for the Silver Lake Dam Replacement Project, Project No. 19031.

MOTION PASSED

Ayes: Directors Anzini, Dwyer, Osborne, Veerkamp and Day

17. Engineering (Kelsch)

Consider awarding contracts to Big Valley Electric in the not-to-exceed amount of $2,677,365 for construction of 15 backup generator installations, ICM Group, Inc. in the not-to-exceed amount of $128,000 for on-call inspection services, and ATEEM Electrical Engineering, Inc. in the not-to-exceed amount of $124,880 for construction engineering services, and authorize additional funding of $86,000 for capitalized labor and $302,000 in contingency for a total funding request of $3,318,245 for the Emergency Backup Generator Upgrades Project, Project Nos. 21040.01 and 21041.01.

ACTION: Option 1: Awarded contracts to Big Valley Electric in the not-to-exceed amount of $2,677,365 for construction of 15 backup generator installations, ICM Group, Inc. in the not-to-exceed amount of $128,000 for on-call inspection services, and ATEEM Electrical Engineering, Inc. in the not-to-exceed amount of $124,880 for construction engineering services, and authorized additional funding of $86,000 for capitalized labor and $302,000 in contingency for a total funding request of $3,318,245 for the Emergency Backup Generator Upgrades Project, Project Nos. 21040.01 and 21041.01.

MOTION PASSED

Ayes: Directors Veerkamp, Osborne, Dwyer, Anzini and Day

18. Finance (Lane)

Consider ratifying EID General Warrant Registers for the periods ending December 5, December 12, December 19, and December 26, 2023, and January 2 and January 9, 2024, and Board and Employee Expense Reimbursements for these periods.

Director Veerkamp recused himself from the deliberations and vote on this Item.

ACTION: Option 1: Ratified the EID General Warrant Registers and Board and Employee Expense Reimbursements as submitted.

MOTION PASSED

Ayes: Directors Osborne, Anzini, Dwyer and Day

REVIEW OF ASSIGNMENTS

None

ADJOURNMENT

President Day adjourned the meeting at 10:19 A.M.

Alan Day
Board President
EL DORADO IRRIGATION DISTRICT

ATTEST

Jennifer Sullivan
Clerk to the Board
EL DORADO IRRIGATION DISTRICT

Approved: _____

EL DORADO IRRIGATION DISTRICT

SUBJECT: Consider adopting a resolution quitclaiming an unused easement to the landowners of Assessor Parcel No. 046-330-047.

PREVIOUS BOARD ACTION
None

BOARD POLICIES (BP), ADMINISTRATIVE REGULATIONS (AR) AND BOARD AUTHORITY
Water Code Sections 22500 and 22502

SUMMARY OF ISSUE
The landowners of Assessor Parcel Number (APN) 046-330-047 request the District quitclaim its property interests of the unused 16' wide waterline easement on their property located in Placerville, California. There are no existing or planned utilities within the easement area and therefore staff recommends the easement be quitclaimed.

BACKGROUND/DISCUSSION
District staff has researched the landowners' request and determined that an easement across the landowners' parcel is not necessary. As such, staff prepared a proposed easement quitclaim relinquishing the District's interest in a portion of the 16' wide waterline easement within APN 046-330-047 for the Board's consideration. Easement quitclaims are required to be presented to the District's Board of Directors for review and approval by resolution. After approval by the Board, easement quitclaims are then recorded at the El Dorado County Recorder's Office.

BOARD OPTIONS
Option 1: Adopt a resolution quitclaiming an unused easement to the landowners of Assessor Parcel No. 046-330-047.

Option 2: Take other action as directed by the Board.

Option 3: Take no action.

RECOMMENDATION
Option 1

ATTACHMENTS
Attachment A: Proposed resolution
Attachment B: Easement Quitclaim

Rachel Sarge
Legal Secretary

Dan Corcoran
Operations Director

Brian Poulsen
General Counsel

Jim Abercrombie
General Manager

**RESOLUTION OF THE BOARD OF DIRECTORS OF
EL DORADO IRRIGATION DISTRICT
APPROVING AND AUTHORIZING EXECUTION OF EASEMENT QUITCLAIM
ASSESSOR PARCEL NUMBER 046-330-047**

WHEREAS, the property owner of Assessor Parcel Number 046-330-047 ("Property") requested the El Dorado Irrigation District ("District") approve an easement quitclaim for all portions of the 16' wide waterline easement found on the Property; and

WHEREAS, District staff confirmed there are no utilities found within the easement area and no longer requires the subject easement rights; and

WHEREAS, the requested easement to be quitclaimed does not affect District operations or water supply; and

WHEREAS, the District desires to relieve itself of all administrative and legal responsibilities associated with the subject easement to be quitclaimed.

NOW THEREFORE, El Dorado Irrigation District does hereby authorize and approve execution of an easement quitclaim to any portion of the 16' wide waterline easement held in the real property identified by Assessor Parcel Number 046-330-047.

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The foregoing Resolution was introduced at a regular meeting of the Board of Directors of the EL DORADO IRRIGATION DISTRICT, held on the 12th day of February 2024, by Director who moved its adoption. The motion was seconded by Director and a poll vote taken which stood as follows:

AYES:

NOES:

ABSENT:

ABSTAIN:

The motion having a majority of votes "Aye", the resolution was declared to have been adopted, and it was so ordered.

_____
Alan Day
Board of Directors
EL DORADO IRRIGATION DISTRICT

ATTEST:

_____
Jennifer Sullivan
Clerk to the Board
EL DORADO IRRIGATION DISTRICT

(SEAL)

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I, the undersigned, Clerk to the Board of the EL DORADO IRRIGATION DISTRICT hereby certify that the foregoing resolution is a full, true and correct copy of a Resolution of the Board of Directors of the EL DORADO IRRIGATION DISTRICT entered into and adopted at a regular meeting of the Board of Directors held on the 12th day of February 2024.

_____
Jennifer Sullivan
Clerk to the Board
EL DORADO IRRIGATION DISTRICT

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Attachment B

RECORDING REQUESTED BY AND
WHEN RECORDED MAIL TO:

El Dorado Irrigation District
c/o Rachel Sarge, Legal Secretary
2890 Mosquito Road
Placerville, CA 95667

APN: 046-330-047

Documentary Transfer Tax $ 0
Exempt from fees: Gov. Code 27383 R&T 11922

Declarant: _____

For County Recorder's Use Only

EASEMENT QUITCLAIM & RESOLUTION

EL DORADO IRRIGATION DISTRICT does hereby REMISE, RELEASE AND FOREVER QUITCLAIM to **MARK and ERIN FECHTER**, owners of the real property identified by Assessor's Parcel Number 046-330-047, more particularly located at 5625 ROCKY RIDGE ROAD, situate in the County of El Dorado, State of California ("PARCEL"), all right, title, or interest to that certain portion of a 16' foot wide waterline easement as originally recorded as BOOK 1504 PAGE 89 in the County of El Dorado Recorder.

LEGAL DESCRIPTION ATTACHED AS EXHIBIT "A"
QUITCLAIM SITE MAP ATTACHED AS EXHIBIT "B"

By: _____ Date: _____
Alan Day
President of the Board of Directors
EL DORADO IRRIGATION DISTRICT

By: _____ Date: _____
Jim Abercrombie
General Manager
EL DORADO IRRIGATION DISTRICT

~ Notary Acknowledgements Attached~

CALIFORNIA ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of _____ }

On _____ before me, _____,
Date *Here Insert Name and Title of the Officer*

personally appeared _____
Name(s) of Signer(s)

_____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____
Place Notary Seal and/or Stamp Above *Signature of Notary Public*

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
☐ Corporate Officer – Title(s): _____
☐ Partner – ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
Signer is Representing: _____
_____

Signer's Name: _____
☐ Corporate Officer – Title(s): _____
☐ Partner – ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
Signer is Representing: _____
_____

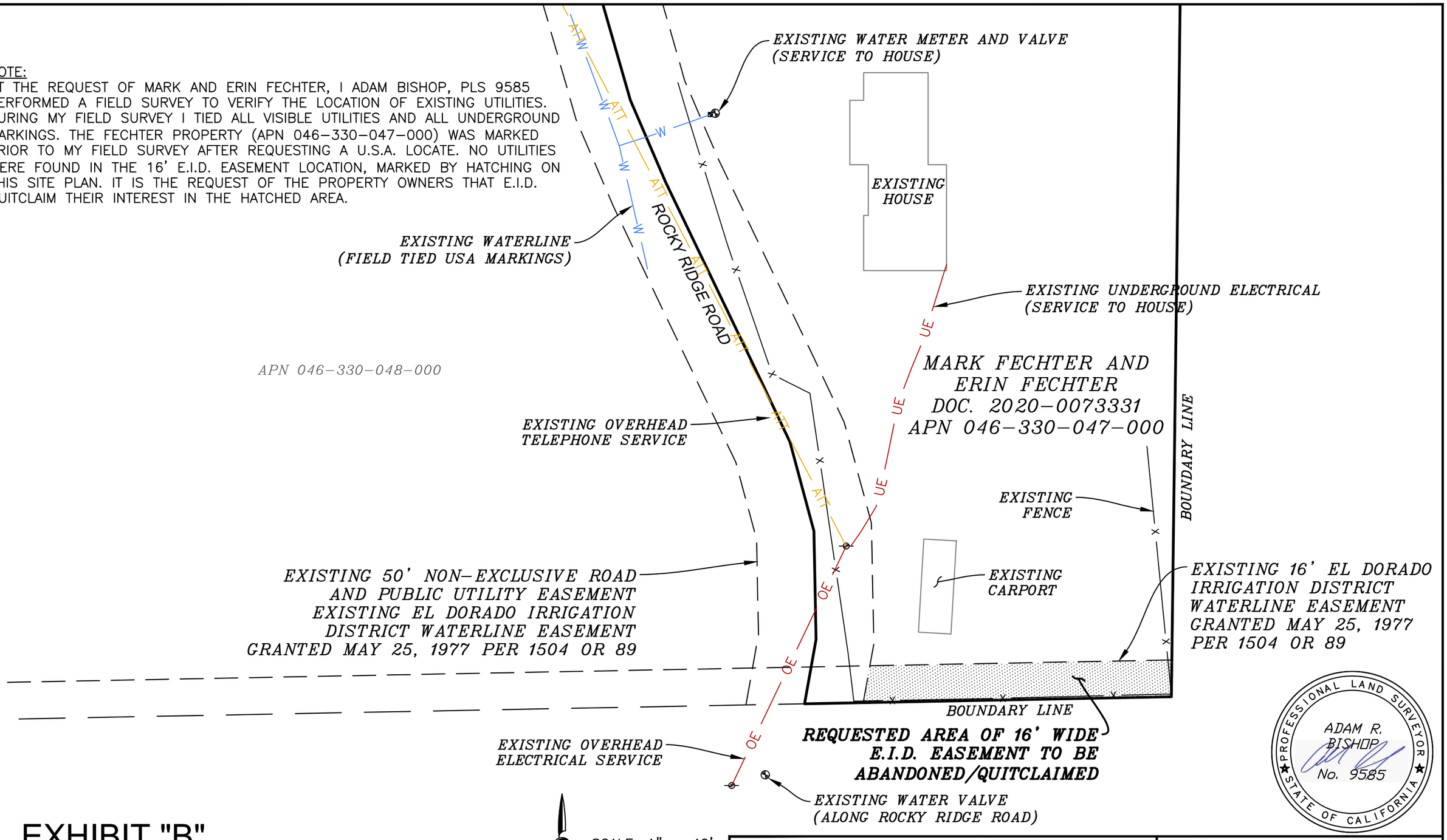
EXHIBIT “A”
LEGAL DESCRIPTION

All that certain real property situate in the County of El Dorado, State of California, located in the Northwest 1/4 of Section 9, township 9 North, Range 11 East, Mount Diablo Meridian, described as follows:

A strip of land sixteen (16) feet in width, lying within the boundaries of Rocky Ridge Road, as said boundaries existed as of date of this instrument.

Along with a strip of land sixteen (16) feet in width, lying North of, adjacent to, and parallel with, the South boundary of said Wilbur property.

NOTE:
AT THE REQUEST OF MARK AND ERIN FECHTER, I ADAM BISHOP, PLS 9585 PERFORMED A FIELD SURVEY TO VERIFY THE LOCATION OF EXISTING UTILITIES. DURING MY FIELD SURVEY I TIED ALL VISIBLE UTILITIES AND ALL UNDERGROUND MARKINGS. THE FECHTER PROPERTY (APN 046-330-047-000) WAS MARKED PRIOR TO MY FIELD SURVEY AFTER REQUESTING A U.S.A. LOCATE. NO UTILITIES WERE FOUND IN THE 16' E.I.D. EASEMENT LOCATION, MARKED BY HATCHING ON THIS SITE PLAN. IT IS THE REQUEST OF THE PROPERTY OWNERS THAT E.I.D. QUITCLAIM THEIR INTEREST IN THE HATCHED AREA.



PROFESSIONAL LAND SURVEYOR
ADAM R. BISHOP
No. 9585
STATE OF CALIFORNIA

EXHIBIT "B"

SCALE: 1" = 40'

5625 R CKY RIDGE RD. (FECHTER)
APN 46-33 -047-000

SHEET 1 OF 1 | SITE MAP | SURVEYED BY: AB & MB DATE 10-25-2 3

LS | ISHOP LAND SURVEYING

EL DORADO IRRIGATION DISTRICT

SUBJECT: Consider authorizing additional funding in the amounts of $35,000 for capitalized labor and $3,200 for water pollution control plan inspections, for a total funding request of $38,200 for the Diversion Facility Upgrades Project, Project No. 21008.01; $20,000 for professional services for Federal Energy Regulatory Commission (FERC) C44 Noxious Weed Monitoring, Project No. 08025H; $30,000 in capitalized labor for FERC C38 Adaptive Management, Project No. 07011H; $10,000 for professional services for FERC C37.8 Water Temperature Monitoring, Project No. 06021H; $60,000 for professional services and $25,000 for laboratory services for a total funding request of $85,000 for FERC C37.9 Water Quality, Project No. 07003H.

PREVIOUS BOARD ACTION

Diversion Facility Upgrades Project, Project No. 21008.01
June 14, 2021 – Board awarded a contract to GHD, Inc. in the not-to-exceed amount of $176,636 for design of the Diversion Facility Upgrades and authorized additional funding of $65,000 for capitalized labor for a total funding request of $241,636 for the Diversion Facility Upgrade Project, Project No. 21008.01.

February 13, 2023 – Board authorized additional funding in the amounts of $14,877 for Pacific Gas and Electric electrical service upgrades and $10,000 for capitalized labor for a total funding request of $24,877 for the Diversion Facility Upgrades Project, Project No. 21008.01.

April 24, 2023 – Board awarded a contract to TNT Industrial Contracotrs, Inc. in the not-to-exceed amount of $805,730 for construction of the Diversion Facility Upgrades Project and authorize additional funding of $77,361 for engineering construction supports, $60,000 for capitalized labor, and $94,000 in project contingency for a total funding request of $1,037,091 for the Diversion Facility Upgrades Project, Project No. 21008, which staff has determined is exempt from the California Environmental Quality Act.

Federal Energy Regulatory Commission (FERC) License Conditions
Since 2006, the Board has annually authorized funding to implement the various license conditions to comply with the terms of the FERC license and related agreements.

October 23, 2023 – Board adopted the 2024–2028 Capital Improvement Plan (CIP), subject to available funding.

BOARD POLICIES (BP), ADMINISTRATIVE REGULATIONS (AR) AND BOARD AUTHORITY

BP 3010 Budget

SUMMARY OF ISSUE

Board approval is required to authorize CIP funding prior to staff proceeding with work on the projects.

BACKGROUND/DISCUSSION

Staff requests funding for the CIP projects identified in Table 1. The expenditures to date, amount of new funding requested and the funding source are listed.

Table 1
CIP Funding Request

	Project Name and Number	2024-2028 CIP Plan[1]	Funded to Date	Actual Costs to date[2]	Amount Requested	Funding Source
1.	**Diversion Facility Upgrades Project No. 21008.01**	**$300,000**	**$1,378,727**	**$1,373,978**	**$38,200**	**53% Water FCCs 47% Water Rates**
2.	**FERC C44 Noxious Weed Monitoring 08025H**	**$165,000**	**$347,342**	**$337,770**	**$20,000**	**100% Water Rates**
3.	**FERC C38 Adaptive Management 07011H**	**$250,000**	**$727,000**	**$704,741**	**$30,000**	**100% Water Rates**
4.	**C37.8 Water Temperature Monitoring 06021H**	**$165,000**	**$411,500**	**$385,893**	**$10,000**	**100% Water Rates**
5.	**C37.9 Water Quality Monitoring 07003H**	**$205,000**	**$609,000**	**$589,877**	**$85,000**	**100% Water Rates**
	TOTAL FUNDING REQUEST				**$183,200**	

[1] Includes all existing costs plus any expected costs in the 5-year CIP.
[2] Actual costs include encumbrances.

The following section contains a brief breakdown and description of the project in Table 1.

CIP Funding Request

Project No.	21008.01	**Board Date**	02/12/2024
Project Name	Diversion Facility Upgrades		
Project Manager	Delongchamp		

Budget Status	**$**	**%**
Funded to date	$ 1,378,727	--
Spent to date	$ 1,373,978	99.7%
Current Remaining	$ 4,749	0.3%

Funding Request Breakdown	**$**
Capitalized Labor	$ 35,000
Additional Water Pollution Control Plan Inspection Services	$ 3,200
Total	$ 38,200

Funding Source
53% Water FCCs 47% Water Rates

Description

The project is implementing a more reliable power distribution from both the utility and the backup generator at the diversion facility. Currently, the site has multiple voltage swings and suffers from load imbalances. This project is consolidating the power to a single feed, which will alleviate these issues, in addition to improving reliability of the site. The project began construction in April 2023 and was targeted for completion in October 2023. However, due to extended electrical equipment procurement and PG&E scheduling, completion of the project has been delayed until Spring 2024.

This funding request is for additional capitalized labor for construction inspection and project management, as well as additional water pollution control plan inspection services.

The project is 90% complete with final completion in early April.

CIP Funding Request

Project No.	08025H	**Board Date**	02/12/2024
Project Name	FERC C44 Noxious Weed Monitoring		
Project Manager	Deason		

Budget Status	**$**	**%**
Funded to date	$ 347,342	--
Spent to date	$ 337,770	97%
Current Remaining	$ 9,572	3%

Funding Request Breakdown	**$**
Professional Services	$ 20,000
Total	$ 20,000

Funding Source
100% Water Rates

Description
This project is a requirement of the FERC Project No. 184 license pursuant to United States Forest Service Section 4(e) Condition No. 44 and Section 8 of the El Dorado Hydroelectric Project Relicensing Settlement Agreement. Funding is necessary to implement noxious weed monitoring plan for the prevention and control of noxious weeds at Project No. 184 facilities. The plan requires annual surveys within the Project No. 184 boundary in areas where high priority noxious weeds are known to occur and in areas where ground disturbing activities occurred during the previous year. The data collected from this effort are used to track noxious weed occurrences and evaluate effectiveness of treatments and control efforts and inform future treatment and control efforts. Funding is requested in 2024 for professional services to conduct monitoring. Current funding is sufficient to cover capitalized labor for staff time to: a) manage on-call contract and review deliverables generated by consultant, b) participate in field surveys, c) prepare the annual monitoring report, and d) consult with regulatory agencies on the monitoring results.

CIP Funding Request

Project No.	07011H	**Board Date**	02/12/2024
Project Name	FERC C38 Adaptive Management		
Project Manager	Deason		

Budget Status	**$**	**%**
Funded to date	$ 727,000	--
Spent to date	$ 704,741	97%
Current Remaining	$ 22,259	3%

Funding Request Breakdown	**$**
Capitalized Labor	$ 30,000
Total	$ 30,000

Funding Source
100% Water rates

Description
This project is a requirement of the FERC Project No. 184 license pursuant to United States Forest Service (USFS) Section 4(e) Condition No. 38 Ecological Resources Adaptive Management Program and Section 8 of the Relicensing Settlement Agreement. Funding is requested for staff time to implement the adaptive management program which includes coordination with the Project No. 184 Ecological Resources Committee (ERC), implementation of the resource monitoring program, and evaluation of monitoring results to determine if resource objectives are achievable and being met. Funding is requested for staff time in 2024 to continue license implementation in coordination with the ERC, USFS, and State Water Resources Control Board (SWRCB), evaluate results of the resource monitoring program to determine if resource objectives are achievable and being met, and prepare the Project No. 184 monitoring program annual report. Analysis of monitoring results will be used to determine any needed changes in streamflow, or implementation of other adaptive management measures.

CIP Funding Request

Project No.	06021H	**Board Date**	02/12/2024
Project Name	FERC C37.1 Water Temperature Monitoring		
Project Manager	Deason		

Budget Status	**$**	**%**
Funded to date	$ 411,500	--
Spent to date	$ 385,893	94%
Current Remaining	$ 25,607	6%

Funding Request Breakdown	**$**
Professional Services	$ 10,000
Total	$ 10,000

Funding Source
100% Water rates

Description
This project is a requirement of the FERC Project No. 184 license pursuant to United States Forest Service (USFS) Section 4(e) Condition No. 37 and 42, State Water Resources Control Board (SWRCB) Water Quality Certification Condition 14 and Section 12 of the Relicensing Settlement Agreement. Funding is requested to implement the Project No. 184 Water Temperature Monitoring Plan (Plan) which requires annual monitoring of water temperature in stream reaches downstream of Project No. 184 reservoirs and facilities and above and below the El Dorado Diversion Dam. The data collected from this effort are used to determine if coldwater beneficial uses (e.g. suitable water temperature conditions for fish and amphibians) are being met in designated project reaches. Funding is requested in 2024 for on-call professional services to conduct monitoring. Current funding is sufficient to cover a portion of the professional services to conduct the monitoring and capitalized labor for staff time to: a) manage on-call contract and review deliverables generated by consultant, b) participate in field surveys, c) prepare the annual monitoring report, and d) consult with regulatory agencies on the monitoring results.

CIP Funding Request

Project No.	07003H	**Board Date**	02/12/2024
Project Name	FERC C37.9 Water Quality Monitoring		
Project Manager	Deason		

Budget Status	**$**	**%**
Funded to date	$ 609,000	--
Spent to date	$ 589,877	97%
Current Remaining	$ 19,423	3%

Funding Request Breakdown	**$**
Professional Services	$ 60,000
Laboratory Services	$ 25,000
Total	$ 85,000

Funding Source
100% Water rates

Description
This project is a requirement of the FERC Project No. 184 license pursuant to United States Forest Service Section 4(e) Condition No. 37.9, State Water Resources Control Board Water Quality Certification Condition No. 15, and 1 Section 7 of the El Dorado Hydroelectric Project Relicensing Settlement Agreement. Funding is necessary to implement the water quality monitoring program at Project No. 184 reservoirs and stream reaches. The data collected from this monitoring effort will be used to characterize water quality under current project operations and help determine if applicable water quality objectives/criteria are being met and whether designated beneficial uses are protected. Funding is requested in 2024 for on-call professional services to conduct monitoring and for on-call laboratory services for water quality analysis. Current funding is sufficient to cover capitalized labor for staff time to: a) manage on-call contract and review deliverables generated by consultant, b) participate in field surveys, c) prepare the annual monitoring report, and d) consult with regulatory agencies on the monitoring results.

BOARD OPTIONS

Option 1: Authorize additional funding in the amounts of $35,000 for capitalized labor and $3,200 for water pollution control plan inspections, for a total funding request of $38,200 for the Diversion Facility Upgrades Project, Project No. 21008.01; $20,000 for professional services for Federal Energy Regulatory Commission (FERC) C44 Noxious Weed Monitoring, Project No. 08025H; $30,000 in capitalized labor for FERC C38 Adaptive Management, Project No. 07011H; $10,000 for professional services for FERC C37.8 Water Temperature Monitoring, Project No. 06021H; $60,000 for professional services and $25,000 for laboratory services for a total funding request of $85,000 for FERC C37.9 Water Quality, Project No. 07003H.

Option 2: Take other action as directed by the Board.

Option 3: Take no action.

RECOMMENDATION

Option 1

ATTACHMENTS

Attachment A: CIP summaries

Kailee Delongchamp
Associate Engineer

Brian Deason
Environmental Resources Supervisor

Jon Money
Engineering Manager

Brian Mueller
Engineering Director

For
Jamie Bandy
Finance Director

Brian Poulsen
General Counsel

Jim Abercrombie
General Manager

2024 CAPITAL IMPROVEMENT PLAN **Program:** **Hydroelectric**

Project Number: 21008

Project Name: Diversion - Facility Upgrades

Project Category: Reliability & Service Level Improvements

Priority: 1 **PM:** Delongchamp **Board Approval:** 10/23/23

Project Description:

The project is to implement a more reliable power distribution from utility and backup generator. Currently the site has multiple voltage feeds, large voltage swings and suffers from load imbalances. The load imbalance and voltage swings are causing faster equipment degradation and increasing maintenance cost. Consolidating power to a single feed will alleviate the current problems and improve reliability of the site. The current generator is no longer sized adequately for the current load at the facility. This project will include installation of a larger generator. Otherfacility improvements include relocating the air compressor/fish screen blower system outside of the existing control room to reduce heat load to electrical and network equipment and enclosing the compressor tank to prevent temperature issues.

The project was awarded for Construction in April 2023. The building and generator will be installed in the fall of 2023. Construction is expected to continue into spring of 2024 due to electrical procurement issues.

Basis for Priority:

The project will improve reliability and improve operational capabilities of a critical water facility. This project started Construction in September 2023.

