

CRESCENTA VALLEY WATER DISTRICT

**2700 Foothill Boulevard
La Crescenta, California**

**Agenda for the
Regular Meeting of the Board of Directors
of the Crescenta Valley Water District
to be held on Tuesday, July 13, 2021 at 7:00 p.m.**

Posted: Thursday, July 8, 2021 at 4:30 p.m.

AUDIO & VIDEO CONFERENCING NOTICE

[This meeting will be held by audio & video conference only.]

Pursuant to the provisions of Executive Order N-08-21 issued by Governor Gavin Newsom on June 11, 2021, a local legislative body is authorized to hold public meetings via teleconference.

Any member of the public may participate using a touchtone phone. You may select any of the following phone numbers (there are more than one for increased reliability during this time of increased phone traffic)

(669) 900-6833

(346) 248-7799

(929) 205-6099

(253) 215-8782

(301) 715-8592

(312) 626-6799

Then, enter Access Code: 832 4850 4372

Those members of the public who are able to and would like to additionally participate through computer may access the Zoom audio & video conferencing tool available at the following link –

<https://us02web.zoom.us/j/83248504372>

Public comment may be made either by emailing comments ahead of the meeting or by speaking over the phone. Emailed comments will be sent to the Board of Directors prior to the meeting and posted on the District's website. Comments may be sent to Christy Colby, Regulatory and Public Affairs Manager, at (818) 248-3925 or customerservice@cvwd.com by 3pm on July 13, 2021.

Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by contacting the District by phone or in writing at the above email address. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that District staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the District to provide the requested accommodation.

Any written materials distributed to the Board in connection with this agenda will be made available at the same time for public inspection at the District office located at the above address and posted on the District's website.

Call to Order and Determination of Quorum

Pledge of Allegiance

Adoption of Agenda

Public Comments

At this time, the public shall have an opportunity to comment on any non-agenda item relevant to the subject matter jurisdiction of the Board. This opportunity is non-transferable, and speakers are limited to one three-minute (3) comment. Under the provisions of the Brown Act, the Board is prohibited from taking action on items not listed on the agenda, except under certain circumstances.

Foothill Municipal Water District Report

1. Report on activities at Foothill Municipal Water District.

Consent Calendar

1. Consideration and approval of the Minutes of the Adjourned Regular Board Meeting on June 22, 2021.

Action Calendar

The public shall have an opportunity to comment on any action item as each item is considered by the Board. This opportunity is non-transferable, and speakers are limited to one two-minute (2) comment.

1. **Professional Engineering Services for Rehabilitation of Edmund #2 Reservoir, Project E-1036** – Consideration and motion to authorize the General Manager to enter into an agreement with Harper and Associates Engineering, Inc. to provide professional engineering services for the rehabilitation of Edmund #2 Reservoir, Project E-1036 for a cost of \$16,100 and establish a contingency amount of \$1,610 (10% of contract) to cover the cost of unforeseen or additional work.
2. **Professional Engineering Services for Design of FY 21/22 Pipeline Replacement Projects, Projects E-1033 & E-1034** – Consideration and motion to authorize the General Manager to enter into an agreement with Tetra Tech to provide professional engineering services for the FY 21/22 Pipeline Replacement Projects, Projects E-1033 & E-1034 for a cost of \$112,400 and establish a contingency amount of \$11,240 (10% of contract) to cover the cost of unforeseen or additional work.
3. **Local Hazard Mitigation Plan, Project M-1004** – Presentation of CVWD's Local Hazard Mitigation Plan and commencement of the two-week public comment period.
4. **Budget Schedule & Proposition 218 Process** – Placeholder for discussion and possible action for schedule, timing, and other considerations related to completing the budget and Proposition 218 process, including the Water and Wastewater Rate Study.

Information Items

Written Communications to District/Board of Directors

General Manager's Report

Attorney Report

Reports of Committees

- Engineering Committee
- Finance Committee

- Employee Relations Committee
- Policy Committee
- Community Relations/Water Conservation Committee
- Emergency Planning Committee
- Technology Committee

Directors' Oral Reports – Reports on issues, meetings, or activities attended by Directors.

Board Members' Request for Future Agenda Items

Closed Session

Conference with Legal Counsel

Significant exposure to litigation pursuant to paragraph (2) or (3) of subdivision(d) of Section 54956.9.

Adjournment

g:\management\agenda\adjourned\20-21\07132021ra.doc

CRESCENTA VALLEY WATER DISTRICT

ADJOURNED REGULAR MEETING, BOARD OF DIRECTORS

June 22, 2021

Pursuant to the order of the Board of Directors of the Crescenta Valley Water District made at the Regular Meeting on June 8, 2021, an Adjourned Regular Meeting was held on June 22, 2021, at 7:00 p.m. through audio and video conference. A call-in number was clearly noted on the meeting Agenda, posted in accordance with the Brown Act, due to the COVID-19 pandemic, with President Sharon S. Raghavachary presiding.

At roll call, the following Directors and staff members were online:

Directors:
Sharon S. Raghavachary
James D. Bodnar
Kerry D. Erickson
Ken R. Putnam
Judy L. Tejeda

Attorney: **Thomas Bunn**

General Manager: **Nem Ochoa**

Director of Finance & Administration: **James Lee**

Director of Engineering: **David Gould**

Staff Members:
Brook Yared, Engineering Manager
Arturo Montes, Finance & Administration Manager
Christy Colby, Regulatory & Public Affairs Manager
Wendy Holloway, Customer Service Manager
Tessa Allmon, Customer Service Representative
Darlene Telles, Operations Coordinator
Pam Leddy, Administrative Assistant

Guests: **John Robinson, John Robinson Consulting**

Public Participation:
Frank Colcord
Marilyn Tyler
Shelley Powsner

PLEDGE OF ALLEGIANCE

Brook Yared opened the meeting by leading the Directors and staff in reciting the Pledge of Allegiance.

ADOPTION OF AGENDA

It was moved by Director Tejeda, seconded by Director Raghavachary, and carried by a 5-0 roll call vote that the Agenda for the Adjourned Regular Meeting of June 22, 2021 be adopted as presented.

AYES: **Director Raghavachary**
Director Bodnar

Director Erickson
Director Putnam
Director Tejeda

NOES: None

PUBLIC COMMENTS – Ms. Tyler shared her concern regarding the suspension of the Community Advisory Committee. Ms. Powsner communicated her plans and ideas for the future of the Community Advisory Committee. Mr. Williams conveyed his disappointment as to the closing of the Community Advisory Committee. Mr. Culver submitted his written comments to the Board, which were posted on the CVWD website. Mr. Ochoa thanked the Community Advisory Committee for their participation, insight, and feedback and encouraged each of the members to continue providing their contributions to CVWD through a variety of forums.

PUBLIC HEARING – 2020 URBAN WATER MANAGEMENT PLAN – Ms. Colby presented a draft of the 2020 Urban Water Management Plan (UWMP) for public comment. Ms. Colby stated that no written public comments had been received in regard to the UWMP. Mr. Williams voiced his concern regarding the statement that tiered water ratings are used to encourage water conservation, in that only single-family water rates are based on tiered water usage. Mr. Colcord shared his appreciation to staff for coordinating the UWMP with Foothill Municipal Water District.

FOOTHILL MUNICIPAL WATER DISTRICT REPORT – Mr. Colcord reported that Crescenta Valley Water District customers used 10% more water during the month of May than last year, but the usage remains 6% below the State's 2013 conservation benchmark. Mr. Colcord congratulated CVWD customers for continuing to lead the way with water conservation rebate applications that are filed with FMWD. Mr. Colcord stressed the importance of continued communication to the community to conserve water.

CONSENT CALENDAR

It was moved by Director Tejeda, seconded by Director Erickson, and carried by a 5-0 roll call vote to approve the Minutes of the Regular Board Meeting held on June 8, 2021, through audio and video conference and to ratify the disbursements for May 2021 as presented.

Payment of demands against the Crescenta Valley Water District on or before May 2021, the same having been approved by the General Manager, and heretofore paid, are to be ratified and approved subject to audit, in the aggregate sum of One Million Eight-Hundred Fifty-Four Thousand, One-Hundred Eighty-Six Dollars and Fifty-Four Cents (1,854,186.54), which is composed of the individual items set forth herein.

AYES: Director Raghavachary
Director Bodnar
Director Erickson
Director Putnam
Director Tejeda

NOES: None

ACTION CALENDAR

Resolution 768 – Adoption of CVWD’s 2020 Urban Water Management Plan (UWMP) – Ms. Colby presented the Crescenta Valley Water District’s 2020 Urban Water Management Plan and Resolution No. 768.

Following discussion:

It was moved by Director Bodnar, seconded by Director Tejeda, and carried by 5-0 roll call vote to adopt the 2020 Urban Water Management Plan (UWMP) and Resolution 768.

AYES: **Director Raghavachary**
 Director Bodnar
 Director Erickson
 Director Putnam
 Director Tejeda

NOES: **None**

Wastewater Collection System Presentation – Mr. Gould and Mr. Yared presented the first part of a multi-part overview and history of CVWD’s Wastewater Collection System. Mr. Gould provided historical information dating back to 1929 when La Crescenta was on a septic sewage system. Mr. Gould stated that in 1980, the installation of 66 miles of sewer mains and laterals began the construction of the sewer collection system. Mr. Yared provided information regarding the conveyance, treatment & disposal of wastewater agreements between the City of Los Angeles and the Conveyance Agreement with the City of La Canada Flintridge.

Wastewater Fund Multi-Year Rates – Mr. Lee presented a Wastewater Fund 10-year Plan for the Wastewater Fund as based on the 10-year Plan for the Water Fund, both of which support the District’s long-term Roadmap plan. Mr. Lee showed that the primary driver of the Wastewater Fund is the cost of treatment and disposal that the City of Los Angeles charges the District. This cost has increased more than 60 percent, which has grown to represent almost half of the overall operating costs. Mr. Lee discussed the District’s next steps in considering and evaluating alternative treatment and disposal of effluent. The plan as proposed would support sustaining the Wastewater Fund while building a financial profile that allows a future financing that building a treatment facility would require. Mr. Lee stated that this was for planning only. The Board will follow the Proposition 218 process to adopt rates.

Following discussion:

It was moved by Director Putnam, seconded by Director Bodnar, and carried by 5-0 roll call vote to adopt a multi-year rate schedule for the Wastewater Fund with 8% increases for each of the first three years as part of long-term planning.

AYES: **Director Raghavachary**
 Director Bodnar

Director Erickson
Director Putnam
Director Tejeda

NOES: None

FY 2022 through FY 2024 Draft Proposition 218 Notice for Water & Wastewater Rates – Ms. Colby presented a draft Proposition 218 Notice for a review of the language. Ms. Colby notated that since the cost-of-service study has not yet been approved, rates, fees, charges, graphs and tables on such are not ready for review. Ms. Colby stated that the draft Prop. 218 Notice had been reviewed by the Community Outreach Committee. Ms. Colby indicated that most of the comments received from the committee members have been incorporated into the draft.

Budget Schedule & Proposition 218 Process – Mr. Montes presented the FY 2021-22 CVWD Meeting Schedule relating to the completion of the budget and Proposition 218 process, including the Water and Wastewater Rate Study. Mr. Montes highlighted the meeting dates required in order to implement the adopted rates on October 1, 2021.

INFORMATION ITEMS – None

WRITTEN COMMUNICATIONS TO DISTRICT – None

REPORTS OF PERSONNEL – No report

GENERAL MANAGER – Mr. Ochoa thanked the Management and staff for their preparation and participation at the Annual Pancake Breakfast on June 16th. Mr. Ochoa announced that the Time Capsule Event has been postponed until December 14, 2021 to coincide with the opening of the Time Capsule at the 100th anniversary celebration of the Crescenta Valley Water District on December 14, 2050. Mr. Lee provided highlights of the Finance, Administration & Public Outreach Report for the month of May 2021. Mr. Lee shared that Cal Osha has lifted the requirement for fully vaccinated employees to wear a protective facemask while indoors.

ATTORNEY – No report

REPORTS OF PERSONNEL – None

REPORTS OF COMMITTEES

Engineering Committee – Director Raghavachary reported that the Committee had met on June 15, 2021. An audio/video conference meeting is scheduled for July 20, 2021.

Finance Committee – Director Raghavachary reported that the Committee had met on June 18, 2021. An audio/video conference meeting will be scheduled as needed.

Employee Relations Committee – Director Bodnar reported that the Committee had not met; however, an audio/video conference will be scheduled as needed.

Policy Committee – Director Putnam reported that the Committee met had not met; however, an audio/video conference will be scheduled as needed.

Community Relations/Water Conservation Committee – Director Erickson reported that the Committee had met on June 17, 2021. An audio/video conference will be scheduled as needed.

Emergency Planning Committee – Director Tejeda reported that the Committee had not met; however, an audio/video conference meeting will be scheduled as needed.

Technology Committee – Director Erickson reported that the Committee had not met; however, an audio/video conference meeting will be scheduled as needed.

Executive Committee – Director Raghavachary reported that the Committee had not met; however, an audio/video conference meeting will be scheduled as needed.

DIRECTORS' ORAL REPORTS

Director Raghavachary – thanked the CVWD staff for the informative information she received during her ride-along tour on Friday, June 18th.

Director Bodnar – thanked the CVWD staff for their participation and enthusiasm at the early morning Pancake breakfast on June 16th, and the enlightening information he received during his ride-along tour on Friday, June 18th.

Director Erickson – None

Director Putnam – None

Director Tejeda – None

BOARD MEMBERS' REQUESTS FOR FUTURE AGENDA ITEMS – None

CLOSED SESSION – None

ADJOURNMENT

There being no other business to come before the Board, at 10:00 p.m., the meeting was adjourned to July 13, 2021, at 7:00 p.m.

APPROVED

Sharon S. Raghavachary
President

James Lee
Director of Finance & Administration

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Agenda Item No. 1
July 13, 2021

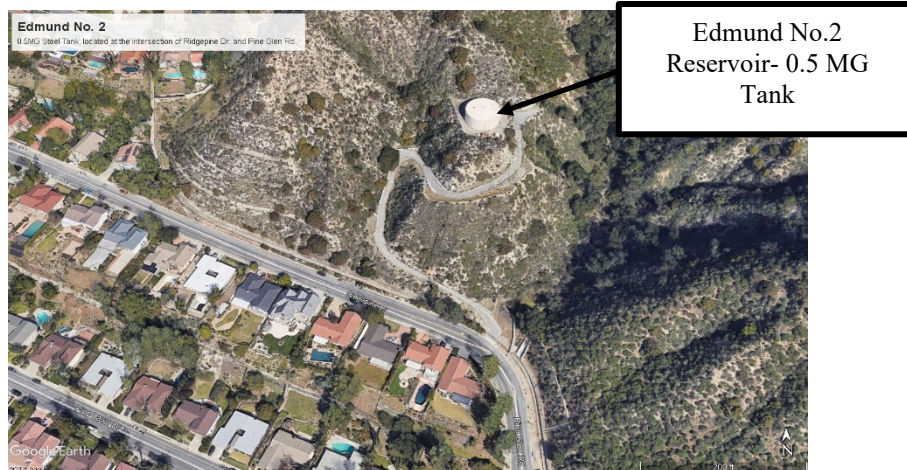
To: Honorable President and Members of the Board of Directors
From: David S. Gould, P.E. – Director of Engineering
Subject: Award of Contract – Engineering Services for Design of Steel Reservoir Rehabilitation at Edmund No. 2 Reservoir, Project E-1036

AGENDA ITEM

Steel Reservoir Rehabilitation at Edmund No. 2 Reservoir, Project E-1036 – Consideration and motion to authorize the General Manager to enter into an agreement with Harper & Associates Engineering, Inc. to provide professional engineering services for the design of steel reservoir rehabilitation at Edmund No. 2 Reservoir for a cost of \$16,100 and establish a contingency amount of \$1,610 (10% of contract) to cover the cost of unforeseen or additional work.

BACKGROUND:

Crescenta Valley Water District (CVWD) owns the 0.5 MG steel tank at its Edmund No. 2 Reservoir site located at top of Pine Glen Rd. and Ridgeline Dr. The steel tank was built in 1966. In 1996, an assessment was performed by Harper & Associates Engineering, Inc. (Harper) of the District's 17 reservoirs and it was determined that the Edmund No. 2 Reservoir needed to be re-coated to extend the life of the steel tank. The re-coating of the reservoir, which also included seismic structural upgrades was completed in 1998 and since that time, the interior & exterior of each reservoir have been inspected every five (5) years.



Location Map

In August 2020, the latest inspection revealed troubling data. As shown below, there was severe corrosion and rust scale on the center support plate. General corrosion was also found at the gusset plates and lower rafter flanges and on the majority of the interior surfaces.





Edmund No. 2 – 2020
Severe Corrosion



Edmund No. 2 – 2020
Spliced Connection at Ladder

The inspection report revealed severe to moderate corrosion on the roof and rafters above the water line. The report stated that the underside of the roof and structural elements are in poor condition. It was recommended to sand blast, remove the coating and corrosion, and re-coat the interior roof and shell. In addition, any structural members damaged by the corrosion should also be replaced. The advanced corrosion in the open area above the water line is likely due to the airborne release of chlorine, or what is also known as “off-gassing”, and insufficient ventilation or poor air circulation to remove the chlorine vapor into the atmosphere.



Edmund No. 2 - 2020
Liquid Level Indicator



Edmund No. 2 - 2020
Roof Hatch

DISCUSSION:

An evaluation and inspection have been completed by Harper, as part of the annual 5-year inspection program and it was recommended that the steel tank reservoir be rehabilitated. Based on the report’s findings, staff anticipates the condition of the roof and structural members above the water surface will worsen or fail. Staff & Harper recommend that Edmund No.2 Reservoir be re-coated as part of the FY 21/22 Capital Improvement Projects program.

Staff requested a proposal from Harper to provide engineering services for the design. Harper has been working on CVWD’s reservoirs since 1996 and has provided good quality engineering and technical services to the District over the years.

