El Dorado Irrigation District

AGENDA
REGULAR MEETING OF THE BOARD OF DIRECTORS

District Board Room, 2890 Mosquito Road, Placerville, California
August 26, 2019 — 9:00 A.M.

Board of Directors

Alan Day—Division 5
President

George Osborne—Division 1
Vice President

Pat Dwyer—Division 2
Director

Michael Raffety—Division 3
Director

Lori Anzini—Division 4
Director

Executive Staff

Jim Abercrombie
General Manager

Brian D. Poulsen, Jr.
General Counsel

Jennifer Sullivan
Clerk to the Board

Jesse Saich
Communications

Brian Mueller
Engineering

Mark Price
Finance

Jose Perez
Human Resources

Tim Ranstrom
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.

CALL TO ORDER

Roll Call
Pledge of Allegiance
Moment of Silence

ADOPT AGENDA

COMMUNICATIONS

General Manager's Employee Recognition

PUBLIC COMMENT

COMMUNICATIONS

General Manager
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. **Finance (Pasquarello)**
   Ratification of EID General Warrant Registers for the periods ending August 6 and August 13, 2019, and Board and Employee Expense Reimbursements for these periods.

   Option 1: Ratify the EID General Warrant Registers as submitted to comply with Section 24600 of the Water Code of the State of California. Receive and file Board and Employee Expense Reimbursements.
   Option 2: Take other action as directed by the Board.
   Option 3: Take no action.

   Recommended Action: Option 1.

2. **Clerk to the Board (Sullivan)**
   Approval of the minutes of the August 12, 2019 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.

3. **Engineering**
   Consideration to authorize additional funding for District Capital Improvement Plan (CIP) Project: Siphon Assessment, Project No. "Study 07" in the amount of $10,000.

   Option 1: Authorize additional funding for District Capital Improvement Plan (CIP) Project: Siphon Assessment, Project No. "Study 07" in the amount of $10,000.
   Option 2: Take other action as directed by the Board.
   Option 3: Take no action.

   Recommended Action: Option 1.

4. **Engineering (Mutschler)**
   Consideration to approve a contract amendment to GHD in the not-to-exceed amount of $213,576 for construction inspection services and authorize additional funding of $213,576 for Flume 44 Replacement, Project No. 14024.

   Option 1: Approve a contract amendment to GHD in the not-to-exceed amount of $213,576 for construction inspection services and authorize additional funding of $213,576 for Flume 44 Replacement, Project No. 14024.
   Option 2: Take other action as directed by the Board.
   Option 3: Take no action.

   Recommended Action: Option 1.

END OF CONSENT CALENDAR

INFORMATION ITEMS

5. **Finance (Price)**
   Overview of Cost of Service principles and cost allocation factors.

   Recommended Action: None – Information only.

6. **Finance (Price)**
   June 30, 2019 Financial Update.

   Recommended Action: None – Information only.

ACTION ITEMS

7. **Engineering (Brink)**
   Consideration to receive and file the 2019 Water Supply and Demand Report.

   Option 1: Receive and file the 2019 Water Supply and Demand Report.
   Option 2: Take other action as directed by the Board.
   Option 3: Take no action.

   Recommended Action: Option 1.

8. **Engineering (Wilson)**
   Consideration to award a contract to Doug Veerkamp General Engineering in the not-to-exceed amount of $875,312 for construction of the El Dorado Main #1 and El Dorado Main #2 Intertie Project and authorize funding of $1,105,843 for the El Dorado Main #1 and El Dorado Main #2 Intertie, Project No. 19007.01.

   Option 1: Award a contract to Doug Veerkamp General Engineering in the not-to-exceed amount of $875,312 for construction of the El Dorado Main #1 and El Dorado Main #2 Intertie Project and authorize funding of $1,105,843 for the El Dorado Main #1 and El Dorado Main #2 Intertie, Project No. 19007.01.
   Option 2: Take other action as directed by the Board.
   Option 3: Take no action.

   Recommended Action: Option 1.

9. **Engineering (Delongchamp)**
   Consideration to award a contract to Doug Veerkamp General Engineering, Inc. in the not-to-exceed amount of $3,659,641 for construction of campground improvements; award a contract to ICM Group, Inc. in the not-to-exceed amount of $168,000 for construction inspection services; and authorize funding of $4,590,000 for Silver Lake East Campground and Caples Lake Campground Improvements, Project Numbers 06082H.01 and 15016.01.

   Option 1: Award a contract to Doug Veerkamp General Engineering, Inc. in the not-to-exceed amount of $3,659,641 for construction of campground improvements; award a contract to ICM Group, Inc. in the not-to-exceed amount of $168,000 for construction inspection services; and authorize funding of $4,590,000 for Silver Lake East Campground and Caples Lake Campground Improvements, Project Numbers 06082H.01 and 15016.01.
   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 – Anticipated Litigation (Poulsen)**
   Initiation of litigation pursuant to Government Code Section 54956.9(d)(4): (one potential case)

REVIEW OF ASSIGNMENTS

ADJOURNMENT

TENTATIVELY SCHEDULED ITEMS FOR FUTURE MEETINGS

Engineering

- Cal Fire Vegetation Management Projects contract, Action, September 9 (Delongchamp)

Engineering / Operations

- Wastewater collections relocation update, Information, September 9 (Dawson, Carrington, Corcoran)

Information Technology

- Wide area network upgrade project, Action, September 9 (Eberhard)
- Hansen upgrade consulting contract, Action, September 9 (Ranstrom)

EL DORADO IRRIGATION DISTRICT
August 26, 2019

General Manager Communications

Awards and Recognitions

a) The District received an email from El Dorado Hills customer Tom Adams in appreciation of the "knowledge and workmanship" of District staff Donny Holland, Wayne Spearse, Kevin Vandelinder and Paul Waldow during a recent service call. Mr. Adams specifically called out the team's excellent workmanship as well as their careful treatment of his property during their repairs. Outstanding work and a great example of EID's priority to deliver excellent customer service!

b) A member of the public posted a message to the District in the August 13, 2019, *Clipper* in appreciation of Alex Williams' "great job" on the repainting of EID's headquarters building. Thank you for your hard work, Alex.

Staff Reports and Updates

None

EL DORADO IRRIGATION DISTRICT

Subject: Ratification of EID General Warrant Registers for the periods ending August 6 and August 13, 2019, and Board and Employee Expense Reimbursements for these periods.

Previous Board Action

The Board ratifies the District's General Warrant Registers on a weekly basis, excluding certain holiday weeks.

Board Policies (BP), Administrative Regulations (AR) and Board Authority

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

Summary of Issue

The District's practice has also been to notify the Board of proposed payments by email and have the Board ratify the Warrant Registers. Copies of the Warrant Registers are sent to the Board of Directors on the Friday preceding the Warrant Register's date. If no comment or request to withhold payment is received from any Director by 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; reviewed and approved by the Finance Manager, the Director of Finance and the General Manager or their designee.

Register Date	Check Numbers	Amount
August 6, 2019	675966 – 676136	$1,281,790.54
August 13, 2019	676137 – 676246	$343,188.38

Current Board/Employee Expense Payments and Reimbursement Information

Board Expenses and Reimbursements have been reviewed and approved by the Clerk to the Board, Finance Manager 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 board and 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 as submitted to comply with Section 24600 of the Water Code of the State of California. Receive and file Board and Employee Expense Reimbursements.

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: Board Expenses/Reimbursements
Attachment C: Employee Expenses/Reimbursements totaling $100 or more

Tony Pasquarello
Finance Manager

Mark Price
Finance Director

Jennifer Sullivan
Clerk to the Board

Jim Abercrombie
General Manager

Executive Summary for August 6, 2019 -- $1,281,790.54:

This summary highlights significant disbursements made by major business activity:

Development Services (Fund 105)

- $17,573—ICM Group, Inc. for construction inspection services

General District Operations (Fund 110)

- $13,406—Golden State Flow Measurement, Inc. for warehouse inventory
- $22,982—Hunt & Sons, Inc. for card lock fuels and fuel deliveries at various locations
- $3,265—Key2life Janitorial for July janitorial services
- $4,841—Les Schwab Tire Centers of California, Inc. for tires
- $3,636—Liebert Cassidy Whitmore for outside legal services
- $16,922—Pace Supply Corporation for warehouse inventory
- $5,000—Pitney Bowes Reserve Account for postage for warehouse meter
- $9,500—Reeb Government Relations, LLC for August 2019 retainer

Engineering Operations (Fund 210)

- $10,813—C & M Backflow Testing and Repair, Inc. for dual plumbed lot inspections
- $63,387—El Dorado County Auditor-Controller for 2019/2020 LAFCO Fees

Water Operations (Fund 310)

- $3,393—Del Paso Pipe & Steel, Inc. for aluminum floor plate and fabrication material
- $171,674—Doug Veerkamp General Engineering, Inc. for June patching and paving services
- $4,054—Flow-Line Technology, Inc. for bleach pump repair parts
- $7,167—R.F. MacDonald Company for O-rings, bearings, and gaskets
- $5,580—Univar USA, Inc. for caustic soda at Reservoir A

Wastewater Operations (Fund 410)

- $33,309—Denali Water Solutions, LLC for sludge hauling and disposal at DCWWTP and EDHWWTP
- $4,872—Foster Flow Control for a butterfly valve and check valve
- $3,195—Grainger for operating and repair supplies
- $6,806—Marcab Company, Inc. for odor control materials at EDHWWTP
- $3,662—Muniquip, LLC for grit auger repair parts
- $7,650—Rexel USA, Inc. for an AC Powerflex drive and a Powerflex kit

Recycled Water Operations (Fund 510)

- $6,405—Univar USA, Inc. for caustic soda at EDHWWTP

Hydroelectric Operations (Fund 610)

- $17,855—Federal Energy Regulatory Commission for annual land use fees

Recreation Operations (Fund 710)

- $14,724—Blue Ribbon Personnel Services for temporary labor at Sly Park Recreation

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

- $3,120—Del Paso Pipe & Steel, Inc. for fabrication material – Weber Dam Access (Project #17051.01)
- $11,260—Dell Marketing, LP for computer monitors – End User Computing Phase 1 Desktop (Project #18032.01)
- $5,660—Domenichelli and Associates, Inc. for engineering design services – FERC:C50.2 Caples Lake Campground (Project #15016.01)
- $97,462—GEI Consultants, Inc. for engineering services – Forebay Dam Modifications (Project #17013.01)
- $614,962—Shimmick Construction Company, Inc. for construction services ($647,328) – Forebay Dam Modifications (Project #17013.01). Retention held $32,366

Executive Summary for August 13, 2019 -- $343,188.38:

This summary highlights significant disbursements made by major business activity:

General District Operations (Fund 110)

- $13,383—AT&T for phone service
- $8,106—Hunt & Sons, Inc. for fuel deliveries at various locations
- $3,596—Info-Tech Research Group, Inc. for membership renewal
- $5,949—Katom Restaurant Supply, Inc. for an ice machine
- $14,622—PG&E for electric service
- $7,431—Underground Service Alert for annual membership fee

Engineering Operations (Fund 210) none to report

Water Operations (Fund 310)

- $5,733—Aqua Tech Company for Res-B cover leak repair
- $7,013—Olin Chlor Alkali Products for sodium hypochlorite at EDHWTP and Res-A
- $6,949—PG&E for electric service

Bond Fees (Fund 351)

- $7,730—MUFG Union Bank, N.A. for trustee fees related to 2012 A/B Bonds

Wastewater Operations (Fund 410)

- $4,378—CLS Labs for regulatory lab testing
- $4,361—Hach Company for two controllers at EDHWWTP
- $86,733—PG&E for electric service

Recycled Water Operations (Fund 510)

- $3,708—Frank A. Olsen Company for a pressure reducing valve
- $3,885—Olin Chlor Alkali Products for sodium hypochlorite at EDHWWTP
- $15,698—PG&E for electric service

Hydroelectric Operations (Fund 610)

- $4,495—A & P Helicopters, Inc. for a transport to Lake Aloha

Recreation Operations (Fund 710)

- $3,810—Aces Waste Services, Inc. for disposal services
- $14,999—Blue Ribbon Personnel Services for temporary labor at Sly Park Recreation
- $15,586—El Dorado Disposal Service, Inc. for disposal service

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

- $11,315—Murraysmith, Inc. for constructability and design review – Folsom Lake Intake Improvements (Project #15024.01)
- $8,845—Preston Pipelines, Inc. for engineering services ($9,310) – Carson Creek 2 and Business Park 3 Lift Stations Abandonment (Project #16040.01). Retention held $465
- $4,473—Proud Construction for construction services – Valley View Pump Station #3 (Project #19010.01)
- $10,191—Stantec Consulting Services, Inc., for regulatory permitting:
  >Project #17034.01 – Wastewater Collection Facility Relocation ($5,628)
  >Project #STUDY09.01 – Camino Heights WWTP Study ($4,563)
- $4,306—Youngdahl Consulting Group, Inc. for geotechnical services – Forebay Dam Modifications (Project #17013.01)

Board Expenses/Reimbursements
Warrant Registers dated 08/06/19 - 08/13/19

DESCRIPTION	Lori Anzini	Alan Day	Pat Dwyer	George Osborne	Michael Raffety	Total
Personal Vehicle Expense					$41.76	$41.76
Hotel						$0.00
Meals or Incidentals Allowance						$0.00
Airfare, Car Rental, Misc Travel						$0.00
Fax, Cell or Internet Service					$40.00	$40.00
Meeting or Conference Registration						$0.00
Meals with Others						$0.00
Membership Fees/Dues						$0.00
Office Supplies						$0.00
Reimburse prepaid expenses						$0.00
Miscellaneous Reimbursements						$0.00
	$0.00	$0.00	$0.00	$0.00	$81.76	$81.76

Attachment C

Employee Expenses/Reimbursements
Warrant Registers dated 08/6/19 - 08/13/19

EMPLOYEE	DESCRIPTION	AMOUNT
Noel Russell	Food for Line Break Crew	$119.97
		$119.97

El Dorado Irrigation District

MINUTES
REGULAR MEETING OF THE BOARD OF DIRECTORS

District Board Room, 2890 Mosquito Road, Placerville, California
August 12, 2019 — 9:00 A.M.

Board of Directors

Alan Day—Division 5
President

George Osborne—Division 1
Vice President

Pat Dwyer—Division 2
Director

Michael Raffety—Division 3
Director

Lori Anzini—Division 4
Director

Executive Staff

Jim Abercrombie
General Manager

Brian D. Poulsen, Jr.
General Counsel

Jennifer Sullivan
Clerk to the Board

Jesse Saich
Communications

Brian Mueller
Engineering

Mark Price
Finance

Jose Perez
Human Resources

Tim Ranstrom
Information Technology

Dan Corcoran
Operations

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CALL TO ORDER

President Day called the meeting to order at 9:00 A.M.

Roll Call
Board

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

Staff

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

Pledge of Allegiance and Moment of Silence

President Day led the Pledge of Allegiance.

ADOPT AGENDA

ACTION: Agenda was adopted.

MOTION PASSED

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

COMMUNICATIONS

General Manager's Employee Recognition

None

PUBLIC COMMENT

None

COMMUNICATIONS

General Manager

a) EID guiding principle of 100% Safety is a factor in maintaining low workers' compensation insurance premiums – Summary by Ron Kilburg and Jose Perez

Clerk to the Board

None

Board of Directors

Director Raffety reported on the Association of California Water Agencies Agriculture and Water Management Committee meetings that he recently attended.

Director Anzini reported on her attendance at the recent El Dorado County Ag in the Classroom fundraiser.

Director Day commented on a recent power outage in El Dorado Hills.

APPROVE CONSENT CALENDAR

ACTION: Director Osborne pulled Item No. 6. Consent Calendar was then approved as amended.

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

CONSENT CALENDAR

1. **Finance (Pasquarello)**
   Ratification of EID General Warrant Registers for the periods ending July 16, July 23, and July 30, 2019, and Board and Employee Expense Reimbursements for these periods.

   ACTION: Option 1: Ratified the EID General Warrant Registers as submitted to comply with Section 24600 of the Water Code of the State of California. Received and filed Board and Employee Expense Reimbursements.

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

2. **Clerk to the Board (Sullivan)**
   Approval of the minutes of the July 22, 2019 regular meeting of the Board of Directors.

   ACTION: Option 1: Approved as submitted.

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

3. **Engineering**
   Consideration to authorize funding approval for District Capital Improvement Plan (CIP) Projects: Critical Water Generators, Project No. 18048 in the amount of $200,000; El Dorado Main #1 Pressure Reducing Station #5 Upgrade, Project No. 17016 in the amount of $30,000; Folsom Lake Intake Improvements, Project No. 15024 in the amount of $46,000; Sly Park Intertie Improvements, Project No. 15009 in the amount of $15,000; and El Dorado Main #1 and El Dorado Main #2 Intertie, Project No. 19007 in the amount of $70,000.

   ACTION: Option 1: Authorized funding approval for District Capital Improvement Plan (CIP) Projects: Critical Water Generators, Project No. 18048 in the amount of $200,000; El Dorado Main #1 Pressure Reducing Station #5 Upgrade, Project No. 17016 in the amount of $30,000; Folsom Lake Intake Improvements, Project No. 15024 in the amount of $46,000; Sly Park Intertie Improvements, Project No. 15009 in the amount of $15,000; and El Dorado Main #1 and El Dorado Main #2 Intertie, Project 19007 in the amount of $70,000.

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

4. **Information Technology (Ranstrom)**
   Consideration to award a three-year contract to Esri in the not-to-exceed amount of $150,000 to renew an Enterprise Agreement for Geographic Information System (GIS) software.

   ACTION: Option 1: Awarded a three-year contract to Esri in the not-to-exceed amount of $150,000 to renew an Enterprise Agreement for Geographic Information System (GIS) software.

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

5. **Finance (Downey)**
   Consideration to approve payment of both the Regional Water Authority General and Water Efficiency Category 1 Program memberships in the amount of $112,342 for fiscal year 2019-2020.

   ACTION: Option 1: Approved payment of both the Regional Water Authority General and Water Efficiency Category 1 Program memberships in the amount of $112,342 for fiscal year 2019-2020.

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

6. **Human Resources (Costa)**
   Consideration to adopt five updated resolutions fixing the Employer's Contribution under the Public Employees' Medical and Hospital Care Act for the 2020 plan year for the following groups: Association of El Dorado Irrigation District Employees, El Dorado Irrigation District Managers and Supervisors Association, Professional and Contract Group, Directors Group PERS, and Directors Group Non-PERS.

   ACTION: Option 1: Adopted updated Resolution Nos. 2019-013, 2019-014, 2019-015, 2019-016, and 2019-017, fixing the Employer's Contribution rate for employees and annuitants under the Public Employees' Medical and Hospital Care Act.

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

7. Human Resources (Perez)

Consideration to adjust the monthly compensation paid to the General Manager and General Counsel by amendment to their respective employment contracts and adopt a revised class pay listing for the confidential non-represented and contract employee classifications.

ACTION: Option 1: Amended the General Manager's employment contract by increasing the General Manager's monthly salary by 5% in 2019 and 5% in 2020; amended the General Counsel's employment contract by increasing the General Counsel's monthly salary by 5% in 2019, 5% in 2020, and 5% in 2021, while eliminating the existing automatic cost-of-living adjustment provision in the General Counsel's employment contract; and adopted a revised class pay listing for the confidential non-represented and contract employee classifications.

MOTION PASSED

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

8. Finance (Downey)

Consideration to adopt a resolution approving non-ad valorem charges and authorizing El Dorado County Auditor/Controller's Office to place said charges on the tax roll and the Tax Collector's Office to collect said charges for the tax roll year 2019/2020.

ACTION: Option 1: Adopted Resolution No. 2019-018, approving non-ad valorem charges, authorizing El Dorado County Auditor/Controller's Office to place said charges on the tax roll and the Tax Collector's Office to collect said charges for the tax roll year 2019/2020.

MOTION PASSED

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

9. Finance (Pasquarello)

Consideration to receive and file the District's Investment Report for the quarter ending June 30, 2019.

ACTION: Option 1: Received and filed the District's Investment Report for the quarter ending June 30, 2019.

MOTION PASSED

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

END OF CONSENT CALENDAR

PUBLIC HEARINGS — 9:00 A.M.

10. Engineering (Venable)

Consideration to adopt a Mitigated Negative Declaration for the Caples Lake and Silver Lake East Campground Improvements, Project Nos. 15016.01 and 06082H.01.

Public Hearing opened at 9:24 A.M.

ACTION: Option 1:
- Adopted the proposed Mitigated Negative Declaration and Mitigation, Monitoring, and Reporting Program.
- Made the following findings pursuant to the California Environmental Quality Act:
  - Based on the whole record, there is no substantial evidence that the Project will have a significant effect on the environment.
  - The Mitigated Negative Declaration reflects EID's independent judgment and analysis.
  - The revised mitigation measure (BIO-1) is equivalent to or more effective in mitigating or avoiding potential significant effects and that it in itself will not cause any potentially significant effect on the environment.
  - Specified that documents or other material, which constitute the record of proceedings upon which this decision is based, shall be in the custody of the Clerk to the Board at El Dorado Irrigation District Headquarters.
- Approved the Project in accordance with the California Environmental Quality Act.

MOTION PASSED

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

11. Engineering (Money)

Consideration to adopt a resolution making certain findings and authorizing the General Manager to sign a reimbursement agreement with Borrego Solar Systems, Inc., along with three 25-year solar power purchase agreements and three 25-year license agreements with El Dorado Solar, LLC, Deer Creek Solar 1, LLC, and Deer Creek Solar 2, LLC for the Solar Assessment and Design Program, Project No. 16030.

Public Hearing opened at 9:39 A.M.

ACTION: Option 1: Adopted Resolution No. 2019-019, making the findings required by Government Code section 4217.12 and authorizing the General Manager to sign a reimbursement agreement with Borrego Solar Systems, Inc., along with three 25-year solar power purchase agreements and three 25-year license agreements with El Dorado Solar, LLC, Deer Creek Solar 1, LLC, and Deer Creek Solar 2, LLC for the Solar Assessment and Design Program, Project No. 16030.

MOTION PASSED

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

INFORMATION ITEMS

12. Operations / Engineering (Odzakovic/Wilson)

Overview regarding state of District drinking water pipelines.

ACTION: None – Information only.

ACTION ITEMS

13. Engineering (Money)

Consideration to approve a contract amendment to TerraVerde Energy (TerraVerde) in the not-to-exceed amount of $113,385 for construction support services; authorize payment for Pacific Gas and Electric (PG&E) interconnection fees of up to $250,000 for Deer Creek Wastewater Treatment Plant Site 1; and authorize funding of $513,385 for the Solar Assessment and Design Program, Project No. 16030.

ACTION: Option 1: Awarded a contract amendment to TerraVerde in the not-to-exceed amount of $113,385 for construction support services; authorize payment for PG&E interconnection fees of up to $250,000 for Deer Creek Wastewater Treatment Plant Site 1; and authorized funding of $513,385 for Solar Expansion and Design, Project No. 16030.

MOTION PASSED

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

14. Information Technology (Ranstrom)

Consideration to approve funding in the not-to-exceed amount of $12,000 to implement live audio-video streaming of the District's Board meetings.

ACTION: Option 2: Took other action as directed by the Board.
Continued item to a future Board meeting and directed staff to provide options that include additional cameras and software for the District's Board room and Sly Park conference rooms.

MOTION PASSED

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

15. Engineering (Delongchamp)

Consideration to approve a Utility Agreement between the State of California Department of Transportation and the El Dorado Irrigation District for the relocation and installation of pipelines associated with the U.S. Highway 50 Camino Safety Project, Project No. 19008.01.

ACTION: Option 1: Approved the Utility Agreement between the State of California Department of Transportation and the El Dorado Irrigation District for the relocation and installation of pipelines associated with the U.S. Highway 50 Camino Safety Project, Project No. 19008.01.

MOTION PASSED

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

REVIEW OF ASSIGNMENTS

None

ADJOURNMENT

President Day adjourned the meeting at 12:10 P.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: Consideration to authorize additional funding for District Capital Improvement Plan (CIP) Project: Siphon Assessment, Project No. "Study 07" in the amount of $10,000.

Previous Board Action

January 28, 2019 – Board adopted the 2019-2023 CIP, subject to available funding.

Board Policies (BP), Administrative Regulations (AR) and Board Authority

Staff advised that each CIP project would be presented to the Board for funding approval.

Summary of Issue

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

Background/Discussion

The CIP project identified in Table 1-1 on page 2 requires immediate funding.

Funding

The primary funding source for the District CIP project is listed in Table 1-1. Table 1-1 also lists the project currently in progress and the amount of funding requested.

Table 1-1
CIP Funding Request

	Project Name and Number	2019-2023 CIP Plan[1]	Funded to Date	Actual Costs to date[2]	Amount Requested	Funding Source
1.	**Siphon Assessment Study 07**	**$0**	**$ 50,000**	**$44,660**	**$10,000**	**100% water rates**
	TOTAL FUNDING REQUEST				**$10,000**	

[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 the table

CIP Funding Request

Project No.	Study 07	**Board Date**	08/26/19
Project Name	Siphon Assessment		
Project Manager	Cary Mutschler		

Budget Status	**$**	**%**
Funded to Date	$ 50,000	--
Spent to Date (including encumbrances)	$ 44,660	89%
Current Remaining	$ 5,340	11%

Funding Request Breakdown	**$**
Capitalized labor	$ 10,000
Total	$ 10,000

Funding Source
100% Water rates

Description
The Plum Creek siphon is a 72 and 60 inch mortar lined steel riveted pipe that was constructed in the 1920's. No inspection records for the Plum Creek siphon have been found. This project will inspect the Plum Creek siphon on the Project 184 system during the 2019 annual outage using conventional closed circuit television equipment. The Alder Creek siphon was inspected using this same method in 2018 and staff was able to identify some minor wear in the pipeline that will be used as a baseline condition assessment moving forward. The purpose of this funding request is to provide the additional funds needed to conduct the assessment. The assessment will then be used to develop future CIP projects to ensure the reliable operation of both the Alder Creek and Plum Creek siphons.

Board Options

Option 1: Authorize additional funding for District Capital Improvement Plan (CIP) Project: Siphon Assessment, Project No. "Study 07" in the amount of $10,000.

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

Option 3: Take no action.

Recommendation

Option 1

Attachments

None

Cary Mutschler
Senior Civil Engineer

Dawn Noceti
Accountant

Elizabeth Dawson
Engineering Manager

Brian Mueller
Engineering Director

Mark Price
Finance Director

Jim Abercrombie
General Manager

EL DORADO IRRIGATION DISTRICT

Subject: Consideration to approve a contract amendment to GHD in the not-to-exceed amount of $213,576 for construction inspection services and authorize additional funding of $213,576 for Flume 44 Replacement, Project No. 14024.

Previous Board Action

June 11, 2018 – Board adopted the proposed Mitigated Negative Declaration and Mitigation, Monitoring, and Reporting Program for the Project.

August 27, 2018 – Board awarded construction contract to KW Emerson and inspection, and construction engineering services contracts to GHD for the Flume 44 Replacement Project.

January 28, 2019 – Board adopted the 2019-2023 CIP, which included this project subject to funding availability.

Board Policies (BP), Administrative Regulations (AR) and Board Authority

BP 3060 Contracts and Procurement
BP 8010 Hydroelectric System Management

Summary of Issue

The District inspector for Flume 44 has been reassigned to another project. This reassignment means that the District will need to fill the inspection requirement with contract personnel. Staff recommends that GHD perform this work because GHD is currently performing supplementary inspection services and quality control inspections for the Flume 44 project.

Background/Discussion

Phase 1 of the Flume 44 Replacement Project was completed in December 2018. Phase 2 of the project began in July 2019 and is scheduled to be complete by December 2019. The Phase 2 portion includes the rehabilitation of Rock Crusher Road, completing berm improvements to provide access to Flume 44, construction of a mechanically stabilized earth wall to support the new canal section, and replacement of the remaining 350 feet of Flume 44 with a reinforced concrete canal.

Phase 2 of the Flume 44 project is divided into two parts. The first part, July 22 to October 1, will consist of all the road work and berm improvements. This part will be conducted between 7am to 7pm with little to no overtime needed. The second part will be conducted between October 1 to December 13 and may occur on a 24/7 basis in order to complete the work during the annual fall outage. This may require working during holidays as well.

The Board awarded a contract to GHD on August 27, 2018 for a not-to-exceed amount of $618,493. The original scope of the GHD contract included construction engineering services as the engineer of record, inspections for night activities and specialty inspections and testing. District staff was to perform inspections during the day and coordinate the nighttime and weekend inspections. Due to complexities at the Forebay Dam project, the District inspector assigned to Flume 44 has been reassigned to Forebay. As a result of the District inspector's

reassignment, staff is proposing to shift to full time contract inspection services for the final phase of the Flume 44 project. Since GHD is already providing inspection services and they are familiar with the projects scope and the complexities, staff recommends that the Board award a contract amendment to GHD's original contract to provide full time inspection for the project. The GHD contract amendment accounts for both part 1 and 2 of the construction schedule.

Funding

The budget for the Flume 44 replacement project is $14,434,862, and currently there is a remaining unencumbered amount of $380,000. This amount will be used to cover capitalized labor, environmental support and to maintain a construction contingency for the final phase of the project. Therefore, additional funding of $213,576 is requested to cover the proposed contract amendment.

Board Options

Option 1: Approve a contract amendment to GHD in the not-to-exceed amount of $213,576 for construction inspection services and authorize additional funding of $213,576 for Flume 44 Replacement, Project No. 14024.

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

Option 3: Take no action.

Recommendation

Option 1

Attachments

Attachment A: GHD Proposal

Cary Mutschler
Senior Civil Engineer

Elizabeth Dawson
Engineering Manager

Brian Mueller
Engineering Director

Dan Corcoran
Operations Director

Mark Price
Finance Director

Brian Poulsen
General Counsel

Jim Abercrombie
General Manager

El Dorado Irrigation District

PROPOSAL FOR PROFESSIONAL SERVICES – ON-CALL CONTRACT (THROUGH 12/31/2019)

(PURSUANT TO PARAGRAPH 1 OF APPENDIX A OF THE PROFESSIONAL SERVICES AGREEMENT FOR ON-CALL PROFESSIONAL SERVICES 01/01/2017 THROUGH 12/31/2019, THIS PROPOSAL – IF SELECTED BY DISTRICT AND EXECUTED BY BOTH PARTIES – SHALL BECOME THE **SCOPE OF WORK** FOR THE SPECIFIC ON-CALL TASK(S) IDENTIFIED HEREIN.)

TYPE OF SERVICE: General

CONSULTANT NAME: GHD Inc

EID Project Name: Flume 44 Replacement - Phase I & II Construction Services

EID Project No.: 14024.01

ESTIMATED HOURS AND COST PROPOSAL

ITEM NO.	TASK DESCRIPTION	PROJECTED HOURS	COST PER HOUR/ITEM **(REQUIRED)**	PROJECTED COSTS
	Phase II EID Inspection to 10-01-19			
1	EID Inspection Services	233	$ 137	$ 31,921
	Phase II QCIP to 10-01-19			
2	QCIP Services	194	$ 137	$ 26,578
3	Laboratory Services	-	-	$ 4,226
	Phase II EID Inspection to 12-21-19			
4	EID Inspection Services	411	$ 137	$ 56,307
5	EID Inspection Services - x1.5 Overtime Hours	82	$ 205.50	$ 16,851
6	EID Inspection Services - x2 Overtime Hours	82	$ 274	$ 22,468
	Phase II QCIP to 12-21-19			
7	QCIP Services	823	$ 137	$ 112,751
8	Laboratory Services	-	-	$ 28,534
9	EID Inspection Services - x1.5 Overtime Hours	165	$ 205.50	$ 33,908
10	EID Inspection Services - x2 Overtime Hours	165	$ 274	$ 45,210
	TOTAL HOURS	**2,155**	**TOTAL**	**$ 378,754**
	REMAINING INSPECTION BUDGET	-	-	- $ 190,754
	NEW INSPECTION REQUEST	-	TOTAL NOT TO EXCEED	$ 188,000
	Phase I "GED" Factor - Civil			
11	Phase I "GED" Factor - Civil	-	-	$ 13,504
12	Phase I "GED" Factor - Structural	-	-	$ 21,200
	REMAINING CA BUDGET	-	-	- $ 9,128
	NEW CA REQUEST	-	TOTAL NOT TO EXCEED	$ 25,576
	TOTAL BUDGET REQUEST	**-**	**TOTAL NOT TO EXCEED**	**$ 213,576**

ESTIMATED DURATION: 27 WEEKS (REQUIRED)

CONSULTANT:

08-15-2019

SIGNATURE DATE

PG 5591 / CEG 1727, exp. 11/30/2020

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DISTRICT APPROVAL:

SIGNATURE DATE

SIGNATURE DATE

SIGNATURE DATE

FOR EID USE ONLY:

Charge Nos.: *Notes:*

Are safety submittals required? ☐ Yes ☐ No

If "Yes", safety submittal form needs to be completed and attached to this form. District's Safety/Security Officer must approve safety submittals before commencement of work.

EL DORADO IRRIGATION DISTRICT

Subject: Overview of Cost of Service principles and cost allocation factors.

Previous Board Action

November 4, 2011 – Board adopted the 2010 Cost of Service Study.

Board Policies (BP), Administrative Regulations (AR), and Board Authority

BP 11010 Fees and Charges
AR 11010 Adoption of Rates, Fees and Charges

Summary of Issue

During the May 28, 2019 Board meeting, Director Anzini requested that staff provide the process and timeline for the District's upcoming cost-of-service analysis (COSA). In June, the General Manager presented a summary of the process and draft timeline, via email, to the Board. This information item provides the current Board and public with additional information on the principles developed during the 2010 COSA, since these principles will guide the current process, along with other information about the rate-model and financial analysis.

Background/Discussion

The District conducted a very detailed COSA in 2010, resulting first in the adoption of Principles for Guiding the Rate-Setting Process (principles), and then a modification of how costs of providing services were calculated for the different utilities. As part of that process, the District held several public meetings and received input from the public and Board. The Board then adopted the principles, the COSA, and its methodology.

In 2015, the Board reviewed the previously-adopted COSA and staff and the Board determined that the COSA cost estimates, allocations, and model were still accurate. Therefore, the District relied on the 2010 COSA in setting rates for 2016-2020. Following the public outreach and Proposition 218 process, the Board adopted rates for 2016-2020, subject to annual reviews.

Principles for Guiding the Rate-Setting Process

During the 2010 COSA, the District compiled 12 guiding principles, included as Attachment A, intended as parameters for the rate-setting consultant. Each principle was set forth, followed by a policy statement, a discussion of the policy, and a description of the principle's advantages and disadvantages.

Staff finds that the principles developed in the 2010 COSA are consistent with sound financial and industry practices and would lay a solid foundation for the current COSA and an improved rate-setting process into the future. Therefore, during the current review and update, staff will follow the principles developed in 2010 and use the same rate model, but will update the financial plan and analysis. Specifically, staff will update the revenue requirements, cost allocation factors, and proposed rates.

Revenue and Cost Allocation Assignments

When designing rates, there are several factors to consider prior to the actual modeling. Some of these factors require consideration of, and in some cases, decisions regarding important policy matters. These include allocation of property taxes; the ratio of base to commodity charges for water service; allocation of debt service and debt service coverage ratios; and how to allocate overhead charges. The following describes these factors in more detail.

Allocation of Property Taxes – The District's past practice is to allocate property tax revenue received 60% to the water utility and 40% to the wastewater utility. These percentages are similar to the percentage of water-only accounts (64.1%) to total water and wastewater accounts. Annually, staff can adjust the allocation if it is necessary for one utility or the other in order to obtain the required debt coverage. This allocation aligns with Principle 11.

Water rate revenue base charges – In 2009, the District adopted an aggressive water conservation rate structure designed to collect 30% of rate revenue from fixed (base) charges and 70% of revenue from volumetric charges. During the 2010 COSA, the Board determined that meeting the revenue requirements of the District (which were close 70% than 30%) became too volatile when water usage varied with changing weather conditions. The Board reallocated the base-to-commodity ratio to 50%/50%.

Allocation of Debt Service – The debt service is allocated based upon the bond documents when originally issued and cannot be reallocated.

Debt Service Coverage – Bond covenants require the District to obtain a 1.25x coverage. The District's Administrative Regulation (AR) 3012 sets the financial goal of the debt coverage at 1.7-2.0x including Facility Capacity Charge (FCC) revenue and 1.25x without FCC revenue. AR 3012 also requires that rates generate enough net revenue to also adequately fund pay-as-you-go projects. The Board has expressed an interest in expanding the water pipeline replacement program to the CIP priorities as pay-as-you-go projects. In order to raise approximately $1 million in-pay-as-you-go funds-for construction in the water utility a 3% rate increase is necessary.

Overhead Charges – Program charges not directly supporting a specific utility, such as General Manager, Human Resources, Information Technology, Legal, etc., are allocated based upon the ratio of directly assigned personnel within a singular utility to the total assigned personnel to all utilities. Thus, as an example, the Office of the General Manager is allocated between the water, wastewater and recycled water systems according to personnel ratios assigned to those utilities.

Conclusion

In developing the current COSA, staff will incorporate and adhere to the principles developed in 2010, and use the same rate-model, but update the financial analysis. Staff is utilizing the services of NBS Consulting, specifically Mr. Greg Clumpner, to confirm the accuracy and correctness of the updated COS Study. Mr. Clumpner was the primary consultant on the 2010 COSA.

Board Options
None – Information only

Attachments
Attachment A: Principles for Guiding the Rate-Setting Process

Mark Price
Finance Director

Brian Poulsen
General Counsel

Jim Abercrombie
General Manager

EL DORADO IRRIGATION DISTRICT

Principles for Guiding the Rate-Setting Process

Principle 1 – Establish rates in compliance with all applicable Federal, State, and local laws and regulations.

Discussion: Certain Federal, State, and local laws and regulations have an impact on processes involved in setting the District's rate structure – most notably Proposition 218. It is imperative that the rate structure be established in compliance with these laws and regulations.

Advantages of the Principle: Clearly states the District's intent to establish rates in compliance with applicable Federal, State, and local laws and regulations.

Disadvantages of the Principle: None.

Principle 2 – Establish rates that are fair and equitable within the limitations of reasonable and attainable data and the District's administrative systems, personnel, and finances.

Policy Statement: The Board recognizes the need for reasonable cost allocation among commodities as well as the need to provide an easily understood rate structure for its customers. Rates should be generally perceived by the District's customers as fair, reasonable, and equitable to all customers.

Discussion: This principle highlights the importance of the customer perception of fairness and equity to the Board, while also recognizing that it is not practical to promise absolute equity among all customers and customer classes.

Advantages of the Principle: The advantage of this principle is that it reinforces the Board's priority of treating all customers fairly. It also underscores the importance of a more "District-wide" perception of fairness and equity as opposed to pacifying the "squeaky wheel." Finally, it acknowledges the practical obstacles that prevent perfect equity.

Disadvantage of the Principle: This principle ultimately does not clearly define the terms "fair and equitable" and will still require the Board to apply its discretion and judgment.

Principle 3 – Attempt to make rates simple to understand for the public and reasonable to administer.

Policy Statement: Rates should be easily understood by customers and cost-efficient for the District to administer. At the same time, all rates must conform to any legal requirements placed upon the District.

Discussion: For fifteen years, the District's policy orientation has been to simplify its rate structure and the process of administering it. This principle is consistent with those historical efforts. Customer education and clarity of customer bills should be considered part of this principle.

Advantages of the Principle: Creating rates that are easy for customers to understand will minimize rate-related customer service issues. If customers understand the basis for their bills, they will have a greater ability to comprehend their billing and conclude that it is fair. This principle is consistent with the District's 2008 Board decision to adopt a District-wide rate structure.

