

# CRESCENTA VALLEY WATER DISTRICT

2700 FOOTHILL BOULEVARD  
LA CRESCENTA, CALIFORNIA

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

To be held on

March 22, 2018 at 9:00 AM

Posted March 21, 2018 at 9:00 AM

## Call to Order

## Adoption of Agenda

## Information Items

1. Status of Groundwater Wells and Well Capacity
2. Installation of Water Meter Manifolds for new Multi-family Units for Developer Projects
3. Amendment to Contract for Quality Control Inspection Services for Well 2 and Related Facilities, Project E-956
4. Temporary Assistant Engineer – Project Partners
5. FY 17/18 CIP - Project Status:
  - Oak Creek Reservoir Rehabilitation Project
  - Well #2 Re-activation and Nitrate Treatment Plant Project
  - Brookhill Pipeline Project
  - Well 10 Rehabilitation Project
6. FY 18/19 CIP – Budget Update

## Public Comments

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.

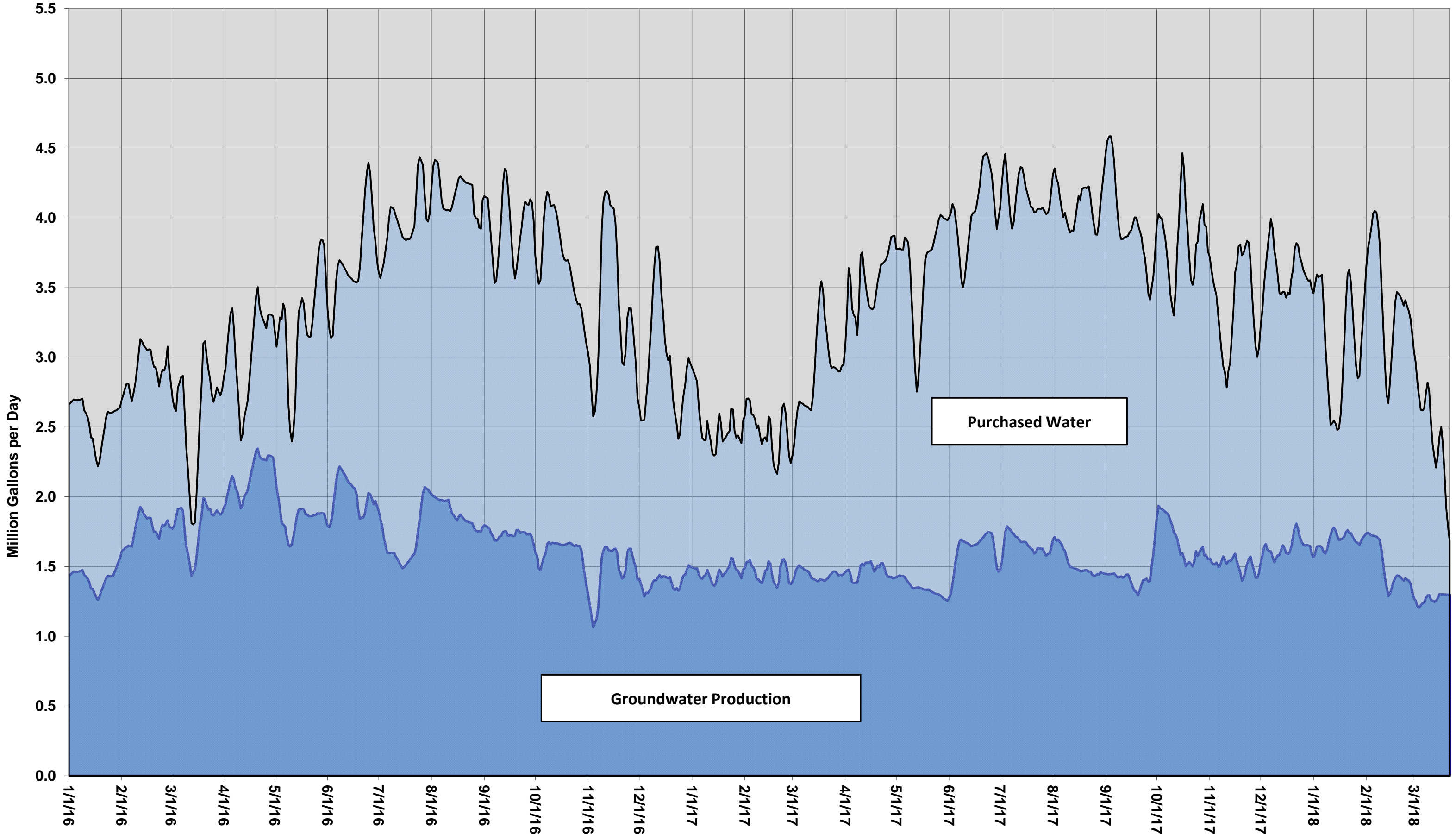
## Committee Member's Request for Future Agenda Items

Next Engineering Committee Meeting – April 19, 2018

## Adjournment

# Water Production Chart 2016 - 2018

■ Groundwater Production (MGD)    □ Total Water (MGD)



# CRESCENTA VALLEY WATER DISTRICT

## STAFF REPORT

Information Item No. 2  
March 22, 2018

**To:** Engineering Committee  
**From:** Brook Yared, M.S., P.E. – Senior Engineer  
**Subject:** Installation of Multi-Meter Manifolds for new Multi-family Units

### INFORMATION ITEM:

#### Request for Installation of New Multi-Water Meter Service Manifolds for new Multi-family Units:

Discussion and recommendation to use a private contractor to install new water services for Developer projects

### BACKGROUND:

Staff has recently received requests for the construction of at least four (4) new multi-family projects within CVWD's service area. Typically, these projects require at least 8 to 18 new water meter services to be installed based on the number of new units. CVWD's standard is to install a water meter manifold system with separate meters for each unit and they are installed by CVWD's crews.

The water meters manifolds for apartment complexes can be difficult to install and requires a lot of coordination with the property developer (Developer). Currently, the schedule for CVWD's field crews is extremely busy. This is primarily due to a recent surge in water main breakages and service lateral leaks. CVWD crews have had to postpone several planned construction projects over the last six (6) weeks and, assuming that there will be additional leaks in the meantime, our crews will have enough work through the end of fiscal year 17/18.

When a Developer wants to change a single family dwelling into an individually metered multifamily dwelling, a multi-meter manifold should be used. If a separate lateral were installed for each meter, the main would become compromised by all of the new penetrations being placed so close together. This also greatly increases the amount of excavation and backfill that would be required. Rather than damage the pipe by adding unnecessary individual taps, the recommended course of action is to install a single, large diameter lateral, which has the capacity to supply water to each meter (see fig 1).

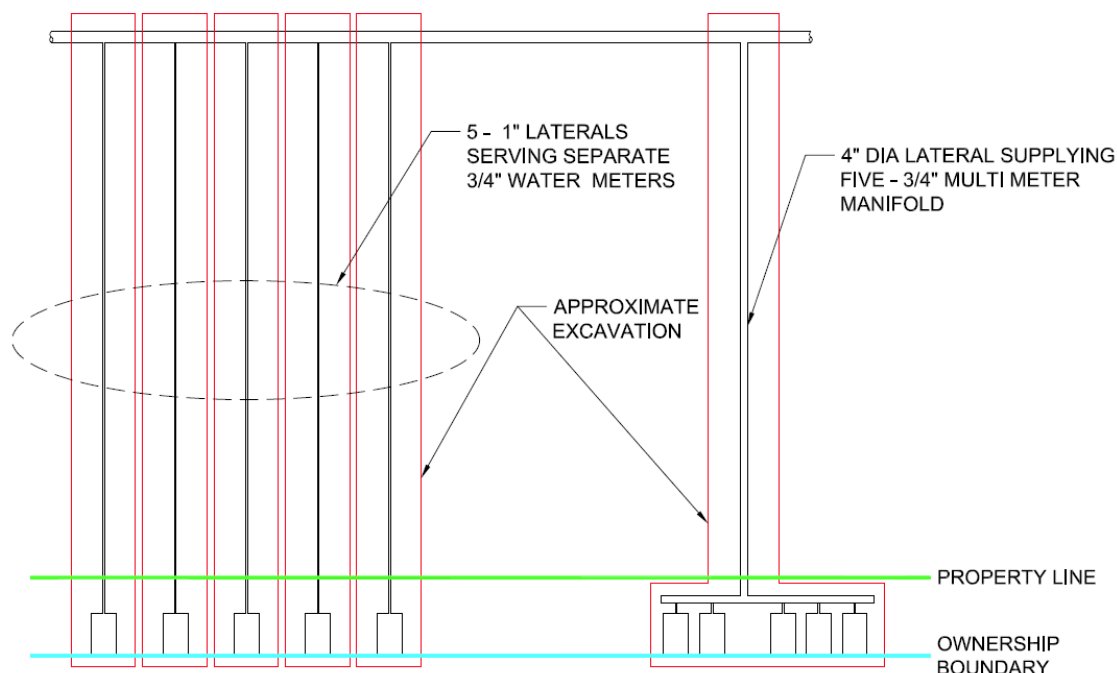


Figure 1: Individual Vs. Multi Meter Installation

**DISCUSSION:**

The Developer's for each of the following new projects have requested water meters be installed for each individual unit due to the higher cost of delivering water, additional water conservation incentives and the ability to bill each tenant separately for water usage at the following addresses:

- 1941 Waltonia - 12 meters
- 2225 Mira Vista - 9 meters
- 2454 Montrose - 17 meters
- 2340 Montrose - 16 Meters

The Developer's would like the water meter manifold system installed as soon as possible, however, CVWD's crews could not meet that demand. Therefore, Staff would like the authority to approach each Developer with an option to hire a private contractor and pay all associated costs with the installation in lieu of using CVWD's field crews.

