

CRESCENTA VALLEY WATER DISTRICT

2700 FOOTHILL BOULEVARD
LA CRESCENTA, CALIFORNIA

To be held on
October 9, 2020 at 9:00 AM

Agenda for the Meeting of the Engineering Committee
of the Crescenta Valley Water District

Posted October 8, 2020 at 9:00 AM

TELECONFERENCING NOTICE

[This meeting will be held by teleconference only.]

Pursuant to the provisions of Executive Order N-29-20 issued by Governor Gavin Newsom on March 18, 2020, the public may not attend the meeting in person.

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: 869 0282 1300

[Pursuant to the above Executive Order, the public may not attend the meeting in person]

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.

Call to Order

Adoption of Agenda

Public Comment:

At this time, members of the public shall have an opportunity to address the Committee on items of interest that are within the subject matter jurisdiction of this Committee. This opportunity is non-transferable, and speakers are limited to three (3) minutes each.

Action Items

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

1. Request for Statement of Qualifications for Construction Management and Inspection Support Services, Project E-1027
2. Award of Contract for procurement and installation of AMI Communications Network, Project E-1020
3. Advertisement for Bids - New Emergency Electrical Generator at the LA Granada Wastewater Lift Station, Project S-962
4. Discussion of 16-inch Manifold and Valve Replacement at Oak Creek Reservoir, Project E-1026
5. Project Update - FY 20/21 Capital Improvement Project Program

Committee Member's Request for Future Agenda Items

Next Engineering Committee Meeting – November 6, 2020

Adjournment

CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 1

October 9, 2020

To: Engineering Committee
From: David S. Gould, P.E. – Director of Engineering
Subject: Statement of Qualifications for Construction Management and Inspection Support Services

INFORMATION ITEM:

Statement of Qualifications for Construction Management and Inspection Support Services –

Consideration and motion to authorize the General Manager to enter into professional service agreements with Cannon, Dudek, and Wallace & Associates to provide construction management and inspection support services as part of the CVWD's FY 20/21 Capital Improvement Project program.

BACKGROUND:

The District has been working on its Long-Term Infrastructure Reliability and Funding Roadmap since January 2020, which included accelerating the Capital Improvement Project (CIP) program and pipeline replacement, as well as, pursuing bond financing to provide the necessary funding for the CIP program. In September 2020, CVWD successfully issued new bonds that provided \$5M of funding for the FY 20/21 & FY 21/22 CIP program.

Staff had presented two (2) CIP scenarios at the last Engineering Committee comparing the \$5M Bond and PayGo funding scenarios. With the issuance of the new bonds, the Engineering Department is moving forward with design and construction relative to the \$5M bond funding scenario. To meet this goal, staff has put together an aggressive schedule that includes assistance from a variety of consultants and contractors to complete the CIP projects by June 30, 2021.

An important component of the CIP program is construction management and inspection services to ensure the projects are being built per District standards and will last into the future. With the retirement of the District's inspector and the increased amount of projects in the proposed schedule, staff needs the assistance of one or more construction management firms to complete the FY 20/21 CIP program.

DISCUSSION:

Staff prepared a request for qualifications (RFQ) from consulting firms to provide construction management and inspection support (CM&I) services as it relates to implementation and construction of CVWD's FY 20/21 CIP program (See attached RFQ). These CM & I services included contract administration, on-site inspection, project startup, commissioning, and project close-out, relative to pipeline replacement, reservoir rehabilitation, groundwater well rehabilitation, booster pump replacement, new emergency electrical generator at the sewer lift station, new pressure reducing station, upgrade of a water quality blending station, new roof for an old concrete reservoir and other projects.

Staff has concerns that one consulting firm alone could not provide adequate coverage to handle the seven (7) projects associated with the RFQ. Staff also wanted the option to utilize up to three (3) firms based on their qualifications and the type of CIP project. Having the option to utilize up to three firms also provides greater assurance that the District's CM&I needs will be met in a more reliable and cost-competitive manner.

Staff sent the RFQ out on September 15, 2020 to twelve (12) consulting firms and held a pre-proposal tele-conference meeting on September 30, 2020 that was attended by seven (7) firms. The RFQ was due on October 6, 2020 and CVWD received statement of qualifications from the following six (6) firms.

Cannon
Civiltect Engineering
DMc Engineering

Dudek
SA Associates
Wallace & Associates

Staff reviewed each statement of qualifications and ranked them in accordance to the following categories and weighted percentages: 1) Proposal, Project Concept & Scope of Work– 30%, 2) Previous work experience – 40%, 3) Expertise of project staff on similar projects – 30%, which is shown on the attached consultant ranking table.

After staff's review of the statement of qualifications, the following three (3) firms, Cannon, Dudek, and Wallace & Associates were ranked highest to provide construction management and inspection support (CM&I) services for CVWD. Staff had the following comments about each firm:

- Wallace & Associates – presented a good statement of values for their company, understood major issues that occur during construction, provided excellent recent experience on relevant projects, and extremely well qualified construction management and inspection personnel.
- Dudek – presented a good understanding of the scope of work, good layout of team members and their responsibilities, and excellent CM and Inspection team.
- Cannon – presented a good comprehensive overview of their company, good understanding of the scope of work, previous experience working with Procore software and they have worked with CVWD on past projects.

Project Costs:

The costs for CM&I services from the consulting firms was factored in during the budgeting process and included in the overall CIP budget. Prior to the award of contract for a particular project, staff will request a proposal from a selected firm to provide CM&I services and the consultant fee when awarding as part of the construction project. Each project has a maximum budget limit of \$150,000 per project and the total CM&I services budget for all projects was set at \$600,000.

SUMMARY:

It is staff's recommendation to enter into a professional service agreement with the following firms, Cannon, Dudek, and Wallace & Associates to provide CM&I services for CVWD's FY 20/21 CIP program.

Prepared & Submitted by:



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

Attachments:

1. CVWD's Request for Qualifications
2. Consultant Ranking Table



REQUEST FOR STATEMENT OF QUALIFICATIONS (PROPOSAL)

TO PROVIDE

CONSTRUCTION MANAGEMENT AND INSPECTION SUPPORT SERVICES Project E-1027

Proposals Due

October 6, 2020 at 12:00 p.m.

Issued By:

**Crescenta Valley Water District
2700 Foothill Blvd
La Crescenta, CA 91214**

Issue Date

September 15, 2020

INTRODUCTION:

The Crescenta Valley Water District (CVWD or District) is requesting qualifications from consulting firms to provide Construction Management and Inspection Support (CM&I) Services, primarily related to implementation of CVWD's FY 20/21 Capital Improvement Project (CIP) program including pipeline replacement, reservoir rehabilitation, groundwater well rehabilitation, booster pump replacement, new emergency electrical generator at sewer lift station, new pressure reducing station, upgrade of a water quality blending station, new roof for an old concrete reservoir and other projects. See attached list of projects with the proposed schedule.

The services requested will predominantly include contract administration and construction management services, on-site inspection services, startup, commissioning, and project close-out, relative to CVWD's FY 20/21 CIP program. CVWD will select up to three (3) firms to provide CM & I services based on qualifications and type of CIP project.

CVWD will be retaining specialty inspection services for structural and coating inspection as part of the reservoir rehabilitation and geotechnical testing services for compacting testing and concrete testing. If any other specialty inspections are required, CVWD will be responsible contracting and consultant firm will provide project coordination.

CM & I services shall include utilizing Procore Construction Management software (Procore) such that CVWD's CIP program can be run with complete visibility to all and every document, and shop drawings and emails will be stored within Procore's cloud-based platform. CVWD will purchase and be the administrator for Procore. Consultants, contractors and CVWD staff will have access to Procore for coordination of each project.

PROJECT DESCRIPTION, AND BACKGROUND INFORMATION:

The projects associated with this RFQ are detailed in the Engineering Committee memo dated August 5, 2020 in Appendix B. Outlined below are tasks related to CM & I services for each project:

1. Pipeline Replacement Projects:

- a. Each pipeline replacement project includes the following:
 - i. Potholing for utility crossings.
 - ii. Excavation, backfill and pipeline bedding
 - iii. Installation of 8-inch & 10-inch steel water mains.
 - iv. Installation of polyethylene (PE) water service laterals, replacing water meter, new meter box and reconnect to customer side water service.
 - v. Installation of new fire hydrants.
 - vi. Re-connection to existing water mains.
 - vii. Pipeline crossing of stormwater channel.
 - viii. Abandonment of old water mains
 - ix. Pressure testing, chlorination, and bacteriological testing.
 - x. Trench resurfacing.
 - xi. Traffic control per M.U.T.C.D. manual.
 - xii. Project Close-out & As-built drawings.
- b. Construction coordination for each project includes the following:
 - i. Water main shutdowns with CVWD crews including notification of customers.
 - ii. Contractor on providing CVWD purchased material.
 - iii. Associated Soils for trench compaction.

- iv. LA County and City of Glendale Public Works Inspectors.
 - v. Attendance at Community and Pre-Construction meetings.
 - c. Construction Sequencing
 - i. Project 1 & 2 will be combined and constructed by one contractor
 - ii. Project 3 – constructed by one contractor
 - iii. Project 4 – constructed by one contractor
 - d. Construction Schedule – See Attached Schedule in Appendix C
- 2. New Pressure Reducing Station & Upgrade to Ramsdell/Mayfield Blending Station:
 - a. Project includes the following:
 - i. Installation of new vault with pressure reducing valve and appurtenances.
 - ii. Installation of 8-inch steel pipeline connecting Zone 2 to Zone 1.
 - iii. Installation of 16-inch isolation valve.
 - iv. Replacement of pipeline, valves, pressure control valve and appurtenances
 - v. Upgrade and relocation of electrical meter and motor control center and reconnection.
 - vi. Upgrade and relocation of SCADA RTU/PLC, wiring and conduits to blending station and pressure reducing vault.
 - vii. Installation of new chlorine analyzer.
 - viii. Re-connection to existing water mains.
 - ix. Pressure testing, chlorination, and bacteriological testing.
 - x. Trench resurfacing.
 - xi. Traffic control per M.U.T.C.D. manual.
 - xii. Project Close-out.
 - xiii. As-built drawings.
 - b. Construction coordination will include the following:
 - i. Water shutdowns for water mains, reservoirs, and Glenwood Plant including notification of customers.
 - ii. Contractor on providing CVWD purchased material.
 - iii. Associated Soils for trench compaction.
 - iv. LA County and City of Glendale Public Works Inspectors.
 - v. Northwoods Townhome Association.
 - vi. So. Cal. Edison for electrical upgrade.
 - vii. Attendance at Community and Pre-Construction meetings.
 - c. Construction Sequencing
 - i. First Phase – Pressure reducing station.
 - ii. Second Phase - Upgrades to Ramsdell Blending Station.
 - d. Construction Schedule – See Attached Schedule in Appendix C
- 3. Rehabilitation of Rosemont Steel Reservoir:
 - a. Project will include the following:
 - i. Structural Upgrades.
 - ii. Interior of reservoir - blasting and recoating.
 - iii. Interior floor - removal of coal-tar enamel and recoating interior floor.
 - iv. Spot painting exterior surface.
 - v. Disinfection and filling of tank

- b. Construction coordination will include the following:
 - i. Harper & Associates Engineers will provide structural & coating inspection.
 - ii. Daily site visits to coordinate inspection schedule.
 - iii. Shutdown and draining of reservoir with CVWD crews.
 - iv. BMP discharges to storm drain per MS-4 permit.
 - v. Daily logging of noise levels on site during construction.
 - vi. Washdown and filling reservoir with CVWD crews.
 - vii. Attendance at Community and Pre-Construction meetings.
 - c. Construction Sequencing
 - i. Structural work.
 - ii. Coating.
 - d. Construction Schedule – See Attached Schedule in Appendix C
4. New Emergency Electrical Generator at the La Granada Sewer Lift Station:
- a. Project will include:
 - i. New concrete pad with fencing.
 - ii. New emergency electrical generator.
 - iii. Electrical conduits, wiring and grounding.
 - iv. New MCC & SCADA equipment.
 - v. New rolling gate.
 - vi. Landscaping.
 - b. Construction coordination will include the following:
 - i. Sewer Lift Station operations.
 - ii. City of La Canada Flintridge, on permits and landscaping.
 - iii. AQMD and CARD permitting
 - iv. Attendance at Community and Pre-Construction meetings.
 - c. Construction Sequencing
 - i. Site improvements.
 - ii. Permitting and notification coordination
 - iii. Installation of generator.
 - d. Construction Schedule – See Attached Schedule in Appendix C.
5. Installation of a New Roof & Site Improvements at Old Encinal Reservoir:
- a. Project will include:
 - i. New 70' diameter roof – wood, aluminum or steel
 - ii. Utility connections.
 - iii. Site improvements.
 - b. Construction coordination will include the following:
 - i. CVWD crews on material storage.
 - ii. Los Angeles County, on permits.
 - iii. Attendance at Community and Pre-Construction meetings.
 - c. Construction Sequencing
 - i. Roof construction.
 - ii. Site improvements.
 - d. Construction Schedule – See Attached Schedule in Appendix C

6. Well 9 Rehabilitation:

- a. Project will include:
 - i. Removal of existing pump assembly & column piping.
 - ii. Videotape inspection of casing.
 - iii. Cleaning casing – Bail, brushing & chemical treatment.
 - iv. Discharge to sewer/storm drain.
 - v. Test pumping.
 - vi. Install new pump.
 - vii. Start-up.
 - viii. Water quality testing.
- b. Construction coordination will include the following:
 - i. De-energize power with Glendale Water and Power.
 - ii. Videotape inspection with separate vendor.
 - iii. Casing cleaning and test pumping with discharge.
 - iv. BMP discharge to storm drain per NPDES permit
 - v. City of Glendale on permits.
 - vi. Attendance at Community and Pre-Construction meetings.
- c. Construction Sequencing
 - i. Cleaning casing.
 - ii. Test Pumping.
- d. Construction Schedule – See Attached Schedule in Appendix C.

7. Booster Pump – Booster 25 at Markridge Reservoir:

- a. Project will include:
 - i. Removal of existing pump assembly and motor.
 - ii. Replacement with new pump assembly and motor.
 - iii. Electrical connections and start up.
 - iv. Benchmark efficiency testing
- b. Construction coordination will include the following:
 - i. CVWD crews.
 - ii. Attendance at Pre-Construction meeting.
- c. Construction Sequencing
 - i. Pump removal and replacement.
- d. Construction Schedule – See Attached Schedule in Appendix C.

PROPOSAL REQUIREMENTS:

The consultant shall provide as part of their qualification's submittal, experience, and previous projects relative to CM&I Services for the project listed above. It is anticipated that up to three (3) consulting firms will be awarded with an on-call contract that will end on June 30, 2021, unless project construction continues after this date.

As design of each project is completed, CVWD will request a proposal from one or more of the qualified consultant firms for CM&I Services. Each proposal shall include scope of services, work plan, associated fee, schedule, and inspector(s) for review and approval by District staff. The CM&I Services contract will be award at the same Board meeting as the contract is award to the successful contractor.

The anticipated implementation guidelines for each RFP are as follows:

- The District will provide a brief request-for-proposals/scope-of-work(s) for the On-Call Consultant(s). This will typically be called for by e-mail with a preliminary scope and will involve the transmittal of construction drawings and specifications for review.
- The On-Call Consultant will submit a concise and simple letter proposal to identify fee and hours estimate, technical approach (if warranted), scope of work, inspector(s), and deliverables in accordance with the request.
- Fee estimates are to include hourly labor rates for each proposed team member (in accordance with approved contract rates), subtotals and totals for hours, labor, and other direct costs by task/subtasks.
- The Consultant's fee rate schedule shall be in effect upon execution of contract and limited to maximum increases of 5% per year for continuation of contract for subsequent years.
- Scopes of Work for various projects will be based on District needs and will vary in size and scope.
- Proposals will be awarded as part of the award of contract to a contractor for a particular project and as deemed appropriate by District staff.
- The District reserves the right to solicit proposals for any potentially related project or inspection support services outside of the On-Call CM&I Services contract as deemed appropriate by the District.
- District staff's recommendation to the Board of Directors will be a maximum single proposal threshold amount of \$150,000 and a total Contract Award amount of not to exceed \$600,000 for FY 20/21.