Disadvantages of the Principle: There are tensions between "fairness and equity" and simplicity of the rate structure. Simplifying the rate structure does not always provide a maximum degree of fairness and equity. However, from the customer perspective, rates that are simple to understand may be more important than a higher degree of equity, as long as any resulting inequities are not viewed as "gross inequities."

Principle 4 – Establish stable and predictable rates over time to the extent possible within the District's overall financial plan.

Policy Statement: Rates should be stable and predictable over time which requires a balance between generating sufficient revenue for utility operations, funding capital improvements, and improving customer perception of the rates as fair and equitable.

Discussion: It is imperative for the District to establish rates that generate adequate revenues from year to year, regardless of weather and consumption characteristics. Large and unexpected year-to-year rate changes impose financial hardships on customers and promote customer perceptions of the District as arbitrary and mismanaged. This principle recognizes the need to establish an appropriate balance between minimizing large rate adjustments without discouraging annual smaller systematic rate adjustments.

Advantages of the Principle: The principle attempts to stabilize the cash flow of the District and, at the same time, improve customer perceptions of fair and equitable rates and management of the District.

Disadvantages of the Principle: It is difficult to define "stable" as this term has different meanings for different people. Customers may construe stable to mean no increases from year to year.

Principle 5 – Make rates cost-based to the extent possible.

Policy Statement: Rates should be cost-based to the extent possible, meaning that other rate-setting policies of the District and the financial impacts to customers must also be considered. Fundamentally, "cost-based" rates are rates that meet the District's overall revenue requirements. From the customer perspective, "cost-based" can be defined as the fair and reasonable allocation of costs to customers based on the degree to which services to different groups of customers cause the District to incur costs.

Discussion: Cost-based rates are generally recognized as being the most fair and equitable. However, this principle again needs to strike a balance between establishing cost-based rates in an excessively detailed and confusing manner, and establishing overly simplified rates. The District should strive for rates that satisfy both the District revenue requirements and the customer's perception of fairness and equity.

Advantages of this Principle: Striving for cost-based rates is an important element in achieving rates that will generally be perceived as fair and equitable and also meet the District's financial needs. Although cost responsibility among classes of service is not essential to the financial stability of the District, it is important if customers are to perceive rates as fair and equitable, as well as a requirement of state law (i.e., Proposition 218).

Disadvantages of the Principle: A commitment to cost-based rates may imply different levels of refinement and detail in the District's rates for various customer groups. Therefore, this principle could be misconstrued as requiring an excessively detailed and costly approach to establish rates.

Principle 6 – Set rates to promote efficient customer use.

Policy Statement: Rates should recognize the value of water and of sewer capacity as limited resources, and while the District's rate structure should discourage unreasonable use, it should encourage efficient use of the resources.

Discussion: This principle is intended to recognize the limited resources of the District and the environment. In light of the State Water Plan (20 x 2020) and the California Urban Water Conservation Council's Best Management Practice of collecting 70 percent of water rate revenue from consumptive rates (BMP #11), the District's rates should encourage more efficient use of water. Similarly, the District's sewer capacity and recycled water supplies are finite, and facility expansions to enhance those resources are very expensive. This principle is not intended to be applied so as to discourage reasonable uses of the resources. By attempting to price commodities roughly equal to their true costs, the District will be encouraging efficient use of its limited resources.

Advantages of the Principle: This principle recognizes the multiple uses of our natural resources and makes a positive statement to all customers and outside parties that the District encourages the efficient use of its resources.

Disadvantages of the Principle: This principle does not necessarily imply the need to adopt inverted (or tiered) block rates. But some customers and outside parties may believe that it requires the District to adopt inverted block rate structures for all classes of service. Some may also read this as a mandate for the District to consider water-budget based rates.

Principle 7 – Establish uniform rates within a service class; do not differentiate by area, within a service class, nor by pumped versus gravity water service.

Policy Statement: Rates for the District shall be uniform for all customers within a class of service and shall not be differentiated by service area or, in the case of water, by pumped versus gravity-delivered service.

Discussion: Establishing rates that are uniform for a class of service is the approach most commonly used by utilities across the United States. Utilities generally recognize that cost differences for service do exist within a customer class of service, but also recognize the advantages of a uniform rate structure. In that case, the policymakers are usually willing to accept some level of inherent inequities to gain the advantages and benefits derived from uniform rates by class of service.

Advantages of the Principle: A principle that has a uniform (i.e., the same) rate for all customers within a class of service is likely to be perceived by customers as fair and equitable. It will be more cost efficient for the District to administer the rate since no consideration is given to the location of a customer or whether water is pumped or delivered by gravity. It can also minimize dramatic rate differentials when areas need costly infrastructure improvements. The principle may also help to eliminate the perception that there are "two or more Districts" within the District.

Disadvantages of the Principle: This principle does not recognize the cost differences associated with serving different areas of the District. It is commonly accepted that all utility systems have cost differences associated with serving different customers in different areas of the systems. Any rate-setting principle that has a single, District-wide rate for a class of service recognizes, and is willing to accept, those cost differences because the benefits outweigh the disadvantages. Customers who believe rates should be individually defined to the greatest extent possible will likely object to this principle.

Principle 8 – Calculate water, sewer, and recycled water rates independently, without subsidies where practicable.

Policy Statement: Although some shared costs such as administrative overhead must be appropriately allocated among water, sewer, and recycled water; system facilities, operating costs, and debt service will be separately identified and allocated to each utility. There should be no subsidy of one utility by another.

Discussion: This principle recognizes that each utility has different customers and, therefore, subsidizing one utility by another would create inequities.

Advantages of the Principle: This approach holds most closely to Proposition 218 requirements that rates reasonably reflect the proportional costs of service to a particular property, and minimizes dissatisfaction by customers who believe their rates are subsidizing other customers or that they are paying for benefits they are not receiving.

Disadvantages of the Principle: The disadvantage of this principle is that it does not allow for the possibility of allocating costs in a manner that may result in a win-win outcome for all customers.

Principle 9 – Establish agricultural irrigation rates that recognize agriculture's role in the District's formation and development, the quality of water required to serve these customers, and the level of service provided.

Policy Statement: Rates for agricultural irrigation must recognize the importance of historical contribution that the agricultural customer class has provided to existing and future customers. The District will consider water quality and levels of service in distinguishing agricultural rates compared to M&I rates.

Discussion: From the 1850's to the 1970's, agricultural water needs played a major role in the development and acquisition of, and funding for, water rights through Project 184, Weber Dam, Sly Park Reservoir, and other diversions and facilities. The agricultural irrigation customers do not require either the level of high-quality water treatment or the level of service demanded by municipal and industrial customers. Many agricultural

customers have been provided treated water as a cost savings to the District in lieu of building dual treated water and raw water pipelines when converting open ditches to pipeline as a water conservation measure. The District should not allocate costs to agricultural customers to provide high water quality and levels of service that were necessitated by its municipal and industrial customers.

Advantages of the Principle: Acknowledging that these issues impact the cost allocation methodology, customers will generally perceive these rates as fair and equitable.

Disadvantages of the Principle: Some customers may not agree with the fairness, equity, or legality of acknowledging these issues.

Principle 10 – Establish recycled water rates that encourage efficient use and recognize the resource benefits of reuse.

Policy Statement: Rates for water reuse shall be priced at a level that promotes the use of recycled water but is tiered to ensure efficient use of the resources.

Discussion: Water reuse is a valuable benefit and component of the District's water supply. Any principle on the pricing of water reuse must recognize three important issues: (1) The District's customers should not pay a base rate for recycled water that is higher than the base rate for potable water. (2) Reuse water is lower quality than potable water, and pricing it at or above potable water would not reflect the difference in quality. (3) Because of the benefits of water reuse, the District should encourage reuse water for its customers as well as the efficient use of this resource.

Advantages of the Principle: The major advantage of this Principle is that it recognizes water reuse as a valuable water resource to the District. It attempts to price the commodity recognizing differences in quality, the financial benefits water reuse provide to District water and sewer customers, and the advantages of encouraging additional but efficient use.

Disadvantages of the Principle: The major disadvantage of the principle is that it may not collect the full costs of water reuse.

Principle 11 – Allocate property tax revenues reasonably among commodities.

Policy Statement: Allocate all property tax revenues received to support EID operations across the board. In this way the tax income will support all program efforts in direct proportion to the total District program needs. The specific allocation will be decided during the budget process and final adjustment made at the audit review and approval.

Discussion: The District has reasonably allocated the property tax revenue between water and wastewater commodities based on the number of accounts the District services but maintains a degree of flexibility in order to meet broad District financial objectives. In addition, the District has used these tax revenues (which the District's financial advisors and underwriters have classified as miscellaneous revenue) to ensure that each enterprise fund meets its financial goals and debt coverage tests.

Advantages of the Principle: This principle benefits our customers by helping each enterprise fund meets its debt coverage test, thereby minimizing debt service costs and rate volatility.

Disadvantages of the Principle: This principle does not mathematically allocate tax revenues to enterprise funds based on the dollars paid by and the number and type of services provided to each taxpayer.

Principle 12 – Consider financial tests, such as debt service coverage, in all District financial planning and rate adjustments.

Policy Statement: The District is legally obligated to meet certain financial tests specified in the documents resulting from the issuing revenue bonds. These obligations need to be considered and reflected in financial plans and future rate increases.

Discussion: While these requirements are intended to ensure bond holders that the District will have sufficient revenue to repay bond holders, they are also beneficial in that they force the District to maintain adequate reserves and meet annual revenue requirements, which contributes to the overall financial health of the District.

Advantages of the Principle: This principle can help ease political pressure not to increase rates except in the most dire of circumstances. Meeting the coverage ratios specified in bond documents can help the District avoid falling into disrepair because it provides a specific means for the District to adhere to its current legal obligations of maintaining the general financial health of the District.

Disadvantages of the Principle: This principle is unnecessary since the District is already legally obligated to maintain its debt service ratios.

Overview of Cost of Service Principles and Cost Allocation Factors

August 26, 2019

Background

- **Board adopted the Cost of Services (COS) study completed 2010 along with the Principles for Guiding the Rate-Setting Process**
  - **Reviewed by the Board in 2015**
  - **Determined cost estimates, allocations, and model were still accurate**
- **Process summary and timeline for upcoming COS survey presented in June**

Purpose of the Study

- **Ensure that the District's rate schedules and the District's cost allocations among commodities (water, wastewater, and recycled water) are:**
  - **Fair**
  - **Reasonable**
  - **Legally compliant**

Independent Expert

- **Staff is utilizing the services of NBS Consulting**

Principle 1

- **Establish rates in compliance with all applicable Federal, State, and local laws and regulations.**

Principle 2

- **Establish rates that are fair and equitable within the limitations of reasonable and attainable data and the District's administrative systems, personnel, and finances.**

Principle 3

- **Attempt to make rates simple to understand for the public and reasonable to administer.**

Principle 4

- **Establish stable and predictable rates over time to the extent possible within the District's overall financial plan.**

Principle 5

- **Make rates cost based to the extent possible.**

Principle 6

- **Set rates to promote efficient customer use.**

Principle 7

- **Establish uniform rates within a service class; do not differentiate by area, within a service class, nor by pumped versus gravity water service.**

Principle 8

- **Calculate water, sewer, and recycled water rates independently, without subsidies where practicable.**

Principle 9

- **Establish agricultural irrigation rates that recognize agriculture's role in the District's formation and development, the quality of water required to serve these customers, and the level of service provided.**

Principle 10

- **Establish recycled water rates that encourage efficient use and recognize the resource benefits of reuse.**

Principle 11

- **Allocate property tax revenues reasonably among commodities.**

Principle 12

- **Consider financial tests, such as debt service coverage, in all District financial planning and rate adjustments.**

Revenue Allocations

- **Since November 14, 2011 the water rate structure has been designed to collect rate revenue on a 50/50 basis:**
  - **Fixed (base) charges**
  - **Volumetric use charges**

Cost Allocations

- **Past practice has been to allocate property taxes 60% water and 40% wastewater**
- **Allocation of debt service is based upon bond documents when originally issued**
- **Allocation of program (direct) charges are charged to the utility using the cost in production**
- **Allocation of overhead costs are currently charged to each utility based upon the ratio of assigned personnel within that utility to the total assigned personnel to all utilities**

Debt Service Coverage Goals

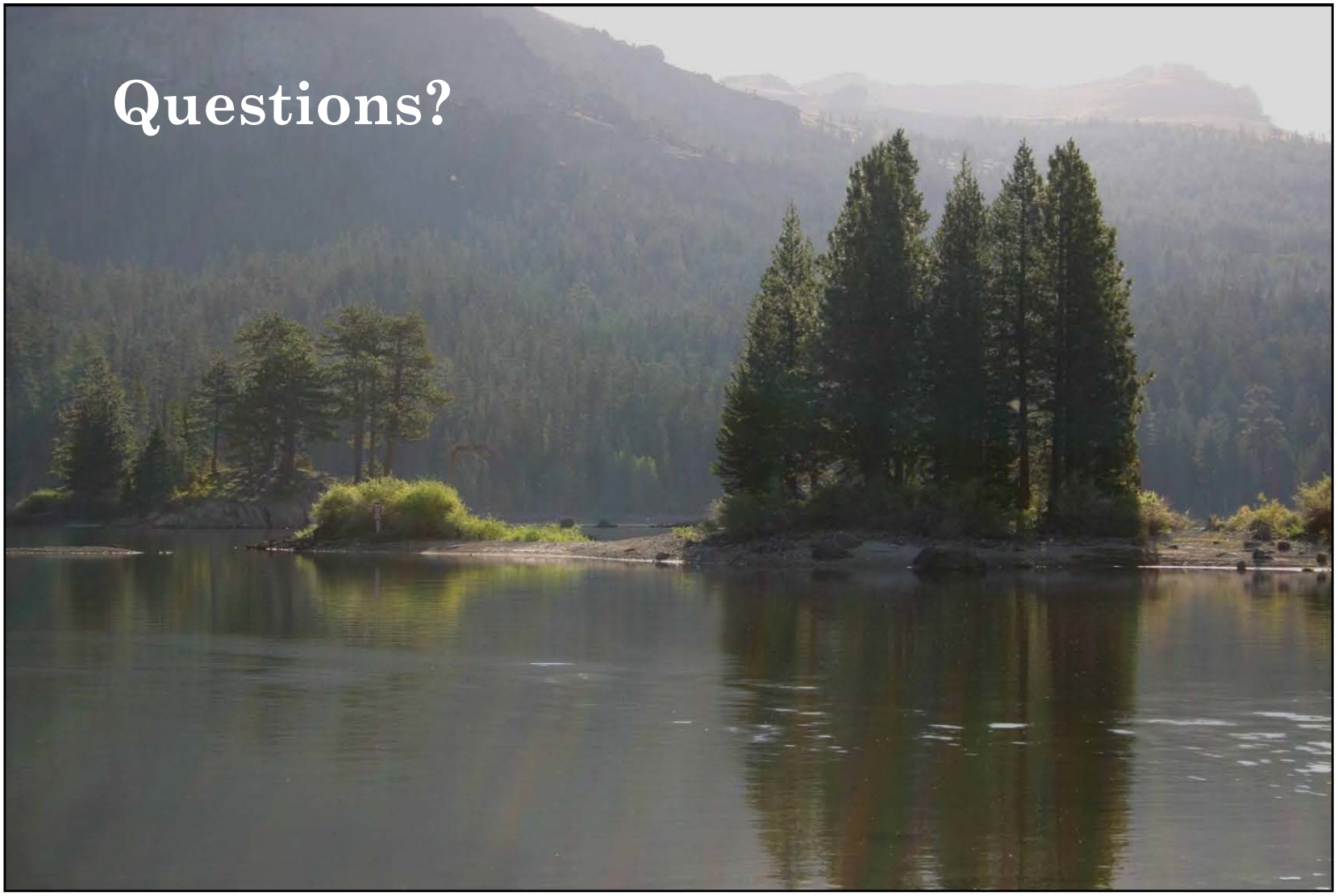
- 1.70-2.00x with FCCs
- 1.25x without FCCs

Additionally, rates need to be sufficient to generate enough revenue to fund pay-as-you-go projects.

Board Decisions/Options

- **Information Only - No Board Action Required**

Questions?



EL DORADO IRRIGATION DISTRICT

Subject: June 30, 2019 Financial Update.

Previous Board Action

Staff presents a financial update to the Board on a quarterly basis.

Board Policies (BP), Administrative Regulations (AR), and Board Authority

BP 3010 Budget
BP 3030 General Manager's Reporting Responsibilities

Summary of Issue

Staff will present to the Board a financial status report on revenues, expenditures, and cash compared to the adjusted budget and report on the occurrence of any irregular conditions, such as the need to fund unbudgeted items. This is a financial report for the six months ended June 30, 2019.

Background/Discussion

This agenda item provides a report on the District's fiscal condition as of June 30, 2019. For the six months, the District has recorded about $44.2 million in revenues and $24.2 million in operating expenses. After payments through June 30 related to debt and construction of $26.8 million (including prepayment of the Refunding Certificates of Participation, Series 2010A of $14.755 million) and $6.0 million respectfully, the total cash balance decreased by $11.9 million to $105.7 million at June 30, 2019.

June 30, 2019 Financial Update

Total District Revenues: Tables 1 and 2 represent revenues recorded (by fund and category) for the six months ended June 30, 2019 with comparable six month 2018 numbers.

Table 1
Total District Revenues by Fund
(in millions)

	2018			2019		
Fund	6 Months Adopted Budget	June 30 Revenues	Variance Over / (Under)	6 Months Adopted Budget	June 30 Revenues	Variance Over / (Under)
Water	$ 22.910	$ 18.159	$ (4.751)	$ 25.720	$ 20.897	$ (4.822)
Wastewater	15.960	14.132	(1.828)	17.698	16.150	(1.548)
Recycled Water	1.050	0.794	(0.256)	1.090	0.678	(0.411)
Hydroelectric	4.000	5.667	1.667	4.000	5.817	1.817
Recreation	0.706	0.480	(0.226)	0.720	0.689	(0.031)
Total	**$ 44.626**	**$ 39.232**	**$ (5.394)**	**$ 49.228**	**$ 44.231**	**$ (4.995)**

Table 2 compares 2018 and 2019 budgeted and actual revenue results for each year.

Table 2
Total District Revenues by Category
(in millions)

	2018			2019		
Revenue Category	6 Months Adopted Budget	June 30 Revenues	Variance Over / (Under)	6 Months Adopted Budget	June 30 Revenues	Variance Over / (Under)
Water Sales and Services	$ 15.062	$ 12.429	$ (2.633)	$ 15.964	$ 13.063	$ (2.901)
Wastewater Sales and Services	10.236	10.620	0.384	10.884	11.043	0.159
Recycled Water Sales	1.050	0.754	(0.296)	1.090	0.680	(0.410)
Hydropower Sales	4.000	5.631	1.631	4.000	5.771	1.771
Investment Income	0.376	0.767	0.391	0.376	0.946	0.570
Debt Surcharges	1.204	1.105	(0.099)	1.208	1.152	(0.056)
Property Tax	5.984	6.096	0.112	6.104	6.893	0.789
Other Income	1.008	0.141	(0.867)	1.382	0.219	(1.163)
Recreation	0.706	0.468	(0.238)	0.720	0.674	(0.046)
Subtotal	**39.626**	**38.011**	**(1.615)**	**41.728**	**40.441**	**(1.287)**
FCC's	5.000	1.221	(3.779)	7.500	3.790	(3.710)
Total	**$ 44.626**	**$ 39.232**	**$ (5.394)**	**$ 49.228**	**$ 44.231**	**$ (4.997)**

Recorded revenues for the first six months of 2019 are approximately $5.0 million lower than one-half of the budgeted revenues for the year. Lower revenues are related to water and recycled water revenue which will increase during the summer months as billings for the third quarter are recorded for higher consumption and lower FCC sales below mid-year forecast. Revenue is up $5.0 million year over year related to the rate increases implemented in January, increased property tax revenue, and FCC revenue growth year over year.

District Operating Expenses: For the six months ended June 30, 2019, the District has recorded about $24.2 million of its $51.9 million operating expense budget. Table 3 reflects operating expenses, by category compared to the six month budget.

Table 3
Budget to Actual Operating Expenses by Category
(in millions)

	2019		Variance
Expense Category	6 Months Adopted Budget	June 30 Expenses	Over / (Under)
Salaries	$ 9.408	$ 9.065	$ (0.343)
Benefits	7.114	6.580	(0.534)
Materials and Supplies			
Operating Supplies	2.084	2.051	(0.033)
Chemicals	0.560	0.497	(0.063)
Administrative Costs	1.908	1.945	0.037
Utilities	2.608	2.001	(0.607)
Professional Services	2.856	2.064	(0.792)
Repair Services	0.786	0.971	0.185
Insurance	0.386	0.585	0.199
Operating Capital	0.140	0.136	(0.004)
Contingency	0.126	0.000	(0.126)
Grants	0.000	0.000	0.000
CIP and Development Reimbursement Labor Offsets	(2.002)	(1.654)	0.348
Total	**$ 25.974**	**$ 24.241**	**$ (1.733)**

Table 4 shows the District's operating expenses, by category, for the six months ended 2019 compared to the budget.

Table 4
2019 Budget to Actual Operating Expenses by Category
January 1- June 30, 2019
(in millions)

	2019 Adopted Budget	June 30 Expenses	% of Budget
Wages	$ 18.816	$ 9.065	48.2%
Benefits (Table 5)	14.225	6.580	46.3%
Salaries and Benefits	**33.041**	**15.645**	**47.4%**
CIP and Development Reimbursement Labor Offsets	(4.759)	(1.654)	34.8%
Net personnel expense	**28.282**	**13.991**	**49.5%**
Materials and Services			
-Operating Supplies	4.169	2.051	49.2%
-Chemicals	1.121	0.497	44.3%
-Administrative Costs	3.814	1.945	51.0%
-Utilities	5.217	2.001	38.4%
-Professional Services	5.710	2.064	36.1%
-Repair Services	1.576	0.971	61.6%
-Insurance	0.772	0.585	75.8%
-Operating Capital Outlay	0.279	0.136	48.7%
-Contingency	0.250	0.000	n/a
Total Materials and Services	**22.908**	**10.250**	**44.7%**
Total Expenses	**$ 51.190**	**$ 24.241**	**47.4%**

Actual expenses for 2019 are 47.4% of the total approved 2019 budget which is on track with Fiscal Year 2018. For the period ended June 30, 2018 the budget was 47.7% expended.

Table 5 shows the employee benefits through June 30, 2019 compared to the budgeted benefits by type.

Table 5
2019 Budget to Actual Employee Benefits
January 1-June 30, 2019
(in millions)

Type	2019 Adopted Budget	2019 Expenses	% of Budget
Medical	$ 3.655	$ 1.622	44.4%
Retiree Health	1.840	0.835	45.4%
Dental/Vision	0.374	0.156	41.7%
EAP	0.006	0.000	0.0%
Life	0.018	0.005	27.8%
Workers' Compensation	0.354	0.176	49.7%
FICA	1.367	0.711	52.0%
PERS	6.486	3.006	46.3%
Medical Reimbursement	0.060	0.022	36.7%
Vehicle Allowance	0.025	0.015	60.0%
Other Employee Costs	0.040	0.032	80.0%
Total Benefits	**$ 14.225**	**$ 6.580**	**46.3%**

Employee benefits are in line for the first six months of 2019 when adjusted for the timing of payrolls.

Table 6 shows the operating expenses by category comparing 2018 and 2019 six month results.

Table 6
Operating Expenses by Category
(in millions)

	2018	**2019**	
Expense Category	June 30 Expenses	June 30 Expenses	Increase / (Decrease)
Salaries	$ 8.724	$ 9.065	$ 0.341
Benefits	6.126	6.580	0.454
Materials and Supplies			
Operating Supplies	1.857	2.051	0.194
Chemicals	0.433	0.497	0.064
Administrative Costs	1.784	1.945	0.161
Utilities	2.251	2.001	(0.250)
Professional Services	2.058	2.064	0.006
Repair Services	0.431	0.971	0.540
Insurance	0.586	0.585	(0.001)
Operating Capital	0.187	0.136	(0.051)
Contingency	0.000	0.000	0.000
Grants	0.000	0.000	0.000
CIP and Development Reimbursement Labor Offsets	(1.575)	(1.654)	(0.079)
Total	**$ 22.862**	**$ 24.241**	**$ 1.379**

Salaries are similar to the same period last year adjusted for the cost of living increases applied in 2019. The increase in benefits in 2019 is related to cost increases in 2019 such as PERS that increased approximately $500,000.

District Cash Balances: Table 7 below reflects the dollar change in cash balances from the end of 2018 to June 30, 2019.

Table 7
Cash Balance
(in millions)

	12/31/18	6/30/19	Change
Total	**$117.6**	**$105.7**	**($11.9)**

2019-2023 Financial Forecast: Table 8 shows the adopted 5-year forecast from December 2018. Staff will continue to monitor the District's financial status, provide reports to the Board and note any occurrences of irregular conditions.

Staff has not made any revisions to the 2019 financial forecast for this update but will review for any forecast changes to hydropower sales and FCC sales during the 3rd quarter following continuing conversations with developers.

Staff has included a financial and cash forecast as previously requested by a Board member (Table 9) reflecting the impact of reducing the proposed 2021 water bond sale downward from $50 million to $25 million. The impact to year-end cash balances for total District and the water utility are obvious. What is important to note is, even with the forecast assumption of annual 3% rate increases, days cash for the overall District drops to about 177 days in 2023 with a $25 million bond sale compared to 317 days with a $50 million bond sale. The water utility, by itself, drops to 98 days, down from 301.

Included as an attachment to this AIS is the ten-year financial and cash forecasts for 2019-2028. Currently, the forecast for years 2024-2028 includes the same assumptions as the 2019-2023 forecast years which reflect an annual 3% rate increase for all utilities, 3% inflation rates for years 2023-24, and 2% thereafter for operating expenses and $5 million in FCCs.

Notable consequences of the ten-year forecast with current assumptions are that debt coverage requirements are maintained but at a CIP spending level of $17.5 million per year in 2024-2028; and days cash, District-wide, falls to 7 days of cash and for the water utility it goes negative in 2025. Contrary to the water utility, the wastewater fund builds its cash balance over this period of time creating solid reserves.

The current forecast, therefore, suggests the projected rate increases for the water utility are probably too low and another water bond sale would probably be necessary within that five-year period. Conversely, the wastewater fund reflects that the assumed rate increases may not be necessary, or at a minimum, could be reduced over the same period of time, 2024-2028.

Table 8
2019-2023 Financial Forecast

Total District	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Total Debt Proceeds	$ -	$ -	50.0	-	-
Total Revenues	98.5	95.6	96.8	92.9	95.2
Total Maintenance and Operation Costs	51.2	53.2	55.2	56.9	58.6
Net Revenues	47.3	42.4	41.6	36.0	36.6
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1
Net Revenues Available After Pre-existing Obligations	46.2	41.3	40.5	34.9	35.5
Senior Debt Service	22.1	21.5	17.8	15.7	15.7
Cash Available from Current Year Activities for Capital Projects or Other Improvements	24.1	19.8	72.7	19.2	19.8
Cash Balance - January 1	128.4	102.9	80.2	121.2	120.5
Total Cash Available for Capital Projects or Debt Pre-payment	152.5	122.7	152.9	140.4	140.3
Total CIP	(44.3)	(36.5)	(25.7)	(13.9)	(14.2)
Debt Reserve Paydown on New Debt	13.2	-	-	-	-
Pre-funding Debt	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-
Cash Balance - December 31	$ 102.9	$ 80.2	121.2	120.5	120.1
Senior Debt Service Coverage (1.25x test)	2.09	1.92	2.28	2.22	2.26
Internal Senior Debt Coverage					
Total FCCs in Revenue Above	15.0	10.0	10.0	5.0	5.0
$$$ of FCCs Removed from Calculation	15.0	10.0	10.0	5.0	5.0
Internal Senior Debt Coverage (1.0x test)	1.41	1.46	1.71	1.90	1.94

Table 8 (cont.)
2019-2023 Financial Forecast

Water Utility Only	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Total Debt Proceeds	-	-	50.0	-	-
Total Revenues	60.9	59.1	60.0	57.2	58.4
Total Maintenance and Operation Costs	33.0	34.3	35.5	36.4	37.5
Net Revenues	27.9	24.7	24.5	20.8	20.9
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1
Net Revenues Available After Pre-existing Obligations	26.8	23.7	23.4	19.7	19.9
Senior Debt Service	13.7	13.4	11.7	11.5	11.6
CIP Expenditures	-	-	-	-	-
CIP - IT Master Plan	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements	13.0	10.3	61.7	8.2	8.3
Cash Balance - January 1	86.4	58.5	33.8	70.2	66.4
Total Cash Available for Capital Projects or Debt Pre-payment	99.5	68.8	95.5	78.3	74.7
Total CIP	(38.5)	(31.8)	(22.2)	(8.7)	(8.9)
Debt Reserve Paydown on New Debt					
Pre-funding Debt	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-
Cash Balance - December 31	58.5	33.8	70.2	66.4	62.7
Senior Debt Service Coverage (1.25x test)	1.95	1.77	2.00	1.71	1.71
Internal Senior Debt Coverage					
Total FCCs in Revenue Above	8.85	5.90	5.90	2.95	2.95
$$$ of FCCs Removed from Calculation	8.85	5.90	5.90	2.95	2.95
Internal Senior Debt Coverage (1.0x test)	1.31	1.33	1.50	1.45	1.46

Table 8 (cont.)
2019-2023 Financial Forecast

Wastewater Utility Only	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Total Debt Proceeds	-	-	-	-	-
Total Revenues	37.6	36.6	36.8	35.7	36.8
Total Maintenance and Operation Costs	18.2	18.9	19.7	20.5	21.1
Net Revenues	19.4	17.7	17.1	15.2	15.8
Pre-existing State Obligations	-	-	-	-	-
Net Revenues Available After Pre-existing Obligations	19.4	17.7	17.1	15.2	15.8
Senior Debt Service	8.4	8.1	6.0	4.1	4.1
CIP Expenditures	-	-	-	-	-
CIP - IT Master Plan	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements	11.0	9.6	11.1	11.1	11.6
Cash Balance - January 1	41.9	44.3	46.4	51.2	54.2
Total Cash Available for Capital Projects or Debt Pre-payment	52.9	53.9	57.5	62.2	65.8
Total CIP	(5.8)	(4.6)	(3.5)	(5.2)	(5.3)
Pre-funding Debt	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
Other Receipts-Insurance, FEMA and OES	-	-	-	-	-
Cash Balance - December 31	44.3	46.4	51.2	54.2	57.7
Senior Debt Service Coverage (1.25x test)	2.32	2.19	2.83	3.67	3.81
Internal Senior Debt Coverage					
Total FCCs in Revenue Above	6.15	4.10	4.10	2.05	2.05
$$$ of FCCs Removed from Calculation	6.15	4.10	4.10	2.05	2.05
Internal Senior Debt Coverage (1.0x test)	1.59	1.68	2.15	3.18	3.31

Table 8 (cont.)
2019-2023 Cash Forecast

Total District	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Breakdown of End of Year Cash Balance					
Unrestricted/Unreserved	$ 25.3	$ 14.1	$ 13.7	$ 18.2	$ 15.0
Reserved					
Operating	12.8	13.3	13.8	14.2	14.6
Capital Replacement Reserves	16.8	16.8	16.8	16.8	16.8
Routine Capital Replacement Reserves	3.4	3.4	3.4	3.4	3.4
Self Insurance Reserves	1.0	1.0	1.0	1.0	1.0
	34.0	34.5	35.0	35.4	35.8
Total unrestricted and reserved cash	59.3	48.6	48.7	53.6	50.8
Restricted-Debt Reserves	4.4	4.4	4.4	4.4	4.4
Restricted-Growth CIP (FCCs)	50.1	55.1	60.1	62.6	65.1
Restricted-CIP from Bonds	-11.0	-27.9	8.1	0.0	0.0
	43.6	31.6	72.6	67.0	69.5
Total	$ 102.8	$ 80.2	$ 121.3	$ 120.7	$ 120.3
days cash	422.55	333.39	321.98	344.12	316.66

Water Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Breakdown of End of Year Cash Balance					
Unrestricted/Unreserved	$ 25.5	$ 14.5	$ 11.6	$ 14.3	$ 8.8
Reserved					
Operating	8.3	8.6	8.9	9.1	9.4
Capital Replacement Reserves	10.1	10.1	10.1	10.1	10.1
Routine Capital Replacement Reserves	2.0	2.0	2.0	2.0	2.0
Self Insurance Reserves	0.6	0.6	0.6	0.6	0.6
	21.0	21.3	21.6	21.8	22.1
Total unrestricted and reserved cash	46.5	35.8	33.2	36.1	30.9
Restricted-Debt Reserves	3.5	3.5	3.5	3.5	3.5
Restricted-Growth CIP (FCCs)	19.4	22.4	25.3	26.8	28.3
Restricted-CIP from Bonds	-11.0	-27.9	8.1	0.0	0.0
	12.0	-2.0	37.0	30.3	31.8
Total	$ 58.5	$ 33.8	$ 70.2	$ 66.4	$ 62.7
days cash	514.41	380.51	341.11	362.13	300.67

Wastewater Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Breakdown of End of Year Cash Balance					
Unrestricted/Unreserved	$ (0.3)	$ (0.4)	$ 2.1	$ 3.9	$ 6.2
Reserved					
Operating	4.5	4.7	4.9	5.1	5.3
Capital Replacement Reserves	6.7	6.7	6.7	6.7	6.7
Routine Capital Replacement Reserves	1.4	1.4	1.4	1.4	1.4
Self Insurance Reserves	0.4	0.4	0.4	0.4	0.4
	13.0	13.2	13.4	13.6	13.7
Total unrestricted and reserved cash	12.8	12.8	15.5	17.5	20.0
Restricted-Debt Reserves	0.9	0.9	0.9	0.9	0.9
Restricted-Growth CIP (FCCs)	30.7	32.7	34.8	35.8	36.8
Restricted-CIP from Bonds	0.0	0.0	0.0	0.0	0.0
	31.6	33.6	35.7	36.7	37.7
Total	$ 44.3	$ 46.4	$ 51.2	$ 54.2	$ 57.7
days cash	256.00	247.17	287.97	312.85	345.73

Table 9
2019-2023 Financial Forecast
$25 million bond sale

Total District	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Total Debt Proceeds	$ -	$ -	25.0	-	-
Total Revenues	98.5	95.6	96.8	92.9	95.2
Total Maintenance and Operation Costs	51.2	53.2	55.2	56.9	58.6
Net Revenues	47.3	42.4	41.6	36.0	36.6
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1
Net Revenues Available After Pre-existing Obligations	46.2	41.3	40.5	34.9	35.5
Senior Debt Service	22.1	21.5	17.8	14.4	14.5
Cash Available from Current Year Activities for Capital Projects or Other Improvements	24.1	19.8	47.7	20.5	21.0
Cash Balance - January 1	128.4	102.9	80.2	96.2	96.8
Total Cash Available for Capital Projects or Debt Pre-payment	152.5	122.7	127.9	116.7	117.8
Total CIP	(44.3)	(36.5)	(25.7)	(13.9)	(14.2)
Debt Reserve Paydown on New Debt	13.2	-	-	-	-
Pre-funding Debt	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-
Cash Balance - December 31	$ 102.9	$ 80.2	96.2	96.8	97.6
Senior Debt Service Coverage (1.25x test)	2.09	1.92	2.28	2.42	2.45
Internal Senior Debt Coverage					
Total FCCs in Revenue Above	15.0	10.0	10.0	5.0	5.0
$$$ of FCCs Removed from Calculation	15.0	10.0	10.0	5.0	5.0
Internal Senior Debt Coverage (1.0x test)	1.41	1.46	1.71	2.08	2.10

Table 9 (con't)
2019-2023 Financial Forecast
$25 million bond sale

Water Utility Only	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Total Debt Proceeds	-	-	25.0	-	-
Total Revenues	60.9	59.1	60.0	57.2	58.4
Total Maintenance and Operation Costs	33.0	34.3	35.5	36.4	37.5
Net Revenues	27.9	24.7	24.5	20.8	20.9
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1
Net Revenues Available After Pre-existing Obligations	26.8	23.7	23.4	19.7	19.9
Senior Debt Service	13.7	13.4	11.7	10.3	10.3
CIP Expenditures	-	-	-	-	-
CIP - IT Master Plan	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements	13.0	10.3	36.7	9.4	9.5
Cash Balance - January 1	86.4	58.5	33.8	45.2	42.7
Total Cash Available for Capital Projects or Debt Pre-payment	99.5	68.8	70.5	54.6	52.2
Total CIP	(38.5)	(31.8)	(22.2)	(8.7)	(8.9)
Debt Reserve Paydown on New Debt					
Pre-funding Debt	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-
Cash Balance - December 31	58.5	33.8	45.2	42.7	40.2
Senior Debt Service Coverage (1.25x test)	1.95	1.77	2.00	1.92	1.92
Internal Senior Debt Coverage					
Total FCCs in Revenue Above	8.85	5.90	5.90	2.95	2.95
$$$ of FCCs Removed from Calculation	8.85	5.90	5.90	2.95	2.95
Internal Senior Debt Coverage (1.0x test)	1.31	1.33	1.50	1.63	1.64

Table 9 (con't)
2019-2023 Financial Forecast
$25 million bond sale

Wastewater Utility Only	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Total Debt Proceeds	-	-	-	-	-
Total Revenues	37.6	36.6	36.8	35.7	36.8
Total Maintenance and Operation Costs	18.2	18.9	19.7	20.5	21.1
Net Revenues	19.4	17.7	17.1	15.2	15.8
Pre-existing State Obligations	-	-	-	-	-
Net Revenues Available After Pre-existing Obligations	19.4	17.7	17.1	15.2	15.8
Senior Debt Service	8.4	8.1	6.0	4.1	4.1
CIP Expenditures	-	-	-	-	-
CIP - IT Master Plan	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements	11.0	9.6	11.1	11.1	11.6
Cash Balance - January 1	41.9	44.3	46.4	51.2	54.2
Total Cash Available for Capital Projects or Debt Pre-payment	52.9	53.9	57.5	62.2	65.8
Total CIP	(5.8)	(4.6)	(3.5)	(5.2)	(5.3)
Pre-funding Debt	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
Other Receipts-Insurance, FEMA and OES	-	-	-	-	-
Cash Balance - December 31	44.3	46.4	51.2	54.2	57.7
Senior Debt Service Coverage (1.25x test)	2.32	2.19	2.83	3.67	3.81
Internal Senior Debt Coverage					
Total FCCs in Revenue Above	6.15	4.10	4.10	2.05	2.05
$$$ of FCCs Removed from Calculation	6.15	4.10	4.10	2.05	2.05
Internal Senior Debt Coverage (1.0x test)	1.59	1.68	2.15	3.18	3.31

Table 9

2019-2023 Cash Forecast

$25 million water bond sale

Total District	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Breakdown of End of Year Cash Balance					
Unrestricted/Unreserved	$ 25.3	$ 14.1	$ 13.7	$ 19.5	$ (7.5)
Reserved					
Operating	12.8	13.3	13.8	14.2	14.6
Capital Replacement Reserves	16.8	16.8	16.8	16.8	16.8
Routine Capital Replacement Reserves	3.4	3.4	3.4	3.4	3.4
Self Insurance Reserves	1.0	1.0	1.0	1.0	1.0
	34.0	34.5	35.0	35.4	35.8
Total unrestricted and reserved cash	59.3	48.6	48.7	54.9	28.3
Restricted-Debt Reserves	4.4	4.4	4.4	4.4	4.4
Restricted-Growth CIP (FCCs)	50.1	55.1	60.1	62.6	65.1
Restricted-CIP from Bonds	-11.0	-27.9	-16.9	-25.0	0.0
	43.6	31.6	47.6	42.0	69.5
Total	$ 102.8	$ 80.2	$ 96.3	$ 96.9	$ 97.8
days cash	422.55	333.39	321.98	352.14	176.51