The Developer will enter into a service agreement with the District and CVWD will be provided a short list of approved waterworks Contractors that are able to perform the work. The work will be inspected by CVWD, and the Developer will pay the cost of inspection services. Tasking Developers to contract independently with pre-approved contractors would allow the Developer to have more control of their own work schedule, CVWD crews would be provided more time to complete their work schedule, and still allow CVWD to maintain ownership of inspection services and materials acquisition to provide for a high quality final product.

The Developer would provide District staff with construction plans for the manifold prior to installation. Staff would review these plans and insure all the work is performed to the regulatory standard. The contract would also require that all Developer employees and subcontractors be paid at the prevailing wage rate, establish a faithful performance and payment bond should the Developer decide to terminate the project, and designate the developer to obtain all permits. Finally, the developer would be required to reimburse CVWD for all materials and inspection services provided for the work.

**RECOMMENDATION:**

It is staff's recommendation to the Engineering Committee to approve approaching a Developer, such as the Developer at 1941 Waltonia Dr. with a service agreement for the construction of the new water meter manifold and new fire service (see attached). Staff preliminary cost estimate will be approximately \$32,550 for pipe materials, plan review, and inspection services that will be reimbursed. The Developer would be required to pay CVWD that amount prior to submitting construction plans for review. Staff would then supply the Developer with the following list of Contractors to perform the work:

- E&R Construction, Inc.
- Brkich Construction, Inc.
- J De Sigio Construction, Inc.

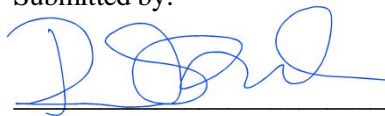
All contractors on this list have extensive water works construction experience as well as considerable experience working with District staff. This would provide the lowest cost alternative for both CVWD and the Developers, while allowing the Developer to proceed at their own pace without sacrificing the quality of work being performed.

Prepared by:



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

Submitted by:



David S. Gould, P.E.  
District Engineer

Attachment:

g:\engineering committee\2018 ec memo\03-22-18 ecm - new manifold installation for d-jobs v2.docx

**CRESCENTA VALLEY WATER DISTRICT  
AGREEMENT FOR  
CONSTRUCTION OF WATER SYSTEM IMPROVEMENTS**

THIS AGREEMENT is entered into as of the \_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, by and between CRESCENTA VALLEY WATER DISTRICT, a county water district, ("District") and \_\_\_\_\_ (owner) whose address is **1941 Waltonia Drive, AIN 5807-013-017** ("Developer").

**RECITALS:**

A. District is engaged in the production, transmission and distribution of the water system within its service area.

B. Developer owns a parcel of real property, commonly identified as: **1941 Waltonia Drive, AIN 5807-013-017** ("Development") within the District's service area.

C. Developer desires to secure water and fire service to the Development from the District and the District is willing to provide such service on the terms and conditions set forth in this Agreement, and in accordance with rules and regulations adopted by the District.

D. Developer shall provide to the District, the plans for water system improvements for the Development ("Facilities") and shall grant to the District the easements required for the operation and maintenance of the improvements.

E. On \_\_\_\_\_ the District approved said plans designated as Water System Improvements \_\_\_\_\_, which plans and specifications ("Plans") are attached as Exhibit 1.

F. Developer intends to construct the Facilities in accordance with the approved Plans, which Facilities will be connected to the District's system.

**AGREEMENT**

A. Construction Drawings: Developer is required to provide construction drawings for the construction of the water main, water meter services, and fire services to District for review and approval.

1. These plans shall be prepared by a State of California licensed Civil Engineer and shall be in accordance with District standards.

2. The minimum design requirements shall be: the alignment should be parallel to the existing property line; the pipeline depth shall be a minimum 36" below finish grade, and the water main shall connect to the existing water main on Waltonia Drive.

3. Provide appropriate clearance for District to maintain ingress and egress of District equipment onto the property.

B. Construction of Facilities: Within \_\_\_ calendar days from the date of this Agreement, Developer shall secure all required permits for construction of the Facilities in accordance with the Plans.

C. District will provide all materials for construction. Prior to work beginning the Contractor shall provide the District with construction plans for the new water meter manifolds. District staff shall then order all necessary materials for the work. In the event that additional materials are required, District will provide those materials at the inventory cost of the item. All work shall be done to the satisfaction of the District and in a good and workmanlike manner. All work shall be performed in accordance with District rules and regulations. By entering into this Agreement, Developer represents and warrants that it is familiar with the District's current Standard Specifications for Construction.

1. Qualifications of Contractor and Subcontractors: All work shall be performed by the following contractors:

- a. J. Desigio Construction, Inc.
- b. Brkich Construction, Inc.
- c. E&R Construction, Inc.

Any contractors selected that are not on this list must be approved by District and possess the class of contractor's license issued pursuant to Division 3, Chapter 9, of the Business and Professions Code required for construction of the Facilities.

2. Developer proposes to enter into a contract with \_\_\_\_\_ ("Contractor") for construction of the Facilities. Developer shall secure from Contractor the following information for review and approval by the District:

(a) Provide information regarding its experience, financial condition, and business references to be set forth on Exhibit 2. Contractor shall have at least three (3) years' experience in performing similar work.

(b) The Contractor's Licensing Statement in the form attached as Exhibit 3.

(c) The names and addresses of subcontractors, if any who will perform work under the contract between Developer and the Contractor or who will specially fabricate and install a portion of the work to be set forth on the form attached as Exhibit 4. The Construction contract shall provide that subcontractors may not be substituted without District's prior approval. Contractor may not subcontract for more than 40% of the work to be performed under its contract with Developer.

D. Inspection of Facilities: District shall at all times have access to the Development during construction of the Facilities and shall be provided with every opportunity for ascertaining full knowledge respecting the progress, workmanship, and character of the materials and equipment used and employed in construction of the Facilities. Contractor shall give timely notice to District in advance of any work being performed on a Saturday, Sunday or Holiday designated by District, or for more than eight hours in a work day. Contractor shall also give timely notice to the District in advance of back filling or otherwise covering any part of the Facilities constructed so that the District may, if desired, inspect such work before it is concealed. The observation, if any, by District of the construction of the Facilities shall not relieve Developer or Contractor of any of their obligations under this Agreement. Defective work shall be made good, and materials and equipment furnished and work performed which is not in accordance with the approved Plans, and District's current Standard Specifications for Construction, may be rejected notwithstanding the fact that such materials, equipment and work have been previously inspected by District.

E. Agreement to be Binding on Contractor: Developer shall furnish Contractor with a copy of this Agreement and shall cause Contractor to be bound by the terms and conditions of this Agreement, by having a written agreement with Contractor, which agreement shall incorporate by reference the terms and conditions of this Agreement. A fully executed copy of the agreement between Developer and Contractor shall be delivered to District prior to commencement of work, and attached hereto as Exhibit 5.

F. Bonds

1. Prior to Contractor's commencement of work, Contractor shall furnish and deliver to District a bond with a responsible corporate surety or corporate sureties acceptable to District conditioned upon the Faithful Performance of Contractor of all covenants and stipulations of this Agreement, and of Contractor's agreement with Developer. Said bond shall be on the mandatory form attached hereto as Exhibit 6, and shall be an amount that is not less than 100% of the total amount payable under Contractor's agreement with Developer.

2. Prior to commencement of work, Contractor shall also furnish a Payment Bond. Said payment bond shall be in a sum not less than 100% of the total amount payable under Contractor's agreement with Developer, and shall be on the mandatory form attached hereto as Exhibit 7.

3. The surety or sureties on all bonds furnished must be satisfactory to the District. If during the course of construction any of the sureties in the sole discretion of the District are or become insufficient, District may require additional sufficient sureties which the Contractor shall furnish to the satisfaction of the District within fifteen (15) days after written notice thereof.

G. Insurance Requirements of Developer

1. Prior to the commencement of work, Developer shall cause Contractor to forward to the District a policy or certificate of protective liability insurance in which the District shall be named as additional insureds with Contractor. The policy shall insure the District and its directors, officers, employees, agents, and consultants as additional named insureds as well as the Contractor, its employees and its subcontractors

and each of their employees, and their heirs, agents, and employees, while acting within the scope of their duties, against all claims arising out of or in connection with the work to be performed and shall remain in full force and effect until the work is accepted by the District.

2. The District, its directors, officers, employees, agents, and consultants are to be covered as insureds with respect to the following: liability arising out of activities performed by or on behalf of the Contractor, products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; or automobiles owned, leased, hired or borrowed by the Contractor.

3. The coverage shall contain no special limitations on the scope of protection afforded the additional insureds.

4. The above-referenced insurance policy (or policies) shall be furnished at Contractor's expense, in a form and with insurance companies authorized to do business and have an agent for service of process in California and have a "B+" policyholder's rating and a financial rating of at least Class VII in accordance with the most recent Best's Insurance Guide.