TYPICAL SERVICES REQUIRED

This On-Call CM&I Services contract covers a range of projects and services, which are generally related to projects as described above.

For certain specialty projects, construction management services, including the oversight, coordination, and management of the projects on the District's behalf may be required. Contract Documents (construction drawings and specifications), shop drawings and all relevant communication for the projects will be made available to the On-Call CM&I Consultant. Specific CM&I tasks may include, but are not limited to the following activities:

Contract Administration and Construction Management

Provide contract administration and construction management support that includes the following minimum activities:

- Assist the District in administering the pre-construction activities for the project, including a Pre-Construction Conference and pre-construction site condition documentation.
- Prepare Daily Inspection Activity Reports to document daily start and stop times, size of Contractor's crew, equipment used, visitors to jobsite, climatic conditions throughout the day, quantities of materials used, work accomplished, periods of Contractor downtime and cause, inspection procedures and results, and verification of compliance with the Contract Documents. All entries shall be dated and timed. Provide electronic copies of daily reports to the District on at least a weekly basis.

- Ensure compliance with Contract Documents.
- Observe the jobsite for compliance with safety requirements. Inform the District of any concerns or problems observed concerning site or job safety.
- Verify that all deliveries and installation of equipment and materials conform to the Contract Documents and approved shop drawings.
- Respond to inquiries regarding requirements of the Contract Documents.
- Monitor Contractor's schedule and regular progress updates.
- Take digital photographs during key points in the construction to document progress.
- Provide daily communication and conferences with various parties including District, Engineer, geotechnical firm, Los Angeles County, City of Glendale, City of La Canada Flintridge (as required), HOAs (as required), and the public (in cooperation with District staff).
- Review and respond to RFIs not related to design requirements and intent.
- Generally, review and process submittals (detailed review by Project Engineer or Consultant).
- Resolve field issues.
- Assist the District in processing the progress payment estimates and ensuring appropriate payment for the actual quantities of work completed.
- Review change orders and provide recommendations.

Startup and Commissioning

Provide inspection and expertise on all startup and commissioning to verify compliance with the Contract Documents, manufacturer recommendations, and industry best practices. Coordinate with the Contractor, Engineer, and District for any sequencing required during the commissioning process. Startup and commissioning tasks may include, but are not limited to, the following:

- Coordination with District staff, Contractor, subcontractors, equipment manufacturers and suppliers.
- Verification of proper installation and operation of all components, equipment, controls, and instrumentation.
- Witnessing operational demonstrations, simulations, and validation tests for all components of each system and entire facility.
- Verification of manual and automatic modes of operation for all equipment and system components.
- Verification of all programming and programmable logic controllers.
- Assisting the District and Contractor with coordinating integration of each new PLC into District's existing SCADA system (programming of SCADA system to be completed by District).
- Witnessing complete performance testing of all equipment.
- Coordination, preparation, and/or review of commissioning schedules, worksheets, checklists, logs, and overall plans.

Maintenance of As-Built Drawings

Throughout construction, Consultant shall maintain a comprehensive and accurate set of As-Built Drawings. At the conclusion of construction, Consultant shall collect the Contractor's As-Built Drawings for comparison. After any discrepancies are reconciled, Consultant shall consolidate all changes into a single red-line set that will be provided to the Engineer for the preparation of final Record Drawings.

Project Closeout

Consultant shall perform the following minimum project closeout activities:

- Comprehensive final inspection, in conjunction with District, and preparation of a punch list. Verification of Contractor's satisfactory completion of punch list work.
- Assistance with resolution of any outstanding project issues (e.g. claims, time extensions, punch-list items, etc.).
- Letter to the District recommending acceptance of the project and a substantial completion date
- Verification that final testing, clean-up, restoration, and demobilization are complete.
- Comparison between pre-construction and post-construction conditions of the areas and access routes to ensure that all areas are returned to pre-construction conditions. Demonstration of proper restoration will need to be made to the District, HOAs, etc.
- Assemble final project documentation from all inspection tasks, test results, and other pertinent information (including photographs). Submit one (1) paper copy and one (1) PDF copy to the District.

The Consultant will be expected to provide services on a part-time basis whenever feasible. The proposed rate structure shall include details specific to part-time services, including any and all provisions for mobilization, travel time, hourly minimums, equipment rates, etc.

Note: Although the primary intent of this On-Call CM&I Support Services contract is for management and inspections of the District's projects, the District may utilize the selected Consultant to provide other services as required (e.g. design services, constructability reviews, operations assistance, etc.).

SCHEDULE

<u>Task</u>	<u>Date</u>
Pre-Proposal Meeting – Video Conference – 10:00am	September 30, 2020
Proposal Due	October 6, 2020
Engineering Committee	October 9, 2020
Award of Contract	October 27, 2020
Kick Off Meeting	November 3, 2020

PROPOSAL CONTENTS

The contents of the Proposal should contain the information summarized below but should be limited to a maximum of twenty (20) total pages, not including appendices.

A. Executive Summary Letter: This letter shall be a brief formal letter from the Respondent that provides information regarding the firm and its ability to perform the requirements of this solicitation. This letter must include the following information:

- Complete legal company name (as it should appear in a contract).
- Company Address.
- Contact person, telephone number, and e-mail address.
- Identify all materials and enclosures being forwarded in response to this solicitation.
- Respondent shall state herein their willingness and ability to provide the required insurance coverage.
- The letter must be signed by an individual authorized to bind the proposing entity, or by the two corporate officers authorized to bind the proposing entity, as set forth in the California Corporations Code.

- B. Introduction: Brief overview of firm or team proposing.
- C. Project Approach: Description of firm's general approach to completing projects/services under this contract, identifying major issues, and recommendations to accomplish the potential tasks. Discuss the typical services required.
- D. Project Team: Provide a specific organizational chart identifying key project personnel by name, title, role, and work office location. Include key/critical and relevant information as deemed necessary for this solicitation.
- E. Project Management: Describe your firm's project management approach, tools, communication, and QA/QC procedures as they apply to this solicitation.
- F. Experience and References: Description of the project team's past record of performance on similar projects for which your firm has provided services. Include a discussion of factors such as control of costs, quality of work, and ability to meet schedules. Include client references that may be contacted by District. A minimum of five client references is required.
- G. Resumes: Provide concise resumes of each key project team member with all relevant information including credentials, years of experience, specific roles, and expertise.
- H. Fee Schedule: Provide a listing of hourly labor rates by work classification and personnel. Include all expected fees for Other Direct Costs (ODCs) or other specific fees. Consultant must be registered with the Department of Industrial Relations and comply with Prevailing Wage requirements of the State of California Labor Code.
- I. Conflict of Interest: Documentation that personal or organizational conflicts of interest prohibited by law do not exist.
- J. Insurance: Submittal from either the firm's insurance carrier or equivalent regarding the firm's professional liability coverage. District requires coverage as shown in the sample copy of the District's professional services agreement attached as Appendix A to this Request for Proposal. Any additional premium required by the insurance carrier for such coverage shall be included in your proposed fee. District will not pay a separate insurance surcharge for the required coverage. Insurance is to be placed with insurers with a current A.M. Best's rating no less than A-:VII or equivalent, or as otherwise approved by CVWD.
- K. Contract: A sample copy of the District's professional services agreement is attached as Appendix A to this Request for Qualifications. Please only respond to this request for proposal if you are able to execute this contract. The District may make changes to the contract upon review by District's Legal Counsel.

EVALUATION PROCESS AND SELECTION CRITERIA

Evaluation of the proposals will be based upon a competitive selection process. It will consider all elements of the proposal and will not be limited to price alone. District staff will review all statements of proposals received by the stated deadline. Some of the criteria to be evaluated will include the following:

- A. Experience and performance under similar contracts or scope of work, including a summary of the Project team's qualifications.
- B. Experience and performance working together with proposed team members.
- C. Completeness of proposal.
- D. Ability to understand and perform the project tasks efficiently and in accordance with the requirements of District.

- E. Project management approach including cost controls, scheduling, resource management, and QA/QC approach.
- F. Appropriateness of respondents' rate schedule, including sub-consultant rates.
- G. Commitments to schedules and ability to meet deadlines.
- H. References.

Consultant must satisfy the District of its ability to perform the services required. Consultant must demonstrate and document a history of timely and satisfactory performance of similar projects in a manner that addresses the stated evaluation criteria. Consultant shall be responsible for the accuracy of the information supplied concerning references. In addition, the District may consider evidence of untimely and unsatisfactory performance on prior similar projects or litigation by the Consultant on previous projects to disqualify any Consultant. The District reserves the right to reject any and all proposals.

SERVICES OR ITEMS TO BE PROVIDED BY DISTRICT

- District staff will be available to answer Consultant's questions during all phases of the project and coordinate between agencies' staff.
- District will make all available Contract Documents, shop drawings, communications, record drawings, reports, and related materials available to the Consultant.

GENERAL

Selection of the Consultant will generally be based on the proposal contents, prior experience of the firm, and specific experience and capabilities of the designated project manager and other key personnel. The firm, and in particular the project manager, must be fully capable in all areas outlined under the scope of work above. Based upon this information, District staff will make a recommendation of firm(s) to the District Board of Directors for award of contract. The selected firm(s) must be able to begin work immediately upon award of contract and must be able to maintain the required level of effort throughout the contract duration.

This request does not commit District to retain any Consultants, to pay costs incurred in the preparation of proposals, or to proceed with the project. District reserves the right to reject any or all proposals, to negotiate with any qualified applicant, and to appoint more than one firm to provide services on given portions of the project.

Proposals (including accompanying materials) will become the property of District. Proposals will be held in confidence to the extent permitted by law. After award of a contract or after rejection of all proposals, the proposals will be public records subject to disclosure under the California Public Records Act (Government Code Section 6250 et seq.).

District reserves the right to request additional information from prospective Consultants prior to final selection and to consider information about a firm other than that submitted in the proposal or interview. District may select for contract negotiations the firm(s) that, in District's judgment, will best meet the project's needs, regardless of the comparison of fees and costs estimated by the Consultants.

Proposals will be accepted until 12:00 P.M. on October 6, 2020 via e-mail to dgould@cvwd.com. Send three (3) copies of the proposal to the attention of Mr. David S. Gould, Director of Engineering at Crescenta Valley Water District, 2700 Foothill Boulevard, La Crescenta CA 91214. If you have any questions or comments, contact Mr. Gould at (818) 236-4119.

APPENDIX A

Sample

Crescenta Valley Water District Professional Services Agreement

CONTRACT NO. 10-01
AGREEMENT FOR ENGINEERING SERVICES
BETWEEN
CRESCENTA VALLEY WATER DISTRICT
AND

THIS AGREEMENT is made and entered into this ____ day of _____, 2009 by and between the CRESCENTA VALLEY WATER DISTRICT, a public agency, hereinafter refer to as "DISTRICT," and _____ a _____, hereinafter refer to as "ENGINEER".

RECITALS

A. DISTRICT is in need of professional engineering services of ENGINEER for _____, and as described in Article 2 of this Agreement, hereinafter refers to as the "Project".

B. ENGINEER represents that it is licensed to perform engineering services in the State of California, and it possesses the necessary skills, experience, and expertise to perform the required work and is willing to contract with DISTRICT.

C. The parties enter into this Agreement to set forth their respective rights and obligations.

AGREEMENT

ARTICLE 1: EMPLOYMENT AND KEY PERSONNEL

1.1 DISTRICT employs ENGINEER to perform the engineering and surveying services set forth herein. ENGINEER accepts said employment and agrees to perform said work and services in accordance with the terms of this Agreement.

1.2 _____ as Project Manager shall be personally in charge of and personally supervise or perform the technical execution of services on a day-to-day basis on behalf of ENGINEER and shall maintain direct communication with the person designated as DISTRICT's Project Manager.

1.3 Should the above individual be unable to complete his or her respective responsibilities for any reason, they shall be replaced by another qualified person whom DISTRICT finds satisfactory as a substitute. If ENGINEER fails to make a required replacement within fifteen (15) calendar days, DISTRICT may, at its sole option, terminate this Agreement, immediately upon giving a written notice of termination.

1.4 ENGINEER shall not subcontract all or any portion of the work except as stated in the proposal dated _____, called for in this Agreement without the express written permission of DISTRICT.

ARTICLE 2: SCOPE OF SERVICES

2.1 ENGINEER agrees to perform the specified professional services related to the Project as outlined in the proposal of _____, dated _____, which will be defined as the Scope of Work attached as Exhibit "A" and incorporated by reference herein.

ARTICLE 3: AUTHORIZATION AND COMPLETION OF WORK

3.1 Engineering services for work outlined in Article 2 shall be rendered only upon written authorization by DISTRICT. Time is of the essence of this Agreement. ENGINEER shall begin work promptly upon receipt of DISTRICT's Notice to Proceed and shall pursue the work diligently to assure completion on a timely basis from the Notice to Proceed and as described in Exhibit "A".

ARTICLE 4: COMPENSATION

4.1 Fees will be determined on a time and materials basis as described below, except that the total amount payable to ENGINEER shall not exceed _____.

4.2 Fees

For the time of all personnel employed by ENGINEER, the fees payable by DISTRICT shall be ascertained by multiplying the number of hours worked by each classification of employee on the Project by the appropriate hourly rates shown in the attached Exhibit "B", incorporated by reference herein. These rates shall not be changed during the life of this Agreement. The fee portion of the ENGINEER's compensation is intended to cover all of the ENGINEER's costs for salaries, fringe benefits, salary related to overhead, general and administrative overhead and profit associated with or apportioned to this work.

4.3 Reimbursable Expenses

The Reimbursable Expenses payable by DISTRICT shall be an amount determined by multiplying actual costs by a factor of 1.15. Reimbursable Expenses include the following:

4.3.1 Services directly applicable to the work, such as special consultants, commercial printing, and similar costs that are not applicable to general overhead.

4.3.2 Identifiable reproduction costs applicable to the work, such as printing of drawings, photocopying, CAD plotting and similar costs.

4.3.3 Automobile travel at the rate of 58.5 cents per mile, which shall not be subject to the 1.15 factor.

4.3.4 Other direct expenses as approved by District in advance.

4.4 Progress Payments

On or after the first of each calendar month after written Notice to Proceed is given, ENGINEER may submit an invoice of the total amount of work done by ENGINEER to the last day of the month preceding the one in which the invoice is submitted. DISTRICT shall, after reviewing the invoice for accuracy and consulting with ENGINEER on any adjustments which may be appropriate, approve and authorize payment for those charges which DISTRICT has determined are appropriate. Such approvals shall not be unreasonably withheld. DISTRICT shall pay ENGINEER for all approved work within 30 days of the agreement on the amount of the invoice. In the event of disagreement with ENGINEER on adjustments or disallowances, said amounts in dispute shall be withheld until resolved.

Upon resolution of the disagreement, payment of the approved amount shall be made within 30 days after deducting there from all previous payments. ENGINEER shall, without compensation, correct any errors or deficiencies in ENGINEER'S work.

