CRESCENTA VALLEY WATER DISTRICT

2700 Foothill Boulevard
La Crescenta, California

Agenda for the
Adjourned Regular Meeting of the Board of Directors
of the Crescenta Valley Water District
to be held on Tuesday, August 28, 2018 at 7:00 p.m.

Posted: August 24, 2018 at 3:00 p.m.

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

Call to Order and Determination of Quorum

Pledge of Allegiance

Adoption of Agenda

At this time the public shall have an opportunity to comment on any non-agenda item relevant to the subject matter jurisdiction of the Board. This opportunity is non-transferable and speakers are limited to one three (3) minute comment.

Foothill Municipal Water District Report

1. Report on activities at Foothill Municipal Water District.

Consent Calendar

1. Consideration and approval of Minutes of the Regular Meeting on July 10, 2018.

Action Calendar

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

1. **TTHM Mitigation and Chloramine Conversion, Project E-995** - Consideration and motion to authorize the General Manager to enter into an agreement with Water Quality & Treatment Solutions, Inc. (WQTS) to provide technical support services for TTHM mitigation, assistance on public notification, and chloramine conversion at a cost of $99,800 and establish a contingency amount of $9,980 (10% of contract) to cover the cost of any additional work**.**
2. **Schedule of Cost Recovery for Use of District Labor/Equipment** – Consideration and motion to approve updated schedule of cost recovery for use of District labor/equipment for developer projects.

Information Items

Written Communications to District/Board

General Manager's Report

Attorney Report

Reports of Committees

- **Engineering Committee**
- **Finance Committee**
- **Employee Relations Committee**
- **Policy Committee**
- **Community Relations/Water Conservation Committee**
- **Emergency Planning Committee**

Director's Oral Reports

- Report on issues, meetings, or activities attended by Directors.

Closed Session

Conference with Legal Counsel – Existing Litigation (Section 54956.9(d)(1)

- PLA BKK Working Group v. 1700 Santa Fe Ltd et al, 2:18-CV-05810-MWF (CD California)

Board Members' Request for Future Agenda Items

Adjournment

CRESCENTA VALLEY WATER DISTRICT

REGULAR MEETING, BOARD OF DIRECTORS

August 14, 2018

Pursuant to the order of the Board of Directors of the Crescenta Valley Water District, made at the Adjourned Regular Meeting of July 24, 2018, a Regular Meeting was held on August 14, 2018 at 7:00 p.m. at the District office at 2700 Foothill Blvd., La Crescenta, California, with President James D. Bodnar presiding.

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

Directors:	**James D. Bodnar** **Michael L. Claessens** **Kerry D. Erickson** **Kenneth R. Putnam** **Judy L. Tejeda**
Attorney:	**Thomas S. Bunn**
General Manager:	**Nem Ochoa**
Secretary-Treasurer:	**Ron L. Mitchell**
District Engineer:	**David S. Gould**
Others Present:	**Mark Hass, IT Manager** **Christy Scott, Program Specialist** **Wendy Holloway, Customer Service Supervisor** **Dennis Maxwell, Operation & Maintenance Mgr.** **James Lee, Finance & Accounting Manager** **Brook Yared, Senior Engineer** **Arturo Montes, Accounting Clerk** **Kathy Ross, FMWD Director** **Issam Najm, Ph.D., P.E.**

PLEDGE OF ALLEGIANCE

President Bodnar opened the meeting by asking Director Tejeda to lead the Board and staff in reciting the Pledge of Allegiance.

ADOPTION OF AGENDA

It was moved by Director Putnam, seconded by Director Claessens and carried by a 5-0 vote that the Agenda for the Regular Meeting of August 14, 2018, be adopted as presented.

PUBLIC COMMENT – None

FOOTHILL MUNICIPAL WATER DISTRICT REPORT – Kathy Ross reported FMWD is supporting the appointment of Jim Stahl for the Los Angeles Regional Water Control Board. The Water Resources Committee will meet on Wednesday, August 22, 2017, and the next Board meeting will be on August 27, 2018.

CONSENT CALENDAR

It was moved by Director Erickson, seconded by Director Tejeda and carried by a 5-0 vote to approve the Minutes of the Adjourn Regular Board meeting held on July 24, 2018, and ratify the disbursements for July 2018.

Payments of demands against the Crescenta Valley Water District on or before July 31, 2018 the same having been approved by the General Manager, Nem Ochoa and heretofore paid, be ratified and approved subject to audit, in the aggregate sum of Eight Hundred Twenty Thousand, Two Hundred Eighty-Nine Dollars and Twenty-Five cents (820,289.25), which is composed of the individual items set forth herein.

ACTION CALENDAR

General Manager Goals and Objectives – Director Bodnar reported the Executive Committee met on July 13th to discuss the General Manager's Goal and Objectives for the first 12 months. They have recommended: Develop and implement a cost-effective public outreach and customer communication plan, conduct performance evaluations for Management staff, complete the Strategic Plan, develop an organizational structure capable of accomplishing the District's mission effectively and efficiently, and to develop a plan to implement asset management tools to better manage District assets. The Board would also would like to have a report on areas where we can control and reduce cost, report on rental leases and appraise the properties.

16-inch Water Main Break – Mr. Gould provided Directors and staff a report on the 16" water main leak at Stevens Street and Raymond Avenue. The leak occurred on July 28, 2018 at approximately 5:00 p.m. A sub-contractor for Southern California Edison was drilling for a new power pole when they drilled into the District's 16" main pumpline. A crew was assembled to make the repairs and the water was turned off on Saturday night for a temporary repair. Sunday morning the water was turned back on, and on Sunday night, the water was turned off again for permanent repairs. Approximately 1,100 customers were affected. Staff had the website update with information for the customers. Staff has been keeping track of the costs and will be filing a claim with Southern California Edison.

Acceptance of Water Easements for Tract No. 73651, Project D-16-39 – Mr. Gould reported that staff has been working with Gangi Development (developer) on construction of 28 new townhomes located at 4201 Pennsylvania Avenue. This project is located within the City of Glendale and CVWD is providing the water service. The project will require an 8-inch water main for the fire protection and new water services. The developer entered into an agreement with CVWD that dictates the requirements and procedures that they must follow. Since they are building on private property, they must provide easements to CVWD to maintain water services, and provide access to read the meters and to make repairs if necessary. The developer has put the easements on the Tract Map, and is asking to have the General Manager authorize the easements.

Following discussion:

It was moved by Director Claessens, seconded by Director Tejeda and carried by a 5-0 vote to authorize the General Manager to accept water easements for Tract No. 73651 for development at 4201 Pennsylvania Avenue.

INFORMATION ITEMS – CV Weekly: New Technology on an Old Well Gushes Results, dedication for Well #2. CVWD Customers suffer service interruption.

WRITTEN COMMUNICATIONS TO DISTRICT – None.

REPORTS OF PERSONNEL

GENERAL MANAGER- Mr. Ochoa reported on water quality and said that last month it was brought to his attention that the data was trending upward in certain areas of disinfection by products TTHMs. Mr. Ochoa contacted Dr. Issam Najm, PhD., P.E. and asked him to assess the situation and he gave a presentation to the Board on the TTHMs. During the presentation he discussed the challenge the District faces, what are Trihalomethanes (TTHMs), what the levels have been, state regulations for Maximum Contaminant Limit (MCL), how to lower the THM formation by either removing some of the natural organic material, replacing chlorine with chloramine, or by removing the THM's by installing air blowers at storage tanks.