5. Such insurance, in addition to the multiple additional named insured endorsements set forth above, shall be broad form commercial general liability insurance in the amounts set forth below, and shall contain additional endorsements as follows:

- (i) Provide blanket contractual liability coverage for Contractor's indemnification obligations to District and others pursuant to this Agreement and the agreement between the Developer and Contractor
- (ii) Provide coverage for explosion, collapse, underground excavation and removal of lateral support
- (iii) Provide that the insurance may not be canceled or reduced until 30 days after the District and its Engineer have actually received written notice of such cancellation or reduction
- (iv) Provide "cross liability" or "severability of interest" coverage for all insureds under the policy or policies
- (v) Provide that any other insurance maintained by District, the Engineer or any other named insured is excess insurance, and not contributing insurance with the insurance required herein
- (vi) Provide that the coverage afforded the additional insureds shall not be affected by any failure of the Contractor or any subcontractor to comply with reporting or other provisions of the policy or policies, including breaches of warranties.
- (vii) The amount of coverage shall be no less than the following:
  - a) General bodily injury and property damage - \$2,000,000 per occurrence.
  - b) Automobile bodily injury and property damage - \$1,000,000 per occurrence, including owned, non-owned and hired autos, and providing coverage for loading and unloading.

6. The Contractor shall also be required to provide and maintain Builder's Risk Insurance covering all risks of direct physical loss, damage or destruction to the work in the minimum amount of the dollar value of the Facilities. Such insurance shall include explosion, collapse, underground excavation and removal of lateral support. The District shall be named as an additional insured on any such policy.

7. The evidence of insurance required to be provided to the District shall include original copies of the ISO CG 2010 (or insurer's equivalent) signed by the insurer's representative and certificate(s) of insurance (Accord Form 25-S or equivalent) reflecting the existence of the required insurance.

- (i) Where requested by the city, county or other governmental agency in whose jurisdiction the work is being performed, the city, county or other governmental agency shall be named as an additional insured
- (ii) If required by the District, Developer shall furnish a complete copy of the policy or policies, and all endorsements thereto.
- (iii) Commercial general liability insurance must include District's and Contractor's Protective Coverage, Products - Completed Operations Coverage, Premises - Operations Coverage, and must provide for coverage of District's facilities during the course of construction.

H. Schedules and Notice: Developer shall provide District with a schedule for construction of the Facilities and shall keep District advised of the schedule and progress of work. No work shall be performed unless the following occurs:

1. There has been a pre-construction meeting with representatives of District, City of Glendale, Utility Companies, Developer and Contractor in attendance.
2. District has been given written notice of the name and telephone number of Contractor's job superintendent who shall be Contractor's representative at the job site and shall have authority to act on behalf of Contractor, and the name and telephone number of Contractor's alternate in the event the job superintendent is unavailable.
3. District has been given at least five (5) working days written notice of the commencement of work.

I. Plan Review and Inspection Fees: Upon execution of this Agreement, Developer shall pay District's deposit for plan review and inspection services. The estimated costs of the foregoing are:

|     |              |          |
|-----|--------------|----------|
| (a) | Plan Review  | \$ _____ |
| (b) | Inspection   | \$ _____ |
|     | <b>Total</b> | \$ _____ |

The cost for design, plan review, installation, and inspection shall be borne by the Developer. This is a deposit towards the actual cost to the District. You will be either invoiced or reimbursed by the District for any deviation upon completion of all work. The consulting engineer shall meet with District to review feasibility, design standards, and special conditions of the construction plans.

J. Payment for Work: All work related to the development and construction of the Facilities is for the convenience of and at the request of Developer, who shall be solely responsible for all costs and expenses in connection therewith. District shall not be responsible to Contractor or its subcontractors, suppliers or material men for such work. Developer shall not permit any claim to be enforced against the Facilities, however it may arise. Regardless of the merits of any claim, Developer shall, within five (5) business days of the assertion thereof, cause said claim to be discharged or provide a bond releasing such claim, in a form satisfactory to District.

K. No Agency: Neither Developer nor Contractor are the agents or representative of District. Neither has any authority to in any way commit or bind District.

L. Indemnification: To the fullest extent permitted by law, Contractor and Developer shall jointly and severally indemnify and hold harmless District, its directors, officers, agents, employees, and consultants from and against all claims, damages, losses, expenses, and other costs, including, but not limited to, costs of defense and attorneys' fees, arising out of or resulting from or in connection with the construction of the Facilities or the Development, both on and off the job site, provided that any such liability (1) is attributable to personal injury, bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom, and (2) is caused in whole or in part by an act or omission of Developer, Contractor, any subcontractor, any supplier, anyone directly or indirectly employed by any of them or anyone for whose acts or omissions any of them may be liable, regardless of whether or not it is caused in part by any act or omission (active, passive, or comparative negligence included), of a party indemnified hereunder. The obligation hereunder shall not be abridged, reduced or discharged by the maintenance of insurance by the Contractor or Developer. Developer and Contractor shall also jointly and severally indemnify and hold harmless District, and its consultants, and each of their directors, officers, employees, agents, and consultants from and against all losses, expenses, damages (including damages to the Development or Facilities), attorneys' fees, and other costs, including all costs of defense, which any of them may incur with respect to the failure, neglect, or refusal of Developer or Contractor to faithfully perform the work and/or any of either of their obligations under this Agreement or under the agreement between Developer and Contractor.

M. Compliance with Laws: The agreement between Developer and Contractor shall require that: (a) Contractor shall conduct its operations so as to avoid injury or damage to any person or property, and to minimize any obstruction and inconvenience to the public; (b) Contractor shall comply with all applicable laws or regulations relating to the work including safety measures applicable in particular operations or kinds of



work; (c) Contractor shall provide and maintain such fences, barriers, directional signs, lights, and flag men as are necessary to give adequate warning to the public at all times of any dangerous conditions to be encountered as the result of the construction work and to give directions to the public; and (d) Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during construction of the Facilities.

N. Prevailing Wages: The Contractor shall comply with Labor Code Section 1775. In accordance with said Section 1775, the Contractor shall forfeit as a penalty to the Owner, a penalty of up to \$200 per day per worker, in such amount as the Labor Commissioner shall determine for each calendar day or portion thereof for each worker paid less than the stipulated prevailing rates for such work or craft in which such worker is employed for any work done under the contract by them or by any subcontractor under them in violation of the provisions of the Labor Code and, in particular, Labor Code Sections 1770 to 1780, inclusive. In addition to said penalty and pursuant to said Section 1775, the difference between such stipulated prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the Contractor. Moreover, failure to pay the prevailing wage may subject the Contractor to debarment, as provided in Labor Code Section 1777.1.

Failure to pay workers the appropriate overtime rate for work of more than 8 hours per day or 40 hours per week, shall incur a penalty pursuant to Labor Code Section 1813 of \$25 per day per worker.

O. One Year Guarantee. Developer and Contractor jointly and severally guarantee all work against defects in workmanship or materials for a period of one year after District's acceptance of the Facilities. Developer and Contractor, or either of them, shall repair or remove and replace any and all such work, together with any other work which may be displaced in so doing, that is found to be defective in workmanship and/or materials within said one year period, without expense whatsoever to District.

In the event of a failure to comply with the above-mentioned conditions within seven (7) business days after being notified in writing, District shall be entitled to have the defects remedied and the work repaired or replaced at the expense of Contractor and Developer. Developer and Contractor agree to pay all such expenses immediately on demand therefor by District. The performance bond and the payment bond shall continue in full force and effect for the guarantee period.

P. Maintenance and Repair of Facilities: Developer shall protect and maintain the Facilities through completion of the Development. In the event all or any part of the Facilities are damaged or destroyed, Developer shall repair or replace said Facilities without cost to District.

Q. Donation and Acceptance of Facilities: Upon completion of construction, all Facilities connected to the District's water distribution system shall be donated by the Developer to the District free and clear of all liens, claims and encumbrances and shall become the property of District upon acceptance of the Facilities for operation, maintenance, and repair by the District. District will require Developer to provide a deed, bill of sale, or other instrument of conveyance, conveying the Facilities from the Developer to the District.

R. Construction Water: Developer and/or Contractor shall pay for the use of construction water in accordance with District's rules and regulations.

S. Rules and Regulations of Water District: Developer shall comply with all applicable District rules and regulations.

T. Street Plans, Surveys, As-Built Drawings, Compaction Tests, Bacteriological Tests and Various Water Main Tests: Not less than fifteen (15) days prior to commencement of construction, Developer shall provide to District and Contractor a complete set of final approved plans and profile drawings for water facilities which are prepared, approved and signed by a registered civil engineer and approved and signed by all applicable regulatory agencies. Prior to commencement of construction, Developer shall provide accurate field staking, i.e., cut stakes, field stakes and final grade stakes based on final approved plans. Developer shall provide District with compaction tests in accordance with County, City and District requirements

U. Upon completion of construction, Developer shall provide District with legible as-built drawings showing all water facilities; said as-built drawings shall include a written narrative statement which clearly describes all modifications, changes or deviations from the approved plans. Upon completion of construction, Developer shall provide District with a minimum of two (2) consecutive bacteriological test results on all water facilities, the samples for which are collected in accordance with all applicable standards and

regulations. Samples for bacteriological analysis shall be submitted to a laboratory approved by the District. Samples shall be taken at least twenty-four (24) hours apart from one another. Should any tests fail or not be acceptable Developer shall take additional samples at such sampling points in accordance with all standards and regulations and the requirements of District and all regulatory agencies. The Developer shall also perform and provide results of pressure tests of all water mains. Tests not acceptable to the District's inspector shall have corrections made to the pipelines at no cost to the District. All tests shall be performed in accordance with District Standard Specifications. Developer understands and agrees that water main cannot be provided to Developer's project unless and until all Facilities are completed in accordance with plans and specifications, transferred to District and accepted in writing by District.