ARTICLE 5: INDEMNIFICATION AND HOLD HARMLESS

5.1 ENGINEER agrees to defend, indemnify, hold harmless, and protect DISTRICT and its officers, agents and employees, from and against any and all liability, damages, costs, losses, claims, expenses, and attorney's fees (using attorneys of DISTRICT's selection), however caused, resulting directly or indirectly from or connected with ENGINEER's performance of this Agreement (including, but not limited to such liability, cost, damage, loss, claim, expense, or attorney's fees arising from the death of or injury to, or damage to property of ENGINEER, DISTRICT, or their respective employees or agents), regardless of the active or passive negligence of DISTRICT, except where such liability, damages, costs, losses, claims or expenses are caused solely by the negligent or wrongful acts or omissions of DISTRICT or any of its agents or employees.

ARTICLE 6: INSURANCE

6.1 ENGINEER shall provide and keep in effect during the term of this Agreement insurance as follows:

6.2 Workers' Compensation and Employer's Liability in accord with applicable laws.

6.3 Comprehensive Commercial Liability policies with combined single limit coverage of at least \$1,000,000 for any personal injury, death, or property damage.

6.4 Comprehensive Automobile Liability policies with combined single limit coverage of at least \$1,000,000 for personal injury, death, or property damage.

6.5 Errors and Omissions coverage with minimum limits of \$1,000,000, and a maximum deductible of \$100,000, in full force and effect during the life of this Agreement. ENGINEER agrees to maintain its Errors and Omissions coverage in force for claims made up to ten (10) years after completion of work, or to maintain equivalent "tail" coverage.

6.6 ENGINEER shall provide a certificate of such insurance to DISTRICT prior to the start of work. Said certificate shall specifically provide that: (1) DISTRICT is an additional insured for the coverage in items 6.3 and 6.4 above; (2) any other insurance coverage applicable to the loss shall be deemed excess coverage and ENGINEER's insurance shall be primary; and (3) such insurance shall not be terminated or cancelled without thirty (30) days' prior written notice having been given DISTRICT at its address set out in this Agreement.

ARTICLE 7: CHANGES IN SCOPE OF PROJECT: AMENDMENT OF AGREEMENT

7.1 No change to Exhibit "A" hereto, or to any other provision of this Agreement, may be made except by a written amendment signed by ENGINEER and DISTRICT. If conditions beyond the control of ENGINEER necessitate a change to Exhibit "A" the parties agree to negotiate in good faith in an attempt to reach a reasonable amendment to this Agreement. DISTRICT's General Manager is authorized to execute amendments, on behalf of DISTRICT, which do not increase the maximum compensation payable to ENGINEER (including all Direct Salary Cost and Direct Non-Salary Cost), by more than \$_____, otherwise, any amendment must be authorized by DISTRICT's Board of Directors.

ARTICLE 8: INDEPENDENT CONTRACTOR RELATIONSHIP

8.1 It is expressly understood between the parties that no employee/employer relationship is intended, the relationship of ENGINEER to DISTRICT being that of an independent contractor. DISTRICT shall not be required to make any payroll deductions or provide Workers' Compensation Insurance coverage or health benefits to ENGINEER.

8.2 ENGINEER is solely responsible for selecting the means, methods, and procedures for doing the work assigned, and for coordinating all portions of the work so the results will be satisfactory to DISTRICT. ENGINEER will supply all tools and instrumentalities required to perform its services under the Agreement.

8.3 ENGINEER pursuant to this Agreement is rendering professional services only and any payments made to it are compensation solely for such services as it may render and recommendations it may make in the performance of services.

8.4 ENGINEER shall not discriminate against any person by reason of sex, race, color, creed, national origin, ancestry, physical handicap, or medical condition.

ARTICLE 9: INFORMATION, LIAISON, AND ASSISTANCE

9.1 DISTRICT agrees to provide ENGINEER all available information and assistance, without warranty, in regard to obtaining any work performed by DISTRICT or others in connection with the project, including but not limited to: as-builts, construction specifications, schematic drawings, operational information, existing data, applicable reports, and survey data, which are available to DISTRICT and are required in connection with ENGINEER's services under this agreement. All such information shall be maintained by ENGINEER in a confidential manner and ENGINEER shall not release such information to any person or agency without DISTRICT's written approval.

ARTICLE 10: CONFIDENTIAL RELATIONSHIP/TITLE TO DOCUMENTS

10.1 ENGINEER agrees that all dealings of the parties under this Agreement shall be confidential and no report, data, information or communication developed, prepared or assembled by ENGINEER under this Agreement, or any information made available to ENGINEER by DISTRICT, shall be revealed, disseminated or made available by ENGINEER to any person or entity other than DISTRICT without the prior written consent of DISTRICT. All data, calculations, drawings and other documents developed, prepared, completed or acquired by ENGINEER during the performance of its services hereunder shall be turned over to DISTRICT upon termination of this Agreement.

ARTICLE 11: COMPLIANCE WITH LAWS

11.1 ENGINEER shall be solely responsible for giving all notices and complying with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority relating to ENGINEER's work, obtaining necessary permits, and ensuring the safety of the persons or property involved, and their protection from damage or injury.

ARTICLE 12: NOTICES

12.1 All notices or other official correspondence relating to contractual matters between the parties hereto shall be made by depositing same first-class, postage paid mail addressed as follows:

TO ENGINEER:

TO DISTRICT:

Mr. Dennis A. Erdman, General Manager
Crescenta Valley Water District
2700 Foothill Blvd.
La Crescenta, CA 91214

or to such other address as either party may designate hereinafter in writing delivered to the other party. All notices shall be deemed to have been received three (3) days after mailing.

ARTICLE 13: SUSPENSION OR TERMINATION OF SERVICES

13.1 DISTRICT may, by written notice to ENGINEER, suspend or terminate ENGINEER's services under this Agreement in whole or part at any time, in its sole discretion or because of the failure of ENGINEER to fulfill its contractual obligations. Upon receipt of such notice, ENGINEER shall: immediately discontinue all services affected (unless the notice directs otherwise) and deliver to DISTRICT copies of all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have been accumulated by ENGINEER in performing this Agreement whether completed or in progress. If the performance of all or any part of the work is, for an unreasonable period of time, suspended or delayed by an act of DISTRICT in the administration of this Agreement, an adjustment shall be made for any increase in cost of performance of this Agreement necessarily caused by such unreasonable suspension or delay, and this Agreement shall be modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension or delay to the extent that performance would have been suspended or delayed by any other cause, including the fault or negligence of ENGINEER. If DISTRICT terminates this Agreement in its discretion, ENGINEER shall be entitled to compensation for work performed to the date of termination, plus any costs incurred by ENGINEER, but no amount shall be allowed for anticipated profit or unperformed services. If DISTRICT terminates this Agreement due to the failure of ENGINEER to fulfill its contractual obligations, DISTRICT may take over the work and prosecute the same to completion by contract or otherwise and DISTRICT shall be compensated by ENGINEER for any losses or damages DISTRICT incurs by virtue of ENGINEER's failure to perform.

ARTICLE 14: ATTORNEY FEES

14.1 In the event either party shall commence any legal action or proceeding, including an action for declaratory relief, against the other by reason of the alleged failure of the other to perform or keep any term, covenant or condition of this Agreement, or to interpret any term, covenant or condition of this Agreement, the party prevailing in said action or proceeding shall be entitled to recover, in addition to its court costs, reasonable out-of-pocket expenses (including, but not limited to, phone calls, photocopying, expert witnesses, travel, etc.) and reasonable attorney fees to be fixed by the court, and such recovery shall include court costs and attorney fees on appeal, if any. The court will determine who the "prevailing party" is whether or not the suit precedes to final judgment.

ARTICLE 15: ASSIGNMENT

15.1 Neither party shall assign or transfer its interest in this Agreement without the written consent of the other.

ARTICLE 16: NO WAIVER

16.1 No failure or delay by DISTRICT in asserting any of DISTRICT's rights and remedies as to any default of ENGINEER shall operate as a waiver of the default, of any subsequent or other default by ENGINEER, or of any of DISTRICT's rights or remedies.

16.2 No such delay shall deprive DISTRICT of its right to institute and maintain any action or proceeding which may be necessary to protect, assert or enforce any rights or remedies arising out of this Agreement or the performance of this Agreement.

ARTICLE 17: EXAMINATION OF RECORDS

17.1 ENGINEER agrees DISTRICT shall have access to and the right to examine any directly pertinent books, documents, papers, and records of ENGINEER and all the transactions relating to this Agreement.

ARTICLE 18: TERMS

18.1 No alteration or variation of the terms of this Agreement shall be valid unless made in writing and signed by the parties. No oral understanding or agreement not incorporated herein shall be binding on any of the parties.

ARTICLE 19: PARTIAL INVALIDITY

19.1 If any term, covenant, condition or provision of this Agreement is found by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions hereof shall remain in full force and effect, and shall in no way be affected, impaired, or invalidated thereby.

ARTICLE 20: NO THIRD PARTY BENEFICIARIES

20.1 Nothing under this Agreement shall be construed to give any rights or benefits to anyone other than DISTRICT and ENGINEER, and all duties and responsibilities undertaken pursuant to this Agreement will be for the exclusive benefit of DISTRICT and ENGINEER and not of any other party.

ARTICLE 21: CALIFORNIA LAW

21.1 This Agreement shall be interpreted and construed pursuant to the laws of the State of California. The parties agree that should litigation arising from this Agreement be commenced within California, such litigation shall occur within a court of competent jurisdiction within the County of Los Angeles.

IN WITNESS WHEREOF, the parties hereto have executed this agreement the day and year first above written.

CRESCENTA VALLEY WATER DISTRICT

By _____
Dennis A. Erdman, General Manager

ATTEST:

By _____
Ron L. Mitchell, Secretary-Treasurer

Name of Firm

By _____
Name of person

Title

APPENDIX B

Crescenta Valley Water District Engineering Committee Memo Dated 8/5/20

CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Action Item No. 4
August 5, 2020

To: Engineering Committee
From: David S. Gould, P.E. – Director of Engineering
Subject: Project Update – August 2020 - FY 20/21 Water Capital Improvement Program

BACKGROUND:

The Board approved the FY 20/21 Water Budget at the June 9, 2020 meeting with \$2.3M available for CIP projects. The Board also agreed to pursue refinancing CVWD's existing bond debt and requesting additional funding, totaling \$5M available for FY 20/21 CIP.

Staff presented a CIP Program, at a previous Engineering Committee meeting, comparing the \$5M Bond and PayGo funding scenarios for discussion. The information indicated that the amount of expenditures required between July 2020 and December 2020 for consultants and construction would be below \$1M for both funding scenarios.

DISCUSSION:

The following is the **August 2020 status** update of the FY 20/21 CIP projects:

1. **Steel Reservoir Rehabilitation – Rosemont Reservoir** – This project is for the structural repairs and re-coating of the reservoir interior to maintain the District's water storage capacity and to increase the life expectancy of the steel tank. Harper and Associates Engineering (Harper) and staff have completed the plans, specifications, construction cost estimate. The following is an updated project schedule:
 - July 28, 2020 - Approval to advertise for bids - Complete
 - August 19, 2020 - Pre-Bid Meeting
 - September 2, 2020 - Bid Opening
 - September 8, 2020 - Award of Contract
 - Construction to begin in November 2020 and be completed in February 2021.
2. **Annual Pipeline Replacement** – This project is for the replacement of steel pipelines that are at least 50-years old or more in a timely manner.

Project 1 & 2: Staff has completed the design for the 2400 & 2500 Blocks of Janet Lee (Project 1), proceeding with the design of the 4300 Block of Rosemont (Project 2), and the following is an updated project schedule:

- September 22, 2020 - Approval to advertise for bids
- October 21, 2020 - Bid Opening
- October 27, 2020 - Award of Contract
- Construction to begin in November 2020 and be completed by February 2021.

Projects 3 & 4: Staff sent a request for proposal (RFP) to five (5) consulting firms to provide engineering services for the pipeline replacement on the 3400 & 3500 Blocks of Encinal (Project 3) and the 4800 Block of Dyer, 2800 Block of El Caminito, 4800 Block of Glenwood, 2800 Block of Stevens and 2700 Block of Paraiso Way (Project 4). The following is an updated project schedule:

- August 4, 2020 - RFP Due
- August 11, 2020 - Award of Consulting Contract
- November 10, 2020 - Approval to advertise for bids
- December 8, 2020 - Award of Contract
- Construction to begin in January 2021 and be completed by July 2021

3. **Groundwater Well Rehabilitation** – This project is for the rehabilitation of Well 9, which was last rehabilitated in 2014. The design will be completed by Mr. Yared, and the following is an updated project schedule:

- October 2020 – Prepare plans and specification
- November 10, 2020 - Approval to advertise for bids
- December 8, 2020 - Award of Contract
- Construction to begin in February 2021 and be completed by April 2021

4. **New Pressure Reducing Station & Upgrade Ramsdell Mixing Station** – This project is for the installation of a new PRV station near the intersection of Mayfield Ave and Ramsdell Ave. to provide water from Zone 2 to Zone 1 when Encinal Reservoir is out of service during construction of the upgrades to the Ramsdell/Mayfield Mixing Station (Mixing Station).

Staff is working on the design with additional assistance from DMc Engineering for topographic and right-of-way survey, Cannon for the electrical design, and APEX for SCADA programing and integration. The following is an updated project schedule:

- September 22, 2020 - Approval to advertise for bids
- November 10, 2020 - Award of Contract
- Construction to begin in February 2021 and be completed by July 2021

5. **Replacement of Supervisory Control and Data Acquisition (SCADA) System Upgrade** – CVWD has an existing SCADA system with RTU/PLCs installed at each of the District's facilities that provides information on the status of the system, controls for booster pump operation, and alarms to the System Operators. Staff is working on the design to upgraded SCADA system such that the equipment, programing and integration are based on industry standards and can be installed, repaired, and/or replaced by various companies.

Staff is currently working on an assessment of the current equipment and programing to prepare a request for proposal with a scope of work for a consulting firm. Staff will do a presentation at a future Engineering Committee meeting to discuss possible options and preliminary construction costs.

6. **Replacement of SCADA Communication Radio Network** – CVWD has an existing radio communication network that operates on the 900 MHz radio frequency. In the past year, the radio system has seen interference with other communication devices and the equipment, which was installed 6 years ago, is nearing the end of its useful life, and has been malfunctioning.

Staff is currently working on an assessment of the current equipment and reviewing options with respect to available radio frequencies or a licensed frequency. This information will be used for a presentation at a future Engineering Committee meeting and possible that this scope will be included in the SCADA system upgrades.

7. **Local Hazard Mitigation Plan** - CVWD was awarded a grant from Cal OES and FEMA to prepare a Local Hazard Mitigation Plan (LHMP) to address high priority hazards related to its water and sewer systems during a drought, energy shortage/outage, wildfire, earthquake, terrorism and cyber-attack. The total grant amount to prepare a local hazard mitigation plan is \$165,000, with \$125,000 grant funding from FEMA and \$40,000 funding from CVWD.

The proposal will be reviewed with the Engineering Committee at the August meeting and the following is an updated project schedule.

- August 11, 2020 - Award of Consulting Contract
- Kickoff Meeting – September 3, 2020 with the Emergency Planning Committee
- LHMP to begin in September 2020 and be completed by October 2021

8. **Annual Booster Pump Replacement** – This project is for the replace Markridge Booster 25, one (1) of CVWD's 34 booster pumps. Mr. Yared will be preparing the design specifications that will include replacing the existing motor will be with premium efficiency motors to decrease power costs and increase the "water to wire" efficiency and the following is an updated project schedule:
- October 27, 2020 - Award of Contract
 - Construction to begin in January 2021 and be completed by March 2021
9. **Advanced Metering Infrastructure (AMI) Program** – This project has two (2) components, 1) replacement of ¾" & 1" meters with new Sensus iPERL "Smart Meters" in Pressure Zones 1 & 2, and 2) installation of the AMI network communication system. Field crews have resumed replacing meters, and this will continue through January 2021.