After the presentation, the Board discussed what staff needed to do next to rectify the situation. He also reported that in August there is one employee anniversary: Darlene Telles has worked at the District for 5 years. We have worked 1,522 days without a lost time accident.

Mr. Gould reported on the water production with 132 MG for the July 1 – 31, which is 3.2% greater than 2017 and 1.9% less than the 5-year average. He reported on the Well 2 project and that we have started to chlorinate the well and APTwater is starting on testing protocols for DDW. Staff has done some internal load tests for the generator at the main office and have determined that the size is below the AQMD standard required for permits and now we are looking at some new generators to order. Also, the District has had many lateral leaks occurring at a rate of approximately 1 every two to three days.

ATTORNEY- No Report

REPORTS OF COMMITTEES

Engineering Committee – Mr. Gould reported that the Committee met on August 9, 2018 and discussed CVWD's AMI program, Proposal for Groundwater Modeling and Evaluation for potential of MTBE recurrence, 16-inch water main break, water main easements at Quail Creek Chanel and 3100 block of Brookhill, new development at 4201 Pennsylvania, and update on Capital Improvement Projects. The Committee will meet on August 24, 2018, at 9:00 a.m.

Finance Committee – Director Bodnar reported that the Committee met on August 14, 2018 at 6:00 p.m. and discussed the FY 2017-18 Audit and reviewed proposed schedule of cost recovery for use of District labor/equipment.

Employee Relations Committee – Director Erickson reported that the Committee had not met; however, a meeting will be scheduled as needed.

Policy Committee – Director Bodnar reported that the Committee had not met; however, a meeting will be scheduled as needed.

Community Relations/Water Conservation Committee – Director Claessens reported that the Committee will meet on August 28, 2018 at 9:00 a.m.

Emergency Planning Committee – Director Claessens reported that the Committee had not met; however, a meeting will be scheduled as needed.

Executive Committee – Director Bodnar reported that the Committee had not met; however, a meeting will be scheduled as needed.

DIRECTORS ORAL REPORT

Director Bodnar reported that he took a Colorado River Rafting trip with his daughter. He will be attending the AWWA Water Workshop at Santiago College on August 22, 2018.

Director Claessens – No Report

Director Tejeda reported that she attended National Night Out on August 7, 2018. She said it was not well attended and now that Twelve Oaks has opened back up, she hopes that they will host it next year.

Director Putnam – No Report

Director Erickson – No Report

CLOSED SESSION – No reportable action

ADJOURNMENT

There being no other business to come before the Board, at 9:27 p.m. it was moved by Director Claessens, seconded by Director Tejeda, and carried by a 5-0 vote that the meeting be adjourned to August 28, 2018 at 7:00 p.m.

APPROVED:

James D. Bodnar
President

Ron L. Mitchell
Secretary-Treasurer

CRESCENTA VALLEY WATER DISTRICT
BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 1

To: Honorable President and Members of the Board of Directors August 28, 2018

From: Christy J. Scott

Subject: **Award of Contract – Technical Support Services for TTHM Mitigation and Chloramine Conversion, Project E-995**

ACTION ITEM:

TTHM Mitigation and Chloramine Conversion, Project E-995 - Consideration and motion to authorize the General Manager to enter into an agreement with Water Quality & Treatment Solutions, Inc. (WQTS) to provide technical support services for TTHM mitigation, assistance on public notification, and chloramine conversion at a cost of $99,800 and establish a contingency amount of $9,980 (10% of contract) to cover the cost of any additional work.

BACKGROUND:

The District is currently using chlorine as a disinfectant to treat drinking water. Chlorine can create chemicals during treatment as it reacts with naturally occurring organic materials in the untreated water. CVWD has seen a steady rise in the concentration of these byproducts, known as total Trihalomethanes or TTHMs in the water served to customers. The amount of organic material in water varies by source. Groundwater from our local Verdugo Basin has less organic materials than the imported water we purchase from Foothill Municipal Water District.

The imported supply either comes from the Colorado River (CRW) or the State Water Project (SWP). SWP water has a higher concentration of organic materials than CRW water. The District typically uses a blend of 60 percent groundwater and 40 percent purchased imported water to meet customer demands.

Because groundwater levels have not yet recovered from the latest drought, the blends are now closer to 30 percent groundwater and 70 percent imported water. The increase in imported water, coupled with the additional chlorine required to maintain a chlorine residual in the system, has led to an increase in disinfection by-product levels in the distribution system.

DISCUSSION:

Dr. Najm has been working with the District under a separate contract to assist in providing immediate, short, and long term TTHMs mitigation options. In his current proposal, Dr. Najm has provided a "Draft" TTHMs Mitigation Option Decision Tree that lays out a course of action and encompasses tasks to begin chloramine conversion, including public outreach material, participation in public meetings, staff and operator training, Department of Drinking Water (DDW) permitting support, and development of necessary mitigation plans and 30% design plans and specifications for chloramine conversion, which are shown below:

- ***Task 1 – Develop Nitrification Monitoring & Control Plan:*** Nitrification in stored water containing chloramine is inevitable, and many water agencies in Southern California experience it. It is the primary downside to chloramine in distribution systems. Water agencies mitigate nitrification by increased monitoring and taking specific actions when detected. In this task, WQTS will develop a Nitrification Monitoring & Control Plan (NMCP) for the District to implement. The NMCP will include specific water quality monitoring activities and their schedule, as well as specific actions to be taken based on triggers of nitrite (an indicator of possible nitrification), ammonia and total chlorine residual levels in the samples collected.

- ***Task 2 – Conduct Staff Training on Chloramine Chemistry & Nitrification***. WQTS will prepare and give two training classes to District operations and water quality staffs focused on chloramine chemistry and nitrification monitoring and control. These classes will also be an opportunity to discuss the specifics of the NMCP developed under Task 1 and how to use the analytical instruments to be purchased for nitrite and ammonia field monitoring.
- ***Task 3 – Develop Chloramine Boosting Plan and Calculator***. Maintaining an elevated chloramine residual is critical to minimizing the occurrence of nitrification in reservoirs. WQTS will work with District staff to identify means of chloramine boosting at each individual storage tank in the system, and then develop a boosting calculator that helps District staff feed the proper amount of chlorine to the inlet to the reservoir, if accessible, to boost the chloramine to a target level.
- ***Task 4 – Participate in Two (2) Public Meetings & Three (3) Board Meetings***. As requested by District staff, WQTS will participate in two public meetings to answer any questions that may arise about the implementation of chloramine conversion in the system. For budgeting purposes, WQTS will also assume that WQTS staff will attend three Board of Directors meetings during the course of this effort to update the Board on the progress and answer any questions.
- ***Task 5 – Permitting Support***. DDW staff indicated to District staff that a permit amendment is only required if and when the District adds ammonia to its groundwater supplies. If the District implements ammonia addition, WQTS will support the District's permitting effort by participating in one DDW meeting and reviewing the permit amendment application documents
- ***Task 6 – Assist with Startup of Chloramine Conversion Activities***. If the District implements chloramine conversion after October 1, WQTS will provide technical support during the first month of operation on an on-call basis to support District staff in the water quality monitoring activities, the interpretation of the results, and the troubleshooting and mitigation of any water quality challenges that may arise during that period.
- ***Task 7 – Develop 30% Design of Ammonia Feed Systems***. WQTS proposes to complete 30% design of the ammonia feed systems and have them ready by October 1st to hand off to a design-build entity that can implement them expeditiously without the need for full engineering design plans and specifications. To complete this effort, WQTS will retain the services of Carollo Engineers as a subcontractor to develop the 30% plans.