Water Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Breakdown of End of Year Cash Balance					
Unrestricted/Unreserved	$ 25.5	$ 14.5	$ 11.6	$ 15.5	$ (13.7)
Reserved					
Operating	8.3	8.6	8.9	9.1	9.4
Capital Replacement Reserves	10.1	10.1	10.1	10.1	10.1
Routine Capital Replacement Reserves	2.0	2.0	2.0	2.0	2.0
Self Insurance Reserves	0.6	0.6	0.6	0.6	0.6
	21.0	21.3	21.6	21.8	22.1
Total unrestricted and reserved cash	46.5	35.8	33.2	37.4	8.4
Restricted-Debt Reserves	3.5	3.5	3.5	3.5	3.5
Restricted-Growth CIP (FCCs)	19.4	22.4	25.3	26.8	28.3
Restricted-CIP from Bonds	-11.0	-27.9	-16.9	-25.0	0.0
	12.0	-2.0	12.0	5.3	31.8
Total	$ 58.5	$ 33.8	$ 45.2	$ 42.7	$ 40.2
days cash	514.41	380.51	341.11	374.66	81.64

Wastewater Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Breakdown of End of Year Cash Balance					
Unrestricted/Unreserved	$ (0.3)	$ (0.4)	$ 2.1	$ 3.9	$ 6.2
Reserved					
Operating	4.5	4.7	4.9	5.1	5.3
Capital Replacement Reserves	6.7	6.7	6.7	6.7	6.7
Routine Capital Replacement Reserves	1.4	1.4	1.4	1.4	1.4
Self Insurance Reserves	0.4	0.4	0.4	0.4	0.4
	13.0	13.2	13.4	13.6	13.7
Total unrestricted and reserved cash	12.8	12.8	15.5	17.5	20.0
Restricted-Debt Reserves	0.9	0.9	0.9	0.9	0.9
Restricted-Growth CIP (FCCs)	30.7	32.7	34.8	35.8	36.8
Restricted-CIP from Bonds	0.0	0.0	0.0	0.0	0.0
	31.6	33.6	35.7	36.7	37.7
Total	$ 44.3	$ 46.4	$ 51.2	$ 54.2	$ 57.7
days cash	256.00	247.17	287.97	312.85	345.73

Board Options
None – Information only

Attachments
Attachment A: 2019-2028 Financial and cash forecasts-$50 million 2021 water bond sale
Attachment B: 2019-2028 Financial and cash forecasts-$25 million 2021 water bond sale

Mark Price
Finance Director

Jim Abercrombie
General Manager

El Dorado Irrigation District	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
2019-2028 Forecast	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

Total District	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Total Debt Proceeds	$ -	$ -	50.0	-	-	-	-	-	-	-
Total Revenues	98.5	95.6	96.8	92.9	95.2	97.7	100.2	102.9	105.6	108.4
Total Maintenance and Operation Costs	51.2	53.2	55.2	56.9	58.6	60.3	61.5	62.8	64.0	65.3
Net Revenues	47.3	42.4	41.6	36.0	36.6	37.4	38.7	40.1	41.6	43.1
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1	0.9	0.9	0.7	0.5	0.4
Net Revenues Available After Pre-existing Obligations	46.2	41.3	40.5	34.9	35.5	36.5	37.8	39.4	41.1	42.7
Senior Debt Service	22.1	21.5	17.8	15.7	15.7	15.7	21.0	21.1	22.1	22.0
Cash Available from Current Year Activities for Capital Projects or Other Improvements	24.1	19.8	72.7	19.2	19.8	20.8	16.8	18.3	19.0	20.7
Cash Balance - January 1	128.4	102.9	80.2	121.2	120.5	120.1	117.4	110.7	105.5	101.0
Total Cash Available for Capital Projects or Debt Pre-payment	152.5	122.7	152.9	140.4	140.3	140.9	134.2	129.0	124.5	121.7
Total CIP	(44.3)	(36.5)	(25.7)	(13.9)	(14.2)	(17.5)	(17.5)	(17.5)	(17.5)	(17.5)
Debt Reserve Paydown on New Debt	13.2	-	-	-	-	-	-	-	-	-
Pre-funding Debt	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-	-	-	-	-	-
Cash Balance - December 31	$ 102.9	$ 80.2	121.2	120.5	120.1	117.4	110.7	105.5	101.0	98.2
Senior Debt Service Coverage (1.25x test)	2.09	1.92	2.28	2.22	2.26	2.32	1.80	1.87	1.86	1.94
Internal Senior Debt Coverage										
Total FCCs in Revenue Above	15.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
$$$ of FCCs Removed from Calculation	15.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Internal Senior Debt Coverage (1.0x test)	1.41	1.46	1.71	1.90	1.94	2.01	1.56	1.63	1.63	1.71

Attachment A

El Dorado Irrigation District WATER UTILITY Budget Forecast 2019-2028 Forecast Water Utility Only	3.0% Budget 2019	3.0% Projected 2020	3.0% Projected 2021	3.0% Projected 2022	3.0% Projected 2023	3.0% Projected 2024	3.0% Projected 2025	3.0% Projected 2026	3.0% Projected 2027	3.0% Projected 2028
Total Debt Proceeds	-	-	50.0	-	-	-	-	-	-	-
Total Revenues	60.9	59.1	60.0	57.2	58.4	59.7	61.0	62.3	63.7	65.1
Total Maintenance and Operation Costs	33.0	34.3	35.5	36.4	37.5	38.6	39.4	40.2	41.0	41.8
Net Revenues	27.9	24.7	24.5	20.8	20.9	21.1	21.6	22.2	22.7	23.3
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1	0.9	0.9	0.7	0.5	0.4
Net Revenues Available After Pre-existing Obligations	26.8	23.7	23.4	19.7	19.9	20.2	20.7	21.5	22.2	23.0
Senior Debt Service	13.7	13.4	11.7	11.5	11.6	11.6	17.0	17.1	18.1	18.0
CIP Expenditures	-	-	-	-	-	-	-	-	-	-
CIP - IT Master Plan	-	-	-	-	-	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements	13.0	10.3	61.7	8.2	8.3	8.6	3.7	4.4	4.1	4.9
Cash Balance - January 1	86.4	58.5	33.8	70.2	66.4	62.7	58.1	48.7	39.9	30.9
Total Cash Available for Capital Projects or Debt Pre-payment	99.5	68.8	95.5	78.3	74.7	71.3	61.8	53.1	44.1	35.8
Total CIP	(38.5)	(31.8)	(22.2)	(8.7)	(8.9)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)
Debt Reserve Paydown on New Debt										
Pre-funding Debt	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-	-	-	-	-	-
Cash Balance - December 31	58.5	33.8	70.2	66.4	62.7	58.1	48.7	39.9	30.9	22.7
Senior Debt Service Coverage (1.25x test)	1.95	1.77	2.00	1.71	1.71	1.74	1.22	1.26	1.23	1.27
Internal Senior Debt Coverage										
Total FCCs in Revenue Above	8.85	5.90	5.90	2.95	2.95	2.95	2.95	2.95	2.95	2.95
$$$ of FCCs Removed from Calculation	8.85	5.90	5.90	2.95	2.95	2.95	2.95	2.95	2.95	2.95
Internal Senior Debt Coverage (1.0x test)	1.31	1.33	1.50	1.45	1.46	1.49	1.04	1.09	1.07	1.11

El Dorado Irrigation District	WW	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
WASTEWATER UTILITY Budget Forecast	RW	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
2019-2028 Forecast											
Wastewater Utility Only		Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Total Debt Proceeds		-	-	-	-	-	-	-	-	-	-
Total Revenues		37.6	36.6	36.8	35.7	36.8	38.0	39.2	40.5	41.8	43.2
Total Maintenance and Operation Costs		18.2	18.9	19.7	20.5	21.1	21.7	22.1	22.6	23.0	23.5
Net Revenues		19.4	17.7	17.1	15.2	15.8	16.3	17.1	17.9	18.8	19.7
Pre-existing State Obligations		-	-	-	-	-	-	-	-	-	-
Net Revenues Available After Pre-existing Obligations		19.4	17.7	17.1	15.2	15.8	16.3	17.1	17.9	18.8	19.7
Senior Debt Service		8.4	8.1	6.0	4.1	4.1	4.1	4.0	4.0	4.0	4.0
CIP Expenditures		-	-	-	-	-	-	-	-	-	-
CIP - IT Master Plan		-	-	-	-	-	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements		11.0	9.6	11.1	11.1	11.6	12.2	13.1	13.9	14.8	15.7
Cash Balance - January 1		41.9	44.3	46.4	51.2	54.2	57.7	59.5	62.3	65.9	70.4
Total Cash Available for Capital Projects or Debt Pre-payment		52.9	53.9	57.5	62.2	65.8	69.8	72.6	76.2	80.7	86.1
Total CIP		(5.8)	(4.6)	(3.5)	(5.2)	(5.3)	(7.5)	(7.5)	(7.5)	(7.5)	(7.5)
Pre-funding Debt		(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
Other Receipts-Insurance, FEMA and OES		-	-	-	-	-	-	-	-	-	-
Cash Balance - December 31		44.3	46.4	51.2	54.2	57.7	59.5	62.3	65.9	70.4	75.8
Senior Debt Service Coverage (1.25x test)		2.32	2.19	2.83	3.67	3.81	3.94	4.28	4.49	4.70	4.93
Internal Senior Debt Coverage											
Total FCCs in Revenue Above		6.15	4.10	4.10	2.05	2.05	2.05	2.05	2.05	2.05	2.05
$$$ of FCCs Removed from Calculation		6.15	4.10	4.10	2.05	2.05	2.05	2.05	2.05	2.05	2.05
Internal Senior Debt Coverage (1.0x test)		1.59	1.68	2.15	3.18	3.31	3.44	3.76	3.97	4.19	4.42

Total District	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Breakdown of End of Year Cash Balance										
Unrestricted/Unreserved	$ 25.3	$ 14.1	$ 13.7	$ 18.2	$ 15.0	$ 9.3	$ (0.2)	$ (8.1)	$ (15.5)	$ (21.1)
Reserved										
Operating	12.8	13.3	13.8	14.2	14.6	15.1	15.4	15.7	16.0	16.3
Capital Replacement Reserves	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
Routine Capital Replacement Reserves	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Self Insurance Reserves	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	34.0	34.5	35.0	35.4	35.8	36.3	36.6	36.9	37.2	37.5
Total unrestricted and reserved cash	59.3	48.6	48.7	53.6	50.8	45.6	36.4	28.8	21.7	16.4
Restricted-Debt Reserves	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Restricted-Growth CIP (FCCs)	50.1	55.1	60.1	62.6	65.1	67.6	70.1	72.6	75.1	77.6
Restricted-CIP from Bonds	-11.0	-27.9	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	43.6	31.6	72.6	67.0	69.5	72.0	74.5	77.0	79.5	82.0
Total	$ 102.8	$ 80.2	$ 121.3	$ 120.7	$ 120.3	$ 117.6	$ 110.9	$ 105.8	$ 101.3	$ 98.4
						-	-	-	-	-
days cash	422.55	333.39	321.98	344.12	316.66	276.18	216.16	167.32	124.03	91.73

Water Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Breakdown of End of Year Cash Balance										
Unrestricted/Unreserved	$ 25.5	$ 14.5	$ 11.6	$ 14.3	$ 8.8	$ 2.5	$ (8.7)	$ (19.1)	$ (29.8)	$ (39.7)
Reserved										
Operating	8.3	8.6	8.9	9.1	9.4	9.7	9.8	10.0	10.2	10.5
Capital Replacement Reserves	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
Routine Capital Replacement Reserves	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Self Insurance Reserves	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	21.0	21.3	21.6	21.8	22.1	22.4	22.6	22.8	23.0	23.2
Total unrestricted and reserved cash	46.5	35.8	33.2	36.1	30.9	24.9	13.9	3.7	(6.8)	(16.5)
Restricted-Debt Reserves	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Restricted-Growth CIP (FCCs)	19.4	22.4	25.3	26.8	28.3	29.8	31.2	32.7	34.2	35.7
Restricted-CIP from Bonds	-11.0	-27.9	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12.0	-2.0	37.0	30.3	31.8	33.3	34.7	36.2	37.7	39.2
Total	$ 58.5	$ 33.8	$ 70.2	$ 66.4	$ 62.7	$ 58.1	$ 48.7	$ 39.9	$ 30.9	$ 22.7
						-	-	-	-	-
days cash	514.41	380.51	341.11	362.13	300.67	235.01	128.92	33.58	(60.58)	(144.14)

Wastewater Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Breakdown of End of Year Cash Balance										
Unrestricted/Unreserved	$ (0.3)	$ (0.4)	$ 2.1	$ 3.9	$ 6.2	$ 6.9	$ 8.5	$ 11.0	$ 14.3	$ 18.6
Reserved										
Operating	4.5	4.7	4.9	5.1	5.3	5.4	5.5	5.6	5.8	5.9
Capital Replacement Reserves	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Routine Capital Replacement Reserves	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Self Insurance Reserves	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	13.0	13.2	13.4	13.6	13.7	13.9	14.0	14.1	14.2	14.4
Total unrestricted and reserved cash	12.8	12.8	15.5	17.5	20.0	20.8	22.5	25.1	28.5	32.9
Restricted-Debt Reserves	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Restricted-Growth CIP (FCCs)	30.7	32.7	34.8	35.8	36.8	37.8	38.9	39.9	40.9	41.9
Restricted-CIP from Bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	31.6	33.6	35.7	36.7	37.7	38.7	39.8	40.8	41.8	42.8
Total	$ 44.3	$ 46.4	$ 51.2	$ 54.2	$ 57.7	$ 59.5	$ 62.3	$ 65.9	$ 70.4	$ 75.8
						$ -	$ -	$ -	$ -	$ -
days cash	256.00	247.17	287.97	312.85	345.73	349.25	371.24	405.75	452.61	511.64

Total District	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Breakdown of End of Year Cash Balance										
Unrestricted/Unreserved	$ 25.3	$ 14.1	$ 13.7	$ 19.5	$ (7.5)	$ (11.9)	$ (20.2)	$ (26.8)	$ (32.4)	$ (36.4)
Reserved										
Operating	12.8	13.3	13.8	14.2	14.6	15.1	15.4	15.7	16.0	16.3
Capital Replacement Reserves	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
Routine Capital Replacement Reserves	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Self Insurance Reserves	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	34.0	34.5	35.0	35.4	35.8	36.3	36.6	36.9	37.2	37.5
Total unrestricted and reserved cash	59.3	48.6	48.7	54.9	28.3	24.4	16.4	10.0	4.8	1.2
Restricted-Debt Reserves	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Restricted-Growth CIP (FCCs)	50.1	55.1	60.1	62.6	65.1	67.6	70.1	72.6	75.1	77.6
Restricted-CIP from Bonds	-11.0	-27.9	-16.9	-25.0	0.0	0.0	0.0	0.0	0.0	0.0
	43.6	31.6	47.6	42.0	69.5	72.0	74.5	77.0	79.5	82.0
Total	$ 102.8	$ 80.2	$ 96.3	$ 96.9	$ 97.8	$ 96.4	$ 90.9	$ 87.0	$ 84.3	$ 83.2
						-	-	-	-	-
days cash	422.55	333.39	321.98	352.14	176.51	147.55	97.46	58.35	27.14	6.53

Water Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Breakdown of End of Year Cash Balance										
Unrestricted/Unreserved	$ 25.5	$ 14.5	$ 11.6	$ 15.5	$ (13.7)	$ (18.8)	$ (28.7)	$ (37.8)	$ (46.8)	$ (54.9)
Reserved										
Operating	8.3	8.6	8.9	9.1	9.4	9.7	9.8	10.0	10.2	10.5
Capital Replacement Reserves	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
Routine Capital Replacement Reserves	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Self Insurance Reserves	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	21.0	21.3	21.6	21.8	22.1	22.4	22.6	22.8	23.0	23.2
Total unrestricted and reserved cash	46.5	35.8	33.2	37.4	8.4	3.6	-6.1	-15.1	(23.8)	(31.8)
Restricted-Debt Reserves	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Restricted-Growth CIP (FCCs)	19.4	22.4	25.3	26.8	28.3	29.8	31.2	32.7	34.2	35.7
Restricted-CIP from Bonds	-11.0	-27.9	-16.9	-25.0	0.0	0.0	0.0	0.0	0.0	0.0
	12.0	-2.0	12.0	5.3	31.8	33.3	34.7	36.2	37.7	39.2
Total	$ 58.5	$ 33.8	$ 45.2	$ 42.7	$ 40.2	$ 36.9	$ 28.7	$ 21.2	$ 13.9	$ 7.4
						-	-	-	-	-
days cash	514.41	380.51	341.11	374.66	81.64	34.18	(56.39)	(136.75)	(211.88)	(277.22)

Wastewater Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Breakdown of End of Year Cash Balance										
Unrestricted/Unreserved	$ (0.3)	$ (0.4)	$ 2.1	$ 3.9	$ 6.2	$ 6.9	$ 8.5	$ 11.0	$ 14.3	$ 18.6
Reserved										
Operating	4.5	4.7	4.9	5.1	5.3	5.4	5.5	5.6	5.8	5.9
Capital Replacement Reserves	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Routine Capital Replacement Reserves	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Self Insurance Reserves	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	13.0	13.2	13.4	13.6	13.7	13.9	14.0	14.1	14.2	14.4
Total unrestricted and reserved cash	12.8	12.8	15.5	17.5	20.0	20.8	22.5	25.1	28.5	32.9
Restricted-Debt Reserves	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Restricted-Growth CIP (FCCs)	30.7	32.7	34.8	35.8	36.8	37.8	38.9	39.9	40.9	41.9
Restricted-CIP from Bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	31.6	33.6	35.7	36.7	37.7	38.7	39.8	40.8	41.8	42.8
Total	$ 44.3	$ 46.4	$ 51.2	$ 54.2	$ 57.7	$ 59.5	$ 62.3	$ 65.9	$ 70.4	$ 75.8
						$ -	$ -	$ -	$ -	$ -
days cash	256.00	247.17	287.97	312.85	345.73	349.25	371.24	405.75	452.61	511.64

El Dorado Irrigation District	WW	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
WASTEWATER UTILITY Budget Forecast	RW	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
2019-2028 Forecast											
Wastewater Utility Only		Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Total Debt Proceeds		-	-	-	-	-	-	-	-	-	-
Total Revenues		37.6	36.6	36.8	35.7	36.8	38.0	39.2	40.5	41.8	43.2
Total Maintenance and Operation Costs		18.2	18.9	19.7	20.5	21.1	21.7	22.1	22.6	23.0	23.5
Net Revenues		19.4	17.7	17.1	15.2	15.8	16.3	17.1	17.9	18.8	19.7
Pre-existing State Obligations		-	-	-	-	-	-	-	-	-	-
Net Revenues Available After Pre-existing Obligations		19.4	17.7	17.1	15.2	15.8	16.3	17.1	17.9	18.8	19.7
Senior Debt Service		8.4	8.1	6.0	4.1	4.1	4.1	4.0	4.0	4.0	4.0
CIP Expenditures		-	-	-	-	-	-	-	-	-	-
CIP - IT Master Plan		-	-	-	-	-	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements		11.0	9.6	11.1	11.1	11.6	12.2	13.1	13.9	14.8	15.7
Cash Balance - January 1		41.9	44.3	46.4	51.2	54.2	57.7	59.5	62.3	65.9	70.4
Total Cash Available for Capital Projects or Debt Pre-payment		52.9	53.9	57.5	62.2	65.8	69.8	72.6	76.2	80.7	86.1
Total CIP		(5.8)	(4.6)	(3.5)	(5.2)	(5.3)	(7.5)	(7.5)	(7.5)	(7.5)	(7.5)
Pre-funding Debt		(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
Other Receipts-Insurance, FEMA and OES		-	-	-	-	-	-	-	-	-	-
Cash Balance - December 31		44.3	46.4	51.2	54.2	57.7	59.5	62.3	65.9	70.4	75.8
Senior Debt Service Coverage (1.25x test)		2.32	2.19	2.83	3.67	3.81	3.94	4.28	4.49	4.70	4.93
Internal Senior Debt Coverage											
Total FCCs in Revenue Above		6.15	4.10	4.10	2.05	2.05	2.05	2.05	2.05	2.05	2.05
$$$ of FCCs Removed from Calculation		6.15	4.10	4.10	2.05	2.05	2.05	2.05	2.05	2.05	2.05
Internal Senior Debt Coverage (1.0x test)		1.59	1.68	2.15	3.18	3.31	3.44	3.76	3.97	4.19	4.42

El Dorado Irrigation District
WATER UTILITY Budget Forecast
2019-2028 Forecast
Water Utility Only

	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Total Debt Proceeds	-	-	25.0	-	-	-	-	-	-	-
Total Revenues	60.9	59.1	60.0	57.2	58.4	59.7	61.0	62.3	63.7	65.1
Total Maintenance and Operation Costs	33.0	34.3	35.5	36.4	37.5	38.6	39.4	40.2	41.0	41.8
Net Revenues	27.9	24.7	24.5	20.8	20.9	21.1	21.6	22.2	22.7	23.3
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1	0.9	0.9	0.7	0.5	0.4
Net Revenues Available After Pre-existing Obligations	26.8	23.7	23.4	19.7	19.9	20.2	20.7	21.5	22.2	23.0
Senior Debt Service	13.7	13.4	11.7	10.3	10.3	10.3	15.8	15.8	16.3	16.3
CIP Expenditures	-	-	-	-	-	-	-	-	-	-
CIP - IT Master Plan	-	-	-	-	-	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements	13.0	10.3	36.7	9.4	9.5	9.9	4.9	5.7	5.9	6.7
Cash Balance - January 1	86.4	58.5	33.8	45.2	42.7	40.2	36.9	28.7	21.2	13.9
Total Cash Available for Capital Projects or Debt Pre-payment	99.5	68.8	70.5	54.6	52.2	50.1	41.8	34.3	27.1	20.6
Total CIP	(38.5)	(31.8)	(22.2)	(8.7)	(8.9)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)
Debt Reserve Paydown on New Debt										
Pre-funding Debt	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-	-	-	-	-	-
Cash Balance - December 31	58.5	33.8	45.2	42.7	40.2	36.9	28.7	21.2	13.9	7.4
Senior Debt Service Coverage (1.25x test)	1.95	1.77	2.00	1.92	1.92	1.95	1.31	1.36	1.36	1.41
Internal Senior Debt Coverage										
Total FCCs in Revenue Above	8.85	5.90	5.90	2.95	2.95	2.95	2.95	2.95	2.95	2.95
$$$ of FCCs Removed from Calculation	8.85	5.90	5.90	2.95	2.95	2.95	2.95	2.95	2.95	2.95
Internal Senior Debt Coverage (1.0x test)	1.31	1.33	1.50	1.63	1.64	1.67	1.13	1.17	1.18	1.23

El Dorado Irrigation District	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
2019-2028 Forecast	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

Total District	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Total Debt Proceeds	$ -	$ -	25.0	-	-	-	-	-	-	-
Total Revenues	98.5	95.6	96.8	92.9	95.2	97.7	100.2	102.9	105.6	108.4
Total Maintenance and Operation Costs	51.2	53.2	55.2	56.9	58.6	60.3	61.5	62.8	64.0	65.3
Net Revenues	47.3	42.4	41.6	36.0	36.6	37.4	38.7	40.1	41.6	43.1
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1	0.9	0.9	0.7	0.5	0.4
Net Revenues Available After Pre-existing Obligations	46.2	41.3	40.5	34.9	35.5	36.5	37.8	39.4	41.1	42.7
Senior Debt Service	22.1	21.5	17.8	14.4	14.5	14.5	19.8	19.8	20.3	20.3
Cash Available from Current Year Activities for Capital Projects or Other Improvements	24.1	19.8	47.7	20.5	21.0	22.0	18.0	19.6	20.8	22.4
Cash Balance - January 1	128.4	102.9	80.2	96.2	96.8	97.6	96.1	90.6	86.7	84.0
Total Cash Available for Capital Projects or Debt Pre-payment	152.5	122.7	127.9	116.7	117.8	119.6	114.1	110.2	107.5	106.4
Total CIP	(44.3)	(36.5)	(25.7)	(13.9)	(14.2)	(17.5)	(17.5)	(17.5)	(17.5)	(17.5)
Debt Reserve Paydown on New Debt	13.2	-	-	-	-	-	-	-	-	-
Pre-funding Debt	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-	-	-	-	-	-
Cash Balance - December 31	$ 102.9	$ 80.2	96.2	96.8	97.6	96.1	90.6	86.7	84.0	82.9
Senior Debt Service Coverage (1.25x test)	2.09	1.92	2.28	2.42	2.45	2.52	1.91	1.99	2.02	2.10
Internal Senior Debt Coverage										
Total FCCs in Revenue Above	15.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
$$$ of FCCs Removed from Calculation	15.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Internal Senior Debt Coverage (1.0x test)	1.41	1.46	1.71	2.08	2.10	2.17	1.66	1.74	1.78	1.86

June 30, 2019 Financial Update

El Dorado Irrigation District

August 26, 2019

2019 2nd Quarter Financial Update

Total District Revenues by Category
(in millions)

	2018			2019		
Revenue Category	**6 Months Adopted Budget**	**June 30 Revenues**	**Variance Over / (Under)**	**6 Months Adopted Budget**	**June 30 Revenues**	**Variance Over / (Under)**
Water Sales and Services	$ 15.062	$ 12.429	$ (2.633)	$ 15.964	$ 13.063	$ (2.901)
Wastewater Sales and Services	10.236	10.620	0.384	10.884	11.043	0.159
Recycled Water Sales	1.050	0.754	(0.296)	1.090	0.680	(0.410)
Hydropower Sales	4.000	5.631	1.631	4.000	5.771	1.771
Investment Income	0.376	0.767	0.391	0.376	0.946	0.570
Debt Surcharges	1.204	1.105	(0.099)	1.208	1.152	(0.056)
Property Tax	5.984	6.096	0.112	6.104	6.893	0.789
Other Income	1.008	0.141	(0.867)	1.382	0.219	(1.163)
Recreation	0.706	0.468	(0.238)	0.720	0.674	(0.046)
Subtotal	**39.626**	**38.011**	**(1.615)**	**41.728**	**40.441**	**(1.287)**
FCC's	5.000	1.221	(3.779)	7.500	3.790	(3.710)
Total	**$ 44.626**	**$ 39.232**	**$ (5.394)**	**$ 49.228**	**$ 44.231**	**$ (4.997)**

Budget to Actual Operating Expenses by Category

(in millions)

	2019		Variance
Expense Category	**6 Months Adopted Budget**	**June 30 Expenses**	**Over / (Under)**
Salaries	$ 9.408	$ 9.065	$ (0.343)
Benefits	7.114	6.580	(0.534)
Materials and Supplies			
Operating Supplies	2.084	2.051	(0.033)
Chemicals	0.560	0.497	(0.063)
Administrative Costs	1.908	1.945	0.037
Utilities	2.608	2.001	(0.607)
Professional Services	2.856	2.064	(0.792)
Repair Services	0.786	0.971	0.185
Insurance	0.386	0.585	0.199
Operating Capital	0.140	0.136	(0.004)
Contingency	0.126	0.000	(0.126)
Labor Offsets	(2.002)	(1.654)	0.348
Total	**$ 25.974**	**$ 24.241**	**$ (1.733)**

Comparative Operating Expenses by Category

(in millions)

	2018	2019	
Expense Category	**June 30 Expenses**	**June 30 Expenses**	**Increase / (Decrease)**
Salaries	$ 8.724	$ 9.065	$ 0.341
Benefits	6.126	6.580	0.454
Materials and Supplies			
Operating Supplies	1.857	2.051	0.194
Chemicals	0.433	0.497	0.064
Administrative Costs	1.784	1.945	0.161
Utilities	2.251	2.001	(0.250)
Professional Services	2.058	2.064	0.006
Repair Services	0.431	0.971	0.540
Insurance	0.586	0.585	(0.001)
Operating Capital	0.187	0.136	(0.051)
Contingency	0.000	0.000	0.000
Grants	0.000	0.000	0.000
Reimbursements from Developers	0.000	0.000	0.000
Labor Offsets	(1.575)	(1.654)	(0.079)
Total	**$ 22.862**	**$ 24.241**	**$ 1.379**

Budget to Actual Employee Benefits by Category

(in millions)

Type	2019 Adopted Budget	2019 Expenses	% of Budget
Medical	$ 3.655	$ 1.622	44.4%
Retiree Health	1.840	0.835	45.4%
Dental/Vision	0.374	0.156	41.7%
EAP	0.006	0.000	0.0%
Life	0.018	0.005	27.8%
Workers' Compensation	0.354	0.176	49.7%
FICA	1.367	0.711	52.0%
PERS	6.486	3.006	46.3%
Medical Reimbursement	0.060	0.022	36.7%
Vehicle Allowance	0.025	0.015	60.0%
Other Employee Costs	0.040	0.032	80.0%
Total Benefits	**$ 14.225**	**$ 6.580**	**46.3%**

2019-2023 Financial Forecast

Total District	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Total Debt Proceeds	$ -	$ -	50.0	-	-
Total Revenues	98.5	95.6	96.8	92.9	95.2
Total Maintenance and Operation Costs	51.2	53.2	55.2	56.9	58.6
Net Revenues	47.3	42.4	41.6	36.0	36.6
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1
Net Revenues Available After Pre-existing Obligations	46.2	41.3	40.5	34.9	35.5
Senior Debt Service	22.1	21.5	17.8	15.7	15.7
Cash Available from Current Year Activities for Capital Projects or Other Improvements	24.1	19.8	72.7	19.2	19.8
Cash Balance - January 1	128.4	102.9	80.2	121.2	120.5
Total Cash Available for Capital Projects or Debt Pre-payment	152.5	122.7	152.9	140.4	140.3
Total CIP	(44.3)	(36.5)	(25.7)	(13.9)	(14.2)
Debt Reserve Paydown on New Debt	13.2	-	-	-	-
Pre-funding Debt	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-
Cash Balance - December 31	$ 102.9	$ 80.2	121.2	120.5	120.1
Senior Debt Service Coverage (1.25x test)	2.09	1.92	2.28	2.22	2.26
Internal Senior Debt Coverage					
Total FCCs in Revenue Above	15.0	10.0	10.0	5.0	5.0
$$$ of FCCs Removed from Calculation	15.0	10.0	10.0	5.0	5.0
Internal Senior Debt Coverage (1.0x test)	1.41	1.46	1.71	1.90	1.94

2019-2023 Financial Forecast

Water Utility Only	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Total Debt Proceeds	-	-	50.0	-	-
Total Revenues	60.9	59.1	60.0	57.2	58.4
Total Maintenance and Operation Costs	33.0	34.3	35.5	36.4	37.5
Net Revenues	27.9	24.7	24.5	20.8	20.9
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1
Net Revenues Available After Pre-existing Obligations	26.8	23.7	23.4	19.7	19.9
Senior Debt Service	13.7	13.4	11.7	11.5	11.6
CIP Expenditures	-	-	-	-	-
CIP - IT Master Plan	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements	13.0	10.3	61.7	8.2	8.3
Cash Balance - January 1	86.4	58.5	33.8	70.2	66.4
Total Cash Available for Capital Projects or Debt Pre-payment	99.5	68.8	95.5	78.3	74.7
Total CIP	(38.5)	(31.8)	(22.2)	(8.7)	(8.9)
Debt Reserve Paydown on New Debt					
Pre-funding Debt	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-
Cash Balance - December 31	58.5	33.8	70.2	66.4	62.7
Senior Debt Service Coverage (1.25x test)	1.95	1.77	2.00	1.71	1.71
Internal Senior Debt Coverage					
Total FCCs in Revenue Above	8.85	5.90	5.90	2.95	2.95
$$$ of FCCs Removed from Calculation	8.85	5.90	5.90	2.95	2.95
Internal Senior Debt Coverage (1.0x test)	1.31	1.33	1.50	1.45	1.46

2019-2023 Financial Forecast

Wastewater Utility Only	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Total Debt Proceeds	-	-	-	-	-
Total Revenues	37.6	36.6	36.8	35.7	36.8
Total Maintenance and Operation Costs	18.2	18.9	19.7	20.5	21.1
Net Revenues	19.4	17.7	17.1	15.2	15.8
Pre-existing State Obligations	-	-	-	-	-
Net Revenues Available After Pre-existing Obligations	19.4	17.7	17.1	15.2	15.8
Senior Debt Service	8.4	8.1	6.0	4.1	4.1
CIP Expenditures	-	-	-	-	-
CIP - IT Master Plan	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements	11.0	9.6	11.1	11.1	11.6
Cash Balance - January 1	41.9	44.3	46.4	51.2	54.2
Total Cash Available for Capital Projects or Debt Pre-payment	52.9	53.9	57.5	62.2	65.8
Total CIP	(5.8)	(4.6)	(3.5)	(5.2)	(5.3)
Pre-funding Debt	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
Other Receipts-Insurance, FEMA and OES	-	-	-	-	-
Cash Balance - December 31	44.3	46.4	51.2	54.2	57.7
Senior Debt Service Coverage (1.25x test)	2.32	2.19	2.83	3.67	3.81
Internal Senior Debt Coverage					
Total FCCs in Revenue Above	6.15	4.10	4.10	2.05	2.05
$$$ of FCCs Removed from Calculation	6.15	4.10	4.10	2.05	2.05
Internal Senior Debt Coverage (1.0x test)	1.59	1.68	2.15	3.18	3.31

2019-2023 Financial Forecast

Projected Cash

Total District	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Breakdown of End of Year Cash Balance					
Unrestricted/Unreserved	$ 25.3	$ 14.1	$ 13.7	$ 18.2	$ 15.0
Reserved					
Operating	12.8	13.3	13.8	14.2	14.6
Capital Replacement Reserves	16.8	16.8	16.8	16.8	16.8
Routine Capital Replacement Reserves	3.4	3.4	3.4	3.4	3.4
Self Insurance Reserves	1.0	1.0	1.0	1.0	1.0
	34.0	34.5	35.0	35.4	35.8
Total unrestricted and reserved cash	59.3	48.6	48.7	53.6	50.8
Restricted-Debt Reserves	4.4	4.4	4.4	4.4	4.4
Restricted-Growth CIP (FCCs)	50.1	55.1	60.1	62.6	65.1
Restricted-CIP from Bonds	-11.0	-27.9	8.1	0.0	0.0
	43.6	31.6	72.6	67.0	69.5
Total	$ 102.8	$ 80.2	$ 121.3	$ 120.7	$ 120.3
days cash	422.55	333.39	321.98	344.12	316.66

2019-2023 Financial Forecast
Projected Cash

Water Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Breakdown of End of Year Cash Balance					
Unrestricted/Unreserved	$ 25.5	$ 14.5	$ 11.6	$ 14.3	$ 8.8
Reserved					
Operating	8.3	8.6	8.9	9.1	9.4
Capital Replacement Reserves	10.1	10.1	10.1	10.1	10.1
Routine Capital Replacement Reserves	2.0	2.0	2.0	2.0	2.0
Self Insurance Reserves	0.6	0.6	0.6	0.6	0.6
	21.0	21.3	21.6	21.8	22.1
Total unrestricted and reserved cash	46.5	35.8	33.2	36.1	30.9
Restricted-Debt Reserves	3.5	3.5	3.5	3.5	3.5
Restricted-Growth CIP (FCCs)	19.4	22.4	25.3	26.8	28.3
Restricted-CIP from Bonds	-11.0	-27.9	8.1	0.0	0.0
	12.0	-2.0	37.0	30.3	31.8
Total	$ 58.5	$ 33.8	$ 70.2	$ 66.4	$ 62.7
days cash	514.41	380.51	341.11	362.13	300.67

2019-2023 Financial Forecast
Projected Cash

Wastewater Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Breakdown of End of Year Cash Balance					
Unrestricted/Unreserved	$ (0.3)	$ (0.4)	$ 2.1	$ 3.9	$ 6.2
Reserved					
Operating	4.5	4.7	4.9	5.1	5.3
Capital Replacement Reserves	6.7	6.7	6.7	6.7	6.7
Routine Capital Replacement Reserves	1.4	1.4	1.4	1.4	1.4
Self Insurance Reserves	0.4	0.4	0.4	0.4	0.4
	13.0	13.2	13.4	13.6	13.7
Total unrestricted and reserved cash	12.8	12.8	15.5	17.5	20.0
Restricted-Debt Reserves	0.9	0.9	0.9	0.9	0.9
Restricted-Growth CIP (FCCs)	30.7	32.7	34.8	35.8	36.8
Restricted-CIP from Bonds	0.0	0.0	0.0	0.0	0.0
	31.6	33.6	35.7	36.7	37.7
Total	$ 44.3	$ 46.4	$ 51.2	$ 54.2	$ 57.7
days cash	256.00	247.17	287.97	312.85	345.73

2019-2028 Financial Forecast

10-Year Forecast ($50 Million Bond)

El Dorado Irrigation District										
	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
2019-2028 Forecast	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Total District	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Total Debt Proceeds	$ -	$ -	50.0	-	-	-	-	-	-	-
Total Revenues	98.5	95.6	96.8	92.9	95.2	97.7	100.2	102.9	105.6	108.4
Total Maintenance and Operation Costs	51.2	53.2	55.2	56.9	58.6	60.3	61.5	62.8	64.0	65.3
Net Revenues	47.3	42.4	41.6	36.0	36.6	37.4	38.7	40.1	41.6	43.1
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1	0.9	0.9	0.7	0.5	0.4
Net Revenues Available After Pre-existing Obligations	46.2	41.3	40.5	34.9	35.5	36.5	37.8	39.4	41.1	42.7
Senior Debt Service	22.1	21.5	17.8	15.7	15.7	15.7	21.0	21.1	22.1	22.0
Cash Available from Current Year Activities for Capital Projects or Other Improvements	24.1	19.8	72.7	19.2	19.8	20.8	16.8	18.3	19.0	20.7
Cash Balance - January 1	128.4	102.9	80.2	121.2	120.5	120.1	117.4	110.7	105.5	101.0
Total Cash Available for Capital Projects or Debt Pre-payment	152.5	122.7	152.9	140.4	140.3	140.9	134.2	129.0	124.5	121.7
Total CIP	(44.3)	(36.5)	(25.7)	(13.9)	(14.2)	(17.5)	(17.5)	(17.5)	(17.5)	(17.5)
Debt Reserve Paydown on New Debt	13.2	-	-	-	-	-	-	-	-	-
Pre-funding Debt	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-	-	-	-	-	-
Cash Balance - December 31	$ 102.9	$ 80.2	121.2	120.5	120.1	117.4	110.7	105.5	101.0	98.2
Senior Debt Service Coverage (1.25x test)	2.09	1.92	2.28	2.22	2.26	2.32	1.80	1.87	1.86	1.94
Internal Senior Debt Coverage										
Total FCCs in Revenue Above	15.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
$$$ of FCCs Removed from Calculation	15.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Internal Senior Debt Coverage (1.0x test)	1.41	1.46	1.71	1.90	1.94	2.01	1.56	1.63	1.63	1.71

2019-2028 Financial Forecast

10-Year Forecast ($50 Million Bond)