V. Attorneys' Fees: In any action, at law or in equity, including an action for declaratory relief, seeking to interpret or enforce the terms of this Agreement, the prevailing party shall be entitled to recover a reasonable amount as attorneys' fees and costs incurred in prosecuting or defending such action, including a dispute submitted to arbitration, in addition to any other relief to which such party is entitled.

W. Not Assignable: The rights and obligations of Developer and Contractor under this Agreement shall not be assignable without the prior written consent of District.

X. Entire Agreement: This Agreement constitutes the entire Agreement of the parties with respect to the subject matter, and no amendment, modification or alteration of the terms hereof shall be binding unless the same is in writing, dated subsequent to the date hereof and duly approved and executed by each of the parties.

Y. Choice of Law: This Agreement, and the application or interpretation hereof, shall be governed exclusively by its terms and by the laws of the State of California. Venue for all purposes shall be deemed to lie within Los Angeles County, California, and any action to enforce this Agreement or for any remedies, damages, or other relief shall only be brought in either the State courts of the State of California in and for the County of Los Angeles or in the United States District Court, Central District of California.

**IN WITNESS WHEREOF**, the parties have caused this Agreement to be executed as of the day and year first above written.

**CRESCENTA VALLEY WATER DISTRICT**

**DEVELOPER**

By: \_\_\_\_\_

By: \_\_\_\_\_

Its \_\_\_\_\_  
[TITLE]

Its \_\_\_\_\_  
[TITLE]

By: \_\_\_\_\_

By: \_\_\_\_\_

Its \_\_\_\_\_  
[TITLE]

Its \_\_\_\_\_  
[TITLE]

# CRESCENTA VALLEY WATER DISTRICT

## STAFF REPORT

Information Item No. 3  
March 22, 2018

**To:** Engineering Committee  
**From:** David S. Gould, P.E. – District Engineer  
**Subject:** **Amendment to Contract for Quality Control Inspection Services for Well 2 and Related Facilities, Project E-956**

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### **INFORMATION ITEM:**

**CVWD's Well 2 and Related Facilities, Project E-956** – Discussion to amend the agreement with Cannon Corporation for additional quality control inspection services related to the construction of Well 2 and related facilities at a cost of \$82,000.

### **DISCUSSION:**

California Building Evaluation & Construction, Inc. (CBEC) is approximately 70% complete with the construction of Well 2 and related facilities (Project). The construction completion date of May 9, 2018 has been extended until June 1, 2018 due to change orders and weather delays.

Cannon Corporation (Cannon) has been providing quality control inspection services (QCI services) for the project since November 2017. The original QCI services and request for proposal (RFP) that was sent in June 2017 had estimated a completion date in April 2018 and project close out in May 2018. The estimated construction schedule in the RFP was the basis for Cannon's proposal to the District, which was approved in August 2017.

During the course of construction, there has been additional time spent by Cannon on processing change orders, responding to request for information (RFI) and weekly construction meetings. Cannon and staff have been closely following the costs for QCI services to make sure we stay within the limits of the contract.

With the extended construction schedule and additional services, staff has determined that additional funding is needed for Cannon to complete the QCI services and requested a proposal from Cannon.

Cannon provided a proposal for quality control inspection services as shown in Attachment No. 1 in the amount of \$82,000, which included full-time quality control inspection and contract administrative work through the end of the project. The revised total costs for the contract will be \$223,475.

The following people from Cannon will continue working on the project: Gary Roepke as the project manager, Patrick Riddell as the construction manager, and Ron Tegland as the on-site inspector.

### **RECOMMENDATION:**

It is staff's recommendation to authorize the General Manager to enter into an amendment to the agreement with Cannon for quality control inspection services at an additional cost of \$82,000 to complete the project.

### **ENVIRONMENTAL REVIEW:**

A California Environmental Quality Act (CEQA) Negative Declaration was approved on October 6, 2015.

**FUNDING AVAILABILITY:**

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

| <b>Account Description</b>  | <b>Grant Cost Breakdown</b> |
|---|-----------------------------|
| Greater Los Angeles County IRWM 2015 Solicitation Implementation Grant        | <b>\$1,825,000</b>          |
| <i>Amount reimbursed from Grant (39%)</i>                                     | <i>\$705,775</i>            |
| <i>CVWD Costs (61%)</i>   | <i>\$1,119,225</i>          |
| <b>Breakdown of Project Costs</b>   |                             |
| Approved Contract – Engineering Services - SA Associates                      | <b>(\$197,000)</b>          |
| Approved Contract – APTwater for ARoNite Nitrate Treatment System             | <b>(\$625,000)</b>          |
| Approved Contract – Royal Wholesale Electric for MCC & Switch Board           | <b>(\$98,547)</b>           |
| Approved Contract - Construction - CBEC                                       | <b>(\$1,245,501)</b>        |
| Approved Contract - Construction - 10% Contingency                            | <b>(\$124,550)</b>          |
| Approved Contract - Quality Control Inspection Services - Cannon              | <b>(\$141,475)</b>          |
| Quality Control Inspection Services (Additional Services)                     | <b>(\$82,000)</b>           |
| Approved Contract - SCADA system upgrades - Tesco Controls                    | <b>(\$32,920)</b>           |
| Soil inspection, permitting fees, construction staking, & miscellaneous costs | <b>(\$83,007)</b>           |
| <b>Total Estimated Cost for Design &amp; Construction</b>                     | <b>(\$2,630,000)</b>        |
| Amount Remaining for Well 2 Project   | <b>(\$805,000)</b>          |
| Transfer of funds from Pipeline Replacement Projects to FY 18/19              | <b>\$235,000</b>            |
| Transfer of Funds from CVWD's MTBE Reserves                                   | <b>\$600,000</b>            |
| <b>Remaining Funds</b>  | <b>\$30,000</b>             |

Prepared & Submitted by:



David S. Gould, P.E.  
District Engineer

Attachments:

1. Proposal from Cannon dated March 20, 2018

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March 21, 2018

David S. Gould, PE  
District Engineer  
Crescenta Valley Water District  
2700 Foothill Boulevard  
La Crescenta, CA 91214

**Subject: ADDITIONAL PROFESSIONAL ENGINEERING SERVICES FOR QUALITY CONTROL INSPECTION SERVICES FOR CVWD'S WELL NO. 2 AND RELATED FACILITIES, PROJECT E-956, AMENDED SERVICE AGREEMENT (ASA) 1 ADDITIONAL CM SERVICES**

Dear Mr. Gould:

This letter is a request for an Additional Service Agreement (ASA) No. 1 is for the extension of our services for the completion of the Construction Management (CM) and Public Works Observation for Well 2. The original completion date for the construction was scheduled for May 2018. Based on the contractor's actual scheduling of the project, it is anticipated the project will not be completed until June 2018.

Cannon's original estimated costs through the end of February 2018 were:

|                                     |                    |
|-------------------------------------|--------------------|
| CM/Admin                            | \$17,992.00        |
| Public Works Observation/Inspection | <u>\$69,760.00</u> |
| Total                               | \$87,752.00        |

Cannon's actual costs through the end of February are:

|                                     |                    |
|-------------------------------------|--------------------|
| CM/Admin                            | \$68,102.09        |
| Public Works Observation/Inspection | <u>\$68,780.25</u> |
| Total                               | \$136,882.34       |

The cost to administer the Construction Management tasks of this project has exceeded our original fee estimate by \$50,110.09. The reasons for the extra hours and cost have been the additional Change Orders (18 to date), Request for information's (56 to date), plus the weekly progress meetings. The review and negotiations of the Change Orders has been a major contributor to the time and cost associated with this change.

As of the end of February, the onsite observation and inspection has amounted to 548 hour out of an estimated 640 hour estimated. We are estimating another 352 hours if the construction is completed in June. The hours for the additional CM and PW Observation is based on the history of this project to date.

11900 Olympic Blvd., Suite 530  
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T 310.664.1166  
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CannonCorp.us



*Proposal: Additional CM/PW Observation Services for  
CVWD's Well No. 2 and Related Facilities, Project  
E-956, Amended Service Agreement (ASA) 1*

ASA No. 1 Cost Summary for additional CM and PW Observation of the project as follows:

|                |             |
|----------------|-------------|
| CM             | \$27,700.00 |
| PW Observation | \$67,144.00 |
| <hr/>          |             |
| Total ASA 1    | \$94,844.00 |

If this ASA meets with your approval, please contact me. The fees quoted in this proposal are valid from 60 days from this date and are based upon current California Prevailing Wages.

Sincerely,

A handwritten signature in blue ink that reads "Gary O. Roepke". The signature is written in a cursive style and is contained within a thin blue rectangular border.

Gary Roepke, PE No. 48693  
Senior Principal Engineer

# CRESCENTA VALLEY WATER DISTRICT

## STAFF REPORT

Information Item No. 4  
March 22, 2018

**To:** Engineering Committee  
**From:** David S. Gould, P.E. – District Engineer  
**Subject:** Temporary Assistant Engineer

**INFORMATION ITEM:**

**Temporary Assistant Engineer** – Discussion regarding using Project Partners, Inc to provide a Temporary Assistant Engineer for three (3) months

**DISCUSSION:**

CVWD’s assistant engineer (AE) is planning to take a three (3) month maternity leave from the end of April 2018 to July 2018. There are currently two (2) projects under construction that the AE provides construction management, which will be completed in late June 2018. In addition, another capital project is currently in design and will be advertised for bid in early July 2018.