The "Draft" TTHMs Mitigation Option Decision Tree identifies a need for pubic notification, which will be discussed further at the Board meeting.

ENVIRONMENTAL REVIEW:

N/A

FUNDING AVAILABILITY:

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

Account Description	Amount
FY 18/19 Administrative Consultants - Balance as of 8/24/18	$72,000
Technical support for TTHM mitigation and Chloramine Conversion	<$99,800>
Contingency amount to cover the cost of additional work	<9,980>
Total Cost	**<$109,780>**
Request to transfer funds from Water Fund Reserves to Administrative Consultants	**$45,000**
Amount Remaining in FY 18/19Administrative Consultants	**$7,220**

RECOMMENDATION:

It is staff's recommendation to authorize the General Manager to enter into an agreement with WQTS to provide technical support services for TTHM mitigation, assistance on public notification, and chloramine conversion at a not-to-exceed cost of $99,800 and with a contingency of $9,980. This item was reviewed at the Engineering Committee and the Committee concurred with staff's recommendation.

Prepared by:

Christy J. Scott

Submitted by:

Nem Ochoa
General Manager

Attachments:

1. "Draft" TTHMs Mitigation Option Decision
2. WQTS – Proposal dated August 24, 2018

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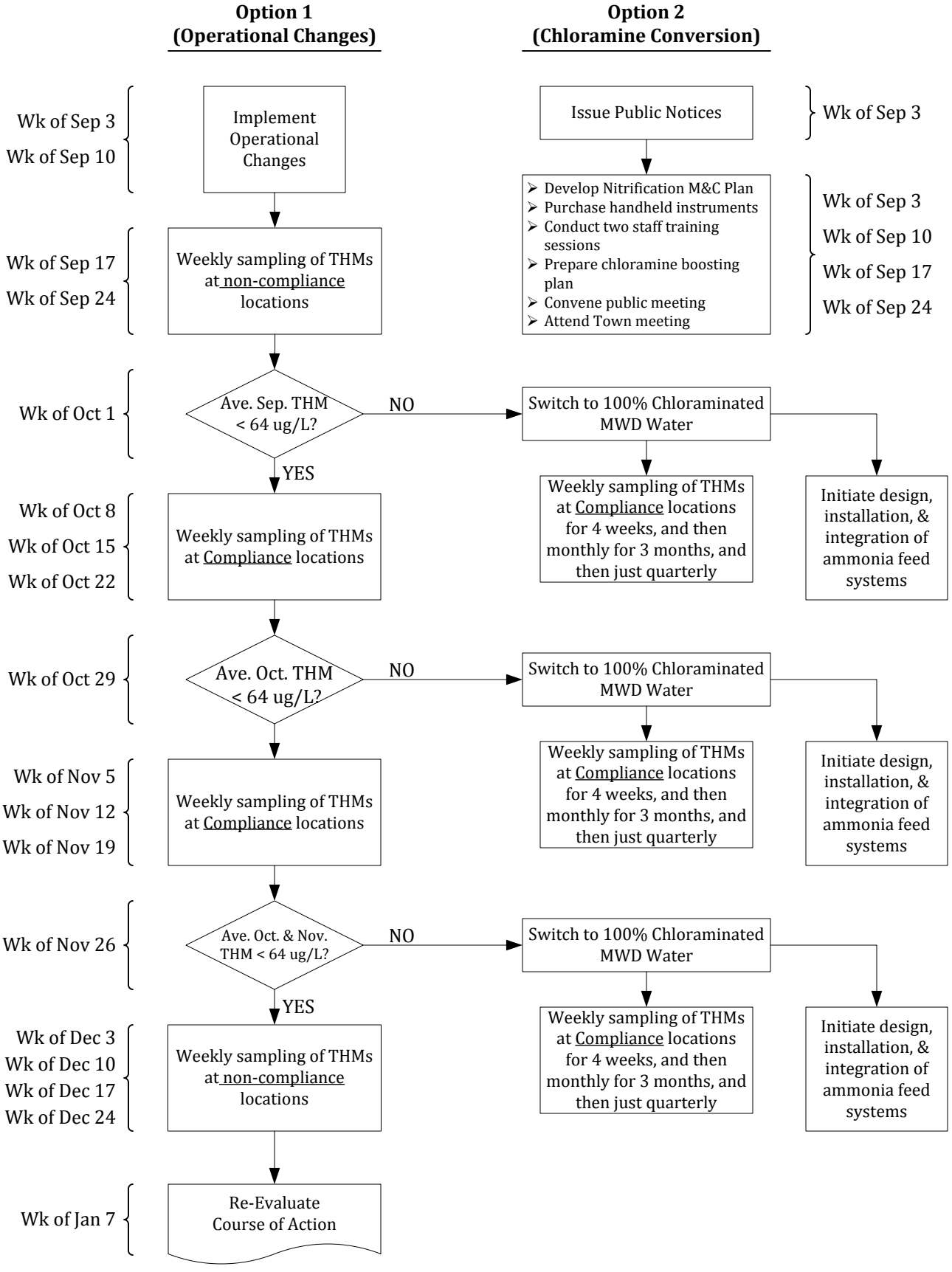
Crescenta Valley Water District
DBP Mitigation Plan & Schedule

DRAFT



WQTS
Water Quality & Treatment Solutions, Inc.
An environmental engineering and science consulting company

August 24, 2018

Mr. Nemesciano Ochoa
General Manager
Crescenta Valley Water District
2700 Foothill Blvd.
La Crescenta, California 91214

Subject: Proposal for *Technical Support Services in Preparation for Chloramine Conversion in the District's Distribution System*

Dear Mr. Ochoa:

On behalf of Water Quality & Treatment Solutions, Inc. (WQTS), I am pleased to submit to you this proposal to provide the Crescenta Valley Water District (CVWD) staff with technical support in preparation for the conversion of the District's distribution system from free chlorine to chloramine. The objective of this conversion is to reduce the formation of disinfection by-products, primarily trihalomethanes (THMs), which have been on the rise and are threatening to exceed their regulatory limit.

Attached is our proposed scope of work, budget cost, and anticipated schedule. The goal is to complete the activities and be prepared to convert the system on or before October 1, 2018, and then follow up with technical support during the initial month of operation.

In the preparation of this proposal, a number of assumptions were made in order to prepare the potential project cost. We look forward to discussion these assumptions with you and making any necessary modifications before the proposal is submitted to the Board for approval.