The project schedule is to complete the design plans and specifications by the end of August 2021, advertise for bids in September 2021, award the contract in October 2021, and start construction in November 2021. Typically, CVWD does construction or rehabilitation on its reservoirs during the winter, low demand season.

RECOMMENDATION:

Staff reviewed Harper's proposal and based on the understanding of the project, scope of work, consultant fee, project experience, project team qualifications, and project schedule, it is staff's recommendation to award a professional engineering services contract to Harper for the design of Steel Reservoir Rehabilitation at Edmund No. 2 Reservoir at a cost of \$16,100. In addition, staff is requesting to establish a contingency amount of \$1,610 (10% of contract) to cover the cost of unforeseen or additional work.

Harper has intimate knowledge of CVWD's reservoirs and a good understanding of this project, the project cost and the project schedule, which meets the needs of the District.

Staff will have a design kick-off meeting within the next two weeks, which will lay out the project schedule and submittal dates. Christina Olmedo will be the project manager and Peter Hilke will assist with contract administration. This project will require specialty inspection for the re-coating process, and this will be discussed further after the design plans and specifications are completed.

ENVIRONMENTAL REVIEW:

This project is exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15301 of the CEQA Guidelines. This exemption covers the repair of existing facilities involving negligible or no expansion of existing use.

FUNDING AVAILABILITY:

There are sufficient funds available in the following account for the project:

Account Description	Amount
FY 21/22 Water CIP– Water Storage	\$590,000
Cost for Design Services + 10% Contingency	<\$16,100>
Preliminary Cost Estimate for Contractor	<\$440,000>
10% contingency for additional costs related to construction administration & Design	<\$1,610>
Total Cost Estimate	<\$457,710>
Amount Remaining in Water CIP – Water Storage	\$132,290

Prepared by:



Christina Olmedo
Assistant Engineer

Attachment:

Submitted by:



David S. Gould, P.E.
Director of Engineering

1. Proposal for Professional Engineering Services for the design of steel reservoir rehabilitation at Edmund No. 2 Reservoir



HARPER & ASSOCIATES ENGINEERING, INC.

CONSULTING ENGINEERS

1240 E. Ontario Ave., Ste. 102-312 Corona, CA 92881-8671

Phone (951) 372-9196 Fax (951) 372-9198

www.harpereng.com

PROPOSAL TO

CRESCENTA VALLEY WATER DISTRICT

FOR

ENGINEERING CONSULTING SERVICES FOR PREPARATION OF TECHNICAL
SPECIFICATIONS AND PLANS FOR A WELDED STEEL WATER RESERVOIR

I. PROJECT DESCRIPTION

- A. The 0.5 MG (61' x 24') water storage reservoir is located on a District-owned site in La Crescenta, California and is designated as the Edmund No. 2 Reservoir.
- B. SCOPE OF WORK – SPECIFICATIONS COST ESTIMATE AND BID PACKAGE
 - 1. Meet with District to finalize the scope of work for the Reservoir, based on utilizing reports and estimated costs.
 - 2. Accomplish site visit to gather needed dimensions and information for preparation of plans for structural modifications.
 - 3. Prepare technical specifications covering interior coating and exterior painting for the reservoir.
 - a. Paint Entire Exterior of Tank
 - b. Remove Coal Tar Enamel Coating on Bottom
 - 4. Prepare technical specifications and CAD drawings for the reservoir for the safety and health upgrades and structural modifications, including but not limited to the following:
 - a. Center Vent Screening
 - b. Roof Hatch with Gasket
 - c. Repair Existing Auxiliary Vent and Add Solar Powered Fan
 - d. Two New Auxiliary Vents and Solar Powered Fans
 - e. Interior Ladder and Safety Climb
 - f. Fall Restraint System
 - g. Lateral Bracing
 - h. Sample Point Opposite of Inlet
 - i. Stairway and Guardrailing
 - j. Replace 5' Section of Rafters

- k. Replace all Interior Nuts and Bolts
 - l. Install Overflow Air Gap
- 5. Prepare technical specifications and CAD drawings for a new galvanic cathodic protection system. Drawings to be accomplished in AUTOCAD.
- 6. Submit two copies of plans and specifications for 90%, and 100% review, and accomplish all revisions determined needed.
- 7. Upon approval of the plans and specifications, an electronic file in AutoCad of the plans and an electronic file in Word of the specifications shall be supplied to the District.
- 8. Prepare a bid package for the reservoir, including all District Boiler Plate, Technical Specifications, General and Special Provisions, for project and provide in an electronic file.
- 9. Furnish District with an engineer's estimate for project in accordance with the bid schedule generated.

B. SCOPE OF WORK - BIDDING ASSISTANCE

- 1. Furnish District with a list of potential bidders to forward the Notice of Inviting Bids to qualified contractors.
- 2. Provide telephone liaison with potential bidders as regards all matters concerning bidding of the project and preparation of addenda as required to document design changes or clarifications.
- 3. Assist District in conducting a Pre-Bid Conference for the project to ensure prospective bidders are totally aware of scope of work and local conditions.
 - a. Prepare minutes of Pre-Bid Conference covering all aspects of contractor's questions and clarifications of project to be emailed to Contractors and to become part of the contract documentation.
- 4. Assist District in evaluation of bids received and make recommendations for award or rejection.

II. SCHEDULE

- A. Work noted above would commence at a mutually agreed time upon execution of a written agreement and receipt of a Notice to Proceed.

III. DISTRICT RESPONSIBILITIES

- A. The District shall provide the following items, personnel and/or services to be utilized in connection with this work.
 - 1. The District shall make available to the Consultant reasonable and timely staff input for purposes of conference discussion, reviewing submissions from the Consultant, providing factual information and/or suggestions relating to the work in a manner

such that the Consultant may meet the project completion schedule.

2. The District shall provide designated water operations person for access to reservoir site upon request by the Consultant at time and in the manner mutually agreed upon as required to accommodate work of Consultant.
3. District will provide payment on monthly progress estimates to the Consultant based upon work accomplished during the previous month or portion thereof.

IV. WORK PRODUCT

- A. The District designee shall at all times have access to the work product of the Consultant while it is under preparation or in progress. Upon completion of the project, all drawings, documents and notes shall become property of the District, including all renderings, slides, sketches and correspondence.

V. DESIGNATED REPRESENTATIVES

- A. Project shall be under direct control of Mr. Krista Harper, P.E., to whom all questions may be directed. It is understood the District's representative will be Ms. Christina Olemado, who will provide the interface between the District's Staff and Consultant.

VI. COST ESTIMATE

- A. Based on previously noted Scope of Work to update the project – SPECIFICATIONS, COST ESTIMATE AND BID PACKAGE, estimated cost for performing services would be \$14,000 based on the following:
 1. Coating, Painting, and Safety and Structural Specifications & Plans \$9,200
 2. Cathodic Protection Specifications and Plans \$3,000
 3. Preparation of the Bid Documents \$1,800
- B. Based on previously noted Scope of Work - BIDDING ASSISTANCE would not exceed \$2,100, based on work being accomplished with A. above.
- C. Additional meetings and work as directed by District = Hourly basis

VII. INSURANCE COVERAGES

- A. Consultant will provide and maintain in full force and effect, while operating under an agreement with District, a comprehensive liability insurance policy which shall include bodily injury, and property damage coverage of \$2,000,000 combined single limit, automobile liability insurance with limits of \$4,000,000, worker's compensation insurance with limits of coverage as prescribed by law, and an Errors and Omissions professional liability policy with a minimum limit of coverage of \$2,000,000. The above noted insurance coverages are currently in force with Consultant.

VIII. INDEMNITY

- A. District shall hold Harper & Associates Engineering, Inc., harmless from any and all liability to perform beyond the exact confines of the services offered in this proposal.

IX. ACCEPTANCE OF PROPOSAL

- A. The cost estimate, terms and conditions of this proposal are valid for sixty days from receipt of proposal. Acceptance shall be deemed valid upon receipt by Harper & Associates Engineering, Inc. of the original proposal executed by the District's authorized representative within noted time frame. Acceptance will be in whatever form is routinely used by District.

X. CONFIDENTIALITY OF PROPOSAL

- A. The content of this proposal and any conversations with Consultant regarding this proposal are considered to be confidential and is not for publication, discussion or knowledge of any person or persons who are not employees of District.

XI. TERMINATION OF AGREEMENT

- A. District may terminate this agreement at any time prior to the completion of the services to be furnished by Harper & Associates Engineering, Inc., by giving a written notice of termination to Harper & Associates Engineering, Inc., in which event District shall only pay Harper & Associates Engineering, Inc., as provided herein for work done prior to receipt of such notice of termination, plus the necessary and reasonable cost of termination (not to exceed \$500.00).
- B. In the event District terminates this agreement, Harper & Associates Engineering, Inc., shall furnish District a copy of all work effort and product in progress to the date of termination.

Respectfully submitted,

HARPER & ASSOCIATES ENGINEERING, INC.



Krista Harper
Vice President

CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Action Item No. 2

July 13, 2021

To: Honorable President and Members of the Board of Directors
From: Brook Yared, M.S., P.E. – Engineering Manager
Subject: Request for Proposal – Professional Engineering Services for Design of FY 21/22 Pipeline Replacement, Projects E-1033 & E-1034

ACTION ITEM:

Professional Engineering Services for Design of FY 21/22 Pipeline Replacement, Projects E-1033 & E-1034

– Consideration and motion to authorize the General Manager to enter into an agreement with Tetra Tech to provide professional engineering services for said project at a cost of \$112,400 and establish a contingency amount of \$11,240 (10% of contract) to cover the cost of unforeseen or additional work.

BACKGROUND:

Crescenta Valley Water District (CVWD) is embarking on its FY 21/22 capital improvement project program which includes the replacement of old and undersized steel pipelines within the water distribution system. CVWD's goal is to replace all existing pipelines that are 50-yrs & older within the next 85-years. Currently about 45% of CVWD's pipelines meet this criterion. CVWD's program will be to increase the amount of pipeline installed this year by utilizing bond financing. For CVWD to meet the accelerated pipeline replacement schedule, we will need the assistance of a consulting engineering firm to prepare plans and specifications for upcoming pipeline projects (see attached location maps).

Project 1 is replacement of 3,470 LF of pipeline with new 8-inch steel water mains from the 2800 to 3100 blocks of Los Olivos Lane that were installed in 1947 and 1948 (see attached exhibit) within the unincorporated area of Los Angeles County. Los Olivos is a narrow residential street with limited parking, crossing of Eagle Canyon Channel (owned by Los Angeles County) and numerous oak trees. The pipeline replacement includes replacing fire hydrants, water service laterals, new gates valves and reconnection to existing water mains. See attached preliminary cost estimate for details.

Project 2 is the replacement 2,330 LF of pipeline with new 8-inch steel water mains on the 3200 Block of Alabama St, 4700 & 4800 Blocks of Cheryl Ave and 3300 Block of Thelma St, which were installed between 1946 and 1947 (see attached exhibit) located within the City of Glendale. The streets are narrow residential streets with limited parking. The pipeline replacement includes installation of new fire hydrants, water service laterals, gates valves and reconnection to existing water mains. See attached preliminary cost estimate for details.

CVWD is planning to bid out Project 1 & 2 as separate projects such that both projects will be under construction during the same period and completed before June 30, 2022.

DISCUSSION:

In May 2021, staff sent out a request for proposal (RFP) to eight (8) consulting engineering firms to prepare design plans and specifications for the proposed project. Each firm has prior experience with professional services for the design of water infrastructure projects. Attached for your review is the RFP that included the scope of work and other project parameters.

On June 23, 2021, staff held a pre-proposal web conference with the consulting firms and provided information about CVWD, the scope of work and proposed project schedule. The proposals were accepted on July 7, 2021, and CVWD received six (6) proposals.

Staff reviewed each proposal and ranked them in accordance to the following categories and weighted percentages: 1) Proposal, Project Concept & Scope of Work– 30%, 2) Previous work experience – 30%, 3) Expertise of project staff on similar projects – 20%, 4) Coordination with agencies – 10%, and 5) Costs of service – 10%.

Tetra Tech was the highest ranked consultant as shown on the attached consultant ranking table. Tetra Tech's proposal addressed the critical design issues such as the channel crossing on Los Olivos Ln, coordination with Glendale and Los Angeles County, the design of new pipelines and water service laterals, meeting the CVWD's project schedule, and their proposed costs are within CVWD's budget for this project. Tetra Tech's team members have completed many similar projects within Los Angeles County.

ENVIRONMENTAL REVIEW:

This project is exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15301 of the CEQA Guidelines. This exemption covers the repair of existing facilities involving negligible or no expansion of existing use.

RECOMMENDATION:

It is staff's recommendation to authorize the General Manager to enter into an agreement with Tetra Tech to provide professional engineering services for said project at a cost of \$112,400 and establish a contingency amount of \$11,240 (10% of contract) to cover the cost of unforeseen or additional work.

FUNDING AVAILABILITY:

There are sufficient funds available in the following account for the project:

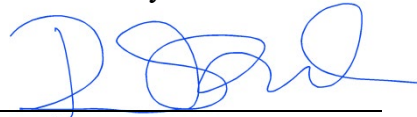
Account Description	Amount
FY 21/22 Water CIP – Water Distribution – Pipeline Replacement	\$2,600,000
Consultant Contract w/ 10% Contingency	<\$123,640>
Amount Remaining in Water CIP – Water Distribution – Pipeline Replacement	\$2,476,360

Prepared by:



Brook Yared, M.S., P.E.
Engineering Manager

Submitted by:



David S. Gould, P.E.
Director of Engineering

Attachments:

1. Project Location Map
2. Request for Proposal
3. Recommended Proposal
4. Consultant Ranking Table

Attachment 1

Legend

Existing System:

- wwell
- wvalve
- wnetstr
- whyd
- wfitting
- wcvalve
- wmain
- wlatline
- StreetCenterline

Existing Pipe Material: Bare Steel

Proposed Construction:

- 4-inch Pipeline to be Replaced
- 6-inch Pipeline to be Replaced

Total Length: 3,400 ft

Diameter: 8"