El Dorado Irrigation District WATER UTILITY Budget Forecast 2019-2028 Forecast Water Utility Only	3.0% Budget 2019	3.0% Projected 2020	3.0% Projected 2021	3.0% Projected 2022	3.0% Projected 2023	3.0% Projected 2024	3.0% Projected 2025	3.0% Projected 2026	3.0% Projected 2027	3.0% Projected 2028
Total Debt Proceeds	-	-	50.0	-	-	-	-	-	-	-
Total Revenues	60.9	59.1	60.0	57.2	58.4	59.7	61.0	62.3	63.7	65.1
Total Maintenance and Operation Costs	33.0	34.3	35.5	36.4	37.5	38.6	39.4	40.2	41.0	41.8
Net Revenues	27.9	24.7	24.5	20.8	20.9	21.1	21.6	22.2	22.7	23.3
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1	0.9	0.9	0.7	0.5	0.4
Net Revenues Available After Pre-existing Obligations	26.8	23.7	23.4	19.7	19.9	20.2	20.7	21.5	22.2	23.0
Senior Debt Service	13.7	13.4	11.7	11.5	11.6	11.6	17.0	17.1	18.1	18.0
CIP Expenditures	-	-	-	-	-	-	-	-	-	-
CIP - IT Master Plan	-	-	-	-	-	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements	13.0	10.3	61.7	8.2	8.3	8.6	3.7	4.4	4.1	4.9
Cash Balance - January 1	86.4	58.5	33.8	70.2	66.4	62.7	58.1	48.7	39.9	30.9
Total Cash Available for Capital Projects or Debt Pre-payment	99.5	68.8	95.5	78.3	74.7	71.3	61.8	53.1	44.1	35.8
Total CIP	(38.5)	(31.8)	(22.2)	(8.7)	(8.9)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)
Debt Reserve Paydown on New Debt										
Pre-funding Debt	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-	-	-	-	-	-
Cash Balance - December 31	58.5	33.8	70.2	66.4	62.7	58.1	48.7	39.9	30.9	22.7
Senior Debt Service Coverage (1.25x test)	1.95	1.77	2.00	1.71	1.71	1.74	1.22	1.26	1.23	1.27
Internal Senior Debt Coverage										
Total FCCs in Revenue Above	8.85	5.90	5.90	2.95	2.95	2.95	2.95	2.95	2.95	2.95
$$$ of FCCs Removed from Calculation	8.85	5.90	5.90	2.95	2.95	2.95	2.95	2.95	2.95	2.95
Internal Senior Debt Coverage (1.0x test)	1.31	1.33	1.50	1.45	1.46	1.49	1.04	1.09	1.07	1.11

2019-2028 Financial Forecast

10-Year Forecast ($50 Million Bond)

El Dorado Irrigation District	WW	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
WASTEWATER UTILITY Budget Forecast	RW	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
2019-2028 Forecast											
Wastewater Utility Only		Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Total Debt Proceeds		-	-	-	-	-	-	-	-	-	-
Total Revenues		37.6	36.6	36.8	35.7	36.8	38.0	39.2	40.5	41.8	43.2
Total Maintenance and Operation Costs		18.2	18.9	19.7	20.5	21.1	21.7	22.1	22.6	23.0	23.5
Net Revenues		19.4	17.7	17.1	15.2	15.8	16.3	17.1	17.9	18.8	19.7
Pre-existing State Obligations		-	-	-	-	-	-	-	-	-	-
Net Revenues Available After Pre-existing Obligations		19.4	17.7	17.1	15.2	15.8	16.3	17.1	17.9	18.8	19.7
Senior Debt Service		8.4	8.1	6.0	4.1	4.1	4.1	4.0	4.0	4.0	4.0
CIP Expenditures		-	-	-	-	-	-	-	-	-	-
CIP - IT Master Plan		-	-	-	-	-	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements		11.0	9.6	11.1	11.1	11.6	12.2	13.1	13.9	14.8	15.7
Cash Balance - January 1		41.9	44.3	46.4	51.2	54.2	57.7	59.5	62.3	65.9	70.4
Total Cash Available for Capital Projects or Debt Pre-payment		52.9	53.9	57.5	62.2	65.8	69.8	72.6	76.2	80.7	86.1
Total CIP		(5.8)	(4.6)	(3.5)	(5.2)	(5.3)	(7.5)	(7.5)	(7.5)	(7.5)	(7.5)
Pre-funding Debt		(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
Other Receipts-Insurance, FEMA and OES		-	-	-	-	-	-	-	-	-	-
Cash Balance - December 31		44.3	46.4	51.2	54.2	57.7	59.5	62.3	65.9	70.4	75.8
Senior Debt Service Coverage (1.25x test)		2.32	2.19	2.83	3.67	3.81	3.94	4.28	4.49	4.70	4.93
Internal Senior Debt Coverage											
Total FCCs in Revenue Above		6.15	4.10	4.10	2.05	2.05	2.05	2.05	2.05	2.05	2.05
$$$ of FCCs Removed from Calculation		6.15	4.10	4.10	2.05	2.05	2.05	2.05	2.05	2.05	2.05
Internal Senior Debt Coverage (1.0x test)		1.59	1.68	2.15	3.18	3.31	3.44	3.76	3.97	4.19	4.42

2019-2028 Financial Forecast

Projected Cash

($50 Million Bond)

Total District	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Breakdown of End of Year Cash										
Unrestricted/Unreserved	$ 25.3	$ 14.1	$ 13.7	$ 18.2	$ 15.0	$ 9.3	$ (0.2)	$ (8.1)	$ (15.5)	$ (21.1)
Reserved										
Operating	12.8	13.3	13.8	14.2	14.6	15.1	15.4	15.7	16.0	16.3
Capital Replacement	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
Routine Capital Replacement	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Self Insurance	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	34.0	34.5	35.0	35.4	35.8	36.3	36.6	36.9	37.2	37.5
Total unrestricted/reserved	59.3	48.6	48.7	53.6	50.8	45.6	36.4	28.8	21.7	16.4
Restricted-Debt Reserves	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Restricted-Growth CIP (FCCs)	50.1	55.1	60.1	62.6	65.1	67.6	70.1	72.6	75.1	77.6
Restricted-CIP from Bonds	-11.0	-27.9	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	43.6	31.6	72.6	67.0	69.5	72.0	74.5	77.0	79.5	82.0
Total	$ 102.8	$ 80.2	$ 121.3	$ 120.7	$ 120.3	$ 117.6	$ 110.9	$ 105.8	$ 101.3	$ 98.4
						-	-	-	-	-
days cash	422.55	333.39	321.98	344.12	316.66	276.18	216.16	167.32	124.03	91.73

2019-2028 Financial Forecast

Projected Cash

($50 Million Bond)

Water Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Breakdown of End of Year Cash										
Unrestricted/Unreserved	**$ 25.5**	**$ 14.5**	**$ 11.6**	**$ 14.3**	**$ 8.8**	**$ 2.5**	**$ (8.7)**	**$ (19.1)**	**$ (29.8)**	**$ (39.7)**
Reserved										
Operating	**8.3**	**8.6**	**8.9**	**9.1**	**9.4**	**9.7**	**9.8**	**10.0**	**10.2**	**10.5**
Capital Replacement	**10.1**	**10.1**	**10.1**	**10.1**	**10.1**	**10.1**	**10.1**	**10.1**	**10.1**	**10.1**
Routine Capital Replacement	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**
Self Insurance	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**
	21.0	**21.3**	**21.6**	**21.8**	**22.1**	**22.4**	**22.6**	**22.8**	**23.0**	**23.2**
Total unrestricted/reserved	**46.5**	**35.8**	**33.2**	**36.1**	**30.9**	**24.9**	**13.9**	**3.7**	**(6.8)**	**(16.5)**
Restricted-Debt Reserves	**3.5**	**3.5**	**3.5**	**3.5**	**3.5**	**3.5**	**3.5**	**3.5**	**3.5**	**3.5**
Restricted-Growth CIP (FCCs)	**19.4**	**22.4**	**25.3**	**26.8**	**28.3**	**29.8**	**31.2**	**32.7**	**34.2**	**35.7**
Restricted-CIP from Bonds	**-11.0**	**-27.9**	**8.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	12.0	**-2.0**	**37.0**	**30.3**	**31.8**	**33.3**	**34.7**	**36.2**	**37.7**	**39.2**
Total	**$ 58.5**	**$ 33.8**	**$ 70.2**	**$ 66.4**	**$ 62.7**	**$ 58.1**	**$ 48.7**	**$ 39.9**	**$ 30.9**	**$ 22.7**
						-	-	-	-	-
days cash	514.41	380.51	341.11	362.13	300.67	235.01	128.92	33.58	(60.58)	(144.14)

2019-2028 Financial Forecast

Projected Cash

($50 Million Bond)

Wastewater Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Breakdown of End of Year Cash										
Unrestricted/Unreserved	**$ (0.3)**	**$ (0.4)**	**$ 2.1**	**$ 3.9**	**$ 6.2**	**$ 6.9**	**$ 8.5**	**$ 11.0**	**$ 14.3**	**$ 18.6**
Reserved										
Operating	**4.5**	**4.7**	**4.9**	**5.1**	**5.3**	**5.4**	**5.5**	**5.6**	**5.8**	**5.9**
Capital Replacement	**6.7**	**6.7**	**6.7**	**6.7**	**6.7**	**6.7**	**6.7**	**6.7**	**6.7**	**6.7**
Routine Capital Replacement	**1.4**	**1.4**	**1.4**	**1.4**	**1.4**	**1.4**	**1.4**	**1.4**	**1.4**	**1.4**
Self Insurance	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**
	13.0	**13.2**	**13.4**	**13.6**	**13.7**	**13.9**	**14.0**	**14.1**	**14.2**	**14.4**
Total unrestricted/reserved	**12.8**	**12.8**	**15.5**	**17.5**	**20.0**	**20.8**	**22.5**	**25.1**	**28.5**	**32.9**
Restricted-Debt Reserves	**0.9**	**0.9**	**0.9**	**0.9**	**0.9**	**0.9**	**0.9**	**0.9**	**0.9**	**0.9**
Restricted-Growth CIP (FCCs)	**30.7**	**32.7**	**34.8**	**35.8**	**36.8**	**37.8**	**38.9**	**39.9**	**40.9**	**41.9**
Restricted-CIP from Bonds	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	31.6	**33.6**	**35.7**	**36.7**	**37.7**	**38.7**	**39.8**	**40.8**	**41.8**	**42.8**
Total	**$ 44.3**	**$ 46.4**	**$ 51.2**	**$ 54.2**	**$ 57.7**	**$ 59.5**	**$ 62.3**	**$ 65.9**	**$ 70.4**	**$ 75.8**
days cash	256.00	247.17	287.97	312.85	345.73	349.25	371.24	405.75	452.61	511.64

2019-2028 Financial Forecast

10-Year Forecast

($25 Million Bond)

El Dorado Irrigation District	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
2019-2028 Forecast	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Total District	**Budget 2019**	**Projected 2020**	**Projected 2021**	**Projected 2022**	**Projected 2023**	**Projected 2024**	**Projected 2025**	**Projected 2026**	**Projected 2027**	**Projected 2028**
Total Debt Proceeds	$ -	$ -	25.0	-	-	-	-	-	-	-
Total Revenues	98.5	95.6	96.8	92.9	95.2	97.7	100.2	102.9	105.6	108.4
Total Maintenance and Operation Costs	51.2	53.2	55.2	56.9	58.6	60.3	61.5	62.8	64.0	65.3
Net Revenues	47.3	42.4	41.6	36.0	36.6	37.4	38.7	40.1	41.6	43.1
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1	0.9	0.9	0.7	0.5	0.4
Net Revenues Available After Pre-existing Obligations	46.2	41.3	40.5	34.9	35.5	36.5	37.8	39.4	41.1	42.7
Senior Debt Service	22.1	21.5	17.8	14.4	14.5	14.5	19.8	19.8	20.3	20.3
Cash Available from Current Year Activities for Capital Projects or Other Improvements	24.1	19.8	47.7	20.5	21.0	22.0	18.0	19.6	20.8	22.4
Cash Balance - January 1	128.4	102.9	80.2	96.2	96.8	97.6	96.1	90.6	86.7	84.0
Total Cash Available for Capital Projects or Debt Pre-payment	152.5	122.7	127.9	116.7	117.8	119.6	114.1	110.2	107.5	106.4
Total CIP	(44.3)	(36.5)	(25.7)	(13.9)	(14.2)	(17.5)	(17.5)	(17.5)	(17.5)	(17.5)
Debt Reserve Paydown on New Debt	13.2	-	-	-	-	-	-	-	-	-
Pre-funding Debt	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-	-	-	-	-	-
Cash Balance - December 31	$ 102.9	$ 80.2	96.2	96.8	97.6	96.1	90.6	86.7	84.0	82.9
Senior Debt Service Coverage (1.25x test)	2.09	1.92	2.28	2.42	2.45	2.52	1.91	1.99	2.02	2.10
Internal Senior Debt Coverage										
Total FCCs in Revenue Above	15.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
$$$ of FCCs Removed from Calculation	15.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Internal Senior Debt Coverage (1.0x test)	1.41	1.46	1.71	2.08	2.10	2.17	1.66	1.74	1.78	1.86

2019-2028 Financial Forecast

10-Year Forecast

($25 Million Bond)

El Dorado Irrigation District WATER UTILITY Budget Forecast 2019-2028 Forecast Water Utility Only	3.0% Budget 2019	3.0% Projected 2020	3.0% Projected 2021	3.0% Projected 2022	3.0% Projected 2023	3.0% Projected 2024	3.0% Projected 2025	3.0% Projected 2026	3.0% Projected 2027	3.0% Projected 2028
Total Debt Proceeds	-	-	25.0	-	-	-	-	-	-	-
Total Revenues	60.9	59.1	60.0	57.2	58.4	59.7	61.0	62.3	63.7	65.1
Total Maintenance and Operation Costs	33.0	34.3	35.5	36.4	37.5	38.6	39.4	40.2	41.0	41.8
Net Revenues	27.9	24.7	24.5	20.8	20.9	21.1	21.6	22.2	22.7	23.3
Pre-existing State Obligations	1.1	1.1	1.1	1.1	1.1	0.9	0.9	0.7	0.5	0.4
Net Revenues Available After Pre-existing Obligations	26.8	23.7	23.4	19.7	19.9	20.2	20.7	21.5	22.2	23.0
Senior Debt Service	13.7	13.4	11.7	10.3	10.3	10.3	15.8	15.8	16.3	16.3
CIP Expenditures	-	-	-	-	-	-	-	-	-	-
CIP - IT Master Plan	-	-	-	-	-	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements	13.0	10.3	36.7	9.4	9.5	9.9	4.9	5.7	5.9	6.7
Cash Balance - January 1	86.4	58.5	33.8	45.2	42.7	40.2	36.9	28.7	21.2	13.9
Total Cash Available for Capital Projects or Debt Pre-payment	99.5	68.8	70.5	54.6	52.2	50.1	41.8	34.3	27.1	20.6
Total CIP	(38.5)	(31.8)	(22.2)	(8.7)	(8.9)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)
Debt Reserve Paydown on New Debt										
Pre-funding Debt	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)
Other Receipts-Insurance, FEMA and OES	0.7	-	-	-	-	-	-	-	-	-
Cash Balance - December 31	58.5	33.8	45.2	42.7	40.2	36.9	28.7	21.2	13.9	7.4
Senior Debt Service Coverage (1.25x test)	1.95	1.77	2.00	1.92	1.92	1.95	1.31	1.36	1.36	1.41
Internal Senior Debt Coverage										
Total FCCs in Revenue Above	8.85	5.90	5.90	2.95	2.95	2.95	2.95	2.95	2.95	2.95
$$$ of FCCs Removed from Calculation	8.85	5.90	5.90	2.95	2.95	2.95	2.95	2.95	2.95	2.95
Internal Senior Debt Coverage (1.0x test)	1.31	1.33	1.50	1.63	1.64	1.67	1.13	1.17	1.18	1.23

2019-2028 Financial Forecast

10-Year Forecast

($25 Million Bond)

El Dorado Irrigation District	WW	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
WASTEWATER UTILITY Budget Forecast	RW	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
2019-2028 Forecast											
Wastewater Utility Only		Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Total Debt Proceeds		-	-	-	-	-	-	-	-	-	-
Total Revenues		37.6	36.6	36.8	35.7	36.8	38.0	39.2	40.5	41.8	43.2
Total Maintenance and Operation Costs		18.2	18.9	19.7	20.5	21.1	21.7	22.1	22.6	23.0	23.5
Net Revenues		19.4	17.7	17.1	15.2	15.8	16.3	17.1	17.9	18.8	19.7
Pre-existing State Obligations		-	-	-	-	-	-	-	-	-	-
Net Revenues Available After Pre-existing Obligations		19.4	17.7	17.1	15.2	15.8	16.3	17.1	17.9	18.8	19.7
Senior Debt Service		8.4	8.1	6.0	4.1	4.1	4.1	4.0	4.0	4.0	4.0
CIP Expenditures		-	-	-	-	-	-	-	-	-	-
CIP - IT Master Plan		-	-	-	-	-	-	-	-	-	-
Cash Available from Current Year Activities for Capital Projects or Other Improvements		11.0	9.6	11.1	11.1	11.6	12.2	13.1	13.9	14.8	15.7
Cash Balance - January 1		41.9	44.3	46.4	51.2	54.2	57.7	59.5	62.3	65.9	70.4
Total Cash Available for Capital Projects or Debt Pre-payment		52.9	53.9	57.5	62.2	65.8	69.8	72.6	76.2	80.7	86.1
Total CIP		(5.8)	(4.6)	(3.5)	(5.2)	(5.3)	(7.5)	(7.5)	(7.5)	(7.5)	(7.5)
Pre-funding Debt		(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
Other Receipts-Insurance, FEMA and OES		-	-	-	-	-	-	-	-	-	-
Cash Balance - December 31		44.3	46.4	51.2	54.2	57.7	59.5	62.3	65.9	70.4	75.8
Senior Debt Service Coverage (1.25x test)		2.32	2.19	2.83	3.67	3.81	3.94	4.28	4.49	4.70	4.93
Internal Senior Debt Coverage											
Total FCCs in Revenue Above		6.15	4.10	4.10	2.05	2.05	2.05	2.05	2.05	2.05	2.05
$$$ of FCCs Removed from Calculation		6.15	4.10	4.10	2.05	2.05	2.05	2.05	2.05	2.05	2.05
Internal Senior Debt Coverage (1.0x test)		1.59	1.68	2.15	3.18	3.31	3.44	3.76	3.97	4.19	4.42

2019-2028 Financial Forecast

Projected Cash

($25 Million Bond)

Total District	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Breakdown of End of Year Cash										
Unrestricted/Unreserved	$ 25.3	$ 14.1	$ 13.7	$ 19.5	$ (7.5)	$ (11.9)	$ (20.2)	$ (26.8)	$ (32.4)	$ (36.4)
Reserved										
Operating	12.8	13.3	13.8	14.2	14.6	15.1	15.4	15.7	16.0	16.3
Capital Replacement	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
Routine Capital Replacement	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Self Insurance	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	34.0	34.5	35.0	35.4	35.8	36.3	36.6	36.9	37.2	37.5
Total unrestricted/reserved	59.3	48.6	48.7	54.9	28.3	24.4	16.4	10.0	4.8	1.2
Restricted-Debt Reserves	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Restricted-Growth CIP (FCCs)	50.1	55.1	60.1	62.6	65.1	67.6	70.1	72.6	75.1	77.6
Restricted-CIP from Bonds	-11.0	-27.9	-16.9	-25.0	0.0	0.0	0.0	0.0	0.0	0.0
	43.6	31.6	47.6	42.0	69.5	72.0	74.5	77.0	79.5	82.0
Total	$ 102.8	$ 80.2	$ 96.3	$ 96.9	$ 97.8	$ 96.4	$ 90.9	$ 87.0	$ 84.3	$ 83.2
						-	-	-	-	-
days cash	422.55	333.39	321.98	352.14	176.51	147.55	97.46	58.35	27.14	6.53

2019-2028 Financial Forecast

Projected Cash

($25 Million Bond)

Water Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Breakdown of End of Year Cash										
Unrestricted/Unreserved	$ 25.5	$ 14.5	$ 11.6	$ 15.5	$ (13.7)	$ (18.8)	$ (28.7)	$ (37.8)	$ (46.8)	$ (54.9)
Reserved										
Operating	8.3	8.6	8.9	9.1	9.4	9.7	9.8	10.0	10.2	10.5
Capital Replacement	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
Routine Capital Replacement	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Self Insurance	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	21.0	21.3	21.6	21.8	22.1	22.4	22.6	22.8	23.0	23.2
Total unrestricted/reserved	46.5	35.8	33.2	37.4	8.4	3.6	-6.1	-15.1	(23.8)	(31.8)
Restricted-Debt Reserves	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Restricted-Growth CIP (FCCs)	19.4	22.4	25.3	26.8	28.3	29.8	31.2	32.7	34.2	35.7
Restricted-CIP from Bonds	-11.0	-27.9	-16.9	-25.0	0.0	0.0	0.0	0.0	0.0	0.0
	12.0	-2.0	12.0	5.3	31.8	33.3	34.7	36.2	37.7	39.2
Total	$ 58.5	$ 33.8	$ 5.2	$ 42.7	$ 40.2	$ 36.9	$ 28.7	$ 21.2	$ 13.9	$ 7.4
						-	-	-	-	-
days cash	514.41	380.51	341.11	374.66	81.64	34.18	(56.39)	(136.75)	(211.88)	(277.22)

2019-2028 Financial Forecast

Projected Cash

($25 Million Bond)

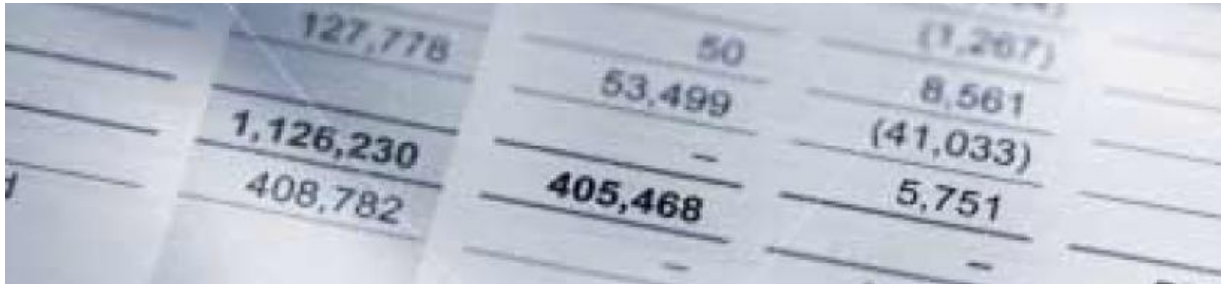
Wastewater Utility	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Breakdown of End of Year Cash										
Unrestricted/Unreserved	$ (0.3)	$ (0.4)	$ 2.1	$ 3.9	$ 6.2	$ 6.9	$ 8.5	$ 11.0	$ 14.3	$ 18.6
Reserved										
Operating	4.5	4.7	4.9	5.1	5.3	5.4	5.5	5.6	5.8	5.9
Capital Replacement	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Routine Capital Replacement	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Self Insurance	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	13.0	13.2	13.4	13.6	13.7	13.9	14.0	14.1	14.2	14.4
Total unrestricted/reserved	12.8	12.8	15.5	17.5	20.0	20.8	22.5	25.1	28.5	32.9
Restricted-Debt Reserves	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Restricted-Growth CIP (FCCs)	30.7	32.7	34.8	35.8	36.8	37.8	38.9	39.9	40.9	41.9
Restricted-CIP from Bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	31.6	33.6	35.7	36.7	37.7	38.7	39.8	40.8	41.8	42.8
Total	$ 44.3	$ 46.4	$ 51.2	$ 54.2	$ 57.7	$ 59.5	$ 62.3	$ 65.9	$ 70.4	$ 75.8
						$ -	$ -	$ -	$ -	$ -
days cash	256.00	247.17	287.97	312.85	345.73	349.25	371.24	405.75	452.61	511.64

Board Decision/Options

No Board Action Required

Information Only

- **Discussion**



EL DORADO IRRIGATION DISTRICT

Subject: Consideration to receive and file the 2019 Water Supply and Demand Report.

Previous Board Action

September 12, 2016– Board received and filed the 2016 Water Resources and Service Reliability Report.

Board Policies (BP), Administrative Regulations (AR) and Board Authority

BP 5010 Water Supply Management
AR 5010 Water Availability and Commitments

Summary of Issue

The Water Supply and Demand Report is updated to determine water supply, potential demand, and meter availability within the District. This item presents the 2019 Report for Board consideration.

Background/Discussion

The purpose of the *Water Supply and Demand Report* is to determine current water supply, potential demand, and water meter availability within the District as a "snapshot in time." It is not intended to be a planning document or provide projections of supply and demand into the future. The adopted *2013 Integrated Water Resources Master Plan*, the 2015 *Urban Water Management Plan*, and the Water Supply Assessments for major projects serve that purpose.

The original *Water Supply and Demand Report* was first prepared in 1991 as a result of a declared emergency water shortage condition at the time. A water advisory group was appointed to establish a systematic, consistent and factual basis for determining supply and demand for the EID system. The group consisted of Doug Leisz, Howard Kastan, Ed Murray, and Albert Hazbun. The original *Water Supply and Demand Report* presented the group's findings and was adopted by the Board in September 1991. The report found that there was indeed adequate water supply to meet potential demands, and the emergency was largely due to lack of accurate data.

The *Water Supply and Demand Report* was prepared annually until 2016, when the Board decided to prepare the Report at three-year intervals given sufficient water availability for the foreseeable future. The Report was renamed "*Water Resources and Service Reliability Report*" in 2004, however staff desires to return to the original title going forward as it better reflects the purpose of the report.

Water Supply

For purposes of calculating meter availability for the District, two water supply areas have been identified, one that receives water pumped from Folsom Reservoir – the El Dorado Hills supply, and one that receives water by gravity flow from the eastern supply sources – Project 184 and Jenkinson Lake – the Western/Eastern supply.

El Dorado Hills water supply

El Dorado Hills is supplied from Folsom Lake. The supply consists of 7,550 acre-feet (AF) from the United States Bureau of Reclamation (USBR) water service contract, 4,560 AF from the

ditch/Weber reservoir Warren Act contract, and 17,000 AF from Permit 21112. In dry years, these supplies are subject to reductions in the form of mandated cutbacks of the USBR contract and reduced yield of the ditch/Weber contract due to hydrologic conditions. The assumed single-dry year values are 3,775 AF from the USBR contract, and 3,000 from the ditch/Weber Warren Act contract. There are no anticipated reductions in this Permit 21112 supply in dry or multiple dry years.

For calculating available supply, the District used "single dry year" supply. The current El Dorado Hills supply is 23,775 AF.

Western/Eastern water supply
The supply for the Western/Eastern area consists of 15,080 AF from Project 184 at Forebay and approximately 21,920 AF per year from Jenkinson Lake, totaling approximately 36,000 acre-feet per year.

SYSTEM WATER SUPPLY	
El Dorado Hills Available Supply	23,775 AF
Western/Eastern Available Supply	36,000 AF

Unit Demand
The projected unit demand was calculated for each customer class using "ten-year average" unit demands to determine a current average unit demand. The unit demands used in 2019 are slightly lower than that used in the 2016 report given the overall trend of declining usage per customer.

SINGLE FAMILY RESIDENTIAL AVERAGE UNIT DEMAND	
Supply Area	**AF per EDU**
El Dorado Hills	0.60
Western/Eastern	0.39

Potential Demand
Due to varying topography and usage patterns, District water demands are divided into three regions: 1) El Dorado Hills, 2) Western Region, which includes Bass Lake, Cameron Park, Shingle Springs, El Dorado, and Diamond Springs; and 3) Eastern Region, which includes Pleasant Valley, Sly Park, Pollock Pines, Camino, Placerville and Lotus/Coloma. The water customers in each region are then further sub-divided into user categories depending upon the type of use for the water, such as residential or commercial, recreational turf or agricultural irrigation, or municipal wholesale delivery to the City of Placerville.

For 2019, the total potential demand for the District is estimated at 39,000 AF, which includes active, latent and other system demands as defined in the report. The potential demand is often greater than actual demands in any given year, because conservative assumptions of water usage are applied to all services to approximate the maximum demand the District could experience with high customer usage. For comparison, actual demands in 2018 were approximately 34,000 AF.

The following table provides details of the potential demand by supply area:

2019 POTENTIAL SYSTEM DEMANDS		
Demand Type	El Dorado Hills Supply Area (AF)	Western/Eastern Supply Area (AF)
Active Demand	7,098	18,736
Latent Demand	56	236
Other System Demand	4,580	8,327
Total Potential Demand	**11,734**	**27,299**

The following tables summarize the data for unallocated water supply and the resulting meter availability for 2019:

2019 UNALLOCATED WATER SUPPLY			
El Dorado Hills Supply Area (AF)		Western/Eastern Supply Area (AF)	
Available Supply	23,775	Available Supply	36,000
Total Potential Demand	11,734	Total Potential Demand	27,299
Unallocated Water Supply	**12,041**	**Unallocated Water Supply**	**8,701**

2019 WATER METER AVAILABILITY	
El Dorado Hills Supply Area	Western/Eastern Supply Area
2019 Unallocated Water Supply 12,041 AF	2019 Unallocated Water Supply 8,701 AF
Residential Unit Demand 0.60 AF/EDU	Residential Unit Demand 0.39 AF/EDU
2019 Water Meter Availability 20,068 EDUs	**2019 Water Meter Availability 22,162 EDUs**

Board Options

Option 1: Receive and file the 2019 Water Supply and Demand Report.

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

Option 3: Take no action.

Recommendation
Option 1

Attachments
Attachment A: 2019 Water Supply and Demand Report

Mike Brink
Supervising Civil Engineer

Brian Mueller
Engineering Director

Brian Poulsen
General Counsel

Jim Abercrombie
General Manager

Attachment A

2019 WATER SUPPLY

AND

DEMAND REPORT

El Dorado Irrigation District
2890 Mosquito Road
Placerville, California 95667

Presented to the EID Board of Directors
August 26, 2019

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TABLE OF CONTENTS

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LIST OF FIGURES

APPENDICES

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ES-1 EXECUTIVE SUMMARY

The *Water Supply and Demand Report (formally Water Resources and Service Reliability Report)* is updated every three years to determine current water supply and water meter availability within the El Dorado Irrigation District (EID or District). Board Policy 5010, Water Supply Management, states that the District will not issue any new water meters if there is insufficient water supply. Administrative Regulation 5010, Water Availability and Commitments, outlines the responsibilities for annual reporting, shortages, and new meter restrictions. This policy and regulation provide the means to ensure that meter sales do not exceed water supply. The last Board presentation of this report was on September 12, 2016 where the Board directed staff to prepare the report at three-year intervals, rather than annually, given the sufficient water supply availability for the foreseeable future.

For purposes of calculating meter availability for the District, two water supply areas have been identified, one that receives water pumped from Folsom Reservoir, and one that receives water by gravity flow from the eastern supply sources – Project 184 and Jenkinson Lake. To determine the amount of water that will be available in the coming year for new meter sales, the District uses the various water supplies available in a typical dry year, minus the total current potential demand for all uses of this water (excluding commitments).

The supply areas are divided into the El Dorado Hills supply area and the Western/Eastern supply area. The demands of the District have been divided into three regions: 1) El Dorado Hills; 2) Western Region, which includes the communities of Bass Lake, Cameron Park, Shingle Springs, Logtown, El Dorado and Diamond Springs; and 3) Eastern Region, which includes Pleasant Valley, Sly Park, Pollock Pines, Camino, Placerville, and Lotus/Coloma. Water customers in each region are then further sub-divided into user categories depending upon the type of use for the water, such as residential or commercial, turf or agricultural irrigation, or municipal delivery to the City of Placerville.

A projected unit demand methodology was first developed for the *2011 Report* for all user categories in each demand region. At the time of the preparation of the 2016 report the State was in the fourth year of a drought. To be consistent with the State of California Water Resources Control Board (SWRCB) use of 2013 as a base-year relative to conservation calculations, the 2016 *Water Resources and Service Reliability Report* used 2013 unit demands to calculate baseline demands and meter availability. This was also consistent with the District's approved 2015 Urban Water Management Plan. Ten-year average unit demands are used in this 2019 report, which are slightly lower than those used in the previous report and reflect the trend in declining usage per customer.

With the execution of a long-term contract with Reclamation for the District's 17,000 acre-foot Permit 21112 water right, in 2016 unallocated water supply increased greatly

from previous reports, along with the corresponding meter availability. In order to utilize these additional supplies, additional infrastructure improvements will be needed as growth occurs in the District. These improvements are detailed in the District's 2013 Integrated Water Resources Master Plan; which is scheduled to be updated by 2020.

The following table reflects the current water meter availability for the District.

2019 WATER METER AVAILABILITY	
EL DORADO HILLS SUPPLY AREA	WESTERN/EASTERN SUPPLY AREA
Water supply = 23,775 AF	Water Supply = 36,000 AF
Total Potential Demand = 11,734 AF	Total Potential Demand = 27,299 AF
Unallocated Water Supply = 12,041 AF	Unallocated Water Supply = 8,701 AF
Water Meter Availability = 20,068 EDUs	**Water Meter Availability = 22,162 EDUs**

1 SUMMARY OF WATER METER AVAILABILITY

The water meter availability for EID is tracked within two distinct water supply areas; the El Dorado Hills supply area and the Western/Eastern supply area, which are illustrated in Figure A. The unallocated water supply is calculated as annual acre-feet (AF), and then converted to equivalent dwelling units (EDUs).[1]

Table 1 summarizes the respective water meter availability for these two water supply areas. The subsequent Tables 2 through 9 are used to identify water supply and calculate the potential demand for both areas in order to determine the water meter availability.

1.1 El Dorado Hills Supply Area

The water supply for the El Dorado Hills supply area is provided in Table 2. The water supply is delivered from Folsom Reservoir. The active demand is provided in Table 5. Latent demand is shown in Table 6, while other system demand is shown in Table 9. The resulting unallocated water supply for the year is provided in Table 1.

The ten year average unit demands from 2009-2018 were used to convert the available water supply to meter availability.

In each supply area, there are several contractual commitments that have been established. These commitments are further described in Section 6, Commitments. The District's water supply is adequate to serve these commitments in addition to a general pool of meter availability.

[1] An EDU corresponds to a single-family residential dwelling served by a 3/4-inch water meter. Larger water meters, such as those for commercial applications, require additional EDUs.

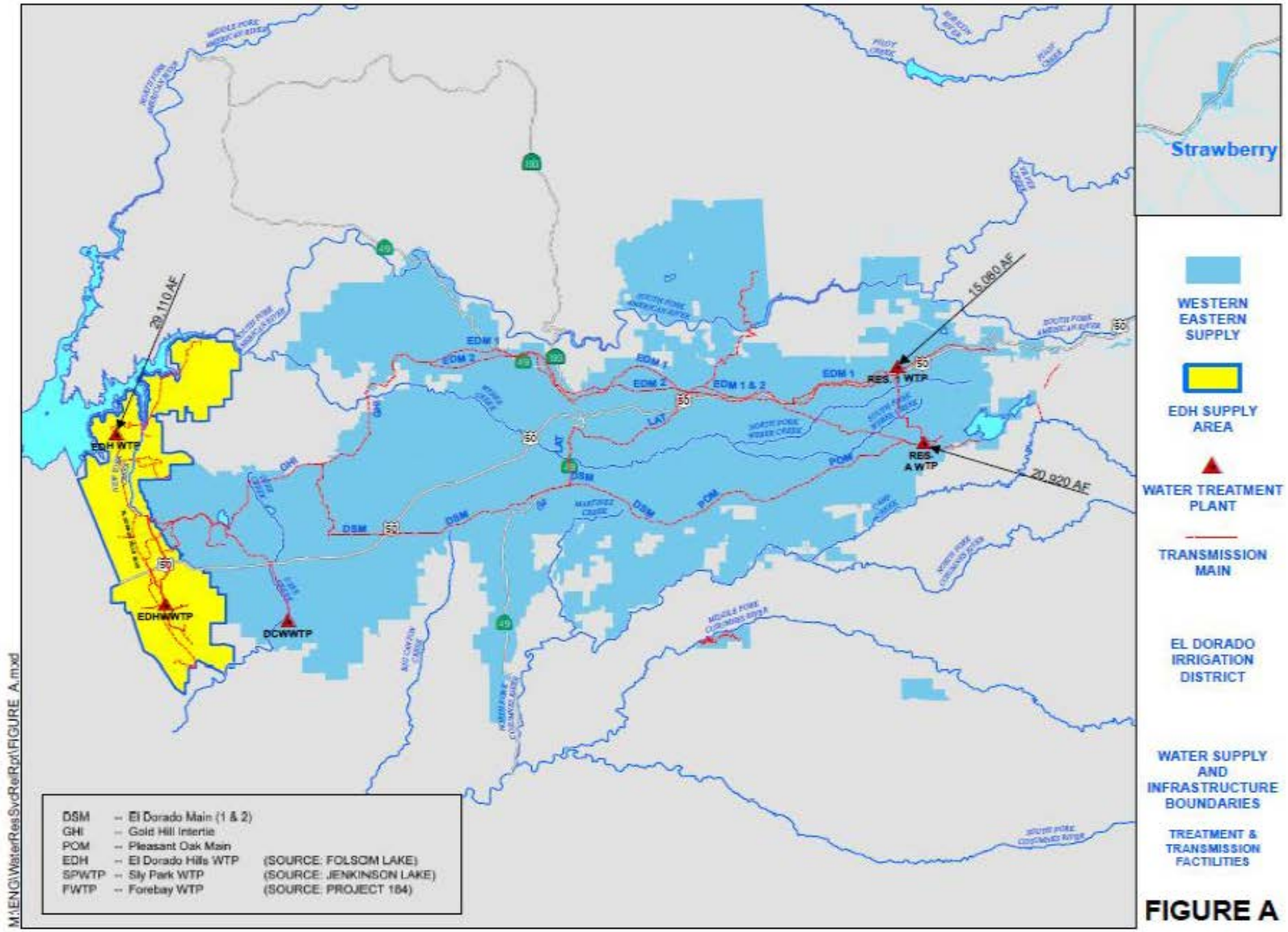

Strawberry
20,110 AF
15,060 AF
20,920 AE
EDH WTP
EDHWWTP
DCWWTP
RES 1 WTP
RES A WTP
EDM 1
EDM 2
EDM 1 & 2
DSM
GHI
POM
LAT
DSM -- El Dorado Main (1 & 2)
GHI -- Gold Hill Intertie
POM -- Pleasant Oak Main
EDH -- El Dorado Hills WTP (SOURCE: FOLSOM LAKE)
SPWTP -- Sly Park WTP (SOURCE: JENKINSON LAKE)
FWTP -- Forebay WTP (SOURCE: PROJECT 184)
WESTERN EASTERN SUPPLY
EDH SUPPLY AREA
WATER TREATMENT PLANT
TRANSMISSION MAIN
EL DORADO IRRIGATION DISTRICT
WATER SUPPLY AND INFRASTRUCTURE BOUNDARIES
TREATMENT & TRANSMISSION FACTILITIES
M:\ENG\WaterResSvcRelRpt\FIGURE A.mxd

FIGURE A

1.2 Western / Eastern Supply Area

The water supply for the Western / Eastern supply area is provided in Table 2, consisting of supplies from Project 184 and Jenkinson Lake. The active demand is provided in Table 7. Latent demand is shown in Tables 8A and 8B, while other system demand is shown in Table 9. The resulting unallocated water supply for the year is provided in Table 1.

The ten year average unit demands from 2009-2018 were used to convert the available water supply to meter availability.

The District also has contractual commitments within the Western/Eastern supply area from existing water supplies; these commitments are provided in Section 6, Commitments. The District's water supply is adequate to serve these commitments in addition to a general pool of meter availability.

1.3 Calculation of Water Meter Availability

The following Tables 1 through 9 describe the available water supply and calculate the potential demands of the two supply areas. Water meter availability is the difference between the available water supply and the total potential demand for each respective area. Total potential demand is the sum of active demand, latent demand, and other system demand. The active and latent demands have been determined using the average unit demands for each user category, multiplied by the number of active and latent accounts as of December 31st of the previous year. The other system demand includes recent water loss rates applied to the water supply, along with a 5-year historical average of recycled supplementation and other authorized uses.