Thank you for considering WQTS for your project, and we look forward to working with you on this important effort.

Respectfully Yours,
Water Quality & Treatment Solutions, Inc.

Issam Najm, Ph.D., P.E.
President

TECHNICAL SUPPORT SERVICES IN PREPARATION FOR CHLORAMINE CONVERSION IN THE DISTRICT'S WATER DISTRIBUTION SYSTEM

Technical Proposal

BACKGROUND

The Crescenta Valley Water District (CVWD) serves a blend of local groundwater and treated surface water purchased from the Metropolitan Water District of Southern California (MWD) through the Foothill Municipal Water District (FMWD). The District's groundwater is chlorinated, while the purchased MWD water contains chloramine. Unfortunately, blending of chloramine with chlorine would result in the rapid loss of disinfectant residual (both chlorine and chloramine) in the distribution system. For this reason, the District either has to add chloramine to its groundwater to blend with the chloraminated MWD water or convert the chloraminated MWD water to chlorine to blend with the chlorinated groundwater. The District has thus far chosen the latter and implemented breakpoint chlorination of the MWD water to destroy the chloramine and convert it to chlorine, which allowed the District to maintain free chlorine in its distribution system.

Unfortunately, free chlorine contact with water containing elevated levels of natural organic matter (NOM) results in the formation of elevated levels of disinfection by-products, DBPs, including two regulated DBPs: trihalomethanes, THMs, and haloacetic acids, HAAs. While the District's groundwater is low in organic content, the NOM levels in the imported MWD water are significantly higher. The MWD water also contains elevated levels of bromide, Br^-, which is a benign ion. However, bromide enhances the formation of THMs and HAAs in chlorinated water.

In past years, the District relied more heavily on its groundwater supply than on the imported MWD supply. Unfortunately, due to the continued drought conditions, the District has been increasing its reliance on MWD water to the point where it currently represents approximately 70% of the District's water supply. With the increase proportion of MWD water in the system, the levels of DBPs, primarily THMs, have been increasing. Figures 1 and 2 show the compliance levels of THMs in the District's drinking water at two compliance sampling locations as compared to the regulatory limit of 80 µg/L. As shown in both figures, it is industry standard to utilize 80% of the regulatory limit, which is 64 µg/L, as the maximum desired operational goal in order to maintain a sufficient distance between the occurrence of THMs and the regulatory limit. While the District has not – to our knowledge – adopted such an operational goal, it is recommended as a criterion moving forward.

Based on the results to-date and the apparent increasing trend in THM levels, there is a real possibility that the District's drinking water may exceed the THM regulatory limit in the 4th quarter when the next round of sampling is conducted. This would be a violation and require public notification. For this reason, the District needs to implement mitigation strategies sooner than later aimed at lowering the THM levels in the distribution system.

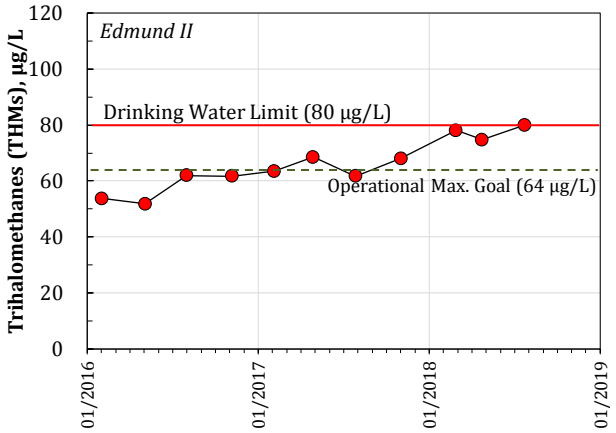


Figure 1 – THM Profile for the Edmund II Compliance Point

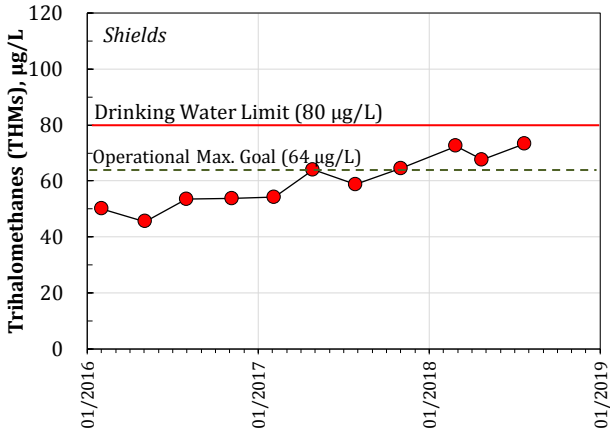


Figure 2 – THM Profile for the Shields Compliance Point

Based on discussions with District staff, there are two options being considered for implementation before the start of the 4th quarter (i.e., October 1) or during the first month of the quarter:

Option 1 – Continue breakpoint chlorination of the MWD water and keep the system on chlorine while implementing operational changes to help lower the formation of THMs.

Option 2 – Convert the distribution system from chlorine to chloramine by terminating the breakpoint chlorination of the MWD water and converting the well water to chloramine.

Option 1 includes lowering the chlorine dose applied to achieve breakpoint chlorination and increasing the cycling of water in the reservoirs to reduce stagnation time, thus reducing the THM levels. Activities under this option are being undertaken by District staff. If these activities result in a satisfactory reduction in THM formation, then the District will likely continue with this option. The criterion for "satisfactory" reduction is discussed in the next section.

Under Option 2, the District would convert its distribution system to chloramine. To implement this option, the District needs to undertake a number of steps to prepare for chloramine conversion, which are time-consuming. These include:

1. Issue public notification and conduct a public information campaign.
2. Purchase a set of hand-held instruments needed to measure chloramine and ammonia in the distribution system.
3. Develop a Nitrification Monitoring & Control Plan (NMCP).
4. Train water quality and operations staffs on understanding and troubleshooting chloramine chemistry.
5. Train water quality and operations staffs on understanding and managing nitrification occurrence and control in the distribution system.

6. Support the District's permit application process to DDW
7. Design ammonia-feed systems to be installed at three locations of groundwater entry into the distribution system.
8. Install three ammonia feed systems and integrate them into the District's SCADA system.
9. Apply for and obtain an amended Water System Operating Permit to account for the installation and operation of the new ammonia feed systems.

Steps 1 through 5 need to be implemented before the system can receive chloraminated water. If Option 1 is deemed unsuccessful and the system needs to be converted to chloramine quickly, it would be advantageous to have these steps already completed. WQTS has already completed and submitted to the District the various communication documents to be submitted to the District's customers and businesses; including a Press Release, and a Q&A document to answer customers' questions about chloramine. This completes the material needed for Item 1. WQTS will assist the District with identifying the instruments to be purchased by the District under Item 2. The activities proposed in this scope of work cover items 2 through 7 in the above list. WQTS staff will conduct items 2 through 6, while item 7 will be subcontracted to an engineering design firm. It should be emphasized that even if chloramine conversion is implemented, other long-term THM mitigation strategies, such as spray aeration, may be implemented, which would allow the District to go back to chlorine if so desired.