Material: CML X CMC 10 ga. Steel

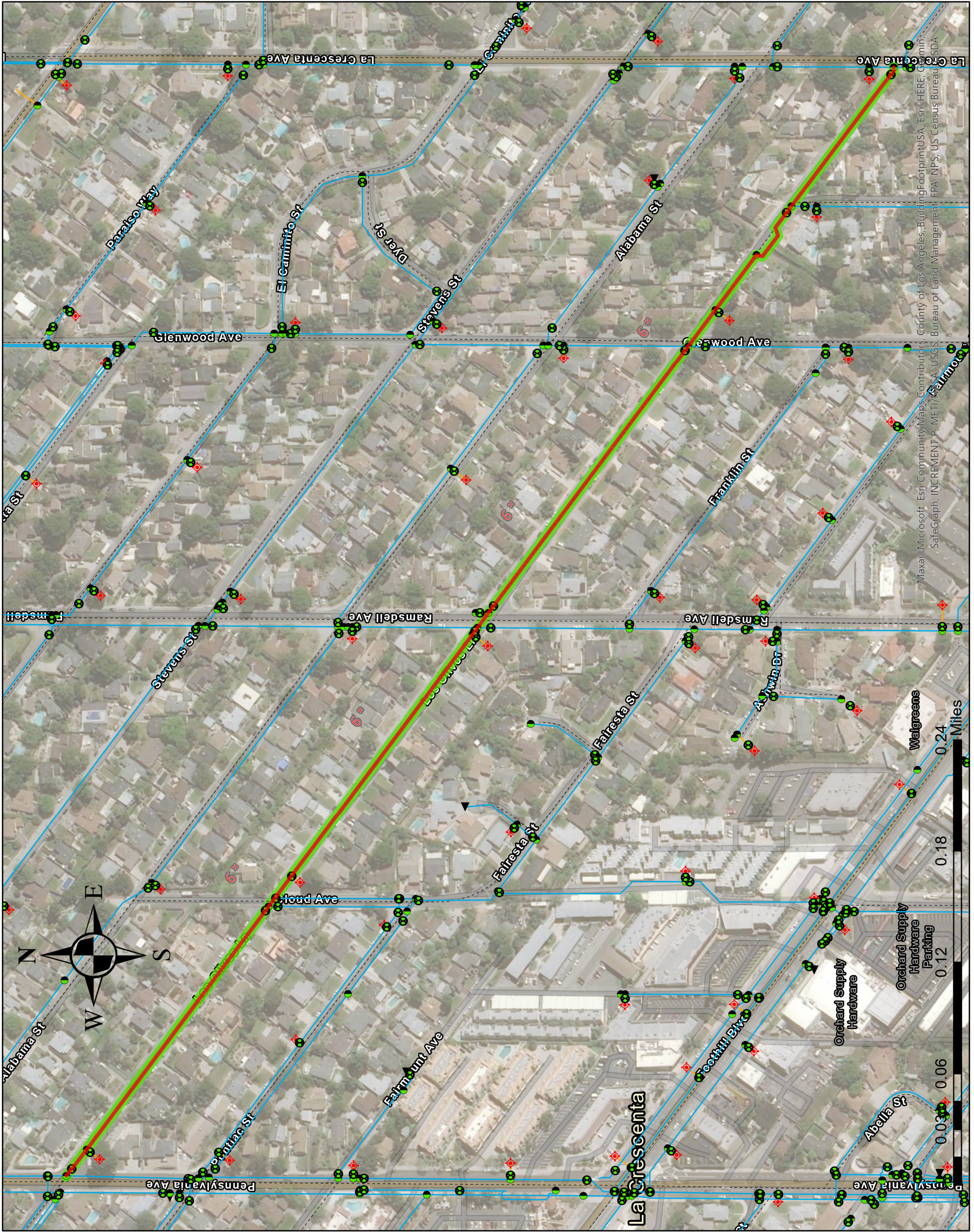
Year 2 - FY 21/22

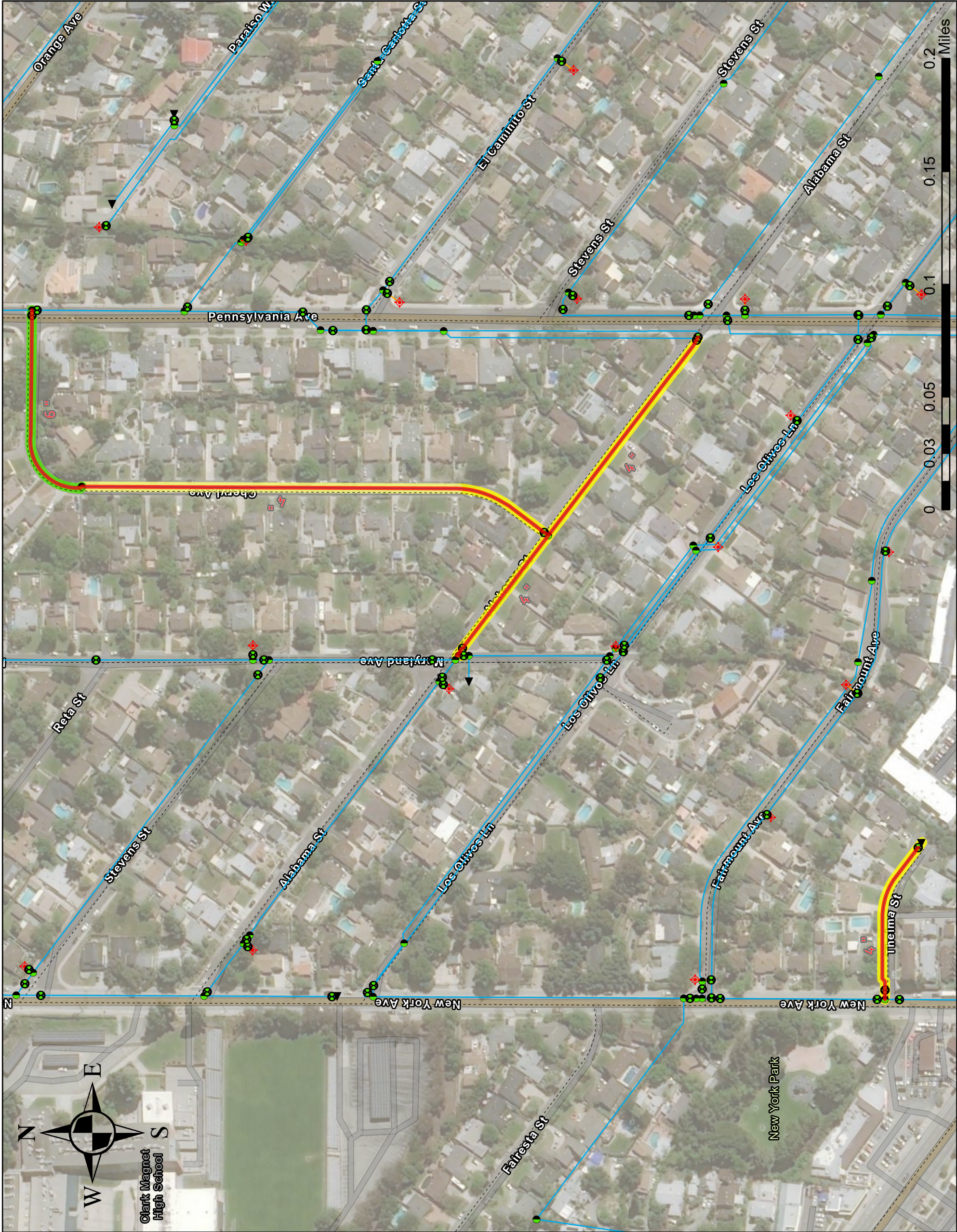
Project 1

Pipeline Replacement



Crescenta Valley Water District





Legend

Existing System:

- wwell
- wsvalve
- wnetstr
- whyd
- wfitting
- wcvalve
- wmain
- wlatline
- StreetCenterline

Existing Pipe Material: Bare Steel

Proposed Construction:

- 4-inch Pipeline to be Replaced
- 6-inch Pipeline to be Replaced

Total Length: 2,400 ft
Diameter: 8"
Material: CML X CMC 10 ga. Steel

Year 2 - FY 21/22

Project 2

Pipeline Replacement



Crescenta Valley Water District



REQUEST FOR PROPOSAL

PROFESSIONAL ENGINEERING SERVICES FOR DESIGN OF FY 21/22 PIPELINE REPLACEMENT PROJECTS, PROJECTS E-1033 & E-1034

PROPOSAL DUE DATE: June 21, 2021

INTRODUCTION:

Crescenta Valley Water District (CVWD) is embarking on its FY 21/22 capital improvement project program which includes the replacement of old and undersized steel pipelines within the water distribution system. The District's goal is to replace all existing pipelines that are 50-yr & older within the next 85-years. Currently about 45% of CVWD's pipelines meet this criterion. To meet this goal, CVWD would have to replace between 1.0 to 1.5 miles of pipe per year for the next 20-years. The specific pipelines to be replaced per year are based on age of pipeline, pipe size, pipe material and number of previous leaks. The pipelines are also grouped within a specific area of the District for ease of construction.

CVWD's Board approved the FY 21/22 Water Budget in May 2021 and the approved budget showed \$2.7M available for pipeline replacement as part of the CIP budget. CVWD has recently increased the amount of pipeline installed per year by utilizing bond financing. This is being done to address concerns of aging pipeline throughout CVWDs service area. CVWD's Engineering Department in previous years, performed the planning, design, specification development, materials ordering, bidding, community outreach, construction administration, and inspection for pipeline projects..

For CVWD to meet the accelerated pipeline replacement schedule, we will need the assistance of a consulting engineering firm to prepare design plans and specifications for upcoming pipeline projects as shown in the table below.

Project No.	Street Name	Block No.	Year Const.	Pipe Size (in)	Pipe Length (ft)	Contractor Cost Estimate	Consultant, Materials, Permits, etc.	Total Cost Estimate	Cost/ LF
1	Los Olivos Ln	2800	1947	6	880				
	Los Olivos Ln	2900	1947	6	880				
	Los Olivos Ln	3000	1948	6	840				
	Los Olivos Ln	3100	1948	6	870	\$1,117,969	\$417,650	\$1,535,619	\$443
2	Alabama St	3200	1947	4	830				
	Cheryl Ave	4700	1947	4	200				
	Cheryl Ave	4800	1947	6	970				
	Thelma St	3300	1946	4	330	\$779,312	\$285,500	\$1,064,812	\$532
					5,800	\$1,897,280	\$703,150	\$2,600,430	\$448

Project 1 is replacement of 3,470 LF of pipeline with new 8-inch steel water mains on the 2800 & 3100 Blocks of Los Olivos Ln that were installed in 1947 and 1948 (see attached exhibit) within the unincorporated area of Los Angeles County. Los Olivos Ln is a narrow residential street with limited parking, crossing of Eagle Canyon Channel (owned by Los Angeles County) and numerous oak trees. The pipeline replacement includes replacing fire hydrants, water service laterals, new gates valves and reconnection to existing water mains.

Project 2 is the replacement 2,330 LF of pipeline with new 8-inch steel water mains on the 3200 Block of Alabama St, 4700 & 4800 Blocks of Cheryl Ave and 3300 Block of Thelma St, which were installed between 1946 and 1947 (see attached exhibit) located within the City of Glendale . The streets are narrow residential streets with limited parking. The pipeline replacement includes installation of new fire hydrants, water service laterals, gates valves and reconnection to existing water mains.

CVWD is planning to bid out Project 1 & 2 as separate projects such that both projects will be under construction during the same period and completed before June 30, 2022.

SCOPE OF WORK

CVWD is seeking a professional engineering firm to design and prepare construction specification documents for two (2) separate projects for the installation of the new pipelines as described above. The major elements of the project include the following:

- Topographic survey and right-of-way mapping
- Utility research and compiling for base map
- Pothole plan for utility crossing and connection to existing water mains. Potholing will be performed by CVWD crews.
- Pipeline design (plan view only) per CVWD design and AutoCAD standards
- Details of connection to existing water mains
- Design of crossing of Eagle Canyon Channel and submittal of plans for permit approval with Los Angeles County Flood Control (Project 1 only)
- Coordination with City of Glendale and Los Angeles County
 - Design requirements relative to pavement replacement, backfill requirements, water discharge BMPs and traffic control
 - Traffic Control Plans (May not be required per Glendale & LA County. If required, CVWD will request a separate proposal)
 - Excavation Permit – Submittal and preliminary approval. Contractor will obtain the final permit. CVWD will pay all permit fees.
- Project Front-end Specifications provided by CVWD.
- Project Special and Technical Provisions. Sample provided by CVWD.
- Bidding Schedule and Engineer's construction cost estimate. Bidding schedule provided by CVWD.
- Project Schedule for design phase and estimated construction schedule.
- Construction services for bidding & shop drawing review. If CVWD needs additional assistance during construction for RFI's, CVWD will request a separate proposal.
- As-built drawing updates per redline information from the Contractor.

Deliverables:

- Prepare 100% submittal and final submittal of construction drawings and specifications.
- Project Meetings - Attendance at least five (5) design and bidding project meeting
 - Kick-off Meeting
 - 50% Submittal for pipeline alignment
 - 100% Submittal
 - Final Submittal
 - Pre-Bid Meeting

Project Schedule:

<u>Task</u>	<u>Date</u>
Pre-Proposal Meeting – Web Conference	June 23, 2021
Proposal Due	July 7, 2021
Award of Contract	July 13, 2021
Kick Off Meeting	July 20, 2021
Board Approval – Advertisement for Bids	September 14, 2021
Pre-Bid Meeting	September 22, 2021
Bid Opening	October 6, 2021
Board Approval – Award of Contract	October 12, 2021
Start Construction	October 18, 2021

PROPOSAL REQUIREMENTS:

Scope of Work

The proposal shall include a detailed list itemizing the tasks required to complete the scope of work addressing all project criteria outlined above. Each task shall include a detailed estimate of man-hours required to complete each task.

Proposal Fee Schedule

The proposal shall include a "Fee Schedule" outlining all applicable hourly rates and costs for services. The proposal shall provide a breakdown of fees associated with the project task as specified above. The proposal shall also include a "not-to exceed" total fee, which shall include all work necessary to complete the project objective.

Schedule

The proposal shall include a proposed project schedule detailing the time of completion for design and permitting. The schedule shall include the number of calendar days required to perform each task and the total number of calendar days required to complete the entire project.

Project Experience

The proposal shall include description of comparable pipeline projects completed by consultant including experience working with the City of Glendale and Los Angeles County within past three (3) years including date completed, location of work names, addresses, and phone numbers of persons in charge of project, and the name and address of the public agency or firm for whom the project was constructed.

Consultant's Representative

The proposal shall name a responsible representative, an alternate, and all sub-consultants to perform the assigned tasks. The chosen consultant's representative will remain responsible and in charge of all duties from contract negotiations through project completion. If the primary representative is unable to continue with the project, then the alternate representative will become the primary representative. The District must approve any other changes in responsible representative, in advance. The District will have the right to reject other proposed changes in personnel and may consider any other changes in responsible personnel a breach of contract.

Professional Service Agreement

The chosen consultant shall be responsible for completing the specified services in accordance with the District's standard "Professional Services Agreement," which will be prepared by the District. Services specified in this agreement shall be taken directly from the consultant's accepted proposal and from this "Request for Proposal", if applicable.

Insurance Requirements

The District will require employer's liability, comprehensive commercial liability insurance, and errors and omissions insurance coverage for at least \$2,000,000 and comprehensive automobile liability for at least \$1,000,000. The District requires that the District be named as additional insured on the policy and such insurance policy shall not be terminated or canceled without thirty (30) days prior written notice to the District.

District Reimbursements

The District normally reimburses consultants for the actual cost (plus 15%) for all outside expenses, including those for material costs authorized in advance by the District. Other reasonable expenses will be reimbursed where such costs have been advanced by consultant and approved by the District.

The chosen consultant shall not be compensated for use of computers, office equipment, hardware, or software materials. Said costs are not compensated and time expended by consultant's personnel on such equipment is included within the hourly rate as shown on the consultant's fee schedule.

District Responsibilities:

District will provide the following to assist the selected consultant with the project and its completion:

- Geographic information system (GIS) information and topographic surveys as available.
- Reports, plans, and drawings, as available and pertinent to the proposed plan.
- Design criteria, preferred manufacturer's information, and other technical information, as available and pertinent to the project.
- Current operational condition and performance of existing infrastructure pertinent to the proposed plan.

Proposal Due Date:

Please submit one (1) copy of the proposal as a PDF file via e-mail by 12:00 pm by July 7, 2021 to byared@cvwd.com. Send three (3) copies of the proposal to the attention of Mr. Brook Yared, Engineering Manager at Crescenta Valley Water District, 2700 Foothill Boulevard, La Crescenta CA 91214. If you have any questions or comments, contact Mr. Yared at (818) 236-4117.

Combined Materials Estimate for Projects 1 & 2

Item	Quantity	Unit Cost	Cost	Item	Quantity	Unit Cost	Cost	Item	Quantity	Unit Cost	Cost
10-inch Steel Pipe -CLC & CMC - 40 Ft	0	LF	\$0.00	12" x 8" weld reducer	0	EA	\$0.00	3/4-inch Meter	70	EA	\$149.00
10-inch Steel Pipe -CLC & CMC - 20 Ft	0	LF	\$0.00	12"x 10" weld reducer	0	EA	\$0.00	1-inch Meter	0	EA	\$0.00
8-inch Steel Pipe -CLC & CMC - 40 Ft	0	LF	\$0.00	10"x 8" weld reducer	0	EA	\$0.00	1-1/2-inch Meter	0	EA	\$0.00
8-inch Steel Pipe -CLC & CMC - 20 Ft	5,470	LF	\$26.28	8"x 6" weld reducer	1	EA	\$95.55	2-inch Meter	0	EA	\$0.00
6-inch Steel Pipe -CLC & CMC - 40 Ft	0	LF	\$0.00		0			1-inch Meter Boxes	144	EA	\$65.81
6-inch Steel Pipe -CLC & CMC - 20 Ft	630	LF	\$21.35	12-inch Well Bell 45° Elbow	0	EA	\$0.00	1-1/2-inch Meter Boxes	0	EA	\$0.00
4-inch Steel Pipe CML&CMC -20 Ft	0	LF	\$0.00	10-inch Well Bell 45° Elbow	0	EA	\$0.00	2-inch Meter Boxes	0	EA	\$0.00
				8-inch Well Bell 45° Elbow	16	EA	\$273.75	Steel Meter Box Lids	0	EA	\$0.00
12-inch Gate Valve	0	EA	\$0.00	6-inch Well Bell 45° Elbow	6	EA	\$250.00		0		
10-inch Gate Valve	0	EA	\$0.00	4-inch Well Bell 45° Elbow	0	EA	\$0.00	8-inch 300# Non-Asbestos Ring	45	EA	\$5.00
8-inch Gate Valve	17	EA	\$995.28	12-inch Well Bell 90° Bend	0	EA	\$0.00	8-inch 300# Slip on Raised Face	45	EA	\$25.00
6-inch Gate Valve	19	EA	\$611.28	10-inch Well Bell 90° Bend	0	EA	\$0.00		0		
4-inch Gate Valve	0	EA	\$0.00	8-inch Well Bell 90° Bend	0	EA	\$0.00		0		
				6-inch Well Bell 90° Bend	0	EA	\$0.00		0		
12"x 10" Flanged Tee	0	EA	\$0.00	4-inch Well Bell 90° Bend	0	EA	\$0.00	Contingency	2	EA	\$16,437.57
12"x 8" Flanged Tee	2	EA	\$1,100.00		0						\$32,875.14
12"x 6" Flanged Tee	0	EA	\$0.00	6-inch Fire Hydrant Heads	16	EA	\$1,622.02				\$294,966.51
10"x 8" FE Reducing Tee	0	EA	\$0.00	6-inch 6-hole Flange	16	EA	\$25.00				
10"x 6" FE Reducing Tee	0	EA	\$0.00	6-inch Well Bell 90° Elbow	16	EA	\$344.93				
8" x 8" Flanged Tee	10	EA	\$640.58	3/4"x3-3/4" (6) Break Away Flange	16	EA	\$6.00				
8" x 6" Flanged Tee	19	EA	\$450.00								



Crescenta Valley
Water District



PROPOSAL FOR PROFESSIONAL ENGINEERING SERVICES FOR DESIGN OF

FY 21/22 Pipeline Replacement Projects

PROJECT E-1033 & E-1034

JULY 2021



TETRA TECH



July 7, 2021

Brook Yared, MS, PE, Engineering Manager
Crescenta Valley Water District
2700 Foothill Boulevard
La Crescenta, CA 91214

Reference: Proposal to Provide Engineering Services for Design of FY 21/22 Pipeline Replacement Projects

Dear Mr. Yared,

Tetra Tech enthusiastically submits our proposal to provide professional engineering services for the FY21/22 Pipeline Replacement Project. We are committed to providing the Crescenta Valley Water District (District) with the level of service you expect and deserve.

We understand that the District typically designs the distribution system improvements inhouse and therefore we are considering this opportunity to act as an extension of staff to complete this project carrying forward your mission, vision, values, and guiding principles. We believe these improvements will be a considerable benefit to the Public by increasing water system reliability and by reducing unplanned public inconveniences resulting from repairing old pipelines. *Our goal is to assist the District with this important project and then continue to assist the District as you move forward with the pipeline replacement program.* To do this, we know we have to provide great service, and this is always our goal.

Our team is highly qualified for your project because our entire team specializes only in the engineering of public water systems - our team does not do other types of engineering. This allows us to be familiar with the issues faced by municipal water systems including technical pipeline issues, construction public inconvenience issues, cost issues, and schedule issues. We trust that this proposal adequately conveys our wide range of experience surrounding potable water mains and our excitement to be a part of the District's team.

Thank you for giving us the opportunity to submit our proposal, we look forward to your positive response. Should you require additional information or have any questions, please feel contact me at 949/809-5156 or via email at tom.epperson@tetrattech.com.