Staff has been looking at several options to manage project while the AE is on leave including:

- Hiring a part-time consultant or a consulting firm
  - Hourly cost - \$150 - \$200/hr
  - Work from own office
- Hiring a temporary employee
  - Time to advertise; hire & pre-employment
  - Short-term – have to let go after 3 months
  - Training
- Using a temporary agency for an employee (Project Partners)
  - Pre-screened; reduce time for hire
  - Reduce training
  - Cost per hour - \$90/hr
- Re-distribute the workload to the existing staff
  - Senior Engineer – take on construction projects
  - Senior Tech – additional work from operations
  - Lower priority projects put on hold until AE back to work

Staff anticipates the following conservative estimate of hours and weeks for the temporary AE:

| Start Date   | End Date  | Task   |
|--------------|-----------|--|
| 3/21/18      | 3/21/18   | Interviews                                     |
| 3/21/18      | 3/22/18   | Engineering Committee/Select Temp AE           |
| 3/23/18      | 3/27/18   | Board - Approve contract with Project Partners |
| 4/16/18      | 4/23/18   | Training with Current AE                       |
| 4/23/18      | 4/25/18   | Training with Current AE; Last day - 4/25/18   |
| 4/25/18      | 7/27/2018 | Max - 40 hrs per week                          |
|              |           | 14 Weeks x 40 Hrs = 600 hrs                    |
| <b>Total</b> |           | <b>600 hrs x \$90/hr - \$54,000</b>            |



**RECOMMENDATION:**

Staff will be interviewing two candidates on 3/21/18 and will provide a more detailed recommendation at the Engineering Committee Meeting.

**FUNDING AVAILABILITY:**

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

| <b>Account Description</b>                                     | <b>Amount</b>   |
|--|-----------------|
| FY 17/18 – Expense - Administrative Consultants – Water Budget | \$161,500       |
| Account balance as of 3/21/18                                  | <\$ 59,035>     |
| Estimated Cost for Project Partners                            | <\$ 54,000>     |
| Amount Remaining   | <b>\$48,465</b> |

Prepared & Submitted by:



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David S. Gould, P.E.  
District Engineer

| Capital Improvement Project Program<br>FY 17-18 Budget - Update 3/21/18 | Recorded<br>FY 16/17 | Carryover<br>from<br>FY 16/17 to<br>FY 17/18 | Budget<br>FY 17/18  | Total Project<br>Budget<br>FY 17/18<br>with<br>FY 16/17<br>Carryover | Cost to date<br>7/1/17 -<br>2/28/18 | Cost<br>Committed -<br>3/01/18 -<br>6/30/18 | Cost<br>Remaining<br>for FY 17/18 | Project Total<br>Cost for FY<br>17/18 | Carryover<br>from<br>FY 17/18 to<br>FY 18/19 |
|---|----------------------|--|---------------------|--|-------------------------------------|---|-----------------------------------|---------------------------------------|--|
| <b>1. Water Supply</b>  |                      |  |                     |  |                                     |   |                                   |                                       |  |
| <b>A. Groundwater</b>   |                      |  |                     |  |                                     |   |                                   |                                       |  |
| <b>i. Well Rehabilitation</b>   |                      |  |                     |  |                                     |   |                                   |                                       |  |
| Well 7 Rehabilitation   | \$ -                 | \$ -   |                     |  |                                     |   |                                   |                                       |  |
| Well 8 Rehabilitation   | \$ 44,385            | \$ -   |                     |  |                                     |   |                                   |                                       |  |
| Well 5 Rehabilitation   |                      |  | \$ 60,000           | \$ 60,000  | \$ 69,388                           | \$ -  | \$ (9,388)                        | \$ 69,388                             | \$ -   |
| Well 10 Rehabilitation  |                      |  | \$ 85,000           | \$ 85,000  | \$ 4,177                            | \$ 68,250                                   | \$ 12,573                         | \$ 72,427                             | \$ -   |
| <b>ii. New Wells</b>  |                      |  |                     |  |                                     |   |                                   |                                       |  |
| Re-Activate Well 2 - Design   | \$ 101,394           | \$ -   | \$ 160,300          | \$ 160,300   | \$ 135,462                          | \$ 24,838                                   |                                   | \$ 160,300                            | \$ -   |
| Re-Activate Well 2 - Construction                                       | \$ 189,960           | \$ 530,040                                   | \$ 880,000          | \$ 1,410,040   | \$ 759,282                          | \$ 650,758                                  | \$ (125,000)                      | \$ 1,410,040                          | \$ 274,800                                   |
| <b>B. Imported Water</b>  |                      |  |                     |  |                                     |   |                                   |                                       |  |
| Ocean View Chlorination St (Grant - Matching Funds)                     | \$ 4,464             |  |                     |  |                                     |   |                                   |                                       |  |
| Ocean View - Equip. (Grant - Matching Funds)                            | \$ 40,567            |  |                     |  |                                     |   |                                   |                                       |  |
| Ocean View - Elect (Grant - Matching Funds)                             | \$ 30,356            |  |                     |  |                                     |   |                                   |                                       |  |
| Ocean View - Final  | \$ 58,073            | \$ -   | \$ -                | \$ -   | \$ 13,394                           | \$ 50,306                                   | \$ (63,700)                       | \$ 63,700                             | \$ -   |
| <b>C. Groundwater Basin Recharge</b>                                    |                      |  |                     |  |                                     |   |                                   |                                       |  |
| Storm Water Recharge Study (Grant - Matching Funds)                     | \$ 54,286            | \$ -   | \$ -                | \$ -   |                                     |   |                                   |                                       |  |
| Stormwater Recharge Project - Design                                    |                      |  | \$ -                | \$ -   | \$ 3,966                            | \$ 34,250                                   | \$ (38,216)                       | \$ 38,216                             | \$ -   |
| <b>WS Total</b>   | <b>\$ 523,485</b>    | <b>\$ 530,040</b>                            | <b>\$ 1,185,300</b> | <b>\$ 1,715,340</b>  | <b>\$ 985,670</b>                   | <b>\$ 828,402</b>                           | <b>\$ (223,732)</b>               | <b>\$ 1,814,072</b>                   | <b>\$ 274,800</b>                            |
| <b>2. Water Storage</b>   |                      |  |                     |  |                                     |   |                                   |                                       |  |
| <b>A. Reservoir Rehabilitation</b>                                      |                      |  |                     |  |                                     |   |                                   |                                       |  |
| <b>i. Steel Reservoir Re-Coating/Roof/Vents Rehabilitation</b>          |                      |  |                     |  |                                     |   |                                   |                                       |  |
| Oak Creek #1 & #2 - Roof/Air Vents/Recoat                               | \$ 13,689            | \$ 306,310                                   | \$ 594,000          | \$ 900,310   | \$ 52,703                           | \$ 928,697                                  | \$ (81,090)                       | \$ 981,400                            | \$ -   |
| <b>B. Reservoir Water Quality</b>                                       |                      |  |                     |  |                                     |   |                                   |                                       |  |
| <b>C. New Reservoir Water Storage</b>                                   |                      |  |                     |  |                                     |   |                                   |                                       |  |
| <b>WS Total</b>   | <b>\$ 13,689</b>     | <b>\$ 306,310</b>                            | <b>\$ 594,000</b>   | <b>\$ 900,310</b>  | <b>\$ 52,703</b>                    | <b>\$ 928,697</b>                           | <b>\$ (81,090)</b>                | <b>\$ 981,400</b>                     | <b>\$ -</b>                                  |

| Capital Improvement Project Program<br>FY 17-18 Budget - Update 3/21/18 | Recorded<br>FY 16/17 | Carryover<br>from<br>FY 16/17 to<br>FY 17/18 | Budget<br>FY 17/18 | Total Project<br>Budget<br>FY 17/18<br>with<br>FY 16/17<br>Carryover | Cost to date<br>7/1/17 -<br>2/28/18 | Cost<br>Committed -<br>3/01/18 -<br>6/30/18 | Cost<br>Remaining<br>for FY 17/18 | Project Total<br>Cost for FY<br>17/18 | Carryover<br>from<br>FY 17/18 to<br>FY 18/19 |
|---|----------------------|--|--------------------|--|-------------------------------------|---|-----------------------------------|---------------------------------------|--|
|---|----------------------|--|--------------------|--|-------------------------------------|---|-----------------------------------|---------------------------------------|--|

### 3. Water Distribution

#### A. Pipeline Replacement

|  |            |            |            |            |            |            |             |            |      |
|--|------------|------------|------------|------------|------------|------------|-------------|------------|------|
| Lower Pickens Canyon Crossing & Slope - 600 LF | \$ 494,936 | \$ 60,000  | \$ -       | \$ 60,000  | \$ 89,512  | \$ 3,000   | \$ (32,512) | \$ 92,512  | \$ - |
| 4200 - 4400 Block - Penn - 1,450 LF            | \$ 214,527 | \$ 225,000 | \$ -       | \$ 225,000 | \$ 236,896 | \$ -       | \$ (11,896) | \$ 236,896 | \$ - |
| 2700 Block - Brookhill - 800 LF                |            |            | \$ 220,000 | \$ 220,000 | \$ 12,868  | \$ 251,412 | \$ (44,280) | \$ 264,280 | \$ - |
| 5100 Block of La Crescenta - 400 LF            |            |            | \$ 100,000 | \$ 100,000 | \$ 5,849   | \$ 114,281 | \$ (20,130) | \$ 120,130 | \$ - |
| 3000 Block of Brookhill - 800 LF               |            |            | \$ 220,000 | \$ 220,000 | \$ 12,868  | \$ 251,412 | \$ (44,280) | \$ 264,280 | \$ - |
| 3100 Block of Brookhill - 800 LF               |            |            | \$ 220,000 | \$ 220,000 | \$ 12,868  | \$ 251,412 | \$ (44,280) | \$ 264,280 | \$ - |