Project Financial Summary:			
Funded to Date:	**$ 1,378,727**	**Expenditures through end of year:**	**$ 1,075,271**
Spent to Date:	**$ 275,271**	**2024 - 2028 Planned Expenditures:**	**$ 300,000**
Cash flow through end of year:	**$ 800,000**	**Total Project Estimate:**	**$ 1,375,271**
Project Balance	**$ 303,456**	**Additional Funding Required**	**$ -**

Description of Work	**Estimated Annual Expenditures**					
	2024	**2025**	**2026**	**2027**	**2028**	**Total**
Capitalized Labor	**$ 50,000**					**$ 50,000**
Construction Inspection	**$ 50,000**					**$ 50,000**
Construction	**$ 200,000**					**$ 200,000**
						$ -
TOTAL	**$ 300,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 300,000**

Funding Sources	**Percentage**	**2024**	**Amount**
Water FCCs	53%		$0
Water Rates	47%		$0
			$0
Total	**100%**		**$0**

Funding Comments:

2024	CAPITAL IMPROVEMENT PLAN	Program:	FERC

Project Number: 08025H

Project Name: FERC C44 Noxious Weed Monitoring

Project Category: Regulatory Requirements

Priority: 1 **PM:** Deason **Board Approval:** 10/23/23

Project Description:

Mandatory requirement of the FERC license. Funding is requested to implement the noxious weed plan for the prevention and control of noxious weeds at Project No. 184 facilities. The plan requires annual surveys within the Project No. 184 boundary in areas where high priority noxious weeds are known to occur and in areas where ground disturbance occurred during the previous year. The plan also calls for surveys to be conducted every 5 years within the entire Project No. 184 boundary.

Basis for Priority:

If unfunded, EID would be out of compliance with the FERC license, Section 8 of the Settlement Agreement, and USFS 4(e) condition 44.

Project Financial Summary:			
Funded to Date:	$ 347,342	Expenditures through end of year:	$ 331,727
Spent to Date:	$ 324,727	2024 - 2028 Planned Expenditures:	$ 165,000
Cash flow through end of year:	$ 7,000	Total Project Estimate:	$ 496,727
Project Balance	$ 15,615	Additional Funding Required	$ 149,385

Description of Work	Estimated Annual Expenditures					
	2024	2025	2026	2027	2028	Total
Implementation	$ 25,000	$ 25,000	$ 40,000	$ 25,000	$ 25,000	$ 140,000
Reporting	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 25,000
						$ -
						$ -
TOTAL	$ 30,000	$ 30,000	$ 45,000	$ 30,000	$ 30,000	$ 165,000

Estimated Funding Sources	Percentage	2024 Amount
Water Rates	100%	$14,385
		$0
Total	100%	$14,385

Funding Comments: Annual

2024	CAPITAL IMPROVEMENT PLAN	Program:	FERC

Project Number: 07011H

Project Name: FERC: C38 Adaptive Management Program

Project Category: Regulatory Requirements

Priority: 1 **PM:** Deason **Board Approval:** 10/23/23

Project Description:

Mandatory requirement of the FERC license. Funding is for staff time to implement the adaptive management program (Condition 38) of the FERC license. This program requires coordination with the Ecological Resources Committee (ERC), implementation of the resource monitoring program, and evaluation of monitoring results to determine if resource objectives are achievable and being met.

Basis for Priority:

If unfunded, EID would be out of compliance with the FERC license, Section 14 of the Settlement Agreement, and USFS 4(e) condition 38.

Project Financial Summary:			
Funded to Date:	$ 727,000	Expenditures through end of year:	$ 714,657
Spent to Date:	$ 694,657	2024 - 2028 Planned Expenditures:	$ 250,000
Cash flow through end of year:	$ 20,000	Total Project Estimate:	$ 964,657
Project Balance	$ 12,343	Additional Funding Required	$ 237,657

Description of Work	Estimated Annual Expenditures					
	2024	2025	2026	2027	2028	Total
Staff time	$50,000	$50,000	$50,000	$50,000	$50,000	$ 250,000
						$ -
TOTAL	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 250,000

Estimated Funding Sources	Percentage	2024 Amount
Water Rates	100%	$37,657
		$0
Total	100%	$37,657

Funding Comments:

2024	CAPITAL IMPROVEMENT PLAN	Program:	FERC

Project Number: 06021H

Project Name: FERC C37.8 Water Temperature

Project Category: Regulatory Requirements

Priority: 1 **PM:** Deason **Board Approval:** 10/23/23

Project Description:

Mandatory requirement of the FERC license. Funding is necessary to implement an annual water temperature monitoring program at project reservoirs and stream reaches. The data collected from this monitoring effort will be used to determine if the coldwater beneficial uses are being met in designated project reaches.

Basis for Priority:

If unfunded, EID would be out of compliance with the FERC license, Sections 7 and 12 of the Settlement Agreement, USFS 4(e) conditions 37 and 42, and SWRCB Water Quality Certification condition 14.

Project Financial Summary:			
Funded to Date:	$ 411,500	Expenditures through end of year:	$ 389,042
Spent to Date:	$ 366,042	2024 - 2028 Planned Expenditures:	$ 165,000
Cash flow through end of year:	$ 23,000	Total Project Estimate:	$ 554,042
Project Balance	$ 22,458	Additional Funding Required	$ 142,542

Description of Work	Estimated Annual Expenditures					
	2024	2025	2026	2027	2028	Total
Monitoring	$20,000	$25,000	$25,000	$20,000	$25,000	$ 115,000
Reporting	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 25,000
Staff Time	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 25,000
						$ -
TOTAL	$ 30,000	$ 35,000	$ 35,000	$ 30,000	$ 35,000	$ 165,000

Estimated Funding Sources	Percentage	2024 Amount
Water Rates	100%	$7,542
		$0
		$0
Total	100%	$7,542

Funding Comments: Water temperature monitoring conducted in coordination with water quality monitoring every three years.

2024	CAPITAL IMPROVEMENT PLAN	Program:	FERC

Project Number: 07003H

Project Name: FERC: C37.9 Water Quality

Project Category: Regulatory Requirements

Priority: 1 **PM:** Deason **Board Approval:** 10/23/23

Project Description:

Mandatory requirement of the FERC license. Funding is necessary to implement the water quality monitoring program at Project No. 184 reservoirs and stream reaches. The data collected from this monitoring effort will be used to characterize water quality under current project operations and help determine if applicable water quality objectives/criteria are being met and whether designated beneficial uses are protected.

Basis for Priority:

If unfunded, EID would be out of compliance with the FERC license, Section 7 of the Settlement Agreement, USFS 4(e) conditions 37, and SWRCB Water Quality Certification condition 13.

Project Financial Summary:			
Funded to Date:	$ 609,000	Expenditures through end of year:	$ 589,877
Spent to Date:	$ 589,877	2024 - 2028 Planned Expenditures:	$ 205,000
Cash flow through end of year:	$ -	Total Project Estimate:	$ 794,877
Project Balance	$ 19,123	Additional Funding Required	$ 185,877

Description of Work	Estimated Annual Expenditures					
	2024	2025	2026	2027	2028	Total
Monitoring	$ 60,000			$ 65,000		$ 125,000
Lab analysis	$ 25,000			$ 25,000		$ 50,000
Staff time	$ 15,000			$ 15,000		$ 30,000
TOTAL	$ 100,000	$ -	$ -	$ 105,000	$ -	$ 205,000

Estimated Funding Sources	Percentage	2024 Amount
Water Rates	100%	$80,877
		$0
Total	100%	$80,877

Funding Comments:

EL DORADO IRRIGATION DISTRICT

SUBJECT: Consider awarding a contract to Water Works Engineers, LLC in the not-to-exceed amount of $241,090 for design of the 2024 Collections System Rehabilitation Project and authorize additional funding of $11,000 for on-call environmental services, $10,000 for regulatory permitting application fees, $65,000 for capitalized labor, and $32,700 for contingencies for a total funding request of $359,790 for the 2024 Collections System Rehabilitation Project, Project No. 24008.01.

PREVIOUS BOARD ACTION

June 8, 2020 – Board awarded a contract to Express Sewer & Drain, Inc. in the not-to-exceed amount of $530,730 for construction of the Wastewater Collection System Pipeline Rehabilitation Project, and authorized additional funding of $15,000 for engineering construction support, $110,000 for capitalized labor, and $50,000 in contingencies for a total funding request of $705,730 for the Wastewater Collection System Pipeline Rehabilitation Project, Project No. 17020.01.

October 11, 2022 – Board awarded a contract to Express Sewer & Drain, Inc. in the not-to-exceed amount of $978,645 for construction of the 2022 Collection System Rehabilitation Project and authorize additional funding of $50,000 for engineering construction support, $75,000 for inspection services, $75,000 for capitalized labor and $100,000 in contingencies for a total funding request of $1,278,645 for the 2022 Collection System Rehabilitation Project, Project No. 21018.01.

October 23, 2023 – Board adopted the 2024-2028 Capital Improvement Plan (CIP), subject to available funding.

BOARD POLICIES (BP), ADMINISTRATIVE REGULATIONS (AR) AND BOARD AUTHORITY

BP 0010 District Mission Statement
BP 3060 Contracts and Procurement
BP 6010 Wastewater System Management

SUMMARY OF ISSUE

The District owns and operates four collection systems, which include approximately 60 sewer lift stations, 8,700 sewer manholes, and 650 miles of sewer force main, gravity main, and lower service lateral pipe. Ongoing inspection and maintenance of these facilities helps to identify defects including cracks, offset joints, damaged connections, and hydrogen sulfide corrosion that can reduce service life if left untreated. The Collections System Replacement and Rehabilitation Program allows the District to address defects, prolong the useful life of District wastewater assets, and to group identified repairs together to achieve better economies of scale when completing rehabilitation projects.

BACKGROUND/DISCUSSION

The 2024 Collection System Rehabilitation Project (Project) includes the rehabilitation of seven manholes, three lift station vaults, concrete encasement of several sections of existing sewer lines within creeks and roadside drainage areas, stabilization of approximately seven service laterals located in backyard drainages, and rehabilitation of approximately 5,000 lineal feet of existing sewer main using cured-in-place pipe (CIPP) linings.

Intense storms during the winter of 2023 exposed or worsened several structural deficiencies within the collections system including failed manhole sections and exposed pipes and laterals near waterways. These deficiencies were stabilized and temporarily addressed by operations staff following the storms, but now must be addressed using more robust methods.

Scope of Work

The design scope for the 2024 Rehabilitation Project includes: 1) rehabilitation of seven manholes, with two including a new cone installation; 2) rehabilitation of three lift station vaults; 3) installation of CIPP within approximately 5,000 lineal feet (0.95 miles) of existing sewer line; 4) concrete encasement of several sections of existing sewer line within creeks and roadside drainage; and 5) stabilization of approximately seven service laterals located in backyard drainages.

The construction for the rehabilitation work will be bid separately from the stabilization work. These types of work are typically performed by different contractors. Separating the scopes into two contracts allows for more contractor competition, which leads to better pricing. However, the design will be performed by the same consultant under this contract. The consultant will review each location, and develop two construction packages. Each package will include construction plans and specifications. The rehabilitation project includes installing manhole liner and CIPP. The stabilization project includes installing new manhole cones and stabilizing existing sewer lines and laterals located in creeks and drainages.

Request for Proposals

In early January, staff released a request for proposals (RFP) for design and received one proposal as summarized in the table below.

Table 1: Proposals Received

Consultant	Proposed Cost
Water Works Engineers LLC	$ 241,090

Staff evaluated the proposal based on criteria established in the RFP, including experience and expertise, demonstrated understanding of the project and sites, project approach, past performance record, references, quality control and assurance program, and cost.

Water Works Engineers LLC (Water Works) was the engineer of record for the 2022 Collections System Pipeline Rehabilitation Project. The team that Water Works proposed is familiar with the District and its collections systems. In addition to performing the design for the previous collections system pipeline rehabilitation project, the team also performed an update on the District's sewer model. This gives the team extensive knowledge of the District's sewer system flows to assist with the design for the bypass plans for the work.

Environmental Review

The District, acting as the lead agency, must comply with California Environmental Quality Act (CEQA) requirements for the 2024 Collections System Rehabilitation Project. Staff will be evaluating the appropriate level of environmental review and regulatory permitting requirements necessary for the project as the design develops. At this time, staff anticipates that the project will qualify for a Class 2 Exemption under CEQA guidelines Section 15302(c) for the replacement or reconstruction of existing utility systems or facilities involving negligible or no expansion of capacity. Staff also anticipates that regulatory permits may potentially be required from the California Department of Fish and Wildlife, Central Valley Regional Water Quality Control Board, and the U.S. Army Corps of Engineers. The funding request includes a budget for on-call environmental services to support the environmental review and permitting tasks as well as permit application fees.

Schedule
Below is the anticipated schedule for the project through construction. Staff anticipates completing the design by early June and constructing the project from August through November, 2024.

Table 2: Anticipated Project Schedule

Design Contract Award	February 2024
Design and Environmental Permitting	February 2024 – June 2024
Construction Bidding	June 2024 – July 2024
Construction	August 2024 – November 2024

FUNDING
The 2024-2028 CIP includes design, environmental review, and construction funding for this project. Currently, staff requests additional funding to move forward with the design and bidding for the project. The following is a breakdown of the requested funding for the project.

Table 3: Funding Requirements

Design contract – Water Works Engineers LLC	$ 241,090
On-call environmental services	$ 11,000
Regulatory permitting application fees	$ 10,000
Capitalized labor (project management, operations staff coordination, and environmental review)	$ 65,000
10% contingency	$ 32,700
Total funding request	**$ 359,790**

Staff anticipates returning to the Board this summer to award a construction contract for the project.

BOARD OPTIONS

Option 1: Award a contract to Water Works Engineers, LLC in the not-to-exceed amount of $241,090 for design of the 2024 Collections System Rehabilitation Project and authorize additional funding of $11,000 on-call environmental services, $10,000 for regulatory permitting application fees, $65,000 for capitalized labor, and $32,700 for contingencies for a total funding request of $359,790 for the 2024 Collections System Rehabilitation Project, Project No. 24008.01.

Option 2: Take other action as directed by the Board.

Option 3: Take no action.

RECOMMENDATION
Option 1

ATTACHMENTS
Attachment A: Water Works Engineers LLC proposal
Attachment B: CIP summary

Kailee Delongchamp
Associate Engineer

Brian Deason
Environmental Resources Supervisor

Jon Money
Engineering Manager

Brian Mueller
Engineering Director

Tracy Crane
Wastewater Operations Manager

Dan Corcoran
Operations Director

For
Jamie Bandy
Finance Director

Brian Poulsen
General Counsel

Jim Abercrombie
General Manager

Attachment A

Engineering Design Professional Services for

2024 Collections Rehabilitation Project

January 24th, 2024

WATERWORKS ENGINEERS

El Dorado Irrigation District

RFP24-01

Project No. 24008.01

TRANSMITTAL LETTER

January 24, 2024

El Dorado Irrigation District (EID)
Attn: Kailee DeLongchamp, Associate Engineer
2890 Mosquito Road, Placerville, CA 95667

Subject: Proposal for RFP24-01 – 2024 Collections Rehabilitation Project

Dear Ms. DeLongchamp and Distinguished Members of the Selection Committee:

Water Works Engineers LLC (Water Works, or WWE) is pleased to submit one (1) electronic copy of our Proposal for RFP No. 24-01 for the 2024 Collections System Rehabilitation Project. Over the past fifteen years, our Team has specialized in sewer collection system condition assessment, rehabilitation, and replacement projects for our local clients. We have extensive experience assessing the condition of gravity sewers and manholes utilizing the National Association of Sewer Service Company (NAASCO) standardized pipeline assessment certification protocol (PACP) system and selecting the most appropriate and cost-effective methodologies for rehabilitation.

We have built a reputation with our local clients of providing high quality, cost-effective services in a timeline consistent with the needs of the project schedule. Water Works Engineers is a small to medium-sized firm which has prided itself on its low-overhead structure that allows for us to be nimble, responsive to the needs of our clients, and cost-effective. ***EID has experienced Water Works' high level of client service with our recent sewer collection system hydraulic modeling work and execution of the 2022 Collections System Rehab Project, and we are excited to make the 2024 Rehab Project just as successful.***

Our Project Team understands the commitment necessary to meet the District's quality and schedule expectations and we are ready to initiate services. Our team has evaluated over 1,000,000 lineal feet, and 3,000 hours of CCTV field data and all our field staff are NASSCO-PACP/MACP certified. We have extensive experience in sewer collection system rehabilitation and replacement, and our understanding of the flows in the District's collection systems also helps us accurately plan for bypassing requirements and possibilities. Our previous project experience, as provided herein, will attest to this depth and breadth of experience.

At Water Works, we believe and insist that our Project Managers have an in-depth involvement in the technical execution of projects they manage. Our firm was built from the ground up around experienced staff whose focus is engineering, not marketing, limiting overhead functions to provide our clients with cost effective services. ***We commit that the project team for the 2024 Collections Rehabilitation Project will include the same core team of Joe Ziemann and Anthony Baltazar which the District has established an excellent working relationship with.*** Our team has demonstrated its commitment to the District with our responsiveness in assisting on small ad-hoc projects such as the recent Marina Village #1 Lift Station bypassing work and assistance with procurement of portable bypass pumps. You will get that same responsiveness and attention to detail on this project.

Water Works is also known for our highly competitive engineering rates and efficient project execution with low overhead that typically results in fees that are lower than our large-firm competitors.

If you have any questions regarding this proposal, please contact Joe Ziemann at: (916) 238-1460; joez@wwengineers.com

Very Truly Yours,
Joseph M. Ziemann
Senior Engineer/Project Manager, Water Works Engineers, LLC

SECTION 1 – SCOPE OF WORK

Project Understanding and General Approach

EID has an ongoing sewer collection system rehabilitation program that includes condition assessment of system infrastructure, identification of assets in need of rehabilitation and repair, and development of construction projects to execute this work. The list of assets included in this project has been developed based on field inspections and observations by EID Collections System Maintenance Staff. The following is a list of the assets included in the project, and a rough cost estimate for the project as a whole.

MANHOLES (Yellow Highlight is Stabilization Project, Green Highlight is Rehabilitation Project)

Facility ID	Issue	Remedy	Cost Estimate
082-6-220	Roots	MH Liner	$55,000
082-6-227	Roots	MH Liner	$67,000
103-1-006	Infiltration	MH Liner	$36,000
102-3-403	Storm Damage	New Cone/Liner	$54,000
102-3-326	Storm Damage	New Cone/Liner	$42,000
102-2-004	Buried	New Cone/Access	$48,000
082-6-215	Roots	MH Liner	$36,000
082-6-219	Roots	MH Liner	$61,000
081-1-006	Exposed sewer line	Encase line in drainage	$36,000
081-4-107	Exposed sewer line	Encase line in drainage	$36,000
MLLS Wet Well	Corrosion	SprayRoq	$72,000
THLS Wet Well	Corrosion	SprayRoq	$72,000
MV2LS Wet Well	Corrosion	SprayRoq	$84,000

PIPES (Yellow Highlight is Stabilization Project, Green Highlight is Rehabilitation Project)

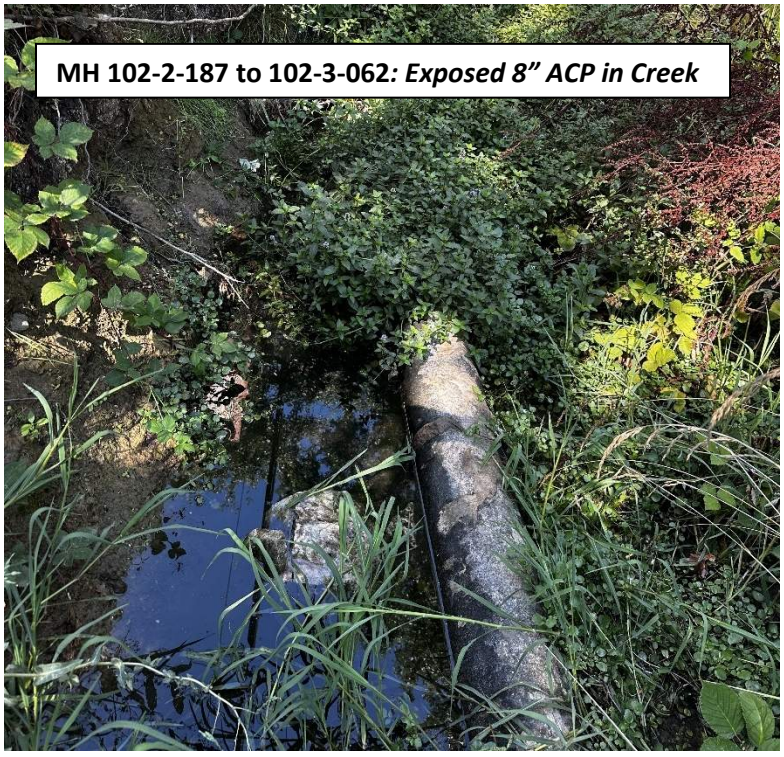
Upstream ID	Downstream ID	Issue	Remedy	Cost Estimate
065-6-004	065-6-002	Roots	CIPP	$91,000
065-6-014	065-6-013	Corrosion	CIPP	$41,000
065-5-025	065-6-014	Corrosion	CIPP	$52,000
065-5-027	065-5-026	Corrosion	CIPP	$72,000
102-3-325	102-3-306	Creek Crossing	Replace	$120,000
102-3-487	102-3-262	Corrosion, hole exposed with wire	CIPP	$84,000
102-3-247	102-3-246	Roots	CIPP	$59,000
102-3-248	102-3-247	Roots	CIPP	$58,000
SMH-000295	102-3-013	Belly in Pipe	Replace	$102,000
102-2-187	102-3-062	Roots	CIPP	$624,000
102-2-187	102-3-062	Laterals Exposed (9)	Armor	$350,000
101-2-061	101-2-060	Infiltration	CIPP	$48,000

TOTAL ESTIMATED PROJECT COST: $2,400,000

The most challenging aspects of this project will be the armoring the pipe between MH 102-3-325 to 102-3-306 which is a creek crossing, armoring a section of exposed pipe along the MH 102-2-187 to 102-3-062, and armoring the 9 laterals along this same alignment which cross the creek completely exposed. Photos of some of these assets are provided below.

MH 102-3-325 to 102-3-306*: Concrete Encased Creek Crossing Becoming Undermined*

MH 102-2-187 to 102-3-062*: Exposed 8" ACP in Creek*



MH 102-2-187 to 102-3-062*: One of 9 Exposed Laterals Crossing Creek*

Water Works does not see any good alternatives to protecting these pipes other than replacing the existing crossings with a heavy duty steel casing pipe, with concrete abutments keyed into the creek bed at either end of the creek, with a new section of pipe installed in the casing. This is essentially the concept that was used in the photo of the lateral crossing above, however the abutments at either end are minimal and thin-wall CMP was used and is corroded or degraded. Surveying would be needed at each of these locations in order to develop specific drawings of the abutments and constraints at each location. Water Works also assumes that installation of abutments at either end would not require additional easement or property acquisition as these crossings should be EID-owned pipe that is downstream of the customer cleanout. Property acquisition assistance services

are not included in this scope of work. Regarding the section of 8" ACP for mainline P-310 that is exposed at the bottom of the creek, this same concept could be used but would be more challenging because it is a mainline that would need to be bypassed, and the line is very difficult to access in this location. For this location, Water Works recommends simply concrete encasing the existing pipe for more protection and adding rip-rap in the creek around it, with the new CIPP lining to providing additional protection against future pipe failure or infiltration. It should also be noted that this backyard drainage appears to be continoulsy eroding over time. This issue needs to be addressed holistically somehow by the property owners otherwise additional pipes and laterals will become exposed over time and this project cannot address this core problem, it is only "band-aiding" the results of it.

Task 1 – Project Management and QA/QC

Water Works' project manager will provide management and oversight of all WWE and sub-consultant personnel including technical, budgetary, and schedule progress management. This task will also include QA/QC review of all deliverables.

Task 1.1 – Project Schedule: Water Works will prepare and update a Microsoft Project schedule that integrates the schedules for design, environmental permits, and the bidding phase. This project schedule will be updated each month.

Task 1.2- Meetings: Water Works will prepare and distribute electronic meeting agendas prior to each meeting and record and distribute meeting minutes. Expected meetings include project kickoff and 80% design submittal review meeting.

Task 1.3 - Monthly, the District will receive an invoice detailing the labor and expenses for that month, but also:

- ✓ Summary of work accomplished each month
- ✓ Description of current activities and schedule update for each task/sub-task, including action items
- ✓ Identification of problem areas and corrective actions
- ✓ Forecast of tasks for the next month

Task 2 – Site Investigation and Assessment

Water Works will review in comprehensive detail the CCTV inspection records provided by the District for all of the gravity sewer assets to be rehabilitated. WWE will develop a defect diagram for each pipe that specifies the footage location and extent of each significant defect such as broken pipe, corroded pipe, root intrusion, offset joints, lateral taps, sags, etc. This is crucial to allow for identification of point repairs, lateral re-instatement, and for accurate bidding by contractors. The Water Works Team will also conduct site visits for each asset as needed in order to fully understand all potential constraints related to rehabilitation of the asset including environmental factors (such as waterways or standing water), traffic conditions, operational and maintenance concerns, and effects on private property including access through private property.

This task will also include field survey for the following assets, as well as a desktop geotechnical analysis to assist with design of supports keyed into the existing ground for the exposed lateral crossings:

- ➢ ***Manhole 102-2-004 for location of manhole relative to "shore" and for design of access to manhole***
- ➢ ***Pipe 102-3-325 102-3-306 for creek crossing***
- ➢ ***Pipe SMH-000295 to 102-3-013 pipe replacement (belly in line)***
- ➢ ***Manhole 081-1-006 and 081-4-107 for encasing sewer pipes crossing drainge***
- ➢ ***Pipe 102-2-187 to 102-3-062 in 10 locations for pipe/lateral armoring***

Task 3 – Design

Water Works will develop design plans based on the District's GIS mapping. Where surveying is completed, detail sheets will be included that show the work in relation to the survey. 2 separate sets of bidding documents will be prepared for the Collections Stabilization Project and the Collections Rehabilitation Project.

Task 3.1 – 30% Design: The scope for this task is to develop conceptual drawings of improvements at the assets which may require environmental permitting (i.e. assets that require work in creeks or waterways) to a level which is adequate to allow permitting by the District's in-house permitting team. The drawings will include a map of the sewer system around each asset based on the District's GIS superimposed on an aerial photo, photos of the asset, and any pertinent preliminary detail drawings of the proposed work which will be conceptual in nature (not to a final design level). For areas needing survey, survey would likely not be complete before this deliverable as this would be an early first deliverable for the project.