Sincerely,

Tom Epperson, PE
Vice President

CB/TLE/de

M:\Marketing\Proposals\FY 2021\Crescenta Valley Water Dist_FY21-22 Pipeline Replacements

**QUALIFICATIONS
AT A GLANCE**

**200+ MILES OF**
Southern California
pipeline conveyance
experience

**IN-HOUSE
TRAFFIC CONTROL**

**Commitment of our
BEST TEAM**
to the Contract

WHY TETRA TECH IS THE RIGHT CHOICE FOR THIS PROJECT

Tetra Tech fully understands your project. We are offering an outstanding team, which combines the experience, depth, and understanding needed for the successful delivery of this project. Our core principles establish how we plan to partner with the District to successfully complete this project:

- ❖ **Service:** Tetra Tech puts its clients first. We listen to and better understand our clients' needs and deliver smart, cost-effective solutions that meet those needs. Our philosophy is to "Do it Right."
- ❖ **Value:** Tetra Tech takes on our clients' problems as if they were our own. We develop and implement real-world solutions that are cost-effective, efficient, and practical.
- ❖ **Excellence:** Tetra Tech brings superior technical capability, disciplined project management, and excellence in safety and quality to our work.
- ❖ **Opportunity:** Our people are our number one asset. Our workforce is diverse and includes leaders in our fields. Our entrepreneurial nature and commitment to success provides challenges and opportunities.

Key Reasons the District can count on Tetra Tech to Deliver this Project

Reason 1: Tetra Tech Understands. We understand the District is sensitive to the effort and cost necessary to prepare pipeline replacement plans and wishes to implement an approach that protects against construction change orders without providing design pipeline profiles, or geotechnical evaluations for the open cut alignments. It will be important to walk the proposed alignments and use District resources such as GIS and field locators to map utilities where record documents are not available. We have reviewed the District's sample waterline replacement plans thoroughly and understand the District's approach to detail connections and Department of Drinking Water (DDW) requirements. We will carry this approach throughout all aspects of the project and "Do it Right".

We also understand municipal water systems, as this is our only work. We do studies, planning, design, and construction assistance for public water systems. We understand all of the phases to construct a pipeline including alignment, water quality separation requirements, costs, various methods of construction, various materials of construction, service connection tie-ins, pipeline restraining systems, backfill, pavement reconstruction/repair, disinfection and testing.

Reason 2: Mitigate Public Inconveniences. It is essential to mitigate public inconveniences and avoid customer complaints. The residents and businesses become very concerned when construction causes delays or creates dust and dirt that settles everywhere. Although construction outreach and an active public relations campaign are important, there are some very significant ways that the design can minimize public inconveniences. One of the most effective ways to mitigate traffic delays is to choose a horizontal alignment that considers construction traffic patterns. For example, the right lane can be a very favorable location for a watermain since traffic control can often be limited to closing only one lane and other lanes do not have to be temporarily realigned.

Reason 3: Minimize Change Orders. Change orders can be avoided by having transparency with the accuracy of the plans and the level of effort required for the Contractor to verify utility information and potential conflicts. A sound sensible alignment choice can be shown schematically and be constructible without change orders. Tetra Tech can scale the level of effort required to meet the District's budget and limit the information shown on the plans to only what is necessary to construct the waterline replacement. However, we are also able to provide a higher level of service and provide a quality accurate record drawing for the District's use in the future. In developed residential areas where utility improvements are not anticipated a schematic approach makes sense, where other major utilities could be anticipated in the future, a more accurate record could be useful. We will partner with the District to understand the level of effort expected to depict existing utilities and not do more than is required in the efforts of providing our services in an economically responsible manner.

PROJECT EXPERIENCE AND TEAM QUALIFICATIONS

Key members of our proposed project team have been involved in the designs and/or construction support services of more than 200 miles of water, recycled water, and sewer mains within fully developed areas having extensive traffic control and utility conflicts. Tetra Tech considers these types of projects to be exactly the type and complexity that we excel at executing efficiently and successfully. The following table summarizes pipeline projects designed by our project team that have met challenges similar to your project:

Client	Project Name	Brief Description
Orange County Water District 18700 Ward Street Fountain Valley, CA 92708 Mike Markus, PE , General Manager 714/378-3305	Mid-Basin Injection: Centennial Park Seawater Barrier Replacement GWR Barrier Pipelines GWR Unit III Pipeline Newport Beach RW Extension Miller/Kraemer Pipeline Replacement	10,500 LF of 12" to 36" pipelines 1,400 LF of 30" barrier pipeline 12,000 LF of 20" to 42" pipelines 23,000 LF of 60" to 66" pipeline 30,000 LF of 8" to 24" RW mains 300 LF of 42" pipeline
West Basin Municipal WD 17140 S. Avalon Blvd., Suite 210 Carson, CA 90746	Carson Mall Lateral, Phase II Mariposa El Segundo RW Lateral Corporate Campus RW Lateral Imperial Avenue RW Lateral American Honda RW Lateral Madrona Marsh- Lateral 6A	4,700 LF of 12" RW main 1,600 LF of 6" RW main 3,700 LF of 8" RW main 5,000 LF of 6" RW main 5,200 LF of 6" RW main 28,000 LF of 8" to 24" RW mains
Irvine Ranch Water District 15600 Sand Canyon Avenue Irvine, CA 92618 Richard Mori, PE , Principal Engineer 949/453-5571	Peters Canyon Pipelines Sand Canyon Relocations Shady Canyon Pipelines Green Acres Intertie Tustin Zone 5 TM	17,000 LF of 10" to 16" mains 7,000 LF of 12" to 24" pipelines 25,000 LF of 12" to 24" pipelines 9,600 LF of 24" RW main 4,500 LF of 18" water main
City of Santa Ana, Water Resources 220 S. Daisy Avenue, 2 nd Floor Santa Ana, CA 92703 Rudy Rosas, PE , Project Manager 714/647-3379	Well 32 Pipeline Centennial Park WM Replacement Central City WM Replacement Bristol Street Widening WM Replace. Pico-Lowell WM Replacement Mid City WM Replacement	3,300 LF of 16" water mains 20,000 LF of 8" water mains 6,600 LF of 8" water mains 6,000 LF of 8" and 12" water mains 8,200 LF of 8" and 12" water mains 9,000 LF of 8" and 12" water mains
Moulton Niguel WD 26161 Gordon Road (Building 1) Laguna Hills, CA 92653 Matt Collings, PE , Assistant General Manager 949/425-3552	Regional LS Force Main Replacement RW System Extension 2014 Diemer Pipeline Emergency Repair La Paz Road RW Extension – Phase 1 Pacific Park Recycled Water Mains Pacific Park Water Mains Lower Mission Viejo RW Pipelines	15,000 LF of 24" force main 7,500 LF of 4" to 8" RW mains 200 LF of 36" water main 4,000 LF of 12" RW main 14,000 LF of 12" to 16" RW mains 16,000 LF of 36" to 42" WM 11,000 LF of 12" to 16" RW mains
City of Anaheim 201 S. Anaheim Boulevard, Suite 601 Anaheim, CA 92805	Katella WM Replacement – Phase I Katella WM Replacement – Phase II 36" TM Replacement - Caltrans Santa Ana Canyon Road TM Anaheim Hills Road TM, Phase I I-5 Water Line Relocations	3,000 LF of 16" DW main 4,000 LF of 12" DW main 2,000 LF of 36" Transmission Main 4,500 LF of 30" Transmission Main 3,500 LF of 30" Transmission Main 20,000 LF of 6" to 16" Water Mains

Additional Pipeline Replacement Experience

Tetra Tech has dedicated a project team that has completed a myriad of pipeline projects similar to the District's Pipeline Replacement Project. Based on our extensive design we have acquired the knowledge and experience that will assist us in successfully completing this project.

Pipeline Projects with More Than 10,000 Feet of Pipe							
Project	Pipe Size (Inches)	Pipe Length (Ft)	Traffic Control Plans	Major Streets	Construction Costs	Completion Date	Permits
Moulton Niguel WD, Regional Lift Station Force Main Replacement	24	15,000	3 sheets	Alicia Parkway	\$12,000,000	2018	Orange County Parks, County of Orange, Army Corps 401, Fish and Wildlife, Streambed Alteration
El Toro WD, System Expansion: Phase 2 and East System	4 to 10	25,000	None	El Toro Road	\$5,000,000	2017	City of Laguna Woods
Orange County WD, Mid-Basin Injection: Centennial Park	12 to 36	10,500	None	Edinger Avenue	\$24,000,000	2017	City of Santa Ana, Army Corps, County of Orange
Central Basin MWD, La Mirada RW Pipeline Project	4 to 20	28,700	10 sheets	Imperial Hwy, Valley View Ave, Rosecrans Ave, La Mirada Blvd	\$10,000,000	2017 (on hold)	City of La Mirada, Flood Control, MWD
Irvine Ranch WD, Peters Canyon Channel Reuse Pipeline	8 to 16	17,000	30 sheets	Main Street, Alton Pkwy, Barranca Pkwy, Warner Ave, Walnut Ave, Edinger Ave, Harvard Ave	\$15,000,000	2016	City of Tustin, City of Irvine, Caltrans, County of Orange
KSD, Carlsbad Conveyance Pipeline	54	52,000	210 sheets	Canon Rd, Faraday Ave, Melrose Dr, Poinsettia Ave, Linda Vista Dr	\$150,000,000	2015	Railroad, Cities of Carlsbad, Vista and San Marcos
El Toro WD, North, East and West	4 to 20	102,700	None	Moulton Parkway Ridge Route Dr	\$20,000,000	2014	Fish and Wildlife, County of Orange, Cities of Laguna Woods and Laguna Hills
Upper San Gabriel Valley MWD, City of Industry Package 3 RW Pipelines	4 to 12	20,000	None	Amar Road, Citrus Street, Vine Ave	\$6,000,000	2012	City of West Covina, City of Industry, Unincorporated LA County
Irvine Ranch WD, Raw Water and Brine Pipelines	12 to 24	47,000	94 sheets	Culver Dr, Sand Canyon Ave, Barranca Pkwy, Laguna Canyon Rd, Irvine Center Dr	\$10,000,000	2007	Caltrans, Flood Control, Railroad

THE TETRA TECH TEAM

Tetra Tech has assembled a project team that possesses the knowledge, experience, and enthusiasm necessary to successfully complete this project. Our Project Team is devoted to completing your project within schedule and under budget, and not only meet, but exceed your expectations. Resumes for each individual can be found in the Appendix - Resumes section of this proposal. The following summarizes the qualifications of key staff personnel that will be assigned to this project:

Project Director & QA/QC

Providing the project team oversight is one of Tetra Tech's most experienced Project Directors, **Tom Epperson, PE**. Mr. Epperson has more than 40 years of experience devoted entirely to wastewater, water, and recycled water facility projects and has been responsible for completing the design of over 200 miles of water, recycled water, and sewer mains; 36 water/recycled water pump stations; and 18 wellhead facilities. He will be the focal point for communications between the District and members of the project team to ensure that the project needs are clearly spelled out and understood. As Project Director and QA/QC, Mr. Epperson will be responsible for achieving District's stated goals and ensuring compliance with project intent, completeness of the final deliverables, and satisfaction of the District.

Project Manager

Chris Bartleman, PE, will lead our team as Project Manager. Mr. Bartleman will provide the overall management and coordination for the project, as well as all technical oversight, and quality management. His responsibilities will involve the side-by-side working relationship with the design team and District staff. This positive alliance will enable our team to balance engineering performance requirements and work schedule with a constructible, cost-effective project for the District. In addition to his technical design experience, Mr. Bartleman's Construction Management experience will make him a valuable asset to the District's pipeline replacement team.

Lead Design Engineer

Erica Jenkins will serve as our team's Lead Design Engineer. Ms. Jenkins will lead all technical aspects of the project. Ms. Jenkins has more than 28 years of professional experience in water, wastewater, and recycled water engineering; and has been responsible for the completion of over 100 miles of potable water, recycled water, and sewer mains. Additionally, she has completed various water main projects for the City of Lakewood, Golden State Water Company, and City of Paramount, that are similar in nature to this project.

Design Engineer

Jaden Miller, EIT, will assist Ms. Jenkins with the technical aspects of the project. Mr. Miller has worked side by side with Ms. Jenkins for the past three years and will be instrumental in the design. Jaden has completed various pipeline replacements projects similar in nature to this project.

PROJECT TEAM CHART



METHODOLOGY

Managing the Process

Engineering a watermain is comprised of tasks which are similar from project to project. Although the specific results and end products can vary widely, the process to produce the final product is familiar. By evaluating our past work, we have refined our procedures and now have a baseline set of procedures to use when engineering a watermain replacement. These baseline procedures allow us to focus on the nuances of your project, and not the mechanics of engineering. They also allow us to engineer a high-quality design with fewer errors as well as meet or beat aggressive budgets.

Our Team will set clear goals for each milestone. We discuss internally what we are trying to accomplish, and what we are not accomplishing, with each milestone submittal. This allows us to focus on the fundamental items which will be built up and detailed later. We will convey these goals to the District, which will allow for quicker, more efficient reviews throughout the project. This milestone goal type of approach is in contrast with many other engineers who simply work until they feel they have completed a certain percentage of work. The following is a brief summary of how we will approach each of the project design submittals:

- ▶ **Utilities Research and Data Collection.** Tetra Tech proposes to perform our utility research and investigation immediately upon issuance of the Notice-to-Proceed. We start by contacting DigAlert and obtaining information on all registered utility agencies within the project boundaries. We contact all agencies and ask if they prefer correspondence by mail or email and then request data in their preferred format. Each agency gets an explanation of the project and a map showing the alignment. All contacts are recorded in a matrix table for easy reference. We also make a separate plan submittal to each agency with utilities and request verification for accuracy of their utility on our drawings.
- ▶ **Base Map Preparation.** We will prepare the base map with existing GIS utility information for water and sewer, County of Los Angeles GIS Parcel layer, right-of-way parcel mapping from field survey monumentation and the record information compiled from utility request letters.
- ▶ **Site Visit.** Prior to the site visit, during the base map preparation we will use google street view images to help accurately depict utility locations. We will recognize areas where record information may differ from field locations observed and focus the site visit on those specific areas. Areas which record information is consistent with field marks, AC trench locations, sewer/water manholes and valve locations will not be the focus of the site visits. Only focusing on the areas where information is inconsistent, or no records exist will limit the effort required to verify the base map. We also recognize that we are not tasked to understand all utility locations perfectly on the base map. We will understand potential alignments for the waterline replacements and focus the utility mapping around those specific areas.
- ▶ **50% Submittal.** The horizontal alignment for the entire project on the base map will be included. We will indicate all interconnections and pipelines to be abandoned. There will be a few sample construction notes, however the focus will be the alignment. The alignment will consider traffic, other utilities, DDW separation, and maintenance requirements.

The intent for the 50% submittal is to agree on the horizontal alignment location, make certain we will be connecting in the correct location, and verify the abandonment of existing lines. Sample construction

notes will be included in order to verify that the format of the notes will be acceptable. Concentrating on the fundamental project requirements at this stage allows us to better establish the foundation of



Eagle Canyon Channel Crossing

the project, and results in fewer alignment revisions and a higher quality set of bid documents. The Design review meeting will allow the District to provide comments prior to proceeding with the next phase of design

- ▶ **100% Submittal.** Profile will not be shown on the plans, but critical crossings existing elevations will be provided if known based on District potholes, and record information. Engineering notes, cross sections, and details will be added including pipeline offsets to centerline, and appurtenance callouts (i.e. bends, tees, services, fire hydrants, etc.). This will be a complete project ready for bid.
- ▶ **Final Submittal.** The final plan submittal will incorporate excavation permit requirements received from the County of Los Angeles and the City of Glendale.

Utilities

Utilities are the single biggest cause for change orders on pipeline projects in urban areas. Over the years, we have developed two important procedures to reduce unforeseen utility conflicts and hence change orders.

Methodical Approach

The first procedure is a methodical approach. This approach includes involvement of DigAlert, each utility agency, a potholing company (District to perform), field verification, and the Contractor.

Critical utilities will be recommended for potholing during design. We will prepare a table with the utilities that we consider critical and submit it to the District for concurrence so that we agree on which utilities should be potholed during design. We will determine criticality based on the confidence and amount of data on a utility, its anticipated proximity to our watermain, and the sensitivity of the utility. For example, a parallel fiber optic line expected to be within a few feet of our main and which doesn't have any record drawings identifying the depth or alignment, could be considered very critical if other horizontal alignments are unavailable.

Less critical utilities will be potholed by the Contractor prior to construction of the pipeline. Our drawings will be very clear on which utilities have been potholed during the design and which utilities the Contractor must pothole. Likewise, the District specifications should be very clear that the Contractor must pothole prior to digging the pipeline trench. Non-critical utilities will simply be exposed ahead of construction. Non-critical utilities will often be service laterals (such as gas).

Identifying Existing Physical Features

The second procedure is a comprehensive field investigation of the alignment to identify signs of substructures such as pavement cuts. If we don't have utility plans which fit the pavement cut, we will ask specific questions about the pavement cut. Many times, those questions lead to more utility data not originally obtained.

Mitigating Public Construction Inconveniences

We understand that construction will pose some unavoidable inconvenience to residents as well as commuters. We will mitigate those inconveniences in several ways.

We will choose alignments that will mitigate that inconvenience by carefully considering traffic control impacts of any alignment. We will partner with the District to make logical decisions for the locations for proposed tie-ins and abandonments. We will provide detailed information concerning removals, distances, materials, and interfering utilities at tie-ins. We believe high quality plans such as the District has previously developed, including sensible utility identification and sound alignment choices will allow construction to progress quickly and keep public inconveniences to a minimum.

SCOPE OF WORK

Members of the Project Team have performed an in-depth review of the project description and scope of work contained in your Request for Proposal (RFP). We have also visited the project site. The following work items are based on the RFP scope.