TIMELINE & DECISION CRITERIA

As noted above, there are many moving parts to the decision to implement Option 1 or 2, and a number of activities have to be completed before others can begin. Figure 3 provides a comprehensive flowchart of the recommended timeline, milestones, and activities to be conducted beginning the first week of September. The following is a chronological summary of the activities.

- During the month of September, activities under Options 1 and 2 will proceed in parallel.
- Under Option 1, District staff will implement operational changes during the first two weeks, and then conduct weekly THM sampling from non-compliance points to determine if the changes have lowered THM formation.
- During the same period, Option 2 activities will be conducted, including public notification about the pending chloramine conversion, the development of the Nitrification Monitoring and Control Plan, purchase of field instruments, Staff training, and preparation of a chloramine boosting plan.
- On October 1, if the average of the THM samples collected from each individual location during the last two weeks of September is less than 64 µg/L (i.e., less than 80% of the regulatory limit of 80 µg/L), then chloramine conversion will be held off to see how the October results come out as shown in Figure 3.
- If the average is higher than 64 µg/L, then the decision will be made to switch to chloramine at that time. However, since no ammonia feed systems will be in place by then, the conversion will take place by shutting off the District's groundwater supply and serving 100% chloraminated MWD water into the system. At that time, the design, construction, and programming of the ammonia feed systems will be initiated.

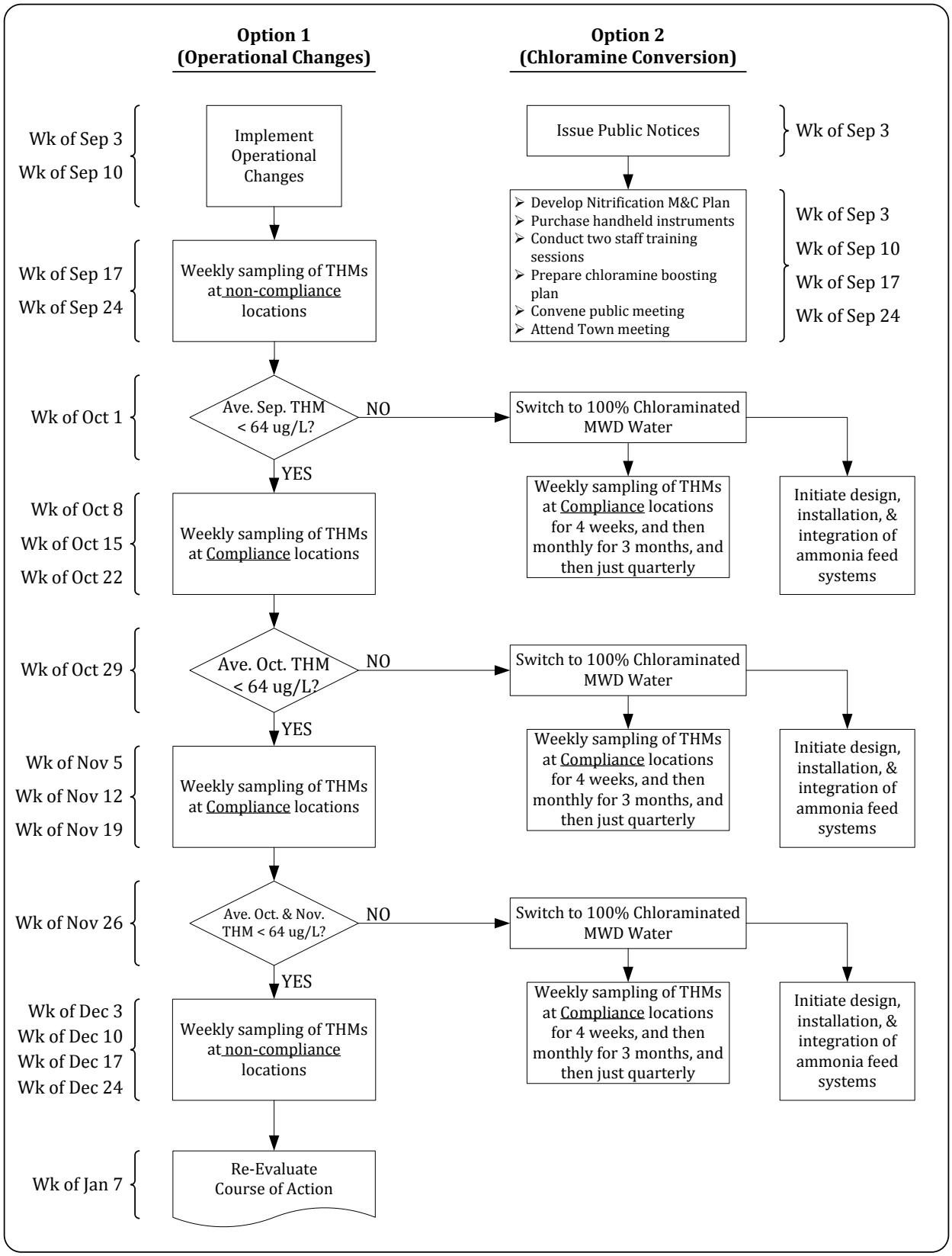


Figure 3 – Mitigation Option Decision Tree & Associated Schedule

SCOPE OF WORK

This section presents the specific tasks to be conducted by WQTS and includes discussion of the activities to be conducted under each task. This information is primarily provided as a basis for the cost information provided in the next section. The following tasks will be conducted:

Task 1 – Develop Nitrification Monitoring & Control Plan
Task 2 – Conduct Staff Training on Chloramine Chemistry & Nitrification
Task 3 – Develop Chloramine Boosting Plan and Calculator
Task 4 – Participate in two Public Meetings & Three Board Meetings
Task 5 – Permitting Support
Task 6 – Assist with Startup of Chloramine Conversion Activities
Task 7 – Develop 30% Design of Ammonia Feed Systems

The following are discussions of the activities under each task.

Task 1 – Develop Nitrification Monitoring & Control Plan. Nitrification in stored water containing chloramine is inevitable, and many water agencies in Southern California experience it. It is the primary downside to chloramine in distribution systems. Water agencies mitigate nitrification by increased monitoring and taking specific actions when detected. In this task, WQTS will develop a Nitrification Monitoring & Control Plan (NMCP) for the District to implement. The NMCP will include specific water quality monitoring activities and their schedule, as well as specific actions to be taken based on triggers of nitrite (an indicator of possible nitrification), ammonia and total chlorine residual levels in the samples collected.

Task 2 – Conduct Staff Training on Chloramine Chemistry & Nitrification. WQTS will prepare and give two training classes to District operations and water quality staffs focused on chloramine chemistry and nitrification monitoring and control. These classes will also be an opportunity to discuss the specifics of the NMCP developed under Task 1 and how to use the analytical instruments to be purchased for nitrite and ammonia field monitoring.

Task 3 – Develop Chloramine Boosting Plan and Calculator. Maintaining an elevated chloramine residual is critical to minimizing the occurrence of nitrification in reservoirs. WQTS will work with District staff to identify means of chloramine boosting at each individual storage tank in the system, and then develop a boosting calculator that helps District staff feed the proper amount of chlorine to the inlet to the reservoir, if accessible, to boost the chloramine to a target level.