Task 3.2 – 80% Design: The drawing set will include all sheets needed for construction. The drawings will include pipe defect diagrams based on CCTV inspection, photos, descriptions of access through private property, surface restoration, traffic control, typical details, and bypass pumping requirements. The 80% design submittal will include the core technical specifications including but not limited to:

- ✓ Overall project construction sequencing requirements – including requirements for contractor to obtain encroachment permits from DOT and provide traffic control plans, and work in environmental areas
- ✓ Bypass pumping
- ✓ Sewer line and manhole pre-cleaning including root removal
- ✓ Sewer line pre and post-CCTV inspection
- ✓ Cured-in-Place Pipe
- ✓ Cured-In-Place Lateral Lining and Reinstatement
- ✓ Surface restoration and paving
- ✓ Manhole lining
- ✓ Pipe and lateral armoring

The 80% design submittal will include a detailed construction cost estimate, Draft Bid Form and Bid Item Descriptions, and Draft Sequence of Work Specification.

Task 3.3 – 100% Design: The 100% design submittal will be a bid-ready set of drawings and technical specifications that incorporates comments from District staff on the 80% submittal as well as the results of Water Works' internal QA/QC reviews. All technical specifications will be complete, and the Bid Form, Bid Item Descriptions, and Work Sequence will be finalized.

Task 3.4 – Final Design: The final design documents will incorporate any final District comments on the 100% design. Water Works suggests that this deliverable may be eliminated in the interest of the project schedule.

Task 4 – Bidding Support

Task 4.1 – Request for Qualifications: Water Works will assist the District with creating a Request for Qualifications for the project work including a list of minimum qualifications and project experience needed to submit a bid.

Task 4.2 – Bid Advertisement Support: Water Works will attend the pre-bid conference, provide response to bidder questions, and prepare addenda if necessary.

Scope of Work Assumptions / Exclusions

- ➢ Only areas specifically identified in the scope will be surveyed, other areas will have GIS plans only.
- ➢ Property acquisition assistance services are not included in this scope of work or assumed to be needed. We assume EID has the legal authority and easement to allow the laterals to be armored/replaced.
- ➢ District will provide CCTV inspection videos of all pipelines assets included in the project.
- ➢ District will provide access to all assets for field work, including communication and scheduling with affected private property owners as needed. Resident communication not included in WWE scope.
- ➢ Scope of work does not include preparation of traffic control plans or encroachment permitting work.

SECTION 2 – RELEVANT EXPERIENCE AND EXPERTISE

The following is a summary of sewer collection system condition assessment, rehabilitation, and replacement projects performed by the Water Works Team over the past 10 years for local agencies that are similar in size and operational activities to El Dorado Irrigation District. Project profiles for some of these projects are provided.

Comparable Clients	Operations	Customers
City of Sunnyvale		
Public Agency	Sewer Collections	150,000 Customers
San Mateo County		
Public Agency	Sewer Collections	100,000 Customers
Alameda HOAs		
Private Agencies	Sewer Collections	700 Customers
City of Morgan Hill		
Public Agency	Sewer Collections	50,000 Customers
City of Folsom		
Public Agency	Sewer Collections	75,000 Customers

San Mateo County Public Works	**2019 On Call Sewer Rehabilitation**
Role: Prime Consultant – Design and Construction Management **Project Fee:** $150,000	**Team Members** Mike Fisher, Principal-in-Charge Kristina Alacon, Senior Project Engineer Anthony Baltazar, Associate Engineer

"On-Call" engineering services were provided for the County of San Mateo's ten sewer maintenance and sanitary districts. The County utilized our services to assist with regulatory compliance efforts and develop and implement portions of their Sanitary Sewer Management Plan (SSMP). WWE provided field and office engineering assistance for the Wastewater Collection System CCTV Project at various County Sanitation and Sewer Maintenance Districts. Services included periodic field observation of CCTV contractors during services, review of PACP observation code conformance, and production of daily field reports to summarize CCTV Contractor field work. We also evaluated identified pipeline replacement recommendations in terms of constructability, utility conflicts, accessibility, permitting, property acquisition and readily identifiable potential constraints to produce a design to be bid and constructed. Design included repair, rehabilitation and/or replacement of nearly 6,000-LF of pipe at eight locations in six different County maintained collection systems. Design included various construction methodologies, including spot repair, cured-in-place pipe lining, pipe-bursting and traditional open cut dig and replace in same trench and new alignment. Water Works assisted with procurement of an encroachment permit to construct new sewer crossing of SFPUC's Hetch Hetchy 72" and 84" water transmission lines.

Alameda Homeowner's Associations (HOAs)	**2021 Sewer Lateral Lining Program**
Role: Prime Consultant – Design and Construction Management **Project Fee:** $500,000 (all phases of work)	**Team Members** Mike Fisher, Project Manager / Principal-in-Charge Joe Ziemann, QA/QC Brett Husa, Analyst / GIS

Water Works Engineers is working on Private Sewer Lateral Upgrades for five HOAs in the City of Alameda. The project includes 42,000 combined linear feet of laterals and mainlines as well as 187 manholes that have been identified as requiring repairs, rehabilitation, replacement (RRR) and new infrastructure to comply with the East Bay Municipal Utility District's (EBMUD) Inflow and Infiltration Private Sewer Ordinance. Such work includes:

Trenchless RRR Techniques such as Cured-in-Place Pipe Lining and Pipe Bursting of laterals and mainlines consisting of different materials including cast iron, clay, ABS, and PVC and reinstatement or abandonment of identified lateral connections. Water Works' scope includes:

- ✓ Data Compilation and Analysis including review of existing pipeline surveys
- ✓ Development of GIS mapping of HOA sewer assets using existing construction drawings
- ✓ Preparation of a Corrective Action Workplan for submission to EBMUD detailing the HOA's plans to meet ordinance requirements.
- ✓ Research and coordinate with other utility providers to avoid and/or mitigate conflicts including field surveying to identify potential areas of conflict and improve accuracy of mapping
- ✓ Provide design drawings and specifications for trenchless rehabilitation
- ✓ Provide full time construction inspection to observe and document construction progress and Verification Testing for EBMUD Compliance Certification.

City of Roseville	**2020 In-House CIPP Lining Project Engineering Support**
Role: Prime Consultant – Design Support **Project Fee:** $25,000	**Team Members** Mike Fisher, Project Manager / Principal-in-Charge Anthony Baltazar, Project Engineer

Water Works Engineers provided on-call engineering support to the City's Environmental Utilities Department which was conducting an in-house project to CIPP gravity sewer lines identified as deficient through the City's CCTV program. WWE provided review and update of the CIPP technical specification that was being used by the City to obtain bids. WWE also provided submittal reviews of materials and methods submitted by the selected contractor during construction and answered RFI's and other field questions during the installation process.

City of Folsom	**Basin 4 Phase 2 Sewer and Water Rehabilitation**
Role: Prime Consultant – Design and Construction Management **Project Fee:** $280,000	**Team Members** Todd Kotey, Project Manager Esmeralda Diego, Staff Engineer

The City of Folsom Environmental and Water Resources Department plans to replace over 8,000 linear feet of 8-inch gravity sewer main and an associated 37 manholes and 132 lateral connections. The project will also include rehabilitation of existing manholes as needed. Water Works provided design services for the preparation of contract documents including plans, front end specifications, technical specifications, and engineering services during construction.

The existing mains planned for replacement are located along 8 different streets throughout the City of Folsom just south of Lake Natoma. The mains serve a mix of residential and commercial customers. As the project is located in areas that have reached ultimate build-out condition, significant consideration of site constraints is going into the design and construction methods of the new alignments.

SECTION 3 – PROJECT TEAM

Refer to resumes in **Appendix 1**. **Water Works Engineers DIR # is 1000037993**

Joe Ziemann, P.E. - Senior Engineer / Project Manager

Location	Yrs Exp.	Education	Registration
Roseville	17	M.S. – Environmental Engineering, Lehigh University	P.E.: CA C76172
Special Expertise: Sewer Pipeline Condition Assessment, Development of Plans and Specifications			

Joe Ziemann will serve as project manager and senior engineer, and was responsible for development of much of the 2022 Collection System Rehabilitation Project plans and specifications. Joe will also serve in a CM role.

Anthony Baltazar, P.E. - Project Engineer

Location	Yrs Exp.	Education	Registration
Roseville	11	B.S. Civil Engineering, UC Davis	P.E.: CA C87494
Special Expertise: Cured-in-Place Pipe Specification Development, GIS Plans, Hydraulic Modeling			

Anthony will be responsible for development of plans and specifications for the project, and has GIS capability.

Esmeralda Diego – Staff Engineer

Location	Yrs Exp.	Education	Registration
Roseville	6	M.S. Civil and Environmental Engineering, Cal Poly San Luis	EIT
Special Expertise: Data Management, Drawing Development, Specification Development			

Esmeralda will assist with plan preparation, specifications, and also has extensive GIS experience.

Himai Mehere – Structural Engineer

Location	Yrs Exp.	Education	Registration
San Mateo	6	M.S. Civil Engineering (Structural) Arizona State	EIT
Special Expertise: Structural Engineering			

Himai will provide structural engineering support for the project to develop details requiring concrete & rebar.

Perry Webster – Senior Designer

Location	Yrs Exp.	Education
Star, ID	28	Applied Science Degree, Mechanical Drafting, ITT Institute
Special Expertise: AutoCAD Plan and Profile Development, Site/Civil		

Mr. Webster will assist with development of drawings that include site survey.

Site Survey – CWE Engineering DIR #1000032639

CWE will provide survey of the areas identified in this scope of work. CWE has offices in the same building as Water Works Engineers and our companies work together cohesively as a team. https://roseville.cwecorp.com

Bajada Geosciences – Geotechnical DIR #1000061298

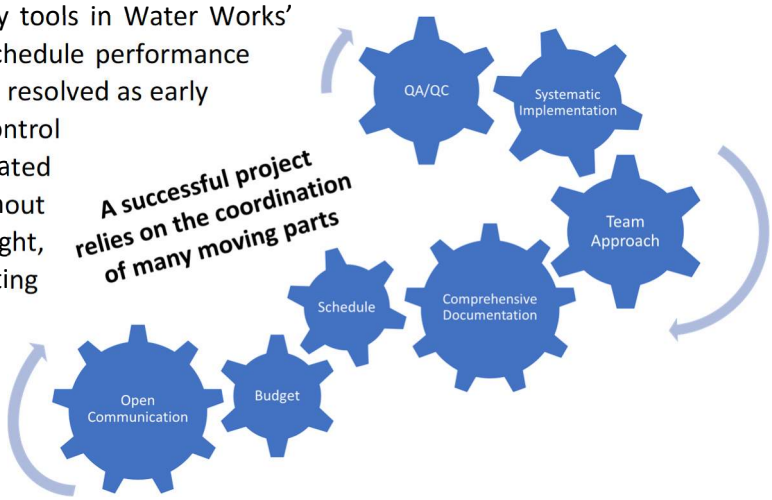
Bajada will perform a site visit and provide a geotechnical analysis to assist with design of supports keyed into the existing ground for the exposed lateral crossings. https://bajadageo.com/

SECTION 4 – QUALITY ASSURANCE AND CONTROL; CONFLICTS

A cornerstone of our Quality Control philosophy, and our work philosophy in general at WWE is that senior staff are integrally involved with the development of all deliverables, and that junior level staff are not left to produce a majority of the work without hands-on involvement and mentoring from our highly experienced staff. A quality work deliverable is one that meets our contractual requirements with the District and is prepared in accordance with accepted standards of professional practice. It is the responsibility of Water Works to plan and execute

assignments so that quality deliverables are produced to meet those requirements. Our approach to quality has two components: (1) provide our staff with the appropriate tools and support to implement QUALITY ASSURANCE while executing the project and then (2) provide QUALITY CONTROL by our senior staff to ensure that the project is meeting the District's expectations.

Continuous quality control and technical review are key tools in Water Works' project management philosophy. Quality, budget and schedule performance are all optimized when technical issues are identified and resolved as early as possible in the project delivery process. For Quality Control and Technical Review to be effective, they must be integrated into project delivery in a way that is well coordinated without negatively impacting it. Our project model, shown to the right, achieves optimal performance by engaging and incorporating each aspect to accomplish a successful project.



Reviews are done by our senior staff for each deliverable. At each stage, the documents are reviewed, and detailed review comments are entered into a spreadsheet. The project manager and/or engineer is responsible for reviewing the QC comments, distributing the comments to project team members and finally entering a response to these comments on the spreadsheet indicating how the comment was resolved. This same process is used to document and respond to comments provided by District Staff.

Professional Conflicts of Interest

WWE does not have any foreseeable actual or potential professional conflicts to disclose to the District that could hinder the provision of the requested professional services.

SECTION 5 – CLIENT REFERENCES

Water Works is proud of our consulting record as indicated by the development of long-term working relationships that include numerous projects completed for our core clients over the last ten years. Below is a reference list of our clients for which we have provided engineering services for key projects relevant to this RFP. We sincerely encourage you to contact each of our references. ***We are confident that they will attest to our passion about providing quality projects, personal attention, and exceptional service.***

Reference Agency	Contact / Title	Address	Phone
City of Sunnyvale	Nathan Scribner Civil Engineer	456 W. Olive Ave Sunnyvale, CA 94086	(408) 730-2783
San Mateo County	Mark Chow Senior Civil Engineer	555 County Center 5th Floor Redwood City, CA 94063	(650) 599-1489
City of Folsom	Vaughn Fleischbein Senior Engineer	50 Natoma Street Folsom, CA 95630	(916) 461-6165

SECTION 6 – CONTRACT AND INSURANCE REQUIREMENTS

Water Works Engineers (WWE) confirms that we are willing and able to execute the District's standard Professional Services Agreement with no requested changes.

SECTION 7 – ADDENDA

No addenda have been posted for this project.

APPENDIX 1 – PROJECT TEAM RESUMES

JOE ZIEMANN, P.E.

Project Engineer/Project Manager

Education	Experience	Registration	Memberships
M.S. – Environmental Eng. Lehigh University (2006)	17 years	Registered Civil Engineer California - C76172	AWWA
B.S. – Environmental Eng., Lehigh University (2005)			CWEA

REPRESENTATIVE PROJECT EXPERIENCE

City of Folsom – System Wide Sewer Hydraulic Evaluation and Capacity Assurance Plan – Folsom CA (Master Planning) Mr. Ziemann served as project manager for a system wide sewer hydraulic evaluation and capacity assurance plan (SECAP) update for existing and future development scenarios and developed a new hydraulic model that simulated 250 miles of 6" to 54" pipeline within InfoWorks ICM 7.0 under design storm peak wet weather flow conditions. The project included updating the existing GIS sewer network, adapting the new City General Plan into actionable development scenarios for the sewer collection system, and conducting a thorough analysis of existing flow meter data to produce a calibrated hydraulic model. Based on model simulation results a list of improvements with an associated timeline and trigger points was produced, along with a recommended inflow and infiltration reduction program to address capacity constraints within the collection system.

Sewer System Hydraulic Model and Master Plan - Woodland CA (Regulatory Compliance) Mr. Ziemann was involved with all phases of the hydraulic model development process, which included the following tasks: setup of the physical model within MWH Soft InfoSewer based on existing sewer collection system GIS data, physical data quality review, quantification of existing and future sewer system flows using land use GIS data, development of adjustable spatial sewage flow assignment methods, establishment of modeling scenarios and dynamic simulation parameters, analysis of simulation results, and calibration with flow monitoring data. The project included assistance with integration of the hydraulic modeling process into the City's System Evaluation and Capacity Assurance section of their Sewer System Management Plan (SSMP) and development of processes and procedures for the City's continued use of the model by the technology and engineering departments.

City of Roseville Dry Creek WWTP Sewer Collection System and Pump Station Hydraulic Investigation -Roseville, CA (Assessment) Mr. Ziemann provided engineering services in conducting a review of the existing City of Roseville sanitary sewer hydraulic model (in InfoWorks ICM) and developing inflow and infiltration reduction program recommendations.

City of Folsom – System Wide Sewer Hydraulic Evaluation and Capacity Assurance Plan – Folsom CA (Master Planning; Assessment; Model) Mr. Ziemann prepared a system wide sewer hydraulic evaluation and capacity assurance plan (SECAP) for existing and future development scenarios, and developed a new hydraulic model that simulated 250 miles of 6" to 54" pipeline within InfoWorks ICM 7.0 under design storm peak wet weather flow conditions. The process began with updating the existing GIS sewer network, adapting the new City General Plan into actionable development scenarios for the sewer collection system, and conducting a thorough analysis of existing flow meter data to produce a calibrated hydraulic model. Based on model simulation results a list of improvements with an associated timeline and trigger points was produced, along with a recommended inflow and infiltration reduction program to address capacity constraints within the collection system.

County of San Mateo On-Call Services CCTV Data Analysis – Redwood City, CA Mr. Ziemann provided field and office engineering assistance for the Wastewater Collection System CCTV Project at various County Sanitation and Sewer Maintenance Districts. Services included periodic field observation of CCTV Contractor during services, review of PACP observation code conformance, and production of daily field reports to summarize CCTV Contractor field work. Mr. Ziemann reviewed CCTV videos and conditions assessment reports for quality and

compliance with PACP coding requirements and developed repair, replacement and rehabilitation recommendation for identified defects.

City of Folsom Sewer Meter Replacement - Folsom CA (Regulatory Compliance) Mr. Ziemann developed construction plans and specifications and provided construction management services for replacement of 17 existing open-channel sewer flow meters throughout the City's sewer collection system and for installation of 3 new flow metering sites. The project included updates to the City's SCADA system that is used to monitor and record the flow meter data to allow for a more streamlined process of data extraction for future hydraulic model updates.

Wastewater Collection System Improvement Projects Hawaii Water Service Company, Pukalani, HI (Design) Replacement of over 2,250 LF of 6-8" sewer pipe with new 8" FPVC at three distinct locations throughout collection system; reconnections of multiple residential laterals; and abandonment of 1,000-LF of deteriorated and sagging backyard and inaccessible pipeline. Project services included alternatives assessment, hydraulics and pipe selection; design and construction administration; utility coordination; encroachment and easement procurement from Maui County and golf course; and significant public outreach to minimize impact of golf course shut-down during construction.

Sanitary Sewer Management Plan Development and Implementation Woodland, Shasta Lake, Rosemead, and Fresno County, CA (Regulatory Compliance) Typical services included General Waste Discharge Requirement gap analysis, SSMP development workshop facilitation, SSMP development plan and schedule preparation, staffing and budgeting impact assessment, and management, operation, and maintenance program development. Mr. Ziemann has extensive experience interpreting the requirements of the GWDR and developing operation, maintenance, capital improvement planning, fats/oils/grease control, and capacity assessment programs appropriate for the size and complexity of various types of sewer collection systems to both meet regulatory requirements and provide a value in terms of enhancing proactive and strategic maintenance and planning processes.

Wastewater Collection Assessment and Capital Improvement Planning (CA&CIP) Software Module development and Implementation – Roseville, and Woodland, CA (Planning/Analysis) Mr. Ziemann was involved with development of the CA&CIP software module data acquisition, data analysis, and user interface design. The CA&CIP module collects and analyzes data from sources including CCTV inspection databases, computerized maintenance management systems, and hydraulic model databases, and uses a customizable risk of failure algorithm to process this data and prioritize capital improvement projects through a GIS based interface.

Yerington Paiute Tribe Uranium/Arsenic Removal WTP – Yerington, NV (Design) Prepared plans and specifications for improvements to an existing groundwater treatment plant for the removal of uranium and arsenic from the source water. Mr. Ziemann worked with the Indian Health Service and packaged treatment equipment vendor to develop a system that minimizes both construction and operating costs. The design includes a new well pump and pipeline to supply untreated irrigation water, and allows for a partial potable water bypass of the uranium ion exchange and arsenic adsorptive media that extends media life while still meeting regulatory limits for the finished water. The design also includes phased well pump improvements and the integration of existing electrical controls to maximize the use of existing equipment.

Lewiston Valley Water Company Raw Water Intake Facility and Supply Pipeline – Lewiston, CA (Design) Construction plan and specification preparation for a new 330 gpm raw water intake structure in the banks of the Trinity River to replace an existing raw water intake facility for a water treatment plant. The project included infiltration gallery, raw water pump station, and raw water supply pipeline design. Extensive environmental and property acquisition coordination was completed in order to develop a pipeline alignment that minimized impacts to the local community.

ANTHONY BALTAZAR, P.E.

Associate Engineer

Education
B.S. – Civil Engineering
University at CA, Davis (2013)

Experience
11 years

Registration
Registered Civil Engineer
California – C87494
Utah – 11277734-2202

Representative Project Experience

Salt Lake City Permanent Flow Meters – Phase 2 & Hydraulic Model Calibration – Salt Lake City, UT (Design/Model) Mr. Baltazar was the design engineer for Phase 2 of the City's Permanent Flow Meter Implementation Program, which included the installation of flow meters in nine locations throughout the City's wastewater collection system. Mr. Baltazar was also the project engineer for the calibration of the City's existing wastewater collection system hydraulic model. Tasks included review/update of the physical model, development of growth scenarios and associated wastewater generation rates consistent with anticipated development / CIP phasing, recent flow monitoring data analysis, system capacity assessment, and confirmation/update of where capital improvement projects (CIPs) are needed.

Town of Colma WW Collection System Master Plan – Colma, CA (Model) Mr. Baltazar assisted in the development of a wastewater collection system model using InfoSewer GIS based dynamic modeling software. Water Works is evaluating the proposed Town General Plan Update for existing and ultimate build-out flows, identification of deficiencies, and prioritization needed improvements with development trigger points for scheduling work. Our team's services include installation and analysis of eight temporary flow meter sites and calibration of the hydraulic model based on this date. Water Works is conducting sensitivity analysis of various development scenarios and storm events (6-hr/10-yr, 24-hr/10-yr, 6-hr/25-yr, 24-hr/25-yr, etc.) to determine the maximum capacity of the existing and proposed system.

Silver Springs Wastewater Lift Station Evaluation and Water System Hydraulic Model – Shingle Springs, CA (Planning) Mr. Baltazar completed an evaluation of the proposed water distribution system for TLA Engineering and Planning, Inc.'s Silver Springs development. This included design criteria, hydraulic modeling, and distribution system improvements to meet projected water demands for each phase of the project. The evaluation was completed using Innovyze's InfoWater hydraulic modeling software.

South Placer Municipal Utility District – Loomis Diversion Line Route Study, Loomis CA (Assessment) Mr. Baltazar assisted in the assessment of the new wastewater infrastructure to divert flow off of South Placer Municipal Utility District (SPMUD) Loomis Trunk Line, including gravity pipeline and appurtenant sanitary sewer manholes (SSMHs), and potentially new sewer pump station and forcemain. identified, analyzed, compared alternatives and recommended a preferred alignment for the SPMUD Loomis Diversion Line.

Salt Lake City – Wastewater Collection System Improvements (Planning) Mr. Baltazar assisted in analyzing existing flow monitoring data and its viability for helping to develop unit hydrographs to be used in the City's hydraulic sewer model. This analysis is needed to confirm capacity-related design criteria to be utilized later in the overall project to identify, evaluate, recommend, select, design and see through construction of preferred improvements to the City's collection system. Mr. Baltazar's work on this project included hydraulic analysis of several improvement alternatives using Innovyze InfoWorks ICM dynamic hydraulic modeling software.

Town of Cave Creek, - Master Plan Update, Cave Creek, AZ (Planning) Mr. Baltazar assisted in the development of a Wastewater Collection System Master Plan Update and a wastewater collection system model using InfoSewer 7.6 wastewater modeling software. Within GIS, the existing physical model was updated through data collection and review. Hydraulic modeling of the Town's system was conducted using dry and wet weather flow data to refine the model and define capacity limitations and design flows. The results of the hydraulic model were

used to update the Master Plan, which summarized anticipated growth impact and recommended improvements to existing facilities.

County of San Mateo On-Call Services CCTV Data Analysis – Redwood City, CA Water Works provided field and office engineering assistance for the Wastewater Collection System CCTV Project at various County Sanitation and Sewer Maintenance Districts. Services included periodic field observation of CCTV Contractor during services, review of PACP observation code conformance, and production of daily field reports to summarize CCTV Contractor field work. We reviewed CCTV videos and conditions assessment reports for quality and compliance with PACP coding requirements and developed repair, replacement and rehabilitation recommendation for identified defects.

City of Morro Bay Water Reclamation Facility Conveyance Facilities – Morro Bay, CA (Planning/Design/SDC) Mr. Baltazar provided preliminary design and PS&E for over three miles of joint 16"/12" sewer forcemains, 16" ocean outfall piping, 8" indirect potable reuse pipeline, and two sewer pump stations. The overall project was a part of the City's wastewater treatment plant relocation and recycled water improvements project. The pipelines included three separate Caltrans transverse/parallel encroachments, a 100-ft utility bridge crossing of Morro Creek, and a 400-LF microtunnel trenchless crossing of the congested Morro Bay/Quintana roundabout. Services included planning; design; survey; geotechnical analysis; ROW research; and permitting (including EIR public comment review support).

Town of Colma WW Collection System Master Plan – Colma, CA (Model) Mr. Baltazar assisted in the development of a new GIS sewer system database, temporary flow monitoring program, and peak-wet-weather flow wastewater collection system model using the GIS-based InfoSewer modeling software. WaterWorks implemented the Town General Plan Update and developed growth scenarios, identified capacity deficiencies, and recommended/prioritized capital improvement projects.

South Placer Municipal Utility District – Lower Clover Valley Trunk Sewer Replacement – Route Study, Rocklin CA (Report) Mr. Baltazar assisted in the development of a route study that assessed the viability of different alignments for the District's Lower Clover Valley Trunk Sewer. Tasks included analysis of major constraints for each alternative, hydraulic design, pipe material/sizing, construction methodologies, and geotechnical / environmental constraints.

City of Folsom Easton Valley Parkway Lift Station – Folsom, CA (Design) Mr. Baltazar provided analysis and modeling on the design for the Folsom Plan Area Easton Valley Parkway Sewer Lift Station and Forcemain. The project included design of a 3MGD duplex submersible pump station with provisions to increase to 7 MGD at build-out. Site improvements included MCC, SCADA and emergency generator building; odor control; by-pass pumping connections; and approximately 3000-LF of forcemain, with two elevated creek crossing and a 300-LF auger bore and jack crossing of Highway 50 (eight lanes of traffic). Unique features of the project included analysis of multiple lift station design options, including vertical turbine solids handling pumps versus a grinder with submersible N-series Flygt pumps versus dry/wet pit submersible pumps We also compared absorbent, air scrubber, and bio-filters to identify the odor control device that best met the long term needs of the site.