#### B. New Pipelines

#### C. Booster Pump System

##### i. Annual Pump /Motor Replacement

|                          |           |      |           |           |      |      |           |           |      |
|--------------------------|-----------|------|-----------|-----------|------|------|-----------|-----------|------|
| Booster 12 at Markridge  | \$ 31,086 | \$ - |           |           |      |      |           |           |      |
| Boosters - Encinal B & C |           |      | \$ 45,000 | \$ 45,000 | \$ - | \$ - | \$ 45,000 | \$ 45,000 | \$ - |

##### iii. Misc.

|                                    |           |           |      |           |          |           |      |           |      |
|------------------------------------|-----------|-----------|------|-----------|----------|-----------|------|-----------|------|
| Repairs to Ramsdell Mixing Station | \$ 34,288 | \$ 51,000 | \$ - | \$ 51,000 | \$ 8,652 | \$ 42,348 | \$ - | \$ 51,000 | \$ - |
|------------------------------------|-----------|-----------|------|-----------|----------|-----------|------|-----------|------|

|                 |                     |                   |                   |                     |                   |                   |                     |                     |             |
|-----------------|---------------------|-------------------|-------------------|---------------------|-------------------|-------------------|---------------------|---------------------|-------------|
| <b>WD Total</b> | <b>\$ 1,037,336</b> | <b>\$ 336,000</b> | <b>\$ 805,000</b> | <b>\$ 1,141,000</b> | <b>\$ 379,513</b> | <b>\$ 913,865</b> | <b>\$ (152,378)</b> | <b>\$ 1,338,378</b> | <b>\$ -</b> |
|-----------------|---------------------|-------------------|-------------------|---------------------|-------------------|-------------------|---------------------|---------------------|-------------|

### 4. Water Treatment

#### A. Nitrate Removal

#### B. Chlorine Disinfection

#### C. Convert to Chloramines

#### F. MTBE Removal

|                 |             |             |             |             |             |             |             |             |             |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>WT Total</b> | <b>\$ -</b> | <b>\$ -</b> | <b>\$ -</b> | <b>\$ -</b> | <b>\$ -</b> | <b>\$ -</b> | <b>\$ -</b> | <b>\$ -</b> | <b>\$ -</b> |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|

### 5. Technology

#### A. Automated Meter Information (AMI) System

#### B. Supervisory Control and Data Acquisition (SCADA) System

|   |            |           |      |           |           |           |      |           |      |
|---|------------|-----------|------|-----------|-----------|-----------|------|-----------|------|
| SCADA RTU Replace - Equipment & Integration | \$ 140,054 | \$ 61,000 | \$ - | \$ 61,000 | \$ 13,193 | \$ 47,807 | \$ - | \$ 61,000 | \$ - |
|---|------------|-----------|------|-----------|-----------|-----------|------|-----------|------|

|                   |                   |                  |             |                  |                  |                  |             |                  |             |
|-------------------|-------------------|------------------|-------------|------------------|------------------|------------------|-------------|------------------|-------------|
| <b>TECH Total</b> | <b>\$ 140,054</b> | <b>\$ 61,000</b> | <b>\$ -</b> | <b>\$ 61,000</b> | <b>\$ 13,193</b> | <b>\$ 47,807</b> | <b>\$ -</b> | <b>\$ 61,000</b> | <b>\$ -</b> |
|-------------------|-------------------|------------------|-------------|------------------|------------------|------------------|-------------|------------------|-------------|

| Capital Improvement Project Program<br>FY 17-18 Budget - Update 3/21/18 | Recorded<br>FY 16/17 | Carryover<br>from<br>FY 16/17 to<br>FY 17/18 | Budget<br>FY 17/18 | Total Project<br>Budget<br>FY 17/18<br>with<br>FY 16/17<br>Carryover | Cost to date<br>7/1/17 -<br>2/28/18 | Cost<br>Committed -<br>3/01/18 -<br>6/30/18 | Cost<br>Remaining<br>for FY 17/18 | Project Total<br>Cost for FY<br>17/18 | Carryover<br>from<br>FY 17/18 to<br>FY 18/19 |
|---|----------------------|--|--------------------|--|-------------------------------------|---|-----------------------------------|---------------------------------------|--|
| <b>6. Public Safety/Emergency Response</b>                              |                      |  |                    |  |                                     |   |                                   |                                       |  |
| A. Emergency Electrical Generators                                      |                      |  |                    |  |                                     |   |                                   |                                       |  |
| B. Water Storage  |                      |  |                    |  |                                     |   |                                   |                                       |  |
| <i>Dunsmore/Pickens - Seismic Sensors &amp; Valve Actuators</i>         | \$ 71,886            | \$ 25,000                                    | \$ -               | \$ 25,000  | \$ -                                | \$ -  | \$ 25,000                         | \$ -                                  | \$ -   |
| <b>SF/ER Total</b>  | \$ 71,886            | \$ 25,000                                    | \$ -               | \$ 25,000  | \$ -                                | \$ -  | \$ 25,000                         | \$ -                                  | \$ -   |
| <b>7. Facilities &amp; Planning</b>                                     |                      |  |                    |  |                                     |   |                                   |                                       |  |
| A. Main Office  |                      |  |                    |  |                                     |   |                                   |                                       |  |
| B. Glenwood Plant   |                      |  |                    |  |                                     |   |                                   |                                       |  |
| D. Reservoir Site Improvements  |                      |  |                    |  |                                     |   |                                   |                                       |  |
| <b>F &amp; P Total</b>  | \$ 68,368            | \$ -   | \$ -               | \$ -   |                                     |   |                                   |                                       |  |
| <b>Capital Improvement Projects - Total</b>                             | \$ 1,854,818         | \$ 1,258,350                                 | \$ 2,584,300       | \$ 3,842,650   | \$ 1,431,079                        | \$ 2,718,771                                | \$ (432,200)                      | \$ 4,194,850                          | \$ 274,800                                   |

| Capital Improvement Project Program<br>FY 17-18 Budget - Update 3/21/18 | Recorded<br>FY 16/17 | Carryover<br>from<br>FY 16/17 to<br>FY 17/18 | Budget<br>FY 17/18  | Total Project<br>Budget<br>FY 17/18<br>with<br>FY 16/17<br>Carryover | Cost to date<br>7/1/17 -<br>2/28/18 | Cost<br>Committed -<br>3/01/18 -<br>6/30/18 | Cost<br>Remaining<br>for FY 17/18 | Project Total<br>Cost for FY<br>17/18 | Carryover<br>from<br>FY 17/18 to<br>FY 18/19 |
|---|----------------------|--|---------------------|--|-------------------------------------|---|-----------------------------------|---------------------------------------|--|
| <b>FY 17/18 Capital Improvement Project Summary</b>                     |                      |  |                     |  |                                     |   |                                   |                                       |  |
| 1. Water Supply   | \$ 523,485           | \$ 530,040                                   | \$ 1,185,300        | \$ 1,715,340   | \$ 985,670                          | \$ 828,402                                  | \$ (223,732)                      | \$ 1,814,072                          | \$ 274,800                                   |
| 2. Water Storage  | \$ 13,689            | \$ 306,310                                   | \$ 594,000          | \$ 900,310   | \$ 52,703                           | \$ 928,697                                  | \$ (81,090)                       | \$ 981,400                            | \$ -   |
| 3. Water Distribution   | \$ 1,037,336         | \$ 336,000                                   | \$ 805,000          | \$ 1,141,000   | \$ 379,513                          | \$ 913,865                                  | \$ (152,378)                      | \$ 1,338,378                          | \$ -   |
| 4. Water Treatment  | \$ -                 | \$ -   | \$ -                | \$ -   | \$ -                                | \$ -  | \$ -                              | \$ -                                  | \$ -   |
| 5. Technology   | \$ 140,054           | \$ 61,000                                    | \$ -                | \$ 61,000  | \$ 13,193                           | \$ 47,807                                   | \$ -                              | \$ 61,000                             | \$ -   |
| 6. Public Safety/Emergency Response                                     | \$ 71,886            | \$ 25,000                                    | \$ -                | \$ 25,000  | \$ -                                | \$ -  | \$ 25,000                         | \$ -                                  | \$ -   |
| 7. Facilities & Planning  | \$ 68,368            | \$ -   | \$ -                | \$ -   | \$ -                                | \$ -  | \$ -                              | \$ -                                  | \$ -   |
| <b>Capital Improvement Projects - Total</b>                             | <b>\$ 1,854,818</b>  | <b>\$ 1,258,350</b>                          | <b>\$ 2,584,300</b> | <b>\$ 3,842,650</b>  | <b>\$ 1,431,079</b>                 | <b>\$ 2,718,771</b>                         | <b>\$ (432,200)</b>               | <b>\$ 4,194,850</b>                   | <b>\$ 274,800</b>                            |
| <b>Budget Shortfall</b>   |                      |  |                     |  |                                     |   | <b>\$ (432,200)</b>               |                                       |  |
| <b>Well 2 Project - Transfer from MTBE Fund</b>                         |                      |  |                     |  |                                     |   | <b>\$ 500,000</b>                 |                                       |  |
| <b>Brookhill Pipeline - Transfer from Water Reserves</b>                |                      |  |                     |  |                                     |   | <b>\$ 75,000</b>                  |                                       |  |
| <b>Oak Creek Rehab - Transfer from Water Reservices</b>                 |                      |  |                     |  |                                     |   | <b>\$ 90,000</b>                  |                                       |  |
| <b>Total - Transfers</b>  |                      |  |                     |  |                                     |   | <b>\$ 665,000</b>                 |                                       |  |
| <b>Revised Budget Amount Remaining</b>                                  |                      |  |                     |  |                                     |   | <b>\$ 232,800</b>                 |                                       |  |