Staff met with UtiliWorks Consulting to review the request for quote (RFQ) for the AMI network communication system that was completed last year. Staff also requested a proposal from UtiliWorks for assistance with the project that will be discussed further. The following is an updated project schedule:

- August 11, 2020 – Approve consultant contract with UtiliWorks
 - September 22, 2020 – Approval to advertise for bids
 - November 10, 2020 – Award of Contract
 - Installation to begin in January 2021 and be completed by May 2021
10. **Stormwater Recharge Program** - Stormwater Recharge Project at Crescenta Valley County Park (CVC Park) includes the design and installation of a stormwater infiltration system within CVC Park that will direct stormwater from the Verdugo Wash into infiltration galleries for groundwater recharge.

The focus for the next two (2) months will be meeting and coordinating with the City of Los Angeles on stormwater rights. Staff will be working with John Robinson Consulting and Mr. Bunn from Lagerlof on an agreement with the City of Los Angeles. The draft agreement will be presented at a future Engineering Committee meeting.

11. **Facility Improvement Program** – This project is for the installation of a new roof on the existing 70 ft diameter concrete reservoir at Encinal for material and equipment storage. Staff will be preparing an RFP for a consulting firm to perform the structural design of the new roof. The following is an updated project schedule:
- August 31, 2020 – RFP Due
 - September 8, 2020 - Award of Consulting Contract
 - November 10, 2020 - Approval to advertise for bids
 - January 12, 2021 - Award of Contract
 - Construction to begin in February 2021 and be completed by July 2021
12. **Rehabilitation Surge Tank at Glenwood** – This project is the rehabilitation of the surge tank at the Glenwood plant. Staff has a preliminary design completed, and the next step will be completing the design and specifications for a specialty contractor to perform the repairs. The project will be awarded for construction in January 2021 and construction completed by April 2021. The schedule will be as follows:
- December 8, 2020 - Award of Contract
 - Construction to begin in January 2021 and be completed by March 2021

SUMMARY:

In summary, staff is underway with the design of several CIP projects and wanted to provide updated information to the Engineering Committee about the project schedule and future Board action items.

Prepared & Submitted by:

A handwritten signature in blue ink, appearing to read 'D. Gould', written over a horizontal line.

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

APPENDIX C

Crescenta Valley Water District

Preliminary FY 20/21 Capital Improvement Project

Program Schedule

Construction Management & Inspection Service					
Task	State Date	End Date	Days	Comments	Construction Period
RFP	Tuesday, August 18, 2020	Tuesday, September 15, 2020	28		
Pre-Proposal Meeting	Tuesday, September 15, 2020	Wednesday, September 30, 2020	15		
Proposal Due	Wednesday, September 30, 2020	Tuesday, October 6, 2020	6		
Staff Report - ECM	Tuesday, October 6, 2020	Thursday, October 8, 2020	2		
Eng. Committee	Thursday, October 8, 2020	Friday, October 9, 2020	1		
Staff Report	Friday, October 9, 2020	Friday, October 23, 2020	14		
Award Contract/Agreement	Friday, October 23, 2020	Tuesday, October 27, 2020	4		
Kick-Off Meeting	Tuesday, October 27, 2020	Tuesday, November 3, 2020	7		
Rosemont Reservoir - Structural Upgrades and Re-Coating					
Design - Finalize & Specifications	Monday, July 6, 2020	Wednesday, August 5, 2020	30		
Construction - Advertise for Bid	Wednesday, August 5, 2020	Tuesday, August 11, 2020	6		
Construction - Bidding Period	Wednesday, August 12, 2020	Thursday, September 3, 2020	22		
Construction - Award of Contract	Thursday, September 3, 2020	Tuesday, September 8, 2020	5	Inspection - CVWD	
Construction - Contract/Shop Drawings/Drain Tank	Wednesday, September 9, 2020	Monday, November 9, 2020	61	CVWD/PH - Daily Coordination	
Construction Period	Monday, November 9, 2020	Monday, March 29, 2021	140	HAEI - Structural/Coating	19 Weeks
Pipeline - Project 1 & 2					
Design - Finalize & Specifications	Friday, September 4, 2020	Wednesday, September 16, 2020	12		
Construction - Advertise for Bid	Wednesday, September 16, 2020	Tuesday, September 22, 2020	6		
Construction - Bidding Period	Wednesday, September 23, 2020	Wednesday, November 4, 2020	42		
Construction- Bid Opening/Award Contract	Wednesday, November 4, 2020	Tuesday, November 10, 2020	6		
CM&I - Scope/Proposal	Wednesday, October 28, 2020	Thursday, November 5, 2020	8	1,400 LF - 8" Steel Pipe	
CM&I - Staff Report/Award Contract/Agreement	Thursday, November 5, 2020	Tuesday, November 10, 2020	5		
Construction - Agreement, Pre-Con Mtg, Shop Drawings & M	Wednesday, November 11, 2020	Wednesday, November 25, 2020	14	One Contractor	
Construction Period	Wednesday, November 25, 2020	Wednesday, February 17, 2021	84	Full-Time Inspection (1)	14 Weeks
La Granada Sewer Lift Station - New Emergency Electrical Generator & Site Work					
Design - Finalize & Specifications	Friday, September 4, 2020	Wednesday, October 7, 2020	33		
Construction - Advertise for Bid	Wednesday, October 7, 2020	Tuesday, October 13, 2020	6		
Construction - Bidding Period	Wednesday, October 14, 2020	Wednesday, November 4, 2020	21		
Construction - Award of Contract	Wednesday, November 4, 2020	Tuesday, November 10, 2020	6	Elect. Gen	
CM&I - Scope/Proposal	Wednesday, October 21, 2020	Wednesday, November 4, 2020	14	Site Improvements	
CM&I - Award Contract/Agreement	Wednesday, November 4, 2020	Tuesday, November 10, 2020	6		
Construction - Contract/Shop Drawings/Order Gen	Wednesday, November 11, 2020	Wednesday, February 3, 2021	84	12 week lead time on generator	
Construction Period	Wednesday, February 3, 2021	Sunday, April 4, 2021	60	Full-Time Inspection	13 Weeks
Pipeline - Project 3 & 4					
Design - Finalize & Specifications	Friday, September 4, 2020	Friday, November 6, 2020	63		
Construction - Advertise for Bid	Friday, November 6, 2020	Tuesday, November 10, 2020	4		
Construction - Bidding Period	Wednesday, November 11, 2020	Wednesday, December 2, 2020	21		
Construction- Bid Opening/Award Contract	Wednesday, December 2, 2020	Tuesday, December 8, 2020	6		
CM&I - Scope/Proposal	Thursday, November 12, 2020	Wednesday, December 2, 2020	20		
CM&I - Staff Report/Award Contract/Agreement	Wednesday, December 2, 2020	Tuesday, December 8, 2020	6		
Construction - Agreement, Pre-Con Mtg, Shop Drawings & M	Tuesday, December 8, 2020	Monday, January 11, 2021	34	2 Projects - Same Construction	
Construction Period	Monday, January 11, 2021	Tuesday, May 11, 2021	120	Full-Time Inspection (2)	18 Weeks
Well 9 Rehabilitation					
Design - Finalize & Specifications	Monday, October 5, 2020	Wednesday, November 4, 2020	30		
Construction - Advertise for Bid	Wednesday, November 4, 2020	Tuesday, November 10, 2020	6		
Construction - Bidding Period	Tuesday, November 10, 2020	Wednesday, December 2, 2020	22		
Construction- Bid Opening/Award Contract	Wednesday, December 2, 2020	Tuesday, December 8, 2020	6		
CM&I - Scope/Proposal	Wednesday, November 4, 2020	Wednesday, December 2, 2020	28		
CM&I - Staff Report/Award Contract/Agreement	Wednesday, December 2, 2020	Tuesday, December 8, 2020	6	2 Weeks to Mob	
Construction - Agreement, Pre-Con Mtg, Shop Drawings & M	Tuesday, December 8, 2020	Monday, January 11, 2021	34	4 Weeks - New Pump	
Construction Period	Monday, January 11, 2021	Tuesday, April 6, 2021	85	Part-Time Inspection	9 Weeks

APPENDIX D
Crescenta Valley Water District
Project Location Maps

Crescenta Valley Water District

Statement of Qualifications for Construction Management and Inspection Support Services Consultant Ranking

Ranking	Weighted Percent	Wallace & Associates		Dudek		Cannon		Civiltec Engineering		SA Associates		DMc Engineering	
		Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Proposal - Project Concept & Scope of Work	30%	3.83	1.15	3.67	1.10	4.17	1.25	3.33	1.00	3.33	1.00	3.00	0.90
Project Experience	40%	4.33	1.73	4.33	1.73	3.83	1.53	3.50	1.40	3.17	1.27	3.50	1.40
Project Team Qualifications	30%	4.83	1.45	4.50	1.35	3.67	1.10	3.17	0.95	3.33	1.00	3.00	0.90
Final Weighted Score	100%		4.33		4.18		3.88		3.35		3.27		3.20

Each consultant's proposal rated 1 - 5 (5 outstanding - 3 average - 1 unsatisfactory) on each category above. Each rating is multiplied by the weighted average for each category and totaled for the final weighted score.

Categories:

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

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

CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 2

October 9, 2020

To: Engineering Committee
From: David S. Gould, P.E. – Director of Engineering
Subject: Award of Contract - Procurement and Installation of AMI Communications Network, Project E-1020

INFORMATION ITEM:

Award of Contract for Procurement and Installation of AMI Communications Network, Project E-1020

– Consideration and motion to authorize the General Manager to enter into an agreement with Aqua-Metric Sales Company for the procurement and installation of AMI Communications Network at a cost of \$166,352 and establish a contingency amount of \$16,635 (10% of contract) to cover the cost of unforeseen or additional work

BACKGROUND:

In August 2020, CVWD awarded a consulting contract to UtiliWorks Consulting, Inc. (UtiliWorks) to provide professional services in assisting the District for the procurement and installation of the AMI Communications Network as the next phase towards CVWD having a fully function AMI system.

DISCUSSION:

UtiliWorks completed the Request for Quote (RFQ) that includes installation of new AMI collectors or base stations to collect and transfer water meter data, configuring analytic software to utilize the information, and installing 100 water meter smart points to verify that the AMI communication network is working correctly.

The RFQ was sent to Aqua-Metric Sales Company (Aqua-Metric), which is the local representative for Sensus (a Xylem brand) on September 1, 2020 (See attached AMI communication network RFQ). Staff and UtiliWorks also met with Aqua-Metric on September 8, 2020 to review the RFQ and answer any outstanding questions.

CVWD/UtiliWorks received Aqua-Metric's proposal on September 18, 2020 and as part of UtiliWorks scope of work. They worked with Aqua-Metric on reviewing the proposal, proposed costs, and additional services that CVWD may need during installation.

UtiliWorks completed the negotiations with Aqua-Metric and the final proposed costs for the AMI communication network are shown in the attached quote from Aqua-Metric. In addition to the initial cost for the procurement and installation of the AMI communication network, there are annual costs to maintain the equipment, software upgrades and support services.

Project Costs:

Staff reviewed the budget amount allocated for AMI for FY 20/21, which was \$50,000 for new meters and \$150,000 for the AMI communications network, for a total of 200,000. As shown in the table below, the overall project costs are more than budgeted for this project for FY 20/21 by about \$202,000. By incorporating this scope of work under this contract in the current fiscal year, the District can realize some economies of scale and potential long-term savings in the overall implementation of AMI.

FY 20/21 Water CIP – Technology - Advanced Metering Infrastructure (AMI)	Preliminary Cost Estimate
Budget - Installation of 3/4" & 1" water meters in Zones 1 & 2	\$50,000
Budget - Procurement and Installation of AMI Network Communication System	\$150,000
Total Budget	\$200,000
Consultant Contract	(\$104,600)
Aqua-Metric - AMI Network Communication System & 10% contingency	(\$182,987)
Project Management - Highroad IT	(\$10,413)
Installation of 3/4" & 1" water meters in Zones 1 & 2	(\$86,500)
Proof of Concept – 100 - meter lids	(\$17,500)
Total Cost Estimate	(\$402,000)
Amount Remaining in FY 20/21 Water CIP – Technology	(\$202,000)
Transfer of CIP Funds from other FY 20/21 CIP Projects (Option 1)	\$202,000
Revised Amount Remaining in FY 20/21 Water CIP – Technology	\$0

To be able to meet our goal of installation of the AMI Communication Network in FY 20/21, staff has previously put together three (3) options that were discussed with the Board.

Option 1:

Staff to monitor and report the overall FY 20/21 CIP budget of \$5M and adjust each project costs separately during the planning, design, and construction phases to ensure that the overall CIP budget does not exceed \$5M.

Option 2:

Staff requests a budget adjustment for this project of \$202,000 and decrease the amount available for next year's (FY 21/22) CIP budget.

Option 3:

Reduce Aqua-Metric's scope of work such that they install the AMI- base stations only and the remaining portions of the project to be done by CVWD and its staff.

Project Schedule:

- October 13, 2020 – Award Contract
- October 29, 2020 – Kickoff Meeting
- Dec 2020 to Jan 2021 – Install AMI Base Stations
- Jan 2020 to Feb 2021 – Install 100-meter box lids and smart points for testing
- Feb 2021 to Mar 2021 – Install and test analytic software
- Mar 2021to Apr 2021 – Finalize AMI Communication Network.

SUMMARY:

It is staff's recommendation to award a contract to Aqua-Metric for the procurement and installation of the AMI Communication Network project and to move forward with Option 1 to address the project costs. Staff is recommending that the award of contract for Aqua-Metric be placed on the agenda at the next Board meeting on October 13, 2020.

Prepared & Submitted by:



David S. Gould, P.E.
District Engineer

Attachments:

1. AMI communication network RFQ
2. Price Quote from Aqua-Metric dated 10/6/20



ADVANCED METERING INFRASTRUCTURE

Request for Quotation

Quote Delivery Due Date:

Wednesday, September 30, 2020

3:00 PM PST

Delivery Address:

Crescenta Valley Water District

Attn: David Gould, Director of Engineering

2700 Foothill Blvd

La Crescenta, CA 91214

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1. ACRONYMS/DEFINITIONS

For the purposes of this Request for Quote (RFQ), the following acronyms and terms are defined as:

Table 1-Acronyms/Definitions

Acronym/Term	Definition
AMI	Advanced Metering Infrastructure
AMI Endpoint	Device that sends data from the meter to a collection point
AMI Collector	Receives data via RF from AMI Repeater and AMI Endpoint
AMI Head-end	Accepts data from AMI Collectors via Backhaul Communications for processing
AMI Repeater	Relays RF from the AMI Endpoint to the AMI Collector
Awarded Contractor(s)	The organization(s)/individual(s) that is/are awarded and has/have an approved contract(s) with CVWD for the services identified in this RFQ
Backhaul Communications	Facilitates transfer of data from AMI Collector to AMI Head-end
CEP	Customer Engagement Platform
CIS	Customer Information System
Contractor(s)/Vendor(s)	Organization(s)/individual(s) submitting a Quote in response to this RFQ
DIR	Department of Industrial Relations
Evaluation Committee	An independent committee comprised solely of representatives of CVWD established to review Quotes submitted in response to this RFQ, evaluate the Quotes, and select the contractor(s)
FCC	Federal Communications Commission
GIS	Geographic Information Systems
Green Button	Easy access to energy/water/gas usage data
Highroad IT	IT Service Provider to CVWD
IT/OT	Information Technology/Operational Technology
IVR	Interactive Voice Response
May	Indicates something that is not mandatory, but is permissible
MDMS	Meter Data Management System
NaaS	Network as a Service
NDA	Non-Disclosure Agreement
NOC	Network Operations Center
QA	Quality Assurance
RF	Radio Frequency
RFP	Request for Proposal
RFQ	Request for Quotation
RNI	Regional Network Interface – the Xylem Headend
SaaS	Software as a Service; Aqua-Metric to manage the RNI environment, CVWD to own the collectors, Aqua-Metric to service/maintain the equipment

Acronym/Term	Definition
Shall/Must	Indicates a mandatory requirement; failure to meet a mandatory requirement may result in the rejection of a Quote as non-responsive.
Should	Indicates something that is recommended but not mandatory; if a Contractor fails to provide recommended information, the Utility may, at its sole option, ask the Contractor to provide the information or evaluate the Quote without the information
SLA	Service Level Agreement
Subcontractor	Third-party not directly employed by the Contractor who will provide services identified in this RFQ
CVWD/The Utility	Crescenta Valley Water District

2. SUBMITTAL INSTRUCTIONS

2.1 Background

Crescenta Valley Water District (CVWD or the District) desires to sole-source its selection of the Advanced Metering Infrastructure (AMI) solution to Sensus, a Xylem Company via their local distributor, Aqua-Metric DBA Thirkettle Corporation. In doing so, the District is seeking to leverage the benefits of the iPERL meters previously installed in their service area. This RFQ therefore is seeking pricing on all AMI components (hardware, software and associated licensing) to support the District's AMI implementation. After receiving the proposed costs, CVWD will work with Sensus to finalize costs and negotiate final contract.