TABLE 1
WATER METER AVAILABILITY

EL DORADO HILLS SUPPLY AREA		
Folsom Reservoir (Table 2)	23,775	Acre-Feet
Calculated Potential Demand		
Active Demand (Table 5)	7,098	
Latent Demand (Table 6)	56	
Other System Demand (Table 9)	4,580	
Total Potential Demand	11,734	Acre-Feet
2019 Unallocated Water Supply Supply minus Total Potential Demand	12,041	Acre-Feet
Conversion to Equivalent Dwelling Units (EDUs) 10-year average EDU demand for single-family residential dwellings in the El Dorado Hills Supply Area (Table 4A and Appendix Table A)	0.60	Acre-Feet per EDU
2019 Water Meter Availability	**20,068**	**EDUs** [1]

[1] These EDUs are subject to the El Dorado Hills Contractual Commitments described in Section 6 and summarized in Table 10.

WESTERN / EASTERN SUPPLY AREA		
Supply from Eastern Sources (Table 2)	36,000	Acre-Feet
Calculated Potential Demand		
Active Demand (Table 7)	18,736	
Latent Demand (Tables 8A and 8B)	236	
Other System Demand (Table 9)	8,327	
Total Potential Demand	27,299	Acre-Feet
2019 Unallocated Water Supply Supply minus Total Potential Demand	8,701	Acre-Feet
Conversion to Equivalent Dwelling Units (EDUs) 10-year average EDU demand for single-family residential dwellings in the Western / Eastern Supply Area. (Table 4B, and Appendix Tables B and C)	0.39	Acre-Feet per EDU
2019 Water Meter Availability	**22,162**	**EDUs** [1]

[1] These EDUs are subject to the Western / Eastern Contractual Commitments described in Section 6 and summarized in Table 11.

TABLE 2
WATER SUPPLY
El Dorado Hills and Western / Eastern Supply Areas

EL DORADO HILLS SUPPLY AREA	
Supply from Folsom Reservoir	23,775 Acre-Feet [1]

WESTERN / EASTERN SUPPLY AREA	
Supply from Eastern Sources	36,000 Acre-Feet [2]

[1] For this report, a single dry year allocation of supplies is used for the El Dorado Hills Supply Area. This includes supplies from Folsom Reservoir and consists of 3,775 AF from the USBR Water Service Contract, 3,000 AF from ditch/Weber Reservoir contract, and 17,000 AF from the Warren Act Contract for Permit 21112 supplies. In a normal year supply scenario, the allocation would be 7,550 from the USBR Water Service Contract, 4,560 from the USBR ditch/Weber Reservoir contract, and 17,000 AF from Permit 21112 supplies.

[2] The supply for the Western / Eastern Supply Area consists of 15,080 AF from Project 184; and 20,920 AF from Jenkinson Lake. During a critical dry year, the annual supply from Jenkinson Lake would be reduced pursuant to Board Policy 5010.

TABLE 3
PROJECTED 2019 DEMAND PER SERVICE
El Dorado Hills Supply Area
In Acre-Feet

User Categories	Demand per Service or Unit for the Previous 3-Years			**2009-2018** Average Unit Demand Appendix A [1]
	2016	2017	2018	
EL DORADO HILLS SUPPLY AREA				
Commercial	2.06	2.27	2.30	2.31
Multi-Family Residential (Units)	0.16	0.17	0.17	0.18
Recreational Turf Services	7.48	7.97	8.33	8.67
Single-Family Dual Potable	0.13	0.14	0.14	0.15
Single-Family Residential	0.52	0.55	0.55	0.60
Small Farm Irrigation	1.68	1.57	2.29	2.55

SERVICE ZONES WITHIN SUPPLY AREA (Zone #):

El Dorado Hills (02)

[1] Refer to Appendix Table A for the historical demand data.

TABLE 4
PROJECTED 2019 DEMAND PER SERVICE
Western / Eastern Supply Area
In Acre-Feet

User Categories	Demand per Service or Unit for the Previous 3-Years			**2009-2018** Average Unit Demand Appendix A [1][2]
	2016	2017	2018	
WESTERN REGION				
Agricultural Metered Irrigation	4.62	5.23	5.52	7.41
Commercial	0.99	1.23	1.12	1.23
Ditches	7.50	7.50	7.50	11.28
Multi-Family Residential (Units)	0.17	0.19	0.18	0.20
Recreational Turf Services	9.16	11.83	10.45	11.53
Single-Family Dual Potable	0.20	0.15	0.17	0.18
Single-Family Residential	0.39	0.42	0.42	0.45
Small Farm Irrigation	2.18	2.63	2.67	2.62
EASTERN REGION				
Agricultural Metered Irrigation	15.42	15.76	16.18	15.44
Commercial	1.23	1.35	1.26	1.37
Ditches	24.14	56.15	50.50	31.63
Multi-Family Residential (Units)	0.16	0.17	0.17	0.18
Municipal (City of Placerville)	100.51	106.86	90.54	87.21
Recreational Turf Services	4.13	5.22	5.71	6.32
Single-Family Residential	0.28	0.29	0.29	0.31
Small Farm Irrigation	2.65	2.74	2.78	2.58

SERVICE ZONES WITHIN SUPPLY AREA (Zone #):

Western Region

Bass Lake (01), Cameron Park (04), Shingle Springs (05), Logtown (06), Diamond Springs/El Dorado (07)

Eastern Region

Lotus/Coloma (03), Swansboro (09), Camino (10), Pleasant Valley (11), Sly Park (12), Pollock Pines (13), North Placerville (18), South Placerville (28)

[1] Refer to Appendix Tables B and C for the historical demand data.

[2] The weighted average value for the Western/Eastern single family residential category used in Table 1 is 0.39 AF/YR.

TABLE 5
ACTIVE DEMAND
El Dorado Hills Supply Area

ACTIVE DEMAND			
Active Account Categories	2009-2018 Average Unit Demand from Appendix A [1]	2018 Services or Units	Calculated Active Demand in AF
Commercial	2.31	470	1,086
Mulit-Family Residential (Units)	0.18	1,434	258
Recreational Turf Services	8.67	36	312
Single-Family Dual Potable	0.15	2,651	398
Single-Family Residential	0.60	8,346	5,008
Small Farm Irrigation	2.55	14	36
		Calculated Active Acre-Feet	7,098

EL DORADO HILLS - ACTIVE DEMAND in Acre-Feet	**7,098**

[1] Refer to Appendix Table A for the historical demand data.

TABLE 6
LATENT DEMAND
El Dorado Hills Supply Area

IDLE ACCOUNTS			
Idle Account Categories	2009-2018 Average Unit Demand from Appendix A [1]	2018 *Idle* Services or Units	Calculated *Idle* Demand in AF
Single-Family Residential	0.60	1	1
		Subtotal Acre-Feet	1

UNINSTALLED ACCOUNTS			
Uninstalled Meter Categories	2009-2018 Average Unit Demand from Appendix A [1]	2018 *Uninstalled* Services or Units	Calculated *Uninstalled* Demand in AF
Commercial	2.31	21	49
Single-Family Dual Potable	0.15	0	0
Single-Family Residential	0.60	10	6
		Subtotal Acre-Feet	55

Calculated Latent Demand Acre-Feet	56

EL DORADO HILLS - LATENT DEMAND in Acre-Feet	**56**

[1] Refer to Appendix Table A for the historical demand data.

TABLE 7
ACTIVE DEMAND
Western / Eastern Supply Area

WESTERN ACTIVE DEMAND			
User Categories for Active Accounts	2009-2018 Average Unit Demand from Appendix A [1]	2018 Services or Units	Calculated Active Demand in AF
Agricultural Metered Irrigation	7.41	25	185
Commercial	1.23	834	1,026
Ditches	11.28	2	23
Mulit-Family Residential (Units)	0.20	4,113	823
Recreational Turf Services	11.53	44	507
Single-Family Dual Potable	0.18	2,440	439
Single-Family Residential	0.45	13,455	6,055
Small Farm Irrigation	2.62	215	563
		Calculated WESTERN Acre-Feet	9,621

EASTERN ACTIVE DEMAND			
User Categories for Active Accounts	2009-2018 Average Unit Demand from Appendix A [1]	2018 Services or Units	Calculated Active Demand in AF
Agricultural Metered Irrigation	15.44	190	2,934
Commercial	1.37	336	460
Ditches	31.63	20	633
Mulit-Family Residential (Units)	0.18	2,073	373
Municipal (City of Placerville)	87.21	13	1,134
Recreational Turf Services	6.32	24	152
Single-Family Residential	0.31	9,364	2,903
Small Farm Irrigation	2.58	204	526
		Calculated EASTERN Acre-Feet	9,115

WESTERN / EASTERN - ACTIVE DEMAND in Acre-Feet	**18,736**

[1] Refer to Appendix Tables B and C for the historical demand data.

TABLE 8A
WESTERN LATENT DEMAND
Western / Eastern Supply Area

WESTERN IDLE ACCOUNTS			
Idle Account Categories	2009-2018 Average Unit Demand from Appendix A [1]	2018 *Idle* Services or Units	Calculated *Idle* Demand in AF
Commercial	1.23	6	7
Single-Family Residential	0.45	37	17
		Subtotal WESTERN Acre-Feet	24

WESTERN UNINSTALLED ACCOUNTS			
Uninstalled Meter Categories	2009-2018 Average Demand from Appendix A [1]	2018 *Uninstalled* Services or Units	Calculated *Uninstalled* Demand in AF
Commercial	1.23	43	53
Mulit-Family Residential (Units)	0.20	36	7
Single-Family Dual Potable	0.18	70	13
Single-Family Residential	0.45	60	27
		Subtotal WESTERN Acre-Feet	100

Calculated Latent Demand in Acre-Feet	124

WESTERN LATENT DEMAND in Acre-Feet	**124**

[1] Refer to Appendix Tables B and C for the historical demand data.

TABLE 8B
EASTERN LATENT DEMAND
Western / Eastern Supply Area

EASTERN IDLE ACCOUNTS			
Idle Account Categories	2009-2018 Average Unit Demand from Appendix A [1]	2018 *Idle* Services or Units	Calculated *Idle* Demand in AF
Agricultural Metered Irrigation	15.44	4	62
Commercial	1.37	4	5
Mulit-Family Residential (Units)	0.18	1	0
Single-Family Residential	0.31	63	20
		Subtotal EASTERN Acre-Feet	87

EASTERN UNINSTALLED ACCOUNTS			
Uninstalled Meter Categories	2009-2018 Average Unit Demand from Appendix A [1]	2018 *Uninstalled* Services or Units	Calculated *Uninstalled* Demand in AF
Agricultural Metered Irrigation	15.44	1	15
Commercial	1.37	5	7
Single-Family Residential	0.31	9	3
		Subtotal EASTERN Acre-Feet	25

Calculated Inactive and Uninstalled Acre-Feet	112

EASTERN - LATENT DEMAND in Acre-Feet	**112**

[1] Refer to Appendix Tables B and C for the historical demand data.

TABLE 9
OTHER SYSTEM DEMAND
El Dorado Hills and Western / Eastern Supply Areas
In Acre-Feet

EL DORADO HILLS SUPPLY AREA					
El Dorado Hills Supply	Historical Portion of Real and Apparent Loss	Historical Real and Apparent Losses [1]	5-Year Average Other Authorized Uses [2]	5-Year Average Recycled System Supplement	Calculated Other System Demands
23,775	17.6%	4,184	199	197	4,580
EL DORADO HILLS - OTHER SYSTEM DEMAND in Acre-Feet					**4,580**

WESTERN / EASTERN SUPPLY AREA					
Western / Eastern Supply	Historical Portion of Real and Apparent Loss	Historical Real and Apparent Losses [1]	5-Year Average Other Authorized Uses [2]	5-Year Average Recycled System Supplement	Calculated Other System Demands
36,000	17.6%	6,336	1,794	197	8,327
WESTERN / EASTERN - OTHER SYSTEM DEMAND in Acre-Feet					**8,327**

[1] The real and apparent losses are estimated to be 17.6% overall based on five year average losses from Appendix D.

[2] The other authorized uses and recycled water supplementation have been distributed between the Western/Eastern and El Dorado Hills supply areas based on the consumption report.

2 METHODOLOGY

The methodology used in this report distinguishes the meter availability for El Dorado Hills versus the remainder of the District, while at the same time ensuring that meter allocations overall do not outpace available water supplies.

A separate calculation of supply was used to determine the available water supply for the El Dorado Hills supply area and Western/Eastern supply area:

1) El Dorado Hills supply area – This area receives water pumped from Folsom Reservoir.

2) Western/Eastern supply area – This area includes the remaining higher elevation areas of the District that currently receive gravity water supply from the District's eastern sources - Project 184 and Jenkinson Lake.

These two supply areas are shown in Figure A. This method provides an accurate way to analyze water availability that matches the configuration of the District's water system.

2.1 EID Policies and Regulations Pertaining to EDU Allocations

The District is governed by both Board Policies and Administrative Regulations that were developed in 2006. Board Policy 5010 – Water Supply Management states that the District will not issue any new water meters if there is insufficient water supply. Administrative Regulation 5010 – Water Availability and Commitments outlines the responsibilities for reporting, shortages, and new meter restrictions. This policy and regulation provide a means to ensure that meter sales do not exceed supply.

Board Policy 9020 – Establishing New Service and Administrative Regulation 9021 – Eligibility for New Service outline the process an applicant must comply with in order to purchase a water meter. As part of the application process for a project, an applicant must request a Facility Improvement Letter (FIL) from the District, which describes the existing system and any improvements that will be needed in order to receive service. For more complicated projects, the applicant must have a licensed engineer prepare a Facility Plan Report (FPR) for District review and approval. The FIL and FPR both assess the adequacy of the water system to provide service to the applicant and thereby identify the necessary improvements that must be constructed prior to the issuance of water meters. These facility improvements range from distribution facilities that must be funded and constructed by the developer, to Facility Capacity Charge (FCC) funded District capital improvement projects such as transmission mains and water treatment plants.

The applicant can receive service only when the required facilities are completed and accepted by the District. These regulations and service procurement procedures,

coupled with the guidelines in this report of meter availability, provide a solid basis to ensure that both adequate supply and infrastructure are in place to serve existing and new connections throughout the District.

3 WATER SUPPLY

The El Dorado Hills supply is 23,775 AF, and includes a water service contract with the United States Bureau of Reclamation (USBR) for 7,550 AF (3,775 AF in singe-dry year), a Warren Act contract for the Ditch/Weber Reservoir water rights totaling 4,560 AF (3,000 AF in single-dry year), and 17,000 AF from the recently secured Permit 21112 supply.

The Western/Eastern supply is 36,000 AF, consisting of 15,080 AF from Project 184 and approximately 21,000 AF from Sly Park's Jenkinson Lake.

Table 2 summarizes the overall system supplies, and breaks them down by supply area to calculate meter availability in a single-dry year. The water supplies are briefly discussed below. The 2015 Urban Water Management Plan discusses the water rights in more detail.

3.1 CVP Contract

Surface water from Folsom Reservoir is provided through a Central Valley Project contract. The District is entitled to 7,550 AF per normal year by contract with USBR; 3,750 AF during a single-dry year. The contract limits use to a particular area that generally encompasses the El Dorado Hills and Cameron Park areas. Folsom Reservoir is operated by the USBR as part of the CVP, a multipurpose project that provides flood control, hydroelectricity, drinking water, and water for irrigation.

3.2 Warren Act - Ditch/Weber Reservoir

Water rights associated with Weber Reservoir, Weber Creek (Farmer's Free Ditch), Slab Creek (Summerfield Ditch), Hangtown Creek (Gold Hill Ditch), and Mill Creek (Project 184) are available to be diverted at Folsom Reservoir under a long-term Warren Act Contract, with up to 4,560 AF available each year combined from these sources during a normal year, and 3,000 AF during a single-dry year.

3.3 Water Rights Permit 21112

The District holds Water Rights Permit 21112 in the amount of 17,000 AF per year. This entitlement is in addition to the 15,080 AF pre-1914 consumptive water supply associated with Project 184 discussed below. Although Project 184 operations make the Permit 21112 supplies available, permit conditions require that: 1) the water made

available must be diverted at Folsom Reservoir, and 2) the District must enter into a Warren Act Contract with Reclamation for such diversions. On August 2, 2016, the USBR and the District entered into a Warren Act Contract which allows diversion of 17,000 AF of Permit 21112 supplies. The duration of the contract is through 2030, at which time the District would renew the contract. There are no anticipated reductions in this supply in dry or multiple dry years.

3.4 Project 184 Supplies

The District acquired Project 184 from Pacific Gas and Electric (PG&E) in 1999. Project 184 includes reservoirs and associated dams, 22 miles of canals, flumes and tunnels, a 21-Megawatt powerhouse, and other ancillary facilities. The sources of this water supply include natural flows in the South Fork American River and its tributaries, and stored water in Silver, Aloha, Echo, and Caples Lakes. The supply is diverted from the South Fork American River at Kyburz and is conveyed via the El Dorado Canal to the El Dorado Forebay. Some additional water is obtained by diversions into the El Dorado Canal from streams tributary to the South Fork American River. The District takes consumptive use of the water supply at the Main Ditch intake, located at the Forebay Reservoir. This supply contributes 15,080 acre-feet per year to the District's system firm yield in normal and dry years.

3.5 Jenkinson Lake Supplies

Licenses 11835 and 11836 allow for 33,400 AF of diversion in the District's upstream system in the Cosumnes River watershed. These diversions are stored in Jenkinson Lake, the largest storage reservoir in the District near Pollock Pines. Jenkinson Lake's maximum capacity is 41,033 AF. The facilities were constructed as part of the Sly Park Unit of the United States Bureau of Reclamation (USBR) CVP in 1955. With the transfer of ownership of the Sly Park Unit from the USBR in 2003, the District not only operates and maintains the Jenkinson Lake and Sly Park Dam facilities, including recreational aspects, but also holds the water rights. The average annual use from this facility is approximately 23,000 AF during normal years, though the District's annual water right is for 33,400 AF of total beneficial use. Jenkinson Lake contributes approximately 20,920 AF per year to the District's system in a single-dry year.

3.6 Future - Fazio Central Valley Project Water Supply

The District will have future access to at least 7,500 acre-feet of additional CVP water supplies at Folsom Lake. In June 2019 the El Dorado County Water Agency executed a contract with the USBR for up to 15,000 AF per year of Central Valley Project Municipal and Industrial water. EID would gain access to at least half of the water supply via a subcontract agreement with the Water Agency. With ample District water supplies from Folsom Lake currently available, the District is not pursuing a near term agreement for this water supply and it has not been included when calculating meter availability in this report.

4 TOTAL POTENTIAL DEMAND

The total potential demand has been calculated for each customer class using the average demand from 2009 to 2018 to determine a current unit demand.

4.1 Average Demand by User Category

Tables 3 and 4 summarize the average demand per active meter for each user category over the last three years for the two designated supply areas of El Dorado Hills and Western/Eastern. The tables also show the 10-year average unit demand for each category. The user categories include: single-family and multi-family residential, single-family dual plumbed dwellings (potable), small farm irrigation, agricultural metered irrigation, ditches, recreational turf services, commercial/industrial, and municipal water sales to the City of Placerville.

4.2 Active Demand

Table 5 summarizes the active demand for the El Dorado Hills supply area, and Table 7 the active demand for the Western/Eastern supply area. The active accounts, or dwelling units for multi-family, have been multiplied by the average unit demand for each user category from Tables 3 and 4, respectively.

4.2.1 Active Accounts

This category includes water meters that are installed in the ground, have an active billing status, and are charged a minimum bi-monthly billing regardless of recorded water use during the prior year. Pursuant to Article 3, Section 22280 of the California State Water Code, the Board of Directors adopted a policy on September 23, 1987 that requires all metered accounts to be billed from the date the water meter is installed. Therefore, any meters installed after 1987, or any meters that have changed ownership since 1987, are considered to be active accounts and are included in this category.

4.2.2 Active Meters

Tables 3 and 4 summarize the average demand per service for the previous 3 years. Table 3 reports the average demand per service for the El Dorado Hills supply area; and Table 4 reports the average demand per service for the Western/Eastern supply area. In the case of multi-family residential, the projected unit demand is calculated per dwelling unit rather than per service to better represent the unit demands.

4.3 Latent Demand

Table 6 summarizes the latent demand for the El Dorado Hills supply area, and Tables 8A and 8B summarize the latent demand for the Western/Eastern supply area. The latter area has been further separated into the Western and Eastern demand regions in order to more accurately calculate unit demands. Table 4 lists the individual service zones for these demand regions, and Figure B illustrates the service zones. The inactive accounts and uninstalled meters have been multiplied by the projected unit demand from the historical data for each user category from Tables 3 and 4.

4.3.1 Inactive Accounts

This category includes water meters that are installed in the ground but idle as of December 31st of the previous year. This category also includes water meters purchased prior to 1987 that were then allowed to remain idle, and have had no changes in ownership or recorded water use since 1987.

4.3.2 Uninstalled Meters

This category includes water meters that have been purchased to serve a parcel of land, but have not yet been installed nor has an account been set up for minimum billing purposes as of December 31st of the previous year. This category also includes those meters purchased under the “Crawford Allocation” during the declared Water Emergency in 1990, which are not required to be installed until needed.

4.4 Other System Demand

Table 9 summarizes the other system demand for the El Dorado Hills supply area and the Western/Eastern supply area. The other system demand includes real losses of water into the ground due to leaks and breaks, apparent or paper losses such as meter inaccuracies, supplementation of potable water to the recycled system, and other authorized uses of water such as operational flushing or environmental flows.

4.4.1 Authorized Uses

The majority of authorized uses include miscellaneous uses of potable and raw water that is accounted for in the system. These uses include private fire service connections, temporary water use permits, bulk water stations, and water released to Clear Creek for aesthetics flow maintenance.

Authorized use of water also includes EID operational uses that are classified as non-revenue water because they are unbilled, but include both metered and unmetered uses. Examples of non-revenue water would include water quality and operational flushing, reservoir operational overflows, water meter testing, and the flushing and cleaning of sewage lift stations and the sewage collection system.

4.4.2 Potable Water Supplement to Recycled System

Potable water has been used to supplement the recycled water system since 2002 and is also included to calculate the District's "Other System Demand" in Table 9. Recycled water is used for residential and commercial landscape, and turf irrigation. Several recycled water storage tanks are the primary receiving points for supplemental potable water.

It is usually necessary to make releases to these receiving points during the summertime during peak demand periods. The potable water system will continue to supplement the recycled system unless and until additional recycled supply is available to meet recycled water demand.

5 COMMITMENTS

The District has several contractual commitments for water supply in both the El Dorado Hills and Western/Eastern supply areas. Below is a description of each of these commitments, along with their impact upon the District's existing and future water supplies.

5.1 El Dorado Hills Supply Area

The contractual commitments for the El Dorado Hills supply area is provided in Table 10.

5.1.1 Assessment District No. 3

In May of 1985, Assessment District No. 3 (AD3) was formed as a means to finance expansions and improvements to the El Dorado Hills water and sewer systems and related facilities.[1] The ultimate capacity of AD3 was based on 9,074 annual AF of water supply because of the likelihood that EID would be able to contract for additional water supplies beyond the current (1985) contracted amount of 7,550 AF. Using 600 gallons per dwelling unit per day or 0.67 AF/year,[2] the 9,074 AF was estimated to support 13,543 dwelling units or the equivalent.[3] At the time AD3 was formed, EID was estimated to be serving or committed to serve 2,563 EDUs. Consequently, there was additional water capacity for approximately 10,980 EDUs.

[1] Tax Free Municipal Bonds, El Dorado Irrigation District, El Dorado County, California, Assessment District No. 3, Phase Two, Final Offering Statement dated May 30, 1985.

[2] From a 1981 EID water system analysis of El Dorado Hills.

[3] The formation of AD3 was based on dwelling units, also known as equivalent dwelling units (EDUs). An EDU corresponds to a single-family residential dwelling served by a 3/4-inch water meter. Larger water meters, such as those for commercial applications, required additional EDUs.

5.1.2 Monte Vista Parcels

In April of 1994, the District Board of Directors took action to "grandfather" the existing parcels within the Monte Vista area into AD3 when this area was connected to the El Dorado Hills water system by a pipeline extension. This area had previously been served directly from Folsom Reservoir through a small water treatment plant. Water quality issues required EID to either upgrade the treatment plant or connect the Monte Vista water system to the El Dorado Hills system. The pipeline extension was the preferred solution and the connection was made.

5.1.3 Weber Dam Advanced Funding Agreement

In December of 2000, the District entered into an "Advanced Funding Agreement" (AFA) with Serrano Associates LLC, Russell-Promontory LLC (AKT Development), El Dorado Hills Investors LTD, and Lennar Renaissance Inc., known in the agreement as the "Interested Parties." These investors were willing to provide advanced funding of $4,000,000 to the District to reconstruct Weber Dam in exchange for the guarantee of 540 AF of water supply from existing District supplies. The water supply was to be used solely for and upon those properties owned by the Interested Parties, located within AD3, and that were annexed to EID on or before the effective date of the AFA. The District also made available under this agreement an additional 140 AF of existing water supply for individual parcels known as the "Benefited Parties." These specific parcels were entitled to purchase water connections for their properties on a "first-come, first-served" basis, consistent with District policies, procedures, and regulations.

The Board approved a new agreement in February 2011 that provides a 10-year extension of the Interested Parties commitments.

5.1.4 Wetsel-Oviatt Agreement and Subsequent Amendment

In September of 2003, the District entered into a "Settlement Agreement" with Wetsel-Oviatt, Inc., (Wetsel) which established a pool of 1,900 AF/yr of water supply available solely to Wetsel from new water sources, of which not less than 1,600 AF/yr would be potable water and the remainder would be recycled water.

The new water supplies were defined as any water supply that increased the system-wide firm yield above 43,280 AF/yr; and the available water supplies to the El Dorado Hills region above 10,976 AF/yr. The new water supplies included Water Rights Permit 21112 for 17,000 AF/yr; the District's share of the prospective water service contract for 15,000 AF/yr contemplated by Public Law 101-514 (Fazio Water); and the permanent transfer in point of diversion to Folsom Reservoir of the water rights associated with the District's Farmer's Free Ditch, Gold Hill Ditch, Summerfield Ditch, and Weber Reservoir.

TABLE 10
STATUS OF COMMITMENTS
El Dorado Hills Supply Area

EQUIVALENT DWELLING UNITS (EDUs)				
Type of Commitment	Zone	Original Commitments	EDUs Sold or Expired	Remainder of Commitments Zone 1 and/or 2 [1]
Considered in the Formation of AD3 Existing Dwelling Units - 2,563 New Dwelling Units - 10,980	1, 2	13,543	12,305	1,238
Monte Vista Parcels	2	112	63	49
Advanced Funding Agreement	1, 2	1,000	856	144
	Zone	Total Potable Commitment (AF)	Current potable commitment (AF)	EDU commitment
Wetsel-Oviatt Agreement [2]	2	1,600	1,600	2,667
			EL DORADO HILLS COMMITMENTS in EDUs	4,097

[1] Zone 2 is the El Dorado Hills Service Zone. Zone 1 is the Bass Lake Service Zone.

[2] This commitment is conditional upon certain augmentations to the District's water supply. With increases in supply to EDH, the full allotment of 1,600 AF of potable water has been assigned to this pool.

5.2 Western / Eastern Supply Area

The total contractual commitments for the Western/Eastern supply area is provided in Table 11.

5.2.1 Apple Mountain

In April of 2001, the District entered into a "Water Service Agreement" with Apple Mountain, LP for property known as the Apple Mountain Golf Course. The District committed to provide up to 270 AF/yr of water for golf course irrigation and non-potable uses. The annual amount is further restricted with no more than 240 AF between May 15 and October 15; and no more than 60 AF in each of the months of July and August.

TABLE 11
STATUS OF COMMITMENTS
Western / Eastern Supply Area

COMMITMENTS - EQUIVALENT DWELLING UNITS (EDUs)					
	Zone	Original Commitment (AF)	Average Amount Used last 10 Years (AF)	Remaining Commitment (AF)	Converted to EDUs
Apple Mountain Water Service Agreement	10	270	48	222	569
				TOTAL COMMITMENTS in EDUs	569

WESTERN / EASTERN COMMITMENTS in EDUs	**569**

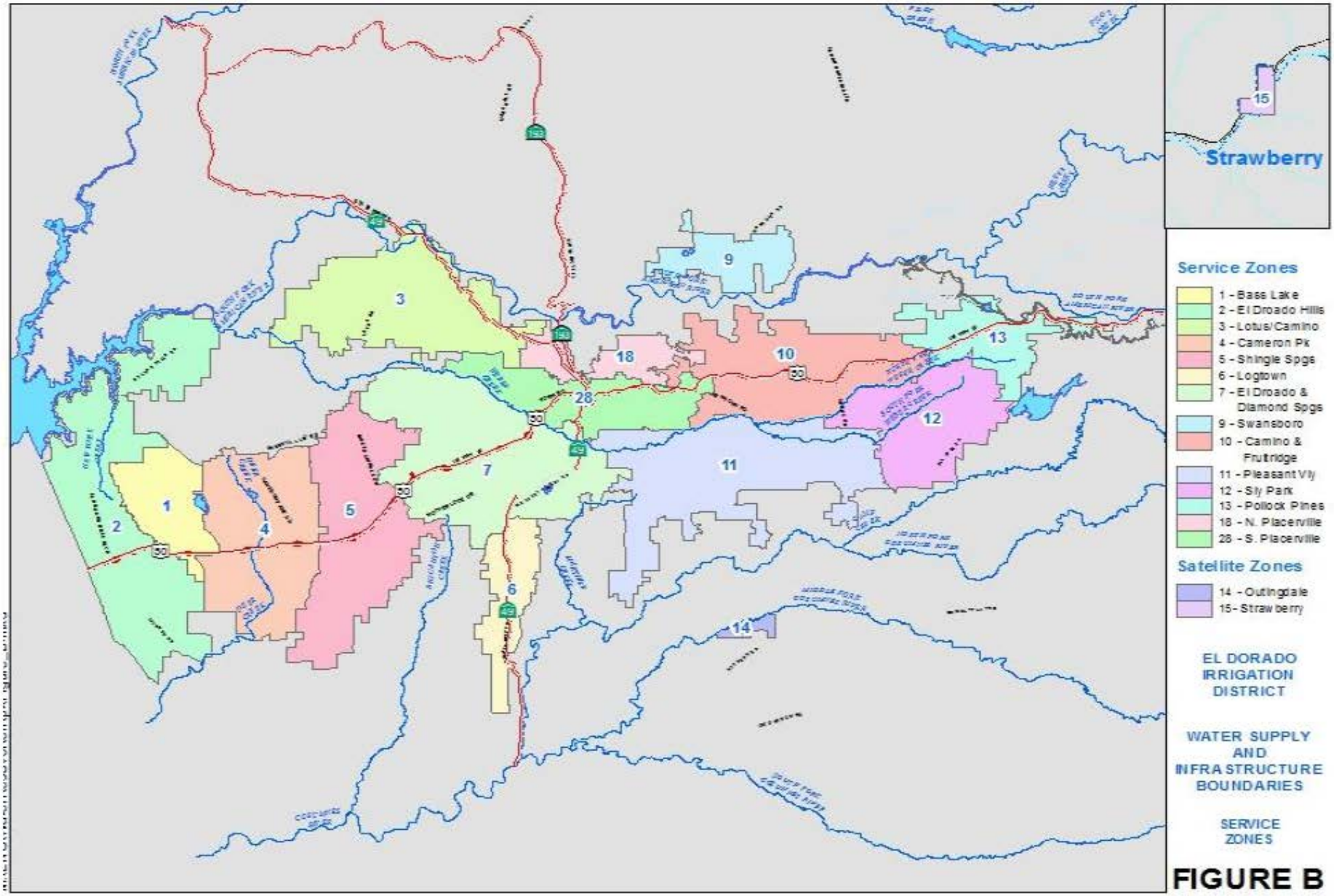

Strawberry
15
Service Zones
1 - Bass Lake
2 - El Dorado Hills
3 - Lotus/Camino
4 - Cameron Pk
5 - Shingle Spgs
6 - Logtown
7 - El Dorado & Diamond Spgs
9 - Swansboro
10 - Camino & Fruitridge
11 - Pleasant Vly
12 - Sly Park
13 - Pollock Pines
18 - N. Placerville
28 - S. Placerville
Satellite Zones
14 - Outingdale
15 - Strawberry
EL DORADO IRRIGATION DISTRICT
WATER SUPPLY AND INFRASTRUCTURE BOUNDARIES
SERVICE ZONES

FIGURE B

6 GLOSSARY – Terms and Definitions

The following terms and definitions are tailored to reflect the terminology of the El Dorado Irrigation District (EID). In general terms, the normal water measurements used by EID are as follows: cubic feet (CF) for metered customer demands; acre-feet (AF) for water supplies; cubic feet per second (CFS) or million gallons per day (MGD) for flow rates and treatment plant capacities; and miners inches (MI) for some ditch deliveries.

Active Water Accounts

Any account established after September 1987 where the meter has been installed and the account is charged a minimum bi-monthly billing, regardless of recorded water use; or any account established prior to September 1987 which has recorded water use or has changed ownership since 1987. Excludes those accounts temporarily disconnected for non-payment of a bill or seasonal accounts.

Active Water Meters

Any water meter installed in the ground with recorded water use during the reporting year.

Assessment District No. 3 (AD3)

An assessment district formed on May 30, 1985 that offered tax free municipal bonds to finance the expansion and improvement of the El Dorado Hills water and sewer systems and related facilities.

Authorized Uses

The majority of authorized use generates revenue, and includes both potable water that is metered and billed to EID customers, and raw water that is both metered and unmetered but billed to EID customers. The other minor portion of authorized uses includes District operational uses of potable water that are considered non-revenue water because they are unbilled, and include both metered and unmetered uses.

Contiguous Water System

The main, interconnected transmission and distribution system of the District, generally between the Sly Park and Forebay water treatment plants in the east, and the El Dorado Hills water treatment plant in the west, excluding the satellite water systems in the communities of Outingdale and Strawberry.

Contractual Commitments

Legal obligations of the District to reserve water supply or provide water service to designated parties, entered into by the adoption of a Board resolution, the formation of an assessment district, or the signing of a contract. Refer to Tables 10 and 11.

Crawford Allocation

The EID Board of Directors considered the "Crawford Project Water Allocation Plan," on April 23, 1990, in response to a water emergency declared on March 12, 1990. The Crawford Ditch Project was to net EID nearly 2,800 AF of new water, which equated approximately 3,500 EDUs. Resolution No. 90-87 was adopted on April 30, 1990, adding a surcharge of $2,200 to the Facility Capacity Charge (FCC) for each new water meter sold under the allocation plan. These funds were then used to make improvements to the Crawford Ditch System as well as EID's Reservoir 7 water treatment plant. Water meters purchased under the Crawford Allocation were not required to be installed at the time of purchase, but rather only as needed. These meters are in the latent demand as uninstalled meters. Over time, the number of Crawford Allocation uninstalled meters has steadily diminished as these projects are built and the meters are installed.

Equivalent Dwelling Unit (EDU)

An EDU pertains to the average water demand for a detached, single-family dwelling unit served by a 3/4-inch water meter, and is referenced within this report as acre-feet (AF) per year. This demand is measured at the customer's water meter, and therefore does not include losses in the delivery system. Larger water meters, such as those for commercial applications, required additional EDUs. A specific unit demand of an EDU is for the El Dorado Hills and Western / Eastern Supply Areas.

Inactive Water Account

This category includes water meters purchased prior to 1987 that were then allowed to remain idle, and have had no changes in ownership or recorded water use since 1987.

Metered Water Demand (Consumption)

The total amount of measured and billed water that is delivered through the customer's meter. This demand is usually measured and billed once every two months, and reported statistically on an annual calendar basis.

Monte Vista

A community along Salmon Falls Road to the northeast of El Dorado Hills, possibly named after the old Monte Vista Campground, and at one time a separate District service zone called the Monte Vista / Salmon Falls (Zone 1) until it was connected and incorporated into the El Dorado Hills Service Zone 2.

Potential Water Demand

A calculated annual amount of water demand , which includes active, latent, and other system demands.

Recycled Water

Tertiary treated and disinfected wastewater effluent meeting the water quality requirements of the Department of Health Services Title 22 regulations that is pure enough for human contact but not for human consumption. Within EID, recycled water is used solely for landscape and turf irrigation, including residential landscaping, golf courses, parks, and other uses where human body contact is a potential occurrence.

Supply Areas

The two areas are the El Dorado Hills supply area and the Western/Eastern supply area as illustrated in Figure A. El Dorado Hills receives water from Folsom Lake, with additional water provided by gravity flow from the Gold Hill Intertie (GHI). The Western/Eastern includes all other service zones (Figure B) that currently receive gravity water supply from the District's eastern sources – Project 184 and Jenkinson Lake.

Service Zones

The individual service zones illustrated in Figure B, consisting of 14 contiguous service zones and 2 satellite water systems. The boundary between service zones is usually a storage tank or reservoir.

Supplement to the Recycled System

The quantity of potable water that is needed to make up the difference between what the recycled water system is able to produce and the demand for recycled water, due to a lack of seasonal recycled water storage.

Unallocated Water Supply

The quantity of water supply available for sale during the reporting year, which is the difference between the annual water supply and the total potential demand. Calculated as annual acre-feet and then converted to an equivalent dwelling unit.

Uninstalled Water Meters

A meter which has been purchased to serve a parcel of land, but has not been installed nor has an account been set up for billing purposes.

User Categories

Designates different water rate structures used within the financial billing system, which are then used to separate classes of services for statistical reporting. The user categories include single-family and multi-family residential; single-family dual potable; commercial/industrial; small farm, agricultural, ditch, recreational turf and domestic irrigation; and municipal water sales to the City of Placerville.

Warren Act Contract

A one-year or multiple-year contract between the District and the United States Bureau of Reclamation (USBR), which authorizes and charges a fee for the use of a Federal facility, such as Folsom Reservoir, to store non-Federal water for District use.

Water Supply Management Conditions

According to District Administrative Regulation No. 5011, Water Supply Management Conditions, incremental steps would be needed to manage increasing levels of shortages due to either drought or water emergency. Specific procedures are outlined in the above referenced water supply matrix, although the District is in the process of completing a comprehensive drought plan that will eventually replace the water supply matrix.

Water Year

A continuous 12-month period during which a complete cycle occurs, arbitrarily selected from the presentation of data relative to hydrologic or meteorological phenomena. The U.S. Geological Survey uses the period October 1 to September 30 in the publication of its records of stream flow. The Water Resources Report is based on the previous calendar year.