| Capital Improvement Project Program<br>FY 18-19 Budget         | Carryover<br>from<br>FY 17/18 | Budget<br>FY 18/19 | Forecast<br>FY 19/20 | Forecast<br>FY 20/21 | Forecast<br>FY 21/22 | Forecast<br>FY 22/23 |
|--|-------------------------------|--------------------|----------------------|----------------------|----------------------|----------------------|
| <b>1. Water Supply</b>   |                               |                    |                      |                      |                      |                      |
| <b>A. Groundwater</b>  |                               |                    |                      |                      |                      |                      |
| <b>i. Well Rehabilitation</b>                                  |                               |                    |                      |                      |                      |                      |
| Well 5 Rehabilitation  | \$ -                          |                    |                      |                      |                      |                      |
| Well 10 Rehabilitation   | \$ -                          |                    |                      |                      |                      |                      |
| Well 7 Rehabilitation  |                               | \$ 75,000          |                      |                      |                      |                      |
| Well 11 Rehabilitation   |                               | \$ 75,000          |                      |                      |                      |                      |
| Well 14 Rehabilitation   |                               | \$ 75,000          |                      |                      |                      |                      |
| Well Rehabilitation (2 Wells per year)                         |                               |                    | \$ 150,000           | \$ 200,000           | \$ 200,000           | \$ 200,000           |
| <b>ii. New Wells</b>   |                               |                    |                      |                      |                      |                      |
| Re-Activate Well 2 - Construction                              | \$ 274,800                    |                    |                      |                      |                      |                      |
| Well 18 (Sycamore House) - Design                              |                               |                    |                      | \$ 175,000           |                      |                      |
| Well 18 (Sycamore House) - Construction                        |                               |                    |                      |                      |                      | \$ 1,575,000         |
| <b>iii. Studies</b>  |                               |                    |                      |                      |                      |                      |
| <b>B. Imported Water</b>                                       |                               |                    |                      |                      |                      |                      |
| Ocean View - Final   | \$ -                          |                    |                      |                      |                      |                      |
| <b>C. Groundwater Basin Recharge</b>                           |                               |                    |                      |                      |                      |                      |
| Stormwater Recharge Project - Design                           | \$ -                          |                    | \$ 150,000           |                      |                      |                      |
| Stormwater Recharge Project - Construction                     |                               |                    |                      | \$ 1,500,000         | \$ 1,500,000         |                      |
| <b>D. Recycled Water System</b>                                |                               |                    |                      |                      |                      |                      |
| <b>WS Total</b>  | <b>\$ 274,800</b>             | <b>\$ 225,000</b>  | <b>\$ 300,000</b>    | <b>\$ 1,700,000</b>  | <b>\$ 1,875,000</b>  | <b>\$ 1,775,000</b>  |
| <b>2. Water Storage</b>  |                               |                    |                      |                      |                      |                      |
| <b>A. Reservoir Rehabilitation</b>                             |                               |                    |                      |                      |                      |                      |
| <b>i. Steel Reservoir Re-Coating/Roof/Vents Rehabilitation</b> |                               |                    |                      |                      |                      |                      |
| Oak Creek #1 & #2 - Roof/Air Vents/Recoat                      | \$ -                          |                    |                      |                      |                      |                      |
| Markridge - Roof/Air Vents/Recoat                              |                               |                    |                      | \$ 500,000           |                      |                      |
| Rosemont - Roof/Air Vents/Recoat                               |                               |                    |                      |                      | \$ 500,000           |                      |
| Eagle Canyon - Roof/Air Vents/Recoat                           |                               |                    |                      |                      |                      | \$ 600,000           |
| <b>ii. Concrete Reservoir Rehabilitation</b>                   |                               |                    |                      |                      |                      |                      |
| Encinal Reservoir - Concrete Rehabilitation                    |                               | \$ 175,000         |                      |                      |                      |                      |
| <b>iii. Corrosion Protection</b>                               |                               |                    |                      |                      |                      |                      |
| Cathodic Protection Inspection & Replacement                   |                               |                    | \$ 130,000           |                      |                      |                      |
| <b>iv. Overflow &amp; Drain System Upgrade</b>                 |                               |                    |                      |                      |                      |                      |
| Overflow/Drain System Assessment Study                         |                               |                    |                      | \$ 85,000            |                      |                      |

| Capital Improvement Project Program<br>FY 18-19 Budget                     | Carryover<br>from<br>FY 17/18 | Budget<br>FY 18/19 | Forecast<br>FY 19/20 | Forecast<br>FY 20/21 | Forecast<br>FY 21/22 | Forecast<br>FY 22/23 |
|--|-------------------------------|--------------------|----------------------|----------------------|----------------------|----------------------|
| <b>B. Reservoir Water Quality</b>  |                               |                    |                      |                      |                      |                      |
| <b>i. Water Mixing System</b>  |                               |                    |                      |                      |                      |                      |
| <i>Reservoir Water Quality &amp; Mixing System Study</i>                   |                               |                    |                      |                      |                      | \$ 125,000           |
| <b>iv. Replace common inlet and outlet piping</b>                          |                               |                    |                      |                      |                      |                      |
| <i>Reservoir Piping Technical Study (included with WQ &amp; Mix Study)</i> |                               |                    |                      |                      |                      | \$ 75,000            |
| <i>Ocean View #2 Reservoir (Top of Ocean View) - Feasibility Study</i>     |                               |                    |                      |                      | \$ 75,000            |                      |
| <b>WS Total</b>  | \$ -                          | \$ 175,000         | \$ 130,000           | \$ 585,000           | \$ 575,000           | \$ 800,000           |
| <b>3. Water Distribution</b>   |                               |                    |                      |                      |                      |                      |
| <b>A. Pipeline Replacement</b>   |                               |                    |                      |                      |                      |                      |
| <i>3200 &amp; 3300 Blocks of Brookhill - 1,600 LF</i>                      | \$ -                          | \$ 640,000         |                      |                      |                      |                      |
| <i>2400 &amp; 2500 Block of Janet Lee - 1,200 LF</i>                       | \$ -                          | \$ 480,000         |                      |                      |                      |                      |
| <i>Annual Pipeline Replacement - 3,000 LF</i>                              |                               |                    | \$1,150,000          | \$1,250,000          | \$1,500,000          | \$1,500,000          |
| <b>B. New Pipelines</b>  |                               |                    |                      |                      |                      |                      |
| <b>C. Booster Pump System</b>  |                               |                    |                      |                      |                      |                      |
| <b>i. Annual Pump /Motor Replacement</b>                                   |                               |                    |                      |                      |                      |                      |
| <i>Boosters - Encinal B &amp; C</i>  | \$ -                          |                    |                      |                      |                      |                      |
| <i>Boosters - Glenwood 32 &amp; 33</i>                                     |                               | \$ 75,000          |                      |                      |                      |                      |
| <i>Boosters - Paschall B</i>   |                               |                    | \$ 75,000            |                      |                      |                      |
| <i>Boosters - Booster 26 at CH</i>   |                               |                    |                      | \$ 75,000            |                      |                      |
| <i>Boosters - Ocean View B &amp; Booster 25 at Markridge</i>               |                               |                    |                      |                      | \$ 75,000            |                      |
| <i>Annual Booster Replacement - 2 Boosters</i>                             |                               |                    |                      |                      |                      | \$ 75,000            |
| <b>ii. Pump Station Upgrade</b>  |                               |                    |                      |                      |                      |                      |
| <i>Upgrade Paschall Booster Station - Design &amp; Construction</i>        |                               | \$ 75,000          | \$ 500,000           |                      |                      |                      |
| <i>Goss Canyon - New Booster Pump Station - Design &amp; Construction</i>  |                               |                    |                      | \$ 75,000            | \$ 400,000           |                      |
| <i>Cresta Heights - New Booster Pump Station</i>                           |                               |                    |                      |                      |                      | \$ 75,000            |
| <b>iii. VFD Pump Upgrade</b>   |                               |                    |                      |                      |                      |                      |
| <b>iv. MCC Replacement</b>   |                               |                    |                      |                      |                      |                      |
| <i>MCC upgrade at Paschall - Design &amp; Construction</i>                 |                               | \$ 75,000          | \$ 350,000           |                      |                      |                      |
| <i>MCC upgrade at Goss Canyon - Design &amp; Construction</i>              |                               |                    |                      | \$ 100,000           | \$ 400,000           |                      |
| <i>MCC upgrade at Cresta Heights</i>                                       |                               |                    |                      |                      |                      | \$ 75,000            |
| <b>D. Pressure Reducing Stations</b>                                       |                               |                    |                      |                      |                      |                      |
| <i>Pressure Reducing Station Preliminary Design Study</i>                  |                               |                    |                      |                      | \$ 85,000            |                      |
| <i>Upgrade PRS - Zone 4 to Zone 3</i>                                      |                               |                    |                      |                      |                      | \$ 100,000           |