Task 4 – Participate in two Public Meetings & three Board Meetings. As requested by District staff, WQTS will participate in two public meetings to answer any questions that may arise about the implementation of chloramine conversion in the system. For budgeting purposes, WQTS will also assume that WQTS staff will attend three Board of Directors meetings during the course of this effort to update the Board on the progress and answer any questions.

Task 5 – Permitting Support. DDW staff indicated to District staff that a permit amendment is only required if and when the District adds ammonia to its groundwater supplies. If the District implements ammonia addition, WQTS will support the District's permitting effort by participating in one DDW meeting and reviewing the permit amendment application documents.

Task 6 – Assist with Startup of Chloramine Conversion Activities. If the District implements chloramine conversion after October 1, WQTS will provide technical support during the first month of operation on an on-call basis to support District staff in the water quality monitoring activities, the interpretation of the results, and the troubleshooting and mitigation of any water quality challenges that may arise during that period. For budgeting purposes, WQTS assumed 32 hours of Dr. Issam Najm's time, and 64 hours of an engineer's time to support monitoring activities.

Task 7 – Develop 30% Design of Ammonia Feed Systems. If the District converts to 100% MWD water and purchases 600 gpm of additional flow from FMWD, it will purchase an additional 80 acre-feet (AF) of water in one month. At $1,100/AF, this translates into an additional cost of approximately $90,000. For this reason, every measure should be taken to minimize the time between going to 100% MWD water and being ready to feed ammonia to the groundwater supplies. To help with this goal, WQTS proposes to complete 30% design of the ammonia feed systems and have them ready by October 1st to hand off to a design-build entity that can implement them expeditiously without the need for full engineering design plans and specifications. To complete this effort, WQTS will retain the services of Carollo Engineers as a subcontractor to develop the 30% plans.

BUDGET

The cost of these services is summarized in Table 1 below. The total cost is projected at $99,800 based on our understanding of the level of services required to complete these tasks. We realize that the District wishes to minimize the cost whenever possible. To that end, WQTS will provide its services on a Time-and-Material basis, and to the extent services are completed below budget, the final cost will be lower.

Table 1 – Breakdown of Anticipated Cost

	Task	WQTS Labor	Outside Cost	Task Total
1	Develop Nitrification Monitoring & Control Plan	$15,700	$0	$15,700
2	Conduct Staff Training	$8,000	$1,100	$9,100
3	Develop Chloramine Boosting Plan & Calculator	$5,300	$0	$5,300
4	Participate in 2 Public Meetings & 3 Board Meetings	$5,000	$0	$5,000
5	Permitting Support	$3,500	$0	$3,500
6	Assist with Startup of Chloramine Conversion	$16,700	$0	$16,700
7	Develop 30% Ammonia System Design	$6,000	$38,500	$44,500
	Total	**$60,200**	**$39,600**	**$99,800**

CRESCENTA VALLEY WATER DISTRICT
BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 2
August 28, 2018

To: Honorable President and Members of the Board of Directors

From: Ron L. Mitchell, Secretary-Treasurer

Subject: **District Recovery of Cost for Labor & Equipment**

ACTION ITEM:

Consideration and motion to approve the updated schedule of cost recovery for use of District labor/equipment for developer projects.

DISCUSSION:

Staff met with the Finance Committee on August 14, 2018 to discuss updating the District's hourly cost recovery schedule for the use of District labor and equipment. District labor and equipment are most utilized for construction projects initiated by land developers operating within the District's service area.

The cost recovery schedule was last updated more than five years ago. Since then, the District's costs of providing labor and equipment have changed. The updated cost recovery schedule as proposed is intended to more accurately recover the District's costs.

METHODOLOGY:

A four-step process was undertaken to quantify the appropriate level of cost to be recovered:

1. Calculate the "impacted" hourly cost of personnel –
    - The "impacted" cost of personnel is based on the summation of a position's hourly rate plus other costs to the District such as retirement benefits, workers' compensation premiums etc. This methodology is also consistent with how many other public agencies recover their own costs. It is conservative because it does not account for allocated overhead or peripheral personnel costs such as office facilities or administrative staff.

2. Determine a reasonable hourly rental cost for equipment –
    - Hourly costs for equipment were based on California Department of Transportation's (Caltrans) annual publication of equipment rental rates for cost recovery. Caltrans' rates were deemed "reasonable" based on the fact that they are timely (publication annually) and are derived for the purpose of recovering cost at a widely recognized public agency within the State. Hourly costs for equipment rentals were previously based on a national rental company called United Rentals because it was the best alternative that Staff was aware of at the time.

3. Corroborate findings with the Construction Supervisor –
    - The methodology and results were corroborated against the Construction Supervisor's knowledge base.

4. Compare cost recovery levels to outside agencies for reasonableness –
   - The updated cost recovery schedule as proposed in the section below was compared to several agencies for an additional test of reasonableness. The agencies selected were Glendale Water & Power based on their close proximity and working relationship with the District and with Rowland Water District based on their comparability with the District in terms of size, terrain, and demographics.
   - Glendale's cost recovery levels are significantly higher than the District's. Rowland's cost recovery levels are slightly lower than the District's, but they also opt to include peripheral personnel costs such as for customer service and accounting/finance.

ANALYSIS:

Shown below are the current and proposed cost recovery schedules.

EQUIPMENT	Current	Proposed	Change ($)	Change (%)
Pickup Truck (Unit # 44)	$ 30.00	$ 25.00	$ (5.00)	-17%
Utility Truck (Unit # 2)	$ 50.00	$ 55.00	$ 5.00	10%
Dump Truck (Unit 47)	$ 50.00	$ 40.00	$ (10.00)	-20%
Dump Truck II (Unit 18 & 25)	$ 60.00	$ 45.00	$ (15.00)	-25%
Back Hoe (Unit 19)	$ 75.00	$ 55.00	$ (20.00)	-27%
Hydraulic Breaker / Camper	none	$ 35.00	$ 32.59	n/a
Compact Excavator	$ 65.00	$ 40.00	$ (25.00)	-38%
Wheel Loader (Unit 15)	$ 41.00	$ 80.00	$ 39.00	95%
District Trench Plate Rental	$ 132.00	$ 120.00	$ (12.00)	-9%
Spoils/Backfill	$ 375.00	$ 375.00	$ -	0%
Rental Plates (District)	$ 500.00	$ 500.00	$ -	0%

LABOR	Unit Price	Proposed	Change ($)	Change (%)
Utility Worker I	$ 40.00	$ 65.00	$ 25.00	63%
Utility Worker II	$ 45.00	$ 80.00	$ 35.00	78%
Crew Leader	$ 50.00	$ 90.00	$ 40.00	80%
Supervisor	$ 63.00	$ 115.00	$ 52.00	83%
Utility Worker I - OT	$ 60.00	$ 90.00	$ 30.00	50%
Utility Worker II - OT	$ 67.50	$ 120.00	$ 52.50	78%
Crew Leader - OT	$ 75.00	$ 135.00	$ 60.00	80%
Supervisor - OT	$ 94.50	$ 170.00	$ 75.50	80%
Contractor Invoice	$ 500.00	$ 500.00	$ -	0%

ENGINEERING	Unit Price	Proposed	Change ($)	Change (%)
Assistant Engineer	none	$ 100.00	$ 100.00	n/a
Inspector	none	$ 130.00	$ 130.00	n/a
Sr. Eng. Tech	none	$ 105.00	$ 105.00	n/a
Sr. Engineer	none	$ 135.00	$ 135.00	n/a
District Engineer	$ 70.00	$ 190.00	$ 120.00	171%
Permits/Printing	$ 850.00	$ 850.00	$ -	0%

Although the cost recovery for most equipment rentals are proposed to decrease, overall cost recovery is projected to increase based on labor costs significantly outweighing equipment costs.

