

CRESCENTA VALLEY WATER DISTRICT

**2700 Foothill Boulevard
La Crescenta, California**

**Agenda for the
Regular Meeting of the Board of Directors
of the Crescenta Valley Water District
to be held on Tuesday, May 14, 2019 at 7:00 p.m.**

Posted: May 10, 2019 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

Public Comments

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

Foothill Municipal Water District Report

1. Report on activities at Foothill Municipal Water District.

Consent Calendar

1. Consideration and approval of the Minutes of the Adjourned Regular Meeting on April 23, 2019.

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. **Graphical Information System (GIS) Services, Project M-1001** – Consideration and motion to authorize General Manager to enter to an agreement with Miller Spatial Services, LLC to provide GIS support services to upgrade CVWD's GIS system at a cost of \$31,175 and establish a contingency amount of \$3,117 (10% of contract) to cover the cost of additional work.
2. **TTHM Study and Disinfection Process Upgrades, Project E-995** - Discussion and update of CVWD's TTHM study and disinfection process upgrades.
3. **Advanced Metering Infrastructure (AMI) Consulting Services, Project E-998** - Consideration and motion to authorize the General Manager to enter into an agreement with UtiliWorks Consulting, LLC to provide consulting services for the procurement of the AMI communication network as part of the District's AMI program at a cost of \$28,900 and establish a contingency amount of \$2,890 (10% of contract) to cover the cost of additional work.
4. **Installation of New Standby Emergency Electrical Generator, Project C-933** – Consideration and motion to authorize General Manager to award a contract to Affordable Generator Services, Inc. for the installation of a new stand-by emergency electrical generator at the CVWD's office for a cost of \$80,336.82, establish a contingency amount of \$8,034 (10% of contract) to cover the cost of unforeseen or

additional work and to find said project exempt from the provisions of the California Environmental Quality Act (CEQA)

5. **FY 2019/20 Water and Wastewater Budgets** – Discussion of Draft FY 2019/20 Water and Wastewater Budgets.
6. **Transfer of MTBE Funds** – Consideration and motion to authorize staff to transfer the remaining MTBE Reserve funds to the Water Reserves fund.
7. **Director Recruitment** – Review, discuss, and finalize candidate pool, interview schedule, and interview questions.

Information Items

Written Communications to District/Board of Directors

General Manager's Report

Attorney Report

Reports of Committees

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

Director's Oral Reports

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

Closed Session

Conference with Labor Negotiators - §54957.6

- District negotiators: Nem Ochoa and Ron Mitchell
- Unrepresented employees: Management Unit

Conference with Labor Negotiators - §54957.6

- District negotiators: Nem Ochoa, Ron Mitchell, and James Lee
- Employee organization: AFSCME

Board Members' Request for Future Agenda Items

Adjournment

CRESCENTA VALLEY WATER DISTRICT
ADJOURNED REGULAR MEETING, BOARD OF DIRECTORS

April 23, 2019

Pursuant to the order of the Board of Directors of the Crescenta Valley Water District, made at the Regular Meeting on April 9, 2019, an Adjourned Regular Meeting was held on April 23, 2019, 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 (Absent)
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 Manager
Wendy Holloway, Customer Service Supervisor
Dennis Maxwell, Operation & Maintenance Manager
James Lee, Accounting & Finance Manager
Arturo Montes, Accountant
Brook Yared, Senior Engineer
Pam Leddy, Administrative Assistant
Frank Colcord, FMWD Director

PLEDGE OF ALLEGIANCE

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

ADOPTION OF AGENDA

It was moved by Director Putnam, seconded by Director Erickson and carried by a 4-0 vote that the Agenda for the Adjourned Regular Meeting of April 23, 2019, be adopted as presented.

PUBLIC COMMENTS - None

FOOTHILL MUNICIPAL WATER DISTRICT REPORT – Mr. Colcord reported that they have completed the refurbishment of two reservoirs and have almost completed the upgrades to the SCADA

system. Also, there is a leak in a 24" main. They have located the leak, excavated and are working on it tonight. Hopefully the water will be back on by tomorrow.

CONSENT CALENDAR

It was moved by Director Tejeda, seconded by Director Putnam and carried by a 4-0 vote to approve the Minutes of the Regular Board Meeting held on April 9, 2019 and to ratify the disbursements for March 2019.

Payment of demands against the Crescenta Valley Water District on or before March 31, 2019 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 Five Hundred Ninety One Thousand, Three Hundred Twenty Nine Dollars and Sixty cents (\$591,329.60), which is composed of the individual items set forth herein.

ACTION CALENDAR

FY 2019/20 Water and Wastewater Budgets – Mr. Ochoa reported on utilizing the MTBE funds and transferring them into the Water Reserves Fund. Resolution No. 712 that was adopted in November 2013, establishing rules on how those funds can be utilized. After July 1, 2018 marks the date to end the restrictions for the MTBE Fund. Transferring the MTBE Funds into the Water Reserve Fund will re-establish the target reserve level in the Water Fund and provided flexibility in how the District manages its cash flow for Water Operations and related Capital Projects. Following discussion, the Directors requested this item be tabled and have requested for staff to provide more information on the reserves and to be brought back to a future meeting.

Mr. Ochoa provided the Board and staff a copy of the proposed Proposition 218 Notice and said the notice needs to be approved tonight and authorized to be mailed by the end of this week in order to begin the 45-day period for public comment and meet the goal of having the Public Hearing in June and final approval of the rates and budgets at the June 25, 2019 meeting. He stated that the proposed rate increase is 7% for water and 4% for sewer. Director Bodnar requested to first have discussion on the maximum rate percentage for the Proposition 218 notice and then discuss the notice itself before it is mailed out.

Following discussion:

It was moved by Director Putnam, seconded by Director Tejeda and carried by a 4-0 vote to have the maximum rate increase set for water rates at 7%.

It was moved by Director Putnam, seconded by Director Bodnar and carried by a 3-1 (Tejeda) vote to have the maximum sewer rate increase set at 4%.

The Board and staff discussed the draft Proposition 218 Notice and the Board requested some changes made.

Following discussion:

It was moved by Director Putnam, seconded by Director Erickson and carried by a 4-0 vote to adopt the Proposition 218 Notice as modified by the Board of Directors and have any additional changes made by staff reviewed by legal counsel before mailing.

Mr. Ochoa discussed the major CIP Programs for the 2019-20 Water and Wasterwater Budgets, which consist of pipelines, AMI, and the Storm Water Recharge Project.

TTHM Study and Disinfection Process Upgrade, Project E-995 – Mr. Gould gave an update of the TTHM project. The precast concrete vault will be here by May 3rd. Valvetek has completed flushing for 82 of the 134 dead-end water mains. In the first week of May, staff and WQTS will be going over the checklist for DDW. He also reported on the levels of the TTHM's.

INFORMATION ITEMS – None

WRITTEN COMMUNICATIONS TO DISTRICT – None

REPORTS OF PERSONNEL

GENERAL MANAGER – Mr. Ochoa reported on the FMWD leak, and acknowledged Dennis Maxwell for responding quickly and helping FMWD manage the process for the repairs.

Mr. Gould gave an update on the FMWD leak on their 24" main that feeds the La Crescenta Reservoir which is on Briggs Avenue. The main was turned off on Sunday, and on Monday, CVWD was asked to turn on the connection to LCID. The field crew found the leak on Tuesday morning and they are working through the night to make the repairs.

Mr. Mitchell gave an update of the stipend report for April 2019.

ATTORNEY –No Report

REPORTS OF COMMITTEES

Engineering Committee – Director Erickson reported that the Committee will meet on April 26, 2019 at 3:30 p.m.

Finance Committee – Director Putnam reported that the Committee had not met; however a meeting will be scheduled as needed.

Employee Relations Committee – Director Bodnar reported that the Committee met on April; 12, 2019 and discussed preparation for upcoming MOU negotiations. They will meet on April 26, 2019 at 3:00 p.m.

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

Community Relations/Water Conservation Committee – Director Tejeda reported that the Committee had not met; however a meeting will be scheduled as needed.

Emergency Planning Committee – Director Tejeda 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 REPORTS

Director Bodnar – No Report

Director Claessens – Absent

Director Tejeda reported on a webinar she participated in today. The webinar was presented by ACWA and was on Fire preparedness. Santa Paula, Sonoma, and Redding were featured. They discussed financial responsibilities, lessons learned, water testing to affected areas with contaminants of benzene.

Director Putnam reported on an article regarding 350 brush hazard areas in the state of California, and talked about special efforts to reduce fire risks. Also, an article in the LA Times said they are increasing the density of housing in certain areas. He wants staff to look into more water storage and connections with neighboring water agencies.

Director Erickson asked about the concept of various community advisory groups and questioned how will select people for them.

CLOSED SESSION

A Closed Session was held on both items listed on the agenda with no reportable action taken.

ADJOURNMENT

There being no other business to come before the Board, at 10:20 p.m., it was moved by Director Putnam, seconded by Director Tejeda and carried by a 4-0 vote that the meeting be adjourned to May 14, 2019, 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
May 14, 2019

To: Engineering Committee
From: David S. Gould, P.E. – District Engineer
Subject: Graphical Information System (GIS) Services, Project M-1001

ACTION ITEM:

Graphical Information System (GIS) Services, Project M-1001 – Consideration and motion to authorize General Manager to enter an agreement with Miller Spatial Services, LLC to provide GIS support services to upgrade CVWD's GIS system at a cost of \$31,175 and establish a contingency amount of \$3,117 (10% of contract) to cover the cost of additional work.

BACKGROUND:

An Engineering Department goal that was set in August 2018 was to update and improve the District's GIS system to include base information of parcels, accounts, location of water meters and other base information. This information will be utilized to update the CVWD's Customer Information System to be used by District staff.

DISCUSSION:

It was the Department's original intention to update the GIS system with current staff as time allowed. However, the number of new developer projects and O & M projects has increased over the year, which has not allowed current staff to fully concentrate on the detailed work necessary to update the GIS system.

Staff met with Mr. David Manuwa from Miller Spatial Services (Miller), which provides GIS support services to various clients throughout Southern California. Staff discussed using their services to update CVWD's GIS system and to provide this information in a "cloud" environment for use by staff. Miller provided a proposal with a scope of work that includes reviewing CVWD's existing GIS system, data hosting, updating the base information and integration with the District's CIS system. (See attached)

RECOMMENDATION:

It is staff's recommendation to award a contract to Miller Spatial Services for \$31,175 and establish a contingency amount of \$3,117 (10% of contract) to cover the cost of additional work. This item was reviewed with the Engineering Committee on April 26, 2019 and the Committee recommended award of the project to Miller Spatial.