APPENDICES

APPENDIX A

EL DORADO HILLS HISTORICAL TRENDS

EL DORADO HILLS SERVICE AREA

	Historical Unit Demands in Acre-Feet										2009-2018 Average Unit Demand
User Category	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	
Commercial	1.90	2.69	2.42	2.64	2.81	2.10	1.96	2.06	2.27	2.30	2.31
Multi-Family Residential (Units)	0.24	0.18	0.17	0.18	0.18	0.16	0.15	0.16	0.17	0.17	0.18
Recreational Turf Services	10.43	8.45	8.31	9.66	10.08	8.06	7.89	7.48	7.97	8.33	8.67
Single-Family Dual Potable	0.20	0.15	0.16	0.15	0.14	0.13	0.12	0.13	0.14	0.14	0.15
Single-Family Residential	0.78	0.61	0.59	0.67	0.70	0.55	0.49	0.52	0.55	0.55	0.60
Small Farm Irrigation	3.17	3.93	3.25	3.71	2.37	1.95	1.55	1.68	1.57	2.29	2.55

SERVICE ZONES WITHIN SERVICE AREA (Zone #):

El Dorado Hills (02)

APPENDIX B

WESTERN REGION HISTORICAL TRENDS

Western / Eastern Service Area

	Historical Unit Demands in Acre-Feet										2009-2018 Average Unit Demand
User Category	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	
Agricultural Metered Irrigation	11.59	10.75	7.42	7.00	8.57	7.87	5.52	4.62	5.23	5.52	7.41
Commercial	1.46	1.38	1.32	1.39	1.40	1.06	0.97	0.99	1.23	1.12	1.23
Ditches	14.98	13.36	17.00	14.50	15.50	7.50	7.50	7.50	7.50	7.50	11.28
Multi-Family Residential Units	0.26	0.20	0.20	0.22	0.23	0.19	0.16	0.17	0.19	0.18	0.20
Recreational Turf Services	13.04	11.84	11.47	12.74	13.90	10.15	10.69	9.16	11.83	10.45	11.53
Single-Family Dual Potable	0.23	0.18	0.18	0.18	0.18	0.18	0.17	0.20	0.15	0.17	0.18
Single-Family Residential	0.60	0.47	0.43	0.49	0.50	0.41	0.36	0.39	0.42	0.42	0.45
Small Farm Irrigation	3.11	3.05	3.18	2.94	2.54	2.07	1.83	2.18	2.63	2.67	2.62

SERVICE ZONES WITHIN SERVICE AREA (Zone #):

Western Region

Bass Lake (01), Cameron Park (04), Shingle Springs (05), Logtown (06), Diamond Springs/El Dorado (07)

APPENDIX C

EASTERN REGION HISTORICAL TRENDS

Western / Eastern Service Area

	Historical Unit Demands in Acre-Feet										2009-2018 Average Unit Demand
User Category	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	
Agricultural Metered Irrigation	18.71	15.13	12.68	16.01	16.26	14.03	13.67	15.95	15.76	16.18	15.44
Commercial	2.00	1.44	1.26	1.34	1.50	1.24	1.10	1.23	1.35	1.26	1.37
Ditches	30.78	17.24	21.81	53.27	26.63	26.04	21.08	24.14	56.15	39.17	31.63
Multi-Family Residential Units	0.23	0.20	0.20	0.20	0.19	0.16	0.15	0.16	0.17	0.17	0.18
Municipal-City of Placerville	83.64	72.87	64.53	84.60	102.38	101.27	64.94	100.51	106.86	90.54	87.21
Recreational Turf Services	9.89	7.24	7.28	8.28	8.00	4.32	3.01	4.26	5.22	5.71	6.32
Single-Family Residential	0.41	0.32	0.29	0.33	0.35	0.28	0.25	0.28	0.29	0.29	0.31
Small Farm Irrigation	2.63	2.44	2.12	2.85	2.93	2.41	2.23	2.67	2.74	2.78	2.58

SERVICE ZONES WITHIN SERVICE AREA (Zone #):

Eastern Region

Lotus/Coloma (03), Swansboro (09), Camino (10), Pleasant Valley (11), Sly Park (12), Pollock Pines (13), North Placerville (18), and South Placerville (28)

2019 Water Supply and Demand Report

August 26, 2019

El Dorado Irrigation District

Previous Board Actions

- September 12 , 2016 – The Board received and filed the 2016 Water Resources and Service Reliability Report.

Report Purpose

- Determine meter availability based on current water supply and current demand
- Given the sufficient availability of water supply/meters, in 2016 the Board directed staff to bring back the next report in three years

Report Purpose (cont.)

- The Water Supply and Demand report is not a planning document to address future supply needs
  - it is short term planning document to not over commit water supply
- Long term supply and infrastructure needs are addressed in:
  - 2013 Integrated Water Master Plan
  - 2015 Urban Water Management Plan
  - Water Supply Assessments – project specific
  - 5-Year Capital Improvement Plan

Water Supply

- Divided into two areas based on source of water rights:
  - Folsom Lake Supply
    - El Dorado Hills supply area
  - Project 184 / Jenkinson Lake
    - Western/Eastern supply area

El Dorado Hills supply

Contractual Supplies

- USBR Water Service Contract 7,550 AF
- Ditch/Weber Reservoir 4,560 AF
- Permit 21112 17,000 AF

Single Dry Year Supplies – used in Report

- USBR Water Service Contract 3,775 AF
- Ditch/Weber Reservoir 3,000 AF
- Permit 21112 17,000 AF

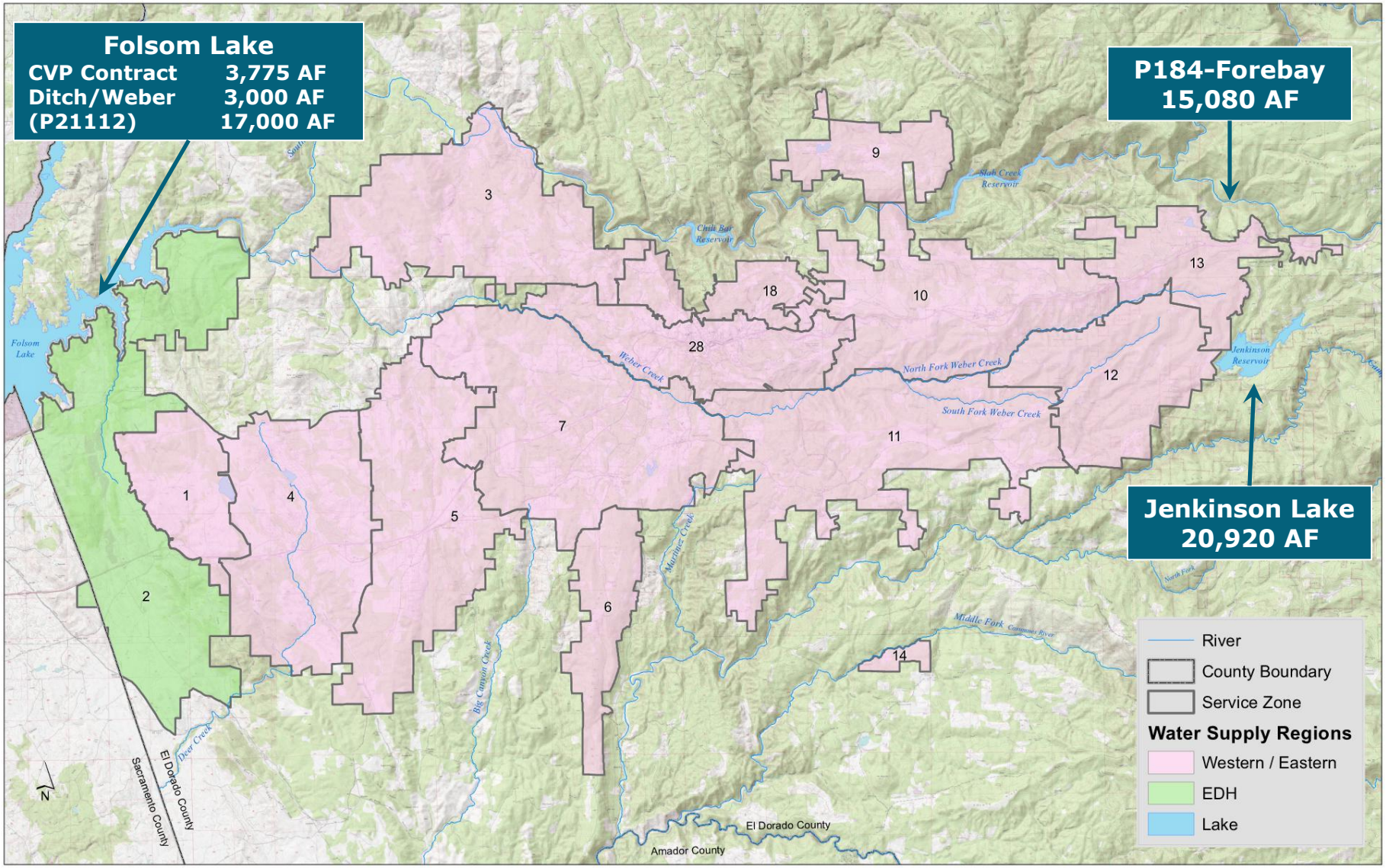
23,775 AF

Western/Eastern Supply

- P184 at Forebay: 15,080 AF
- Jenkinson Lake: 20,920 AF

36,000 AF

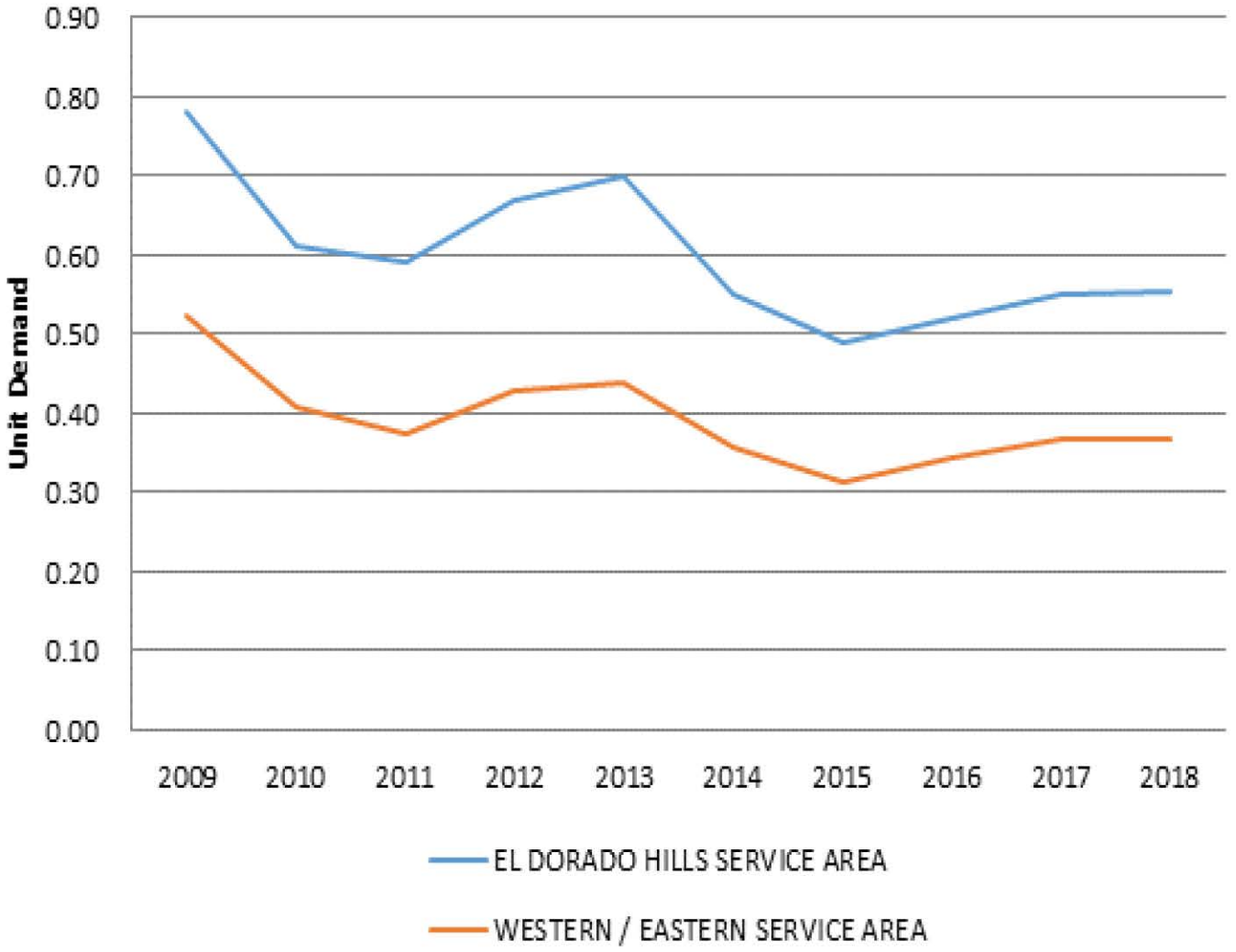
Water Sources



Unit Demand

- For 2016 Report used 2013 Unit Demands
  - were in the middle of a drought
  - consistent with the baseline year the State Water Resources Control Board used for 2015 conservation calculations
  - consistent with the Urban Water Management Plan
- For 2019 Report use 10-year average
  - unit demands slightly lower that 2013 Unit demands
  - reflect trend in less water use, even after the drought
- Unit demand applied to existing customers and also used to calculate meter availability

Single-Family Residential Unit Demand



Potential Demand

- Active demand
  - meters installed and billed
- Latent demand
  - inactive and uninstalled meters
- Other system demands
  - water loss, operational uses, recycled water supplementation
- All “end of 2018” numbers used in the report

Total Potential Demand

Demand Type	El Dorado Hills Supply Area (AF)	Western/Eastern Supply Area (AF)
Active Potable Demand	7,098	18,736
Latent Demand	56	236
Other System Demand	4,580	8,327
Total Potential Demand	**11,734**	**27,299**

Unallocated Water Supply

	EDH Supply Area (AF)	Western/Eastern Supply Area (AF)
Available Supply	23,775	36,000
Total Potential Demand	11,734	27,299
Unallocated Water Supply	**12,041**	**8,701**

2019 Water Meter Availability

El Dorado Hills Supply Area	**Western/Eastern Supply Area**
Unallocated Water Supply 12,041 AF	Unallocated Water Supply 8,701 AF
Residential Unit Demand 0.60 AF/EDU	Residential Unit Demand 0.39 AF/EDU
Water Meter Availability **20,068** EDUs	Water Meter Availability **22,162** EDUs

Contractual Commitments

- Various commitments to serve
  - Assessment District 3
  - Weber Dam Advanced Funding Agreement
  - Wetsel-Oviatt
  - Apple Mountain Golf Course
- EDH Commitments: 4,097 EDUs
- Western/Eastern Commitments: 569 EDUs
- General Pool water supply available in each area

Board Options

- **Option 1:** Receive and file the 2019 Water Supply and Demand Report.
- **Option 2:** Take other action as directed by the Board.
- **Option 3:** Take no action.

Recommendation

Option 1

EL DORADO IRRIGATION DISTRICT

Subject: Consideration to award a contract to Doug Veerkamp General Engineering in the not-to-exceed amount of $875,312 for construction of the El Dorado Main #1 and El Dorado Main #2 Intertie Project and authorize funding of $1,105,843 for the El Dorado Main #1 and El Dorado Main #2 Intertie, Project No. 19007.01.

Previous Board Action

August 12, 2019 – Board approved funding to pre-purchase 24-inch isolation valves for the El Dorado Main #1 and El Dorado Main #2 Intertie Project.

Board Policies (BP), Administrative Regulations (AR) and Board Authority

BP 3060 Contracts and Procurement

Summary of Issue

The El Dorado Main (EDM) #1 and EDM #2 Intertie Project is needed to provide the District with operational flexibility between Reservoir 2 and Reservoir 3 for shutdowns, maintenance, or repairs on either of the transmission lines.

Background/Discussion

EDM #1 was originally constructed in 1960 with mortar lined concrete coated (MLCC) pipe that ranges in size from 12 to 24 inches. The pipe originates at Reservoir 1 water treatment plant (WTP) and traverses through Reservoir 2-5 and terminates in the Gold Hill area. In 1970, the District had reached capacity of EDM #1 and began construction of EDM #2. EDM #2 is MLCC pipe that ranges in size from 22 to 30 inches and originates at Reservoir 2 and terminates at the beginning of the Gold Hill Intertie (GHI). EDM #2 is the primary feed to Reservoirs 3-5 and supplies water to the GHI, while EDM #1 is primarily a distribution line to feed individual service connections along the line and lag feed to the reservoir system.

With the growing age of EDM #1 and the numerous service connections made to the line, it has experienced multiple corrosion leaks. The corrosion leaks are due to a lack of mortar placed after a service connection was made to the MLCC pipe. The corrosion leaks are typically not large in size, but require a shutdown of the transmission main to make a repair. Depending on where the leak occurs, these shutdowns can be large and affect many customers. The need for the Intertie Project moving forward, is to help maintain water service to customers during an outage of EDM #1 or EDM #2 between Reservoir 2 and Reservoir 3 and will aid in future condition assessments of these transmission mains.

This Intertie Project will consist of installing a 24-inch ductile iron pipeline interconnecting EDM#1 and EDM #2 at the Reservoir 3 tank site in Camino. The intertie will be completed upstream of both pressure reducing stations at the site, which will allow for more flexibility during potential outages to provide water downstream through either station. Furthermore, this intertie will be necessary to maintain service to District customers during the Caltrans Camino Safety Project that is planned for construction in the spring of 2020. This construction requires that both EDM #1 and EDM #2 be taken off line at different times to allow for grading and the installation of new segments of each transmission main to be installed and tested.

Construction Contract
This project was advertised for bidding in July of 2019. Five contractors attended the mandatory pre-bid meeting and the District received three bids. The bids are summarized below:

Bidder	Total Bid
Doug Veerkamp General Engineering	$875,312
Syblon Reid	$1,032,694
K.W. Emerson	$1,262,504

The bid from Doug Veerkamp General Engineering was the lowest responsible and responsive bid. Therefore, staff is recommending award of the construction contract to Doug Veerkamp General Engineering.

Environmental Review
Staff has determined that this Project is categorically exempt from CEQA under a Class 1 Existing Facilities categorical exemption (CEQA Guidelines §15301). The Project would connect two existing water pipelines to reduce potential service interruptions and involves negligible or no expansion of existing or former use beyond that existing at the time of the District's determination. Additionally, the Project does not trigger any exceptions to this exemption (see CEQA Guidelines §15300.2). Staff filed a Notice of Exemption from CEQA with the El Dorado County Recorder-Clerk's office on July 8, 2019.

Funding
While staff was in the process of planning the Intertie Project, funding estimates were not yet included in the approved 2019-2023 CIP. However, due to the timing of the Caltrans Camino Safety Project, the District is in need of completing construction this year to prepare for the scheduled shutdowns of both EDM #1 and EDM #2 and the design was accelerated. Overall CIP expenditures will remain within budget due to deferral of other projects. The funding source for this project is 100% water rates.

Funding requirements

Doug Veerkamp General Engineering	$875,312
Soils testing – Youngdahl Consulting Group	$6,000
Capitalized labor – construction management and inspection	$124,000
Project contingency	$100,531
Total Funding Request	**$1,105,843**

Board Options

Option 1: Award a contract to Doug Veerkamp General Engineering in the not-to-exceed amount of $875,312 for construction of the El Dorado Main #1 and El Dorado Main #2 Intertie Project and authorize funding of $1,105,843 for the El Dorado Main #1 and El Dorado Main #2 Intertie, Project No. 19007.01.

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

Option 3: Take no action.

Recommendation

Option 1

Attachments

Attachment A: Bid summary

Patrick Wilson
Senior Civil Engineer

Radenko Odzakovic
Drinking Water Operations Manager

Elizabeth Dawson
Engineering Manager

for
Brian Deason
Environmental Resources Supervisor

Brian Mueller
Engineering Director

Dan Corcoran
Operations Director

Mark Price
Finance Director

Brian Poulsen
General Counsel

Jim Abercrombie
General Manager

EL DORADO IRRIGATION DISTRICT

EDM#1 and EDM#2 INTERTIE

PROJECT NO. 19007.01; CONTRACT NO. E19-13

Bid Opening: August 13, 2019 @ 3:01 p.m. in the El Dorado Irrigation District's Board Room

SUMMARY OF BIDS RECEIVED

ITEM NO.	WORK OR MATERIAL	QUANTITY	UNIT	Doug Veerkamp General Eng. Placerville, CA Bid env. A received via hand delivery at 2:46 PM 8/13/2019 Bid env. B received via hand delivery at 2:21 PM 8/14/2019 UNIT PRICE (FIGURES)	Doug Veerkamp General Eng. Placerville, CA AMOUNT (FIGURES)	Syblon Reid Folsom, CA Bid env. A received via hand delivery at 2:55 PM 8/13/2019 Bid env. B received via hand delivery at 2:54 PM 8/13/2019 UNIT PRICE (FIGURES)	Syblon Reid Folsom, CA AMOUNT (FIGURES)	K. W. Emerson, Inc. San Andreas, CA Bid env. A received via hand delivery at 2:39 PM 8/13/2019 *(No Bid env. B was received)* UNIT PRICE (FIGURES)	K. W. Emerson, Inc. San Andreas, CA AMOUNT (FIGURES)
1	Bonds and Insurance	1	LS	18,000.00	$ 18,000.00	19,000.00	$ 19,000.00	4,702.00	$ 4,702.00
2	Safety Plan and Programs	1	LS	11,000.00	11,000.00	3,500.00	3,500.00	5,568.00	5,568.00
3	Mobilization / Demobilization	1	LS	39,300.00	39,300.00	50,000.00	50,000.00	136,102.00	136,102.00
4	Potholes	20	EA	1,070.00	21,400.00	700.00	14,000.00	928.00	18,560.00
5	24" Ductile Iron Pipe	312	LF	408.00	127,296.00	365.00	113,880.00	371.00	115,752.00
6	24" Fittings	7	EA	4,450.00	31,150.00	3,750.00	26,250.00	11,754.00	82,278.00
7	24" Flow Meter	1	LS	33,600.00	33,600.00	22,000.00	22,000.00	24,746.00	24,746.00
8	24" Gate Valves	3	EA	4,020.00	12,060.00	21,000.00	63,000.00	33,407.00	100,221.00
9	2" Combination Air Release Valve	1	EA	14,000.00	14,000.00	16,500.00	16,500.00	16,085.00	16,085.00
10	3" Combination Air Release Valve	1	EA	19,100.00	19,100.00	19,500.00	19,500.00	18,559.00	18,559.00
11	Tie-In Station 1+100	1	LS	65,700.00	65,700.00	43,000.00	43,000.00	83,517.00	83,517.00
12	Tie-In Station 4+12	1	LS	77,800.00	77,800.00	25,000.00	25,000.00	74,238.00	74,238.00
13	4" Temporary PVC	1	LS	12,800.00	12,800.00	14,500.00	14,500.00	37,119.00	37,119.00
14	Site Grading and Spoils Removal	1,600	CY	33.20	53,120.00	83.00	132,800.00	99.00	158,400.00
15	Site Grubbing	1	LS	11,000.00	11,000.00	20,000.00	20,000.00	30,932.00	30,932.00
16	Reservoir 3 Access Road Paving	5,500	SF	7.19	39,545.00	12.00	66,000.00	7.00	38,500.00
17	Reservoir 3 Drainage Ditch	400	LF	36.30	14,520.00	42.50	17,000.00	21.00	8,400.00
18	USFS Paving Restoration	13,580	SF	5.28	71,702.40	6.80	92,344.00	5.00	67,900.00
19	USFS AB Restoration	9,270	SF	2.24	20,764.80	4.50	41,715.00	3.00	27,810.00
20	District Access Road Restoration	200	SF	4.42	884.00	11.25	2,250.00	19.00	3,800.00
21	District Access Road Chip Seal	14,450	SF	2.21	31,934.50	3.40	49,130.00	3.00	43,350.00
22	Fencing	1	LS	21,400.00	21,400.00	16,500.00	16,500.00	16,684.00	16,684.00
23	Flush, Pressure Test, and Disinfection	1	LS	29,000.00	29,000.00	8,550.00	8,550.00	24,746.00	24,746.00
24	Water Pollution Control Plan (WPCP)	1	LS	20,900.00	20,900.00	15,000.00	15,000.00	11,754.00	11,754.00
25	Rock Excavation	150	CY	30.00	4,500.00	458.00	68,700.00	62.00	9,300.00
26	Restroom Grading	500	SF	4.57	2,285.00	10.25	5,125.00	6.00	3,000.00
27	Parking AB Restoration	5,000	SF	2.43	12,150.00	5.65	28,250.00	3.00	15,000.00
28	24" Line Stop for EDM #1	1	LS	58,400.00	58,400.00	39,200.00	39,200.00	85,481.00	85,481.00
	TOTAL				$ 875,311.70		$ 1,032,694.00		$ 1,262,504.00

THIS TABULATION REPRESENTS A TRUE AND COMPLETE SUMMARY OF BIDS RECEIVED BY EL DORADO IRRIGATION DISTRICT

PROJECT NO. 19007.01; CONTRACT NO. E19-13

PREPARED BY: Lori Bazinet
District Contract Management

SUBMITTED BY:

Patrick Wilson, P.E., D2, CP2, Senior Civil Engineer

El Dorado Main #1 And El Dorado Main #2 Intertie Project

Construction Contract 19007.01

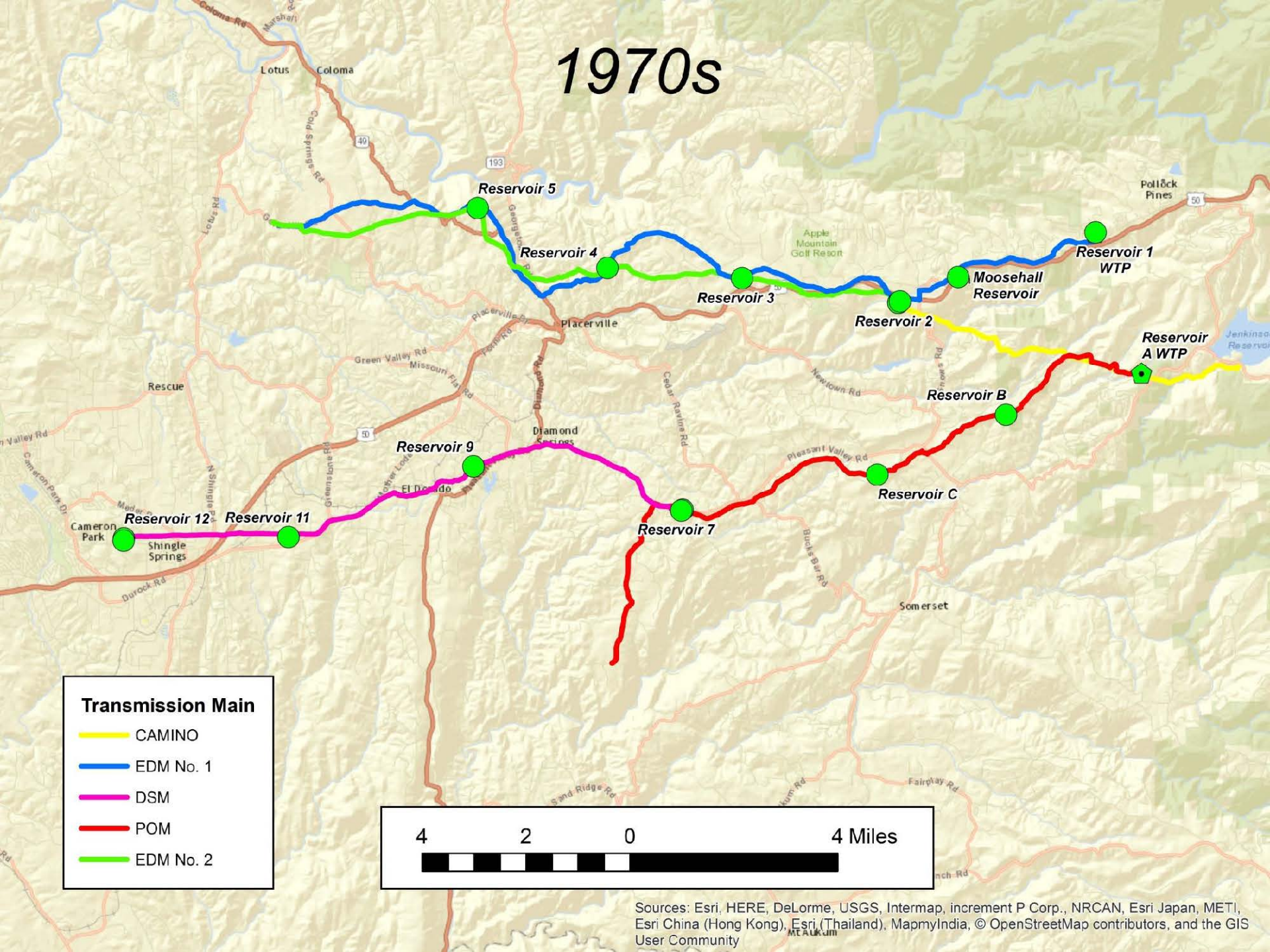
August 26, 2019

El Dorado Irrigation District

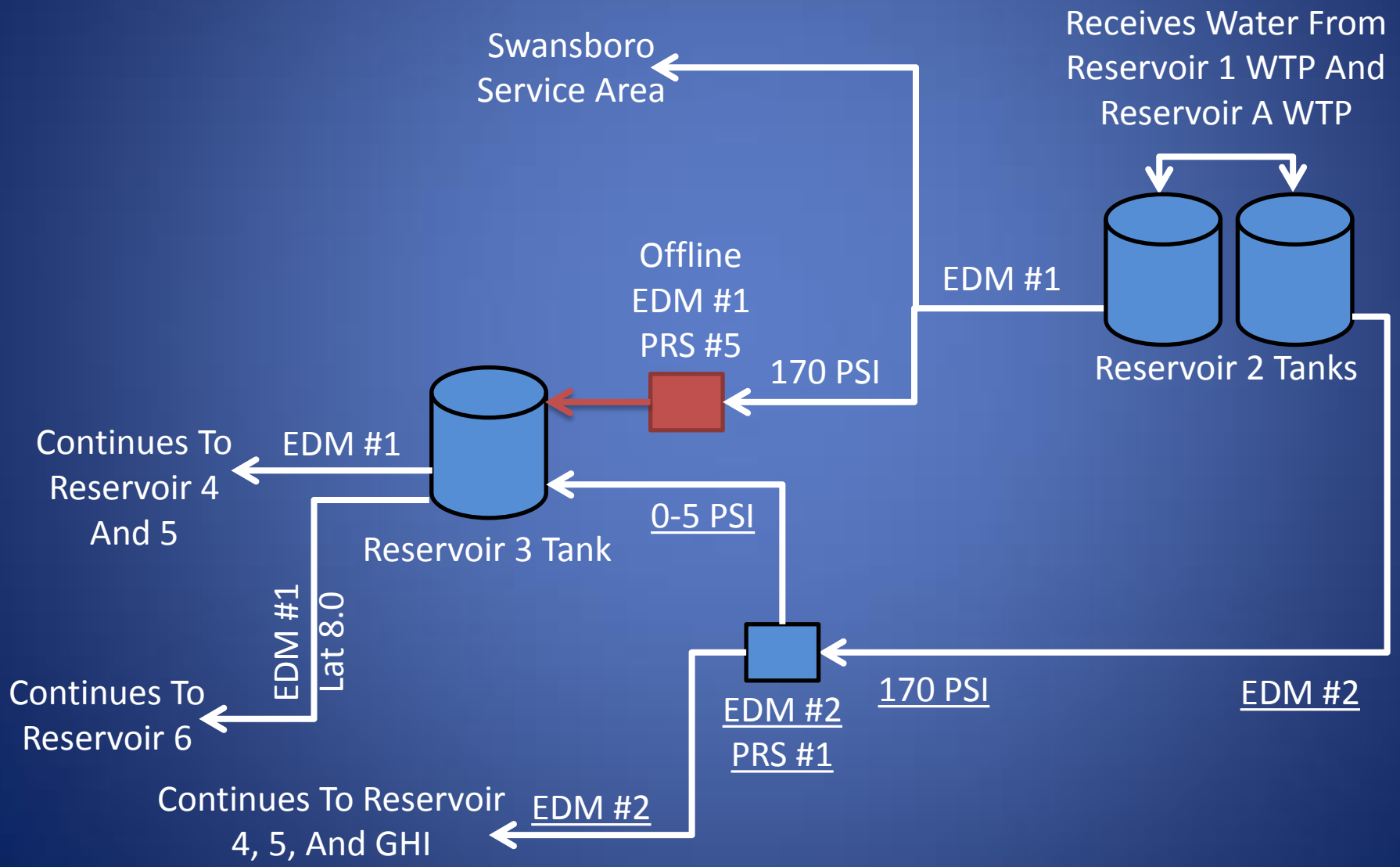
Summary Of Issue

- No intertie between EDM #1 and EDM #2
  - Leak repair flexibility
  - Normal maintenance
- Caltrans Camino Safety Project
  - EDM #1 and EDM #2 to be taken offline

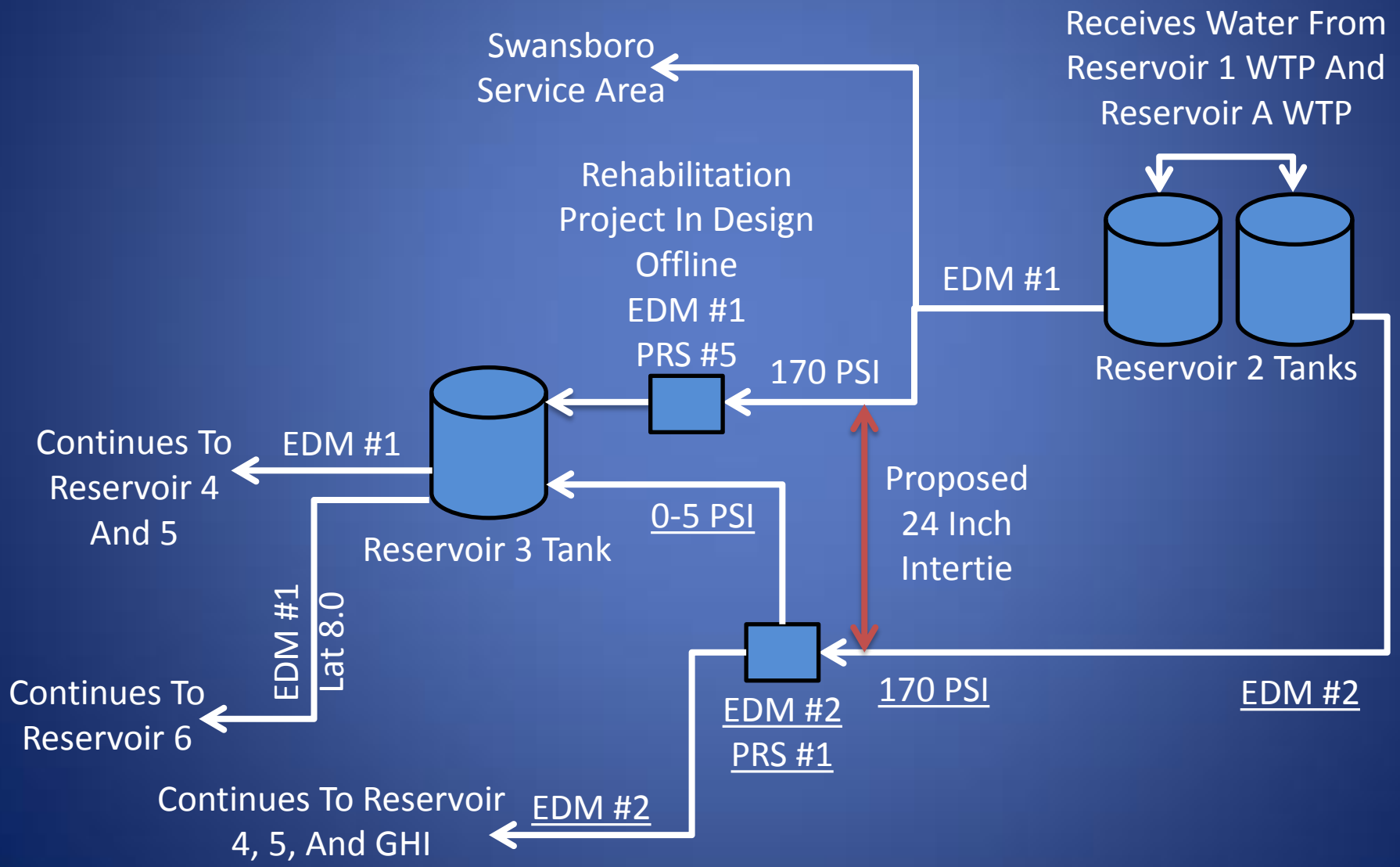
1970s


Reservoir 5
Reservoir 4
Reservoir 3
Reservoir 2
Moosehall Reservoir
Reservoir 1 WTP
Reservoir A WTP
Reservoir B
Reservoir C
Reservoir 7
Reservoir 9
Reservoir 11
Reservoir 12
Placerville
Lotus
Coloma
Rescue
Diamond Springs
El Dorado
Cameron Park
Shingle Springs
Somerset
Pollock Pines
Apple Mountain Golf Resort
Transmission Main
CAMINO
EDM No. 1
DSM
POM
EDM No. 2
4 2 0 4 Miles
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

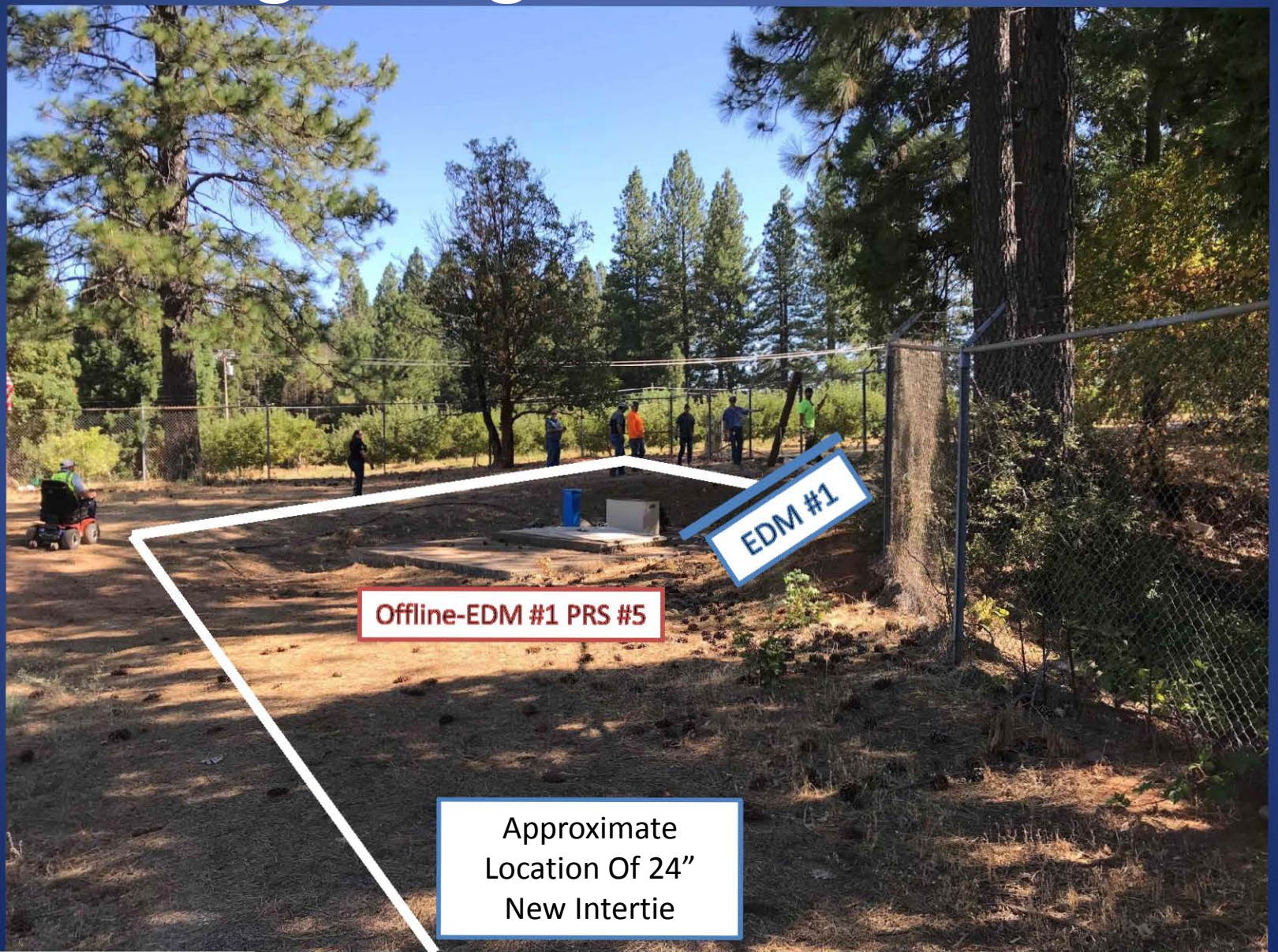
EDM #1 And EDM #2 Operation



EDM #1 And EDM #2 Proposed Intertie



Beginning Of 24” Intertie



24” Intertie Across Old Reservoir

24” Intertie Across Old Reservoir

End Of 24” Intertie

Scope Of Work

- Cut in new access road
  - Provides long term access for EDM #1 PRS #5
  - Ease of installation for intertie
- Install approximately 312 LF of 24” DIP
  - 3 – 24” Isolation Valves (District Pre-Purchased)
  - 2 – Air Release Valves
- Repair Reservoir 3 Access Road
  - Chip seal
  - Paving
  - Aggregate base placement

Bidding

- Advertisement
  - July 25, 2019
- Mandatory Pre-Bid Job Walk
  - August 2, 2019
- Bid Opening
  - August 13, 2019

Bid Results

Name	Total Bid
• Doug Veerkamp	$875,312
• Syblon Reid	$1,032,694
• K.W. Emerson	$1,262,504
Engineer's Estimate	$800,000

Environmental

- Staff has determined the Project qualifies as a Class 1 Categorical Exemption from CEQA
  - Maintenance and repair of existing facilities involving negligible or no expansion of use beyond that existing
- Staff filed a Notice of Exemption from CEQA with the County Recorder-Clerk's office on July 8, 2019

Funding

Anticipated Project Costs:

Doug Veerkamp G.E. (Contractor)	**$875,312**
Capitalized Labor (Inspection and CM)	**$124,000**
Soils Testing (Youngdahl Consulting Group)	**$6,000**
Project Contingency (10% Contingency)	**$100,531**
TOTAL	**$1,105,843**

Funding not included in Board Approved 2019-2023 CIP

Board Decisions/Options

- **Option 1:** Award a contract to Doug Veerkamp General Engineering in the not-to-exceed amount of $875,312 for construction of the El Dorado Main #1 and El Dorado Main #2 Intertie project; and authorize funding of $1,105,843 for the El Dorado Main #1 and El Dorado Main #2 Intertie, Project No. 19007.01.
- **Option 2:** Take other action as directed by the Board
- **Option 3:** Take no action

Recommendation

- Option 1

Questions

EL DORADO IRRIGATION DISTRICT

Subject: Consideration to award a contract to Doug Veerkamp General Engineering, Inc. in the not-to-exceed amount of $3,659,641 for construction of campground improvements; award a contract to ICM Group, Inc. in the not-to-exceed amount of $168,000 for construction inspection services; and authorize funding of $4,590,000 for Silver Lake East Campground and Caples Lake Campground Improvements, Project Numbers 06082H.01 and 15016.01.