The estimated additional cost recovery from applying the currently proposed schedule to FY 2017-18 construction jobs is ~$59,000. Discounting this figure by 50% to account for potential changes in the economic or development climates would adjust the figure down to ~$29,000.

RECOMMENDATION:

Staff recommends that the Board adopt the updated schedule of cost recovery for use of District labor/equipment for developer projects.

Prepared by:

James Lee, Finance & Accounting Manager

Submitted by:

Ron L. Mitchell, Secretary-Treasurer

Information Item

The Washington Post

Business

Businesses beg for tariff relief as trade war with China rolls on

By David J. Lynch
, Reporter
August 20

The Trump administration is moving forward this week with plans to impose tariffs on a wider array of Chinese imports even as it explores the possibility of a negotiated resolution of its deepening trade conflict with China.

The U.S. Trade Representative's office Monday began an extraordinary six days of public hearings on President Trump's plans to tax an additional $200 billion in Chinese products. The latest tariff proposals, along with earlier levies on $50 billion in Chinese imports, would mean that by next month roughly half of everything American businesses import from China would confront special taxes.

Trump says the tariffs are a response to unfair Chinese trade practices, including forcing American companies to surrender their trade secrets to obtain access to the Chinese market and cyber theft of U.S. technology. Members of both parties and many industry groups agree that China is guilty of such violations. As the economic impact of the confrontation with China mounts, opponents are becoming more vocal in their opposition to the president's chosen tariff remedy.

The planned escalation "dramatically expands the harm to American consumers, workers, businesses, and the economy," the U.S. Chamber of Commerce said in its prepared testimony.

At the USTR hearings, sporting goods manufacturers, candle makers, footwear companies, semiconductor producers and others will plead to be excluded from the next tariffs. More than 1,300 comments already have been filed in response to the president's proposed action, most opposing the plan.

A paint brush maker in Newark warned the tariffs could make the hog bristles it buys from China too expensive, forcing it to cancel more than two dozen government contracts.

"If this tariff is enacted, the impact on my small company and its 20 employees will be

devastating," wrote Arthur Edelson, president of Spectrum Paint Applicator. "I would be put out of business immediately without question.

On Wednesday, U.S. and Chinese officials are scheduled to meet for the first time in two months to discuss potential solutions to the commercial standoff. The U.S. delegation is led by David Malpass, undersecretary of the treasury for international affairs, while China's team is headed by Wang Shouwen, vice minister of commerce.

There is little expectation the meetings will produce a breakthrough. Neither official has full authority to make a deal, and earlier rounds of talks led by more senior officials made little progress.

In March, Malpass was forced to backpedal after telling a conference of bankers in Buenos Aires he had "discontinued" an official economic dialogue with Beijing. After the Treasury Department publicly contradicted him, he said he "misspoke."

While some Chinese officials have expressed concern about their slowing economy and many Republicans in Congress are worried the trade war could cost them votes in November, neither country appears prepared to back down.

So far, the United States has imposed tariffs on $34 billion in Chinese products; levies on a further $16 billion in products are scheduled to take effect on Thursday. China has retaliated against an equivalent amount of U.S. goods.

"In both countries, the leadership's political imperative of talking and acting tough on trade seems to supersede any short-term domestic economic costs from tit-for-tat tariffs," said Eswar Prasad, former head of the International Monetary Fund's China division. "The internal political dynamics in each country could make it difficult to contain or find an exit path from escalating trade hostilities."

Ambiguity over the president's goals also is clouding prospects for a negotiated solution. During an early round of talks in May, U.S. officials presented the Chinese with an eight-point wish list that included a dramatic reduction in the deficit the U.S. runs in trade with China, a halt to subsidies for new technology industries, immediate elimination of various tariff and other trade barriers and agreement not to retaliate against future U.S. measures.

"The long, vague list that, in effect, asks China to boil the ocean is not actionable," said Jeff Moon, a U.S. trade negotiator in the Obama administration. "A failure to remedy that problem and

develop a manageable set of issues would set us up for an indefinite trade conflict with no off-ramp."

The administration also remains split between hard-liners such as Peter Navarro, a top White House adviser who wants to force U.S. companies to end their dependence upon Chinese factories, and officials such as Treasury Secretary Steven Mnuchin who favor traditional trade policies.

"We still do not know what Trump ultimately wants in a deal," said Claire Reade, a former U.S. trade negotiator now with Arnold & Porter.

Genuine bargaining may await the personal involvement of Trump and Chinese President Xi Jinping. The two leaders are scheduled to meet twice in November, at an Asian summit in Papua New Guinea and at the Group of 20 meeting in Buenos Aires.

"The chances of a deal soon are still quite small," said Scott Kennedy, director of the project on Chinese business and the economy at the Center for Strategic and International Studies.

Meanwhile, disruptions from tariffs continue to spread. Purolite, which produces a resin that municipalities use to purify their water supplies, is in the crosshairs for the 25 percent tariffs that take effect on Thursday.

The Bala Cynwyd, Pa., company imports about $50 million worth of chemicals from its wholly owned Chinese subsidiary near Hangzhou and — amid a worldwide shortage of the resin — says it cannot find an alternative supply.

"This is a health hazard. If they can't get this product, it can cause another Flint, Michigan," Purolite Chief Executive Officer Steve Brodie said, a reference to the city that has suffered with tainted water for several years.

David J. Lynch
David J. Lynch is a staff writer on the financial desk who joined The Washington Post in November 2017 after working for the Financial Times, Bloomberg News and USA Today. Follow

CRESCENTA VALLEY WATER DISTRICT

General Manager Report

GM Report

To: Honorable President and Members of the Board of Directors August 28, 2018

From: Nem Ochoa, General Manager

Subject: **General Manager Report**

General Managers Report Topics:

- GM Activities

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

- Investment Report
- Board of Director Stipend Report

STAFFING

1 employees have work anniversaries in August. Darlene Telles – 5 years

As of August 24th the District has gone 1,536 Days without a lost time accident.