Task 1 — Topographic Survey and Right-of-Way Mapping

A field topographic survey of the pipeline alignments will be performed by Metz Surveying. The survey shall identify all existing easements, identify street monuments, surface features and descriptions, assessor parcel numbers, locations of existing aboveground and observable underground utilities. Survey ground control shall be NAD83 coordinates and NAVD88 benchmark elevations. Field topographic survey shall be integrated with the acquired base mapping information (utility, topographic, etc.)

Task 2 — Utility Research and Base Map

a. Kick-off Meeting, As-Built Research, Investigation and Review

Meet with District staff to review background information and to kick-off project and ensure incorporation of staff suggestions, recommendations, directions and other requirements into the project. The District's Project Manager will provide all available District information for the pipeline replacement, including record drawings, GIS, reports, design criteria, and current operational conditions. Staff to suggest general pipeline alignment ideas, pipeline sizes, knowledge of future development, and key issues.

b. Utility Research and Notification

Research utility records and identify utilities within the project limits. The information obtained will be clearly delineated on the base map. Concurrent with preliminary design, certified utility information requests will be sent to each utility company requesting verification of location, size and depth of facilities within the project limits. Maintain a log of notified utilities and their responses.

c. Base Maps

Develop base maps strips (i.e. base maps not broken down into sheets) using GIS, Tract Maps, and Record Utility plans. Identify areas where right-of-way may significantly vary from GIS and resolve per District's direction. Approximately show utilities on the plans and identify water mains, valves, hydrants, meters, and service laterals, vaults, manholes etc. Identify significant utility crossings where vertical alignment may be affected. Consider/identify alternative alignments as prudent.

d. Meetings

Meet with the District to discuss horizontal alignment and obtain the District's approval.

Task 3 — Final Engineering Design Plans

a. Construction Plans

Prepare plan view only drawings. Anticipated sheets for both projects will include:

- 8 Plan Sheets (4 for each project at 40 scale)
- 4 Connection Detail Plans (2 for each project)
- 2 Miscellaneous Details (1 for each project)

b. Design Review Meetings

50% Design Review Meeting will focus on recommendations for potholing. After CVWD input is received a potholing plan will be prepared for the District's use in locating potential conflicts and connection point elevations.

100% Design Review Meeting will focus on the plan review comments to the 100% Design Submittal. We anticipate that the comments will be provided prior to the meeting and the meeting will focus on any questions.

c. Submittals

District requirements for design and AutoCAD standards will be followed. Electronic PDF plans will be submitted for review:

- 50% submittal will include plan only sheets of the watermain, some construction notes, and typical cross sections.
- 100% submittal will be a complete document including plans, notes, and connection details.
- Bid Ready Documents submittal will be a revised 100% submittal, taking care of comments or errors noted in the 100% submittal.

Task 4 — Permit Coordination

- a. Coordinate with the City of Glendale and Los Angeles County to obtain the requirements relative to pavement replacement, backfill requirements, water discharge BMP's and traffic control.
- b. Submit for excavation permits and receive preliminary approval for channel crossing.
- c. Prepare DDW checklist and exhibits for separation variance request.

Task 5 — Project Specifications (2 Projects)

Prepare technical specification and necessary Special Conditions. The District will provide the “front-end” documents. Tetra Tech will edit these documents as necessary for each replacement project.

Task 6 — Bidding Schedule and Engineer's Construction Cost Estimate (2 Projects)

A bid schedule will be prepared to include front end documents referenced in Task 5 above. Tetra Tech will submit a construction cost estimate of the proposed work covered by the plans and specifications with the 100% Design.

Task 7 — Project Schedule for Design Phase and Estimated Construction Schedule

Tetra Tech will prepare and update the project schedule throughout the course of the design. The schedule shall include the design, bid, and construction phases.

Task 8 — Construction Services for Bidding and Shop Drawing Review, and Record Drawings

- a. Contract Document Interpretation and Bidding Assistance (2 Projects)

Provide construction documents (Plans) interpretation and consultation during the bidding phase of the project. Attend Pre-bid Meeting. Assist the District in preparing bid addenda exhibits as required to provide clarification of the approved drawings. Up to two bid addenda to address plan changes are included for each project.

- b. Shop Drawing Review (2 Projects)

For this proposal, we have assumed a maximum of six (6) shop drawings for each project, of which half of the submittals will require a second review.

- c. Record Drawings (2 Projects)

Provide final record documents (electronic PDF plans) incorporating the Contractor's redline markups and District Inspector notes. Potholing information would also be shown to avoid future potential interferences.

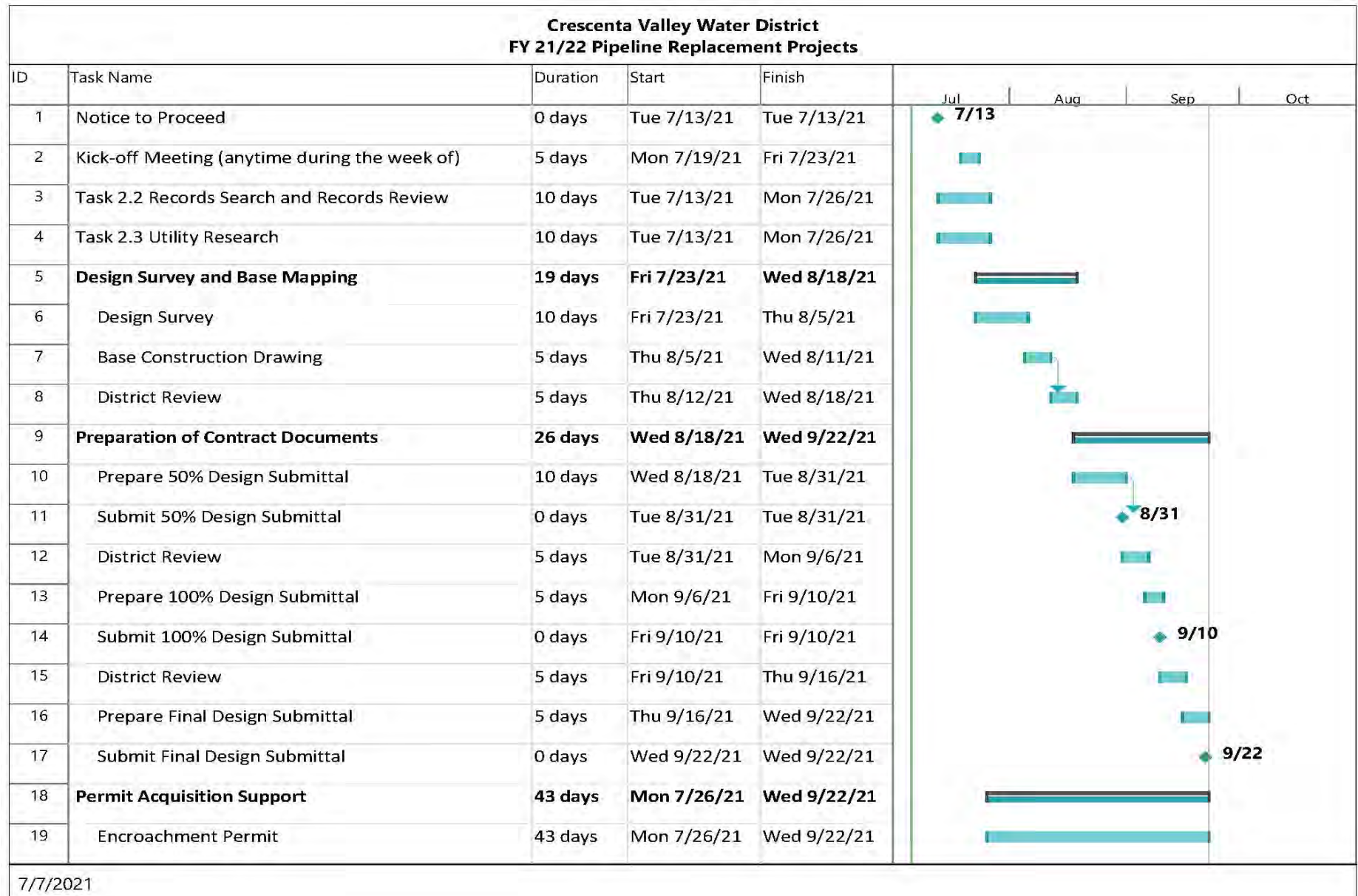
ASSUMPTIONS

1. All construction will be cut and cover.
2. Connection details are included.
3. Bypassing and highline plans if necessary are not included.
4. Assumed adequate spacing for utility separation requirements and mitigation measures/DDW coordination will not be required. Fully welded joints are anticipated per L.A.C.D.P.W. Standard Plan Dwg. W-50 for Zone B Water Main Construction Requirements.
5. No Geotechnical work is required.
6. Designed traffic control is not included.
7. Two bid packages are assumed.
8. The District will provide standard template for previous waterline replacements or default to template used for sample drawing.
9. All deliverables will be electronic PDF format.
10. A total of 5 1-hour in person project meetings are included for both projects combined.

SCHEDULE

Tetra Tech has reviewed the project scope of work contained in the District's RFP. These water main replacements are to start construction by October 18, 2021. To meet this schedule, the final plans and specifications will need to be completed by September so that bids could be received by October 6, 2021.

Our project schedule presented on the following page identifies a planning and design schedule that requires close coordination and prompt approvals from the District and permitting agencies. Tetra Tech has reviewed the current and planned workload for our Project Team; and are available to immediately begin the work on this project. On the following page is a summary of our significant milestones.



FEE AND ESTIMATE OF MAN-HOURS

As requested in the RFP, Tetra Tech has included our not-to-exceed fee. On the following page is our labor plan including rates and an estimate of staff hours by job title required to complete each task in the scope of work.

Price Proposal										Price Summary / Totals					
Pipeline Replacement FY21/22 Submitted to: Crescenta Valley Water District										Task Pricing Totals		112,400			
										Specify Add'l Fees on Setup		0			
										Technology Use Fee					
										Total Price		112,400			
Contract Type: T&M		Total Labor Hrs	QA/QC (Tom Esperson)	Project Manager (Chris Bartleman)	Project Engineer (Eric Jenkins)	Engineer 1 (Jaden Miller)	Engineer 1 (Ashley Pham)	Project Administrator (Mary Raywood)	Fleet Vehicles	Pricing by Resource					Task Pricing Totals
									\$0.00	Labor	Subs	Travel	ODCs		
									mile						
														M&E	
Project Phases / Tasks		754	20	100	130	200	280	24	590	104,500	6,078	792	1,030	112,400	
Task 1 - Topographic Survey and Right of Way Mapping		47	-	2	4	8	32	1	-	5,355	6,078	-	167	11,600	
Field Survey		2		1				1		295	6,078			6,373	
Right of Way Mapping		45		1	4	8	32			5,060			167	5,227	
Task 2 - Utility Research and Base Map Preparation		79	-	12	6	12	32	17	-	9,575	-	264	161	10,000	
Kick Off Meeting		5		4				1		955		132		1,087	
Utility Research		24		2	2	4		16		2,460			161	2,621	
Prepare Base Map Sheets		46		2	4	8	32			5,280				5,280	
Meet with District to discuss horizontal alignment		4		4						880		132		1,012	
Task 3 - Final Engineering Design Plans		350	12	20	34	76	208	-	590	44,060	-	264	76	44,400	
Prepare 50% Design Plans		126		4	12	30	80		350	14,520				14,520	
50% Design Review Meeting		4		4						880		132		1,012	
Prepare Potholing Plan		26	2	2	2	4	16			3,520				3,520	
Calculate Utilities from Potholing Survey		22			2	4	16		240	2,420			76	2,496	
Prepare 100% Design Plans		134	8	4	12	30	80			17,160				17,160	
100% Design Review Meeting		4		4						880		132		1,012	
Prepare Final Drawings		34	2	2	6	8	16			4,680				4,680	
Task 4 - Permit Coordination		70	-	10	20	40	-	-	-	10,400	-	-	-	10,400	
Coordinate with Permit Agencies		28		4	8	16				4,160				4,160	
Submit Excavation Permits		14		2	4	8				2,080				2,080	
DDW Variance Checklist for Project 1		14		2	4	8				2,080				2,080	
Incorporate Permit Requirements		14		2	4	8				2,080				2,080	
Task 5 - Project Specifications		50	6	16	24	-	-	4	-	9,880	-	-	20	9,900	
Prepare Special Conditions		20	2	8	8			2		3,920			20	3,950	
Prepare Front End Bid Documents		16	2	4	8			2		3,050				3,050	
Prepare Technical Specifications		14	2	4	8					2,900				2,900	
Task 6 - Bidding Schedule and Engineers Construction Cost Estimate		38	-	4	14	20	-	-	-	5,660	-	-	-	5,660	
Prepare Bid Schedule		10		2	8					1,800				1,800	
Engineer's Construction Cost Estimate		28		2	6	20				3,860				3,860	
Task 7 - Project Schedule for Design and Estimated Construction Schedule		10	-	8	-	-	-	2	-	1,910	-	-	90	2,000	
Update Proposal Project Schedule		5		4				1		955			45	1,000	
Prepare Estimated Construction Schedule		5		4				1		955			45	1,000	
Task 8 - Engineering Support During Bidding and Construction		110	2	28	28	44	8	-	-	17,660	-	264	516	18,440	
Attend Pre-Bids (2)		8		8						1,760		264		2,024	
Prepare Bid Addenda (2)		18	2	8	8					3,780				3,780	
Make Plan Revisions (Assume 2 Addenda)		14		2		4	8			1,720				1,720	
Review Shop Drawings (Assume 12)		42		6	12	24				6,240				6,240	
Prepare Record Drawings		28		4	8	16				4,160			516	4,676	
Totals		754	20	100	130	200	280	24	590	104,500	6,078	792	1,030	112,400	



2021

HOURLY CHARGE RATE AND EXPENSE REIMBURSEMENT SCHEDULE

Project Management

Project Manager 1	\$220.00
Project Manager 2	\$260.00
Sr Project Manager	\$305.00
Program Manager	\$330.00
Principal in Charge	\$330.00

Engineers

Engineering Technician	\$37.00
Engineer 1	\$100.00
Engineer 2	\$120.00
Engineer 3	\$130.00
Project Engineer 1	\$150.00
Project Engineer 2	\$165.00
Sr Engineer 1	\$170.00
Sr Engineer 2	\$175.00
Sr Engineer 3	\$210.00
Principal Engineer	\$300.00

Planners

Planner 1	\$104.00
Planner 2	\$115.00
Sr Planner 1	\$125.00
Sr Planner 2	\$151.00
Sr Planner 3	\$175.00

Designers & Technicians

CAD Technician 1	\$65.00
CAD Technician 2	\$75.00
CAD Technician 3	\$90.00
CAD Designer	\$100.00
Sr CAD Designer 1	\$125.00
Sr CAD Designer 2	\$145.00
CAD Director	\$150.00
Survey Tech 1	\$50.00

Health & Safety

H&S Administrator	\$95.00
Sr H&S Administrator	\$115.00
H&S Manager	\$145.00

Construction

Construction Project Rep 1	\$78.00
Construction Project Rep 2	\$85.00
Sr Constr Project Rep 1	\$100.00
Sr Constr Project Rep 2	\$115.00
Construction Manager 1	\$165.00
Construction Manager 2	\$185.00
Construction Director	\$233.00

General & Administrative

Project Assistant 1	\$67.00
Project Assistant 2	\$75.00
Project Administrator	\$95.00
Sr Project Administrator	\$110.00
Sr Graphic Artist	\$150.00
Technical Writer 1	\$97.00
Technical Writer 2	\$124.00
Sr Technical Writer	\$155.00

Information Technology

Systems Analyst / Programmer 1	\$77.00
Systems Analyst / Programmer 2	\$115.00
Sr Sys Analyst / Programmer 1	\$130.00
Sr Systems Analyst / Programmer 2	\$196.00

Project Accounting

Project Analyst 1	\$90.00
Project Analyst 2	\$114.00
Sr Project Analyst	\$155.00

Reimbursable In-House Costs:

Photo Copies (B&W 8.5"x11")	\$ 0.15/Each
Photo Copies (B&W 11"x17")	\$ 0.40/Each
Color Copies (up to 8.5"x11")	\$ 2.00/Each
Color Copies (to 11"x17")	\$ 3.00/Each
Compact Discs	\$10/each
Large format copies	\$0.40 S.F.

Mileage-Company Vehicle	\$0.80/mile
Mileage-POV	\$0.55/mile*

*current GSA POV mileage rate subject to change

All other direct costs, such as production, special photography, postage, delivery services, overnight mail, printing and any other services performed by subconsultant will be billed at cost plus 15%.

NOTE: Rates subject to change annually.



Resumes



Tom Epperson, PE

Project Director / QA/QC

Mr. Epperson has more than 40 years of professional experience in water, wastewater, and reclaimed water engineering. He has been responsible for the preparation of water, wastewater, and reclaimed water master plans; project design reports for various water, wastewater, and reclaimed water facilities; and the planning and design of water, wastewater, and reclaimed water pipelines, along with pump stations and reservoirs. Mr. Epperson's experience includes completing the design, bidding, and construction management of over 200 miles of water/reclaimed water/sewer mains, 36 water/reclaimed water pump stations, 18 wellhead facilities, 12 sewer lift stations, and 25 water and reclaimed water storage reservoirs throughout Southern California.

EXPERIENCE

Diemer Pipeline Emergency Repair, Moulton Niguel Water District, Laguna Niguel, CA. Project Manager. Provided plans and construction phase services for approximately 200 feet of existing 36-inch CML&C steel pipe. The relocated pipe was relocated above ground and spans an existing drainage channel with about six to several feet of clearance (from the bottom of the channel). Concrete thrust blocks, encasements were required on the vertical riser at both ends of the relocation to handle the corresponding thrust. The above ground pipe was incased within a steel casing for added security.

Water Line Replacement Projects, City of Lakewood, CA. Project Manager. Preparation of plans and specifications of multiple water line replacement projects for the City of Lakewood. Projects included preparation of plans, specifications, and cost estimates for over 50,000 linear feet of 6- to 12-inch pipeline.