City of Salt Lake 1800 N. Trunk Rehabilitation Project – Salt Lake City, UT (Planning/Design) Mr. Baltazar provided planning and preliminary design for the repair, rehabilitation, and/or replacement of 3,700 lineal feet of 66" RCP gravity sewer trunk. Water Works identified various program alternatives and compared them based on constructability and a "risk loaded" total program cost. The selected alternative and preliminary design incorporated 4500-LF of large-diameter diversion trunk, an 800-LF micro-tunnel (MT) trenchless crossing of I-15 and a regional railroad transit hub via a multi-barrel inverted siphon, and rehabilitation of the existing trunk via 3,700-LF of smaller diameter slip lining. Services included planning; preliminary design; survey; geotechnical analysis; environmental analysis; trenchless construction assessment; ROW research; and permitting.

Esmeralda Diego
Civil/Environmental Engineer

Education
M.S. – Civil and Environmental Engineering
CA State Polytechnic University,
San Luis Obispo

Experience
6 years with the firm /
6 years total

Representative Project Experience

Town of Colma WW Collection System Master Plan – Colma, CA (Master Planning; Assessment; Model) Ms. Diego assisted in the development of the Town's hydraulic model using Innovyze InfoSewer software. The model was used to assess the town's wastewater collection capacity and its ability to convey flow in the near-term and long-term during a design storm event without sanitary system overflows. The results of the model were used to develop capital improvement project (CIP) alternatives and a targeted rain derived inflow and infiltration (RDII) reduction program to address system deficiencies with the goal of ensuring the town's compliance with the State Water Resources Control Board. Ms. Diego also assisted in the writing of a Wastewater Collection System Master Plan presenting the results of the hydraulic model, CIP alternatives, and RDII reduction program.

City of Folsom 27" Sewer Mitigation Project Phase 1 on Folsom Blvd – Folsom, CA (Master Planning; Model) Ms. Diego assisted in the preliminary design of a mitigation project for a 27" trunk sewer in the City of Folsom located in one of the City's major throughways. Ms. Diego's responsibilities include researching and evaluating several potential alignments to recommend a preferred alignment based on cost effectiveness and constructability. Identification of the preferred alignment requires Ms. Diego to coordinate information from other utility providers and geotechnical and environmental studies.

City of Woodland WW Hydraulic Model and Master Plan Updates – Woodland, CA (Assessment; Model) Ms. Diego assisted with the City's ongoing hydraulic model development process which included upgrading the existing physical sanitary sewer system within an InfoSewer hydraulic model, precipitation analysis and recalibration of dry and wet weather flows, and new modeling scenario updates based on the City's updated General Plan. Ms. Diego also utilized the results of the hydraulic model simulations to identify systemic capacity deficiencies and developed capital improvement projects (prioritized) and inflow and infiltration reduction programs to solve them.

City of Woodland Research & Technology Park Peer Review – Woodland, CA (Assessment; Model) In conjunction with a wastewater hydraulic model update project, a technical sanitary sewer peer review of a projected improvement plan for the Woodland Research & Technology Park in the Spring Lake master plan area (new development plan) was created.*

County of San Mateo On-Call Services CCTV Data Analysis – Redwood City, CA Ms. Diego provided field and office engineering assistance for the Wastewater Collection System CCTV Project at various County Sanitation and Sewer Maintenance Districts. Ms. Diego is NASSCO certified in pipeline, lateral, and manhole assessment. Services included review of PACP observation code conformance, and production of daily field reports to summarize CCTV Contractor field work.

South Placer Municipal Utility District – Loomis Diversion Line Route Study, Loomis CA (Assessment) Ms. Diego assisted in the assessment of the new wastewater infrastructure to divert flow off of a South Placer Municipal Utility District (SPMUD) Loomis Trunk Line. The proposed new infrastructure included a gravity pipeline, appurtenant sanitary sewer manholes, and a new sewer pump station and forcemain. The team identified, analyzed, and compared potential alternatives recommended a preferred alignment for the SPMUD Loomis Diversion Line.

County of San Mateo On-Call Services Pipeline Rehabilitation – Redwood City, CA Ms. Diego assisted in the evaluation of identified pipeline replacement recommendations in terms of constructability, utility conflict,

accessibility, permitting, property acquisition and readily identifiable potential constraints to produce a design to be bid and constructed. Design included various construction methodologies, including spot repair, cured-in-place pipe lining, pipe-bursting and traditional open cut dig and replace in same trench and new alignment. Ms. Diego assisted with procurement of encroachment permit to construct new sewer crossing of SFPUC's Hetch Hetchy 72" and 84" water transmission lines.

Folsom Basin 4 Phase 2 Sewer Rehab – Folsom, CA (Design/SDC) – Ms. Diego is serving as a project engineer on the City of Folsom Basin 4 Phase 2 Sewer Rehabilitation project. This project will replace approximately 8,000 linear feet of 8" gravity sewer main and an associated 37 manholes and 132 lateral connections. Ms. Diego is assisting in preparing the contract documents for bid including developing the technical specifications and modifying the city's standard front-end documents to fit the needs of this project. In preparation of the bid documents, Ms. Diego is drawing on lessons learned from previous and current City of Folsom sewer projects to inform staff of recommended materials for construction and incorporate special provisions that will minimize disturbance to the residents adjacent to the project locations.

City of Morro Bay Water Reclamation Facility Conveyance Facilities – Morro Bay, CA (Planning/Design/SDC) – Ms. Diego assisted with preliminary design for over three miles of joint 16"/12" sewer forcemains, 16" ocean outfall piping, 8" indirect potable reuse pipeline, and two sewer pump stations. The overall project was a part of the City's wastewater treatment plant relocation and recycled water improvements project. The pipelines included three separate Caltrans transverse/parallel encroachments, a 100-ft utility bridge crossing of Morro Creek, and a 400-LF microtunnel trenchless crossing of the congested Morro Bay/Quintana roundabout. Services included planning; design; survey; geotechnical analysis; ROW research; and permitting (including EIR public comment review support).

South Placer Municipal Utility District Foothill Trunk Sewer Replacement Rocklin, CA (Planning/Design/SDC) Ms. Diego provided engineering services for approximately 2275-LF new 24" gravity pipe from El Don Road, west along backyard easements adjacent to perennial creek/wetland, across the City of Rocklin/Placer County line, across Aguilar Rd., terminating west of the Creekside Village Apartment complex where it connects to the SPMUD Lower Secrete Ravine Trunk Line. Services included planning; design; environmental permitting; geotechnical investigation; trenchless feasibility assessment; survey; and services during construction.

El Dorado Irrigation District Wastewater Treatment Plant Filter Rehab Project – El Dorado Hills, CA (Design/SDC) – Ms. Diego assisted in the design and preparation of the bid documents for the El Dorado Irrigation District (EID) Wastewater Treatment Plant (WWTP) Filter rehab project. This project included rehabilitation of two of the six existing tertiary treatment filters, which are trident adsorption clarification/ filtration units. The project addressed the failure of two of the underdrain systems, inclusive of air scour piping, granular filter media and buoyant adsorption clarifier media and retaining screens. Ms. Diego assisted in the review of manufacturer's shop drawings for the underdrain system as well as incorporation of show drawings into the Contract Drawings. Other rehabilitation included updates to corroded tank structural members, thickness of miscellaneous metal components, protective coating application, and addition of a passive sacrificial anode cathodic protection system. Ms. Diego assisted in producing the Contract Drawing set, all technical specification sections, and reviewed the District's standard front end documents for conformance with the technical specifications.

El Dorado Irrigation District Reservoir A Filter Valve Replacement Project – El Dorado Hills, CA (Design/SDC) – Ms. Diego assisted in the development of bid documents for the El Dorado Irrigation District Reservoir A Filter Valve Replacement Project. The District had pre-purchased 8" air and 18" raw water valves for the 12 filter units of Reservoir A. The challenge of the design was to increase ease of operations and maintenance by optimally locating the valves and all associated valve components. Through collaboration with treatment plant operations staff it was determined to extend the walkway to allow operations staff access to the valves and actuators from more angles. Ms. Diego assisted in development of the contract drawings, technical specifications, and modified the District's standard front-end specifications, as needed.

Himai Mehere

Structural Design Engineer

Education

M.S. - Civil Engineering (Structural)
Arizona State University (2017)
B.Tech. - Civil Engineering,
College of Engineering (2013)

Years of Experience

2 years with the firm/ 7 years total

Memberships

SEAONC
AZWA

Representative Project Experience

- Zone 7 Water Agency, Paterson Pass Water Treatment Plant Electrical Enclosure, Livermore, CA (Structural Design Engineer)
- California Water Service Company, DOM 215/216 ESCD, (Structural Design Engineer)
- The True Life Companies, Pioneer Place Lift Station Basis of Design Report, Cameron Park, CA ((Structural Design Engineer)
- California Water Service Company DOM Well 300 Treatment Project, Torrance, CA (Structural Design Engineer)
- El Dorado Irrigation District, Various Projects, (Structural Design Engineer)
    - Echo Lake Conduit Emergency Replacement, El Dorado County, CA
    - Diversion Fish Screen A11 Gates Analysis, Placerville, CA
    - Sly Park Intertie Improvements Project, El Dorado County, CA
    - Reservoir A Valve Replacement, El Dorado County, CA
- Pacific Hydrotech Corporation, City of Needles Well 11 Treatment Plant Upgrade, Needles, CA (Structural Design Engineer)
- Anderson Pacific, City of Palo Alto Regional Water Quality Control Plant Secondary Treatment Upgrade Project Temporary Bypass Systems, Palo Alto, CA (Structural Design Engineer)
- Paradise Irrigation District Water Treatment Plant Equalizer Tank Replacement, Paradise, CA (Structural Design Engineer)
- Contra Costa Water District, Bollman Water Treatment Plant Phase 2 Design Engineering During Construction, Concord, CA (Structural Design Engineer)
- San Jose Water, Belgatos Pump Station Design, San Jose, CA (Structural Design Engineer)
- City of Redding, Wastewater Treatment Plant Bisulfite Facilities Structural Design, Redding, CA (Structural Design Engineer)
- California Water Service Company, Palos Verdes Station 22 Sound Wall Project, Rolling Hills Estates, CA (Structural Design Engineer)
- California Water Service Company, DOM 275 UV Implementation & Startup, Carson, CA (Structural Design Engineer)
- City of Millbrae, Skyline Tank Engineering Services during Design, Millbrae, CA (Structural Design Engineer)
- EPCOR USA, Copper Basin Water Reclamation Facility, Pinal County, CA (Structural Design Engineer)
- City of Chandler, Water Facilities Optimization Improvements, Chandler, AZ (Structural Design Engineer)
- Placer County Water Agency, Bowman Water Treatment Plant Phase 3 Improvements, Placer County, CA (Structural Design Engineer)

Representative Project Experience Prior to Joining Water Works

ARUN SHAH & ASSOCIATES, FREEMONT, CA (2019 – 2021)

PROJECT ENGINEER

- Experience in delivering end to end structural work for wide range of materials and project types.
- Managed, designed and oversaw construction for following projects:
  - Stratford School, Milpitas, CA - 25,000 sf, 2 story tilt up concrete school building retrofit. Provided new concrete shear walls with mat foundation and retrofitted the diaphragm as high load flexible diaphragm. Designed structural steel braced frame as lateral system for new addition to the building.
  - SMT Annex Building, Concord, CA - 10,000 sf 2 story light gage steel community center building with composite shear wall panels on CFS studs set on grade beam and slab on grade foundation.
  - Homewood Suites, Fremont, CA - 50,000 sf, 4 story wood frame hotel on concrete podium with mat foundation.
  - Experienced in design for hillside homes with concrete retaining wall and pier foundation.
- Experienced in seismic design and detailing of structural steel moment frames, braced frames, and concrete shear walls.
- Proactive and highly collaborative with clients, architects, and MEP consultants during all stages of the project.
- Performed site inspections on a regular basis. Provided field reports and supplementary details to address discrepancies.
- Provided response to RFI's, plan check comments & reviewed shop drawings.
- Passionate about providing simple and economical design and feasible details from constructability point of view.

ARUN SHAH & ASSOCIATES, FREEMONT, CA (2019 – 2021)

GRADUATE ENGINEER

- Provided solutions for multiple tenant improvements, rehabilitation, and equipment anchorage projects.
- Provided structural drawings and calculations for following projects:
  - 1 story tilt up concrete community center building in Union City, CA,
  - 4 story wood frame apartments on podium slab with mat foundation, Oakland, CA
  - 3 story wood frame apartment buildings in Hayward, CA
- Developed understanding of seismic requirements for design and detailing ofsteel, concrete, and wood structures.

ARIZONA STATE UNIVERSITY, TEMPE, AZ

RESEARCH ASSISTANT

- Conducted uniaxial quasi static tests of fibers and fiber-matrix interface to study behavior and modelling.
- Developed automated manufacturing system for textile reinforced structural shapes to model multiple cracking behavior under tension and flexure using Digital Image Correlation.

WALCHAND INDUSTRIES LTD, PUNE, INDIA

GRADUATE TRAINEE

- Performed preliminary design of foundation for material storage structures such as storage silos, trestles, and storage sheds.
- Prepared bill of materials, tender documents, technical data sheets, design & inspection reports for structural components.

PERRY WEBSTER
LEAD DESIGNER

Education
Applied Science Degree
Mechanical Drafting
ITT Institute

Experience
28 years

Mr. Webster is a lead engineering designer and lead mechanical designer for design projects involving water and wastewater treatment, pumping, and conveyance facilities. His experience includes the production and management of water and wastewater treatment and conveyance projects and has been responsible for producing computer-aided drafting and design (CADD) and manually drafted drawings from project start to finish. He coordinates drawings between civil, mechanical, structural, and electrical disciplines. Perry is proficient in AutoCAD, Autodesk Civil 3d, Infraworks, MicroStation V8, MicroStation 3D, and other software applications.

REPRESENTATIVE PROJECT EXPERIENCE

Wastewater Treatment Infrastructure
City of Shasta Lake WWTF Upgrade Project, Shasta Lake, CA
Sharon Heights Golf Club Water Reclamation Facility (WRF), Menlo Park, CA
City of Folsom Plan Area, EVP Lift Station, Folsom, CA
Ross Valley Sanitation District Pump Station 12 Bonair and 13 Greenbrae Rehabilitation, Greenbrae, CA
City of Morro Bay WRF Lift Station and Offsite Pipelines, Morro Bay, CA
Elsinore Valley Municipal Water District Flagler Well Conversion Pipeline Project, Corona, CA
City of Goodyear 157th Avenue WRF, Goodyear, AZ
Lake Cachuma Emergency Pump Station Project, Redding, CA
City of Shasta Lake WWTF Upgrade Project Shasta Lake, CA
City of Redding Layton Lift Station Bid and Construction Services, Redding, CA
1800N Sanitary Sewer Rehabilitation Project, Salt Lake City, UT
Price River Water Improvement 2018 Sewer Line Refurbishment, Salt Lake City, CA
Elsinore Valley Municipal Water District Railroad Canyon WRF Modifications, Corona, CA

Wastewater Collections Infrastructure
City of Vacaville Public Works Vacaville Andrews Park Sewer Crossing
Redding Stillwater Wastewater Treatment Plant Odor Scrubber Replacement
South Placer Municipal Utility District Foothills Trunk Sewer

Wastewater Linear / Pipeline

Wastewater Pumping / Liftstations
City of San Bruno Sneath Lane Lake Dr Pump Station
San Jose Water Company Franciscan Pump Station Replacement Project, San Jose, CA
San Jose Water Company Cambrian Station Improvements Project, San Jose, CA
San Jose Water Company McKean Road Reservoir & Pipeline Design, San Jose, CA
San Jose Water Company Belgatos Reservoirs Replacement, Los Gatos, CA
Elsinore Valley Municipal Water District Skymeadows Booster Pump Station Design, Corona, CA
San Jose Water Company Idyllwild Pump Station Improvements, San Jose, CA
Arizona Water Company East Sedona Storage Tank, Booster Pump Station, Sedona, AZ
Sierra Army Depot Potable Water Well 12, Herlong, CA
California Water Service Company PV22 Booster Station Emergency Backup Generator, San Jose, CA
San Jose Water Company Columbine Station Improvements, San Jose, CA

San Jose Water Company SSF Station 1 Upgrade Permitting & Engineering Support, San Jose, CA
California Water Service Company Pump Station Nos. 22, 23, 30 Surge Tank, San Jose, CA

Water Treatment Infrastructure

Cahava Springs Development Water System Design & CA
Lake County CSD, Soda Bay Water Treatment Plant Improvements, Kelseyville, CA
Placer County Water Agency Bowman WTP Phase 2 Improvements, Auburn, CA
Provo WATRR Center Phase 1 2020 Improvements, Provo, UT
Provo WATRR Center Phase 1 2020 Improvements, Provo, UT
City of Torrance North Well Field Project Phase III Design Build Project, Torrance, CA
City of Redding, Well 12 Treatment, Redding, CA
South Placer Municipal Utility District Loomis Diversion Project, Loomis, CA
City of Oceanside – Robert A. Weese Water Filtration Plant, Chemical Facilities Upgrades, Vista, CA
County of San Mateo On-Call, San Mateo, CA
HRM Irrigation Flow Calculations, Star, ID

Water Distribution Infrastructure

Sharrah Dunlap Sawyer Mountain Gate at Shasta Water Model Update
Casitas Municipal Water District Dam Drain
City of Millbrae Water System Upgrade Project

Water Linear / Pipeline

Casitas Municipal Water District West and East Ojai Avenue Pipeline Replacement

Water Pumping / Storage

Pacific Hydrotech Corporation Design/Build 4 Wells Site Improvements
Lassen Pines Mutual Water Company Water Storage Improvements
U.S. Forest Service Laguna Water Distribution System, San Diego County, CA
San Jose Water Company - Vickery Reservoir Replacement, Saratoga, CA
City of Roseville West Side Tank and Pump Station Design and CM, Roseville, CA
Paradise Irrigation District Reservoir B Replacement, Paradise, CA
Valley of the Moon Water District Saddle Tank, Glen Ellen, CA
Arizona Water Company East Sedona Storage Tank, Booster Pump Station, Sedona, AZ
City of Shasta Lake WTP Backwash Separation Tank Design, Shasta Lake, CA
City of Shasta Lake WTP Backwash Separation Tank SDC, Shasta Lake, CA
San Jose Water Company Columbine Reservoir Construction Management, San Jose CA

Master Planning

Utility Management / Extension of Staff Services

California Water Service Company HR 23 Altitude Improvements
California Water Service Company PV Pipeline and Soil Assessment, San Jose, CA
City of Prescott WPF and IPS Projects
Elsinore Valley Mutual Water District Railroad Canyon WRP SCADA Installation
City of Mesa On-Call Wastewater Projects
Albuquerque Bernalillo County Water Utility Authority Interim Ammonium Sulfate Facility

Construction Management

California Water Service Company PV Surge Tanks Permitting – Construction Support
San Jose Water Company Belgatos Reservoir Construction Management

WATERWORKS ENGINEERS

Proposal Contact
Joe Ziemann, PE
jimz@wwengineers.com
(916) 316-1327
2260 Douglas Blvd, Suite 105
Roseville, CA 95661

El Dorado Irrigation District

El Dorado Irrigation District
2024 Collections Rehabilitation Project
Professional Services Cost Proposal

Task		WWE 2024 Rate Schedule							Project Budget Totals		
	Team Member Classification	E4	E3	E2	E1	T3	Sub	Expense			
	Team Member Name	Joe Z.	Anthony B.	Esmeralda D.	Himai M.	Perry W.	CWE (Survey) / Bajada (Geotech)	Sub Markup (5%)			
No.	**Description**	$235	$203	$180	$147	$163	Lump Sum	Lump Sum	**Sub-Task**	**Task Total**	**WWE Hours**
1.0	**Project Management**									**$12,934**	**58**
1.1	Project Scheduling	10							$2,350		10
1.2	Project Meetings	8	8	8					$4,944		24
1.3	Project Invoicing, Management and QA/QC	24							$5,640		24
2.0	**Site Investigation and Assessment**									**$43,810**	**96**
2.1	Review CCTV Videos & Create Defect Diagrams			32					$5,760		32
2.2	Site Visits and Field Work		16	16					$6,128		32
2.3	Survey		8	8		16	$15,000	$750	$21,422		32
2.4	Geotechnical Analysis						$10,000	$500	$10,500		0
3.0	**Design Services**									**$180,608**	**958**
3.1	30% Design and Environmental Permit Assistance	20	40	50	20				$24,760		130
3.2a	80% Design Drawings	40	120	160	32	80			$80,304		432
3.2b	80% Technical Specifications	16							$3,760		16
3.2c	80% Cost Estimate, Bid Form & Bid Items, Work Sequence	12							$2,820		12
3.3a	100% Design Drawings	40	60	120	16	80			$58,572		316
3.3b	100% Technical Specifications	12							$2,820		12
3.3c	100% Cost Estimate, Bid Form & Bid Items, Work Sequence	6							$1,410		6
3.4	Final Design	4	4	12	2	12			$6,162		34
4.0	**Bidding Services**									**$3,738**	**18**
4.1	Request for Qualifications	6							$1,410		6
4.2	Bid Advertisement Support	2	4	4		2			$2,328		12
BUDGET TOTALS		**200**	**260**	**410**	**70**	**190**	**$25,000**	**$1,250**		**$ 241,090**	**1,130**

WATERWORKS ENGINEERS

2024 Rate Sheet

Classification	Title	Hourly Rate
AA1	Administrative	83.00
AA2	Senior Administrative	117.00
E0	Jr Engineer / Jr Field Engineer	117.00
E1	Staff Engineer	147.00
E1A	Staff Engineer II	165.00
E2	Associate Engineer	180.00
E2A	Associate Engineer II	191.00
E3	Project Engineer	203.00
E3A	Project Engineer II	217.00
E4	Senior Project Engineer	235.00
E4A	Senior Project Engineer II	253.00
E5	Principal Engineer	272.00
E5A	Principal Engineer II	293.00
I1	Field Inspector	158.00
I2	Senior Inspector	177.00
I3	Supervising Inspector	197.00
T1	Drafter/Jr. Technician	100.00
T2	Designer/Sr. Technician	134.00
T3	Senior Designer	163.00

Notes:

1. A markup of 5% will be applied to all Subconsultants.
2. An additional premium of 25% will be added to the above rates for Expert Witness and Testimony Services.
3. Rate effective through December 31, 2024. A 3% increase will be added for any services performed in each year thereafter.

2024 **CAPITAL IMPROVEMENT PLAN** **Program:** **Wastewater**

Project Number: **PLANNED**

Project Name: **Collections Pipeline Replacement and Rehabilitation Program**

Project Category: **Reliability & Service Level Improvements**

Priority: **2** **PM:** **Delongchamp** **Board Approval:** **10/23/23**

Project Description:

The District owns and operates four collection systems within El Dorado County. Aging infrastructure and limited funding necessitates active inspection and assessment of the collection system. This program will systematically develop projects to replace or rehabilitate the most critical infrastructure within the wastewater collection systems including, but not limited to pipelines and appurtenances.

Basis for Priority:

This programmatic project will replace or rehabilitate the most critical aging infrastructure in the collection system. One significant spill to waters of the state could cost the District $10 per gallon in fines.

Project Financial Summary:			
Funded to Date:		**Expenditures through end of year:**	**$ -**
Spent to Date:		**2024 - 2028 Planned Expenditures:**	**$ 5,500,000**
Cash flow through end of year:		**Total Project Estimate:**	**$ 5,500,000**
Project Balance	**$ -**	**Additional Funding Required**	**$ 5,500,000**

Description of Work	**Estimated Annual Expenditures**					
	2024	**2025**	**2026**	**2027**	**2028**	**Total**
Design		**$ 150,000**		**$ 150,000**		**$ 300,000**
Environmental		**$ 100,000**		**$ 100,000**		**$ 200,000**
Construction	**$ 2,500,000**		**$ 1,250,000**		**$ 1,250,000**	**$ 5,000,000**
TOTAL	**$ 2,500,000**	**$ 250,000**	**$ 1,250,000**	**$ 250,000**	**$ 1,250,000**	**$ 5,500,000**

Estimated Funding Sources	**Percentage**	**2024 Amount**
Wastewater Rates	100%	$2,500,000
Total	**100%**	**$2,500,000**

Funding Comments:

EL DORADO IRRIGATION DISTRICT

SUBJECT: Consider awarding on-call contracts to JLR Environmental Consultants, 4Leaf Inc. and Blackburn Consulting for as-needed construction inspection services from February 12, 2024 through December 31, 2025.

PREVIOUS BOARD ACTION

October 11, 2022 – Board awarded contracts for on-call services for January 1, 2023 through December 31, 2025.

BOARD POLICIES (BP), ADMINISTRATIVE REGULATIONS (AR) AND BOARD AUTHORITY

BP 3060 Contracts and Procurement
AR 3061 Procurement and Contracts

SUMMARY OF ISSUE

For decades, the District has utilized on-call contracts to ensure the efficient and expeditious procurement of services commonly needed to support District operations. The existing 2023-2025 on-call contracts expire on December 31, 2025. The District issued a Request for Proposals (RFP) on December 6, 2023, to supplement the existing construction inspection on-call providers.

BACKGROUND/DISCUSSION

Access to on-call services is essential to performing specialized tasks, many of which involve time-sensitive capital improvement plan (CIP) projects. Conducting individual RFPs and executing individual contracts for each project of this type would require extensive staffing resources. Instead, by issuing an RFP for as-needed on-call professional services for a period covering multiple years, the District saves substantial time, staff resources, and money associated with preparing, advertising, scoring, and contracting for these services.

The competitive on-call RFP process ensures quality, experience, and cost containment. Rates have been closely examined in selecting the recommended companies. All-inclusive hourly rates are established at the outset of the contract for the contract term and cannot be increased beyond what is specified in the contract. Thus, when the District seeks proposals for a specific task under the on-call contract, the company must use the hourly rates listed in its contract when submitting a proposal.