Previous Board Action

April 7, 2003 – Board approved the El Dorado Relicensing Settlement Agreement that included the Silver Lake East campground and Caples Lake campground improvements, and authorized the Board President to sign.

June 26, 2017 – Board approved a design contract to Domenichelli and Associates for the Silver Lake East and Caples Lake campground projects.

June 26, 2017 – Board approved a professional services contract to Bonkowski and Associates for the Caples Lake Well Implementation project.

January 28, 2019 – Board adopted the 2019-2023 CIP, which included the Silver Lake East and Caples Lake campground projects.

August 12, 2019 – Board adopted a Mitigated Negative Declaration for the Caples and Silver Lake East campground improvements.

Board Policies (BP), Administrative Regulations (AR) and Board Authority

BP 3060 Contracts and Procurement
BP 8010 Hydroelectric System Management

Summary of Issue

Requirements of the Federal Energy Regulatory Commission (FERC) Project No. 184 license conditions, including United States Forest Service (USFS) 4(e) Condition No. 50 and Section 20 of Appendix A to the El Dorado Relicensing Settlement Agreement, require the District to perform various improvements at the USFS-owned Silver Lake East campground and Caples Lake campground. These upgrades must meet current USFS design standards and accessibility standard requirements of the Architectural Barriers Act (ABA).

Background/Discussion

On June 26, 2001, the District began a collaborative process to help resolve issues among stakeholders as part of the relicensing of the El Dorado Hydroelectric Project (Project No. 184). On April 7, 2003, the Board approved the El Dorado Relicensing Settlement Agreement, which specifies the protection, mitigation, and enhancement measures that parties to the Settlement Agreement agreed to and recommended as final USFS 4(e) conditions, State Water Resources Control Board 401 Water Quality Certification conditions, and FERC license conditions. On October 18, 2006, FERC issued a license for the operation of the El Dorado Hydroelectric Project (Project No. 184). The FERC Project No. 184 license includes conditions that require the District to implement specific improvements at USFS-owned recreation facilities, including

Silver Lake East and Caples Lake campgrounds. Following project completion, the District will also be responsible for maintenance of the paved surfaces at the campgrounds per USFS 4(e) Condition No. 51 of the FERC license.

District staff has worked closely with USFS representatives to determine the most cost effective improvements for each campground based on site conditions while still meeting all of the required 4(e) conditions.

Silver Lake East Campground

The FERC license condition for Silver Lake East campground (USFS Section 4(e) Condition No. 50.1) requires the District to implement the following improvements:

- Replace all toilets with accessible toilets relocated to reduce the distance from camp units to the toilets and to avoid the steeper road grades. Construct paved parking turnouts in front of each toilet with a paved access route to the toilet.
- Replace and relocate all faucet units adjacent to the roadway with accessible ones.
- Construct a paved area at all the faucet units to current accessibility standards.
- Widen spurs for up to 20 units to meet current accessibility standards. Reconstruct and pave all spurs.
- Prepare existing campground roads for resurfacing by patching, scarifying, or other methods, as determined by the USFS. Place asphalt overlay on campground road.
- Replace all waterlines, including the distribution lines within the campground and the collection lines from the source to the facility.

Staff determined that the existing Silver Lake East campground water source, a developed spring that is located a considerable distance from the campground, could be replaced with a more safe and reliable source from the District's existing well located near Silver Lake West campground at a substantially reduced cost. The well near Silver Lake West campground can provide water for both the District-owned Silver Lake West campground as well as the USFS-owned Silver Lake East campground. The improvements needed to modify the existing well near Silver Lake West campground are currently being designed and a contract for construction of this element will be brought to the Board at a future date for consideration to award.

Caples Lake Campground

The FERC license condition for Caples Lake campground (USFS Section 4(e) Condition No. 50.2) requires the District to implement the following improvements:

- Replace existing toilets with 4 single-unit accessible vault toilets. Relocate the new toilets to provide for easier access and less distance from the camp units. Also construct a paved parking turnout in front of each toilet for servicing and for parking access.
- Replace and relocate all faucet units adjacent to the roadway. Provide a level and paved pad in front and on the sides of the faucet unit.
- For all pathways between camp units and spurs/roadway, remove ground protrusions, re-grade and widen the pathways, and compact the native surface where feasible and deemed appropriate by the USFS. Meet most current grade and cross-slope accessibility standards for access for up to 11 units.

- Widen spurs where feasible to meet most current accessibility standards. Reconstruct and pave all spurs.
- Prepare existing campground roads for resurfacing by patching, scarifying, or other methods, as determined by the USFS. Place asphalt overlay on campground road.
- Remove obstacles and protrusions, and level and compact the native surface at each camp unit. Enlarge the camp units to a minimum of 900 square feet where feasible and when deemed appropriate by the USFS. Grades of all the camp units shall be reconstructed to the most current accessibility standards including clear space around facilities.
- Replace all waterlines, including the distribution lines within the campground and the collection lines from the source to the facility.

The current water system at Caples Lake campground is currently out of service. The waterline that provides service to the campground is located in a carrier pipe within the crest of the Caples Lake Main Dam. In the summer of 2014, during a dam safety inspection at Caples Lake Main Dam, District and California Division of Safety of Dams (DSOD) staff determined that the waterline was leaking. Due to dam safety concerns, the DSOD required the waterline to be shut off. Since that time, water for the campground has been trucked in by the District. Following discussions between the Forest Service and the District it was determined that the best option was to have a well drilled within Caples Lake Campground to supply water to the campground. In December of 2017 a well was drilled at the campground that will service the new water system being installed.

Environmental Review

The District, acting as the Lead Agency, must comply with California Environmental Quality Act (CEQA) requirements for the Silver Lake East campground and Caples Lake campground improvements project. On August 12, 2019, the Board adopted the Mitigated Negative Declaration and Mitigation, Monitoring, and Reporting Program for the Silver Lake East campground and Caples Lake campground improvements project. Staff filed a Notice of Determination (NOD) with the El Dorado County Clerk and the State Clearinghouse and mailed copies of the NOD to Alpine and Amador Counties to complete the CEQA process.

Construction Bidding

A contractor request for qualifications for the project was advertised in May 2019 and nine companies were deemed qualified to bid on the project. A pre-bid meeting was held on July 19, 2019. Eight Contractors attended the pre-bid meeting.

Four bids were received on August 6, 2019. The Engineer's estimate for the project was $3,797,700.

	Bidder	**Total Bid Price**
1	Doug Veerkamp General Engineering, Inc.	$3,659,641
2	Burdick Excavating Co., Inc.	$5,426,162
3	MKD Construction, Inc.	$6,421,944
4	Sierra Mountain Construction, Inc.	$8,323,035

Construction Inspection
With a large number of projects currently in construction, a contract inspector is needed to provide inspection coverage for this project. A request for proposals for inspection services was issued in July 2019. Five proposals were received on August 8, 2019.

	Proposer	**Total Proposal Price**
1	ICM Group, Inc.	$168,000.00
2	G7ei Inc.	$193,200.00
3	Cardno, Inc.	$196,409.00
4	4 Leaf, Inc.	$204,600.00
5	Salaber Associates, Inc.	$215,056.60

Caples Lake Campground Storm Water Pollution Prevention Plan
The Caples Lake campground improvement encompasses an area that requires a Storm Water Pollution Prevention Plan (SWPPP). Domenichelli and Associates will provide SWPPP inspection services at a cost of $24,260 through the District's on-call services.

Material Testing
Youngdahl Consulting Group, Inc. will perform the material testing for the project including compaction testing and concrete testing at a cost of $22,794 through the District's on-call services.

Schedule
The FERC license specified that the improvements at Silver Lake East be completed within 5 years of license issuance (by October 18, 2011) and the improvements at Caples Lake campground be completed within 10 years of license issuance (by October 18, 2016). In 2011, the District requested and received a 5-year time extension for completing the improvements at Silver Lake East campground so that construction activities could be conducted in conjunction with campground improvements at Caples Lake campground. In 2017, the District received an additional time extension to complete the Caples Lake and Silver Lake East campground projects in 2019-2020. Improvements to Caples Lake campground will begin this fall and both campgrounds are scheduled to be complete in 2020.

Funding
Construction of the project will be funded by 53% FCC's and 47% water rates and is included in the approved 2019-2023 CIP. A summary of funding requirements is as follows:

Funding Requirements

Construction Contract – Doug Veerkamp General Engineering	$3,659,641
Construction Inspection – ICM Group, Inc.	$168,000
SWPPP Inspection – Domenichelli and Associates	$24,260
Material Testing – Youngdahl Consulting Group, Inc.	$22,794
Capitalized Labor – Project Management, Environmental Compliance	$115,305
15% Contingency	$600,000
TOTAL	**$4,590,000**

The 2019-2023 CIP estimated expenditures of $5,950,000 through 2020 for these two campground improvements.

Board Options

Option 1: Award a contract to Doug Veerkamp General Engineering, Inc. in the not-to-exceed amount of $3,659,641 for construction of campground improvements; award a contract to ICM Group, Inc. in the not-to-exceed amount of $168,000 for construction inspection services; and authorize funding of $4,590,000 for Silver Lake East Campground and Caples Lake Campground Improvements, Project Numbers 06082H.01 and 15016.01.

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

Option 3: Take no action.

Recommendation

Option 1

Attachments

Attachment A: Bid summary
Attachment B: ICM Group, Inc. proposal
Attachment C: 2019-2023 CIP worksheets

Kailee Delongchamp
Associate Engineer

Elizabeth Dawson
Engineering Manager

Brian Deason
Environmental Resources Supervisor

Brian Mueller
Engineering Director

Dan Corcoran
Operations Director

Mark Price
Finance Director

Jim Abercrombie
General Manager

EL DORADO IRRIGATION DISTRICT

SILVER LAKE EAST CAMPGROUND & CAPLES LAKE CAMPGROUND IMPROVEMENTS

PROJECT NOS. 06082H.01 & 15016.01; CONTRACT NO. E19-12

Bid Opening: August 6, 2019 @ 3:01 p.m. in the El Dorado Irrigation District's Board Room

SUMMARY OF BIDS RECEIVED

ITEM NO.	WORK OR MATERIAL	QUANTITY	UNIT	Doug Veerkamp Gen. Eng. Placerville, CA Bid env. A received via hand delivery at 2:46 PM 8/06/2019 Bid env. B received via hand delivery at 2:46 PM 8/06/2019 *"Footnotes A & B"* UNIT PRICE (FIGURES)	AMOUNT (FIGURES)	Burdick Excavating Co., Inc. Carson City, NV Bid env. A received via hand delivery at 2:58 PM 8/06/2019 Bid env. B received via hand delivery at 2:58 PM 8/06/2019 UNIT PRICE (FIGURES)	AMOUNT (FIGURES)	MKD Construction, Inc. Mound House, NV Bid env. A received via hand delivery at 2:55 PM 8/06/2019 Bid env. B received via hand delivery at 2:55 PM 8/06/2019 UNIT PRICE (FIGURES)	AMOUNT (FIGURES)	Sierra Mountain Construction, Inc. Sonora, CA Bid env. A received via hand delivery at 2:15 PM 8/06/2019 Bid env. B received via hand delivery at 2:15 PM 8/06/2019 UNIT PRICE (FIGURES)	AMOUNT (FIGURES)
1	Bonds and Insurance	1	LS	28,470.00	$ 28,470.00	45,000.00	$ 45,000.00	178,000.00	$ 178,000.00	250,000.00	$ 250,000.00
2	Safety Plan and Programs	1	LS	17,850.00	$ 17,850.00	12,000.00	$ 12,000.00	25,575.00	$ 25,575.00	3,500.00	$ 3,500.00
	Silver Lake East Campground Improvements										
3	Mobilization and Demobilization	1	LS	315,960.00	$ 315,960.00	237,000.00	$ 237,000.00	187,740.00	$ 187,740.00	1,200,000.00	$ 1,200,000.00
4	Water Pollution Control Plan (WPCP)	1	LS	48,370.00	48,370.00	73,500.00	73,500.00	98,700.00	98,700.00	180,000.00	180,000.00
5	Tree and Stump Removal	54	EA	1,080.00	58,320.00	500.00	27,000.00	700.00	37,800.00	2,000.00	108,000.00
6	Rock Relocation and Removal	1	LS	6,490.00	6,490.00	9,050.00	9,050.00	26,200.00	26,200.00	85,000.00	85,000.00
7	Clean Out Existing Culverts	5	EA	640.00	3,200.00	2,330.00	11,650.00	3,435.00	17,175.00	2,500.00	12,500.00
8	Demo Existing Hose Bibs	12	EA	930.00	11,160.00	860.00	10,320.00	925.00	11,100.00	1,300.00	15,600.00
9	Demo Existing Waterline	1	LS	6,670.00	6,670.00	10,100.00	10,100.00	25,500.00	25,500.00	30,000.00	30,000.00
10	Remove Existing Spurs	3	EA	1,180.00	3,540.00	3,850.00	11,550.00	4,175.00	12,525.00	2,200.00	6,600.00
11	Remove Existing Restrooms	11	EA	5,980.00	65,780.00	12,000.00	132,000.00	8,300.00	91,300.00	8,000.00	88,000.00
12	General Site Grading	28,000	SF	1.10	30,800.00	4.71	131,880.00	3.00	84,000.00	6.50	182,000.00
13	New Gravel Walkways	1	LS	9,070.00	9,070.00	23,000.00	23,000.00	15,400.00	15,400.00	20,000.00	20,000.00
14	New Stairs and Landings	1	LS	15,840.00	15,840.00	75,500.00	75,500.00	23,200.00	23,200.00	50,000.00	50,000.00
15	Drainage Improvements	1	LS	5,870.00	5,870.00	11,000.00	11,000.00	21,485.00	21,485.00	7,500.00	7,500.00
16	Installation of 2" Waterline and Appurtenances	5,100	LF	47.00	239,700.00	105.00	535,500.00	183.00	933,300.00	50.00	255,000.00
17	Install Water Wash Stations/Faucet Units	10	EA	5,490.00	54,900.00 ***B***	7,370.00	73,700.00	4,400.00	44,000.00	3,000.00	30,000.00
18	Restroom Installation (Single)	2	EA	47,070.00	94,140.00	60,000.00	120,000.00	43,500.00	87,000.00	80,000.00	160,000.00
19	Restroom Installation (Double)	8	EA	89,350.00	714,800.00	101,665.00	813,320.00	78,500.00	628,000.00	150,000.00	1,200,000.00
20	Dumpster Installation	8	EA	4,300.00	34,400.00	10,800.00	86,400.00	3,900.00	31,200.00	5,000.00	40,000.00
21	Asphalt Paving - Geo Grid GlasPave and 2" Overlay	63,000	SF	5.20	327,600.00	5.25	330,750.00	8.00	504,000.00	5.50	346,500.00
22	Striping and Arrows	1	LS	9,500.00	9,500.00	7,000.00	7,000.00	8,000.00	8,000.00	5,000.00	5,000.00
23	Site Restoration	1	LS	35,040.00	35,040.00	130,000.00	130,000.00	100,550.00	100,550.00	250,000.00	250,000.00
	Silver Lake East Campground Subtotal (Bid Items 3-23):				$ 2,091,150.00		$ 2,860,220.00		$ 2,988,175.00		$ 4,271,700.00
	Caples Lake Campground Improvements										
24	Mobilization and Demobilization	1	LS	363,640.00	$ 363,640.00	250,000.00	$ 250,000.00	261,250.00	$ 261,250.00	1,200,000.00	$ 1,200,000.00
25	Storm Water Pollution Prevention Plan (SWPPP) Implementation	1	LS	58,980.00	58,980.00	90,000.00	90,000.00	65,500.00	65,500.00	180,000.00	180,000.00
26	Tree and Stump Removal	54	EA	1,390.00	75,060.00	500.00	27,000.00	725.00	39,150.00	2,000.00	108,000.00
27	Rock Relocation and Removal	1	LS	15,010.00	15,010.00	30,000.00	30,000.00	48,850.00	48,850.00	150,000.00	150,000.00
28	Clean Out Existing Culverts	5	EA	640.00	3,200.00	2,500.00	12,500.00	3,500.00	17,500.00	2,500.00	12,500.00
29	Demo Existing Hose Bibs	7	EA	950.00	6,650.00	860.00	6,020.00	925.00	6,475.00	1,300.00	9,100.00
30	Demo Existing Waterline	1	LS	4,150.00	4,150.00	12,000.00	12,000.00	9,500.00	9,500.00	20,000.00	20,000.00
31	Remove Existing Spurs (Gravel and Paved)	35	EA	1,000.00	35,000.00	4,000.00	140,000.00	2,100.00	73,500.00	2,200.00	77,000.00
32	Remove Existing Restrooms	2	EA	6,380.00	12,760.00	18,000.00	36,000.00	9,500.00	19,000.00	8,000.00	16,000.00
33	General Site Grading	67,600	SF	0.90	60,840.00	3.50	236,600.00	3.15	212,940.00	6.00	405,600.00

				Doug Veerkamp Gen. Eng. Placerville, CA		Burdick Excavating Co., Inc. Carson City, NV		MKD Construction, Inc. Mound House, NV		Sierra Mountain Construction, Inc. Sonora, CA	
34	Drainage Improvements	1	LS	32,420.00	$ 32,420.00	34,500.00	$ 34,500.00	50,595.00	$ 50,595.00	50,000.00	$ 50,000.00
35	Installation of 2" Waterline and Appurtenances	1,390	LF	33.00	45,870.00	111.00	154,290.00	220.00	305,800.00	60.00	83,400.00
36	Installation of 1" Waterline and Appurtenances	1,062	LF	24.00	25,488.00	91.50	97,173.00	25.00	26,550.00	15.00	15,930.00
37	Installl Tank Float Conduit	1,062	LF	16.00	16,992.00	26.00	27,612.00	17.00	18,054.00	15.00	15,930.00
38	Install Water Wash Stations/Faucet Units	5	EA	5,490.00	27,450.00	7,360.00	36,800.00	4,700.00	23,500.00	3,000.00	15,000.00
39	Restroom Installation	4	EA	47,070.00	188,280.00	58,500.00	234,000.00	53,000.00	212,000.00	80,000.00	320,000.00
40	Dumpster Installation	5	EA	4,390.00	21,950.00	10,800.00	54,000.00	3,625.00	18,125.00	5,000.00	25,000.00
41	Installation of Water Tank Pads and Water Tanks	1	LS	11,050.00	11,050.00	30,000.00	30,000.00	24,675.00	24,675.00	25,000.00	25,000.00
42	Site Restoration	32	EA	1,140.00	36,480.00	5,120.00	163,840.00	3,200.00	102,400.00	4,500.00	144,000.00
43	New Gravel Walkways	2,900	SF	7.80	22,620.00	24.40	70,760.00	10.00	29,000.00	10.00	29,000.00
44	New Stairs and Landings	1	LS	39,720.00	39,720.00	145,000.00	145,000.00	69,500.00	69,500.00	185,000.00	185,000.00
45	Asphalt Paving - Spurs	25,800	SF	7.30	188,340.00	5.36	138,288.00	13.65	352,170.00	8.50	219,300.00
46	Asphalt Paving - 2" Grind and Overlay	37,900	SF	3.90	147,810.00	4.71	178,509.00	6.25	236,875.00	4.75	180,025.00
47	Striping and Arrows	1	LS	9,500.00	9,500.00	7,000.00	7,000.00	8,315.00	8,315.00	5,000.00	5,000.00
48	Relocate Existing Shed at Host Site	1	LS	8,660.00	8,660.00	5,000.00	5,000.00	6,000.00	6,000.00	15,000.00	15,000.00
	Caples Lake Campground Subtotal (Bid Items 24-48):				$ 1,457,920.00		$ 2,216,892.00		$ 2,237,224.00		$ 3,505,785.00
49	Hard Rock Excavation	58,410	CF	1.10	$ 64,251.00	5.00	$ 292,050.00	17.00	$ 992,970.00	5.00	$ 292,050.00
	TOTAL BID PRICE (Bid Items 1-49):				$ 3,659,641.00 ***A***		$ 5,426,162.00		$ 6,421,944.00		$ 8,323,035.00
	Optional Bid Items										
50	Caples Lake - Installation of Double Restroom	1	EA	89,350.00	$ 89,350.00	10,100.00	$ 10,100.00	87,840.00	$ 87,840.00	175,000.00	$ 175,000.00
51	Caples Lake - Replace Existing Culverts	1	LS	30,800.00	$ 30,800.00	52,000.00	$ 52,000.00	36,000.00	$ 36,000.00	7,750.00	$ 7,750.00
	Optional										

Footnotes:

A Apparent low bidder is determined by the total of bid items 1-49.

B Math error corrected by District.

THIS TABULATION REPRESENTS A TRUE AND COMPLETE SUMMARY OF BIDS RECEIVED BY EL DORADO IRRIGATION DISTRICT

PROJECT NOS. 06082H.01 & 15016.01; CONTRACT NO. E19-12

PREPARED BY: Lori Bazinet
District Contract Management

SUBMITTED BY:

Kailee Delongchamp, E.I.T., Associate Engineer

ICM

August 8, 2019

Ms. Kailee Delongchamp
El Dorado Irrigation District
2890 Mosquito Road
Placerville, CA 95667

RE: RFP19-11 Proposal for Silver Lake East Campground and Caples Lake Campground Improvements Project Construction Inspection

Dear Ms. Delongchamp,

We are pleased to present this proposal to provide construction inspection services for the Silver Lake East Campground and Caples Lake Campground Improvements Project (Project). We have served the District for three years, working on over 25 construction projects of various sizes and durations. Notable projects we have worked on include the improvements to Silver Lake West Campground, Ferguson Point, Woods Creek Trailhead and Caples Lake Dam Parking Lot (2017). We have also inspected the three Town Center Force Main Projects (2017, 2018 and 2019) and multiple underground utility installation for developer projects (2016-2019). We are committed to providing the same high-quality inspection services for the District's current project.

For the Project, George Ackerman will be your inspector. He inspected the Silver Lake West Campground Project in 2017 and is intimately familiar with the needs of the campground improvements. In addition, George has worked on EID projects for three years and completely understands EID construction requirements and standards.

ICM acknowledges receipt of Addendum 1, dated July 30, 2019.

ICM complies with prevailing wage requirements and is registered with the DIR #1000036717.

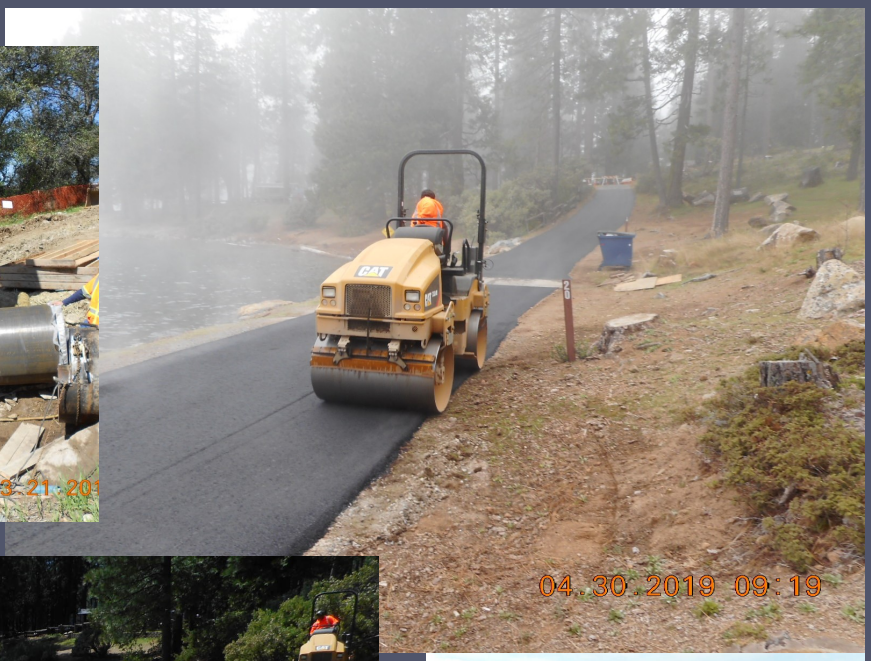
ICM's cost of services is located at the attached proposal Section 2.

We look forward to working with you. If you have any questions, please call me at 916-792-9871 or email me at jinferrera@icmgroupusa.com.

Sincerely,
Inferrera Construction Management Group, Inc.

Jeffrey Inferrera, PE
Principal

El Dorado Irrigation District



Proposal for:

Silver Lake East CG & Caples Lake CG Improvements
Project Construction Inspection

for the

El Dorado Irrigation District RFP 19-11

August 8, 2019

ICM

Section 1 – Scope of Work

Project Understanding

The District is contracting improvement work to the Silver Lake East and Caples Lake Campgrounds that includes waterline and appurtenance installation, demolition of existing bathrooms, installation of new bathrooms, campsite improvements, and complete asphalt paving. We have reviewed the plans and specifications and visited the sites. Inspection of the upcoming improvements is exactly the type of inspection work that we specialize in. In 2017, we completed the inspection of Silver Lake West Campground and George Ackerman, the inspector for Silver Lake West Campground, is available to assist the District with this new Project.

We understand that Doug Veerkamp General Engineering Inc. is the apparent low bidder. We expect the Notice to Proceed to be issued in September of 2019 and the Contractor will focus on completing Caples Lake Campground work this year and finish Silver Lake East work next year with final completion being in July 2020.

For this project, the ability to pave will be difficult due the timing of the project (starting in the fall) and the need for proper temperatures to pave. Most likely paving will not occur in 2019 but will need to be completed in 2020. The Contract has a window of weather days from November 1 to May 15. We understand with good weather, construction can continue past November. The campgrounds normally open in May (weather dependent), so completion in early summer 2020 is important.

Paving at Silver Lake West Campground in September 2017

We understand that FERC requires these campgrounds to be available to the public. We also understand that there are many campers that want to utilize the District's campgrounds. Consequently, it is important to keep the Contractor on track and complete the Project on time.

Scope of Work

We have reviewed the Request for Proposal's Exhibit A Scope of Work and have no exceptions. However, we recommend the addition of the following Scope items:

1. Pre-construction photographs – Pre-construction photographs are important to document the existing condition of the campgrounds prior to the Contractor commencing construction. We will take over 1,000 photographs of all features of the work so that there will be no questions as to the condition of the sites before the Contractor starts work.

2. Punchlist support – We keep a running list of outstanding items in our daily field reports. If the list gets long, we will create an open items list. The open items list is provided, as a courtesy, to the Contractor so he can complete non-conforming work expeditiously. Once the Project is at Substantial Completion, we will assist the District in issuing a Punchlist and follow up with verifying work completion.

Section 2 – Relevant Experience and Expertise

ICM History and Background

ICM is a California corporation and was founded in 2005 to provide local districts, cities, counties, and agencies with specialized third party construction management and inspection services for their water and wastewater projects. Based in Shingle Springs, we have successfully completed fourteen treatment plant projects, twenty pump station projects, and over fifty pipeline projects. ICM complies with the DIR Prevailing Wage regulations and our DIR Registration No. is: 100036717.

Supplemental Questions Exhibit B:

Q: *Who are some of your other clients?*
A: ICM is based locally and have many local clients. Our clients are the following:

ICM *Client List and Their Facilities*	Size (x1,000 Customers)	Public	State	Wastewater Treatment Plants	Water Treatment Plants	Sewer Lift Station	Water Pump Station	Water Storage Tanks	Sewer Pipelines	Water Pipelines	Water Services	Developer Projects	Reservoirs and Canals	Number of ICM Projects
El Dorado Irrigation District	100	Yes	CA	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	24
City of Manteca	72	Yes	CA	♦		♦	♦	♦	♦	♦	♦	♦		20
City of Folsom	73	Yes	CA		♦	♦	♦	♦	♦	♦	♦	♦		6
Citrus Heights Water District	67	Yes	CA		♦	♦	♦	♦	♦	♦	♦	♦		8
Calaveras County Water District	17	Yes	CA			♦	♦	♦	♦	♦	♦	♦	♦	5
Town of Discovery Bay	13	Yes	CA	♦		♦	♦	♦	♦	♦	♦	♦		1
City of Davis	66	Yes	CA	♦		♦	♦	♦	♦	♦	♦	♦		1
Sacramento Suburban Water District	173	Yes	CA							♦	♦	♦		2
Nevada County	<98	Yes	CA	♦		♦			♦			♦		1
San Juan Water District	160	Yes	CA		♦		♦			♦	♦	♦	♦	5
Groveland Community Services District	5	Yes	CA	♦		♦		♦	♦	♦	♦			2
Contra Costa Water District	500	Yes	CA		♦		♦			♦	♦		♦	1
Delta Diablo Sanitation District	200	Yes	CA	♦		♦			♦					2
Stanislaus Regional Water Authority	100	Yes	CA				♦							1
Golden State Water Company	255	No	CA		♦		♦			♦	♦	♦	♦	5

Q: *What distinguishes your firm from similar firms?*
A: ICM specializes in the construction management (CM) and inspection of water and wastewater systems. Being a third-party CM firm who does not offer design services, we never have a conflict of interest with the designer. In fact, we have worked extensively with Domenichelli & Associates and have an effective relationship with them if assistance is needed. We inspected EID's Silver Lake West campground improvements in 2017 and we are familiar with this Project's particular aspects and location. ICM also has previous experience successfully completing projects with EID. As a local business, based out of Shingle Springs, we understand the importance of this Project.

Q: *Describe your approach to ensuring that the project is completed on time and in compliance with District standards, specifications, and plans.*
A: We know District requirements and standards as our inspection staff has worked closely with Skip Haskell on previous projects. As such, your Project will be constructed in compliance with EID standards. Even though the contractor controls his work schedule, we understand EID's need to have him complete the job on time, especially to meet FERC requirements, which necessitates all work completed in time for the 2020 camping season. We will look for ways to improve the schedule and discuss these with EID and the contractor to see if there are ways to improve and maintain the same level of quality and functionality. Our job is to make sure the contractor does the work properly the first time. We want to avoid re-work and to keep constant communication with District staff to facilitate finishing on time.

Q: *Describe your experience with underground construction and underground construction inspection.*
A: We have completed over fifty projects with underground construction and inspection including pipelines for campgrounds and developers, water force mains, trunk sewers, laterals, water meters. Underground construction has included open cut, trenchless, micro tunneling, and jack and bore. Soil conditions we have encountered include bay muds, clays, silts, sands, gravel, cobble, and rock. We have experience with hard rock excavation and blasting. Pipe materials used on our projects include ductile iron, galvanized, stainless steel, mortar lined mortar coated steel, PVC, HDPE, CPVC and other less common pipe materials. Pipe sizes we have inspected range from 1 inch to 78 inches in diameter. Fluids that have been on our projects include potable water, raw water, domestic wastewater, natural gas, digester gas, high pressure gas. Pipe pressures on our projects have ranged from 1 psi to 6,000 psi.

Installing 12" C-900 and HD Coupler

Q: *Describe the information that will be contained in the daily reports you will provide the District.*
A: Our daily field reports contain the Project name and number, date, in/out time of our inspector, weather conditions, Contractor personnel onsite and their hours, Contractor equipment used and idle, materials delivered and incorporated in the work, narrative of work completed in the day, listing of deficient work, narrative of conversations, and listing of site visitors. We are flexible to modify our daily field reports in whatever manner is desired by the District.

Q: *Describe your proposed fee structure for consulting services, including a detailed break-out of services included.*
A: Our fee for inspection services is $120 per hour. This includes vehicle, computer, phone, travel, per diem, office support, expenses. Project management and administrative support is also included in the fee.

Section 3 – Project Team

ICM proposes to have George Ackerman, RCI, as inspector on your project. Matt Livingston, ICC, will be the backup inspector. ***Jeffrey Inferrera is your Project Manager and primary ICM contact.*** Resumes are included in the Appendix. Key staff are presented below.

Jeffrey Inferrera, PE, RCI – Project Manager

Jeffrey Inferrera has over 25 years of experience as a resident engineer and inspector working on large and small public water and wastewater systems. He is knowledgeable of all trades including civil, mechanical, structural, electrical, I&C, and SCADA.

George Ackerman, RCI – Construction Inspector

George Ackerman has 20 years of experience as a public works construction inspector working on public water and wastewater systems and has an additional 7 years of experience maintaining such systems. He is experienced with the inspection of site civil, mechanical, traffic control, shut-downs, tie-ins, and start up.

Matt Livingston, ICC – Backup Construction Inspector

Matt Livingston has over 15 years of experience as a public works construction inspector working on large and small public wastewater systems. He has experience inspecting all trades including above-ground and below-ground piping, mechanical equipment installations, soils and earthwork, concrete/CMU/steel building construction, and paving.

Colleen Ryan – Clerical Support

Colleen Ryan will manage the document tracking system and general administration of the Project.

Key staff and other ICM staff are indicated on the following experience chart:

ICM Staff Certifications And Experience	CA Licensed Engineer	RCI or ICC	Treatment Plant Inspection	Pump Stations Inspection	Pipeline Inspection	Civil Inspection	Structural Inspection	Mechanical Inspection	Electrical Inspection	Coatings Inspection	OSHA 10 Hour Safety	Confined Space	Years Experience
Inspectors													
Jeffrey Inferrera, PE, RCI	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	**30**
George Ackerman, RCI		♦			♦	♦	♦	♦			♦	♦	**28**
Ricardo Bedoy, PE	♦		♦	♦	♦	♦	♦	♦	♦		♦	♦	**31**
Thomas Gomes					♦	♦	♦	♦			♦	♦	**30**
Don Kurosaka, PE, SE	♦		♦	♦	♦	♦	♦	♦			♦	♦	**31**
Steve Miller			♦	♦	♦	♦	♦	♦	♦		♦	♦	**32**
Larry Mathews			♦	♦	♦	♦	♦	♦			♦	♦	**29**
Matt Livingston, ICC		♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	**20**
Keith De Lapp			♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	**30**
Rich Van Dusen				♦	♦	♦	♦	♦			♦	♦	**25**
Chris Inferrera, B. Sc. Engineering			♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	**5**
Hitesh Joshi, RCI		♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	**26**
Ken Zeier, PE	♦		♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	**22**
Paul Lopez, RCI		♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	**29**
Document Control / Administration													
Colleen Ryan											♦	♦	**6**

Subconsultants

ICM does not propose any subconsultants but will be happy to coordinate work with the District's testing subconsultant.

Section 4 – Quality Assurance and Control; Conflicts

ICM's Quality Assurance and Control Program

ICM's Quality Control Program includes the use of standardized inspection procedures. Our Inspection Procedures Manual provides clear, concise methods for all types of inspection related to water and wastewater construction. We use standardized report formats and standardized photographic procedures. Our inspectors carry a full complement of standard inspection tools. ICM's Quality Assurance Program provides for periodic review of staff work products by ICM management at no extra cost to the District.

Conflicts and Managing Resources

At ICM, your needs come first. We will provide George Ackerman as inspector for your project when you need him and for the length of time he is needed.

ICM inspectors are dedicated to their projects. When our inspector starts a project, he finishes the project. For vacation and medical days off, ICM provides a backup inspector. The backup inspector will overlap with the regular project inspector, but the overlap time is not charged to the District. We understand no personnel substitutions are allowed unless the District approves.

Conflicts – ICM is not aware of any current or foreseeable actual or potential professional conflicts that could hinder our proposed services.

Placing Concrete at Caples Lake West Campground

Section 5 Client References

San Juan Water District

Mr. Andrew Pierson, PE
San Juan Water District
9935 Auburn Folsom Rd
Granite Bay, CA 95746
Office: 916-791-6912
Mobile: 530-306-0732

City of Manteca

Mr. Bret Swain, PE
Manteca Public Works Department
1001 West Center Street
Manteca, CA 95337
Office: 209-239-8461
Mobile: 209-456-8418

Stanislaus Regional Water Authority

Mr. Robert Granberg, PE
156 S. Broadway, Ste. 270
Turlock, CA 95380
Office: 209-668-4142
Mobile: 209-401-0439

Section 6 - Contract and Insurance Requirements

ICM is willing and has the ability to comply with the requirements of the Example Agreement and insurance requirements presented in Appendix C of the Request for Proposal.

Section 7 - Addenda

ICM confirms receipt of Addendum 1 dated July 30, 2019.

Appendix A - Resumes

Jeffrey J. Inferrera, PE, RCI

ICM

Mr. Inferrera has more than 23 years of experience on construction projects performing engineering, inspection, and construction of pump stations, pipelines, treatment plants. He is experienced with new and rehab wastewater pump stations projects, valve and meter installation, bypass pumping, tie-ins, shut downs, electrical, SCADA, cathodic protection, and startups. His project experience includes the following:

EDH Wastewater Treatment Plant Digester Rehabilitation | El Dorado Irrigation District | 2015 | $373,000 - Inspector for the rehabilitation of Anaerobic Digester No. 1 including new 120 mil Enduroflex coating of digester interior, piping and valve changes, new ports, and epoxy injection for concrete cracks.