CVWD's overall AMI project is expected to occur over a 5-year timeline. In the first year, CVWD anticipates deploying the AMI backhaul infrastructure, the RNI and the MDMS. Phase I is to include integrations to the Springbrook CIS, training, testing and user acceptance. Meter replacement and retrofits to include meter equipment procurement will be in pressure zones 1, 2 & 3 and performed by the District's crews.

This project will replace all water meters up to and including 4" meter size (approximately 2,245 count) to AMI meter technology, except for the newer meters (approximately 5,807 count) that will be retrofitted.

CVWD will consider the following additional equipment and services:

- o Remote disconnect modules or integrated remote disconnect meters
- o Water distribution pressure sensors and associated software
- o Acoustic leak detection sensors and associated software
- o Options for pH sensing and Chlorine Sensing capabilities

CVWD anticipates having a Customer Engagement Platform (CEP) vendor selected via a Request for Proposal (RFP) process in year 2 (Phase II) of the project. GIS integration will also take place in year 2 (Phase II).

2.2 Questions

For questions regarding this RFQ, there will be a conference call held on September 10, 2020 to engage in a Q&A session. Any further questions will be sent via email to David Gould (dgould@cvwd.com) prior to RFQ submittal date.

2.3 Timeline

This RFQ will be presented to Sensus on September 1, 2020, with an allotted 30 days for response on pricing.

2.4 Response Submission

CVWD requests the RFQ to be submitted electronically via email. All electronic documents submitted must be in a searchable and bookmarked .pdf file format, with section headings. A filled-out, Microsoft Excel-format copy of Attachment 1 (AMI Requirements and Capabilities) and Attachment 2 (Cost Quote Workbook) are to be provided.

In addition, please complete a proposed contract document with your associated Master Contract Document (to include Statement of Work, Testing, User Acceptance Criteria, Payment Milestones and Training Detail)

The District requests that the RFQ be submitted, if possible, at any time prior to the deadline of 3:00 PM Pacific Time, Thursday, September 30, 2020.

Quotes are to be emailed to:

David Gould, Director of Engineering
dgould@cvwd.com

Technical Quote Submission:

Limit the total RFQ Technical Response to a maximum of 50 pages excluding attachments and appendices.

The Technical Quote shall include the following sections:

- i. Title Page
- ii. Table of Contents
- iii. Contractor and Subcontractor Information Form
- iv. Executive Summary
- v. Experience/references
- vi. Product Maturity and Future Roadmap
- vii. Implementation Approach
- viii. Attachments
- ix. Appendices

Including but not limited to:

- a. Resumes
- b. Service level agreements
- c. Training schedule & sample training plan
- d. Installer employee safety program
- e. High-level test plan
- f. Product cut-sheets

Cost Quote Submission:

The Request for Quote must include cost breakdown and total quote in the specified Excel file format.

The Cost Quote shall include Attachment 2 – Cost Quote Workbook. See Section 5.7 for additional details.

2.5 Evaluation Process

The RFQ response shall be reviewed by CVWD's Evaluation Committee. Sensus shall include sufficient information to allow the Committee to thoroughly evaluate the response.

CVWD also reserves the right to contact all or any of the references provided in response; contact Sensus to clarify any response; contact any current user of Sensus' services or products; solicit information from any available source concerning any aspect of the information submitted; and seek and review any other information deemed pertinent.

CVWD reserves the right to consider other factors at its discretion.

Any award is contingent upon the successful negotiation of final contract terms. If contract negotiations cannot be concluded successfully, CVWD reserves the right to negotiate a contract with another Contractor or withdraw the RFQ.

3. GENERAL INFORMATION

3.1 Agreement Terms and Conditions, and Bonds

A sample form of the contract including payment and faithful performance bonds which Sensus will be required to execute is included as Appendix 3 (E-998 Typical Service Agreement) to this RFQ entitled "CVWD Typical Service Agreement" and should be carefully examined. The agreement, bonds, and other documents to be executed by Sensus executed two (2) original stamped according to law, one of which original shall be filed with the District and the other one will be furnished to Sensus. Note also Appendix 4 (E-998 Instructions to Bidder) for additional information.

Sensus simultaneously with the execution of the agreement, shall furnish and maintain a payment bond in an amount equal to 100% of the contract price and a faithful performance bond in an amount equal to 100% of the contract price. The bonds shall be secured from a surety company satisfactory to the District and whose name is on file with the County Clerk of Los Angeles County as an approved and financially sound surety company, authorized to transact business in this State.

The bonds shall meet all of the requirements and contain the conditions required by Sections 3247 and 3248 inclusive, of the Civil Code, and other applicable provisions of the law and regulations of the State of California.

Failure to execute the contract and file acceptable bonds and proof of insurance coverage as provided therein within the time set forth herein shall be just cause for the annulment of the award.

3.2 Insurance Requirements

Before entering into a contract, the firm to whom the contract has been awarded shall furnish satisfactory evidence of workers' compensation insurance and public liability and property damage insurance as specified in the special provisions.

4. PROJECT OVERVIEW

4.1 Project Scope

CVWD is requesting a quote from Aqua-Metric for a fully automated, two-way, fixed-base AMI communication system and associated equipment. The scope of the quotation will include the deployment of all hardware and systems, integrations, testing, training, and support services. While a propagation study has already been performed in the past, the District requests another be performed using the most up-to-date District-Owned asset list and meter inventory. Sensus Analytics and associated integration cost to the CIS should be included.

CVWD is highlighting the following general requirements, utility preferences, and circumstances surrounding this effort:

- The proposed AMI system must be two-way between the AMI head-end, the collector and the meter end points.
- CVWD is requesting a Software as a Service (SaaS) cloud-based 'hosted' AMI head-end.
- Aqua-Metrics shall provide full system redundancy and adhere to security best practices.

- CVWD requests Aqua-Metric to perform a site propagation study across the entire meter population to determine the number and placement of AMI network devices and the suitability of the frequencies used in CVWD's service area.
- Criteria for the collector antenna mounting on top of CVWD assets (e.g. water tanks, pump stations):
 - o Welded mounts are not allowed. Corrosion resistant, stainless steel mechanical fasteners are preferred. If possible, magnetic fasteners.
 - o Attachments must withstand at least 80 miles per hour wind
 - o Collectors should be located near the ground – only antenna to be mounted on top of assets
- Future Meter reads will be registered and transmitted in 0.1 gallon increments or less. Water is currently registered in gallons and billed in Kgal units (1,000 gallons = 1 unit)
- All equipment and services provided must meet all federal, state, and local regulatory requirements (including, but not limited to, Federal Communications Commission regulations).
- Water meters must meet the latest edition American Water Works Association standards.
- Working in conjunction with CVWD and/ or its affiliates, Sensus will participate in recurring status meetings and provide adequate representation and timely responses.
- The pricing provided by Sensus shall include a 5-year agreement for all maintenance required of the collectors and AMI network.
- Suggest locations for installation of 100-meter lids as determined through the propagation study by CVWD's field crews to verify that the AMI Communication Networks meets the project requirements.
- RF frequencies being used shall not interfere with existing SCADA systems.

The objective of the RFQ effort is to obtain AMI Infrastructure implementation costs that meet the functional and business requirements for CVWD at the best value.

4.2 CVWD Background

CVWD provides potable water to the Crescenta Valley Water District service area. The service area includes the communities of La Crescenta, Montrose and a variety of other unincorporated areas. There are approximately 8,052 water meter connections in a 4-square-mile service area that are to be replaced. The service area of CVWD can be best described as having a tall mountain backdrop, deep canyons, and an alluvial fan topography leading up to the local ridgelines. As a result, a current propagation study is critical in determining the appropriate AMI network configurations that suits CVWD.

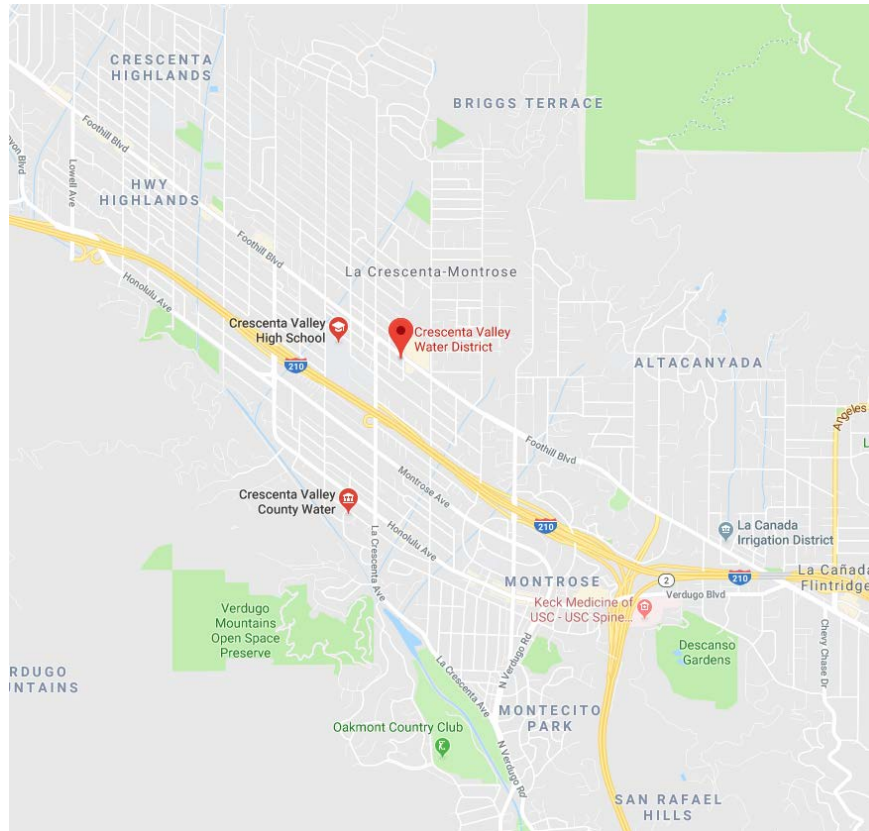


Figure 1-CVWD Water Service Area

Metering

CVWD has just over 8,000 installed meters which are read bi-monthly.

The meters listed in the table below have been installed since 2012 and will be retrofitted and integrated with the proposed solution at a later date.

Table 2-Installed Meter Count, AMI ready

Meters Installed		
Size	Type	Count
3/4"	Sensus Iperl	5,563
1"	Sensus Iperl	650
1-1/2"	Sensus OMNI 1.55	1
2"	Master Meter Octave O2-2.5	14
3"	Master Meter Octave O2-3.5	6
4"	Master Meter Octave O2-4.5	1

In addition, the following meter population will require complete meter, register and communication module replacement at a later date by CVWD's field crews or an outside contractor (not a part of this RFQ)

Meters to be Installed		
Size	Type	Count
3/4"	Sensus Iperl	1,328
1"	Sensus Iperl	309
1-1/2"	Sensus OMNI 1.55	149
2"	Master Meter Octave O2-2.5	53
3"	Master Meter Octave O2-3.5	22
4"	Master Meter Octave O2-4.5	2

The following services are to be excluded from the overall AMI project: 256 water service lines that would need to be replaced due to yoke assemblies or galvanized steel water service lines before new meters can be installed; Five (5) streets with a total of 156 water service lines that need to be replaced along with pipeline before new meters are installed. Fire services are also not included in this water replacement plan.

Meter Box Lids

CVWD has identified that about 45% of all lids in the service territory are concrete. CVWD will at a later date determine how many meter box lids to replace and installation of the new meter box lids.

4.3 Project Phasing

Figure 2-CVWD AMI Program Deployment Timeline

Year	Task
1 (2020/2021)	AMI Deployment CIS & MDMS Integration POC Alpha Phase (100 Meters) Pressure Zones 1, 2 and 3- Meters Only
2 (2021/2022)	CEP Deployment GIS Integration

	Zones 9, 10, and 11- lids and connectors 1.5" and 2" meter replace 1.5" and 2" lids and connectors
3 (2022/2023)	Zones 6, 7, and 8 - lids and connectors 3" and 4"- meter replace 3" and 4" lids and connectors
4 (2023/2024)	Pressure Zones 3, 4, and 5 - lids and connectors
5 (2024/2025)	Pressure Zones 1 and 2 - lids and connectors

5. QUOTE CONTENTS DETAIL

What follows is an outline of the contents of the Quote to be submitted.

5.1 Contractor and Subcontractor Information Form

**QUOTE
TO
CRESCENTA VALLEY WATER DISTRICT
FOR THE CONSTRUCTION OF
Advanced Metering Infrastructure & Associated Installation Services**

Name of Firm: _____

License Number and Class: _____

DIR Registration Number: _____

Business Address: _____

Phone No.: _____

The site of the work to be constructed and referred to herein is in the County of Los Angeles, California.

The work is to be in accordance with the specifications and contract documents and as described in the Request for Quotation entitled:

Advanced Metering Infrastructure &
Associated Network Device Installation Services

Contractor shall submit to District the following information as part of the Quote:

1. The name and location of the place of business of each subcontractor performing work, labor or render construction services and each subcontractor licensed by the State of California specially fabricating and installing improvements according to detailed drawings or the plans and specifications, in an amount in excess of one-half of one percent of the Contractor's total Quote/bid.

2. The portion of the work to be done by each subcontractor.

3. California Contractor's license number of its listed subcontractors under the requirements for subcontractor listing and shall be solely responsible to correct any errors in the listing of the California Contractor's license number. Contractor shall submit corrected California Contractor's license number information within 24 hours of request by the District or upon discovery by Contractor by submitting the correction to the District representative provided within the Request for Quotes. Contractor's failure to submit a corrected California Contractor's license number in compliance with the process set forth above will cause the Quote/bid to be nonresponsive.

The Contractor shall list only one subcontractor for each portion of the work identified in the Request for Quote.

DIVISION OF WORK OR TRADE	NAME OF SUBCONTRACTOR (LICENSE# / CLASSIFICATION) (DIR REGISTRATION NO.)	LOCATION OF MILL SHOP, OR OFFICE

5.2 Executive Summary

Provide the following information in the executive summary:

- A summary of your Quote, confirming you are submitting for an AMI solution and network installation services.
- Which subcontractors, if any, are part of the proposed project team.
- An affirmation of no conflict of interest/non-collusion.
- An original authorized signature.