GENERAL MANAGER ACTIVITIES

Meetings:

Managers meeting	- August 13th, August 20th
Strategic Planning meeting with Ops	- August 20th
FMWD Retails Managers meeting	- August 22nd
All-hands meeting/Pancake Breakfast	- August 23rd
Engineering Committee meeting	- August 24th
Community Relations/Water Conservation Committee meeting	- August 28th

Submitted by:

_____

Nem Ochoa
General Manager

CRESCENTA VALLEY WATER DISTRICT
DIRECTOR STIPEND REPORT
AUGUST 2018

Name	Meeting Date	Meeting/ Event	Items Discussed	Meeting Compensation	Expense Reimbursement
Director Bodnar	08/14/18	Finance Committee	Audit, Costs for District Services to contractors	$ -	
	08/14/18	Board Meeting		$ 90.00	
	08/28/18	Board Meeting		$ 90.00	
Director Claessens	08/14/18	Board Meeting		$ 90.00	
	08/28/18	Board Meeting		$ -	
	08/28/18	Commnity Relations Com	Public outreach consultant	$ 90.00	
Director Erickson	08/09/18	Engineering Committee	AMI, Groundwater modeling, Easement	$ 90.00	
	08/14/18	Board Meeting		$ 90.00	
	08/24/18	Engineering Committee	THM issue	$ 90.00	
	08/28/18	Board Meeting		$ 90.00	
Director Putnam	08/09/18	Engineering Committee	AMI, Groundwater modeling, Easement	$ 90.00	
	08/14/18	Board Meeting		$ 90.00	
	08/14/18	Finance Committee	Audit, Costs for District services to contractors	$ -	
	08/24/18	Engineering Committee	THM issue	$ 90.00	
	08/28/18	Board Meeting		$ 90.00	
Director Tejeda	08/14/18	Board Meeting		$ 90.00	
	08/28/18	Board Meeting		$ -	
	08/28/18	Commnity Relations Com	Public outreach consultant	$ 90.00	

CRESCENTA VALLEY WATER DISTRICT
INVESTMENT PORTFOLIO SUMMARY
August 24, 2018

INVESTMENT TYPE	ACCT/CUSIP I.D. NO.	PURCHASE DATE	*FACE VALUE	INVESTMENT COST	% OF TOTAL	**MARKET VALUE	MATURITY DATE	DATE CALLABLE	EARNED TO DATE	YIELD TO MATURITY	
GENERAL FUNDS											
GENERAL FUND-SWEEP ACCOUNT	0631-525246		$ 504,496	$ 504,496	3.79%	$ 504,496	none	n/a	$ 31	0.09%	
GREAT PACIFIC SECURITIES	GPC-804452		$ 5,625	$ 5,625	0.04%	$ 5,625	none	n/a	$ -	0.61%	
BOND DEBT SERVICE FUND	6948-331525		$ 113,272	$ 113,272	0.85%	$ 113,272	none	n/a	$ 4	0.09%	
LOCAL AGENCY INVESTMENT FUND	90-19-007		$ 627,320	$ 627,320	4.72%	$ 627,320	none	n/a	$ 500	1.90%	Jun 2018
FEDERAL FARM CREDIT (101)	31331VY26	6/14/2016	$ 1,000,000	$ 1,211,530	9.11%	$ 1,075,420	8/16/2021	n/a	$ 4,671	1.26%	
FEDERAL FARM CREDIT (103)	31331VQG4	8/2/2016	$ 1,000,000	$ 1,287,830	9.68%	$ 1,131,460	2/6/2026	n/a	$ 4,416	1.88%	
US TREASURY (107)	9128282W9	9/29/2017	$ 1,000,000	$ 995,742	7.48%	$ 962,770	9/30/2022	n/a	$ 1,563	1.84%	
US TREASURY (108)	9128283C2	10/27/2017	$ 500,000	$ 500,000	3.76%	$ 483,495	10/31/2022	n/a	$ 849	2.00%	
			$ 4,750,713	**$ 5,245,816**		**$ 4,903,858**			**$ 12,035**		
MTBE CONTINGENCY FUNDS											
LOCAL AGENCY INVESTMENT FUND	90-19-007		$ -	$ -	0.00%	$ -	none	n/a	$ -	1.90%	Jun 2018
GREAT PACIFIC SECURITIES	GPC-003670		$ -	$ -	0.00%	$ -	none	n/a	$ -	0.41%	
FEDERAL FARM CREDIT (M-48)	3133ED4U3	5/11/2016	$ 500,000	$ 518,915	3.90%	$ 497,570	10/11/2019	n/a	$ 902	0.99%	
FEDERAL FARM CREDIT (M-49)	3133EA5N4	5/11/2016	$ 1,250,000	$ 1,260,763	9.48%	$ 1,230,625	10/22/2019	n/a	$ 1,327	0.99%	
US TREASURY (M-53)	912828R36	7/12/2016	$ 1,000,000	$ 1,013,212	7.62%	$ 908,630	5/15/2026	n/a	$ 1,380	1.48%	
US TREASURY (M-54)	912828S76	8/5/2016	$ 1,000,000	$ 1,002,175	7.53%	$ 952,770	7/31/2021	n/a	$ 955	1.08%	
US TREASURY (M-55)	912828R36	8/25/2016	$ 1,000,000	$ 1,004,930	7.55%	$ 908,630	5/15/2026	n/a	$ 1,380	1.57%	
US TREASURY (M-56)	912828R36	10/4/2016	$ 1,000,000	$ 997,540	7.50%	$ 908,630	5/15/2026	n/a	$ 1,401	1.65%	
FEDERAL FARM CREDIT (M-57)	3133EGWX9	10/5/2016	$ 1,000,000	$ 987,148	7.42%	$ 904,620	4/6/2026	n/a	$ 1,546	1.96%	
FEDERAL FARM CREDIT (M-58)	31331VWN2	11/9/2016	$ 1,000,000	$ 1,266,700	9.52%	$ 1,146,550	4/13/2026	n/a	$ 4,586	2.24%	
			$ 7,750,000	**$ 8,051,382**		**$ 7,458,025**			**$ 13,479**		
TOTAL INVESTMENTS			$ 12,500,713	$ 13,297,198		$ 12,361,883			$ 25,514		
CASH- PAYROLL ACCOUNT	0948-024724		$ 6,183	$ 6,183	0.05%	$ 6,183					
TOTAL CASH AND INVESTMENTS			**$ 12,506,897**	**$ 13,303,381**	**100%**	**$ 12,368,067**			**$ 25,514**	**1.33%**	
						$ (902,342)	***Unrealized Gain/(Loss) on Investments				

Yield on investments including LAIF but not cash accounts	1.62%
Yield on investments not including LAIF or cash accounts	1.58%

I certify that this report accurately reflects all pooled investments and is in compliance with California Government Code Sections 5922 & 53601 as amended on 1/1/97; are currently in conformity with the investment policy as stated in Resolution No. 739 adopted on December 12, 2017.
As Treasurer of the Crescenta Valley Water District, I, Ron L. Mitchell hereby certify that sufficient investment liquidity and anticipated revenues are available to meet one year of estimated expenditures for the operations of Crescenta Valley Water District.

*Value at investment maturity date.

***Reported in compliance with GASB Standard No. 31, effective July 1, 1997, the "fair value" adjustment necessary between cost and market value.

	March 31, 2018	February 28, 2018	January 31, 2018
Water	8,470,141	8,693,524	8,864,579
Wastewater	5,633,661	5,591,216	5,270,713
	14,103,802	14,284,740	14,135,292

Ron Mitchell

Ron L. Mitchell, Secretary-Treasurer, CVWD

August 24, 2018

Date