ENVIRONMENTAL REVIEW:

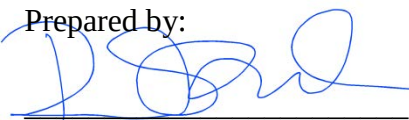
N/A

FUNDING AVAILABILITY:

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

Account Description	Amount
FY 18/19 Administrative Consultants - Water and Wastewater Budget	\$142,596.00
Amount Spent to Date	<\$54,465.30>
Amount Remaining	\$88,130.70
GIS Support Services	<\$31,175.00>
Contingency – 10%	<\$3,117.50>
Amount Remaining in FY 18/19 Administrative Consultants Water and Wastewater Budget	\$53,838.20

Prepared by:



David S. Gould, P.E.
District Engineer

Submitted by:



Nem Ochoa
General Manager

Attachment:

1. Miller Spatial proposal dated April 16, 2019

g:\management\board meeting staff reports\2019\05-14-19 board memo - gis update ac.docx



PROPOSAL

GEOGRAPHIC INFORMATION SYSTEMS (GIS) CONSULTING SERVICES

Submitted To: Crescenta Valley Water District
Attention: David Gould
2700 Foothill Blvd
La Crescenta, CA 91214

Submitted On: April 16, 2019



Miller Spatial Services
3499 Tenth Street
Riverside, CA 92501



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Cover Letter:

RE: Geographic Information System (GIS) Consulting Services

Dear Mr. Gould,

It was a pleasure to meet with you and the other staff at the Crescenta Valley Water District (CVWD) office. As we discussed, this proposal is for GIS Consulting Services to CVWD to assist the district in the evaluation and updating of the existing GIS data, CIS water and sewer tables, associated spatial datasets, user accessibility, and data management to help streamline workflow processes. The scope of services in this proposal is for evaluating existing databases, systems, and work already completed by CVWD. More importantly, provide deliverables and recommendations for data consolidation, system connectivity, and the foundation to meet the district's current and future GIS needs.

The goal of CVWD is to leverage its investment in technology, consolidate information, improve data quality, increase user collaboration, and expand GIS within the agency. As an Esri business partner, we will work with Esri on behalf of district to identify a GIS solution that best fits CVWD's workflows and needs. CVWD provides services to approximately 8,000 accounts that include both water and wastewater. The district is using Springbrook Utility Billing software for customer billing and information. It is critical, that GIS and CIS data to be synchronized allowing for better decision making, customer service, and operational maintenance.

Miller Spatial Services (MSS), is a leading GIS Consulting firm specializing in the development and deployment of Esri Technologies and Enterprise Asset Management Systems. Our, customers consist of public utilities (Water) and local government agencies. We bring over fifty-years of combined work experience to this project.

This proposal is valid and binding for a period of sixth (60) days after the proposal due dates. Thank you for considering Miller Spatial Services for this project and we look forward to working with CVWD. Should you have any questions, feel free to contact me or David Manuwa.

Sincerely,



Bruce Miller, GISP
Founder | GIS Consultant



General Information:

Miller Spatial Services, LLC (Miller) is a multi-service organization providing specialized services in asset lifecycle management, Geographic Information Systems (GIS), and application software services. Miller provides professional services including consulting, implementation, training, staffing and technical support.

The Miller Spatial team has implemented and customized Esri software and GIS data in over 50 organizations. Our team has an unmatched breadth of experience, unique talent and industry leading know-how that will complement your existing GIS program and server your future needs.

Miller Spatial is comprised of a core group of GIS professionals, as well as Asset Management, networking, and programming professionals with extensive experience in the industry. Miller Spatial has 10 technical employees and specialized network of trusted partners that can be utilized as needed. Our employees have expertise in Esri software implementation, customization and integration, application development, asset management, and database administration.

Miller Spatial sets the standard for high quality CMMS/AMS implementation projects, particularly within organizations who manage water, sewer, and park assets. Our asset management and GIS teams are staffed with a wide range of industry and technical experts, combining for over 30 years of experience in GIS and asset management. We have achieved certification with the Institute of Asset Management and maintain active partnerships with ESRI, Cityworks, CitySourced and others. MSS currently has about 50 active clients throughout the western United States, but our business is primarily in Southern California and can be on-site, same day if necessary.



MSS is fully insured and bonded for all services that we offer. We are a Dun & Bradstreet verified business (DUNS 03-076-7626). We have been contracted for over \$1,000,000 in services over the past 5 years, and the company has no debt.



PARTNER NETWORK



We are official Business Partners of Esri, Cityworks®, and CitySourced. Each of these partnerships provides opportunities for access to developer teams and support personnel as needed. Our employees also have access to training and education with these specific partners that keeps them up to date on the latest developments and technologies. Our strong relationships allow us to be early accepters for the latest releases and applications.

Location and Address: Miller Spatial Services, LLC
3499 Tenth Street
Riverside, CA 92501

Telephone Number: (888) 890-5611

Company Officer: Bruce Miller

President
brucemiller@millerspatialservices.com
(888) 890-5611 x700 office
(951) 505-9276 mobile

Key Contact: David Manuwa
dmanuwa@millerspatialservices.com
(310) 953-1844 mobile

Form of Business: Limited Liability Company

Federal Tax ID Number: 45-4791831

Company Owner: Bruce Miller, President

Surety Information: General Liability, Automobile, E&O, Workers Compensation (Certifications)

Project Scope:

TASK 1: PROJECT SETUP AND KICKOFF MEETING

A project initiation meeting will be scheduled with CVWD staff to review the project scope of work, timeline, and discuss team member roles and responsibilities. MSS will collect a copy of datasets (Water/Sewer/Billing) as well as any additional information deemed relevant to the success of the project.

- Review Project Scope of Work
- Review Project Timeline
- Identify Team Member Roles and Responsibilities
- Data Acquisition

TASK 2: KNOWLEDGE DISCOVERY AND DATA ASSESSMENT

MSS will perform a review and evaluation of CVWD's existing GIS water and sewer data in comparison to Esri's Utility Data Model and identify any missing fields or data that may be required by an Esri' application or template which CVWD may use in the future. The evaluation process will determine the feature status, data themes (layers), data content, data integrity, connectivity, and flush out any unforeseen shortfalls related to the GIS database. A follow-up meeting will be scheduled to discuss the findings with District staff.

- Identify Account Status
- Review Data Themes (points, lines, polys)
- Review Data Content (structure and standards)
- Review Data Integrity (connectivity and tables)

TASK 3: DATA HOSTING AND SYSTEM CONNECTIVITY (GIS/CIS)

MSS will review the existing GIS and CIS databases and identify critical attribute fields and information to establish connectivity between the GIS and CIS Billing systems. Once, this has been completed the team will update the GIS water and sewer geodatabase feature class to include the necessary attribute fields and information for a seamless data migration of the two systems.

- Establish data connectivity between the GIS and CIS databases
- Review existing Esri licensing and provide a hosted solution roadmap
- Define data management and storage protocols
- Define end-user needs

TASK 4: BASE MAP DATA DISCOVERY AND ACQUISITION

MSS will review existing base map spatial datasets and acquire updated spatial datasets from surrounding local agencies and County (If available), to support objectives within CVWD's service area. Once, the spatial datasets have been acquired and migrated into the GIS system, CVWD staff will have the ability to overlay the water and sewer data to validate CVWD's accounts and service area. The validation process provides a representation of accounts currently serviced by CVWD.

- Acquire spatial datasets (Boundary) for local agencies and county
- Migrate boundary spatial datasets into CVWD GIS system
- Perform CVWD Account Assessment within Service Area

TASK 5: CVWD CIS ACCOUNT ASSESSMENT AND DATA UPDATES

MSS will review the existing CVWD account table and compare the Account No. to Ref No. and define and capture critical account information related to water and sewer accounts. MSS will update the CIS water and sewer account information to reflect Account, Lot or Parcel, Service Type, Water, Sewer or combination, Active, Inactive or Suspended.

- Review CVWD Account Table
- Update CVWD Water/Sewer Account Table

TASK 6: METER (CIS) INTEGRATION WITH GIS WATER GDB

MSS will migrate water meter information from the CIS database into the GIS water geodatabase. Once, the data has been migrated MSS will work with CVWD staff to ensure the newly updated feature-class layer is compatible with CVWD GIS system and meets CVWD requirements.

- Update Water Meter Geodatabase (Point Layer)
- Training if required

TASK 7: ASSESSOR DATA AND BILLING DATA ASSESSMENT

MSS will conduct a review and comparison of the County assessor database to CVWD's CIS account (Meter) database and identify data relationship discrepancies i.e. One-to-One, One-to-Many, between the assessor information (APN) and CIS meter information (Ref No.). MSS will update the meter database to reflect the most update locational information (APN/Address/RefNo.), based on the information available from the County and CVWD.

- Updated CVWD Table
- Updated Assessor Information (If available)
- Identify other options to County Assessor offerings

DELIVERABLES:

- Project Kickoff Meeting Notes
- Knowledge Discovery and Data Assessment Findings Document
- Data Hosting Road Map and GIS/CIS Data Connectivity
- Base Map (Boundary) Findings and Data Acquisition
- GIS and CIS Account Findings and Data Updates
- Update GIS Water Geodatabase (Meter) Information
- Updated CVWD Table and Property Information (If available)

Compensation:

Task	Description	Total Cost
1	Project Setup and Kick Off Meeting	\$ 1,500
2	Knowledge Discovery and Data Assessment	\$ 2,500
3	Data Hosting and System Connectivity (GIS/CIS)	\$ 5,800
4	Base Map Data Discovery and Acquisition	\$ 1,200
5	CVWD CIS Account Assessment and Data Updates	\$ 5,800
6	Meter (CIS) Integration with GIS	\$ 6,700
7	Assessor Property and CVWD Meter Assessment	\$ 7,675
	Total Project Cost	\$ 31,175

Total project cost not exceed \$31,175. Tasks 1 through 7 will be billed fix fee.

Project Schedule:

The project schedule will be dependent on the availability of District staff. MSS anticipates that this scope of work can be completed by June 28, 2019 after the Project kickoff meeting depending on the availability of District staff for meetings and data acquisition.

Thank you for considering Miller Spatial Services for this project. Please contact me or David Manuwa if you have any questions or concerns.

Sincerely,



Bruce Miller, GISP
President | GIS Consultant

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the last date below written.

President, Miller Spatial Services, LLC

CVWD Authorizing Signature

Date

Date

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 2
May 14, 2019

To: Honorable President and Members of the Board of Directors
From: David S. Gould, P.E. – District Engineer
Subject: TTHM Mitigation and Disinfection Process Upgrades, Project E-995

ACTION ITEM:

TTHM Mitigation and Disinfection Process Upgrades, Project E-995 - Discussion and update of CVWD's TTHM study and disinfection process upgrades

BACKGROUND:

The District uses chlorine as a disinfectant to treat drinking water. Chlorine can create disinfection by-products during treatment, known as Total Trihalomethanes or TTHMs as chlorine reacts with naturally occurring organic matter in imported water. CVWD's imported water is supplied by FMWD/MWD from either the Colorado River (CRW) or the State Water Project (SWP). Typically, the water supply blend for CVWD is 60% groundwater and 40% imported water. With the on-going localized drought and groundwater levels not fully recovered, CVWD's water supply blend has shifted to 40% groundwater and 60% imported water. This, coupled with additional chlorine needed for breakpoint chlorination in the system, has caused an increase in TTHMs in the distribution system.

DISCUSSION:

Operational Changes:

Water system operational changes continued which reduced the amount of water storage and lowered the TTHM levels as shown on the attached charts. The TTHM levels have remained stable over the last two weeks even with the operational changes due to the FMWD water main break and the replacement of the 14" valve at Ramsdell & Sycamore. Staff continues to monitor and update water operations to maintain the TTHM levels.