5.3 Experience

i. Company Information

Provide the following information in your response:

- a. A brief company history, including ownership, size, and number of national offices. Recent acquisitions or changes in ownership must be clearly disclosed.
- b. Overall company experience in AMI, network operations and systems integration.
- c. Confirmation that your company and personnel are legally allowed to work in the state of California.
- d. State whether there are pending or prior legal disputes or lawsuits with any existing or previous clients. If so, state all such disputes, including dates, as well as any facts and outcomes regarding these disputes.
- e. State the standard method or methods of resolving disputes, should they arise.

ii. Subcontractor Information

If Quotes include the use of subcontractors, the Contractor must:

- a. Identify the subcontractors and the specific requirements of this RFQ for which each proposed subcontractor will perform services.
- b. Provide the name of the firm, the name of a contact person, mailing address, phone, and fax number of the Subcontractor's principal place of business.
- c. Describe the relationships amongst the different entities proposing jointly, how long you have worked together, what projects were successfully implemented jointly, projects that were not successful, and whether any of the companies submitting jointly have vested interest in one another.

iii. References

CVWD requires a minimum of three (3) references from similar projects performed within the last five (5) years.

CVWD prefers references for water utilities of comparable size and terrain to CVWD (approximately 10,000 service connections in a challenging terrain).

These references shall be provided with the following information:

Table 3-Requested Reference Information

Utility Name	
Address	
Location (City/State/Zip)	
Contact Name	
Telephone	
E-mail Address	
Project Name	
Project Start Date	
Project End Date	
Project Scope	
Option for a Site Visit? (Yes/ No)	

Sub-contractors shall also provide a comprehensive list of references for services being proposed:

Table 4-Requested Reference Account Information

Utility Name	Location	Date	Account Size	Description

5.4 Product Maturity and Future Roadmap

Provide information on products and future roadmaps for your Quote. This section does not pertain to meter installation services.

- i. AMI System (Hosted)
 - a. Provide a narrative description of the AMI solution, from meter to software systems.
 - b. Include a discussion of cyber-security measures applicable to protect: CVWD's network, equipment, software, and customer data.
 - c. For a hosted AMI solution, an overview of respective NOCs, including third-party cloud services, uptime percentage, physical locations, security (both physical and cyber), and redundancy.
 - d. Contractor should provide documentation to support future scalability and expandability beyond what is initially required to support CVWD's implementation.
 - e. Provide the implementation process for releasing and applying software and firmware upgrades, bug fixes, and patches. Include overall implementation timeframe, vendor effort/time/resources, and client effort/time/resources. Discuss the quality assurance (QA) procedures currently in place to ensure bug fixes, patches, and upgrades are fully tested and validated prior to release. Discuss QA procedures currently in place to ensure the identification and correction of system security vulnerability.
 - f. Summarize the system maintenance agreement including terms and conditions. Provide a copy of Contractor's user support Service Level Agreement (SLA) as an appendix. The SLA should clearly indicate the severity levels, description of each level, guaranteed response times, availability of maintenance and support staff, and associated cost.
- ii. Meter and Endpoint Details
 - a. Provide the product cut sheet as an appendix to the Quote.
 - b. Describe how the product is configured (e.g. using handheld with IR port).
 - c. Confirm the product can be pre-configured in the factory.
 - d. Describe the maximum number of digits that can be transmitted for a meter read.
 - e. Describe ability to re-program registers in the field and hardware and/or software that is required to support this activity.
 - f. Provide a complete list of events and alarms supported by the head-end system and endpoints.
 - g. Detail what functionality available on the current release of the iPERL meters is not available with the CVWD legacy iPERL meters that have been installed since 2012.
 - h. Provide a detailed water meter compatibility matrix.
 - i. Provide the battery life warranty (in years) provided for Meters and Endpoints. Describe the conditions of this warranty.

- o Provide the reading frequency that the battery life warranty is based on. Explain if On-Demand Reads affect this warranty and, if so, to what extent.
- o Are any extended battery warranties available for the meter or endpoints?
- j. Describe any accessories that are necessary for operation and maintenance with the product. Verify that the production capacity for meters and endpoints can satisfy the number and timeline identified in this RFQ.
- k. Provide radio frequency information to be used by the endpoints and whether licensing with FCC is required.

For the pit-installed products, provide:

- l. Preferred mounting method.
- m. Minimum requirements of the meter pit lid (material construction, maximum thickness, and diameter of hole if required).
- n. Minimum clearance needed between the top of meter to bottom of pit lid.
- o. Description of how the radio is wired to the register (e.g. splice, connector).

iii. AMI Network Devices

- a. Provide the product cut sheet as an appendix to your Quote.
- b. State the number of AMI network devices, the locations of AMI network devices and the antenna.
- c. State any special mounting requirements, including minimum height, pole, tower, and bracing restrictions, the recommended sighting, and the minimum separation from other radio, cellular, microwave, or other sources of interference.
- d. Explain (if pole- or tower-mounted) if the unit can be installed at the base with the antennae mounted on the tower.
- e. Describe the backhaul transports that are supported (i.e., Wi-Fi, cellular).
- f. Explain if the product has the capability to store multiple readings in the case of a receiver being unavailable. If so, provide the storage limit of backup reads.
- g. Describe any maintenance requirements for the collection units.
- h. Verify that the production capacity for network devices can satisfy the number and timeline identified in this RFQ.

iv. MDM System (Hosted)

Provide, for the MDMS being proposed, the following information regarding the application and the application Proposer:

- a. The formal name and software version being proposed for implementation.
- b. Describe if the solution is available as Hosted or On-Premise or both.
- c. Direct access to data is a requirement for the City. For a hosted MDMS, describe how this access is provided, how security is ensured, and who 'owns'

the data. The City expects at least three (3) years of interval data to be readily available in the hosted MDMS. The City requires access to hosted data periodically for their own use beyond the three-year (3) requirement. Describe how the Proposer would meet these requests/requirements. Indicate whether there is a charge for this service (do not specify the amount).

- d. A narrative description of the proposed MDMS, system components, and capabilities. Clearly state what is included in the base offering. Include:
 - i. A discussion of Validation, Estimation, and Editing (VEE) capabilities.
 - ii. A concise list and description of all operational reports (e.g., system monitoring, meter status, VEE exceptions, etc.) and analytics (e.g., historical use trends, revenue forecasting, leak detection, etc.) available.
 - iii. A discussion on virtual metering (DMA or aggregated) capabilities:
 - 1. Can user-defined aggregated meters be individually configurable, depending on the user, and can the individual configurations be stored? Can a virtual meter be selected by any attribute within the billing system, such as residential, commercial, etc.? Can a user define stored alerts/alarms for each virtual meter? Can each user define multiple virtual meters?
 - 2. Describe the methods for defining virtual meters. Can virtual meters be selected based on attributes synchronized with the billing system such as customer classes (residential, commercial, industrial) or account status or meter size? Can ESRI GIS-generated meter numbers be imported to define a virtual meter such as each water meter within a water pressure zone? Can user-generated lists of meter numbers be imported to define a virtual meter? Describe any other methods/tools available to define virtual metering.
 - 3. Is any training or assistance available to support definition of virtual meters for the Utility?
 - 4. Once a virtual meter is created, can the user define the name of the virtual meter and store it in a library for others to use?
 - 5. Can virtual metering data be exported for use in ESRI GIS or third-party reporting applications?
 - iv. Describe individual user ability to establish user-defined alarms based on user-defined thresholds for operational reports and virtual metering.
- e. Discuss methodology and roll-out approach. Include:
 - i. A discussion on what interface mechanisms are available to facilitate integration with other utility systems (e.g., MultiSpeak, REST API, etc.).
 - ii. The City will require a TEST and PROD environment for the MDMS. Describe the MDMS go-live process and timing for transition from TEST to PROD.
- f. Include discussion of cyber-security measures applicable to protect City's software and customer data.

- g. For a hosted MDMS solution, an overview of respective NOCs, including third-party cloud services, uptime percentage, physical locations, security (both physical and cyber), and redundancy.
- h. Proposer should provide documentation to support future scalability and expandability beyond what is initially required to support City's implementation.
- i. Provide the implementation process for releasing and applying software and firmware upgrades, bug fixes, and patches. Include overall implementation timeframe, Proposer effort/time/resources, and client effort/time/resources. Discuss the internal QA procedures currently in place to ensure bug fixes, patches, and upgrades are fully tested and validated prior to release. Discuss internal QA procedures currently in place to ensure the identification and correction of system security vulnerability.
- j. Summarize the system maintenance agreement including terms and conditions. Provide a copy of Proposer's user support SLA as an appendix. The SLA should clearly indicate the severity levels, description of each level, guaranteed response times, availability of maintenance and support staff, and associated cost.
- k. Software hosting is preferred. Specify the differences in hosting versus on-premise (if Proposer can provide either solution).
- v. Research & Development Activities/Strategic Product Direction
Provide for the AMI and MDMS systems:
 - a. A discussion on the evolution of the proposed AMI and MDM product from the first major release of the product through to the present. Include a historical timeline.
 - b. A discussion of the AMI and MDM product development roadmap outlining the vision and strategy for the future of the proposed system. Include a description of the upgrades/enhancements that are in the planning or design stage.
 - c. Past and future research and development budgets. What percent does the company (or if Proposer is a distributor, provide the requested information for the manufacturer of the equipment you propose to provide), invest of its profit into research and development for future products?
 - d. An overview of additional sensors/optional equipment (Proposer-owned or third-party) supported by the system (such as remote disconnect, pressure sensors, main line leak detections, etc.).

5.5 Implementation Approach

i. Project Team

Provide the following regarding the proposed project team:

- a. An organizational chart outlining the structure of the proposed project team (including subcontractors) to be assigned to support this project.

- b. Names and positions of persons to be assigned to this project, including a description of their chief role. Indicate desirable certifications such as Project Management Professional, Six Sigma, etc. Resumes of key staff are to be included in the appendices. All personnel proposed for the project are subject to approval by CVWD.
- c. Contractor shall attest to the availability of key staff to fulfill the obligations of this engagement in a professional and timely manner. If there are any scheduling issues of concern, then proposing firms shall disclose those other commitments in its Quote and indicate how such other commitments will be addressed to mitigate their effect on services rendered to CVWD.
- d. Confirm your company's commitment to having an on-site presence as required to fulfill project scope and deliverables.

ii. Project Management

Provide your published methodology or describe at a high level your general approach to the management of an AMI and Installation Services Project. Ensure the following topics are covered in your response:

- a. Project team personnel will not be changed out without the prior approval of CVWD.
- b. Risk management and risk mitigation. Please describe your methods of identifying, assessing, and mitigating project risks.
- c. Problem resolution and exception management. Describe the problem identification and resolution process employed during the project. Describe how exceptions are managed, such as instances where installation cannot occur as there is no access to the property.
- d. Communications and Reporting. This project will involve multiple vendors and multiple CVWD departments. CVWD anticipates having weekly project status meetings and written status reports. Confirm you will provide representation and proactive communication for these activities.
- e. Quality Assurance. Describe how quality is measured, reported, and enforced. Consider the following in your response: data quality, quality of installation, success of training.
- f. Schedule. Describe how plans are monitored and maintained in order to keep the project on track.
- g. Scope Change. Describe how changes in scope are managed.

iii. Testing

Describe the proposed test plan/ strategy and testing tools to be employed to support and ensure user acceptance. Include Aqua-Metric's high-level test plan as an appendix. Please note, there is no template being provided by CVWD. Sensus should provide test plans in their preferred format.

iv. Training

Provide a list of all applicable training courses to be provided on-site, via the Internet, and at off-site locations. The training must be comprehensive enough to ensure that CVWD's staff can effectively install all products offered and operate all systems and software. Areas that shall be included (but are not limited to) in the training are:

- AMI Training
 - o Networked components
 - o Overview of the AMI product and head-end software
 - o System operations and troubleshooting (including interaction between the endpoint and collector(s), and collector(s) and AMI head-end) for the test meters and when then entire AMI system is deployed
 - o Identification and resolution of events and alarms
 - o Sensus Analytics training
 - o Additional software options training provided
- Endpoint Installation Training
 - o Installation
 - o Troubleshooting

Also provide an optimal user training schedule, and a sample training plan covering all items as outlined in this Training section as an appendix.

vi. Documentation

The following will be required as provisions within the agreed-upon contract between CVWD and Sensus for the AMI solution. Confirm your ability to provide:

- a. Description of major system components
- b. Hardware/software operations & maintenance manuals
- c. Training materials
- d. Samples of all standard reports with narrative descriptions of all fields displayed on the report, input parameters, and an explanation of how to execute each report
- e. All error codes, messages, and their explanations displayed online and/or on reports with action required or options available
- f. Updated system documentation available concurrent with the release of new software updates
- g. Troubleshooting and installation information
- h. Technical specifications and installation guides
- i. Proposed system acceptance test plan for your product

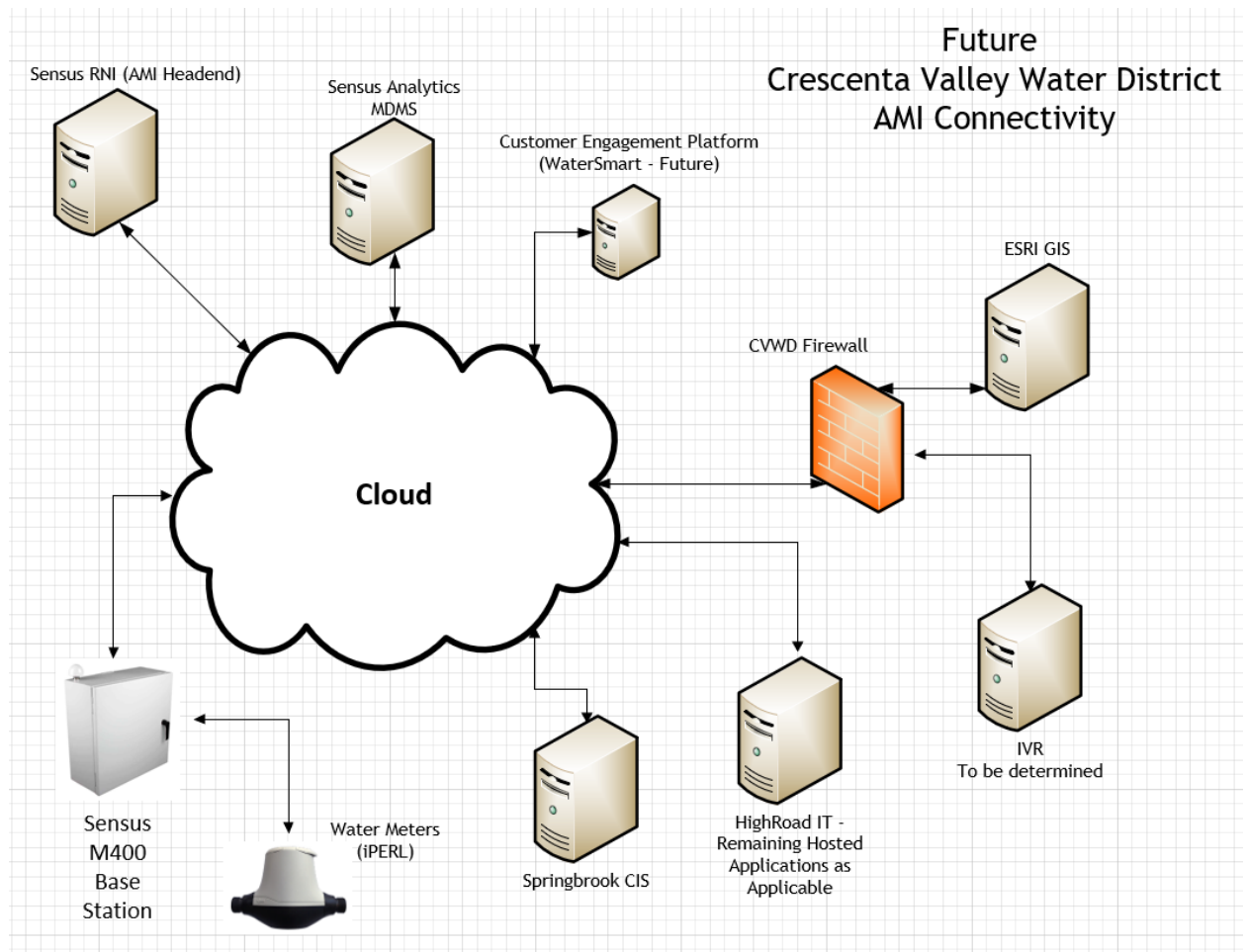
v. System Integration Services

Provide a summary of work and describe how integrations and data exchanges will be managed for CVWD. CVWD has a preference for a hosted solution for AMI. Alternatives to a hosted solution could also be considered. The cost workbook requests pricing for various ownership, management and maintenance options. See also below a high-level network diagram for the desired future connectivity post-AMI and MDMS deployment. Table 5 is a list of systems currently in place.