In awarding an on-call contract, the District is not guaranteeing any work or payment to any company. Instead, the District is creating a contractual relationship that expedites the performance of individual projects by having access to a list of pre-selected professional consultants and service providers. If and when a project arises, the District may, at its discretion, seek proposals from the on-call list or invite proposals from other companies through a separate RFP process.

On-call contracts will only be used for services estimated at $150,000 or less. All on-call tasks of more than $100,000 will continue to be brought to the Board for approval prior to award. For a service estimated to cost more than $150,000, District staff will seek proposals through a separate RFP process.

On December 6, 2023, the District issued an RFP to supplement the existing construction inspection on-call providers because an existing on-call company restructured and elected to no longer provide inspection services. This has limited the District's pool and flexibility of available on-call inspectors.

In response to the RFP, the District received five proposals for construction inspection on-call services. A team of District staff scored each proposal against the RFP's stated criteria. Only those proposals that provide the best combination of relevant experience, expertise, and hourly rates are recommended for an on-call contract.

Based on the scoring, District staff recommends awarding on-call contracts to JLR Environmental Consultants, 4Leaf Inc., and Blackburn Consulting for construction inspection services.

FUNDING

The on-call contracts are for as-needed services; therefore, no funding is necessary for the initial award of these contracts. The appropriate funding for the individual tasks performed under these on-call contracts will be determined at the time the task is approved.

BOARD OPTIONS

Option 1: Award on-call contracts to JLR Environmental Consultants, 4Leaf Inc. and Blackburn Consulting for as-needed construction inspection services from February 12, 2024 through December 31, 2025.

Option 2: Take other action as directed by the Board.

Option 3: Take no action.

RECOMMENDATION

Option 1

ATTACHMENTS

None.

Elizabeth Leeper
Senior Deputy General Counsel

Jon Money
Engineering Manager

Brian Mueller
Engineering Director

Brian Poulsen
General Counsel

Jim Abercrombie
General Manager

EL DORADO IRRIGATION DISTRICT

SUBJECT: Consider awarding a contract to Domenichelli and Associates, Inc. in the not-to-exceed amount of $122,216 for design of the Strolling Hills Pipeline Improvements Project and authorize additional funding of $50,000 for on-call environmental services, $10,000 for regulatory permitting application fees, $41,000 for capitalized labor, and $21,000 for contingencies for a total funding request of $244,216 for the Strolling Hills Pipeline Improvements Project, Project No.17046.01.

PREVIOUS BOARD ACTION

October 23, 2023 – Board adopted the 2024–2028 Capital Improvement Plan (CIP), subject to available funding.

BOARD POLICIES (BP), ADMINISTRATIVE REGULATIONS (AR) AND BOARD AUTHORITY

BP 3060 Contracts and Procurement
BP 6010 Wastewater System Management

SUMMARY OF ISSUE

The Motherlode Force Main (MLFM) transitions from a pressurized sewer forcemain to gravity flow as it approaches Strolling Hills Road and continues downhill towards the Deer Creek Wastewater Treatment Plant (DCWWTP). The hydraulic capacity in this 12-inch Polyvinyl Chloride (PVC) pipe is restricted during significant storm events and there is evidence of manholes along this section of pipeline surcharging, increasing the risk of sanitary sewer overflows. A new larger diameter pipeline is necessary to allow full operational capacity of the newly upsized MLFM and existing wastewater lift stations that pump into the MLFM without surcharging the Strolling Hills pipeline.

BACKGROUND/DISCUSSION

The Motherlode conveyance system begins at the El Dorado Lift Station (EDLS) in the town of El Dorado. From this location and the adjoining Town Center Force Main along with various small lift stations downstream, wastewater is pumped eight miles along the length of the MLFM. At the downstream end, the MLFM transitions to approximately one mile of 12-inch gravity pipe along Strolling Hills Road before entering the trunk sewer main leading to the DCWWTP.

The MLFM was constructed in the late 1970s and consisted of 12-inch asbestos cement (AC) pipe. Pipe materials such as AC and reinforced concrete are susceptible to hydrogen sulfide (H_2S) corrosion in a wastewater setting, especially in a long conveyance system. The force main portion of the pipeline has experienced numerous failures over the years and undergone multiple replacement projects both in emergency situations and during planned upgrades. The District is under contract to replace the final portions of the original MLFM, and construction of this project is scheduled to be completed in summer 2024.

The EDLS, which is a primary contributor to the MLFM, has three pumps within the pump station wet well: two low horsepower (HP) pumps and one high HP pump. Because the original force main is limited in its conveyance capacity under certain hydraulic conditions, full use of these pumps has been curtailed and EDLS surcharges to an adjacent overflow basin during significant storm events to allow the District to regulate flow within the MLFM within

acceptable levels. During extreme conditions, such as those experienced during early 2023, portions of this surcharged flow must be hauled by truck directly to DCWWTP to prevent basin overflows.

The 2024-2028 CIP includes planned upgrades to the Strolling Hills section of pipeline to 20-inch pipe per the recommendation in the 2021 Deer Creek collection system modeling analysis. This upgrade will allow the EDLS to operate at full design capacity without potentially contributing to MLFM failures and/or overflows in the gravity sewer section along Strolling Hills.

Scope of Work

To minimize potential disruptions to wastewater conveyance for customers, the project scope includes leaving the existing 12-inch PVC pipeline in service to continue capturing flows from customers along Strolling Hills Road and constructing a parallel 20-inch gravity main to capture larger flows from the MLFM. The selected design consultant will develop a basis of design report to verify the alignment and pipeline sizing for the new gravity sewer and then will proceed to develop 50%, 90%, and a final set of project drawings and technical specifications for bidding.

Request for Proposals

In November 2023, the District issued a request for proposals (RFP) for the design and held a mandatory job walk attended by three consultants. On December 14, 2023, the District received two proposals summarized in the table below.

Table 1: Summary of Proposals Received

Consultant	Total Cost
Domenichelli and Associates, Inc.	$ 122,216
Dugan Management and Engineering, Inc.	$ 192,507

Staff rated proposals based on the project team, relevant experience, expertise of the firm, and proposal cost. The proposal from Domenichelli and Associates scored the highest overall based on these criteria. Therefore, staff recommends award of the contract to Domenichelli.

Environmental Review

The District, acting as the lead agency, must comply with California Environmental Quality Act (CEQA) requirements for the Strolling Hills Pipeline Improvements Project. Staff will be evaluating the appropriate level of environmental review and regulatory permitting requirements necessary for the project as the design develops. At this time, staff anticipates that CEQA review may involve preparation of an addendum to the Motherlode Force Main Replacement Project Environmental Impact Report (EIR), State Clearinghouse No. 200008204, which was certified by the District's Board of Directors on June 18, 2001. Staff also anticipates that regulatory permits may be needed from the California Department of Fish and Wildlife, Central Valley Regional Water Quality Control Board, and the U.S. Army Corps of Engineers. The funding request includes a budget for on-call environmental services to support the environmental review and permitting tasks and permit application fees.

Project Schedule

Table 2: Anticipated Project Schedule

Event	Date
Design	*February 2024 – August 2024*
Construction Bidding	*August 2024 – January 2025*
Construction	*March 2025 – August 2026*

FUNDING
The 2024-2028 CIP included the Strolling Hills Pipeline Improvements Project with $500,000 in estimated expenditures for design and environmental review in 2024. The funding source is 100% wastewater FCCs.

Table 3: Funding Requirements

Design contract– Domenichelli and Associates, Inc.	$ 122,216
On-call environmental services	$ 50,000
Regulatory permitting application fees	$ 10,000
Capitalized labor (project management, operations staff coordination, and environmental review)	$ 41,000
10% contingency	$ 21,000
Total funding request	**$ 244,216**

BOARD OPTIONS

Option 1: Award a contract to Domenichelli and Associates, Inc. in the not-to-exceed amount of $122,216 for design of the Strolling Hills Pipeline Improvements Project and authorize additional funding of $50,000 for on-call environmental services, $10,000 for regulatory permitting application fees, $41,000 for capitalized labor, and $21,000 for contingencies for a total funding request of $244,216 for the Strolling Hills Pipeline Improvements Project, Project No.17046.01.

Option 2: Take other action as directed by the Board.

Option 3: Take no action.

RECOMMENDATION
Option 1

ATTACHMENTS
Attachment A: Domenichelli and Associates, Inc. proposal
Attachment B: CIP summary

Madeline Kelsch
Associate Civil Engineer

Brian Deason
Environmental Resources Supervisor

Jon Money
Engineering Manager

Brian Mueller
Engineering Director

Dan Corcoran
Operations Director

For
Jamie Bandy
Finance Director

Brian Poulsen
General Counsel

Jim Abercrombie
General Manager

DOMENICHELLI AND ASSOCIATES, INC.
CIVIL ENGINEERING

Madeline Kelsch
Associate Engineer
El Dorado Irrigation District
2890 Mosquito Rd
Placerville, CA 95667

December 14, 2023

Subject: Proposal for Engineering Services for the Strolling Hills Pipeline Replacement Project

Dear Madeline,

We are pleased to submit our Proposal for the Strolling Hills Pipeline Replacement Project. You will see that we have the project team and relevant experience that will lead to a successful project. A current table of all rates as well as the cost to complete the proposed services is submitted for review. We are available to discuss any changes or refinements that may be necessary.

Domenichelli and Associates, Inc. (D&A) will assign Daryl Heigher to provide project management services and Bryon Deubel to provide project engineering design services. I, Joe Domenichelli, will provide QA/QC and design assistance. We are offering this group of our most experienced pipeline design staff to assure a successful project for the El Dorado Irrigation District (EID). For geotechnical we are also including Youngdahl Consulting Group, Inc (Youngdahl). We have worked successfully with Youngdahl on multiple pipeline projects throughout the region.

Our team has recent experience with EID projects such as Motherlode Force Main Phase IIA, IIB, IIIA, IIIB, IIIC and Phase IV projects, and the Town Center Force Main Replacement Phases 1-4. Although this project will be a gravity system, our recent design experience on the adjacent force main projects is relevant to the proposed project design. D&A has a long history of working with EID to successfully complete projects. Our experience with EID standards, operations, and staff has been paramount to project success.

In addition to our recent design work for EID, the D&A project team has worked on the following sewer systems: Rancho Del Oro lift station, force main and gravity transmission main, Placer County; State Street Sewer Replacement and Rehab (CIPP lining) project, City of West Sacramento; and eight sewer lift stations and force mains for Olivehurst Public Utility District South County Project.

We have great working relationships with local regulatory agencies. These relationships help our pipeline design and construction teams stay in compliance with regulatory concerns and maintain a construction process with a high level of communication and cooperation. We encourage you to talk to some of our clients, regulatory staff, and local contractors to confirm D&A is the right choice for this EID project.

Our understanding of the Strolling Hills Pipeline Replacement Project stems from past work with EID, recent visits to the project site, and preliminary investigations to formulate potential solutions for this project.

I look forward to hearing from you soon. Thank you for the opportunity to submit this proposal for your project.

Sincerely,

Joseph Domenichelli, PE
President, Domenichelli & Associates Inc.

TABLE OF CONTENTS

SECTION 1: SCOPE OF WORK

Project Understanding & Approach

It is our understanding that EID desires to construct a 20-inch gravity sewer pipe starting from Durock Road, where the Motherload Force Main (MLFM) ends, to a tie-in location near Cameron Road. The current 12-inch line is undersized and has undesirable velocities that cause turbulent flow and hydrogen sulfide off-gassing. The new 20-inch trunk line will be installed in a parallel alignment with the existing 12-inch sewer within the paved road, including new manholes and tie-ins to the existing system.

EID has identified that the existing 12-inch sewer main is to remain operational for the local services for the life of the pipe. With the construction of the 20-inch sewer main line, the flows in the 12-inch sewer main will be greatly reduced from the current operational flows. This may result in increased fat, oil, and grease buildup as well as reduced ability to convey solids. These conditions will likely create increased odor issues in the 12-inch sewer main. D&A will work with the District to understand the potential impacts of this reoperation and propose solutions for mitigating these negative impacts, including the possibility of providing a flushing element from the new force main to the 12-inch sewer main.

The new pipeline work will include avoiding existing utilities such as the water main, water service lines, existing 12-inch gravity sewer line, and sewer services. We understand that all survey information will be provided by EID. The requested survey will be used in concert with EID's as-built drawing for the 12-inch line, GIS information and available LiDAR information to complete existing plan and profile base sheets. We have a strong understanding of the physical challenges presented by this project, including avoiding conflict with the existing gravity sewer while maintaining appropriate velocities in the steep terrain.

Although the final pipe alignment will be determined in the design phase, D&A anticipates most of the new pipe to be constructed adjacent to the existing 12-inch line. This will present two major challenges: conflict with the existing sewer laterals and trenching in close proximity to the existing sewer line. You will see in our experience section that D&A has expertise in pipeline construction in congested streets and can offer design driven solutions to reduce the likelihood of encountering conflicts during construction and reduce cost.

D&A understands that EID will be negotiating pavement restoration requirements for the project with the local Community Services District (CSD). We believe that there is an opportunity to reduce the potential cost of pavement restoration by having our design team get early feedback from EID on the status of the negotiations. If minor changes to the pipeline alignment would result in a reduced restoration effort, D&A would seek to incorporate those into the design.

At D&A, our approach is to always provide a value engineering review to our designs. In this review we anticipate excavation and rock depth to be critical elements of review to find cost savings in the design. To this point, we are requesting geotechnical services from Youngdahl Consulting Group, Inc (Youngdahl) to determine the depth to rock along the alignment of the project. Incorporating the geotechnical findings into the design will greatly reduce the potential for excessive rock excavation.

Scope of Services

Task 1 – Project Management

1.1 Project Management – D&A will provide a proactive project management strategy to include close communication with the District and all project team members. D&A's Project Manager, Daryl Heigher, will provide a monthly progress memo sent to the EID Project Manager. D&A will also maintain open communication between D&A and the District to provide updates as necessary on project progress.

Exceptions to the schedule if any will be noted and actions described to get the project back on track. This task also includes costs associated with monthly billing. Each billing statement will include information on services provided during that billing period and remaining budget.

Task 2 – Prepare and Update Project Schedule

Once given a notice to proceed, D&A will create an initial project schedule using Microsoft Project that covers all critical items through construction. Key submittals (BODR, 50%, 90%, and Final drawings) as well as review periods, meetings, workshops, milestones, bidding, and construction. D&A will present this schedule to EID within 30 days of the notice to proceed.

Task 3 – Design Meetings

This task includes meetings with District staff regarding the design progress. D&A has budgeted for seven, 1.5-hour meetings and the time necessary to prepare meeting agendas, prepare meeting minutes, respond to District comments, and maintain an issue log.

- Kickoff Meeting (1)
- Field Meetings as Needed (Assumed 2)
- Progress Meetings at BODR level, 50%, 90%, and Final Design (4)

Task 3 Deliverable: Meeting Minutes and Issue Log.

Task 4 – Site Review and Survey

D&A will gather all pertinent design data available from the District and coordinate with EID for the data needed from the topographic survey to be provided by the District. D&A will contact existing utilities to obtain system maps and incorporate that information with the information from the District to create a base layer of existing utilities for the plans.

Task 5 – Design Documents

All construction documents will be prepared in conformance with District standards. The front-end documents will utilize the District's standard document. Technical specifications will be prepared in the six digit Construction Specifications Institute format. Specifications will include a schedule of required submittals, including section reference and submittal purpose. D&A has recent experience with the District preparing plans and specifications per their standards.

5.a Basis of Design Report – D&A will prepare a Draft and Final Basis of Design Report (BODR) which will confirm the size of the new trunk pipeline. The BODR will focus on the sizing and alignment of the new pipe, including modeling parameters, easement needs, and identification of potential conflicts and design constraints. In addition, the BODR will address geotechnical issues and recommendations.

5.b 50% Design – The D&A team will build on the BODR and comments from the District to complete 50% design documents which will show profiles and details not included in the preliminary design. This will also include information obtained from EID during the preliminary design. The plans will include all sheets anticipated to be needed during construction, including typical details.

The 50% submittal will also include a 50% set of technical specifications, a bid schedule, and a preliminary cost estimate. In addition to the scope items identified in the RFP, D&A finds that a utility conflict plan and an updated schedule are helpful to keep the project plan up to date. Joe Domenichelli will provide the QA/QC review of 50% documents for the D&A design team.

5.c. 90% Design – The 90% design will be considered a complete biddable set of documents for the District's final review and comment. At this stage all plans, specifications and the engineer's estimate will be complete, including updated schedule and cost estimate. Joe Domenichelli will provide the final QA/QC review of all 90% documents for the D&A design team.

5.d Final Design Plans– After receipt of the 90% comments from EID and the 90% review meeting, the D&A design team will prepare Final Design documents for the project. These documents will include design plans, specifications, engineer's estimate, back-up survey data and final copies of the pre-design report. An updated schedule and cost estimate will be provided.

5.e Front End Specification Assistance – D&A will develop a bid form, summary of work, measurement and payment, as well as submittal procedures for inclusion in the Division 0 and Division 1 front end specifications developed by the District.

5.f Bid Set – After receipt of the final design comments from EID, D&A will prepare Bid Set documents for the project. These documents will include design plans, specifications and engineer's estimate. This set of documents will be made ready for advertising the project for Bid and will be provided in PDF in 11x17 and 22x34 as well as in AutoCAD format.

Task 5 Deliverables: BODR, Geotechnical Report, 50%, 90%, Final Design, and Bid Set of plan and specifications. The final bid set hard copy will be accompanied by electronic versions of the documents in Word, .pdf, and AutoCAD formats. Additionally, the updated design schedules and cost estimates will be provided to the District with each submittal.

Task 6 – Construction Support

D&A will review all contractor submittals and shop drawings provided to them by the District as well as provide general engineering support during construction.

In addition to the items identified in the RFP's scope of work, we recommend D&A provide a conformed set of plans and specifications after bid opening (included as optional Task 8).

Task 5 Deliverables: Submittal review, one set of reproducible, and one electronic copy of conformed drawings and specifications.

Task 7 – As-Built Drawings

D&A will prepare final as-built record drawings from the information supplied by the Contractor and approved by the District's inspector. The record drawings will include any pertinent RFI, CCO, and redline changes to the construction plans. D&A's project manager will stamp/sign the plans and provide the District copies in both PDF and AutoCAD (.dwg) format.

Task 8 – Recommended Optional Tasks

Conformed for Construction Drawings and Specifications

D&A will prepare conformed plans and specifications that will include all relevant addenda items. D&A will coordinate with EID as to how revisions are incorporated into the conformed set.

SECTION 2: RELEVANT EXPERIENCE AND EXPERTISE

Experience

Established in 2002 by President Joseph Domenichelli, D&A has become a trusted partner with extensive experience in serving public agencies that own and operate water and wastewater systems. Over the years, D&A has been committed to a vision of growth and innovation. Our success is attributed to the dedication of a highly specialized team that forms the cornerstone of our firm. We pride ourselves on the diversity within our team, providing us with the flexibility to deliver superior client services at competitive rates. The loyalty of our clients, many of whom are repeat customers, is a direct result of our focus on cultivating relationships and ensuring customer satisfaction. D&A offers a comprehensive range of services, from master planning for water, recycled water, wastewater, and drainage systems for entire communities to the design and construction management of municipal improvement facilities. Our expertise spans pipelines, pump stations, water storage tanks, hydroelectric stations, and hydraulic structure design for both water and wastewater facilities.

The following projects highlight our team's experience in providing services for EID and others for work similar in nature to that of the Strolling Hills Pipeline Replacement Project.

Motherload Force Main and Lift Station – El Dorado Irrigation District

The Motherload Force Main designed by D&A is a 5-mile sewer force main that has been constructed over several phases in the past 10 years. The latest and final design phase of the force main is currently in the last stages of construction. This phase is nearly three miles long and consists of 18-inch to 20-inch PVC pressure pipe, two bore and jack stream crossings, multiple air release valves and re-establishing seven existing connections from various commercial and residential lateral lift stations.

Team Members: Joe Domenichelli – Project QA/QC, Bryon Deubel – Project Engineer.

Coach Lane Sewer Line Rehabilitation – El Dorado Irrigation District

The fast-tracked design for this sewer replacement between Cameron Park Drive and Rodeo Road included over 1,650 feet of gravity PVC sewer, eight manholes, and new connections to existing service laterals while keeping existing line in service during construction.

Team Members: Joe Domenichelli – Project QA/QC, Brian Hammer - Project Engineer

Rancho Del Oro Lift Station and Pipeline – Placer County

D&A provided design services for a new sewer lift station for a 119-acre private development in Placer County. The lift station ties into the existing sewer system through a new force main also designed as part of the project. Services on the project included preparation of a pre-design report which analyzed multiple alternatives for the alignment of the sewer force main to connect to the existing main and capacity analysis of a portion of the existing gravity main, updates to the local Sewer Masterplan, final lift station design and engineering services during construction.

D&A Team Members: Joe Domenichelli – Project Manager QA/QC, Daryl Heigher – Project Engineer

Representative Clients

The following chart provides an overview of D&A's representative clients, some of which are similar to EID. The list below provides basic information on these agencies and describes some of their operational activities relevant to EID. All the listed clients are **public sector clients**.

Representative Client	Location and Type	Sewer Force Main and Gravity Pipeline Design	Trenchless Rehab Design	Pipelines with Creek Crossings	Water Pipeline Design	Pump Station Design
City of West Sacramento	West Sacramento, CA: Serving the City for water and sewer	✓	✓		✓	
City of Placerville	Placerville, CA: Serving a community in terrain surrounded by EID	✓	✓		✓	✓
City of Sacramento	Sacramento, CA: Serving the City for water and sewer	✓			✓	
City of Folsom	Folsom, CA: Serving within the City's sphere of influence	✓	✓	✓	✓	✓
San Juan Water District	Folsom, CA: Providing water to multiple water purveyors			✓	✓	✓
South Tahoe Public Utility District	South Lake Tahoe, CA: Serving an area similar to EID			✓	✓	✓
Sacramento Suburban Water District	Sacramento County, CA: Serving a large portion of the County			✓	✓	✓
Placer County Water Agency	Auburn, CA: Serving an area similar to EID			✓	✓	✓

SECTION 3: PROJECT TEAM

Project Manager & Team

D&A's team will include **Joe Domenichelli** as Project Principal who brings 40 years of experience. **Daryl Heigher** with 28 years of experience will serve as Project Manager and **Bryon Deubel** with 4 years of experience will serve as Project Engineer. Our team will also be supported by our junior engineers and drafters as needed.

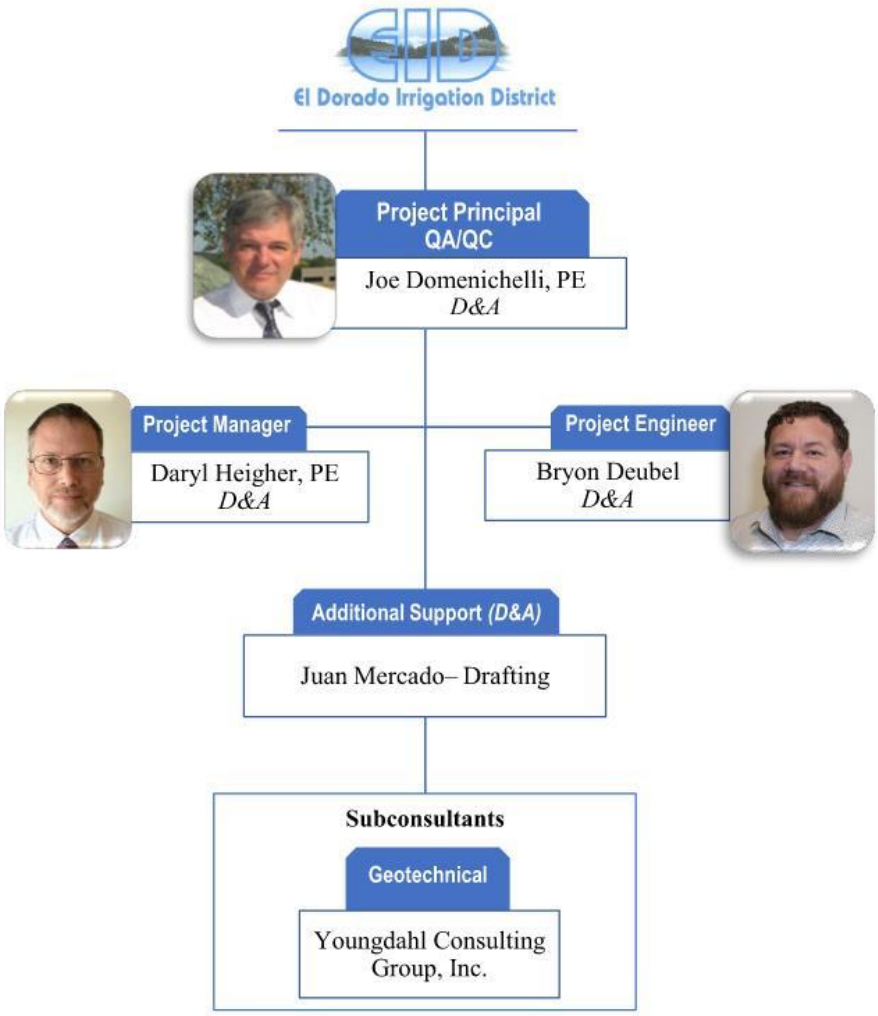
Other D&A Project Staff

All of our D&A staff members are available to work with our senior level staff on the project if needed.

The D&A team members are all proficient in the use of the latest design software, including AutoCAD Civil 3D. All our engineers have experience preparing plans and specifications, providing cost estimates, bidding support (including addendum preparation) and construction support (including plan revisions).

Team Organization

The following provides an overview of our team's organization with current job titles.



Sub-Consultants

For geotechnical support, D&A will be using Youngdahl Consulting Group, Inc.

For over 35 years Youngdahl Consulting Group, Inc. has provided innovative solutions in the fields of geotechnical engineering, geoscience, special inspection, stormwater compliance, and materials laboratory testing. Their longevity is attributed to the repeat business of satisfied clients. The foundation of these long-term relationships is trust.

Youngdahl offers a complete range of consulting services, from conceptual project development through construction. Each project scope is developed based upon the individual project's needs. Tailored, integrated services allow us to provide value engineering and cost effective solutions.

Domenichelli & Associates Team Resumes

The following resumes are provided for the D&A staff that will work on the project. Resumes or company profiles for our sub-consultants can be provided upon request.