Construction – Chloramine Conversion:

Installation of Ammonia Injection System for Chloramine Conversion:

The following are tasks planned for the next few weeks by staff and its consultants:

- o Field crews continued installation of the new chlorine analyzers with Shields Reservoir being the next site. Staff anticipates the remaining chlorine analyzers to be installed by the end of June 2019.
- o Staff is completing the design and getting bids to upgrading the chlorination system at Pickens Tunnel.
- o Staff and WQTS met on May 8 to discuss the submittal to DDW for amending permit.

Project Schedule - Installation of Ammonia Injection System:

The precast concrete vault was delivered on May 3, 2019 and the crews completed the installation on the same day. In addition, the new 14-inch valve and piping were completed prior to the vault delivery. The remaining work will be completed by May 10, 2019.

Water Distribution Flushing:

ValveTek completed the dead-end water main flushing work on May 3, 2018. Overall, staff was very pleased with the work accomplished by ValveTek and the District received minimum complaints during the project.

PROJECT SCHEDULE:

Project Schedule – Conversion to Chloramines:

Staff has reviewed the TTHMs mitigation option decision tree provided by WQTS, which set specific dates for converting to chloramines based on TTHM levels in the reservoirs. The next compliance sampling date is June 2019, which will be an average of April, May and June TTHM results at the compliance locations.

The TTHM level are still below the target level of 64 ug/L. Staff is watching carefully the TTHM levels which may increase during the summer of 2019 due to higher demands, higher temperature, and more SWP water from MWD. Staff has set a tentative date of conversion to chloramines at the end of July 2019.

Staff and its consultants are working with the Division of Drinking Water (DDW) to amend the District's permit to operate. Staff plans to submit permit request with supporting data to DDW shortly and amendment to the permit completed by the middle of June 2019.

Past Actions:

- o August 14, 2018
 - Discussion by Dr. Issam Najm of WQTS on TTTMs and Chloramines.
 - Awarded contract to WQTS for \$10,000 for initial study and evaluation.
- o August 28, 2018
 - Awarded contract to WQTS for \$99,800 for chloramine conversion, public outreach, staff and operator training, Department of Drinking Water (DDW) permitting support, development of necessary mitigation plans, and preparation of 30% design plans.
 - Awarded contract to Hazen and Sawyer for \$9,971 to perform bench testing of CVWD's source water to determine proper breakpoint chlorination and formation of TTHMs.
- o September 11, 2018
 - Staff, worked with WQTS and CV Strategies to mail out public information brochures with a list of frequently asked questions.
 - Staff posted information on website and articles in the CV Weekly and Glendale Newspress.
- o September 15, 2018 – Public Workshop at the Glenwood Plant
- o September 25, 2018
 - Authorized General Manager to select and negotiate with consultants and contractors for the installation of chloramination systems at the Glenwood and Mills Plants for \$410,000.
 - Award contract to John Robinson Consulting (JRC) for \$45,225 for contract and construction administration for the new ammonia injection system.
 - Amended contract to WQTS for \$44,240 for additional design work by Carollo Engineers.
- o October 9, 2018
 - Office & field staff trained on the nitrification and chloramines processes.
 - Carollo Engineers submitted preliminary 30% design plans for review.
- o October 23, 2018
 - Site walk at Glenwood and Mills Plants to determine location of ammonia injection skids, ammonia injection conduits, and SCADA and electrical conduits.
 - JRC prepared and sent out a request for quote for purchase of two (2) ammonia injection pump skids.
 - Grace Environmental Services (Grace) provided a proposal for a system operator to assist staff during the chloramine conversion process in the distribution system.
 - Site visit from Apex Manufacturing Solution (APEX), on the design and installation of SCADA equipment and integration at Glenwood and Mill Plants
 - Met with Hazen and Sawyer on design and installation of new chlorine analyzers at six (6) locations to provide additional monitoring after conversion to chloramines
- o November 6, 2018
 - Field crews potholed the 14-inch water main at the Glenwood Plant for depth and location for the ammonia injection concrete vault.
 - Awarded contract and ordered the concrete vault from Jensen Precast for \$36,775 at the Glenwood Plant and estimated delivery is 8 – 10 weeks after approval of shop drawings.
 - Awarded contract and ordered ammonia injection pump skids from Cortech Engineering for \$29,850 and estimated delivery in 8 – 10 weeks after approval of shop drawings.
 - 30% design plans were reviewed and sent back to Carollo Engineers for final edits.
 - Awarded contract to BrikArt Construction for \$7,011 to install concrete pad at Mills Plant.
 - Awarded contract to APEX for \$47,725 for the design and integration of SCADA equipment at Glenwood and Mill Plants.
- o November 20, 2018
 - Authorized General Manager to select and negotiate with consultants and contractors for the operations and maintenance for the new chloramination systems at a cost not to exceed \$500,000.
 - BrikArt Construction completed the concrete pad at the Mills Plant.
 - Awarded contract to Hazen and Sawyer for \$53,255 for design services for the installation of six (6) new chlorine analyzers.

- Awarded contract to Core-Rosion and ordered a 405-gal tank with level indicator sensor at Mills Plant for \$7,153.
- Awarded contract to ValveTek Utility Services (Valvetek) to perform dead-end water main flushing for \$131,000.
- Awarded contract to Hopkins Technical Products to upgrade seven (7) existing ProMinent chlorine analyzers for \$32,870.
- Awarded a contract to Hach, Inc for new seven (7) new chlorine analyzers and upgrade five (5) existing chlorine analyzers for \$91,560.
- o December 12, 2018
 - Shop drawings from Cortech Engineering for the two (2) ammonia skids and from Core-Rosion for the 405-gal ammonia tank reviewed by JRC and sent back with comments.
 - Staff provided comments on the Nitrification Monitoring & Control Plan to WQTS.
 - JRC submitted plans to Glendale Fire Department for permits for Glenwood and Mills Plants.
 - Staff met with Medora Corp to discuss installing new mixers in reservoirs to maintain chloramine residual and portable chlorine injection systems.
 - Field crews started working on upgrading/repairing blow-offs for dead-end water main flushing.
- o January 8, 2019
 - Delivery of concrete vault from Jensen Precast delayed due to shop drawing revisions and current workload at Jensen Precast. Anticipated delivery date – late March 2019.
 - Staff and WQTS met to discuss updating CVWD's water quality distribution sampling plan for submittal to DDW for approval.
 - Staff met for a kick-off meeting with Hazen and Sawyer on the design of six (6) new chlorine analyzers.
 - Glendale Fire Department determined no permits are required for the installation of the ammonia injection system and will issue a refund fees.
 - Field crews continued working on upgrading/repairing blow-offs for dead-end water main flushing
 - Finalized shop drawings for ammonia skids with Cortech Engineering.
 - Staff purchased SCADA equipment from Royal Industrial Solutions
 - Staff and APEX continue meeting on SCADA integration for the new disinfection process
- o January 22, 2019
 - JRC finalizing costs with Univar for supplying liquid ammonia sulfate in both mini-bulk deliveries for Mills Plant and in 330-gallon containers at Glenwood Plant.
 - Ammonia Tank for Mills Plant delivered at the end of January 2019.
 - Finalized shop drawings for concrete vault. Anticipated delivery date – mid April 2019.
 - Ammonia skids from Cortech Engineering – Anticipated delivery date – February 25, 2019.
 - Staff and APEX continue meeting on SCADA integration for the new disinfection process.
- o February 12, 2019
 - Awarded contract to APEX for \$32,090 for SCADA design and integration for new chlorine analyzers.
 - Staff completed review of Hazen & Sawyer 30% design submittal for the six (6) new chlorine analyzers.
 - Staff and WQTS met to finalize submittal to DDW for amending permit.
- o February 26, 2019
 - Field crews completed upgrades and repairs of blow-offs prior to dead-end water main flushing
 - Hazen and Sawyer submitted 75% design for the six (6) new chlorine analyzers
 - Staff and ValveTek met on February 19 to discuss the project schedule.
- o March 12, 2019
 - Ammonia skids delivered on February 28, 2019
 - Valvetek performed a public demonstration near the Glenwood Plant on March 5, 2019
 - Staff finalized 75% design for the six (6) new chlorine analyzers
 - APEX completed 75% SCADA design, which was reviewed by Operation's staff
- o March 26, 2019
 - Crews installed ammonia skid with new concrete base at Glenwood Plant
 - Crews installed ammonia skid at Mills Plant

- o April 9, 2019
 - Field crews complete installation of new chlorine analyzer at Dunsmore Reservoir
 - Field crews completed the installation of conduits and chlorine analyzers at Mills and Glenwood
 - Finalized purchase of SCADA equipment from Royal Industrial Solutions
- o April 23, 2019
 - Vault delivered and installed including, static mixer, 14-inch valve and piping at Glenwood
 - Replaced 14-inch valve installed at Ramsdell & Sycamore after existing 1960's butterfly valve broke in the closed position
 - Installed ammonia feed and electrical conduits to the vault
 - APEX on-site for installation of new SCADA equipment, coordination of disinfection injection sequencing and SCADA monitoring of chlorine levels at Mills and Glenwood Plants and Dunsmore Reservoir.

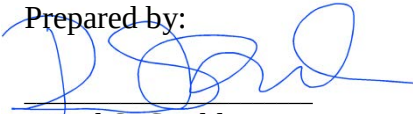
Updated Cost Estimate:

Account Description	Amount - 4/23/19	Amount - 5/14/19	Difference
Transfer from MTBE Reserve Fund (9/25/18)	\$500,000	\$500,000	\$0
Transfer from MTBE Reserve Fund - (11/20/18)	\$500,000	\$500,000	\$0
Total Estimated Cost for Project	\$1,000,000	\$1,000,000	\$0
Consultants - Planning, Design & Construction Admin			
WQTS - Planning	\$10,000	\$4,500	(\$5,500)
WQTS - Design (Estimate on final cost)	\$144,040	\$130,000	(\$14,040)
Hazen & Sawyer - Water Quality	\$11,971	\$11,971	\$0
John Robinson Consulting - Project Management	\$45,225	\$45,225	\$0
Grace Environmental Services (3 months part-time service) (Estimate)	\$5,000	\$0	(\$5,000)
Apex Manufacturing Solution - SCADA programing and integration	\$54,165	\$54,165	\$0
New Chlorine Analyzers - 6 locations - Hazen and Sawyer - Design	\$53,255	\$45,455	(\$7,800)
Public Notification - CV Strategies , Printing & Mailing	\$11,168	\$11,168	\$0
WQ Sampling - 7/1/18 to 3/5/19	\$78,759	\$78,759	\$0
WQ Sampling - 3/6/19 to 6/30/19 (Estimate)	\$28,000	\$24,480	(\$3,520)
Subtotal	\$441,583	\$405,723	(\$35,860)
Construction			
Ammonia Injection Skids (2)	\$33,844	\$41,166	\$7,322
SCADA - Equipment (RTU's, Communication, cabinets, etc..) (Estimate)	\$23,200	\$14,642	(\$8,558)
Concrete Pad & Grading at Mills	\$7,011	\$7,727	\$716
Ammonia Inject Vault at Glenwood	\$36,775	\$48,233	\$11,458
Ammonia Tank at Mills	\$6,922	\$6,922	\$0
Static Mixer & Ammonia Injection System	\$11,236	\$9,658	(\$1,578)
Conduits/Wiring/Electrical Materials (Estimate)	\$8,200	\$19,466	\$11,266
Upgrade Chlorine Analyzers (Mills & Glenwood)	\$18,665	\$18,647	(\$18)
Safety - Eye Wash, Containment, etc.. (materials only) (Estimate)	\$3,700	\$8,570	\$4,870
On-site Welding (Estimate)	\$9,000	\$4,249	(\$4,751)
Misc	\$5,146	\$0	(\$5,146)
Subtotal	\$163,699	\$179,281	\$15,582
Operations & Maintenance			
Upgrade Chlorine Analyzers - 4 locations Equipment (Hach)	\$27,520	\$27,494	(\$26)
Upgrade Chlorine Analyzers - 7 locations Equipment (ProMinent)	\$36,372	\$36,372	\$0
New Chlorine Analyzers - 6 locations - APEX SCADA Programing	\$32,090	\$37,365	\$5,275
New Chlorine Analyzers - 6 locations - SCADA Equipment (Estimate)	\$30,000	\$45,156	\$15,156
New Chlorine Analyzers - 6 locations - Equipment (HACH)	\$58,875	\$58,819	(\$56)
Dead-ends Water Main Flushing - Valvetek	\$131,000	\$162,583	\$31,583
Misc	\$5,245	\$0	(\$5,245)
Subtotal	\$321,102	\$367,789	\$46,687
Total Cost	\$926,384	\$952,792	\$26,408
Amount Remaining	\$73,616	\$47,208	

RECOMMENDATION:

It is staff's recommendation is to complete the installation of the ammonia injection system, chlorine analyzers and site improvements for conversion to chloramines.