Table 5 – Systems Currently in Place

Function	Name of Application	Manufacturer	System Interfaces	Hosted / In House?	System Owner
Accounting/Financial/Purchasing	Springbrook	Acela	suite/Simpler via SQL	cloud	F/A
Asset Management	SEMS	SEMS Technologies	historian/email	on prem	Operations
Backflow	XC2	XC2 software	none	on prem	Engineering
CIS/Billing/Service Orders	Springbrook	Acela	suite/web portal	cloud	F/A
Customer Web Portal	Springbrook/O LB	Acela	CS/billing	cloud	F/A
Customer Web Bill Pay Portal	Springbrook/O LB	Acela	CS/billing	cloud	F/A
GIS	ESRI ArcGIS	ESRI	N/A	on prem	Engineering
Inventory	Springbrook	Acela	suite	cloud	F/A
Meter Reading - Water	MVRS/FCS	ITRON	Springbrook	on prem	F/A
SCADA - Water/Wastewater	InTouch	Wonderware	n/a	on prem	Operations
Work Order Management System	Springbrook	Acela	suite	cloud	F/A
Local Area Network (LAN)	Yes	Internal			IT
Wide Area Network (WAN)	Yes	Fiber based			IT
Hydraulic Modeling	H20Net	Innovyze	n/a	on prem	Engineering

Figure 3-CVWD Anticipated Future State IT Network Diagram



Describe how your company handles the integration of AMI systems with other computer systems.

- a. Does your company manage the integration of AMI software with CIS?
 - If so, how will this integration be managed on behalf of CVWD?
 - Describe what functions are integrated.
 - What services will be required from the CIS vendor (or CVWD) to facilitate integration with the AMI software?
- b. Does your company manage the integration of MDM software with CIS?
 - If so, how will this integration be managed on behalf of CVWD?
 - Describe the functions that must be integrated.
 - What services will be required from the CIS vendor (or CVWD) to facilitate integration with the MDMS software?

5.6 Requirements

Submit the completed AMI and MDMS System Requirements and Capabilities workbook and Cost Workbook in Excel format with your Quote response. Attachments 1 and 2 are required to be returned.

1. AMI and MDM System Requirements/ Capabilities

In general, the AMI system is considered to be a data collection field area network consisting of various apparatuses designed to automate the meter reading function while having the capability to execute remote commands acting either upon the attached meter or upon itself. As there are many possible implementations of systems with similar functionality, the metering system is treated as a single entity with the primary integration point located at the AMI headend. This structure attempts to remove constraints upon Quotes in order to elicit the best possible system configuration.

The system requirements and capabilities outlined in this Section are expressed in categories of features that have similar characteristics or functions. *A point-by-point response must be completed and submitted in the Microsoft Excel format presented as Attachment 1 - AMI and MDMS System Requirements and Capabilities Workbook.* Attachment 1 contains the following four (4) tabs:

- Instructions
- Priority
- Response Options
- AMI System
- MDMS System

Referring to a particular requirement or capability is done by specifying the category and the requirement ID number, for example:

- **“General AMI - 11”** refers to the requirement, “The AMI headend system must be able to store at least 90 days of hourly interval data.”

As outlined in the *Instructions* tab in the workbook, Contractor shall select one of the following statements of conformance from the drop-down menu in Column E as well as any supporting explanation or description in Column F:

- **Current Base** – The function is provided in the base product today. No modification is required. No additional cost.
- **Current Base AC** – The function is currently available and can be provided but there is an additional cost that is not included in the pricing Quote.
- **Future Base Release** – This function will be provided in a future base release that will be a general release within 18 months from submission of this response. No modification is required. Vendor will indicate timing of when desired functionality will be available.
- **Modification** – This business function can be supported by modifying an existing screen, existing view, or existing native report. There would be no change in the

system source code required and it would not break the system upgrade path. One-time modification.

- **Third Party System** – This function is provided in another product which is integrated with the base. No modification is required. Vendor must indicate estimated cost if applicable.
- **Customization** – This requires a specific enhancement to be developed for the client and will be an additional cost. This enhancement would include, but not be limited to, revisions to the source code of the core system, database objects, and/or custom reports. This type of customization is assumed to break the upgrade path of the core system. Vendor must indicate estimated cost.
- **Not Provided** – This functionality is not provided by the vendor in the proposed solution.

5.7 Cost Quote

Contractor shall submit a full and complete pricing Quote for the solution proposed. The cost schedules must be completed and submitted in the Microsoft Excel format provided in Attachment 2. Vendor shall clearly identify which costs will be incurred during the initial phase and during full deployment. The pricing should include all costs related to implementing the detailed requirements and capabilities in this RFQ, whether such implementation requires customization to the software or not.

Attachment 2 contains the following tabs:

- Instructions
- AMI Network - SaaS
- AMI Headend - Vendor Hosted
- MDMS - Vendor Hosted
- Optional Equipment/Services

As outlined in the *Instructions* tab, Contractor shall populate the Item, Quantity, Unit Price, and, if applicable, Equipment Lead Time for both the initial and full deployment projects. The Total Cost column will populate automatically based on Quantity * Unit Price; however, Contractor must verify. A Notes/Comments column is also provided for Contractor explanation and clarification. Sales tax on appropriate line items should also be identified separately as appropriate.

Contractor shall provide supplemental detailed pricing necessary to explain or justify the total price. Additive or deductive options may also be provided.

All prices quoted in this Quote must be a fixed price unless otherwise instructed. CVWD reserves the right to consider line item pricing for individual elements of the Quote. CVWD at its sole discretion may elect to add additional requirements or remove requested requirements prior to finalizing costs during contract negotiations.

6. ATTACHMENTS

Vendors must complete and submit Attachments with their Quote. The editable excel version of the attachments are provided as part of the RFQ content.

- Attachment 1 – AMI and MDMS Requirements and Capabilities Workbook
- Attachment 2 – Cost Quote Workbook

7. APPENDICES

- Appendix 1 – CVWD Meter List and Locations
- Appendix 2 – District-Owned Asset List



Sales Quote

October 6, 2020

Aqua-Metric Sales Company

Kristy Segarra - Manager, Bids and Proposals

4050 Flat Rock Drive | Riverside, CA 92505

Phone: (210) 967-6300 | Facsimile: (210) 967-6305

Quote for: Crescenta Valley Water District, CA
 Attention: David Gould, Director of Engineering
 Address: 2700 Foothold Boulevard
 City, State, Zip: La Crescenta, CA 91214
 Project: RFQ AMI System, Due September 30, 2020

Quantity	Description	Unit Price	Line Total
2	M400 Basestation	\$25,566.75	\$51,133.50
2	M400 Basestation Installation	\$15,000.00	\$30,000.00
TBD	Basestation Magnetic Mounts, Price per Basestation, if Required	\$5,000.00	To Be Determined
2	Communication Backhaul	\$1,000.00	\$2,000.00
1	Juniper Archer 3 with Single Ethernet Dock	\$5,307.96	\$5,307.96
1	CommandLink Bluetooth Device	\$533.55	\$533.55
1	FieldLogic Communication Device	\$500.00	\$500.00
	3096+ Mini Reader/Touch Reader Device	\$500.00	
Setup and Configuration			
1	RNI SaaS Setup	\$7,956.25	\$7,956.25
1	RNI Core Education, Performed by Aqua-Metric	\$4,000.00	\$4,000.00
1	Sensus Analytics System Setup	\$5,000.00	\$5,000.00
1	Sensus Analytics Basic Integration	\$4,000.00	\$4,000.00
1	Sensus Analytics Training, Performed by Aqua-Metric	\$3,200.00	\$3,200.00
1	AMI Network Implementation	\$5,000.00	\$5,000.00
Recurring Annual Subscriptions.⁷			
1	Annual Hosted RNI Software-as-a-Service, Water Only (Up to 2,500 Endpoints) ^{7,8}	\$8,240.00	\$8,240.00
1	Annual Sensus Analytics Enhanced, Water Only (Up to 2,500 Endpoints) ^{7,8}	\$6,892.50	\$6,892.50
2	Annual M400 Basestation Extended Warranty ⁷	\$1,769.00	\$3,538.00
	Annual Aqua-Metric VAR Support ⁷ - Year Two+ Fee	\$10,000.00	
Metering Product			
100	iPERL Connector Only - for Existing 3/4" iPERL Meter (New Register Not Required) 6 Foot Cable, Two-Wire, If Required	\$17.86	\$1,786.00
100	520M Single Port SmartPoint Radio Transmitter	\$151.40	\$15,140.00
Subtotal:			\$154,227.76
Performance and Payment Bond:			\$1,407.33
Estimated Sales Tax:			\$10,716.79
AMI System Total:			\$166,351.88

This quote for the product and services named above is subject to the following terms:

1. All quotes are subject to the Aqua-Metric Terms of Sale.
 2. Quote is valid for thirty days.
 3. Freight allowed on single orders exceeding \$10,000.00.
 4. Net Thirty Days to Pay
 5. Returned product may be subject to a 25% restocking fee.
 6. Sales Tax and/or Freight charges are approximated and may vary on final invoice.
 7. Minimum 5 year term for SaaS Model with Annual 3% price increase
 8. Pricing based on 100 Water Services for Alpha Phase.
- Please refer to the enclosed RFP for additional information regarding our cost proposal.

CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 3

October 9, 2020

To: Engineering Committee
From: David S. Gould, P.E. – Director of Engineering
Subject: Advertise for Bids - New Emergency Electrical Generator at the La Granada Wastewater Lift Station, Project S-962

INFORMATION ITEM:

New Emergency Electrical Generator at the La Granada Wastewater Lift Station, Project S-962 –

Consideration and motion to authorize the General Manager to advertise for bids for the installation of a new emergency electrical generator at the La Granada wastewater lift station. with an engineer's estimate of \$140,000.

BACKGROUND:

CVWD has an existing wastewater lift station located at 1901 La Granada Way, next to Glenhaven Park and collects sewage for about 35 homes and pumps the sewage to CVWD's wastewater collection system. The wastewater lift station has a capacity of about 3,000 gallons and it typically runs about an hour a day to pump wastewater into the collection system.

In case of an emergency, such as loss of electrical power, the lift station can hold wastewater for about 2 – 5 hours, depending on the time of day or night, before it will overflow into the street. To reduce the risk of a sewer overflow, alarms have been set to alert the stand-by person and the Director of Operations, via text and phone of a potential overflow. However, there could be a time lag between when personnel are first alerted of the power outage to the time the portable emergency electrical generator is brought to the site, which could result in a sewer overflow.

DISCUSSION:

Staff has been working with Cannon Corporation (Cannon) on the design of the project which is completed and ready to be advertised for bids. In addition, Cannon has met with the City of La Canada Flintridge, Public Works Department (LCF) on permitting issues. LCF requested that additional landscaping be placed around the fencing for the new generator as shown on the attached project schematics.

LCF also had a concern about the location of the lift station since it was not located within the public right-of-way, but within Glenhaven Park, which is owned by LCF. The lift station was installed in 1985 and no records were found regarding an easement or agreement for the lift station. LCF requested that there be an agreement between CVWD and LCF for the maintenance and operations of the lift station. LCF is working on a draft agreement, which should be available in the next few weeks.

Project Schedule: Staff anticipates the following project schedule:

- October 13, 2020 – Advertise for Bids
- October 27, 2020 – Pre-Bid Meeting
- November 4, 2020 – Bid Opening
- November 10, 2020 – Award Contract
- Nov. 2020 to Mar. 2021 – Shop drawing approval and order and delivery emergency generator
- Mar. 2021 to May 2021 – Construction

Ms. Christina Olmedo will be the project manager, and construction management services will be selected at a later date for field coordination and inspection. The construction cost estimate for the project is \$140,000, and the entire project costs including materials, soils engineering, construction administration, inspection services, and contingencies are estimated at \$174,000.

RECOMMENDATION:

It is staff's recommendation to authorize the General Manager to advertise for bid for the project. Staff will advertise the project on the CVWD website, in the McGraw-Hill Dodge Construction News and send out plans to selected contractors.

FUNDING AVAILABILITY:

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

Account Description	Preliminary Costs
FY 20/21 Wastewater CIP	\$175,000
Construction Estimate	(\$140,000)
10% contingency	(\$14,000)
Contact Administration, inspection & Misc. Costs	(\$20,000)
Total Cost Estimate	(\$174,000)
Amount Remaining in FY 20/21 Wastewater CIP	\$1,000

Prepared & Submitted by:



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

Attachments:

1. Project Area
2. Project Location Map

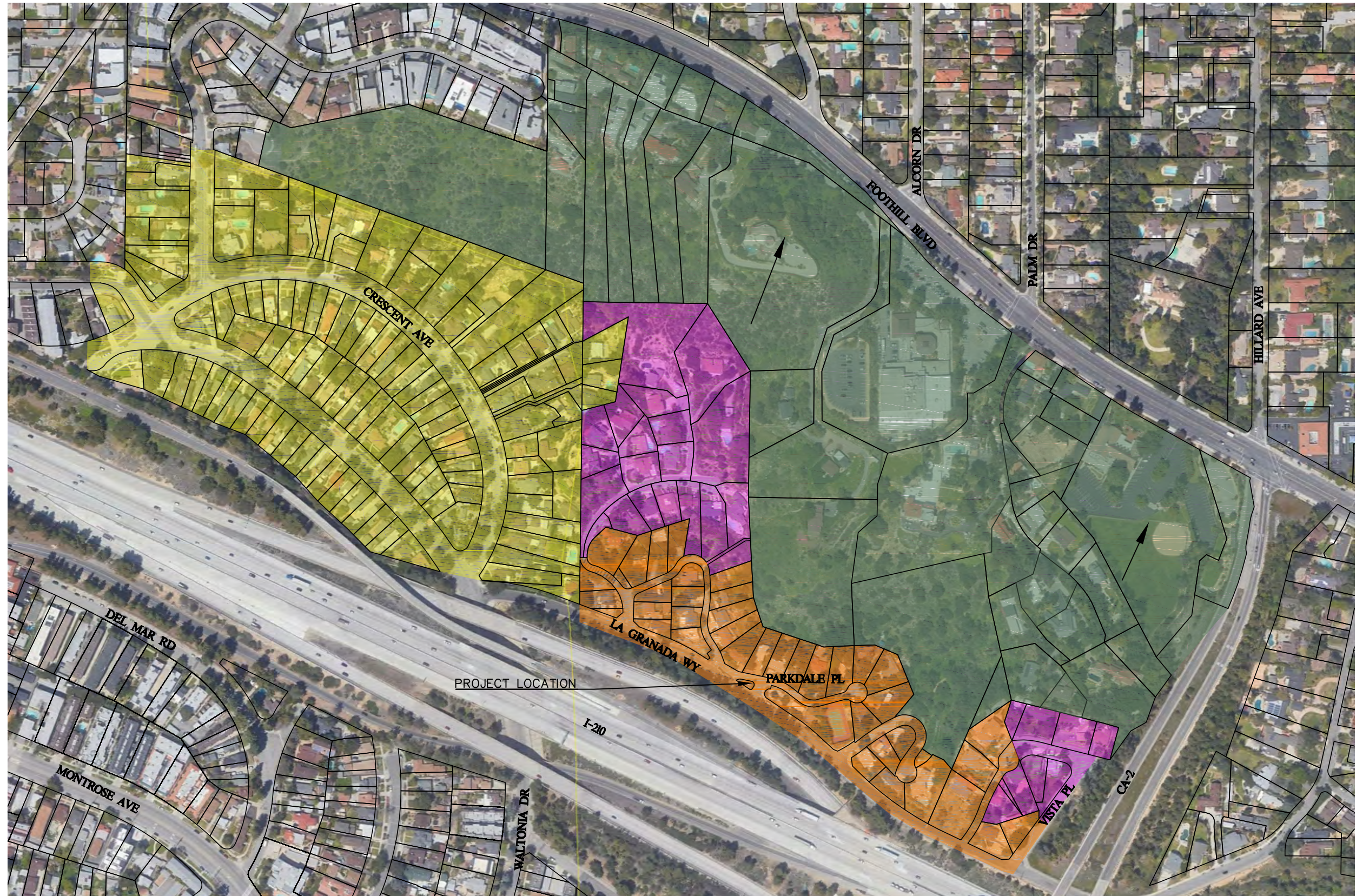






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- LCF - NO SEWER
- CVWD TO LIFT STATION
- LCF - SEWER FLOW TO FOOTHILL
- CVWD

LA GRANADA SEWER LIFT STATION
INSTALLATION OF NEW EMERGENCY ELECTRICAL GENERATOR
SEWER SERVICE AREA



CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 4
October 9, 2020

To: Engineering Committee
From: Brook Yared, M.S., P.E. – Senior Engineer
Subject: Discussion of 16-inch Manifold and Valve Replacement at Oak Creek Reservoir, Project E-1026

INFORMATION ITEM:

16-inch Manifold and Valve Replacement at Oak Creek Reservoir, Project E-1026 - Discussion regarding the approach to repair critical infrastructure at Oak Creek Reservoir. Staff would like feedback on how to proceed, including an endorsement to bring the emergency repair project to the Board of Directors at the October 13, 2020 Board Meeting.