JOE DOMENICHELLI – PRESIDENT – PROJECT PRINCIPAL

Project Role	**Project Principal / QA/QC**
Years of Experience	**40 total**
Registration	**Professional Civil Engineer CA and NV**
Education	**B.S. Civil Engineering, CSU Chico**

Mr. Domenichelli's responsibilities for the Strolling Hills Pipeline Project will include overall QA/QC and team management as well as design assistance and review. Mr. Domenichelli has 40 years of engineering experience primarily in the area of water resources engineering. He has provided a variety of services from master planning of water systems for entire communities to the design and construction management of municipal improvements such as water pipelines, sewer pipelines, drainage infrastructure, pump stations, and storage tanks. His understanding of the District's needs through similar work will allow him to provide quality assurance review and management necessary to complete design and construction management services on time and on budget.

Summary of Relevant Experience

City Creek Water Transmission Line – Design and construction support services for San Bernardino County Water District's 18-inch and 30-inch, 2,400-foot pipeline, Pressure Reducing station from the 60-inch Foothill Pipeline and intake piping to the East Valley WTP.

Pleasant Oak Main Project – EID – Provided independent QA/QC, pipe material selection and pipeline alignment design for 5 miles of new 36-inch treated water pipeline for El Dorado Irrigation District. The pipeline replaced an existing aging techite pipe that was experiencing failure causing significant damage to properties and local drainage channels. The pipeline traversed difficult terrain with pressures up to 300psi where crossing low elevation ravines.

PCWA – Lower Banvard Canal Pipeline Replacement Project – Provided QA/QC reviews for design plans, specifications, and cost estimating to replace 240 feet of 20-inch steel pipe traversing Interstate 80 within a 30-inch concrete pipe and replacing 20-inch steel pipe within the Interstate's road embankment. The replacement pipe will be 20-inch fused PVC pipe installed within the existing 30-inch casing and new 20-inch steel pipe installed within the Interstate road embankment. Also assisted in encroachment permitting negotiations with Caltrans.

PCWA- Ginger/Valley View Rd Main Replacement Project-Provided Project Management services for the design of over 2000lf of 8-inch water main replacement within the City of Auburn. Services included QA/QC of the design documents, coordination with Agency staff for project reviews and coordination with the City of Auburn for Encroachment Permit conditions.

Placer County Water Agency – QA/QC for Whitney Blvd. Pipeline in Rocklin, CA. The project included 4,100 linear-feet of 18-inch ductile iron pipeline and associated appurtenances.

Alta Loop Pipeline – Cable Road Water Main Replacement Project – PCWA – QA/QC for the Water Main Replacement Project in Alta CA. The project included 4,660 linear-feet of 8-inch ductile iron pipeline within residential streets. The design included mainline replacement of old undersized main, replacing fire hydrants, reconnecting 42 residential metered services and design of a 6-inch pressure reducing station.

Sacramento Suburban Water District – On-going Main Replacement Projects – Provided QA/QC and Project Management services for over 300,000 feet of 8-inch, 12-inch and 16-inch ductile iron mainline replacement as part of the District's long-term distribution main relocation program. The District is relocating mainlines from the backyards into streets in an effort to make access easier as well as replace aging and leaking systems. In addition to mainline replacements, water meters are being added to each service as part of the District's on-going meter retrofit project.

DARYL HEIGHER – PROJECT MANAGER

Project Role	**Project Manager**
Years of Experience	**28 total**
Registration	**Professional Civil Engineer CA**
Education	**B.S. Civil Engineering, California State University, Sacramento**

Daryl Heigher is a Registered Civil Engineer who has been with D&A since 2012, serving D&A's clients on a multitude of water, wastewater, facility design, campground restoration, structure design, and infrastructure projects. Mr. Heigher's experience includes multiple water system design projects with pipe sizes ranging in diameter from 4 to 48 inches. Mr. Heigher's work on past projects for clients such as El Dorado Irrigation District, Sacramento Suburban Water District, West Valley Construction, City of Placerville, Blue Lakes Springs Water District, and Placer County Water Agency, has provided experience in all aspects of the design and construction process, bid document development, shop drawing review, and construction cost estimating.

Summary of Relevant Experience

El Dorado Irrigation District – Project Engineer for the Upper Main Ditch Pipeline Project. This project converted the existing open ditch water conveyance to 12,700 feet of 42-inch below grade pipeline. The alignment for the pipe traversed sections of the previous ditch alignment, local roadways and cross-country sections through undulating, steep terrain. Careful design of the pipe path to minimize friction headloss had to be performed to be able to achieve the target design flow of 40 cfs. Due to the varying elevations, air and vacuum release valve design was critical to the safe and efficient operation of the pipe. Also included in the project were a flow measurement station and a new headworks intake structure for the water treatment plant where the pipeline terminated.

Placer County Water Agency – Project Manager & Design Engineer for the Penryn Flume pipeline conversion. Currently a portion of the Penryn Flume is constructed above grade and PCWA wanted to construct a siphon to place this portion underground for safety and reliability reasons.

City of Roseville – Design Engineer for the Water Distribution System Improvements Project. The project included the installation of piping at three separate sites to interconnect several areas in the distribution system and provide pipe loops for supply redundancy and reliability. One of these sites included supporting an 8" ductile iron pipe from an existing bridge over Dry Creek.

Blue Lake Springs Water District – Provided design of various water system improvements and a pump station to transfer water into an existing storage tank for distribution.

Pardi Way Water Main Replacement Project, City of Placerville – Provided plans and specifications for the replacement and rerouting of several sections of 12" water pipe throughout the City of Placerville. The new pipe had to be routed through areas with large changes in elevation and narrow streets.

Marin County Water District – Stafford Water Treatment Plant Pipe Bridge - Designed a 100 foot long, single span, pipe bridge to support multiple pipes up to 18" diameter over Novato Creek.

BRYON DEUBEL – PROJECT ENGINEER

Project Role	**Project Engineer**
Years of Experience	**4 total**
Education	**B.S. Mechanical Engineering, California State University, Sacramento**

Bryon Deubel has been with D&A since 2019, serving D&A's clients on a multitude of water and wastewater infrastructure projects. Mr. Deubels' experience includes multiple pipe system designs and modeling projects with miles of pipe length ranging in diameter from 4 to 24 inches. Mr. Deubels' work on past pipeline projects (including main and force main replacements for El Dorado Irrigation District, SCWA, SSWD, San Juan Water District, CWD, City of Roseville, Placer County Water Agency, SBVMUD, and City of West Sacramento) has given him an opportunity to become versed in pipeline design, bid document development, shop drawing review, cost estimating.

Summary of Relevant Experience

2022 Motherlode Force Main Phase 3A, 3B, 3C, El Dorado Irrigation District – Senior Project Engineer for the design includes preparing plans, easement assistance, specifications, and cost estimates for the replacement of approximately 15840 linear-feet of failing 12-inch AC force main pipe with new 18 and 20-inch PVC pipe, and modifications to 6-inch gravity sewer system and 12-inch water main facilities. The design includes two Jack and Bore creek crossings, and improvements to the El Dorado Pump Station access road. Engineering services include assisting with county encroachment permit and negotiations, bid support, and engineering during construction.

Rocklin Main Replacements, Phase 2 – Placer County Water Agency – Project Engineer. The project included 2350 linear-feet of 12 and 16-inch PVC pipeline. Engineering services include utility coordination, preparing plans assisting with obtaining a county encroachment permit, bid support, and engineering during construction.

PCWA – Barton Road Pipeline Phase 1 – Senior Project Engineer for a 24-inch pipeline within a major road and will require crossing multiple large crossings including one 36-inch box culvert. Engineering services includes assisting with obtaining a county encroachment permit and obtaining easements from various property owners along the alignment, bid support, and engineering during construction.

Eureka Road Main Replacement Project, San Juan Water District – Providing design plans, specifications, and cost estimate for approximately 3,750 feet of 18-inch DIP. The project abandons old 16&18-inch steel mains and fire hydrants and installs new mains in County right-of-way along with new fire hydrants and reconnecting 17 metered services. The project was fast tracked to complete construction before the County's planned pavement project.

Arden Service Area Pipe and Meter Installation Project – SCWA – Provided design, plans and specifications totaling over 38 miles of 8-inch, 10-inch, 12-inch, and 16-inch ductile iron and PVC mainline replacement. The projects abandon unserviceable mains and fire hydrants and install new mains and appurtenances in County right-of-way. Engineering services also include pipeline design for residential and commercial properties, public outreach, obtaining encroachment permits, SWPPP preparation, meter location survey sheets preparation, easement assistance, bidding assistance, engineering services during construction, utility coordination.

City of West Sacramento – State Streets Water and Sewer Main Improvement Project. The design included preparing plans, specifications, and cost estimate for approximately 10,000 feet of new water main and rehabilitating approximately 38,000 feet of gravity sewer main within the CoWS State Street area.

Cactus Pipeline, San Bernadino Valley MUD (SBVMUD) – Providing design plans, specifications, and cost estimate for approximately 5,500 feet of 30-inch to 48-inch pipe along residential road within the City of Rialto, CA. The large diameter pipe conveys raw water to SBVMUD recharge basins. The design includes determining the hydraulic grade line (HGL) and the pipe alignment through numerous existing utilities and developing connection details to the existing drain system.

SECTION 4: QUALITY ASSURANCE AND CONTROLS; CONFLICTS

D&A implements quality control in the design process through several strategies listed below.

Conformance to Standards – Quality control ensures accurate work from the outset. Our engineers, well-versed in District standards, from prior projects, diligently incorporate these standards into all aspects of the project.

Proactive Design and Review – Quality in our deliverables is maintained through thorough planning, coordination, supervision, and technical direction between staff. Empowering our engineers to make decisions fosters an efficient and effective design process. Open communication among team members and clients enhances the overall quality of the project. Our cost estimating monitors current bidding climates and unit costs across a variety of project types. By comparing our prices to market rates, and results in competitive project estimations.

Principal Involvement – We commit to a significant level of Principal involvement in all our projects, ensuring personal dedication to quality control and assurance by the principal owner.

Foreseeable Conflicts – Early engagement and discission on right-of-way matters and easement acquisition is crucial for avoiding design changes and maintaining the project schedule. Monitoring market volatility regarding material procurement and pricing remains a concern which is incorporated into the design process from an early stage.

Lessons Learned – Our Staff engage in co-creation sessions which incorporate feedback from client review. These sessions identify areas for improvement in design project, including plan and specification preparations. The improvements identified are integrated into future design efforts.

SECTION 5: CLIENT REFERENCES

The following three references are offered for projects comparable to the Strolling Hills Pipeline Project. All undertakings were executed within the past five years.

EID – Mother Lode Force Main
Reference: Liz Carrington, Senior Engineer, (530) 642-4077, lcarrington@eid.org

PCWA – Lower Banvard Pipeline
Reference: Kelly Shively, Senior Engineer, (530) 823-4883, kshively@pcwa.net

SJWD – Eureka Road Pipeline Replacement Project
Reference: Tony Barela, Head of Operations, SJWD, (916) 791-6939, tbarela@sjwd.org

SECTION 6: CONTRACT AND INSURANCE REQUIREMENTS

We have reviewed the El Dorado Irrigation District Sample Professional Services Agreement as provided in the RFP and concur with the provisions contained within it. Domenichelli and Associates can meet the indemnity and insurance requirements without alterations to the District's standard agreement. We are currently under contract with EID for multiple contracts.

SECTION 7: ADDENDA

D&A has received and acknowledges Addenda 1, Addenda 2, and Addenda 3.

COST PROPOSAL

The following fee estimate is based on the Scope of Services as described previously. The rates and charges provided include all overhead rates to cover costs and other compensation. The rates also cover all minor expenses and all other items as described in the RFP.

EID - Strolling Hills Pipeline Replacement Project

Cost of Services

	Job Title	Project Principal 1	Project Manager 2	Project Engineer 2	CAD Drafter 1	D&A Labor	Sub-consultant Fee*	Project Totals
	Staff Member	Joe D.	Daryl H.	Bryon D.	Juan M.			
	Rate	$210	$180	$138	$110			
1	Project Management		20			$ 3,600		$ 3,600
2	Prepare and Update Project Schedule	1	2	2		$ 846		$ 846
3	Design Meetings	3	12	21	7	$ 6,458		$ 6,458
4	Site Review and Survey		4	8	40	$ 6,224		$ 6,224
5	Design Documents	11	68	240	164	$ 65,710	$ 27,956	$ 93,666
5.a	Basis of Design Report	4	20	80	40	$ 19,880	$ 27,956	$ 47,836
5.b	50% Design	2	20	60	40	$ 16,700		$ 16,700
5.c	90% Design	2	10	40	20	$ 9,940		$ 9,940
5.d	Final Design Plans	2	10	20	40	$ 9,380		$ 9,380
5.e	Front End Spec. Assistance		8	32		$ 5,856		$ 5,856
5.f	Bid Set	1		8	24	$ 3,954		$ 3,954
6	Construction Support			40		$ 5,520		$ 5,520
7	Post Construction - As-Built Plans	1		1	8	$ 1,228		$ 1,228
	Project Totals:	16	106	312	219	$ 89,586	$ 27,956	**$ 117,542**
8	Recommended Optional Task							
8.a	Conformed Drawings	1	4	8	24	$ 4,674		$ 4,674
	Project Totals with Optional Tasks:	17	110	320	243	$ 94,260	$ 27,956	**$ 122,216**

* 5% mark up

Attachment B

2024 CAPITAL IMPROVEMENT PLAN **Program:** **Wastewater**

Project Number: 17046

Project Name: Strolling Hills Pipeline Improvements

Project Category: Reliability & Service Level Improvements

Priority: 2 **PM:** Kelsch **Board Approval:** 10/23/23

Project Description:

The Motherlode Force Main transitions to gravity flow before it enters Strolling Hills Road and continues downhill toward the Deer Creek Wastewater Treatment Plant. Several services are connected directly to the 12-inch PVC pipe that conveys flows along this segment. Hydraulic capacity is restricted during large storm events and this segment of pipeline will continue to restrict flows in the Motherlode Force Main until the pipeline is upsized.

This project will include a Basis of Design report, plans and specifications, a phasing plan, and construction of approximately 6,000 feet of increased diameter pipe. The Strolling Hills pipe was identified in the 2013 Wastewater Master Plan and confirmed in the 2021 Deer Creek Collection System Modeling Project as a capacity upgrade project. The Basis of Design report will address pipe alignment and identify easement requirements.

Basis for Priority:

This project will replace undersized assets to ensure reliability and continual operation of the upstream Deer Creek collection system. This project is required to ensure full capacity of the newly upsized Motherlode Force Main can be used without compromising the strolling hills pipeline.

Project Financial Summary:			
Funded to Date:	**$ 50,000**	**Expenditures through end of year:**	**$ 31,661**
Spent to Date:	**$ 26,661**	**2024 - 2028 Planned Expenditures:**	**$ 6,500,000**
Cash flow through end of year:	**$ 5,000**	**Total Project Estimate:**	**$ 6,531,661**
Project Balance	**$ 18,339**	**Additional Funding Required**	**$ 6,481,661**

Description of Work	**Estimated Annual Expenditures**					
	2024	**2025**	**2026**	**2027**	**2028**	**Total**
Design	**$ 400,000**					**$ 400,000**
Environmental	**$ 100,000**					**$ 100,000**
Construction		**$ 3,000,000**	**$ 3,000,000**			**$ 6,000,000**
TOTAL	**$ 500,000**	**$ 3,000,000**	**$ 3,000,000**	**$ -**	**$ -**	**$ 6,500,000**

Estimated Funding Sources	**Percentage**	**2024**	**Amount**
Wastewater FCCs	100%		$481,661
			$0
Total	**100%**		**$481,661**

Funding Comments:

EL DORADO IRRIGATION DISTRICT

SUBJECT: Consider ratifying EID General Warrant Registers for the periods ending January 16, January 23, and January 30, 2024, and Employee Expense Reimbursements for these periods.

PREVIOUS BOARD ACTION

The Board ratifies the District's General Warrant Registers at each regular meeting of the Board.

BOARD POLICIES (BP), ADMINISTRATIVE REGULATIONS (AR) AND BOARD AUTHORITY

Section 24600 of the Water Code provides that no claim shall be paid unless allowed by the Board.

SUMMARY OF ISSUE

District staff notifies the Board of proposed payments via email and requests ratification of the warrant registers at the subsequent regular meeting of the Board. Copies of the Warrant Registers are sent to the Board on the Friday preceding the Warrant Register's date. If no comment or request to withhold payment is received from any Director prior to the following Tuesday morning, the warrants are mailed out and formal ratification of said warrants is agendized on the next regular Board agenda.

BACKGROUND/DISCUSSION

Current Warrant Register Information

Warrants are prepared by Accounts Payable, and are reviewed and approved by the Finance and Accounting Manager, the Director of Finance, and the General Manager or their designee.

Register Date	Check Numbers	Amount
January 16, 2024	708079 – 708225	$1,451,573.62
January 23, 2024	708226 – 708297	$1,012,887.16
January 30, 2024	708298 – 708444	$1,699,082.53

Current Employee and Board Expense Reimbursements

Employee Expenses and Reimbursements have been reviewed and approved by the Finance and Accounting Manager, the Finance Director, and the General Manager prior to the warrants being released. These expenses and reimbursements are for activities performed in the interest of the District in accordance with Board Policy 12065 and Resolution No. 2007-059.

Additional information regarding employee expense reimbursements is available for copying or public inspection at District headquarters in compliance with Government Code Section 53065.5.

BOARD OPTIONS

Option 1: Ratify the EID General Warrant Registers and Employee Expense Reimbursements as submitted.

Option 2: Take other action as directed by the Board.

Option 3: Take no action.

RECOMMENDATION

Option 1

ATTACHMENTS

Attachment A: Executive Summaries
Attachment B: Employee Expense Reimbursements totaling $100 or more

Rebecca Lane
Finance and Accounting Manager

For
Jamie Bandy
Finance Director

Jennifer Sullivan
Clerk to the Board

Jim Abercrombie
General Manager

Attachment A

January 11, 2024

To: Jim Abercrombie, General Manager

From: Rebecca Lane, Finance and Accounting Manager

Via: Jamie Bandy, Director of Finance

RE: Warrant Register Executive Summary Approval

Attached is the summary for January 16, 2024 for your review and approval.

Executive Summary for January 16, 2024 -- *$1,451,573.62:*

This summary highlights significant disbursements made by major business activity:

Development Services (Fund 105)

- $10,227—Toll Brothers, Inc. for a refund on a deposit payment

General District Operations (Fund 110)

- $4,998—ABM Janitorial Services for janitorial services at headquarters
- $4,028—AmeriGas Propane, LP for propane deliveries
- $3,000—Andreea Miron (District employee) for tuition reimbursement
- $67,261—Aqua Metric Sales Company for water meters and transceivers
- $15,437—AT&T for phone service, internet service and computer hardware
- $4,343—Bobby's All Durabuilt Transmission for a transmission replacement
- $5,782— California Department of General Services for legal services
- $5,341—California Water Efficiency Partnership for 2024 dues
- $12,016—Dataprose, LLC for November 2023 billing services
- $6,884—Ferguson Enterprises, LLC for warehouse inventory
- $28,750—Hunt & Sons, Inc. for card lock fuel and fuel deliveries at various locations
- $4,456—Iconix Waterworks (US), Inc. for warehouse inventory
- $3,604—Industrial Electrical Co. for generator repair parts and labor
- $3,266—Kyocera Document Solutions Northern California, Inc. for managed print services
- $18,000—Maze & Associates for audit services for fiscal years 2022 and 2023
- $20,998—NBS for consulting services related to cost of service study/analysis
- $9,874—PG&E for electric service
- $19,328—Sierra Nevada Tire and Wheel for tires and service calls

Engineering Operations (Fund 210)

- $4,443—CLS Labs for regulatory lab testing

Water Operations (Fund 310)

- $9,250—Aqua-Tech Company for reservoir inspection and cleaning services
- $251,750—Cal Sierra Construction, Inc. for construction services ($265,000) – Bass Lake Tank #2 Recoating (T2021.22). Retention held $13,250
- $16,750—CDTFA for 2023/2024 water rights fees
- $4,530—Mr. Itchy's for insulation installation at Reservoir 1
- $4,096—PG&E for electric service
- $68,275—Pioneer Americas, LLC for sodium hypochlorite at Reservoir A, Reservoir 1 and EDHWTP
- $3,414—State Water Resources Control Board for annual water system fees
- $10,587—Thomas & Associates for pump rebuild parts for Outingdale raw water pump #2

Wastewater Operations (Fund 410)

- $4,063—CLS Labs for regulatory lab testing
- $7,049—Ferguson Enterprises, LLC for valve boxes, valve lids, sewer plugs, sewer fittings and flanges
- $13,480—Herc Rentals, Inc. for a vacuum assisted pump rental
- $69,992—PG&E for electric service
- $13,834—Pioneer Americas, LLC for sodium hypochlorite at EDHWWTP
- $132,242—State Water Resources Control Board for annual permit fees
- $45,835—Univar Solutions USA, Inc. for sodium hydroxide at DCWWTP and EDHWWTP
- $16,955—USALCO Modesto Plant, LLC for poly aluminum chloride at EDHWWTP
- $5,670—Watershed, LLC for custom Gore-Tex rain gear and rain gear repairs
- $5,066—Watson-Marlow, Inc. for pump element, lubricant and tubing

Recycled Water Operations (Fund 510)

- $6,570—PG&E for electric service
- $26,785—State Water Resources Control Board for annual permit fees
- $7,887—Univar Solutions USA, Inc. for sodium hydroxide at EDHWWTP

Hydroelectric Operations (Fund 610)

- $4,250—Carsten Tree Service for tree removal services
- $5,365—PG&E for electric service
- $4,084—STB Electrical Test Equipment, Inc. for two ArcGuard kits

Recreation Operations (Fund 710) – none to report

Capital Improvement Projects (Construction Funds 140, 340, 440, 540, 640 and 740)

- $5,430—Area West Engineers, Inc. for topographic and boundary survey services – Sly Park Intertie Improvements (Project #21079.01)
- $29,389—Cal Sierra Construction, Inc. for construction services ($30,936) – Bass Lake Tank #2 Rafter Replacement and Roof Rehabilitation (Project #23020.01). Retention held $1,547
- $11,616—Domenichelli and Associates, Inc. for engineering and design services:
  >Project #21026.01 – St. Andrews Lift Station Upgrades ($7,678)
  >Project #18003.01 – Indian Creek Lift Station Upgrades ($3,705)
  >Project #21008.01 – Diversion-Facility Upgrades ($233)
- $30,658—Herwit Engineering for engineering and construction management services:
  >Project #23010.01 – Reservoir 1 Water Treatment Plant Generator Replacement ($21,610)
  >Project #22038.01 – Reservoir A Filter Valve Replacements ($9,048)
- $25,128—ICM Group, Inc. for construction management and inspection services:
  >Project #22039.01 – EDHWWTP Filter 5 Rehabilitation ($15,210)
  >Project #21081.01 – Motherlode Force Main Replacement Program ($9,918)
- $6,333—KGS International, Inc. for specialty geotechnical inspection services – Echo Conduit Emergency Repairs (Project #23026.01)

- $4,977—LinkTek Corporation for software license and maintenance – Windows Server 2016 Upgrade (Project #19027.01)
- $25,785—MCK Americas, Inc. for construction inspection services – Diversion-Facility Upgrades (Project #21008.01)
- $12,595—Peterson Brustad, Inc. for professional engineering services – EDM2 Condition Assessment (Project #STUDY15.01)
- $11,950—Powerplan for the installation of a rotating brush grapple – Excavator Grapple Rake (Project #22031.01)
- $14,666— RoofConnect for recoating the headquarters facility roof – Headquarters Facility Improvements (Project #23027.01)
- $46,224—Stantec Consulting Services, Inc. for hydroelectric compliance services:
  >Project #06076H.01 – FERC: C38.4b Caples Spillway Channel Stabilization ($16,835)
  >Project #21079.01 – Sly Park Intertie Improvements ($29,389)
- $110,521—TNT Industrial Contractors, Inc. for construction and building services ($116,338) – Diversion-Facility Upgrades (Project #21008.01). Retention held $5,817
- $22,135—Water Works Engineers, LLC for engineering design services:
  >Project #22039.01 – EDHWWTP Filter 5 Rehabilitation ($8,000)
  >Project #22038.01 – Reservoir A Filter Valve Replacements ($7,118)
  >Project #21018.01 – 2022 Collection Pipeline Replacement ($7,017)
- $24,491—Zanjero for strategic support and technical assistance – Permit 21112 Change in Point of Diversion (Project #16003.01)

January 18, 2024

To: Jim Abercrombie, General Manager

From: Rebecca Lane, Finance and Accounting Manager

Via: Jamie Bandy, Director of Finance

RE: Warrant Register Executive Summary Approval

Attached is the summary for January 23, 2024 for your review and approval.