Prepared by:



David S. Gould, P.E.
District Engineer

Submitted by:



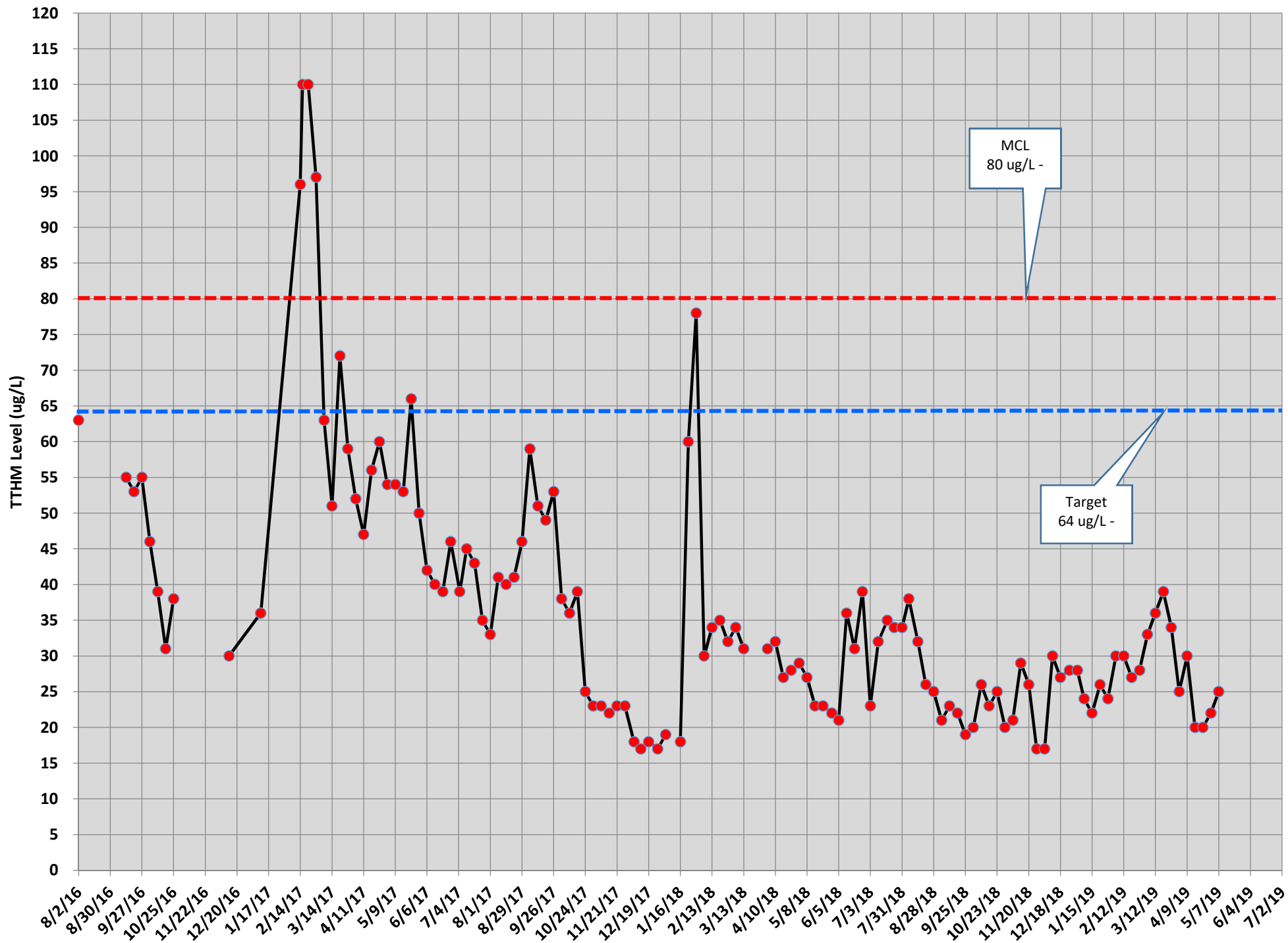
Nem Ochoa
General Manager

Attachments:

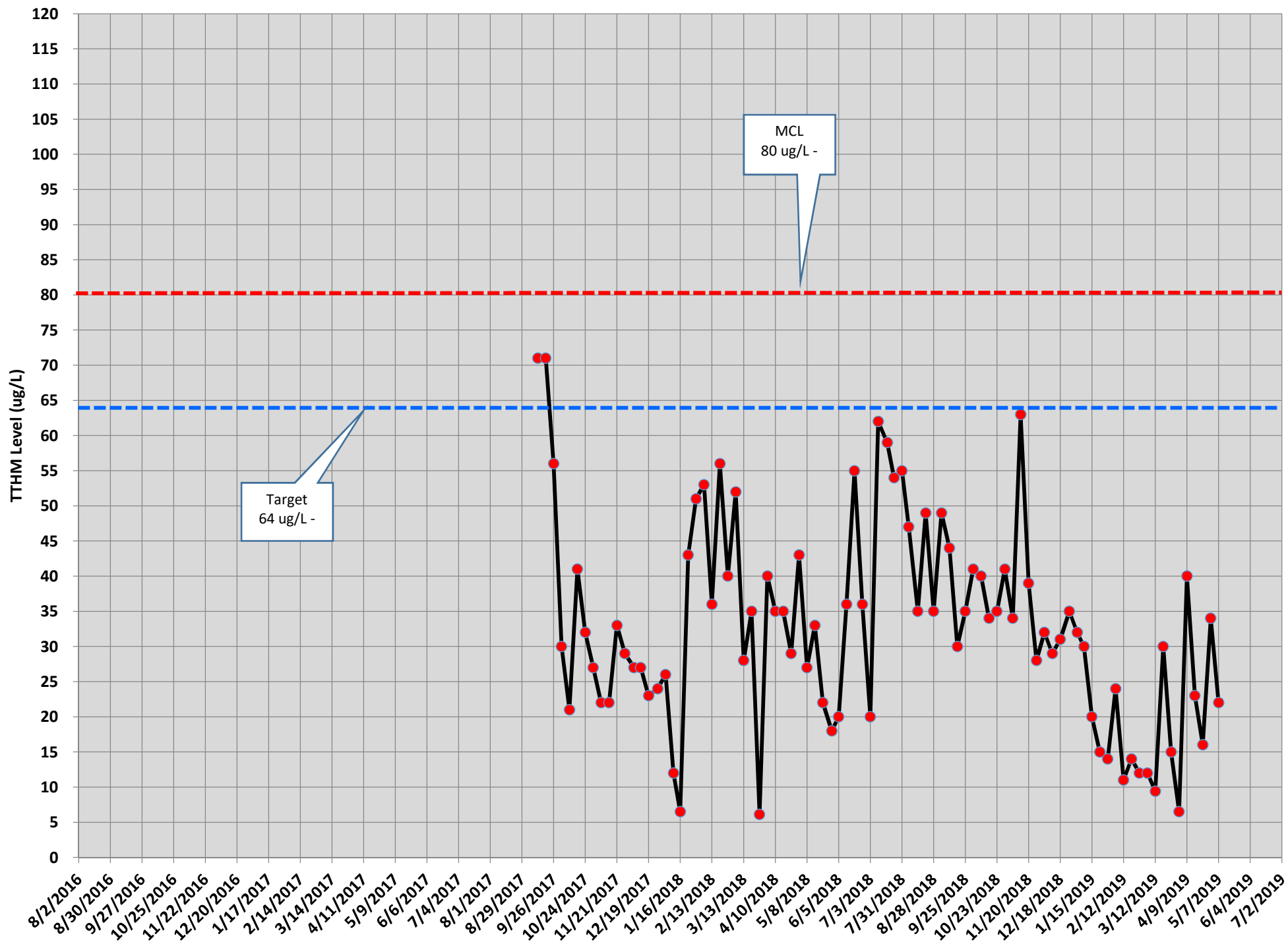
1. TTHM Charts dated 05-02-19

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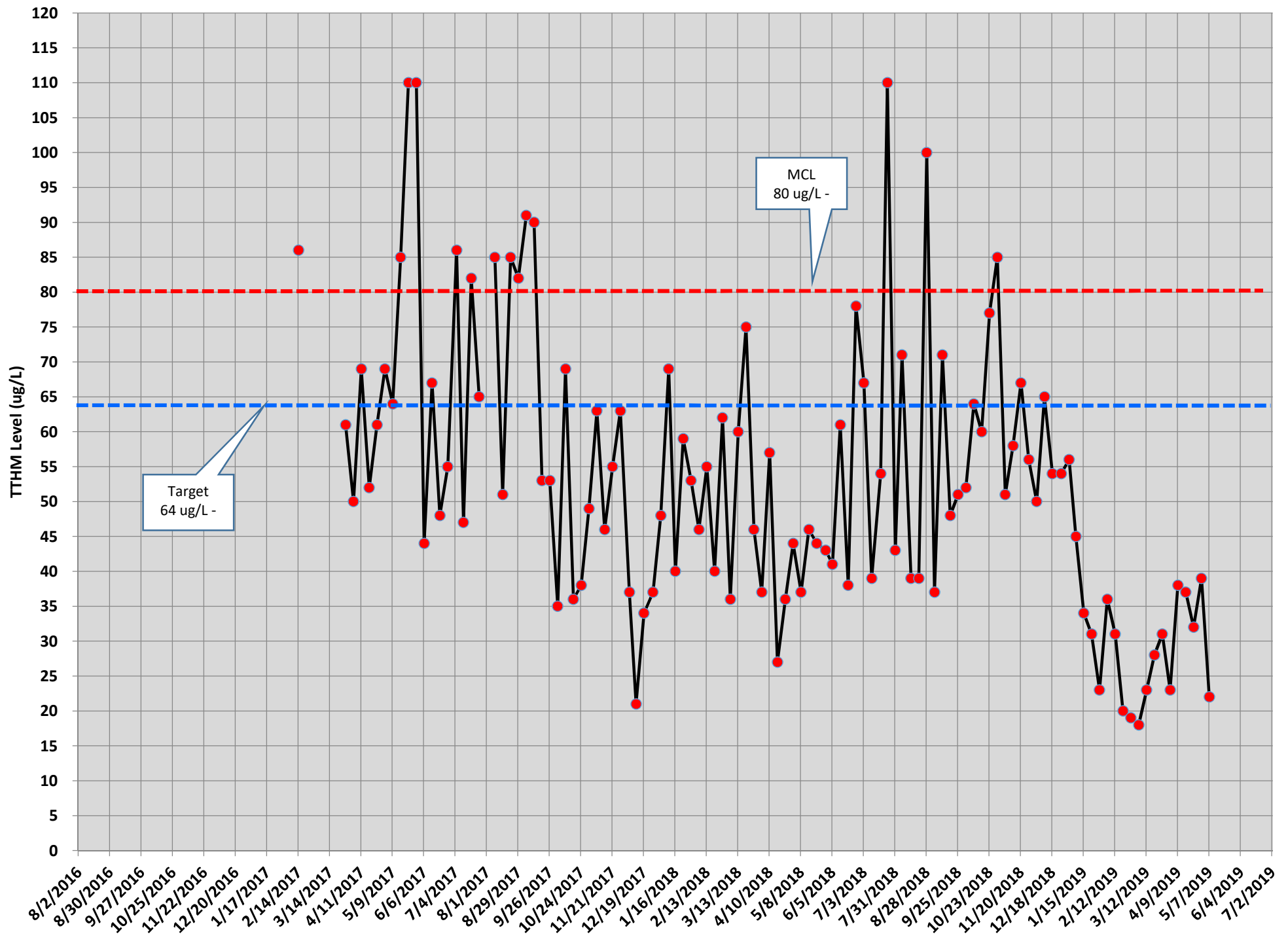
FMWD at Paschall Booster - TTHM's Levels



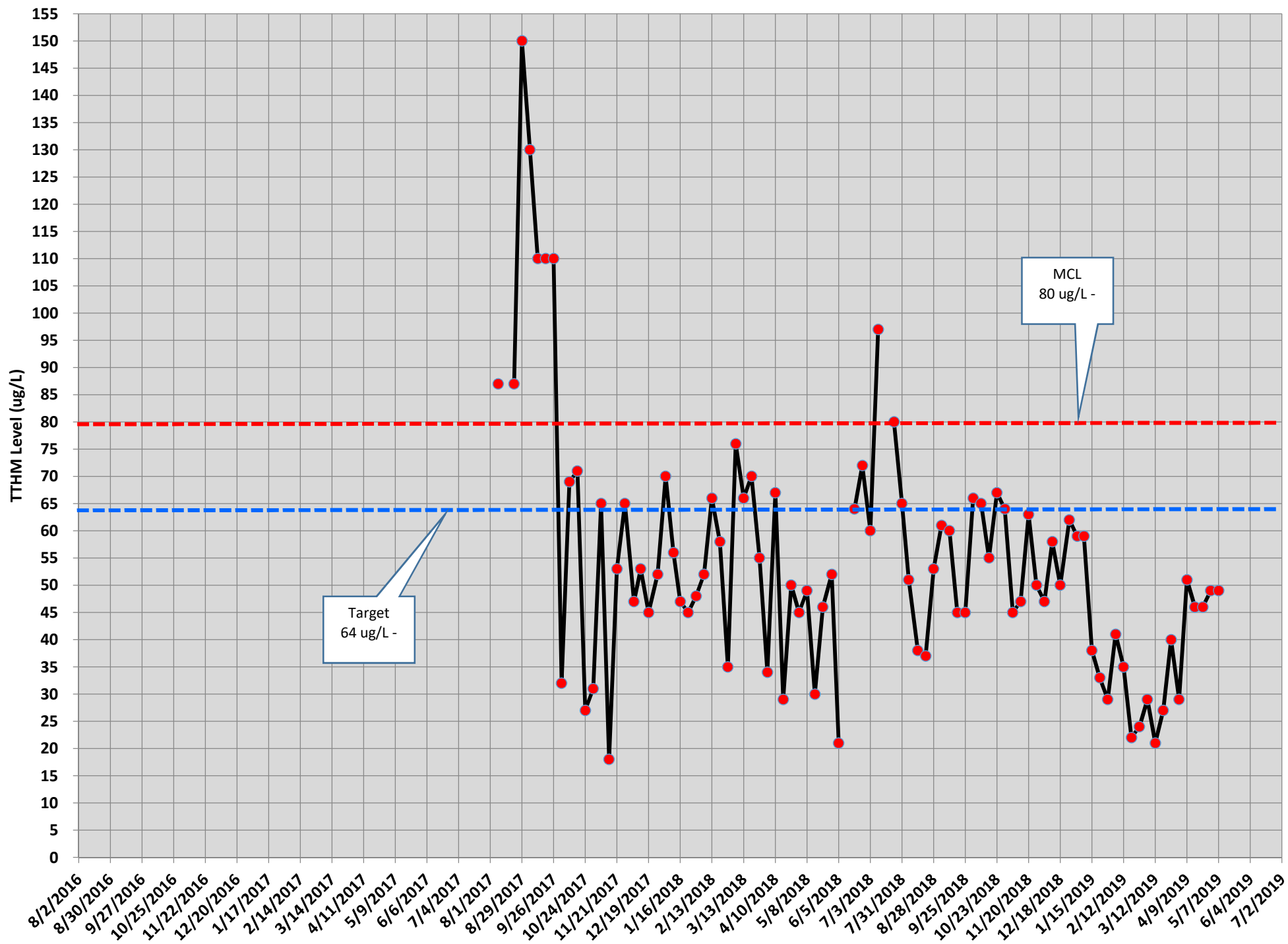
Encinal Reservoir (Zone 1) - TTHMs Levels



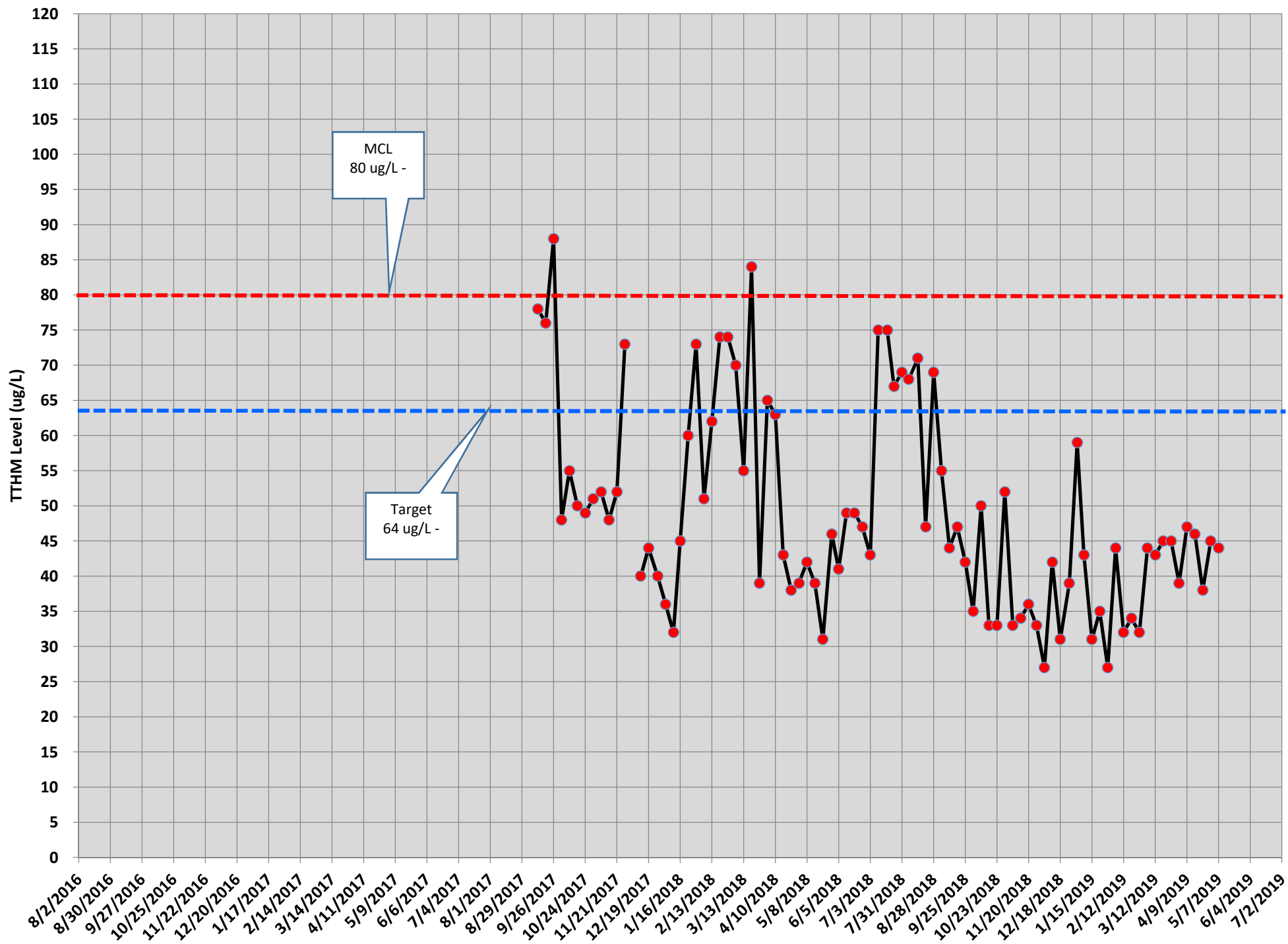
Williams Reservoir (Zone 2) - TTHMs Levels