Katella Avenue Water Main Replacement, City of Anaheim, CA. Project Manager. Design of 3,000 feet of 16-inch water main on Katella Avenue from Disneyland Drive/West Street to Harbor Boulevard and 4,000 feet of 12-inch water main on Katella Avenue from Harbor Boulevard to Haster Street.

Peters Canyon Channel Water Capture and Reuse Pipeline, Irvine Ranch Water District, Irvine, CA. Project Manager. Oversaw over 17,000 linear feet of 10-inch to 16-inch steel and PVC pipeline. This was a joint project with the City of Irvine, City of Tustin, County of Orange, and Caltrans. Project included three storm drain diversion structures and intake design, hanging the pipeline from two bridges, bore and jack under the railroad and backpressure vault.

Carlsbad Seawater Desalination Conveyance Pipeline, KSD Joint Venture, Carlsbad, CA. QA/QC. Provided for 52,000 linear feet of pipeline that serves the product water from the planned 50 mgd desalination plant in the City of Carlsbad. Pipeline diameter is 54-inch welded steel pipeline operating at a maximum pressure of 500 psi. One flow control facility was completed. The pipeline is routed through the cities of Carlsbad, San Marcos, and Vista. In addition, there are seven tunnels located throughout the project.

Waterline Replacement Projects, Golden State Water Company, CA. Project Manager. Oversaw the design plans for several water main replacement projects throughout the GSWC service areas primarily the Southwest District. Work included existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager with plan check comments, and obtaining permit conditions for construction for various affected cities. Project locations included Hawthorne and County of Los Angeles. Streets included: Budlong Avenue, Kornblum Avenue, 132nd Street, and Doty Avenue. Total water main footage was approximately 6,000 feet of 12 through 16-inch pipe.

Education:

BS, Environmental Engineering, University of California, Irvine, 1978

Registrations/Certifications:

Professional Civil Engineer, California, No. 36399, 1983

Professional Affiliations:

- ✓ American Society of Civil Engineers
- ✓ American Water Works Association
- ✓ Orange County Water Association
- ✓ Water Environment Federation
- ✓ WaterReuse Association

Office Location:

Irvine, CA

Total Years of Experience:

40

Years with Tetra Tech:

28

Chris Bartleman, PE

Project Manager

Chris Bartleman, a Project Manager in the Water Infrastructure Department at Tetra Tech, has served as the Project Engineer and Project Manager for complex, high profile projects benefiting several major public works clients. These include the cities of Beaumont, Imperial and Riverside, Western Municipal Water District, Eastern Municipal Water District, Coachella Valley Water District, Mission Springs Water District, Lake Arrowhead Community Service District, Jurupa Community Services District, Golden State Water Company, and the Chino Desalter Authority.

Chris' broad range of design, planning, and construction management experience includes wastewater treatment and water treatment plants, adsorption treatment facilities for wellheads, water reservoirs, pumping plants, deep gravity sewer, trenchless installations, high pressure transmission pipelines, sewer lift stations, chemical feed and injection, and metered pressure reducing facilities. Rounding out Mr. Bartleman's experience is work he has done in inspection, construction administration, shop drawing review, and change order negotiations.

EXPERIENCE

Dusty Trail Pipeline Replacement, Olivenhain Municipal Water District, Encinitas, CA. Project Manager for the pipeline replacement project which proposed to replace approximately 1,000 LF of 10"/12" diameter ACP with PVC and a pressure reducing facility. As an alternate bid schedule the existing pipeline located within a narrow easement/private roadway was to be repaired using a cured in place liner system capable of operating pressures to 150 PSI. A conceptual bypass plan and a proposed phasing/implementation plan prepared for the Contractors use in making connections and shutdowns for either construction method.

Brine Disposal Pipeline, City of Beaumont, CA. Managed a team of five staff members in the design of an approximately 23-mile-long 12-inch diameter HDPE pipeline from the City of Beaumont WWTP to the discharge into the Inland Empire Brine Line in the City of San Bernardino north of the Santa Ana River. The pressurized gravity flow pipeline crosses multiple jurisdictions with varying requirements for the proposed improvements which were clearly identified in the plans and specifications. Portions of the line are proposed parallel to Union Pacific Railroad Right-of-Way and installed in multiple City owned bridges over Army Corp of Engineers jurisdiction. The schedule for the project completion is March of 2020 as dictated by the State Regional Water Control Board. The plans and specs were completed in less than 1-year period from the planning level completion. The utility research, field verification, potholing, and locating were a critical part of the project to prevent construction change orders. Multiple trenchless installation crossings were proposed at environmentally sensitive areas, rivers, highways, railroads, and high traffic intersections. The Pipeline Project's Cost has been estimated at approximately \$30 million dollars.

Hamner Pipeline, Chino Basin Desalter Authority, Riverside, CA. Project Engineer on the Districts 30" diameter finished water pipeline. The pipeline is approximately 23,000 LF of class 250 welded steel from south of the Santa Ana River to just south of Riverside Drive along Hamner Avenue in the City of Eastvale. Major project components include a 750 LF microtunneling portion under the Santa Anna River, 250 LF jack and bore portion in the intersection of Hamner and Limonite Avenue, and pressure reduction/meter turnout facilities to three agencies. Mr. Bartleman prepared the bid specification and the south portion of the alignment contact drawings. Project construction cost exceeded \$20 million dollars.

Gardner, Gamble, Ranchero and Porter Pipeline Replacements, Western Municipal Water District, Riverside, CA. Project Engineer for the pipeline replacement projects which substituted PVC for various sized steel pipelines failing from corrosion. Separate bid packages were prepared for each pipeline alignment in order to stay within the District's annual capital improvement budget. Various approaches were implemented for the existing service connections based on the existing conditions. Mr. Bartleman reviewed submittals, responded to RFI's, and addressed requested change orders.

Education:

BS, Civil Engineering, State Polytechnic University, Pomona, California, 2004

Registrations/Certifications:

Professional Civil Engineer, California, No. 81075, 2013

Professional Affiliations:

- ✓ American Association for Advancement of Cost Estimating
- ✓ American Society of Civil Engineers

Office Location:

San Dimas, CA

Total Years of Experience:

16

Years with Tetra Tech:

3

Erica Jenkins

Lead Design Engineer

Ms. Jenkins has more than 28 years of experience and has been responsible for the preparation of water, sewer, reclaimed water pipeline projects, and project design reports for various water and sewer facilities. She has been responsible for completing the design, bidding, and construction management of over 150 miles of water/reclaimed water/sewer mains throughout Southern California.

EXPERIENCE

Indian Hill Boulevard Water Main Replacement, JA Salazar, Compton, CA.

As Lead Design Engineer completed the design plans for a water main project in the City of Claremont and Los Angeles County. The work was completed as part of a design-build contract with JA Salazar. Work included: existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager with plan check comments, procurement of permit. Total water main footage was approximately 4,500 feet of 8-inch and 12-inch pipe.

Compton Area Water Main Replacement, Precision Pipeline, Compton, CA. As Lead Design Engineer completed the design plans for a water main project in the City of Compton and Los Angeles County. The work was completed as part of a design-build contract with Precision Pipeline. Work included: existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager with plan check comments, procurement of permit. Total water main footage was approximately 20,000 feet of 8-inch pipe.

Atkinson Area Main Replacement, Precision Pipeline, Hawthorne and Inglewood, CA. As Lead Design Engineer completed the design plans for a water main project in the City of Hawthorne and Inglewood. The work was completed as part of a design-build contract with Precision Pipeline. Work included: existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager with plan check comments, procurement of permit. Total water main footage was approximately 17,000 feet of 8-inch pipe.

Lennox Boulevard Area Water Main Replacement, Golden State Water Company, CA. As Lead Design Engineer completed the design plans for a water main projects in the Southwest District in the City of Lennox. Work included: existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager with plan check comments, obtained approval of fire hydrant locations from Los Angeles County Fire Department, and prepared letter and exhibits for DPH approval. Total water main footage was approximately 13,000 feet of 8-inch pipe.

Fern Avenue Area Water Main Replacement, Golden State Water Company, CA. As Lead Design Engineer completed the design plans for a water main projects in the Orange West System in the City of Stanton and Garden Grove. Work included: existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager with plan check comments, obtained approval of fire hydrant locations from Orange County Fire Department, and prepared letter and exhibits for DPH approval. Total water main footage was approximately 4,100 feet of 8-inch pipe.

Live Oak and Lynrose Water Main Replacement, Golden State Water Company, CA. As Lead Design Engineer completed the design plans for a water main projects in the Southwest District of Arcadia. Work included: existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager.

Education:

BS, Civil Engineering,
California State University,
Fullerton, 1996

Registrations/Certifications:

Engineer-in-Training,
California, No. EX102020

Office Location:

Irvine, CA

Total Years of Experience:

28

Years with Tetra Tech:

28

Jaden Miller, EIT

Design Engineer

Mr. Miller has provided design engineering in various water projects including water main replacements and disinfection system facilities. Responsibilities have been utility research, field checks, preparation of construction plans, and cost estimates.

EXPERIENCE

Indian Hill Boulevard Water Main Replacement, JA Salazar, Compton, CA.

As Design Engineer completed the design plans for a water main project in the City of Claremont and Los Angeles County. The work was completed as part of a design-build contract with JA Salazar. Work included: existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager with plan check comments, procurement of permit. Total water main footage was approximately 4,500 feet of 8-inch and 12-inch pipe.

Compton Area Water Main Replacement, Precision Pipeline, Compton, CA. As Design Engineer completed the design plans for a water main project in the City of Compton and Los Angeles County. The work was completed as part of a design-build contract with Precision Pipeline. Work included: existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager with plan check comments, procurement of permit. Total water main footage was approximately 20,000 feet of 8-inch pipe.

Atkinson Area Main Replacement, Precision Pipeline, Hawthorne and Inglewood, CA. As Design Engineer completed the design plans for a water main project in the City of Hawthorne and Inglewood. The work was completed as part of a design-build contract with Precision Pipeline. Work included: existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager with plan check comments, procurement of permit. Total water main footage was approximately 17,000 feet of 8-inch pipe.

Lennox Boulevard Area Water Main Replacement, Golden State Water Company, CA. As Design Engineer completed the design plans for water main projects in the Southwest District in the City of Lennox. Work included: existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager with plan check comments, obtained approval of fire hydrant locations from Los Angeles County Fire Department, and prepared letter and exhibits for Department of Public Health approval. Total water main footage was approximately 13,000 feet of 8-inch pipe.

Fern Avenue Area Water Main Replacement, Golden State Water Company, CA. As Design Engineer completed the design plans for water main projects in the Orange West System in the City of Stanton and Garden Grove. Work included: existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager with plan check comments, obtained approval of fire hydrant locations from Orange County Fire Department, and prepared letter and exhibits for Department of Public Health approval. Total water main footage was approximately 4,100 feet of 8-inch pipe.

Live Oak and Lynrose Water Main Replacement, Golden State Water Company, CA. As Design Engineer completed the design plans for water main projects in the Southwest District of Arcadia. Work included: existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager with plan check. Total water main footage was approximately 7,500 feet of 8-inch pipe and 12-inch pipe.

Education:

BS, Civil Engineering,
California State University,
Fullerton, 2018

Registrations/Certifications:

Engineer-in-Training,
California, No. 170827, 2020

Office Location:

Irvine, CA

Total Years of Experience:

4

Years with Tetra Tech:

4



FY 21/22

Pipeline Replacement Projects

PROJECT E-1033 & E-1034



Crescenta Valley Water District
Professional Engineering Services for Design of FY 21/22 Pipeline Replacement Projects, Project E-1033 & E-1034
Consultant Ranking

Project Concept & Scope of Work - How well the consultant's proposal addressed the needs of the District as outlined in the request for proposal & how well the consultant showed how its firm would

Project Experience - How much previous experience has the consultant on projects similar to this project

Project Team Qualifications - How did the consultant's proposal use its staff and the experience of the individual people involved

Consultants Fee - How well the consultant's proposal utilized their staff and the costs associated with the proposal

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 3

July 13, 2021

To: Honorable President and Members of the Board of Directors
From: David S. Gould, P.E. – Director of Engineering
Subject: Local Hazard Mitigation Plan – Public Comment Period, Project M-1004

ACTION ITEM:

Local Hazard Mitigation Plan, Project M-1004 – Presentation of CVWD’s Local Hazard Mitigation Plan and commencement of the two-week public comment period.

BACKGROUND:

The California Governor’s Office of Emergency Services (Cal OES), in conjunction with the Federal Emergency Management Agency (FEMA), made funds available for public agencies to prepare a local hazard mitigation plan (LHMP). The LHMP outlines potential high priority hazard areas within CVWD’s service area and designates possible projects that could be implemented to reduce CVWD’s risk during a natural or man-made event.

In April 2020, the District received notification from Cal OES and FEMA that CVWD’s application to prepare a LHMP was approved. The total eligible cost was \$166,653, with FEMA responsible for 75% of the grant (\$124,990), CVWD is responsible for 25% of the grant (\$41,664). In August 2020, CVWD awarded a contract to Tetra Tech, Inc for \$122,709 to prepare the LHMP. Tetra Tech team members have extensive experience preparing LHMP throughout the country.

DISCUSSION:

Tetra Tech and staff have been meeting since September 2020 as the Core Planning Team (CPT). The focus of the CPT was to create goals, objectives, and a mission statement for the Steering Committee (AC), identify the hazards to be included in the LHMP and created ground rules.

Steering Committee:

The Steering Committee was established in October 2020 with the goals to support and advise the CPT through the LHMP process, which focuses on the resiliency of the Crescenta Valley community during a hazard event. The SC includes members of CVWD Board of Directors, Los Angeles County, City of Glendale, City of La Canada Flintridge, La Canada Irrigation District, FMWD, Crescenta Valley Town Council, Crescenta Valley Fire Safety, Community Emergency Response Team, and the Community at large. The Steering Committee elected Director Sharon Raghavachary as Committee Chairperson and Harry Leon, President, CV Town Council as Vice-Chairperson. The SC formed the following goals and objectives:

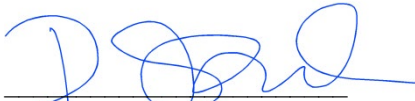
- **Goals:**
 1. Protect life and property.
 2. Maintain continuity of essential water and sewer services.
 3. Increase public awareness of the risk of loss of water/sewer service.
 4. Facilitate partnerships with recognized stakeholders within the Crescenta Valley and implement a coordination plan between the stakeholders.
 5. Protect local water supply sources.
 6. Protect against environmental consequences caused by water and sewer system failure initiated by natural hazards.
- **Plan Objectives:**
 1. Implement activities that assist in protecting lives by making CVWD’s infrastructure, critical facilities, and other properties more resistant to natural hazards.
 2. Protect water quality and supply.
 3. Properly address aging infrastructure issues to reduce/minimize future hazards and disasters.
 4. Raise awareness and communicate to the Crescenta Valley Community about the risks to District assets.
 5. Leverage grant funding and low interest loan programs to implement hazard mitigation capital projects.
 6. Establish policies to ensure mitigation projects are prioritized for critical facilities, services, and infrastructure.
 7. Create, rehabilitate, enhance, and preserve local ecosystems to serve as natural hazard mitigation functions.

- The work plan identified local natural and man-made hazards, including:
 - ☒ Earthquakes
 - ☒ Landslides and Debris Flows
 - ☒ Floods
 - ☒ Drought
 - ☒ Severe Weather (Rain, Wind, Hail)
 - ☒ Wildfires
 - ☒ Dam Failure
- Public involvement included preparing and emailing a LHMP survey to CVWD customers and advertisement in CV Weekly.
- A web page (<https://www.cvwd.com/local-hazard-mitigation-plan>) was added to CVWD's website that explains the LHMP, the goals & objectives, the mission statement & vision, list of the Steering Committee & Core Planning Team members, Steering Committee Ground Rules, Frequently Asked Questions, Steering Committee meeting notes, and a form for the community to ask questions or provide comments.
- Tetra Tech prepared hazard profiles relative to natural hazards such as an earthquake event (similar to the 1994 Northridge Quake) and the District's exposure to potential damage and/or loss in terms of probability and replacement costs. Tetra Tech also conducted hazard analysis for the identified hazards using FEMA's HAZUS program, including earthquake and flood modeling. Tetra Tech also utilized the best available data to address wildfire events.
- A Public Meeting was held on April 21, 2021, that presented the findings of the hazard profiles and the District's exposure for public comments. Also, a presentation was made to the CV Town Council on April 17, 2021.
- Tetra Tech has completed the draft Hazard Mitigation Report for review by the SC and staff, which identified 23 action items in the report that CVWD can utilize to improve its resiliency during a disaster event.

Next Steps:

- Presentation to the Board of Directors to start the Two-Week Public Comment Period – July 13 to July 27. The public can make comments through the website or contact staff directly.
 - Advertisement in Crescenta Valley Weekly on July 15 and July 22, 2021, to encourage comments from the public.
 - Links to CVWD website to be included on CV Town Council and CV Fire Safety websites.
 - Posting on CVWD's Facebook page.
- Send Final LHMP with comments from Community to Cal OES for approval.
- Adoption of LHMP by Board of Directors.
- Send adoption resolution to Cal OES.
- Apply for FEMA/Cal OES grants for implementation of Action Items in October 2021.