St. Andrew's Lift Station Upgrade | El Dorado Irrigation District | 2003 | $1 million - Resident engineer for the $1 million upgrade of St. Andrew's Lift Station upgrade project. Construction work includes demolition of the existing electrical/mechanical dry pit, installation of five raw sewage pumps ranging from 3 to 150 hp, conversion of the dry pit to a wet pit, conversion of the wet pit to an emergency storage tank, installation of a 500 kW generator, miscellaneous valves and piping, and construction of a masonry electrical control building. Mr. Inferrera was responsible for contract administration, inspection, change orders, resolution of contractor conflicts and of technical issues.

Treated Water Pipeline and Cooperative Transmission Bypass Pipeline Improvement Project | San Juan Water District | 2011 | $3.9 million Resident engineer and inspector for the installation of water pipelines ranging in size from 24 inch to 78 inch. The work included cutting into existing pipelines, butterfly valves, gate valves, traffic control, blasting, and disinfection. Pipe materials included DI pipe, RCP, and mortar lined/coated steel pipe.

Dutra Estates Pipelines | City of Manteca | 2006 | $3 million – Inspector for the installation of one mile of 60 inch T-lock lined reinforced concrete pipe trunk sewer.

Bohemian Village Water Mainline Project | Sacramento Suburban Water District | 2010 | $1 million Inspector for the installation of 8 to 16 inch ductile iron potable water mainline. The work included trenching, shoring, bedding, backfill, traffic control and interfacing with multiple agencies.

Digester Expansion and Rehabilitation Project | City of Manteca | 2018 | $20 million – Two new digesters with floating steel covers, two digesters with new fixed steel covers, 17kV backbone, transformers, upgrade and consolidate PLCs, other major structures.

Influent Pump Station | City of Manteca | 2006 | $30.7 million - Construction manager for the successful construction of a 20 MGD influent pump station and wastewater treatment plant expansion. The pump station consisted of a 40-foot deep structure, two 10 mgd and two 5 mgd pumps, variable frequency drives, piping, and valves. Jeff handled change orders, ran weekly meetings, monitored contractor schedule, was responsible for change orders, RFIs, CPRs, work orders, resolution of contractor conflicts, initiation of owner requested design changes, control of engineer's response to submittals and RFIs, construction cost estimates, and performed startup and SCADA prove out.

Woodbridge Pump Station | City of Manteca | 2008 | $2.5 million – Resident engineer for the construction of a 5 mgd pumping station including a 30-foot deep wet well and dry well, two 30 hp pumps, two generators, piping, valves, and vaults. Mr. Inferrera was responsible for contract administration, inspection, document control, change orders, and resolution of technical issues and performed startup and SCADA prove out.

Atherton Booster Pump Station and Tank Project | City of Manteca | 2014 | $5.6 million – Construction manager for the construction of a 5 MGD booster pump station, 3.6 million steel tank, and related electrical, controls, instrumentation, piping, and site civil work. Mr. Inferrera was responsible for contract administration, inspection, change orders, resolution of contractor conflicts and of technical issues.

Oak Avenue Wastewater Pump Station | City of Folsom | 2015 | $2.2 million – Performed resident engineering and inspection of the Oak Avenue Wastewater Pump Station. Station consisted of the construction vactor discharge location, piping, concrete ramp, manhole, and fencing. Mr. Inferrera was responsible for contract administration, inspection, change orders, resolution of contractor conflicts and of technical issues.

Lake Forest Pump Station | City of Folsom | 2010 | $740,000 – Resident Engineer for the demolition of the existing pump station and the construction of a new pump station with wet well, electrical, instruments, pumps, piping, flow meter, associated equipment and site improvements. Two 15 hp submersible pumps were set at the bottom of a wet well. The pumps discharged to 8inch ductile iron force main and flowed through a magnetic flowmeter. Mr. Inferrera was responsible for contract administration, change orders, resolution of contractor conflicts and of technical issues.

Fruitridge Center Sewage Pumping Station, Power Inn Sewage Pumping Station, and Fruitridge Road Pipeline | Sacramento Regional County Sanitation District | 2006 | $51.8 million – Provided construction management and administration services for two new sewage pumping stations and gravity and forcemain sewer pipelines. This project included a 10 mgd pump station consisting of four 150 hp pumps in two wet wells, valves and metering vaults, odor control building, and a generator/electrical building and a 22 mgd pump station consisting of four 200 hp pumps in two wet wells, valve metering vaults, a control building, and a biofilter. The pipeline included over 32,000 ft of gravity and interceptor sewer pipeline ranging in size from 8 to 54 inches in diameter, 186 manholes, 22,000 ft of forcemain ranging in size from 24 to 30 inches in diameter, four railroad crossings, pipe reaming, cathodic protection system, slip-lining, water line relocations, and service connections. Mr. Inferrera was responsible for contract administration, change orders, resolution of contractor conflicts and of technical issues.

South River and New Natomas Pumping Stations | Sacramento Regional County Sanitation District | 2006 | $96 million - Performed constructability review and completed construction schedule for a new 120" diameter pipeline, and two large wastewater pump stations capable of 235 mgd. Total construction value at $96 million.

Tara Park Pump Station | Manteca, CA | 2007 | $2.2 million – Field engineer and inspector for the Tara Park Pump Station consisting of the construction of a 4mgd pumping station that includes a 25 foot deep wet well, dry well, two 20 hp pumps, two generators, piping (up to 30 inch), 12 inch magmeter, valves, and vaults.

Mather Tank and Booster Pump Station Main Improvements | California-American Water Company Provided construction management and inspection services for the construction of a 2 MGD booster pump station feeding a new 3 MG water storage tank and 16-inch-diamater water main improvements. Pipeline components included ductile iron, steel pipe, welded connections, bolted connections, magmeter installation, coatings and disinfection.

Davis WWTP Rehabilitation and Replacement Project | City of Davis | 2014 | $4.5 million – Construction manager for the $4.5 million rehabilitation of the anaerobic digester, headworks, and aeration basins. The digester work included removing the floating cover, recoating the entire cover and the interior of the digester with 60 mil Polibrid, new floating cover guides, reinstallation of cover, new piping and new valves. Other project components included new bar screens, concrete rehabilitation, new influent pumps and structural modifications to the headworks.

Jenny Lind Water Treatment Plant Filter Addition & Solids Handling Project | Calaveras County Water District | 2007 | $3.1 million - Resident engineer and inspector for the WTP expansion upgrading the plant capacity from 5 mgd to 6 mgd. The overall project consisted of a 700-gpm filter in an existing treatment building, installing solids thickener and sludge collector equipment, and upgrading instrumentation and control

systems. Mr. Inferrera was responsible for contract administration, inspection, document control, change orders, and resolution of technical issues.

Wastewater Quality Control Facility Primary, Secondary, and Tertiary Expansion | City of Manteca | 2009 | $26.9 million – Inspection and construction management for expansion of the wastewater quality control facility from 7 mgd to 20 mgd with a 10 mgd tertiary and solids handling process. Improvements include pipe up to 54 inch, ductile iron, steel pipe, reinforced concrete pipe, reinforced concrete cylinder pipe, HDPE, and PVC piping. Also includes thrust blocks, concrete structures, equipment installation, electrical, magmeters, marshal flumes, coatings, and cathodic protection. Mr. Inferrera was responsible for contract administration, inspection, document control, change orders, and resolution of technical issues.

Las Vegas Wastewater Treatment Plant | City of Las Vegas | 2002 | $105 million – Resident engineering and inspection for expansion of city's plant from 66 to 91 mgd. This $105 million program involved 13 separate construction contracts. Facilities involved in this expansion include secondary clarifiers, blower building, primary sedimentation, biological nutrient removal, chlorination/dechlorination, chemical feed facilities, filtration, digesters, pumping stations, SCADA, headworks, mechanical dewatering, odor control, and O&M building. Approximately 10,000 lineal feet of pipeline was installed ranging in size from 8 to 120 inches in diameter.

Vineland Treatment Plant | U.S. Army Corps of Engineers, Philadelphia District, NJ | 1998 | $15 million – Construction manager for a 2 mgd groundwater treatment plant. The facility includes 13 wells, two miles of 36-inch conveyance piping, oxidation/coagulation tanks, dissolved air flotation tanks, sand filtration tanks, a gravity sludge thickener tank, and centrifuges. Pipelines include 48 inch-diameter HDPE with direction drilling.

EDUCATION

- M.S., Environmental Engineering, Cornell University, 1991
- B.S., *cum laude,* Environmental Science and Engineering, Rutgers University, 1986

LICENSES/CERTIFICATIONS

- Professional Civil Engineer, California No. 62190
- Registered Construction Inspector (Division 1), American Construction Inspectors Association, No. 5832
- NASSCO Pipeline and Manhole Assessment Certified #U-907-5963, 2007

George Ackerman

ICM

Inspector

George Ackerman has over 27 years of experience in inspection and maintenance of water and sewer distribution systems. He specializes in pipelines, pump stations, mechanical systems, and water distribution projects. Mr. Ackerman has an intimate knowledge of construction standards and techniques, is a great communicator, and is detail oriented. He is familiar with the installation, pressure testing, disinfection, and tie-ins of the following types of pipes in sizes ranging from 4-inch to 24-inch diameter:

- C-900
- Ductile iron
- HDPE pipe
- Mortar lined, concrete coated welded steel
- Reinforced concrete pipe

CIP Projects
These projects involved main water line and/or force main installations, pump stations and associated utilities, earthwork and roads. Mr. Ackerman provided inspection and documentation of construction activates on the following projects:

- **Town Center Force Main, EID**
- **Caples Lake Campground, EID**
- **Zone 4 Pump Station, City of Folsom**
- **Zone 5 Pump Station, City of Folsom**
- **Three water tank installations, City of Folsom**
- **1-inch Water Service Installation (130 services), City of Folsom**
- **Water and Sewer Installation Project, 6,000 lf, City of Folsom**

Developer Projects
These projects involved the inspection of water and sewer line installation, water service, meters, storm sewers, dry utilities, earthwork and roads. Mr. Ackerman provided inspection and documentation of construction activates on the following projects:

- **Serrano Villages, EID**
- **Hawk View, EID**
- **Silver Dove, EID**
- **Palladio Project, City of Folsom**
- **Empire Ranch, all villages, City of Folsom**
- **Briggs Ranch, City of Folsom**
- **Woodside Village, City of Folsom**
- **American River Canyon 4, City of Folsom**

CERTIFICATIONS
- Registered Construction Inspector, American Construction Inspection Association (not current)
- Qualified SWPPP Practitioner

Matthew Livingston

Inspector/Observer/Field Engineer

Mr. Livingston has over 18 years of experience working on construction projects. His experience includes force mains, gravity lines, trenching, jack and bore, working in streets and working with the public. His inspector duties include ensuring pipelines are installed per plans and specifications, documenting work with photographs and daily reports, completing as-built drawings, and coordinating with the design engineer, City, and public. Project experience includes the following:

WQCF Digester Project – Manteca, CA, lead inspector for the construction of two digesters, and rehabilitation of two existing digesters including grading, stone column soil densification, underground utilities (gas, electrical, process piping, storm water), reinforced concrete structures, CMU digester control building, 17kv power, instrumentation, controls, CMMS, and SCADA.

FEZ Underground Piping Project – Manteca, CA, inspector for the construction of two miles of 48-inch RCP sewer pipe and 12-inch C900 water force main including microtunneling under Highway 120.

Jackson Rancheria Bridge, provided reinforcing steel inspector for new bridge into Jackson Rancheria.

SFPUC San Joaquin Eastern Segment Water Pipeline, Civil QA Inspector on a 6.7-mile, 78-inch water pipeline project with a construction cost of $45,000,000. Responsible for QA inspection of rebar & concrete construction for three Valve Vault structures and the Oakdale Portal Protection structure.

SFPUC San Joaquin Western Segment Water Pipeline, Civil QA Inspector on an 11-mile, 78-inch water pipeline project with a construction cost of $48,000,000. Responsible for QA inspection of native soil cement placement in the pipe zone & trench backfill.

SFPUC Tesla Water Treatment Facility, Civil QA Inspector on a design-build project with a construction cost of $84,000,000. Responsible for QA inspection of concrete, roofing, building inspection of the various building trades, AC paving, and final punch list inspections. Project was built per design, specifications, and standards.

BART Intermodal Modernization Project - Union City CA, As a Quality Control Manager, provided all inspection work for civil, underground, concrete structures and building trades.

Presidio Monterey, Dining Facility/Administrative Building, Provided Quality Control inspection and testing of building structure. Perform all civil and building inspection of general civil works and various trades. $45 Million

Presidio Monterey, General Instruction Building, Provided Quality Control inspection of building structure construction. Perform all civil and building inspection of general civil works and the various building trades. $42 Million

Deuel Vocational Institute, Water Treatment Facility - Tracy CA, Performed all civil testing and inspection.

Deuel Vocational Institute, Reverse Osmosis Facility - Tracy CA, Performed all civil testing and inspection throughout entire project Also performed special inspections including epoxy anchor installation and pull testing. $32 Million

CERTIFICATIONS

- ICC Building Inspector, 5232456-10
- ACI Level 1 01031459
- Troxler Nuclear Gauge Certification 44154

2019 **CAPITAL IMPROVEMENT PLAN** **Program:** **FERC**

Project Number: 06082H

Project Name: FERC: C50.1 Silver Lake Campground East Re-Construction

Project Category: Regulatory Requirements

Priority: 1 **PM:** Delongchamp **Board Approval:** 01/28/19

Project Description:

Required by the License Settlement Agreement and the USFS 4(e) Conditions, the District must reconstruct the paved surfaces, toilets, and water system at the 62-unit USFS Silver Lake Campground, including upgrade of this facility to meet the current FS design standards and the USDA Forest Service Region 5 accessibility standards requirements of the Americans with Disabilities Act (ADA). Project funding represents the cost estimates agreed upon by USFS and EID in the Dangermond Report for the campground improvements and have been adjusted to reflect 2018 dollars ($3,000,000). The District is required to install a new water system within the campground to the source. The existing source is located approximately 2.5 miles away from the campground, however the District's well is located approximately 1 mile away. The District is working with the USFS to utilize the District's well as the new source to the campground. The USFS is proposing a potential joint project to expand the upgrade project at their cost. This will require additional staff time to review the proposal and manage the cost share throughout the project. The remaining amount is for District staff time and should not be considered as part of the potential USFS settlement amount. Design for the campground re-construction will be complete in 2018 and anticipated construction in 2020.

Basis for Priority:

This project is required to comply with the FERC License Condition No. 50.1 and USFS 4(e) Condition requirements. The District is requesting FERC and FS approval of a time extension to October 18, 2019 to allow additional time to complete consultation with the FS, complete environmental review, obtain the necessary permits, and construct the improvements.

Project Financial Summary:			
Funded to Date:	**$ 223,935**	**Expenditures through end of year:**	**$ 204,757**
Spent to Date:	**$ 179,757**	**2019 - 2023 Planned Expenditures:**	**$ 4,020,000**
Cash flow through end of year:	**$ 25,000**	**Total Project Estimate:**	**$ 4,224,757**
Project Balance	**$ 19,178**	**Additional Funding Required**	**$ 4,000,822**

Description of Work	**Estimated Annual Expenditures**					
	2019	**2020**	**2021**	**2022**	**2023**	**Total**
Design	**$ 20,000**					**$ 20,000**
Construction (Campground)		**$ 3,000,000**				**$ 3,000,000**
Construction (Water System)		**$ 1,000,000**				**$ 1,000,000**
TOTAL	**$ 20,000**	**$ 4,000,000**	**$ -**	**$ -**	**$ -**	**$ 4,020,000**

Estimated Funding Sources	**Percentage**	**2019 Amount**
Water FCCs	53%	$436
Water Rates	47%	$386
Total	**100%**	**$822**

Funding Comments: Project funding represents the cost estimates agreed upon by USFS and EID in the Dangermond Report for the campground improvements and have been adjusted to reflect 2018 dollars and staff time.

2019	CAPITAL IMPROVEMENT PLAN	Program:	FERC

Project Number: 15016

Project Name: FERC: C50.2 Caples Lake Campground Re-Construction

Project Category: Regulatory Requirements

Priority: 1 **PM:** Delongchamp **Board Approval:** 01/28/19

Project Description:

Required by the License Settlement Agreement and the USFS 4(e) Conditions 50.2, the District must reconstruct the paved surfaces, toilets, and water system at the 36-unit USFS Caples Lake Campground, including upgrade of this facility to meet the current FS design standards and the USDA Forest Service Region 5 accessibility standards requirements of the Americans with Disabilities Act (ADA). Project funding represents the cost estimates agreed upon by USFS and EID in the Dangermond Report for the campground improvements and have been adjusted to reflect current dollars ($2,950,000) and estimated staff time. Design for the campground re-construction was completed in 2018 and anticipated construction is scheduled in 2019.

Basis for Priority:

This project is required to comply with the FERC License Condition No. 50.2 and USFS 4(e) Condition requirements. The District is requesting FERC and FS approval of a time extension to October 18, 2019 to allow additional time to complete consultation with the FS, complete environmental review, obtain the necessary permits, and construct the improvements.

Project Financial Summary:			
Funded to Date:	$ 529,380	Expenditures through end of year:	$ 361,384
Spent to Date:	$ 346,384	2019 - 2023 Planned Expenditures:	$ 2,950,000
Cash flow through end of year:	$ 15,000	Total Project Estimate:	$ 3,311,384
Project Balance	$ 167,996	Additional Funding Required	$ 2,782,004

Description of Work	Estimated Annual Expenditures					
	2019	2020	2021	2022	2023	Total
Construction (Campground)	$ 2,900,000					$ 2,900,000
Construction (Water System)	$ 50,000					$ 50,000
TOTAL	$ 2,950,000	$ -	$ -	$ -	$ -	$ 2,950,000

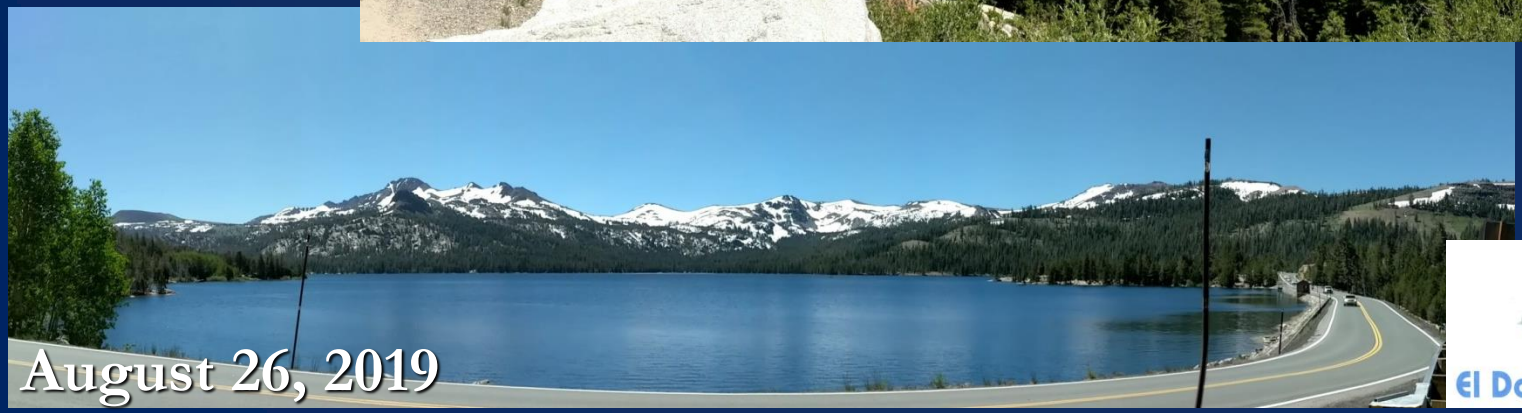
Estimated Funding Sources	Percentage	2019 Amount
Water FCCs	53%	$1,474,462
Water Rates	47%	$1,307,542
Total	100%	$2,782,004

Funding Comments: Project funding represents the cost estimates agreed upon by USFS and EID in the Dangermond Report for the campground improvements and have been adjusted to reflect current dollars and staff time.

Silver Lake East And Caples Lake Campground Improvement Project

Construction Contract

Project Nos. 06082H.01 and 15016.01



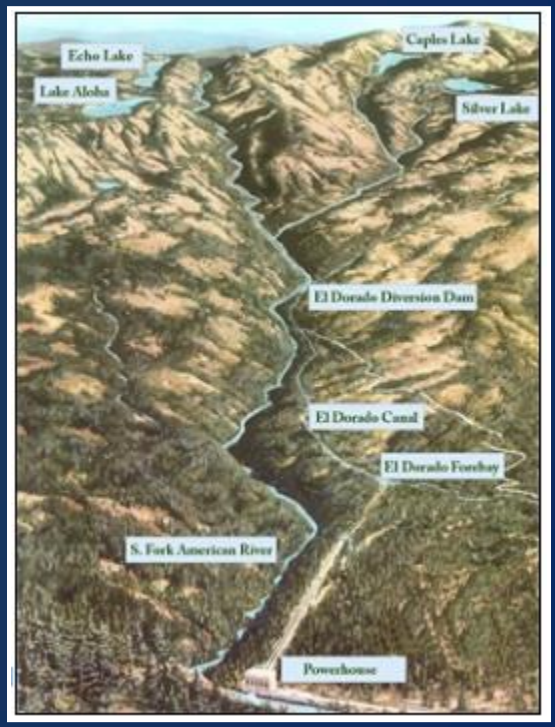
August 26, 2019

El Dorado Irrigation District

Project 184

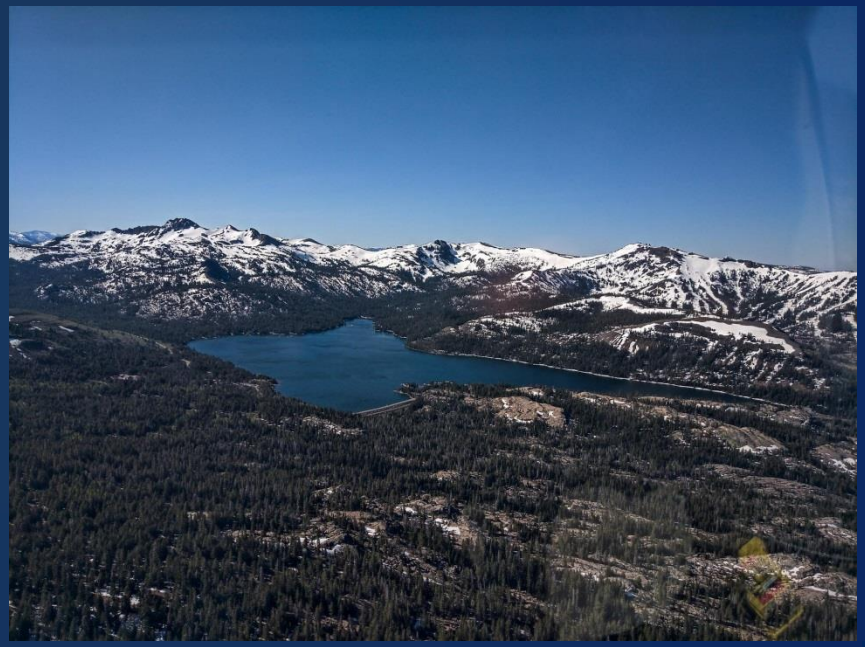
Project 184 was transferred to EID in 1999 and consists of:

- Echo Lake
- Lake Aloha
- Caples Lake
- Silver Lake
- Diversion Dam
- Flumes/Canal
- Forebay
- Powerhouse



Project 184 and FERC

- FERC license expired in 2002
- In April of 2003 District Board approved relicensing agreement
- In October of 2006 FERC approved the new license (expires in 2046)
  - The relicensing agreement contains conditions to its approval



Caples Lake – June 2019

Status of 4(e) Condition Projects

4(e) Condition Projects	Status
Condition No. 31 – Minimum Streamflow Gauging Requirements	Complete
Condition No. 35 – Oyster Creek Stabilization	In-Progress
Condition No. 36 – Esmerelda Creek Restoration	Complete
Condition No. 38.4 – Caples Spillway Stabilization	Scheduled for 2020
Condition No. 39 – Alder Creek Fish Screen	Complete
Condition No. 43 – El Dorado Canal Fencing	Complete
Condition No. 50.1 – Silver Lake East Campground	In-Progress
Condition No. 50.2 – Caples Lake Campground	In-Progress
Condition No. 50.3 – Caples Lake Auxiliary Dam Parking	Complete
Condition No. 50.4 – Caples Lake Boat Launch	Complete
Condition No. 50.5 – Highway 88 Information Kiosk	Complete
Condition No. 50.6 – Martin Meadow Overflow Camping Area	Complete
Condition No. 50.8 – Pacific Crest Trail Crossing	Scheduled for 2020
Condition No. 63 – Alder Creek Spoils Disposal Site	Complete
Condition No. 64 – Restoration of El Dorado Canal Bench	Complete

Summary Of Issue

- Replace and relocate all Restrooms
- Replace and Relocate all faucets
- Construct Paved Accessibility to Faucets and restrooms
- Widen and Pave Spurs
- Pave Campground
- Replace Waterline to Source
- Meet Architectural Barriers Act (ABA) standards

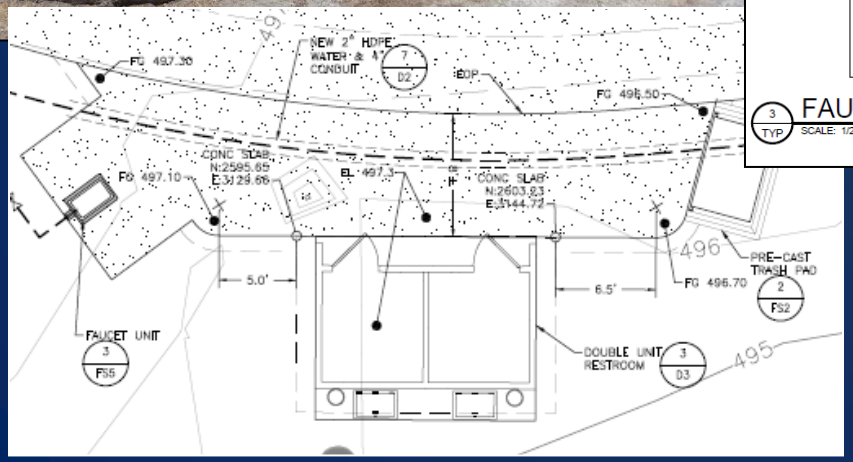
Restrooms

Old Restroom

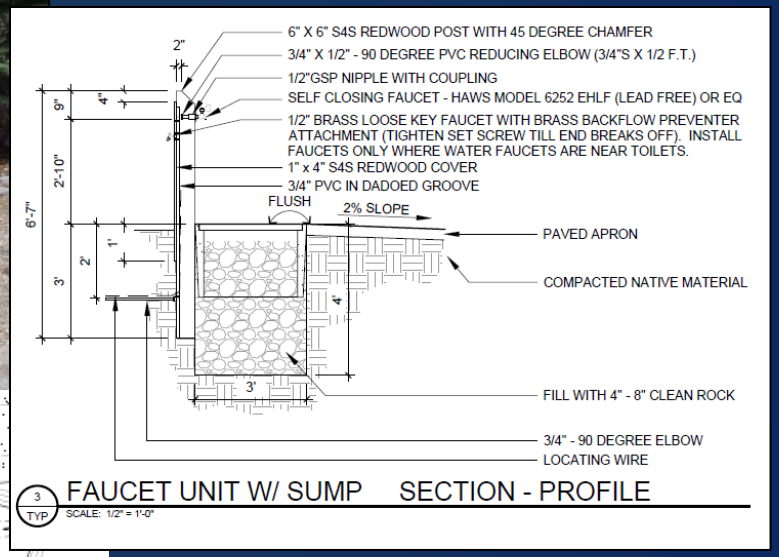
New Restroom

Faucets

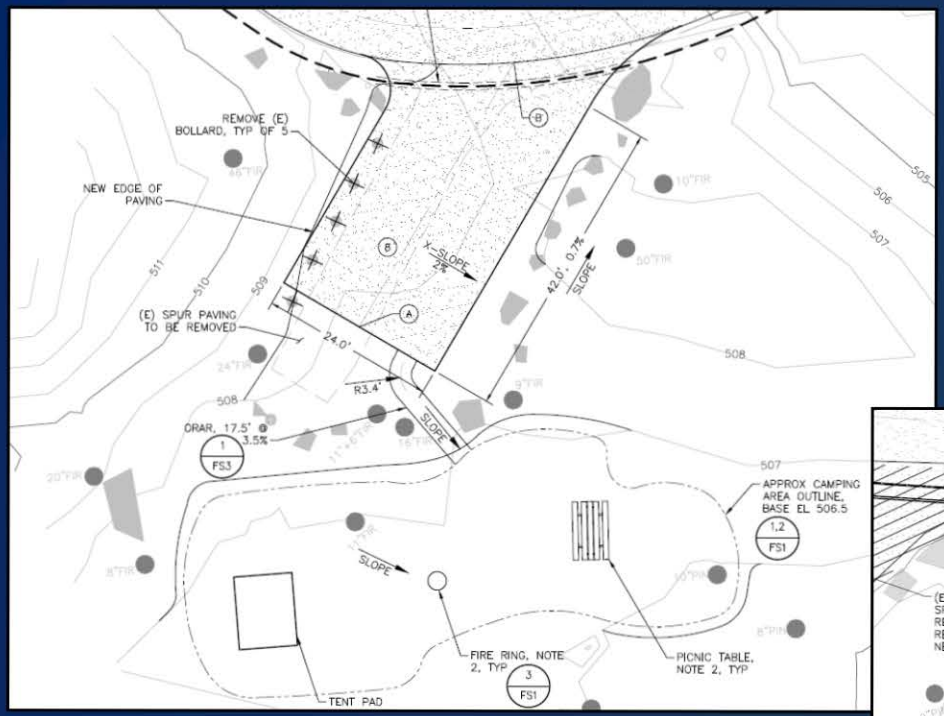
Old Faucet Unit

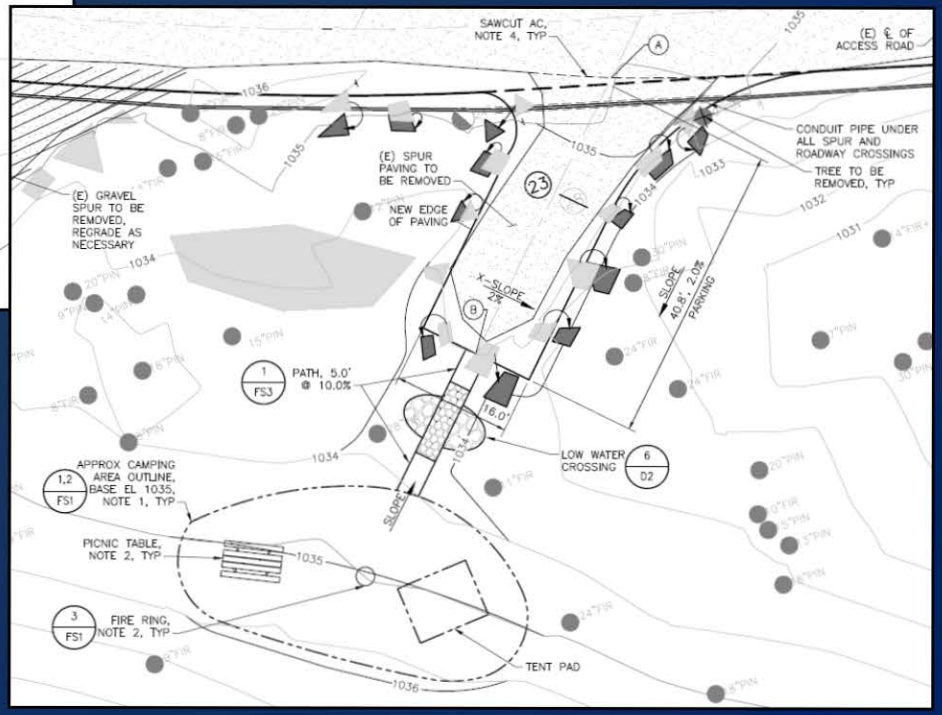


New Faucet Unit



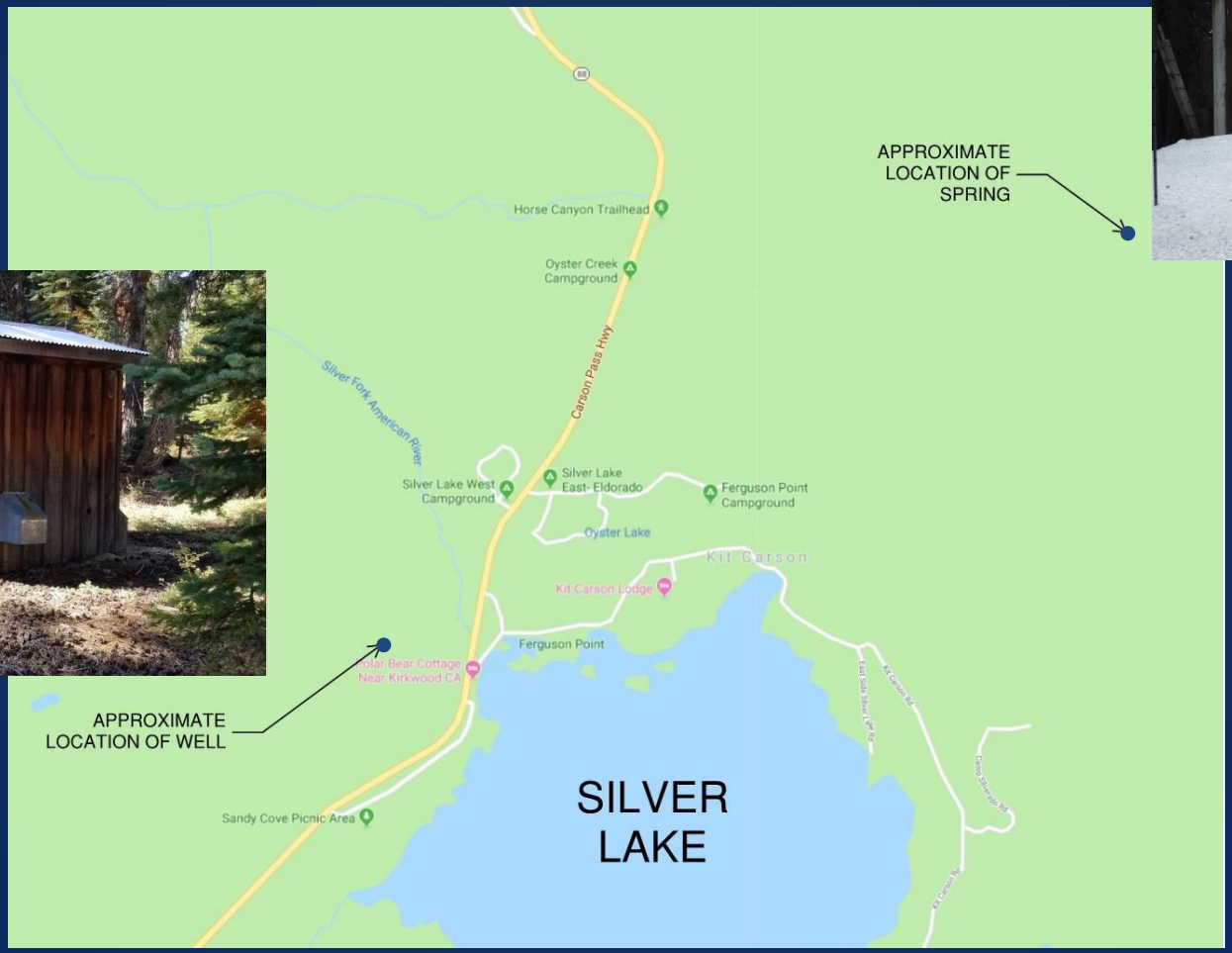
Widen Spurs


REMOVE (E) BOLLARD, TYP OF 5
NEW EDGE OF PAVING
(E) SPUR PAVING TO BE REMOVED
24.0'
R3.4'
X-SLOPE 2%
42.0', 0.7%
SLOPE
ORAR, 17.5' @ 3.5%
APPROX CAMPING AREA OUTLINE, BASE EL 506.5
FIRE RING, NOTE 2, TYP
PICNIC TABLE, NOTE 2, TYP
TENT PAD


SAWCUT AC, NOTE 4, TYP
(E) ℄ OF ACCESS ROAD
CONDUIT PIPE UNDER ALL SPUR AND ROADWAY CROSSINGS
TREE TO BE REMOVED, TYP
(E) SPUR PAVING TO BE REMOVED
NEW EDGE OF PAVING
(E) GRAVEL SPUR TO BE REMOVED, REGRADE AS NECESSARY
X-SLOPE 2%
SLOPE 40.8', 2.0% PARKING
PATH, 5.0' @ 10.0%
16.0'
LOW WATER CROSSING
APPROX CAMPING AREA OUTLINE, BASE EL 1035, NOTE 1, TYP
PICNIC TABLE, NOTE 2, TYP
FIRE RING, NOTE 2, TYP
TENT PAD

Paving

Silver Lake Campground Water System



Caples Lake Campground Water System

Bidding Process

RFQ – June 2019
Pre-Bid Meeting – July 19, 2019
Bid Opening – August 6, 2019

Contractors Qualified to Bid:

- Burdick Excavating Co., Inc.
- Doug Veerkamp General Engineering, Inc.
- Haen Constructors
- K. W. Emerson, Inc.
- MKD Construction, Inc.
- RaPiD General Engineering
- Sierra Mountain Construction, Inc.
- Syblon Reid
- White Rock Construction, Inc.

Bid Results

Contractor	Cost
Doug Veerkamp General Engineering, Inc.	$3,659,641
Burdick Excavating Co., Inc.	$5,426,162
MKD Construction, Inc.	$6,421,944
Sierra Mountain Construction, Inc.	$8,323,035

Engineers Estimate: $3,797,700

Construction Inspection

Proposer	Total Proposal Price
ICM Group, Inc.	$168,000.00
G7ei Inc.	$193,200.00
Cardno, Inc.	$196,409.00
4 Leaf, Inc.	$204,600.00
Salaber Associates, Inc.	$215,056.60

- RFP – July 2019
- RFP Due – August 8, 2019

Schedule

- October 18, 2006 - FERC issued a license for operation
  - Silver Lake East Campground to be completed within 5 years (2011)
  - Caples Lake Campground to be completed within 10 years (2016)
- 2011 – District requested and received a 5-year extension for Silver lake East Campground (2016)
- 2017 – District requested and received an extension for Caples Lake Campground and Silver Lake East to 2019 - 2020

Project Schedule

Task	Schedule
Construction of Caples Lake Campground	September 2019 – June 2020
Construction of Silver Lake East Campground	May-September 2020

Funding

Funding Requirements	
Construction Contract – Doug Veerkamp General Engineering, Inc.	$3,659,641
Construction Inspection – ICM Group, Inc.	$168,000
SWPPP Inspection – Domenichelli and Associates	$24,620
Material Testing – Youngdahl Consulting Group, Inc.	$22,794
Capitalized Labor – Project Management, Environmental Compliance	$115,305
15% Contingency	$600,000
TOTAL	**$4,590,000**

Board Decisions/Options

- **Option 1:** Award a contract to Doug Veerkamp General Engineering, Inc. in the not-to-exceed amount of $3,659,641 for construction of campground improvements; award a contract to ICM Group, Inc. in the not-to-exceed amount of $168,000 for construction inspection services; and authorize total funding of $4,590,000 for Silver Lake East campground and Caples Lake Campground improvements, Project numbers 06082H.01 and 15016.01.
- **Option 2:** Take other action as directed by the Board
- **Option 3:** Take no action

Recommendation

- Option 1

Questions?