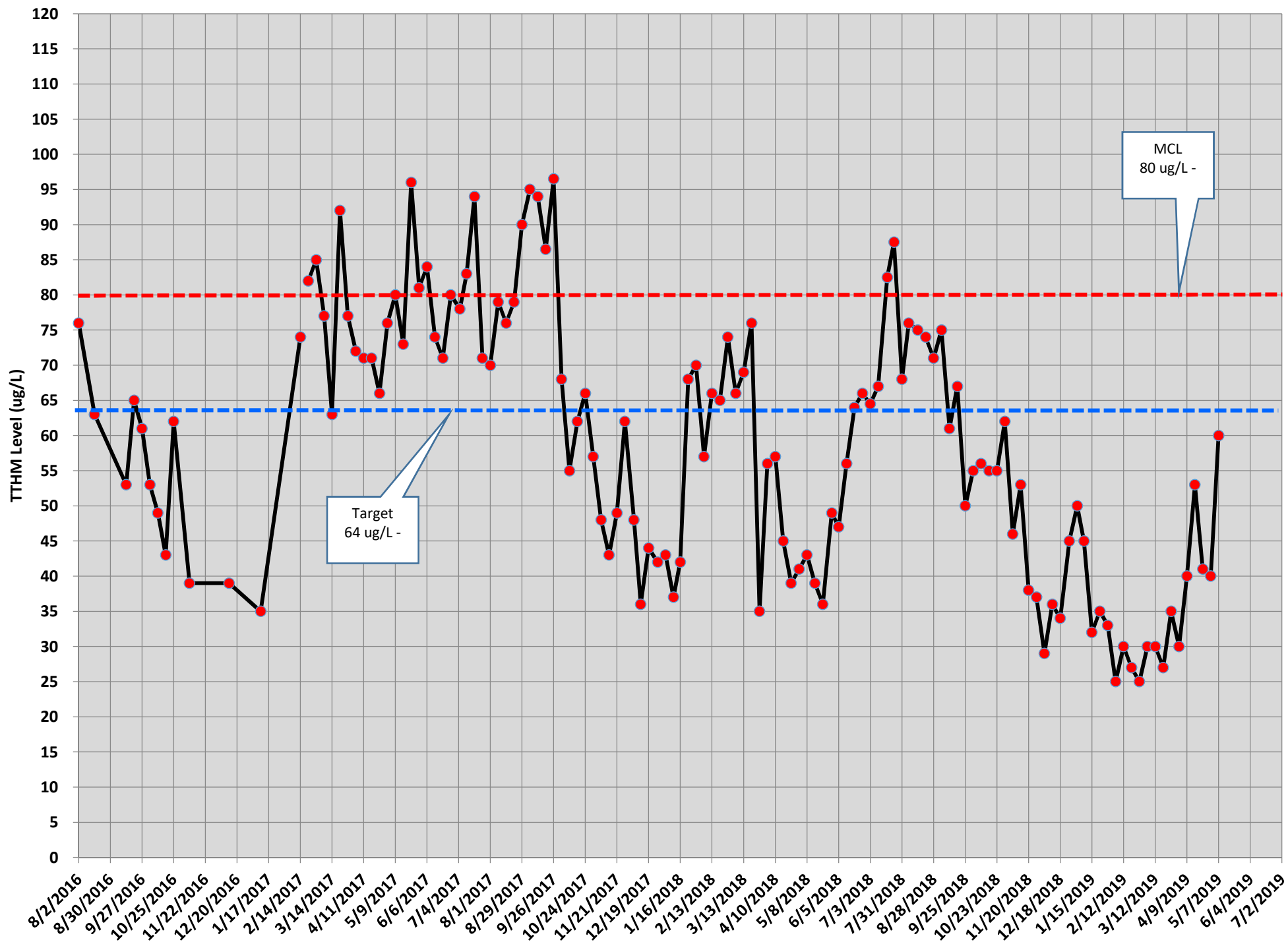
Ordunio Reservoir (Zone 2) - TTHMs Levels



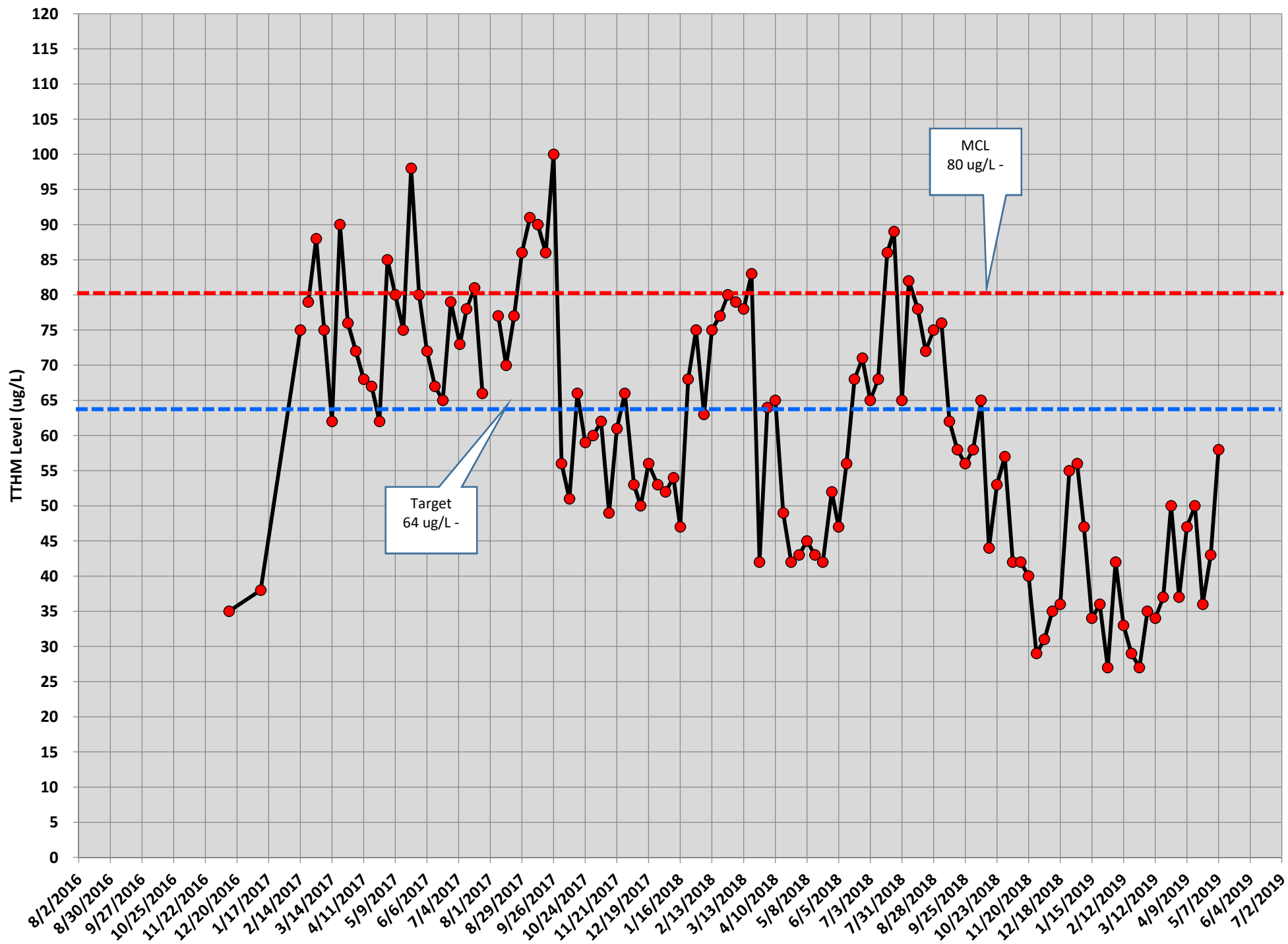
Rosemont Reservoir (Zone 3) - TTHMs Levels



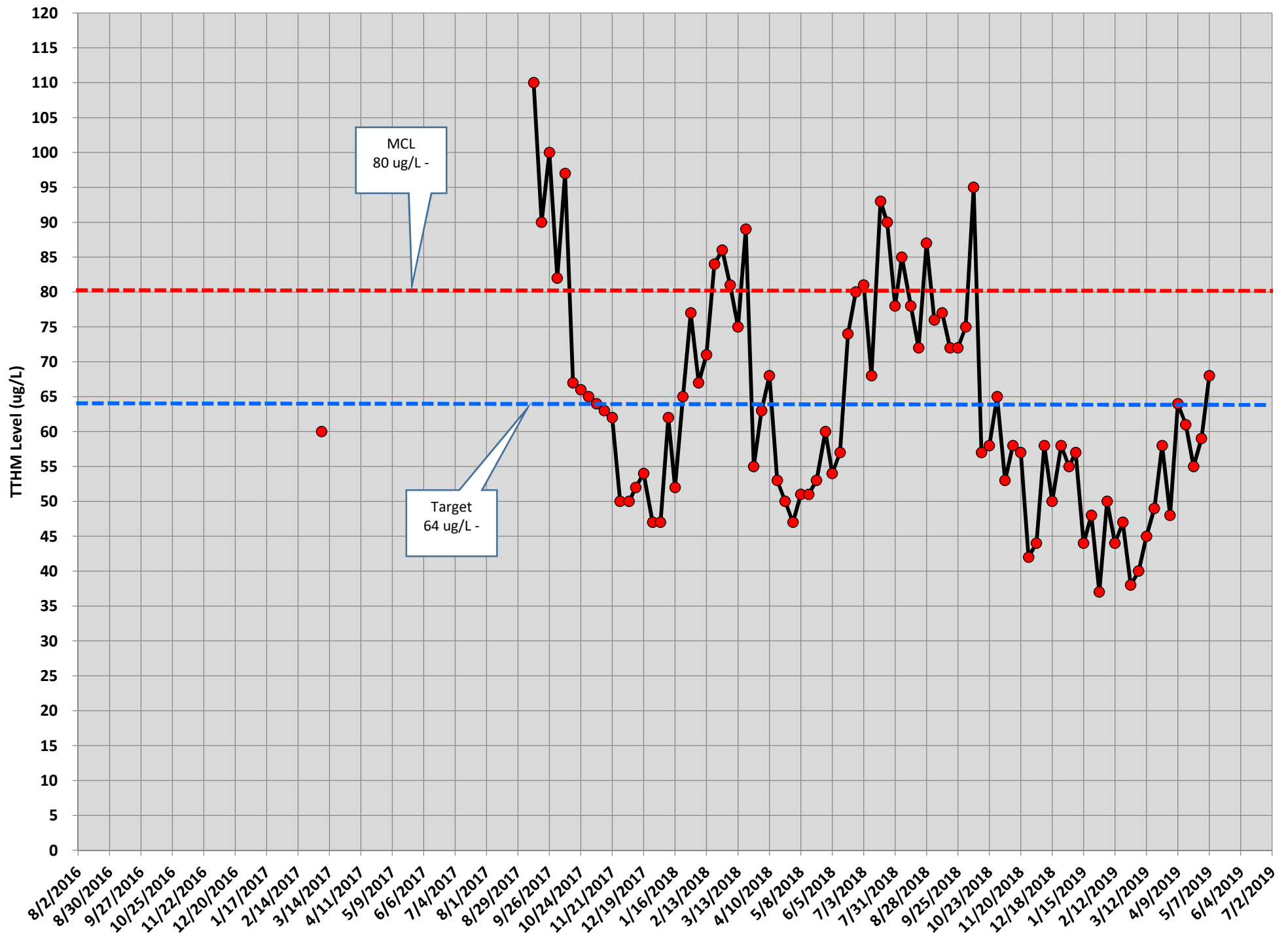
Oak Creek Reservoir (Zone 4) - TTHMs Levels