Prepared by:



David S. Gould, P.E.
Director of Engineering

Attachments:

1. LHMP Presentation

Submitted by:



Nem Ochoa
General Manager

Crescenta Valley Water District Local Hazard Mitigation Plan

Board of Directors Meeting
July 13, 2021



Local Mitigation Planning Handbook

March 2013





Local Hazard Mitigation Plan

Background

- **Local Hazard Mitigation Plan** - Outlines high priority hazards and designates possible projects that could be implemented to reduce CVWD's risk during a natural event.
- **Awarded FEMA/Cal OES grant to prepare a Hazard Mitigation Plan**
- **Award contract to Tetra Tech, Inc.**
- **Collaborated in plan development, public outreach, and mitigation strategies**
- **Plan timeline August 2020 – July 2021**



Local Hazard Mitigation Plan

HMP Benefits

- **Identifies hazards for CVWD**
- **Analyzes risks and vulnerabilities**
- **Solicits input from residents and stakeholders**
- **Develops strategies and action items to minimize or mitigate risk from hazards**
- **Positions action items to potentially be Grant eligible from FEMA/Cal OES**
- **Interface with other emergency related and support plans**



Local Hazard Mitigation Plan

Hazard Mitigation Plan

Part 1 – Background & Methods

- Planning process
- Planning team
- District profile
- Laws, ordinances, programs, capabilities

Part 2 – Risk Assessment

- Hazards identified, assessed, and profiled

Part 3 – Mitigation Plan

- Goals & objectives
- Mitigation actions
- Plan adoption and maintenance



Local Hazard Mitigation Plan

Plan Oversight

- **Core Planning Team**
 - Selected CVWD staff & Tetra Tech project team
 - Met bi-weekly during development of LHMP
- **Steering Committee**
 - Selected CWVD staff & Community stakeholders
 - Met monthly (public meetings)



Local Hazard Mitigation Plan

Plan Project Goals

1. **Protect life and property.**
2. **Maintain continuity of essential water and sewer services.**
3. **Increase public awareness of the risk of loss of water/sewer service.**
4. **Facilitate partnerships with stakeholders within the Crescenta Valley and implement a coordination plan.**
5. **Protect local water supply sources.**
6. **Protect against environmental consequences caused by water and sewer system failure initiated by natural hazards.**



Local Hazard Mitigation Plan

Plan Project Objectives

1. Implement activities that assist in protecting lives by making CVWD's infrastructure, critical facilities, & other properties more resistant to natural hazards.
2. Protect water quality and supply.
3. Properly address aging infrastructure issues to reduce/minimize future hazards and disasters.
4. Raise awareness and communicate to the Crescenta Valley Community about the risks to District assets.
5. Leverage grant funding and low interest loan programs to implement hazard mitigation capital projects.
6. Establish policies to ensure mitigation projects are prioritized of critical facilities and infrastructure.
7. Create, rehabilitate, enhance, and preserve local ecosystems to serve as natural hazard mitigation functions.



Local Hazard Mitigation Plan

Hazard Identified

Natural Hazards

- Earthquake
- Wildfire
- Flood
- Landslide & Debris Flow
- Severe Weather
- Drought
- Climate Change





Local Hazard Mitigation Plan

Public Outreach – Survey

- 7,000+ emails sent asking customers to participate in a brief survey.

Sample Survey Questions:

- What issues are most important with regards to the District's ability to react to a natural or man-made disaster.
- Where customers get their information about emergencies?
- How informed customers are on CVWD's mitigation and preparedness efforts?



Local Hazard Mitigation Plan

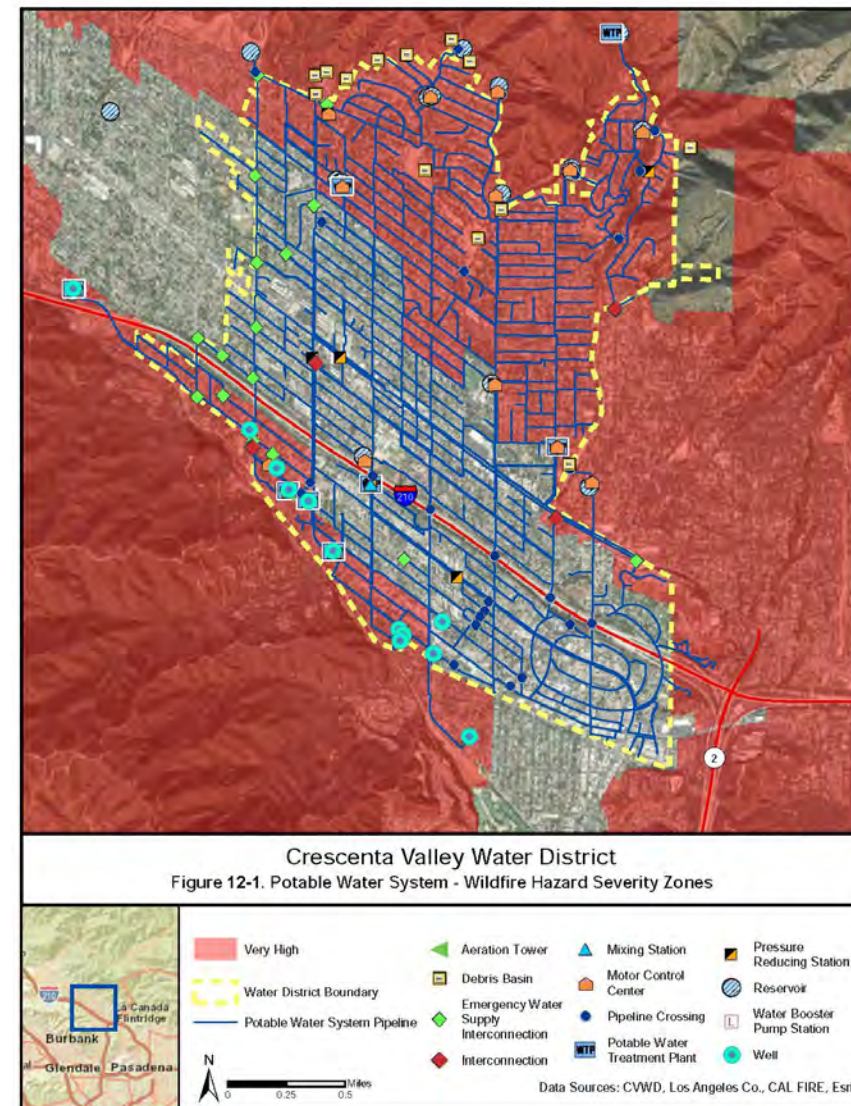
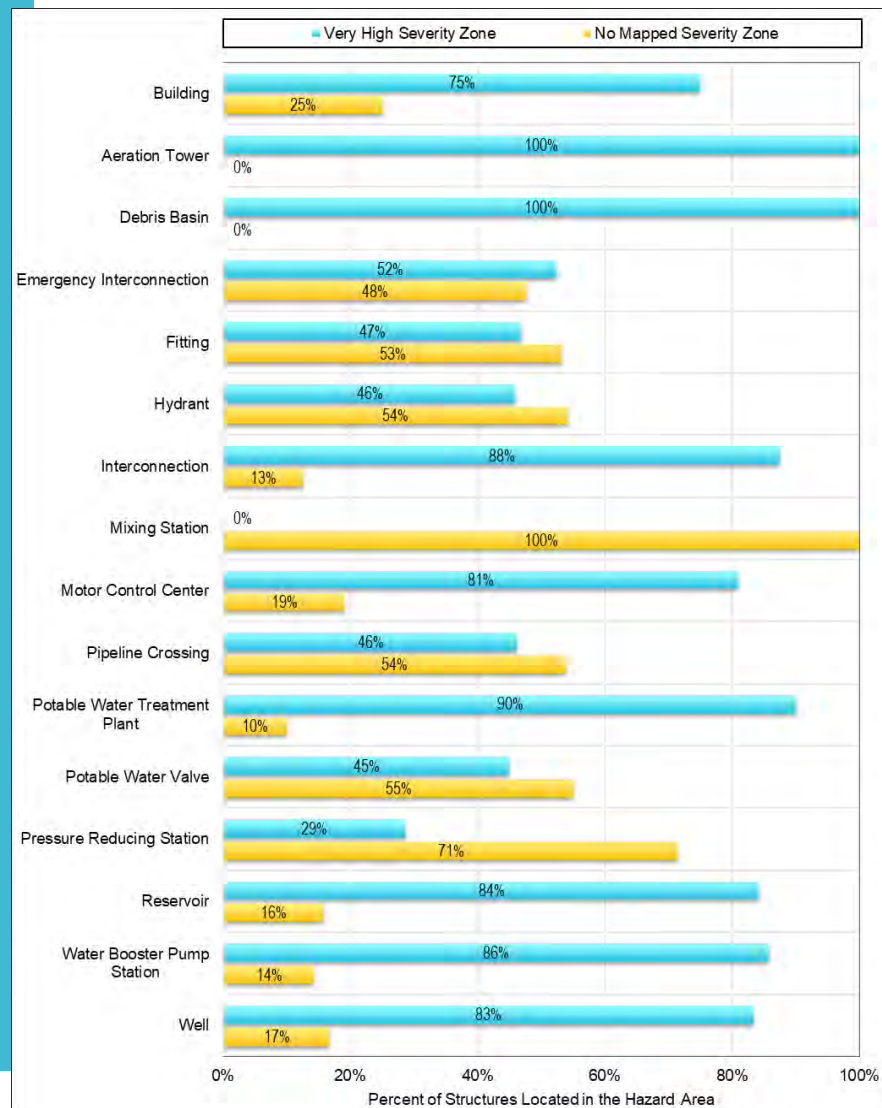
Local Hazard Mitigation Plan

- **Risk Assessment**
 - Identify and profile each hazard as identify previously
 - Past events and frequency
 - CV Service area most affected by hazard
 - Severity estimate or damage to CVWD
 - Determine exposure to each hazard
 - Overlaying hazard maps with CVWD's structures, facilities, and systems to determine which of them would be exposed to each hazard.
 - Assess the vulnerability of exposed facilities
 - Determined by interpreting the probability of occurrence of each event and assessing structures, facilities, and systems that are exposed to each hazard.
 - Tools such as GIS and FEMA's hazard-modeling program called Hazus were used to perform this assessment of hazards.

Sample – Wildfire Hazard Risk



Local Hazard Mitigation Plan





Local Hazard Mitigation Plan

Recommendation - Action Items

Applies to New or Existing Assets	Objectives Met	Lead Agency	Support Agency	Estimated Cost	Sources of Funding	Timeline
Action #1 - Acquire stationary emergency electric generators for Main Booster Stations (2 total)						
<u>Hazards Mitigated:</u> Earthquake, Flood, Wildfire, Severe Weather, Landslide						
New	1,2,5	CVWD	N/A	High (\$1.1 Million)	FEMA HMA Grant funding, District- Local Match	Short term
Action #2 – Acquire stationary emergency electric generators for well sites (5 total sites)						
<u>Hazards Mitigated:</u> Earthquake, Flood, Wildfire, Sever Weather, Landslide						
New	1,2,5	CVWD	N/A	Med (\$885,000)	FEMA HMA Grant funding, District - Local Match	Short term
Action #3 – Acquire portable emergency electric generators for booster stations (4 total)						
<u>Hazards Mitigated:</u> Earthquake, Flood, Wildfire, Severe Weather, Landslide						
New	1,2,5	CVWD		Low (\$475,000)	FEMA HMA Grant funding, District- Local Match	Short term
Action #4 – Acquire portable emergency electric generators for well sites (4 total)						
<u>Hazards Mitigated:</u> Earthquake, Flood, Wildfire, Severe Weather, Landslide						
New	1,2,5	CVWD		Low (\$140,000)	FEMA HMA Grant funding, District - Local Match	Short term
Action #5 – Install seismic sensors and value actuators on reservoir inlet/outlet valves (4 sites)						
<u>Hazards Mitigated:</u> Earthquake						
New	1,2,3,4,5	CVWD	N/A	Med (\$320,000)	FEMA HMA Grant funding, District- Local Match	Short term
Action #6 – Installation of security cameras at reservoir and well sites (88 cameras total)						
<u>Hazards Mitigated:</u> Earthquake, wildfire, severe weather, landslide, flood						
New	1,2,4,5	CVWD	N/A	Low (\$175,000)	FEMA HMA Grant funding, District - Local Match	Long Term
Action #7 – Installation of an emergency chlorine / ammonia portable station						
<u>Hazards Mitigated</u> Earthquake, wildfire, severe weather, landslide						
New	1,2	CVWD	N/A	Low (\$125,000)	District funds, EPA grant funding	Long term



Local Hazard Mitigation Plan

Action Items

Applies to New or Existing Assets	Objectives Met	Lead Agency	Support Agency	Estimated Cost	Sources of Funding	Timeline
Action #8 – Conduct seismic evaluation study of existing CVWD building (4 buildings)						
<u>Hazards Mitigated:</u>	Earthquake					
New	1,3,4,6	CVWD	N/A	Low (\$110,000)	FEMA HMA Grant funding, District - Local Match	Short term
Action #9 – Seismically upgrade CVWD buildings						
<u>Hazards Mitigated:</u>	Earthquake					
New	1,3,4,7	CVWD	N/A	High (\$2.1 Million)	FEMA HMA Grant funding, District - Local Match	Long term
Action #10 – Repair slope and inlet/outlet pipeline at Edmund #2 Reservoir						
<u>Hazards Mitigated:</u>	Earthquake, wildfire, landslide					
New	1,2,3,4	CVWD	N/A	High (\$170,000)	FEMA HMA Grant funding, District - Local Match	Short term
Action #11 – Replace above ground outlet pipe at Gross Canyon Reservoir - Mitigate the future impacts						
<u>Hazards Mitigated:</u>	Earthquake, wildfire, landslide					
New	1,2,3,4	CVWD		High (\$225,000)	FEMA HMA Grant funding, District - Local Match	Short term
Action #12 – Conduct feasibility study for relocation / upgrades to access roads at reservoirs						
<u>Hazards Mitigated:</u>	Earthquake, wildfire, sever weather, landslide, flood					
Existing	1,3,4,5,6	CVWD		Low (\$95,000)	FEMA HMA Grant funding, District - Local Match	Short term
Action #13 – Relocate access roadway at Pickens Canyon Reservoir						
<u>Hazards Mitigated:</u>	Earthquake, wildfire, landslide, flood					
Existing	1,3,4	CVWD		High (\$2.1 Million)	FEMA HMA Grant funding, District - Local Match	Long Term
Action #14 – Retrofit access road to Edmund #2 Reservoir						
<u>Hazards Mitigated:</u>	Earthquake, wildfire, landslide, flood					
Existing	1,3,4	CVWD		High (\$1.15 million)	FEMA HMA Grant funding, District - Local Match	Long Term
Action #15 – Retrofit access roadway at Shields Reservoir						
<u>Hazards Mitigated:</u>	Earthquake, wildfire, landslide, flood					
New and Existing	1,3,4	CVWD		High (\$850,000)	FEMA HMA Grant funding, District - Local Match	Long term



Local Hazard Mitigation Plan

Action Items

Applies to New or Existing Assets	Objectives Met	Lead Agency	Support Agency	Estimated Cost	Sources of Funding	Timeline
Action #16 – Retrofit CVWD / LCID interconnection at Canalda Dr.						
<u>Hazards Mitigated:</u>	Drought, Earthquake, wildfire, severe weather, landslide					
New	1,2,3,4	CVWD	N/A	Med (\$75,000)	FEMA HMA Grant funding, District - Local Match	Long term
Action #17 – Install emergency interconnection pipeline among Glendale/FMWD/CVWD						
<u>Hazards Mitigated:</u>	Drought, Earthquake, wildfire, Flood					
New and Existing	1,2,3,4,5	CVWD	FMWD, Glendale	High (\$1.35 Million)	District funds, grant funding	Long term
Action #18 – Conduct feasibility study for sewer bypass system for large diameter pipeline with Glendale						
<u>Hazards Mitigated:</u>	Earthquake, wildfire, landslide, flood					
New	1,3,4,6	CVWD	Glendale	Low (\$55,000)	FEMA HMA Grant funding, District - Local Match	Short term
Action #19 – Install sewer bypass system for large diameter pipeline with Glendale						
<u>Hazards Mitigated:</u>	Earthquake, wildfire, landslide, flood					
New	1,2,3,4,	CVWD	Glendale	High (\$2.25 million)	FEMA HMA Grant funding, District- Local Match	Long term
Action #20 – Conduct feasibility study of protection of water & sewer pipeline within Caltrans Bridge Freeway crossing						
<u>Hazards Mitigated:</u>	Earthquake					
New	1,3,4,6	CVWD	N/A	Low (\$75,000)	FEMA HMA Grant funding, District - Local Match	Short term
Action #21 – Conduct feasibility study for new water storage facility and pipeline crossings of Pickens Canyon						
<u>Hazards Mitigated:</u>	Drought, Earthquake, wildfire, landslide, flood					
New and Existing	1,3,4,6	CVWD		Low (\$95,000)	FEMA HMA Grant funding, District- Local Match	Short term
Action #22 – Conduct feasibility study for pipeline crossing of LA County Flood Control Channels						
<u>Hazards Mitigated:</u>	Earthquake, wildfire, landslide, flood					
New	1,3,4,6	CVWD	N/A	Low (\$75,000)	FEMA HMA Grant funding, District - Local Match	Short term
Action #23 – Develop Emergency Community Water Fulfillment Center						
<u>Hazards Mitigated:</u>	Drought, Earthquake, wildfire, landslide, flood					
New	1,3,4	CVWD		Low (\$50,000)	FEMA HMA Grant funding, District- Local Match	Short term



Local Hazard Mitigation Plan

Next Steps

- Circulating plan to Steer Committee for review.
- Post Draft LHMP for a 2-week public comment period (July 13 – July 27) on website.
- Notice in CV Weekly – 7/15/21 & 7/21/21.
- Final Plan to be submitted to Cal OES and FEMA for approval by 7/30/21.
- Following approval – Adoption by Board.
- Send adoption resolution to Cal OES.
- Prepare and apply for FEMA/Cal OES grants for implementation of Action Items.



Local Hazard Mitigation Plan

Questions

Acknowledgments

Crescenta Valley Water District

Nem Ochoa – General Manager

David Gould – Director of Engineering

Christy Colby – Regulatory and Public Affairs Manager

Jennifer Bautista – Project Coordinator

Tetra Tech, Inc.

Rob Flaner – Project Manager

Bart Spencer – Project Lead

Des Alexander – Profiling Lead

Carol Baumann – Risk Analyst/Assessment Lead

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 4
July 13, 2021

To: Honorable President and Members of the Board of Directors
From: James Lee – Director of Finance and Administration
Subject: **Budget & Proposition 218 Process**

ACTION ITEM:

Placeholder for discussion and possible action for schedule, timing, and other considerations related to completing the budget and Proposition 218 process, including the Water and Wastewater Rate Study.