| Capital Improvement Project Program<br>FY 18-19 Budget            | Carryover<br>from<br>FY 17/18 | Budget<br>FY 18/19  | Forecast<br>FY 19/20 | Forecast<br>FY 20/21 | Forecast<br>FY 21/22 | Forecast<br>FY 22/23 |
|---|-------------------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| <b>E. Miscellaneous Projects</b>                                  |                               |                     |                      |                      |                      |                      |
| <b>i. Water Surge Control</b>                                     |                               |                     |                      |                      |                      |                      |
| Rehabilitation Surge Tank at Glenwood                             |                               | \$ 65,000           |                      |                      |                      |                      |
| Rehabilitation Surge Tank at Mills Plant                          |                               |                     | \$ 75,000            |                      |                      |                      |
| Surge Analysis Study  |                               |                     |                      |                      |                      | \$ 150,000           |
| <b>ii. Street/Utility/ Meter Adjustment &amp; Upgrade</b>         |                               |                     |                      |                      |                      |                      |
| <b>iii. Misc.</b>   |                               |                     |                      |                      |                      |                      |
| Repairs to Ramsdell Mixing Station                                | \$ 125,000                    |                     |                      |                      |                      |                      |
| Mills Plant - Aeration Tower Rehabilitation                       |                               |                     | \$ 50,000            |                      |                      |                      |
| <b>WD Total</b>   | <b>\$ 125,000</b>             | <b>\$ 1,410,000</b> | <b>\$ 2,150,000</b>  | <b>\$ 1,500,000</b>  | <b>\$ 2,460,000</b>  | <b>\$ 1,975,000</b>  |
| <b>4. Water Treatment</b>   |                               |                     |                      |                      |                      |                      |
| <b>A. Nitrate Removal</b>   |                               |                     |                      |                      |                      |                      |
| <b>i. Glenwood</b>  |                               |                     |                      |                      |                      |                      |
| Replace Ion Exchange Resin at Glenwood                            |                               |                     |                      |                      | \$ 500,000           |                      |
| <b>ii. Mills</b>  |                               |                     |                      |                      |                      |                      |
| <b>iii. Ordunio</b>   |                               |                     |                      |                      |                      |                      |
| Replace Bio Remediation AroNite Media at Ordunio                  |                               |                     |                      |                      |                      | \$ 250,000           |
| <b>B. Chlorine Disinfection</b>                                   |                               |                     |                      |                      |                      |                      |
| New Chlorination Station at Pickens Canyon Reservoir              |                               | \$ 75,000           |                      |                      |                      |                      |
| Paschall - New Chlorine Analyzer                                  |                               | \$ 40,000           |                      |                      |                      |                      |
| New Chlorination Station at Markridge Reservoir                   |                               |                     | \$ 75,000            |                      |                      |                      |
| Edmund #1 & Shields - Chlorine Analyzers                          |                               |                     |                      | \$ 75,000            |                      |                      |
| Goss Canyon #1 & #2 - Chlorine Analyzers                          |                               |                     |                      |                      | \$ 75,000            |                      |
| <b>C. Convert to Chloramines</b>                                  |                               |                     |                      |                      |                      |                      |
| Conversion to Chloramination Disinfection Feasibility             |                               |                     | \$ 85,000            |                      |                      |                      |
| <b>D. Federal and State Regulations</b>                           |                               |                     |                      |                      |                      |                      |
| TTHM Removal - In-Tank Aeration - Shields & Edmund 2 Reservoirs   |                               | \$ 150,000          |                      |                      |                      |                      |
| <b>E. Water Quality Studies</b>                                   |                               |                     |                      |                      |                      |                      |
| <b>F. MTBE Removal</b>  |                               |                     |                      |                      |                      |                      |
| <b>WT Total</b>   | <b>\$ -</b>                   | <b>\$ 265,000</b>   | <b>\$ 160,000</b>    | <b>\$ 75,000</b>     | <b>\$ 575,000</b>    | <b>\$ 250,000</b>    |
| <b>5. Technology</b>  |                               |                     |                      |                      |                      |                      |
| <b>A. Automated Meter Information (AMI) System</b>                |                               |                     |                      |                      |                      |                      |
| <b>B. Supervisory Control and Data Acquisition (SCADA) System</b> |                               |                     |                      |                      |                      |                      |
| SCADA RTU Replace - Equipment & Integration                       | \$ -                          | \$ 400,000          | \$ 400,000           | \$ 125,000           |                      |                      |



| Capital Improvement Project Program<br>FY 18-19 Budget                  | Carryover<br>from<br>FY 17/18 | Budget<br>FY 18/19 | Forecast<br>FY 19/20 | Forecast<br>FY 20/21 | Forecast<br>FY 21/22 | Forecast<br>FY 22/23 |
|---|-------------------------------|--------------------|----------------------|----------------------|----------------------|----------------------|
| <b>C. Graphical Information System (GIS)</b>                            |                               |                    |                      |                      |                      |                      |
| <b>TECH Total</b>   | \$ -                          | \$ 400,000         | \$ 400,000           | \$ 125,000           | \$ -                 | \$ -                 |
| <b>6. Public Safety/Emergency Response</b>                              |                               |                    |                      |                      |                      |                      |
| <b>A. Emergency Electrical Generators</b>                               |                               |                    |                      |                      |                      |                      |
| <i>New Emergency Electrical Generator - Mills Plant</i>                 |                               |                    |                      | \$ 150,000           |                      |                      |
| <i>New Emergency Electrical Generator - Field</i>                       |                               |                    |                      |                      |                      | \$ 50,000            |
| <b>B. Water Storage</b>   |                               |                    |                      |                      |                      |                      |
| <i>Ordunio - Seismic Sensors &amp; Valve Actuators</i>                  |                               | \$ 100,000         |                      |                      |                      |                      |
| <i>Oak Creek #1 &amp; #2 - Seismic Sensors &amp; Valve Actuators</i>    |                               |                    |                      | \$ 150,000           |                      |                      |
| <i>Encinal &amp; Ocean View - Seismic Sensors &amp; Valve Actuators</i> |                               |                    |                      |                      |                      | \$ 125,000           |
| <b>C. Security</b>  |                               |                    |                      |                      |                      |                      |
| <b>D. Miscellaneous</b>   |                               |                    |                      |                      |                      |                      |
| <b>SF/ER Total</b>  | \$ -                          | \$ 100,000         | \$ -                 | \$ 300,000           | \$ -                 | \$ 175,000           |
| <b>7. Facilities &amp; Planning</b>                                     |                               |                    |                      |                      |                      |                      |
| <b>A. Main Office</b>   |                               |                    |                      |                      |                      |                      |
| <i>Expansion with New Roof with Solar Panels</i>                        |                               |                    | \$ 150,000           |                      |                      |                      |
| <b>B. Glenwood Plant</b>  |                               |                    |                      |                      |                      |                      |
| <b>C. Mills Plant</b>   |                               |                    |                      |                      |                      |                      |
| <b>D. Reservoir Site Improvements</b>                                   |                               |                    |                      |                      |                      |                      |
| <i>Ocean View - Site Improvements</i>                                   |                               |                    | \$ 265,000           |                      |                      |                      |
| <i>Roof for Old Encinal - Storage Bldg</i>                              |                               |                    | \$ 150,000           |                      |                      |                      |
| <b>5. Misc. Properties</b>  |                               |                    |                      |                      |                      |                      |
| <b>6. District Planning</b>   |                               |                    |                      |                      |                      |                      |
| <b>F &amp; P Total</b>  | \$ -                          | \$ -               | \$ 565,000           | \$ -                 | \$ -                 | \$ -                 |
| <b>Capital Improvement Projects - Total</b>                             | \$ 399,800                    | \$ 2,575,000       | \$ 3,705,000         | \$ 4,285,000         | \$ 5,485,000         | \$ 4,975,000         |

| Capital Improvement Project Program<br>FY 18-19 Budget | Carryover<br>from<br>FY 17/18 | Budget<br>FY 18/19 | Forecast<br>FY 19/20 | Forecast<br>FY 20/21 | Forecast<br>FY 21/22 | Forecast<br>FY 22/23 |
|--|-------------------------------|--------------------|----------------------|----------------------|----------------------|----------------------|
| <b>FY 18/19 Capital Improvement Project Summary</b>    |                               |                    |                      |                      |                      |                      |
| <b>1. Water Supply</b>                                 | \$ 274,800                    | \$ 225,000         | \$ 300,000           | \$ 1,700,000         | \$ 1,875,000         | \$ 1,775,000         |
| <b>2. Water Storage</b>                                | \$ -                          | \$ 175,000         | \$ 130,000           | \$ 585,000           | \$ 575,000           | \$ 800,000           |
| <b>3. Water Distribution</b>                           | \$ 125,000                    | \$ 1,410,000       | \$ 2,150,000         | \$ 1,500,000         | \$ 2,460,000         | \$ 1,975,000         |
| <b>4. Water Treatment</b>                              | \$ -                          | \$ 265,000         | \$ 160,000           | \$ 75,000            | \$ 575,000           | \$ 250,000           |
| <b>5. Technology</b>                                   | \$ -                          | \$ 400,000         | \$ 400,000           | \$ 125,000           | \$ -                 | \$ -                 |
| <b>6. Public Safety/Emergency Response</b>             | \$ -                          | \$ 100,000         | \$ -                 | \$ 300,000           | \$ -                 | \$ 175,000           |
| <b>7. Facilities &amp; Planning</b>                    | \$ -                          | \$ -               | \$ 565,000           | \$ -                 | \$ -                 | \$ -                 |
| <b>Capital Improvement Projects - Total</b>            | \$ 399,800                    | \$ 2,575,000       | \$ 3,705,000         | \$ 4,285,000         | \$ 5,485,000         | \$ 4,975,000         |