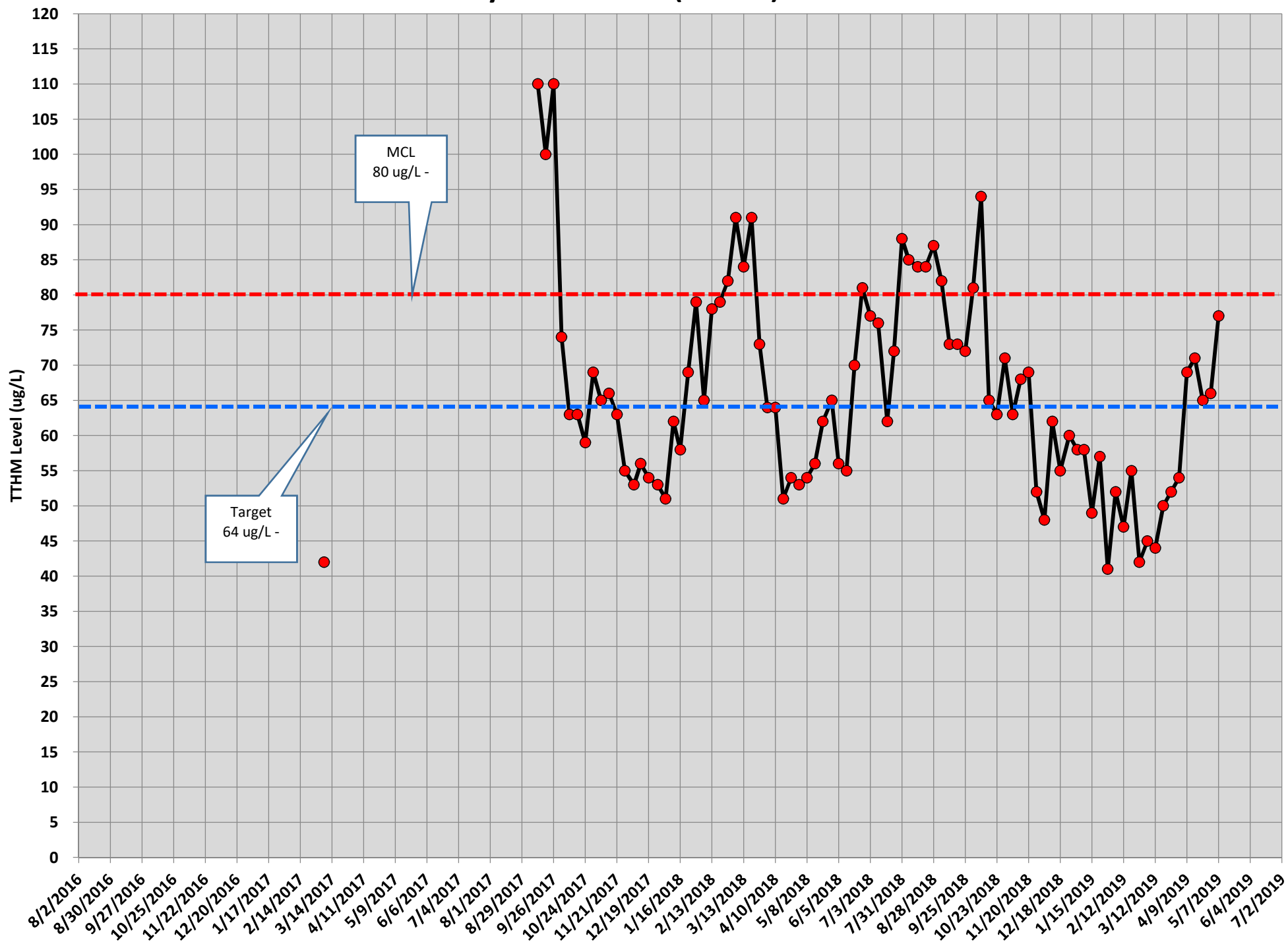
Markridge Reservoir (Zone 5) - TTHMs Levels



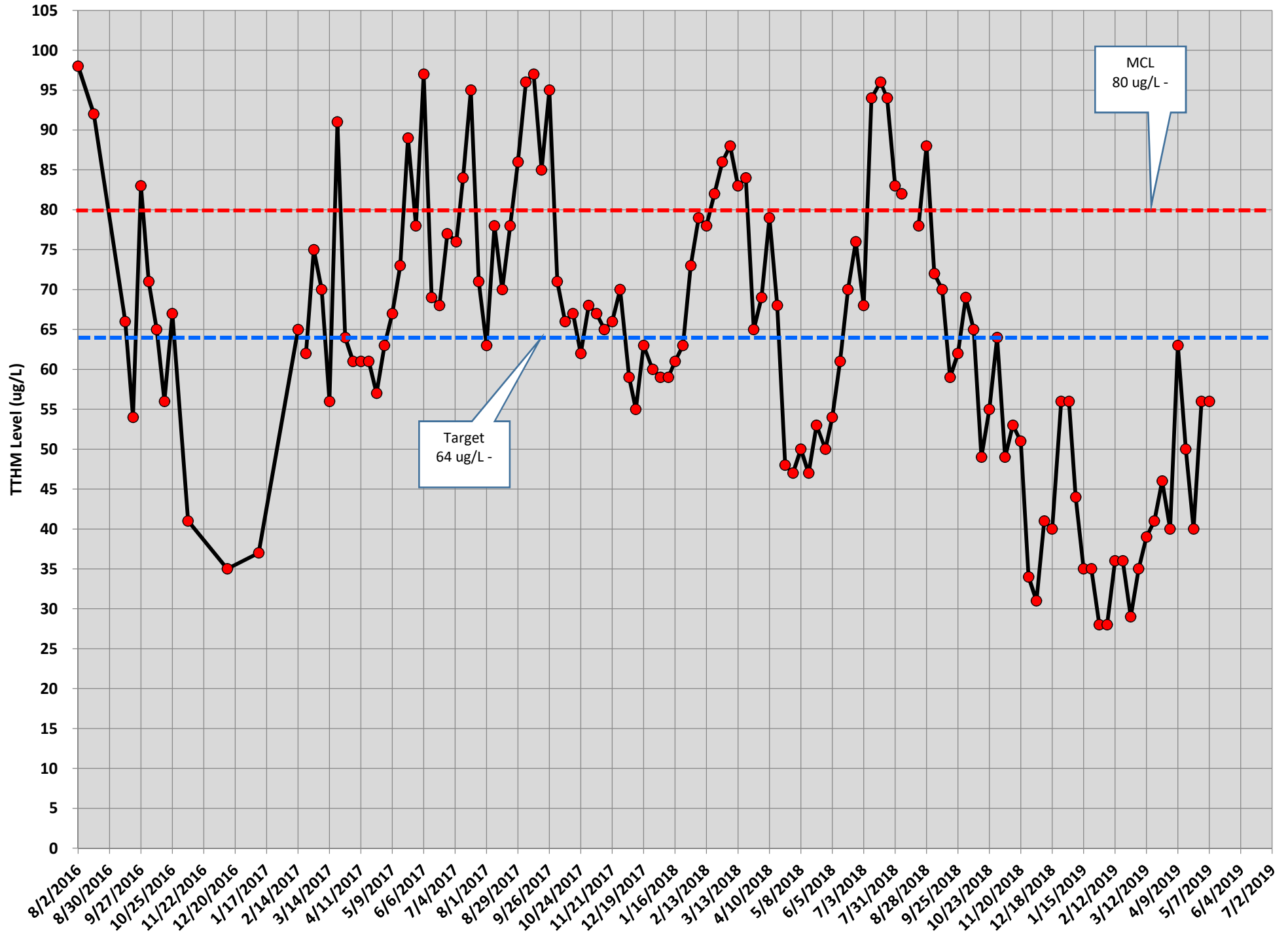
Eagle Canyon Reservoir (Zone 5) - TTHMs Levels



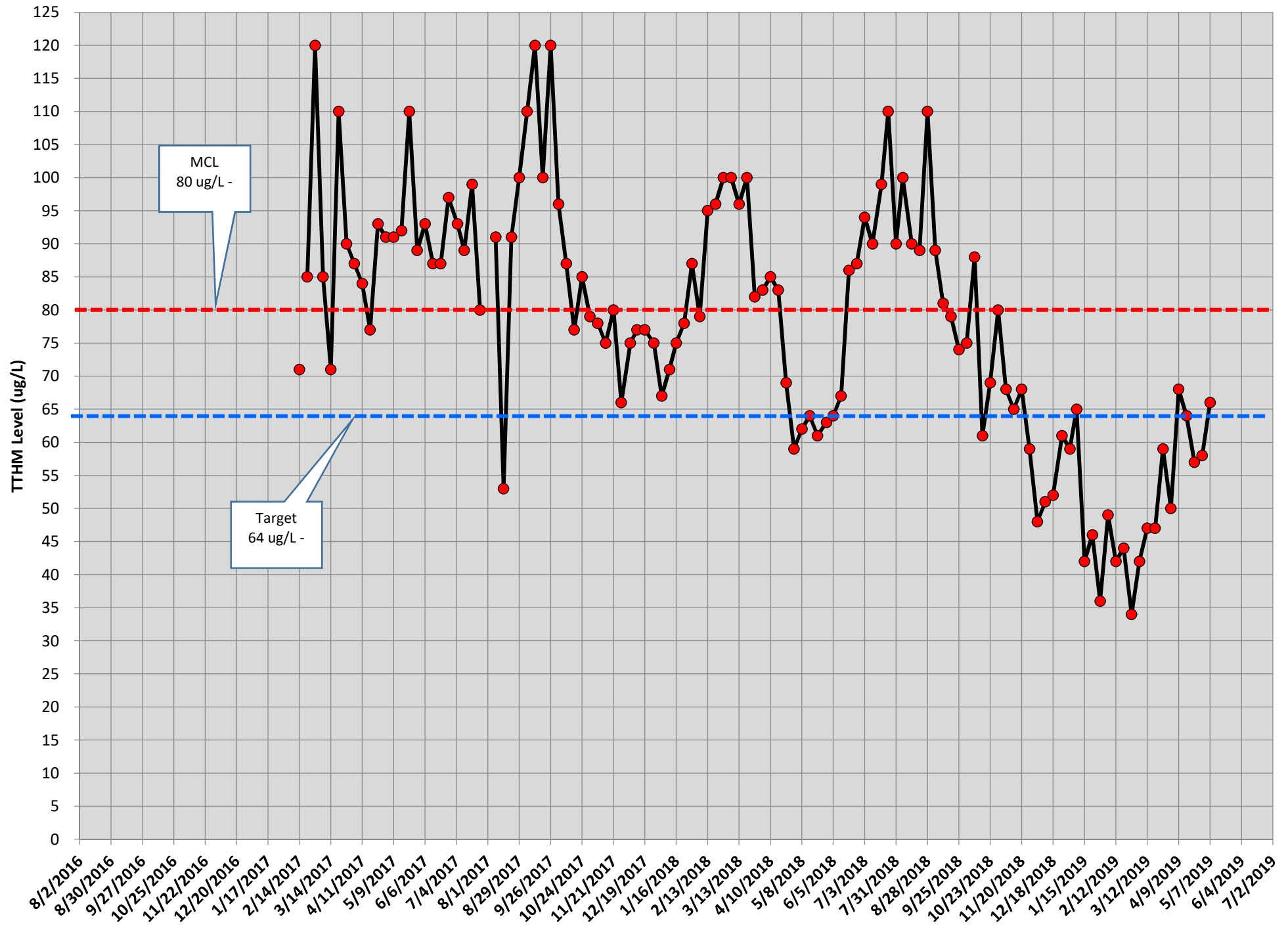
Goss Canyon Reservoir (Zone 6) - TTHMs Levels