Executive Summary for January 23, 2024 -- $1,012,887.16:

This summary highlights significant disbursements made by major business activity:

Development Services (Fund 105) – none to report

General District Operations (Fund 110)

- $73,465—Association of California Water Agencies/JPIA for October – December 2023 workers' compensation insurance
- $3,195—Cintas for uniform and janitorial services
- $16,781—Farmers Insurance Exchange for flood damage claim payout (this is a replacement check, originally issued in 12/19/23 check run)
- $45,165—MARS Company for 2024 software renewal
- $16,599—Snap-On Industrial for a hydraulic vehicle lift system

Engineering Operations (Fund 210)

- $4,990—Zanjero for urban water use objective reporting services

Water Operations (Fund 310)

- $4,500—Elderd Land Management, Inc. for stump grinding services
- $3,118—Flomotion Systems, Inc. for a hydroxide system pump for Reservoir A
- $3,025—Grainger for elbows, tees, couplings, bushings, ball valves, connectors and other miscellaneous operating supplies
- $142,664—PG&E for electric service
- $4,668—Skid Pro Attachments for a snow plow blade
- $3,000—Tesco Controls, Inc. for flowmeter calibration services

Wastewater Operations (Fund 410)

- $5,236—Grainger for gloves, gate valves, filters, probes, couplings, safety gear and other miscellaneous operating supplies
- $74,382—PG&E for electric service
- $7,800—Tesco Controls, Inc. for flowmeter calibration services

Recycled Water Operations (Fund 510)

- $3,778—PG&E for electric service

Hydroelectric Operations (Fund 610)

- $4,342—GEI Consultants, Inc. for engineering services related to El Dorado FERC Project 184 dams
- $4,846—PG&E for electric service

Recreation Operations (Fund 710) – none to report

Capital Improvement Projects (Construction Funds 140, 340, 440, 540, 640 and 740)

- $73,768—Action Asphalt Maintenance, Inc. for asphalt paving services – Pinecone Campground Paving (Project #22047.01)
- $32,881—Aecom Technical Services, Inc. for environmental impact reporting – Permit 21112 Change in Point of Diversion (Project #16003.01)
- $132,525—Big Valley Electric for engineering services ($139,500) – Reservoir A Filter Valve Replacements (Project #22038.01). Retention held $6,975
- $7,613—Carollo Engineers, Inc. for engineering services:
  >Project #STUDY03.01 – Water Treatment Plant Assessments-Reservoir 1 ($1,903)
  >Project #STUDY03.02 – Water Treatment Plant Assessments-Reservoir A ($1,903)
  >Project #STUDY03.03 – Water Treatment Plant Assessments-EDHWTP ($1,903)
  >Project #STUDY03.04 – Water Treatment Plant Assessments-Strawberry WTP ($1,904)
- $3,455—Domenichelli and Associates, Inc. for engineering services – Crestview Pump Station Replacement Project (Project #17011.01)
- $17,216—Flo-Line Technology, Inc. for a submersible pump – Skinner Lane Lift Station Pump (Project #23037.01)
- $30,315—GEI Consultants, Inc. for engineering services – Silver Lake Dam Replacement (Project #19031.01)
- $30,351—GHD, Inc. for engineering design services – Flume 45 Section 3 Replacement (Project #22014.01)
- $5,818—ICM Group, Inc. for construction inspection services – EDHWWTP Secondary Effluent Pump Station Modifications (Project #21077.01)
- $204,215—WesTech Engineering, Inc. for filter and clarifier equipment and labor – EDHWWTP Filter 5 and 6 Rehabilitation (Project #22039.01)
- $13,205—Zanjero for strategic support and technical assistance – Permit 21112 Change in Point of Diversion (Project #16003.01)

January 25, 2024

To: Jim Abercrombie, General Manager

From: Rebecca Lane, Finance and Accounting Manager

Via: Jamie Bandy, Director of Finance

RE: Warrant Register Executive Summary Approval

Attached is the summary for January 30, 2024 for your review and approval.

Executive Summary for January 30, 2024 -- $1,699,082.53:

This summary highlights significant disbursements made by major business activity:

Development Services (Fund 105) – none to report

General District Operations (Fund 110)

- $3,953—Accurate Earthworks for a credit balance refund on customer account
- $4,644—AT&T for internet service
- $40,370—Big Valley Electric for release of retention held on project 19033.01 Reservoir A WTP PLC Replacement
- $49,167—CDW Government for disaster recovery software
- $8,892—City of Placerville for water and sewer service and false alarm fees
- $3,485—Colantuono, Highsmith & Whatley, PC for facility cap charge analysis
- $3,225—Douglas Leisz for a credit balance refund on customer account
- $3,750—Fieldman Rolapp & Associates, Inc. for financial consulting services
- $3,331—GP Development, Inc. for a credit balance refund on customer account
- $4,502—Hunt & Sons, Inc. for fuel deliveries at various locations
- $20,968—Infor Public Sector, Inc. for annual software subscription renewal
- $3,613—Jasper Engines & Transmissions for a Ram 1500 transmission
- $15,247—Pace Supply Corporation for warehouse inventory
- $9,500—Reeb Government Relations, LLC for February 2024 retainer
- $209,960—Savant Solutions for a three-year contract for cybersecurity monitoring services

Engineering Operations (Fund 210)

- $3,425—Central Valley Clean Water Association for CV-SALTS and membership renewal

Water Operations (Fund 310)

- $5,880—Aqua-Tech Company for reservoir cover inspection services
- $5,991—BSK Associates for regulatory lab testing
- $73,722—Corning Ford, Inc. for a 2024 Ford F-250 truck with utility bed
- $9,992—Dudek for biological survey services for the Camino Conduit segment related to the Right-of-Way Reinforcement program
- $8,715—Grainger for valves, heating cables, elbows, unions, bushings, and miscellaneous tools and office supplies
- $8,956—Hastie's Capitol Sand and Gravel Co. for rock deliveries
- $36,356—NTU Technologies, Inc. for polymer at Reservoir 1
- $5,242—Owen Equipment Sales for a ripsaw, Y strainers, a filter, a male disconnect and nozzles
- $11,560—Pace Supply Corporation for bolts, gaskets, flanges, valves, pipe, a pipe saddle, a valve position transmitter and pre-mixed asphalt repair material
- $59,702—U.S. Bureau of Reclamation for Folsom water deliveries and restoration fund payments
- $53,900—U.S. Geological Survey for 2023-2024 stream gauging program
- $9,866—Univar Solutions USA, Inc. for sodium hydroxide at Reservoir A
- $23,392—USA Bluebook for various operating, safety and laboratory supplies

- $5,714—Watershed, LLC for custom Gore-Tex rain gear

Wastewater Operations (Fund 410)

- $12,813—All Electric Motors, Inc. for pump motor repair services
- $5,360—AutomationDirect.com, Inc. for two air conditioners, transducers and adapters
- $27,828—Celadon Holdco for solar electric service at EDHWWTP and DCWWTP
- $4,091—CLS Labs for regulatory lab testing
- $4,164—Grainger for air filters, pressure gauges, fuses, ball valves and other miscellaneous tools and operating supplies
- $8,423—Hastie's Capitol Sand and Gravel Co. for rock deliveries
- $5,175—Mallory Safety and Supply, LLC for safety supplies, sensor calibration and backflow testing services
- $8,940—Solenis, LLC for polymer at EDHWWTP
- $9,682—USA Bluebook for water suction and discharge hoses and differential pressure transmitters

Recycled Water Operations (Fund 510) – none to report

Hydroelectric Operations (Fund 610)

- $4,030—Kleinfelder, Inc. for hydroelectric compliance services

Recreation Operations (Fund 710) – none to report

Capital Improvement Projects (Construction Funds 140, 340, 440, 540, 640 and 740)

- $82,175—Advanced Material Handling, LLC for a forklift – Camp 5 Lumber Rack System (Project #22015.01)
- $58,187—Big Valley Electric for engineering services ($61,250) – Reservoir A WTP PLC Replacement (Project #19033.01). Retention held $3,063
- $30,230—Carollo Engineers, Inc. for engineering services:
  >Project #23009.01 – Reservoir 1 Storage Replacement ($28,135)
  >Project #STUDY10.01 – Integrated Water Resources Master Plan ($2,095)
- $178,804—Corning Ford, Inc. for two 2024 Ford F-350 trucks with utility beds – Vehicle Replacement Program (Project #24003.01)
- $3,750—Crete Crush, LLC for dump charges – Water Service Line Replacement Program (Project #23002.01)
- $186,567—Department of Water Resources for Division of Safety of Dams application fee – Silver Lake Dam Replacement (Project #19031.01)
- $11,678—Hastie's Capitol Sand and Gravel Co. for rock deliveries – Water Service Line Replacement Program (Project #23002.01)
- $124,581—KPR Consulting, Inc. for filter valves – Reservoir A Valve Replacement (Project #22038.01)
- $5,693—Network Design Associates, Inc. for consulting services – VMWare Virtual Desktop Infrastructure (Project #23043.01)

- $23,000—Raftelis for business and technology consulting services – Hansen 7 Software Replacement (Project #18055.01)
- $5,934—Stantec Consulting Services, Inc. for engineering services – Annual Reservoir & Dam Improvements (Project #23022.01)
- $48,734—USDA Forest Service for annual special use fees – FERC: C51.5 and C51.7 RM USFS Payments (Project #07006H.01)
- $37,864—Water Works Engineers, LLC for engineering and project management services:
  >Project #22039.01 – EDHWWTP Filter 5 and 6 Rehabilitation ($5,017)
  >Project #17035.01 – Green Valley Bridge Relocation ($976)
  >Project #23047.01 – Rancho Del Sol Pressure Reduce ($7,535)
  >Project #22038.01 – Reservoir A Filter Valve Replacements ($17,077)
  >Project #23046.01 – Ridgeview Hydropneumatic Tank ($660)
  >Project #23032.01 – Marina Village No. 1 Lift Station ($1,097)
  >Project #23026.01 – Echo Conduit Emergency Repairs ($2,774)
  >Project #19008.01 – EDM 1 Relocation/Camino Safety Project ($2,728)
- $14,895—Youngdahl Consulting Group, Inc. for geotechnical compaction testing services:
  >Project #23002.01 – Water Service Line Replacement Program ($6,760)
  >Project #21008.01 – Diversion-Facility Upgrades ($8,135)

Attachment B

Employee Expense Reimbursements
Warrant Registers dated 01/16/24, 01/23/24, and 01/30/24

EMPLOYEE	DESCRIPTION	AMOUNT
Andrea Miron	Tuition Reimbursement	$3,000.00
Brian Mueller	Prof Engineer License Renewal	$180.00
Daniel Corcoran	Financial Management Workshop	$285.00
Kristen Vinton	Tuition Reimbursement	$2,296.00
Seth Borba	Food for Valve Repairs Crew / T2 Cert Renewal	$242.04
Richard Wheeler	E&I TECH GR3 CWEA EXAM APP FEE	$222.00
		$6,225.04

EL DORADO IRRIGATION DISTRICT

SUBJECT: Consider approving a contract amendment to Water Works Engineers, Inc. in the not-to-exceed amount of $199,724 for additional engineering services and authorize additional funding in the amounts of $200,000 for easement acquisitions and $75,000 for capitalized labor for a total funding request of $474,724 for the Sly Park Intertie Improvements Project, Project No. 21079.

PREVIOUS BOARD ACTION

December 13, 2021 – Board adopted Resolution No. 2021-017 authorizing the California Department of Water Resources Urban and Multi-benefit Drought Relief Program Grant Application, Acceptance and Execution for Sly Park Intertie Improvements, Capital Improvement Plan Project No. 21079.

February 14, 2022 – Board awarded a contract to Water Works Engineers, Inc. in the not-to-exceed amount of $1,083,776 for design of the Sly Park Intertie Improvements, and authorized additional funding in the amounts of $200,000 for on-call environmental consulting services, $200,000 for capitalized labor, and $145,000 in project contingency for a total funding request of $1,628,776 for the Sly Park Intertie Improvements Project, Project No. 21079.

January 23, 2023 – Board approved a contract amendment to Water Works Engineers, Inc. in the not-to-exceed amount of $259,943 for easement acquisition services for the Sly Park Intertie Improvements and authorized additional funding of $259,943 for the Sly Park Intertie Improvements Project, Project No. 21079.

February 13, 2023 – Board approved a contract amendment to Water Works Engineers, Inc. in the not-to-exceed amount of $370,094 for design of the Sly Park Intertie Improvements and authorize additional funding of $370,094 for the Sly Park Intertie Improvements Project, Project No. 21079.

April 24, 2023 – Board approved contract amendments to Water Works Engineers, Inc. in the not-to-exceed amount of $124,988 for geotechnical investigations and Area West Engineers, Inc. in the not-to-exceed amount of $21,680 for additional topographic surveys, and authorize additional funding of $146,668 for the Sly Park Intertie Improvements Project, Project No. 21079.

October 23, 2023 – Board adopted the 2024-2028 Capital Improvement Plan, subject to available funding.

BOARD POLICIES (BP), ADMINISTRATIVE REGULATIONS (AR) AND BOARD AUTHORITY

BP 3010 Budget
BP 3060 Contracts and Procurement
BP 5000 Water Supply Management
BP 5030 Water Conservation

SUMMARY OF ISSUE

The District has been proceeding with the design of the Sly Park Intertie Improvements Project (Project). Completion of design and construction contract bidding is scheduled for this spring. Following the 80% design submittal, staff identified the need for additional engineering services to incorporate final additional design elements. Funding is also necessary to support completion of easement acquisition efforts and capitalized labor to prepare and advertise the construction contract bid package.

BACKGROUND/DISCUSSION

The Sly Park Intertie (SPI) pipeline was originally constructed as an emergency project in 1978 to alleviate water shortages during drought conditions experienced in 1976 and 1977. The SPI extends approximately four miles from the Reservoir 1 Water Treatment Plant (Res 1) to Reservoir A Water Treatment Plant (Res A), with turnouts to the Moose Hall Transmission pipeline and the Sly Park Hills Tank. The pipeline provides an intertie between the District's two largest supply sources—Project 184 and Jenkinson Lake—and their associated water treatment facilities. Together, they provide two-thirds of the District's water supply to customers in the communities of Pollock Pines, Camino, Placerville, Pleasant Valley, Diamond Springs, El Dorado, Lotus, Shingle Springs, Cameron Park, and at certain times of the year, El Dorado Hills.

Since its construction, the unlined pipeline has corroded significantly, resulting in multiple leaks throughout the pipeline that forced the District to take it out of service in 2013. The Project would significantly increase water reliability by completely replacing the pipeline and constructing a new pump station to operate the pipeline in both directions between the two treatment plants, depending on operational needs, drought, and seasonal maintenance or emergency outages.

Engineering Services

Water Works Engineers and staff conducted several design review workshops to discuss the civil, mechanical, structural, and electrical elements of the Project. The feedback that precipitated the workshops included input on pipe constructability, proposed operation of the SPI pump station, footprint considerations at Res A, seasonal flow and hydraulic conditions, and overall construction scheduling. To ensure the efficient and effective operation of the Project elements, additional engineering services are necessary, as summarized below.

Thrust block design - The Project requires confined construction limits in steep and mountainous terrain, which presents challenges during typical pipeline construction. The large footprint of typical thrust block design is not constructible; therefore, custom thrust block design is necessary for each bend greater than 11.25 degrees. Thrust blocks are used in pipeline construction to prevent separation of pipe joints and pipe movement caused by changes in hydraulic conditions.

Caltrans encroachment permit – The existing SPI crossing under Highway 50 will be abandoned and a new pipeline will be constructed under Ridgeway Drive to accommodate future operation and maintenance activities. Abandoning the existing alignment requires supporting documentation and a Caltrans encroachment application to receive an encroachment permit.

Realignment near existing facilities - Navigating around septic tank leach lines and active drainage culverts requires realignment in several areas and requires a Division of Drinking Water variance of traditional water pipe setbacks.

SPI pump station emergency fuel storage - The new SPI pump station will be located within the Res A facility, which is subject to winter storms and frequent power outages. The standard practice at Res A is to maintain an adequate fuel supply for backup generators to offer three days of continual power. This operational flexibility provides for continual operation when a power

outage occurs during excessive snowfall and road blockages. Adding an emergency fuel tank to the Project will give the SPI pump station the same operational flexibility as the surrounding Res A facilities. Design includes tank sizing, site modifications, and specification development.

Fiber optic extension – Fiber optic cabling is necessary to support the new SPI pump station controls on the southwest corner of Res A. The bid documents will specify conduit and fiber optic cabling to be installed parallel to the new SPI trench.

Demolition of old SPI raw water pump station – the old SPI raw water pump station is housed within a building that can be repurposed for operational uses. All civil, mechanical, structural, electrical, and control instrumentation will be identified in the bid documents to be properly decommissioned and disposed of.

Camino Conduit and Pleasant Oak Main flow meters and motor operated valves – The existing flow meters at Res A are old and inaccurate. Replacing these meters will improve water production accounting and more accurately calculate and address system water losses, which is a large component of the State's new water conservation regulations. Also, motor-operated valves are needed to provide a flooded suction condition to operate the new SPI pump station. The design effort will include a technical memorandum to identify flow meter sizes as well as civil, mechanical, structural, electrical, and control instrumentation design to specify a new concrete structure, flow meters, and motor-operated valves.

Pre-purchase support for long-lead time equipment – Equipment included in the Project such as electrical panels, gears, variable frequency drives, vertical turbine pumps, and generators have excessive lead times and have the potential of delaying the completion of the Project. The designer will support the District in the pre-purchase effort by developing drawings and specifications specific to procurement, perform submittal review, and modify the construction bid documents to indicate pre-purchased items.

Staff negotiated a contract amendment with our design consultant, Water Works Engineers, Inc., in the not-to-exceed amount of $199,724 for these additional engineering services.

Easement Acquisition

While there are existing easements associated with the SPI alignment, additional temporary construction easements and permanent easements are necessary to account for constructability and alignment adjustments. The design team has been actively engaging with Pollock Pines property owners to secure temporary construction easements and permanent easement agreements where needed. These agreements are conditioned upon the completion of environmental review and the Board of Directors' approval of the construction contract. Funding is needed at this time to secure the compensation specified in the agreements.

Schedule

Below is the anticipated schedule for the Project through construction. Staff anticipates completing the design by March, bidding the construction contract this spring and beginning construction this summer.

Table 1: Anticipated Project Schedule

Final Design	February 2024
Construction Bidding	March – April 2024
Construction Contract Award and Environmental Certification	April 2024
Construction	May 2024 – December 2025

FUNDING

The 2024-2028 Capital Improvement Plan estimated $31 million of expenditures for the remaining design, environmental, easement acquisition and construction of the Project. Recent engineer's estimate for the Project reflected an increased construction cost of approximately $35 million. Construction costs will be funded by a future 2024 bond issuance and a previously secured $10 million grant from Department of Water Resources. The District also secured a $750,000 grant via El Dorado County from American Rescue Plan Act funding for the design phase of the Project. Staff requests additional funding of $474,724 for the above-described engineering services, easement acquisition, and capitalized labor to advertise and award the construction contract as follows:

Table 2: Funding Requirements

Additional engineering services	$199,724
Easement acquisition	$200,000
Capitalized labor	$75,000
Total funding request	**$474,724**

BOARD OPTIONS

Option 1: Approve a contract amendment to Water Works Engineers, Inc. in the not-to-exceed amount of $199,724 for additional engineering services and authorize additional funding in the amounts of $200,000 for easement acquisitions and $75,000 for capitalized labor for a total funding request of $474,724 for the Sly Park Intertie Improvements Project, Project No. 21079.

Option 2: Take other action as directed by the Board.

Option 3: Take no action.

RECOMMENDATION

Option 1

ATTACHMENTS

Attachment A: CIP summary
Attachment B: Water Works cost proposal

Liz Carrington
Senior Civil Engineer

Jon Money
Engineering Manager

Brian Mueller
Engineering Director

For
Jamie Bandy
Finance Director

Brian Poulsen
General Counsel

Jim Abercrombie
General Manager

2024 **CAPITAL IMPROVEMENT PLAN** **Program:** **Water**

Project Number: 21079

Project Name: Sly Park Intertie Improvements

Project Category: Reliability & Service Level Improvements

Priority: 2 **PM:** Carrington **Board Approval:** 10/23/23

Project Description:

The Sly Park Intertie is a key component of supply reliability in times of drought and during emergencies. In service it provides water delivery flexibility between Reservoir A WTP and Reservoir 1 WTP. The Intertie includes approximately 3.5 miles of 22" and 30" steel waterline built under emergency conditions just after the 1976-77 drought. The unlined pipeline has corroded significantly due to lack of cathodic protection and due to the volume of leaks it was taken out of service. The Sly Park Intertie improvements were identified as a supply reliability project in the 2013 Integrated Water Resources Master Plan. Previous engineering reports from the mid 1990's and in 2006 explored the possibility of rehabilitating the pipeline with a non-structural liner. However, a 2020 study found that the wall loss was too significant to be cost effective to install a liner and thus explored a complete removal and replacement. The 2020 study includes analysis of changed operations that could reduce pumping head up to 180 feet by pumping water from Reservoir A to Reservoir 1 during annual Forebay outages with a new pump station placed at the outlet of Reservoir A, rehabilitation options, direct replacement alternatives analysis, and a financial analysis. The ability to move water between Reservoir 1 and Reservoir A will also allow for a long overdue inspection of the 60 year old Camino Conduit between Jenkinson Reservoir and Reservoir A WTP, additionally it will provide time for the rehabilitation of valves within the dam that are in need of service or replacement, and provide a longer window for scheduled Reservoir A WTP maintenance. The estimated pipeline construction project cost at this time is $28 million for an open cut replacement based on the 2020 Draft Evaluation of Rehabilitation Alternatives Technical Memorandum. Cost estimates are based on a 10% design level of confidence and include a 30% construction contingency. Typical contingencies for 10% design level cost estimates range between 30% and 100%. The contingency used for this cost estimate is at the low end of the range and higher actual costs are likely. Staff will continue to pursue any grant funding that may become available.

Basis for Priority:

Replacement of the pipeline and installation of a new pump station will ensuring water supply flexibility/reliability between the two major gravity supply sources that provide two thirds of the District's water supply.

Project Financial Summary:			
Funded to Date:	$ 2,721,464	**Expenditures through end of year:**	$ 1,606,383
Spent to Date:	$ 1,106,383	**2024 - 2028 Planned Expenditures:**	$ 20,900,000
Cash flow through end of year:	$ 500,000	**Total Project Estimate:**	$ 22,506,383
Project Balance	$ 1,115,082	**Additional Funding Required**	$ 19,784,918

Description of Work	**Estimated Annual Expenditures**					
	2024	**2025**	**2026**	**2027**	**2028**	**Total**
Design	$300,000	$ 300,000				$ 600,000
Environmental	$ 100,000	$ 100,000				$ 200,000
Right of Way	$ 100,000					$ 100,000
Construction	$ 15,000,000	$ 15,000,000				$ 30,000,000
Grant Offset	$ (5,000,000)	$ (5,000,000)				$ (10,000,000)
TOTAL	$ 10,500,000	$ 10,400,000	$ -	$ -	$ -	$ 20,900,000

Estimated Funding Sources	**Percentage**	**2024**	**Amount**
2024 Bond	100%	$	9,384,918
Total	**100%**	**$**	**9,384,918**

Funding Comments:

AMENDMENT 4 SCOPE AND FEE PROPOSAL

Attachment B

January 15, 2024

El Dorado Irrigation District (EID)
Liz Carrington, P.E. - Senior Civil Engineer

Subject: Water Works Engineers, LLC Scope & Fee Proposal for Amendment 4 to the Professional Services Agreement with Eldorado Irrigation District (EID) for the Sly Park Intertie Improvements Project (EID Project No. 21079.01)

Dear Ms. Carrington:

In October of 2023, Water Works Engineers, LLC (Water Works, or WWE or ENGINEER) submitted an 80% design of the Sly Park Intertie (SPI) Improvement Project ("Project"). Water Works current professional services agreement scope of work includes 60%, 95% and 100% design submittals. This additional 80% design submittal was completed by Water Works to capture and communicate changes to the design necessary to meet El Dorado Irrigation District (EID, or District) staff input, comments and additional information received regarding design flows/system hydraulics and operational details related to the Res A WTP. Additional information related to how the Res A WTP operated and how operations staff intended to utilize the project improvements impacted Water Works design at the filter building and the SPI pump station. In addition, Water Works completed utility potholing and geotechnical services between the 60% and 80% and the District's surveyor provided updated/corrected survey information, the results of which had to be incorporated into the design. Water Works completed the additional 80% submittal at no additional cost to the District.

In late October and November of 2023, Water Works facilitated several 80% design review workshop(s) with District staff to confirm the additional information provided at the 60% had been captured accurately in the 80% design. During those workshops and in written drawing comments, Water Works received considerable new input and additional facility improvements from District staff that were not contemplated in the original design scope of work, nor communicated previously as part of the BODR/30% and 60% reviews. These additional improvements and design changes will require additional engineering effort not contemplated with the current approved scope of work and budget. It is estimated that these improvements have added $5M in construction cost to the project.

Water Works is pleased to submit to EID this Amendment 4 Scope and Fee Proposal for the additional services as described herein. These services shall be provided for the not to exceed fee presented herein, on a time plus expense basis in accordance with our project Rate Sheet. For detailed labor estimate by staff position see attached fee estimate spreadsheet. The following summarizes estimated costs by task:

Subtask	Title	Not to Exceed Fee
A4-1	THRUST BLOCKS	$29,808
A4-2	AUXILIARY ABOVE GROUND FUEL TANKS	$41,348
A4-3	COM/POM FLOW METERS AND MOTOR OPERATED VALVES	$44,892
A4-4	DEMOLITION OF EXISTING SPI PUMP STATION	$19,968
A4-5	CALTRANS ENCROACHMENT PERMIT EXISTING SPI CROSSING ABANDONMENT	$7,548
A4-6	FIBER OPTIC EXTENSION PARALLEL SEPARATE ALIGNMENT	$8,352
A4-7	REVISED ALIGNMENT OF SPH PIPELINE SLIPLINING / DDW VARIANCE	$10,252
A4-8	PRE-PURCHASE LONG LEAD EQUIPMENT DESIGN UPDATES	37,556
	Subtotal (Amendment 3 Services)	**$199,724**

The following summarizes the scope of work assumed for each additional service.

Subtask A4-1: THRUST BLOCKS

- ENGINEER shall provide engineering services necessary to design thrust blocks on all angles equal to or greater than 11.25 degrees. The proposed pipe material is a fully restrained pipe and thrust blocks are not typically included on such pipe, however District has requested these be added to the design. ENGINEER will attempt to utilize District standard design where possible, but it is understood that many locations along the alignment may not have sufficient space given permanent easement limitations, operating pressures and size of resultant thrust block and thus individual design to minimize space requirements will be required in some locations. It is anticipated that every plan and profile of the proposed pipe improvements will require review by engineer to identify all locations that may require such blocks and design details will be added to the plan sheet and additional thrust block standard detail sheets. It is also understood that the proposed approach to delivery of the engineered restrained pipe may result in additional angles being required based on unforeseen field conditions. ENGINEER has not included those unknown field changes in the design at this time and would provide such field engineering as part of future engineering services during construction Deliverables for these additional thrust blocks shall be incorporated into the deliverables already defined in the existing scope of work.