DISCUSSION:

This action item serves as a placeholder for any discussion related to the schedule and timing for completing the budget, Prop 218 process, and related considerations. A schedule of meetings and tasks is updated on an ongoing basis and included with each placeholder.

RECOMMENDATION

NA.

Submitted by:



James Lee
Director of Finance & Administration

Attachment(s): 1) CVWD Meeting Schedule (ongoing updates)

g:\management\board meeting staff reports\2021\07-13-21 Board Memo - Budget & Prop 218 Placeholder.docx

Attachment

FY 2021/22 - CVWD Meeting Schedule <i>(ongoing updates)</i>		
Date	Agenda	Status
Week of 3/15	Finance Committee Meeting (CIP & Budget Discussion) * Engineering Committee Meeting *	✓
Week of 3/15	Community Advisory Committee Meeting *	✓
3/23	Board Meeting - Budget Discussion	✓
Week of 3/29	Finance Committee Meeting (Cost of Service & Rate Design / Budget) * Engineering Committee Meeting *	✓
Week of 3/29	Community Advisory Committee Meeting *	✓
4/13	Board Meeting - Budget Discussion	✓
Week of 4/19	Finance Committee Meeting * Engineering Committee Meeting *	✓
Week of 4/19	Community Advisory Committee Meeting *	✓
4/27	Board Meeting - Budget Discussion	✓
5/11	Board Meeting	✓
Week of 5/10	Finance Committee Meeting (Sewer Pass through / Budget) * Engineering Committee Meeting *	✓
5/25	Board Meeting - (FY 2022 Budget Approved)	✓
6/8	Board Meeting	✓
Week of 6/14	Community Relations Committee (Prop 218 Notice) * Finance Committee Meeting *	✓
6/22	Board Meeting - Review Prop 218 Notice	✓
7/13	Board Meeting	
Week of 7/12	Finance Committee Meeting (Draft Cost-of-Service Report/218 Notice) *	
Week of 7/19	Post Draft Cost-of-Service Report	
7/27	Board Meeting - Review/Approve 218 Notice	
Week of 8/2	Mail 218 Notice	
8/10	Board Meeting	
8/24	Board Meeting	
9/14	Board Meeting	
Week of 9/20	Prop 218 Letters - 45 days	
9/21	Public Hearing - Last Day for 218 protest letters - Water/Wastewater Rates	
9/28	Board Meeting - Adopt Rates & Budget	
10/1	Implement Adopted Rates	

* Subsequent meetings will be scheduled as needed.

CRESCENTA VALLEY WATER DISTRICT

General Manager Report

To: Honorable President and Members of the Board of Directors
From: Nem Ochoa, General Manager
Subject: General Manager Report

GM Report
July 13, 2021

General Managers Report Topics:

- GM Activities

The following are some highlights in this month's report:

- Executive Order N-10-21
- MWD Water Supply Conditions
- Operational Activities
- Water Production, Hydrology, Engineering Projects

STAFFING

Three (3) employees have a work anniversary in July. Morgen DuRose – 20 years, Christina Olmedo – 15 years, Wayne Boyce – 4 years.

As of July 8th, the District has gone 597 days without a lost time accident.

GENERAL MANAGER ACTIVITIES

Meetings:

Weekly Managers Meeting	- June 28 th , July 12 th
LAFCO Meeting	- June 30 th
LHMP Steering Committee Meeting	- June 30 th
Employee Interviews	- July 1 st

Submitted by:



Nem Ochoa
General Manager

Field Maintenance and Operations Report

June 2021

0

Water Main Repairs

14

Water Service
Repairs/Replacements

42

$\frac{3}{4}$ " & 1" Meters Replaced

42

Meter Boxes Cleaned

12,095

Sewer Pipe Cleaned (ft)

- **Field Maintenance Projects**

- * Developer Jobs:

- D-21-01 - Upgrade
- D-21-38 - 1" service

- **Operations Report**

- * Disinfection/Treatment Maintenance:

- Oak Creek – Remove & replace chlorine injector
- Well #2 – Quarterly shutdown (clean module basin)
- Well #5 – Diverter valve repair
- Well #12 – Rehab completed & returned to service

- **Electrical/Telemetry**

- * Rosemont – Installed CL2 analyzer, conduit & power for SCADA
- * Well 12 – Wired & calibrated pressure transducer
- * Portable Generators – Bi-yearly service

- **Wastewater Lift Station**

- * De-ragged pumps, check valves & added degreaser as needed

Field Maintenance and Operations Report

June 2021

Days without a lost-time incident: **597**

6

After Hours Leaks/Repairs

6

Fire Hydrant Maintenance
Program: 0 Rebuild, 1 Replaced, 7 painted

179

Water Quality Samples

101

Valves Exercised

0

Valve Replacements

- **Training/Cross Training**

- * Camera/TV Van:

- Jake W. & Jaysen O.

- * Glenwood Plant (In person):

- Trench & Shoring

- Sewer Overflow

- Heat & Illness Prevention

- Rigging Safety

- * Webinar

- Chlorine Chemistry – Morgen D & Kellen B

- Water Well Operations & Maintenance – Jake W.

- * Wellness Tailgate – Brainology

- **New Certification**

- * None to report

- **Safety**

- * COVID protocols: Continued cleaning

- * Monthly Safety Meeting: Proper PPE

Engineering Report

July 13, 2021
Staff Report

To: Honorable President and Members of the Board of Directors
From: David S. Gould, P.E. – Director of Engineering
Subject: **Engineering Report – June 2021**

1. Water Production Report

- June 1 – 30 – Water production – 46%/54% split – 124.7 MG for the month
- Average use – 0.2% less than 2020 and 8.5% greater than 5-yr average

2. Rainfall Update

- 0.09” for June 2021
- Rainfall Total for Rainfall Year 2020/21 – 7.54”

3. Report on Engineering

• **FY 20/21 Capital Improvement Projects**

- Rosemont Reservoir Rehabilitation - Complete
- FY 20/21 - Pipeline Replacement Program
 - Project 1 – 2400 & 2500 Blocks of Janet Lee - Complete
 - Project 2 - 4300 Block of Rosemont – Complete
 - Project 3 – 3300 & 3400 Blocks of Encinal – Complete
 - Project 4 – El Caminito, Dryer, etc. – Under Construction. Complete by Aug 2021.
- Emergency Generator at Sewer Lift Station
 - License Agreement with LA County Parks & Recreation – Review by LA County
 - Delivery of Emergency Generator – Aug 2021
 - Estimated completion date – Oct 2021
- Rehabilitation of Well 12 – Complete
- SCADA Radio Communications Network
 - Staff working on Request for Quote
- SCADA System Upgrades
 - Working on draft Scope of Work
 - Review at next Engineering Committee
- Ramsdell Mixing Station/Pressure Reducing Station
 - Under Design

• **FY 21/22 Capital Improvement Projects**

- FY 21/20 – Pipeline Replacement Program – See staff report.
- Edmund #2 Reservoir Rehabilitation – See staff report.

• **Grant Program**

- USBR WaterSmart Grant – Waiting until Oct. 2021.
- Stormwater Capture Project at Crescenta Valley County Park
 - Staff working on response to LADWP.

• **AMI Communication Network**

- Installation of Base Stations – Complete
- Installation of 100 water meter lids & SmartPoints – Complete
- Verifying data - Complete.
- Request for Proposal sent out for Customer Engagement Portal platform

4. **Developer Projects**

- 2314 Montrose – New 5 Units – Construction of water service – Complete
- 4360 Ocean View – New Fire Hydrant construction – Complete
- 2341 Mira Vista – New 4 Units – Plan check
- 3037/3043 Foothill – New 38 Units and mixed commercial – Plan Check
- Waiting on Developer
 - 4521 Briggs/2413 Foothill – New 70 Units
 - 3900 Park Place – New 28 Units
 - 2345 Mira Vista – New 4 Units
 - 1961 Waltonia – New 6 Units

5. **FMWD** – No Report

6. **Remodeling of Engineering Department Office** - Complete

CRESCENTA VALLEY WATER DISTRICT

WATER PRODUCTION REPORT

June 1 - June 30, 2021

Well Production:	51,179,502	Gals		
GWP Production:	5,286,000	Gals		
Gravity Production:	1,241,069	Gals	% GW	46%
Purchased Water:				
FMWD:	67,062,853	Gals		
City of Glendale:	0	Gals	% Import	54%
TOTAL:	124,769,424	Gals		
	382.90	ac-ft		
Glenwood Nitrate Water Reclamation Plant:*	0		*Included in Well Production	

WATER DEMAND COMPARISON

Time Period	Average Daily Usage (gals)	Current Period Change
June 1 - June 30, 2021	4,162,535	
June 1 - June 30, 2020	4,170,480	-0.2%
5-yr Average - June 2016 - 2020	3,837,473	8.5%

RAINFALL: June 1 - June 30, 2021 0.09"

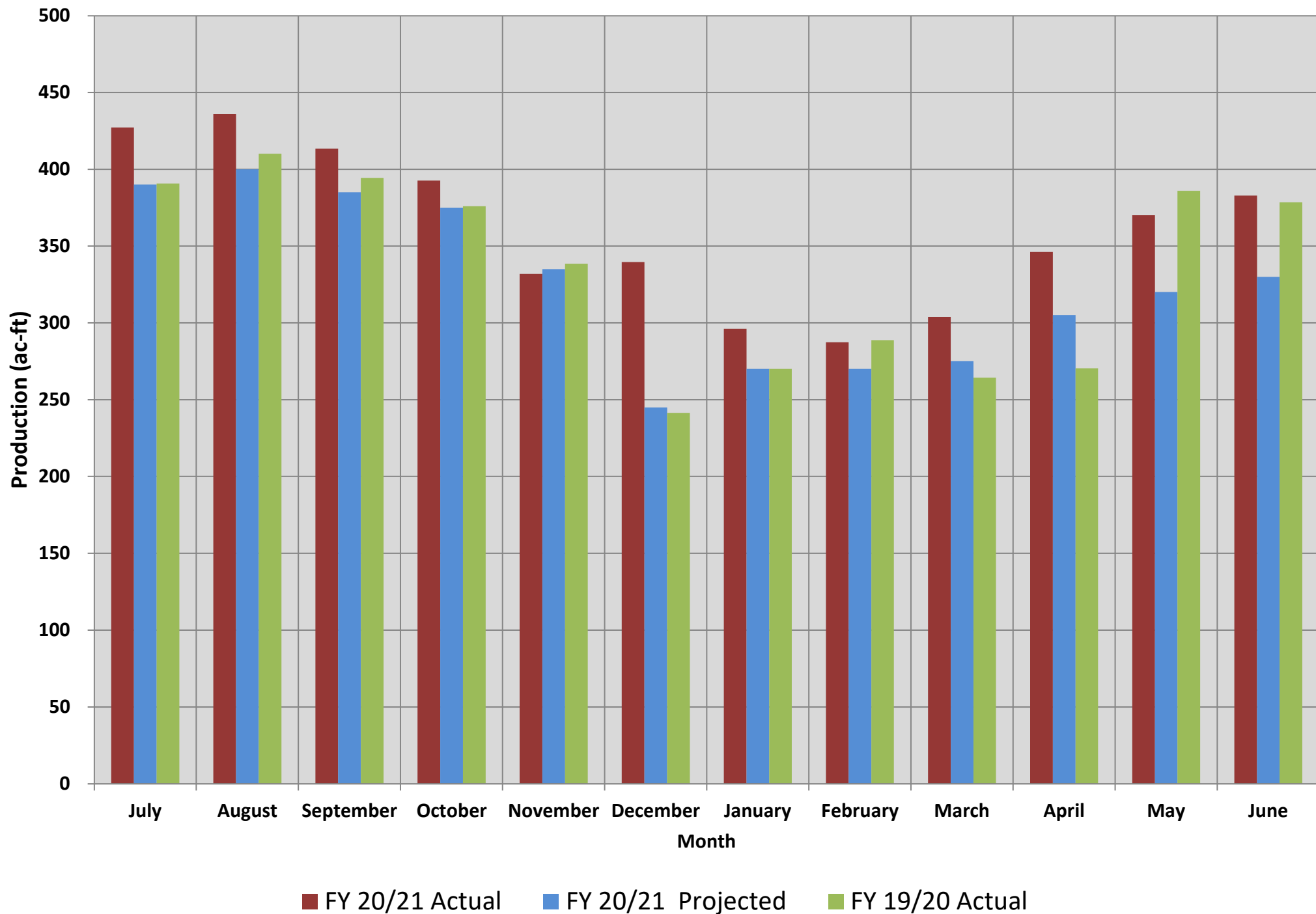
Season-To-Date: 7.45"

2020/21 Fiscal Year Water Production			WY 20/21 - Groundwater Production Water Rights		GWP (Well 16) Water Production - 2021		Purchased Water Production Tier 2 Allocation 2021	
Month	Actual Total Water Production (ac-ft)	Projected Total Water Production (ac-ft)	Month	Month	Month	Well Production (ac-ft)	Month	Imported Water Production (ac-ft)
July	427	390	October	160	January	17	January	143
August	436	400	November	130	February	15	February	120
September	413	385	December	151	March	17	March	116
October	393	375	January	136	April	16	April	163
November	332	335	February	152	May	17	May	189
December	340	245	March	171	June	16	June	206
January	296	270	April	167	July		July	
February	287	270	May	164	August		August	
March	304	275	June	161	September		September	
April	346	305	July		October		October	
May	370	320	August		November		November	
June	383	330	September		December		December	
Total to Date	4,328	3,900	Total to Date	1,391	Total to Date	99	Total to Date	938
Projected	4,328	3,900	Water Rights	3,294			Tier 2	2,154
% of Projected	111.0%	100.0%	% of Rights	42%			% of Allocation	44%
Remaining	(428)	0	Remaining	1,903			Remaining	1,216

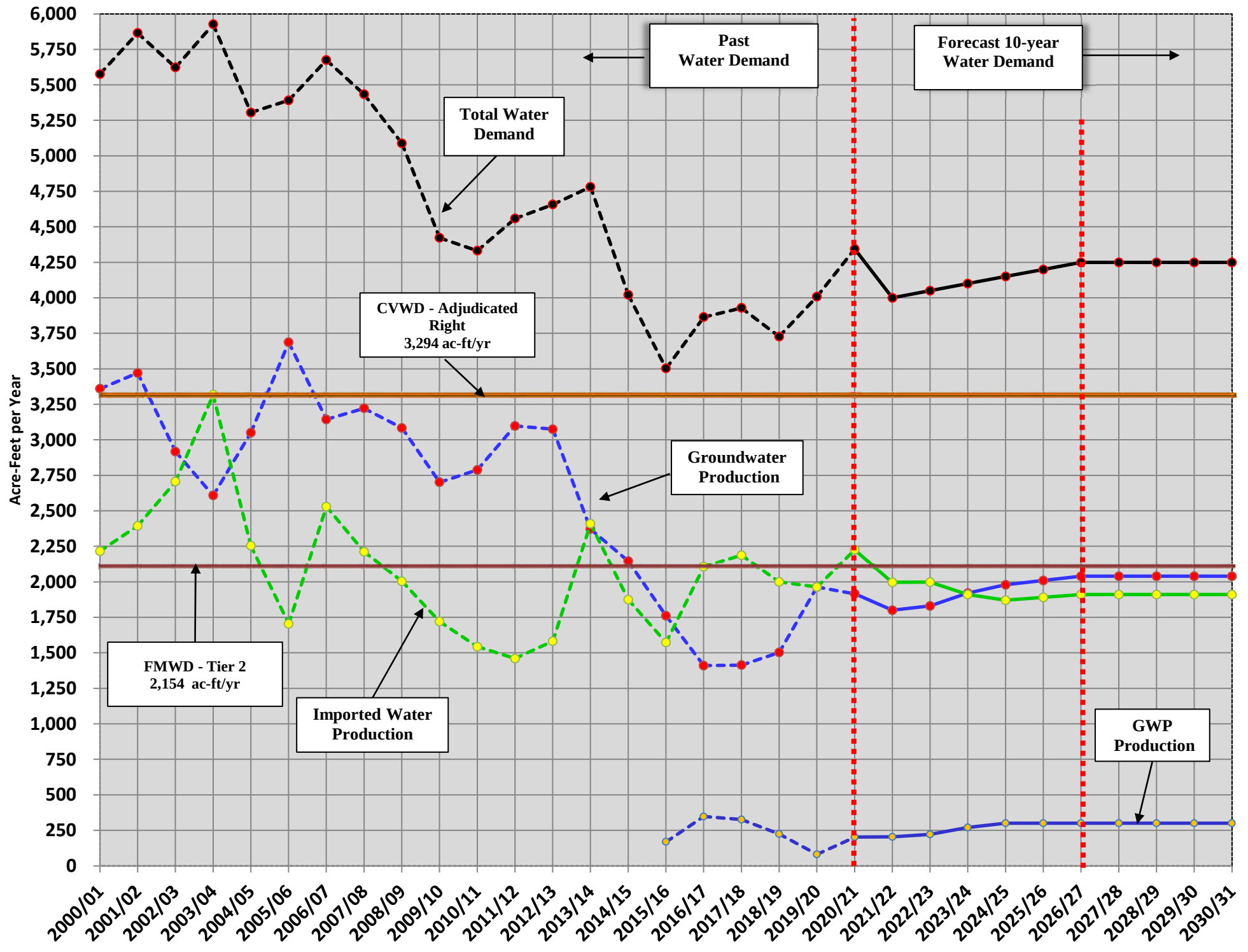
NOTE:

1) Blue Numbers = Estimated Water Production

Monthly Water Production: FY 20/21 Actual, FY 20/21 Projected & FY 19/20 Actual



Water Demand Projections - FY 00/01 to FY 30/31 - Final - 07/06/21



Monthly Rainfall - 1963/64 - 2020/21 (Oct.- June)