BACKGROUND:

On Saturday, August 29, 2020, CVWD's operations staff noticed a leak on the inlet/outlet manifold at Oak Creek Reservoir. On Monday, August 31, 2020, the Engineering Department met at the site with the Director of Operations and discussed repair options, reviewed as-built plans, and assessed the condition of the pipe. At the time, we were unable to make a confined space entry into the vault but determined that this project needed to be expedited.

Original construction of the reservoir was completed in 1961. The original design showed only one isolation valve on the inlet/outlet of the reservoir, and repairing it would involve taking both storage tanks out of service. This would effectively isolate the water distribution in Zone 4, with no other source of water. Also, the tanks at this site are partially buried, and the inlet/outlet pipe is about 12-14 feet deep. During the original construction, retaining walls were installed between the reservoir and nearby residents; however, the walls do not meet current design standards.

Oak Creek #1 is scheduled for its one-year warranty repairs in late October by AIS Construction. Staff believed that preparing a repair plan for the manifold while the reservoir is out of service is operationally favorable.

DISCUSSION:

Staff has reviewed the piping layout and determined that for this project to proceed, a 16-inch line stop would need to be installed on the inlet/outlet pipe near the adjacent retaining wall (see attachment). This would provide for a temporary shutdown and allow Oak Creek #2 to remain in service while a contractor installs a new 16-inch isolation valve. This will also require the existing retaining wall to be removed and replaced while construction is taking place as a safety precaution.

Once that isolation valve is installed, a contractor would replace the leaking manifold and the two existing 16-inch plug valves that are currently oversized and not functioning properly.



Figure 1 - Oak Creek 16-inch manifold. No flange or coupling on south end of the manifold

Staff has yet to determine whether it would be prudent to replace the 16-inch inlet/outlet piping between the new isolation valve and the manifold.

Staff met with a consultant, MKN Consulting, at the site on October 1, 2020 to review the concept plan for the project and the possibility of compiling a design/build proposal. Staff then met with Julian DeSigio of DeSigio Construction on October 2, 2020 to see if they had any suggestions regarding the feasibility of this project. At this time, they suggested welding a plate or collar onto the manifold as a patch to allow staff to compile a set of specifications. After reviewing photos and a video of the manifold, DeSigio Construction concluded that welding is not an option for this manifold leak due to the age and condition of the pipeline.



Figure 2 - Bottom of manifold. Source of the leak. Pipe not suitable to weld.

Based on staff's review of the schedule, there is not enough time to complete this work prior to the warranty expiration on Oak Creek #1. To accelerate the schedule, staff researched a multi-prong approach to repairing the manifold. Research determined that there are several epoxy-wrap options that are likely to work as an interim repair, if applied with a barrier. Considering the low cost of this epoxy wrap option, staff proceeded with ordering these materials on October 5, 2020.

If the epoxy wrap effectively seals the leak, staff would like to proceed with a competitive proposal and construction bid process. This should reduce the costs of design and construction and provide more time for the design of shoring and retaining wall replacement options.

If the epoxy wrap fails to effectively seal the leak, staff would have to proceed with a sole-sourced design/build proposal from MKN Consulting to get a capable contractor onsite as quickly as possible to avoid exacerbating the leak and causing a catastrophic failure that affects all of CVWD's customers in Zone 4.

SUMMARY:

It is staff's recommendation to move forward with the epoxy wrap option, which could afford more time to source competitive bids for consulting design and construction services for the completion of this work. Staff plans to approach the Board with Alternative #2 and request a budget of \$275,000 at the October 13, 2020 Board Meeting. This will allow staff to proceed with the emergency repairs should the epoxy wrap fail.

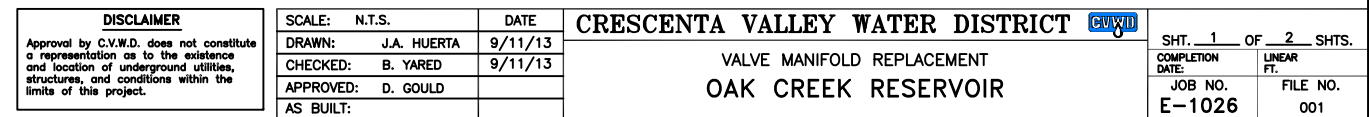
Prepared & Submitted by:

Brook Yared, M.S., P.E.
Senior Engineer

Attachments:

1. E-1026 – Preliminary Plans

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CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 5

October 9, 2020

To: Engineering Committee

From: David S. Gould, P.E. – Director of Engineering

Subject: **Project Update – September 2020 - FY 20/21 Water Capital Improvement Program**

BACKGROUND:

The Board approved the FY 20/21 Water Budget at the June 9, 2020 meeting with \$2.3M available for CIP projects. The Board also agreed to pursue refinancing CVWD's existing bond debt and requesting additional funding, totaling \$5M available for FY 20/21 CIP. The \$5M Bond process was completed on September 15, 2020.

DISCUSSION:

The following is the **September 2020** update of the FY 20/21 CIP projects:

1. **Steel Reservoir Rehabilitation – Rosemont Reservoir** – This project is for the structural repairs and re-coating of the reservoir interior to maintain the District's water storage capacity and to increase the life expectancy of the steel tank. Harper and Associates Engineering (Harper) and staff have completed the design. The following is an updated project schedule:

- September 8, 2020 – Contract awarded to Crosno Construction Inc
- October 28, 2020 – Pre-Construction Meeting
- November 2 – 6, 2020 – Preparation for construction and drain the reservoir
- November 12, 2020 – Structural work to begin
- January 2021 – Re-coating work to begin
- March 2021 – Anticipated work to be completed.

2. **Annual Pipeline Replacement** – This project is for the replacement of steel pipelines that are at least 50-years old or more in a timely manner.

Project 1 & 2: Staff has completed the design for the 2400 & 2500 Blocks of Janet Lee (Project 1), and the 4300 Block of Rosemont (Project 2), and the following is an updated project schedule:

- September 22, 2020 - Advertise for bids
- October 7, 2020 – Pre-Bid Meeting
- October 21, 2020 - Bid Opening
- October 27, 2020 - Award of Contract
- Construction to begin in December 2020 and completed by February 2021.

Projects 3 & 4: -Pipeline replacement on the 3400 & 3500 Blocks of Encinal (Project 3) and the 4800 Block of Dyer, 2800 Block of El Caminito, 4800 Block of Glenwood, 2800 Block of Stevens and 2700 Block of Paraiso Way (Project 4). The following is an updated project schedule:

- October/November 2020 – Design – Civiltec Engineering
- November 10, 2020 - Approval to advertise for bids
- December 8, 2020 - Award of Contract
- Construction to begin in January 2021 and be completed by June 2021

3. **Local Hazard Mitigation Plan** - CVWD was awarded a grant from Cal OES and FEMA to prepare a Local Hazard Mitigation Plan (LHMP) to address high priority hazards related to its water and sewer systems during a drought, energy shortage/outage, wildfire, earthquake, terrorism and cyber-attack. The total grant amount to prepare a local hazard mitigation plan is \$165,000, with \$125,000 grant funding from FEMA and \$40,000 funding from CVWD.

The following is an updated project schedule.

- The LHMP Core team have been meeting bi-weekly to coordinate the plan
- Steering Committee Meeting – October 21, 2020 with the Emergency Planning Committee
- LHMP to begin in September 2020 and be completed by October 2021

4. **New Emergency Generator at La Granada Sewer Lift Station** – Cannon has completed the design of a new emergency electrical generator at the lift station to reduce risk of sewer overflow during a power outage. The following is an updated project schedule.

- October 8, 2020 – Community Meeting
- October 13, 2020 – Advertise for Bids
- October 27, 2020 – Pre-Bid Meeting
- November 4, 2020 – Bid Opening
- November 10, 2020 – Award Contract
- Nov. 2020 to Mar. 2021 – Shop drawing approval, order, and delivery emergency generator
- Mar. 2021 to May 2021 – Construction

5. **Advanced Metering Infrastructure (AMI) Program** – This project has two (2) components: 1) replacement of ¾” & 1” meters with new Sensus iPERL “Smart Meters” in Pressure Zones 1 & 2, and 2) installation of the AMI network communication system. Field crews have resumed replacing meters, and this will continue through February 2021.

UtiliWorks completed the request for quote (RFQ) for the AMI network communication system and has been working with Aqua Metric on finalizing the quote. The following is an updated project schedule:

- October 13, 2020 – Award of Contract
- November – December 2020 – Shop drawing review and ordering equipment
- January 2021 to May 2021 – Installation and verification of AMI network communication system

6. **Replacement of SCADA Communication Radio Network** – CVWD has an existing radio communication network that operates on the 900 MHz radio frequency. In the past year, the radio system has seen interference with other communication devices and the equipment, which was installed 6 years ago, is nearing the end of its useful life, and has been malfunctioning. A contract was awarded to Systems Integrated to prepare a SCADA radio feasibility study (Study). Staff will proceed with replacement of the SCADA communications radio network based on the recommendations from the Study. The following is an updated project schedule:

- October 2, 2020 - Kick-off meeting
- October to November 2020 - Systems Integrated working on an assessment of the current equipment and developing options.
- January 2021 - Study to be completed.

7. **16-inch Manifold and Valve Replacement at Oak Creek Reservoir, Project** – CVWD’s operations staff observed a leak on the underside of the existing inlet/outlet pipeline manifold that joins Oak Creek #1 and #2 reservoirs. The inlet/outlet manifold was installed 1961 and is a critical junction point as it allows influent water to fill each reservoir. Staff is working on contingency plans and a solution to replace the manifold. The following is an updated project schedule:

- Week of October 12, 2020 – Attempt epoxy wrap leak repair
- October 13, 2020 – Authorize GM to proceed with the repair
- October to November 2020 – Work with consultant and contractor to remove and replace valves and manifold.

8. **Groundwater Well Rehabilitation** – This project is for the rehabilitation of Well 9, which was last rehabilitated in 2014. The design will be completed by Mr. Yared, and the following is an updated project schedule:
- October 2020 – Prepare plans and specification
 - November 10, 2020 - Advertise for bids
 - December 8, 2020 - Award of Contract
 - Construction to begin in February 2021 and be completed by April 2021
9. **Annual Booster Pump Replacement** – This project was originally planned to replace Markridge Booster 25. However, Booster B at Paschall was shut down this week due to what appears to be mechanical failure. Staff is working with the pump contractor to remove and inspect the pump. Prior to inspection staff hopes to replace a critical isolation valve that has been difficult to open and close in previous rehabilitation at Paschall. After the inspection, staff will determine if Booster B at Paschall needs to be replaced.
- The following is an updated project schedule:
- October 12 – 16 – Pull and inspect Booster B at Paschall
 - After inspection, determine if Booster B at Paschall needs to be replaced.
10. **Facility Improvement Program** – This project is for the installation of a new roof on the existing 70 ft diameter concrete reservoir at Encinal for material and equipment storage. Staff will be preparing an RFP for a consulting firm to perform the structural design of the new roof. The following is an updated project schedule:
- October 31, 2020 – RFP Due
 - November 10, 2020 - Award of Consulting Contract
 - January 12, 2021 - Advertise for Bids
 - February 9, 2021 - Award of Contract
 - Construction to begin in March 2021 and be completed by July 2021
11. **New Pressure Reducing Station & Upgrade Ramsdell Mixing Station** – This project is for the installation of a new PRV station near the intersection of Mayfield Ave and Ramsdell Ave. to provide water from Zone 2 to Zone 1 when Encinal Reservoir is out of service during construction of the upgrades to the Ramsdell/Mayfield Mixing Station (Mixing Station).
- Staff is working on the design with additional assistance from DMc Engineering for topographic and right-of-way surveying, Cannon for the electrical design, and APEX for SCADA programing and integration. The following is an updated project schedule:
- December 8, 2020 - Approval to advertise for bids
 - January 12, 2021 - Award of Contract
 - Construction to begin in February 2021 and be completed by July 2021
12. **Replacement of Supervisory Control and Data Acquisition (SCADA) System Upgrade** – CVWD has an existing SCADA system with RTU/PLCs installed at each of the District's facilities that provides information on the status of the system, controls for booster pump operation, and alarms to the System Operators. Staff is working on the design to upgraded SCADA system such that the equipment, programing, and integration are based on industry standards and can be installed, repaired, and/or replaced by various companies.

Staff is currently working on an assessment of the current equipment and programming to prepare a request for proposal with a scope of work for a consulting firm. Staff will do a presentation at a future Engineering Committee meeting to discuss possible options and preliminary construction costs.

13. **Stormwater Recharge Program** - Stormwater Recharge Project at Crescenta Valley County Park (CVC Park) includes the design and installation of a stormwater infiltration system within CVC Park that will direct stormwater from the Verdugo Wash into infiltration galleries for groundwater recharge.

The focus for the next couple of months will be to coordinate with the City of Los Angeles on stormwater rights. Staff had a meeting with LADWP in August and are preparing a proposal outlining the project and water rights to discuss further with LADWP. A progress report and draft agreement will be presented at a future Engineering Committee meeting.

14. **Rehabilitation Surge Tank at Glenwood** – This project is the rehabilitation of the surge tank at the Glenwood plant. Staff has a preliminary design completed, and the next step will be completing the design and specifications for a specialty contractor to perform the repairs.

The schedule will be as follows:

- January 12, 2021 – Award of Contract
- Construction to begin in February 2021 and be completed by April 2021

SUMMARY:

In summary, staff is underway with the design of several CIP projects and wanted to provide updated information to the Engineering Committee as each project progress and discussion on future Board action items.

Prepared & Submitted by:

A handwritten signature in blue ink, appearing to read 'D. Gould', is written over a horizontal line.

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