Subtask A4-2: AUXILIARY ABOVE GROUND FUEL TANKS

- ENGINEER shall provide engineering services necessary to evaluate, size and incorporate an above grade auxiliary diesel fuel storage tank for the emergency power generators. ENGINEER shall develop a technical memorandum (TM) describing key design features, layout alternatives and sizing necessary to operate 1 or 2 SPI pumps for varying times. It is anticipated that the District will review the TM and provide ENGINEER with direction on which size to provide. However, given time constraints on project for bid, ENGINEER will incorporate site layout and grading design changes to support the diesel tank regardless of if the District chooses to install it with the project or at a later date. Desing services will include mechanical, structural, civil and electrical, instrumentation and controls, including coordinating with PG&E and researching regulatory impacts associated with the quantity of stored fuel necessary to provide operation of 2 pumps for up to 5 days (anticipated to be over 6,000 gallons). ENGINEER will incorporate the District approved tank size into the SPI Pump Station design. Deliverables for this shall be incorporated into the deliverables already defined in the existing scope of work.

Subtask A4-3: COM/POM FLOW METERS AND MOTOR OPERATED VALVES

- ENGINEER shall provide engineering services necessary to evaluate, size and incorporate replacement of the existing COM and POM flowmeters. ENGINEER will produce a technical memorandum ™ summarizing the flowmeter sizes and accuracy and impacts on hydraulics of the transmission lines. It is anticipated that the District will review the TM and direct ENGINEER to install full size magnetic flow meters matching the nominal diameter of the POM and COM pipelines (36”-48”). ENGINEER will design parallel small diameter (nominal 6”) flow meters for each line so that under low flow conditions, where large diameter flowmeters will operate under reduced accuracy, flow can be directed through these flowmeters to maintain accuracy. ENGINEER will also design motor operated valves and standpipes to maintain hydraulic conditions upstream of flowmeters to keep SPI pump in flooded suction condition when they operate and support hydraulics of downstream pipeline operations. Site design will require poured in place below grade concrete structure to house the flowmeters and motor operated valves, as well as retaining wall and grading to provide access for operations and maintenance of the facilities. Desing services will include mechanical, structural, civil and electrical, instrumentation and controls, including coordinating with District operations staff to develop control strategy that coordinates matching of Jenkinson inlet flows, RES-A WTP operations/flow with POM/COM/SPI PS flows. Deliverables for this shall be incorporated into the deliverables already defined in the existing scope of work.

Subtask A4-4: DEMOLITION OF EXISTING SPI PUMP STATION

- ENGINEER shall provide engineering services necessary to decommission the existing SPI Pump Station. Desing services will include mechanical, structural, civil and electrical, instrumentation and controls, decommissioning details to support repurposing the station in accordance with District request provided with 80% design review comments. ENGINEER will conduct an additional site visit to obtain pictures to be used in development of demolition/decommissioning details. Drawing notes and technical specifications will include requirement for Contractor to haul all equipment as the District does not wish to keep any of the equipment. Deliverables for this shall be incorporated into the deliverables already defined in the existing scope of work.

Subtask A4-5: CALTRANS ENCROACHMENT PERMIT EXISTING SPI CROSSING ABANDONMENT

- ENGINEER shall provide engineering services necessary support to District in submitting plans and supporting documentation for District's use in obtaining the following Caltrans encroachment permit (incorporated into previously scoped Caltrans permitting effort where possible):

  Caltrans (abandonment of existing SPI crossing)
  Standard Encroachment Permit (Form TR-0100), requiring:
  - Plans
    - Typical plan set content (e.g., plan and profiles, sections, notes, etc.)
    - Traffic control plan, with detour schematics as required by Caltrans
    - Boundary Survey Drawing– limited to Caltrans ROW (survey by District)
    - Assumptions:
      - The following items are **not** included in the plan set to be submitted, as they are deemed not applicable during the proposal development:
        - Electrical Plans – No electrical improvements in the Project
        - Drainage Plan; Hydrology Map and Calculations; Storm Drain Plans, Profiles, and Details; – Project does not include mods to site drainage
        - Planting and Irrigation Plans
        - Signal and Lighting Plans
        - Signal Warrant Studies
        - Street Improvement Plan
        - Structural Plans and Calculations
      - Provided by Contractor as deferred submittal (means and methods of Contractor)
        - Shoring Plans
        - Steel Plating
        - Traffic Control Plan (updates per selected means and methods)
        - Traffic Management Plan (Detour details, if required by Caltrans)
  - Supporting Documents
    - The following items are **not** included in the supporting documents to be submitted, as they are deemed not applicable during the proposal development:
      - Drainage Report; Erosion and Sediment Control Plan / BMP – Project does not include modifications to site drainage
      - Traffic Study Report
    - Provided by Contractor, as deferred submittal for permit issuance
      - Storm Water Pollution Prevention Plan (SWPPP)
      - Water Pollution Control Plan (WPCP)
  - Bonds/Insurance – To be provided by District
  - Permit Fees – To be provided by District
  - Any Environmental Documentation Required by Caltrans – To be provided by District

Subtask A4-6: FIBER OPTIC EXTENSION PARALLEL SEPARATE ALIGNMENT

- ENGINEER shall provide engineering services necessary to incorporate a separate fiber optic conduit alignment outside of the SPI pipeline trench into the design. The alignment shall be generally parallel to the new SPI Pipeline between the Res-A Filter Building and the new SPI Pump Station electrical room. ENGINEER shall utilize record drawing (provided by District), site reconnaissance and potholing data to align the fiber to minimize conflicts with known existing utilities. It is understood by ENGINEER and District that the proposed alignment is extremely congested with existing utilities and the new SPI pipe alignment is utilizing the majority of the available corridor where minimal existing conflicts have been identified via previous field work and design analysis. As such, there is a high likelihood that field changes to the parallel fiber alignment will likely be necessary during construction. ENGINEER has not included those unknown field changes in the design at this time and would provide such field engineering as part of future engineering services during construction Deliverables for this additional segment shall be incorporated into the deliverables already defined in the existing scope of work.

Subtask A4-7: REVISED ALIGNMENT OF SPH PIPELINE SLIPLINING / DDW VARIANCE

- ENGINEER shall provide engineering services necessary to modify the proposed SPH slipline pipe rehabilitation to a realignment where existing alignment is within 25-ft of known septic tank and leach field. The realignment will utilize existing available space as determined through site reconnaissance and discussion with District, US Forrest Service and Sly Park Conservation & Environmental Education Center staff. The realignment will likely still require submittal of a variance to Division of Drinking Water (DDW). DDW variance will also be required for several culvert crossings along the alignment where the SPI pipeline will be required to go under the culvert. In addition to updates to the SPH design to accommodate replacement new open cut replacement, in lieu of sliplining, ENGINEER will assist District with DDW variance submittals. SPH design deliverables for this additional realignment shall be incorporated into the deliverables already defined in the existing scope of work.

Subtask A4-8: PRE-PURCHASE LONG LEAD EQUIPMENT DESIGN UPDATES

- ENGINEER shall provide engineering services necessary to produce drawings and technical specifications to support District in publica advertising, selecting and procuring long lead electrical and mechanical equipment necessary to promote construction of SPI Project by January of 2026. It is understood by ENGINEER and District that certain equipment is significantly impacted by manufacturer procurement limitations. ENGINEER will produce pre-purchase equipment technical specifications and drawings for Tier 4 Emergency Generators, Electrical Panels / Gear, Variable Frequency Drives (VFDs) and Vertical Turbine Pumps. District will utilize these technical specifications and drawing to publicly bid the pre-purchase the equipment prior to public bid of overall project. ENGINEER will also update design deliverables for SPI project to include Pre-Purchased Equipment Technical Specifications and requirements for SPI Contractor to take responsibility/delivery of this pre-purchase equipment and assume responsibility for its installation as part of the SPI project. Pre-Purchase deliverables shall be completed prior to SPI public bid. Pre-Purchase Equipment contractor requirements shall be incorporated into SPI project deliverables once confirmation of this approach is approved by District (anticipated to be 100% deliverable).

SCHEDULE

We are prepared to initiate our services immediately upon receipt of authorization to proceed. Our studies are anticipated to be completed in accordance with current approve project schedule. Please note that the time to complete these tasks will be influenced by receipt of notice to proceed, which are out of our team's control. Our team will work expeditiously to execute the work within the project schedule. The design updates described herein will be included in all deliverables scheduled after the actual date of notice to proceed by District.

If you have any questions regarding this Cost Proposal, please contact Mike Fisher at (916) 277-9027 (mikef@wwengineers.com).

Very Truly Yours,
Water Works Engineers, LLC

Michael J Fisher, P.E.
Project Manager / Principal In Charge

ATTACHMENTS
1 - AMENDMENT 4 COST PROPOSAL - DETAILED LABOR AND FEE ESIMATE BY STAFF POSITION

ATTACHMENT 1

AMENDMENT 4 COST PROPOSAL

DETAILED LABOR AND FEE ESTIMATE BY STAFF POSITION

El Dorado Irrigation District (EID)
SLY Park Intertie Professional Engineering Services
EID Project No. 21079.01
AMENDMENT 4 COST PROPOSAL - DETAILED LABOR AND FEE ESTIMATE BY STAFF POSITION

Task		WWE 2022 Rate Schedule														Project Budget Totals		
	Team Member Classification	E5	E5	E4	E4	E3	E3	E3	E1	T3	T2	T1	AA1	Sub	Sub	Expenses			
	Team Member Name	**Mike Fisher** Project Manager	**Todd Kotey** Pipeline SME	**Durbin / Ziemann / Riess** QAQC	**Steve Hooper** Constructability / CM	**Tim Lewis** Lead Project Engineer	**Alacon / Baltazar / Karbakhsh** Project Engineer	**Himai Mehere** Proj. Engineer - Structural	**Staff Engineer**	**Webster / Worrall** Senior Designer	**Designer / CADD**	**CADD Technician**	**Administrative**	**ControlPoint Engineering** Electrical, I&C	**Bender Rosenthal Inc** Easement Procurement, ROW	**WWE Direct Costs** Reproduction, postage, mileage, etc.			
No.	**Description**	$256	$256	$221	$221	$191	$191	$197	$139	$153	$126	$94	$77	LS	LS	LS	**Sub-Task**	**Task**	**WWE Hours**
A4-1	**THRUST BLOCKS**																	**$29,808**	**180**
1.1	DESIGN - Thrust Blocks	4	24	8		24		24	24	16	16	40					$29,808		180
A4-2	**AUXILIARY ABOVE GROUND FUEL TANKS**																	**$41,348**	**212**
2.1	TM - Above Ground Fuel Tank TM	4		2		8	20	2	20	36				$2,500			$17,996		92
2.2	DESIGN - Above Ground Fuel Tank	4		4		16	16	4	16	20		40		$5,500			$23,352		120
																	$0		0
A4-3	**COM/POM FLOW METERS AND MOTOR OPERATED VALVES**																	**$44,892**	**236**
3.1	TM - COM/POM Flowmeter TM	4		2		8	20	2	20	36				$2,500			$17,996		92
3.2	DESIGN - COM/POM Flowmeter TM	4		4		8	16	8	16	48		40		$5,500			$26,896		144
																	$0		0
A4-4	**DEMOLITION OF EXISTING SPI PUMP STATION**																	**$19,968**	**86**
4.1	DESIGN - Demolition		4	2		16			24			40		$8,000		$350	$19,968		86
A4-5	**CALTRANS ENCROACHMENT PERMIT EXISTING SPI CROSSING ABANDONMENT**																	**$7,548**	**50**
5.1	Caltrans Permit	2	2			8			16	6		16				$350	$7,548		50
A4-6	**FIBER OPTIC EXTENSION PARALLEL SEPARATE ALIGNMENT**																	**$8,352**	**46**
6.1	DESIGN - Fiber Optic Alignment	2				4			8	16	16			$1,500			$8,352		46
A4-7	**REVISED ALIGNMENT OF SPH PIPELINE SLIPLINING / DDW VARIANCE**																	**$10,252**	**64**
7.1	DESIGN - Realignment		2			4			16		16					$750	$6,266		38
7.2	DDW Variance(s)			2		4			20								$3,986		26
A4-8	**PRE-PURCHASE LONG LEAD EQUIPMENT DESIGN UPDATES**																	**$37,556**	**178**
8.1	DESIGN - Pre-Purchase Equipment Specs & Drawings	2	8	4		24	24	4		8		16		$6,500			$22,628		90
8.2	DESIGN - Incorporation into SPI 100% Design		4	2		16	16	2		16		32		$1,500			$14,928		88
BUDGET TOTALS (WWE Hours)		26	44	30	0	140	112	46	180	202	48	224	0						**988**
BUDGET TOTALS (Fee)		$6,656	$11,264	$6,630	$0	$26,740	$21,392	$9,062	$25,020	$30,906	$6,048	$21,056	$0	$33,500	$0	$1,450		**$199,724**	

Sly Park Intertie Improvements Project

Design Contract Amendment
and Funding Request

Project No. 21079.01

February 12, 2024

Previous Board Actions

- February 14, 2022 – Board awarded a contract to Water Work Engineers, Inc. in the not-to-exceed amount of $1,083,776 for design of the Sly Park Intertie Improvements

- January 23, 2023 – Board approved a contract amendment to Water Works Engineers, Inc. in the not-to-exceed amount of $259,943 for easement acquisition services

- February 13, 2023 – Board approved a contract amendment to Water Works Engineers, Inc. in the not-to-exceed amount of $370,094 for additional pipeline design

Previous Board Actions

- April 24, 2023 – Board approved contract amendments to Water Works Engineers, Inc. in the not-to-exceed amount of $124,988 for geotechnical investigations and Area West Engineers, Inc. in the not-to-exceed amount of $21,680 for additional topographic surveys

- October 23, 2023 – Board adopted the 2024-2028 Capital Improvement Plan, subject to available funding

Summary of Issue

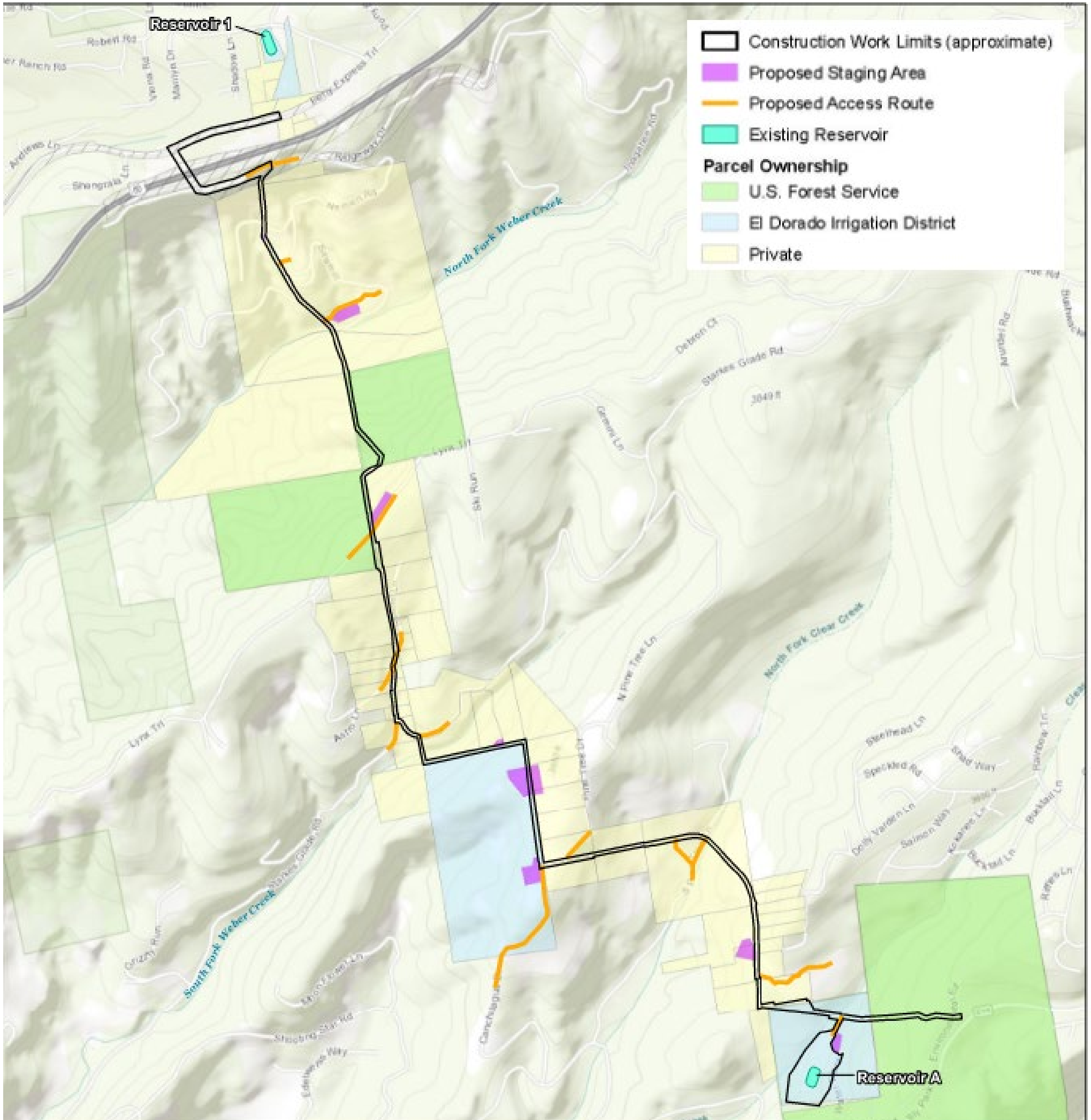
- Design of the Sly Park Intertie Improvement Project (Project) is nearing completion
- Additional engineering services needed to complete the final elements of the design
- Additional funding for easement acquisitions and capitalized labor to finalize design and bid project

Background

- Sly Park Intertie (SPI) pipeline was constructed in 1978 to alleviate water shortages during 1976 and 1977 drought
- 3.5 miles of steel pipe and pump station
  - Critical link for water conveyance between the Reservoir 1 WTP and Reservoir A WTP and distribution systems
- Non-standard pipe with no interior lining
- Substantial leaks and pipe failures required removal from service in 2013

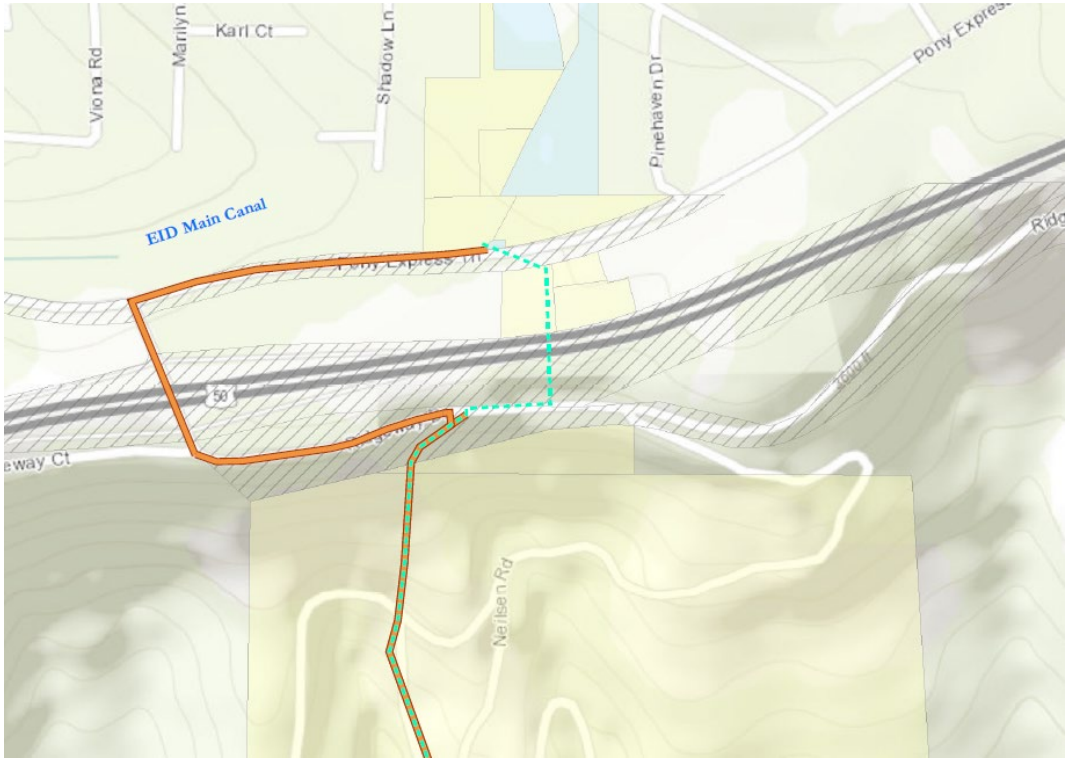
Project Objective

- Project allows for bi-directional flow between Res-1 and Res-A
- Provides system redundancy for drought, wildfire, outages and water quality considerations
- Allows Res-A to be taken offline for maintenance and repairs
- Provides long-term energy and capital savings


Construction Work Limits (approximate)
Proposed Staging Area
Proposed Access Route
Existing Reservoir
Parcel Ownership
U.S. Forest Service
El Dorado Irrigation District
Private
Reservoir 1
Reservoir A
North Fork Weber Creek
South Fork Weber Creek
North Fork Clear Creek
Starkes Grade Rd
Lynx Trl
Ski Run
Pony Express Trl

Additional Engineering Services

- Pipe constructability modifications
  - Thrust block design
  - Caltrans encroachment permit
  - Realignment near existing facilities

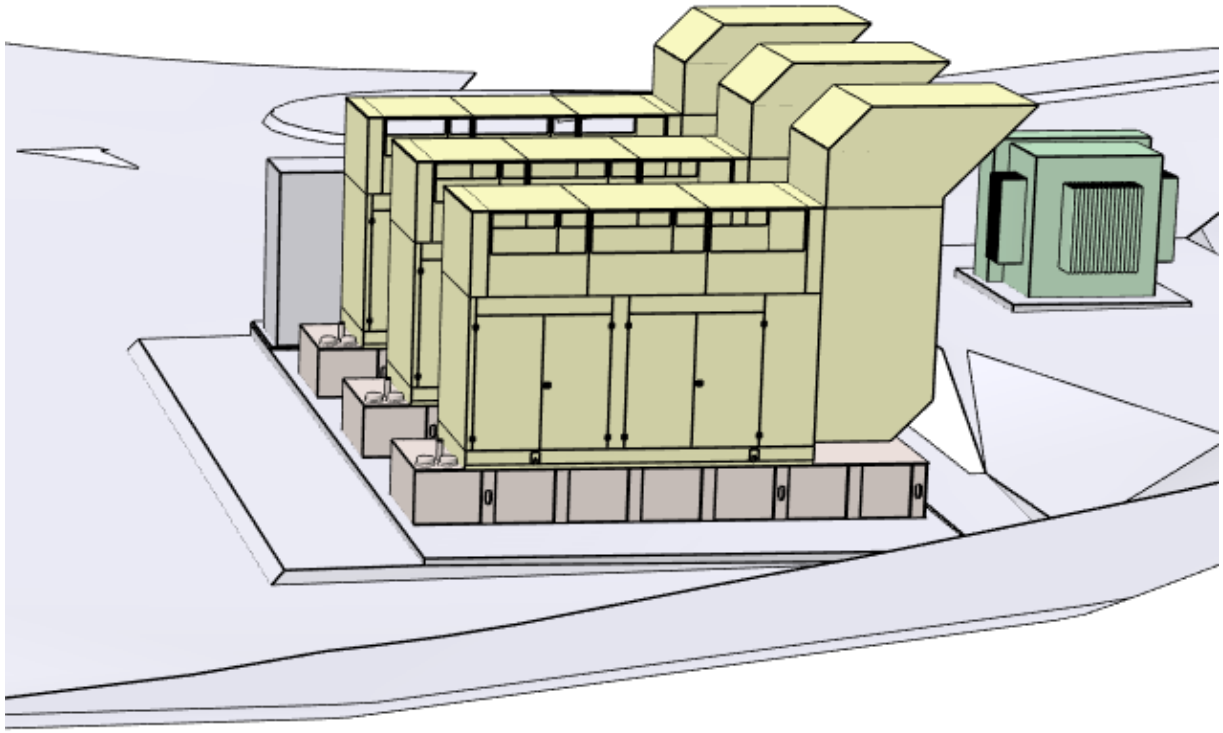


Additional Engineering Services

- Reservoir A modifications
  - Emergency fuel storage
  - Fiber optic extension
  - Demolition of existing SPI pump station
  - Camino Conduit and Pleasant Oak Main flow meters and motor-actuated valves

Additional Engineering Services

- Pre-purchase support of long-lead items



Contract Amendment

Task	Amount
Initial Water Works contract	$1,083,776
Easement acquisition support	$259,943
Additional pipeline and electrical design	$370,094
Geotechnical investigations	$124,988
[Additional engineering services]	[$199,724]
Contract Total	**[$2,038,525]**

- Staff negotiated a contract amendment for $199,724 for additional engineering services
- Proposed design contract total is equivalent to 6% of Engineer's estimate for construction

Easement Acquisition

- Progressing with agreement negotiations for grant of temporary construction easements and augmented permanent easements
- Acquisition of easements conditioned upon completion of environmental review
- Easement compensation detailed in the agreements to be placed in escrow
- Easements will be recorded and compensation to be released if construction is authorized by Board

Today's Funding Request

Item	Amount
Water Works contract amendment	$199,724
Easement acquisition	$200,000
Capitalized labor	$75,000
Total funding request	**$474,724**

Overall Funding

- Grants
  - $750,000 - American Rescue Plan Act of 2021 through County of El Dorado
  - $10,000,000 - 2021 Urban and Multi-benefit Drought Relief Grant Program through California Department of Water Resources
- Bond Funding
  - Planned 2024 bond issuance
- 2024-2028 CIP planned expenditures
  - $31,000,000
- Updated Engineer's estimate for construction
  - $35,000,000

Schedule

- February 2024: Final design, contractor prequalification
- March – April 2024: Construction bidding
- April 2024: Environmental certification, project approval and construction award
- May 2024 – December 2025: Construction

Board Options

- Option 1: Approve a contract amendment to Water Works Engineers, Inc. in the not-to-exceed amount of $199,724 for additional engineering services and authorize additional funding in the amounts of $200,000 for land acquisitions and $75,000 for capitalized labor for a total funding request of $474,724 for the Sly Park Intertie Improvements Project, Project No. 21079.

- Option 2: Take other action as directed by the Board

- Option 3: Take no action

Recommendation

- Option 1

Questions/Comments?