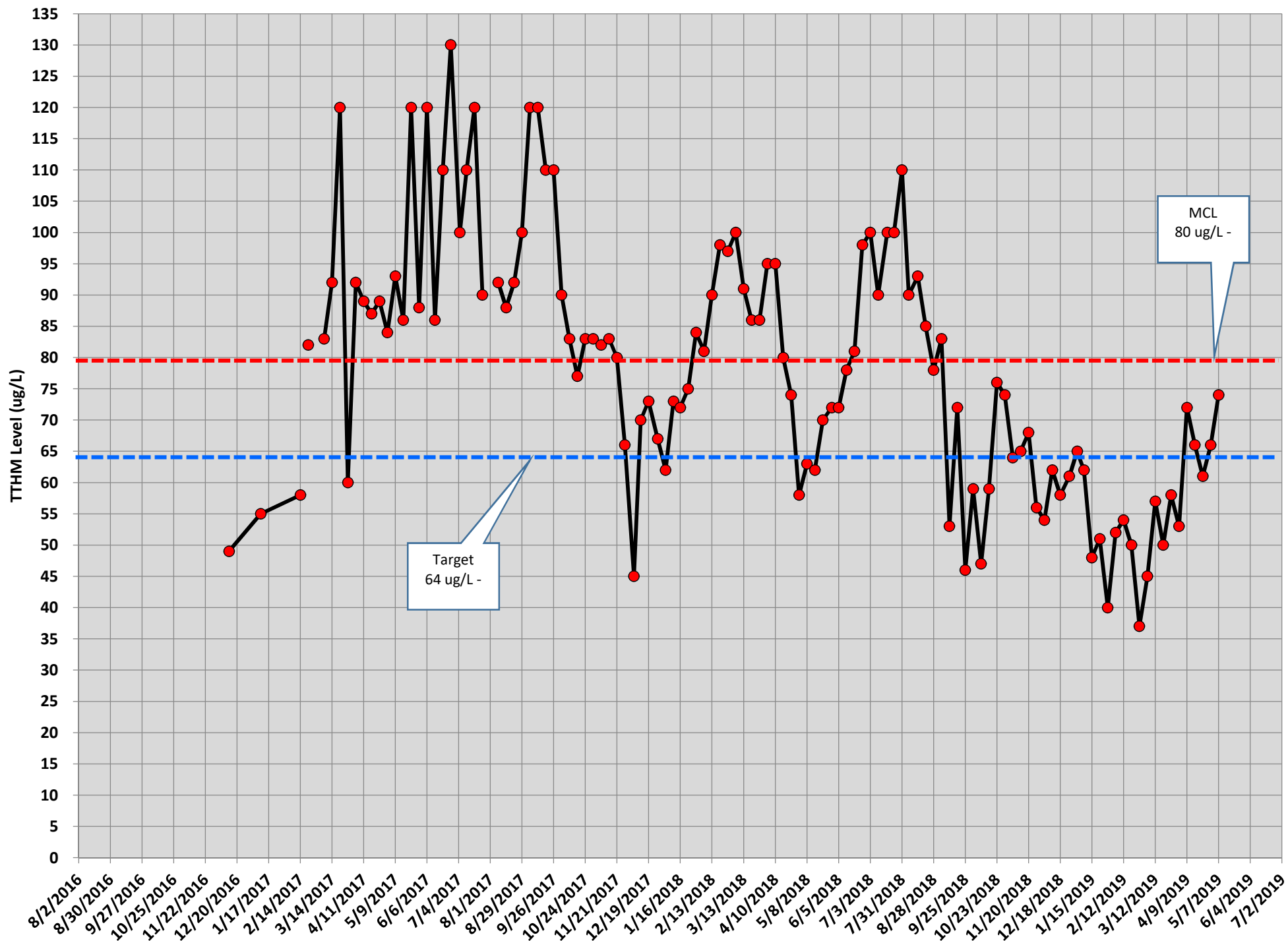
Dunsmore Reservoir (Zone 7) - TTHMs Levels



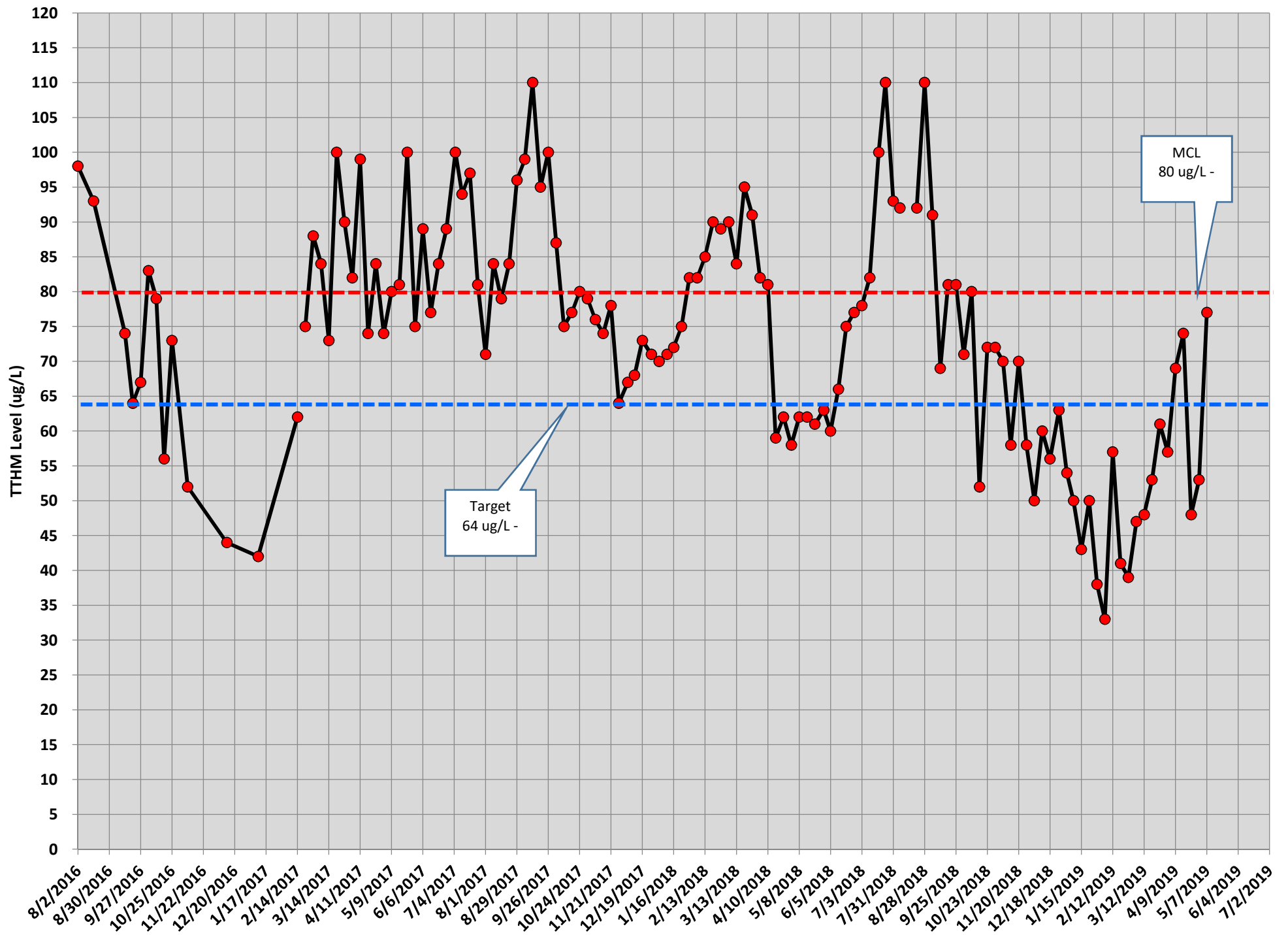
Cresta Heights Reservoir (Zone 8) - TTHMs Levels



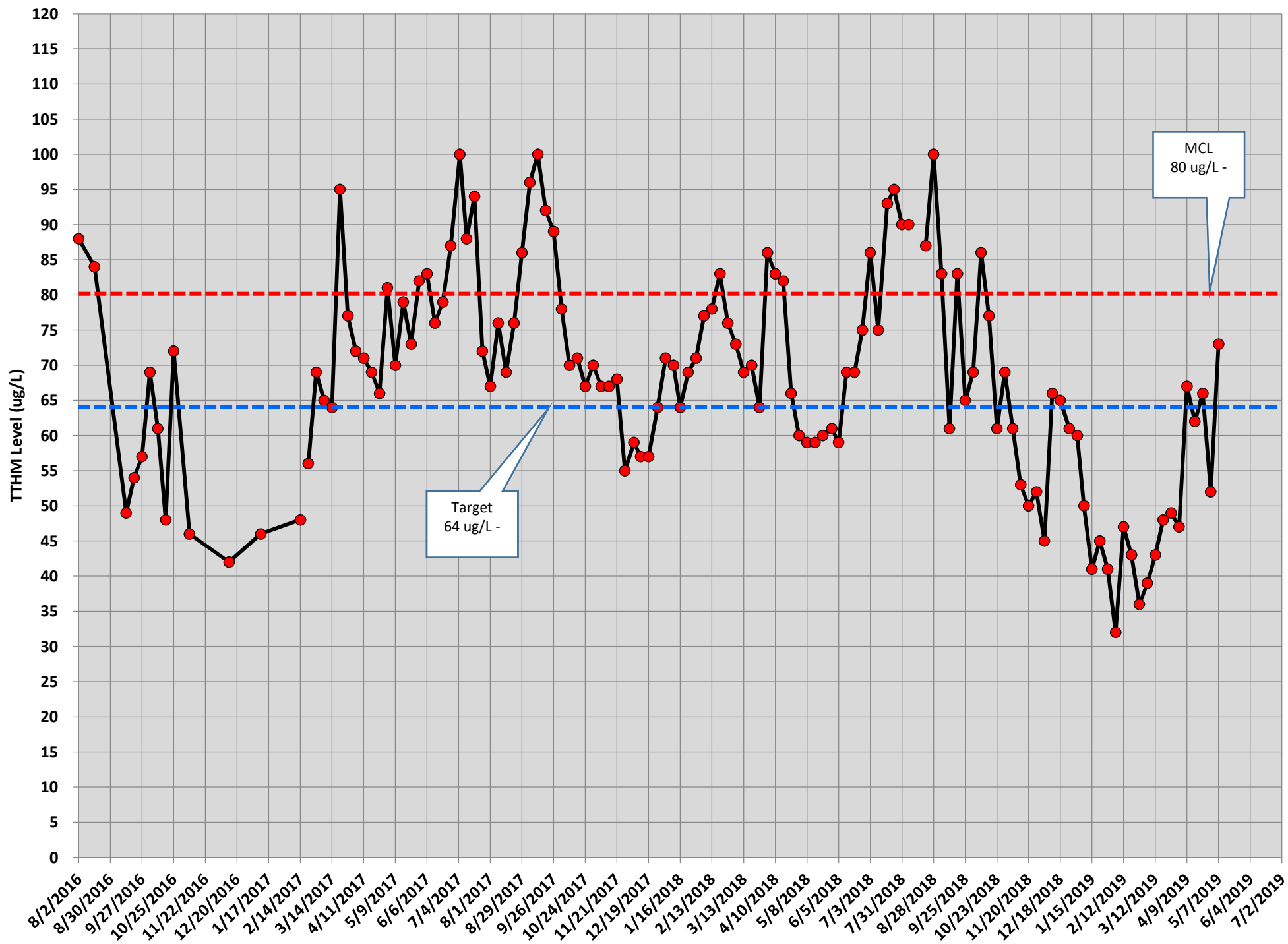
Edmund No. 1 Reservoir (Zone 9) - TTHMs Level



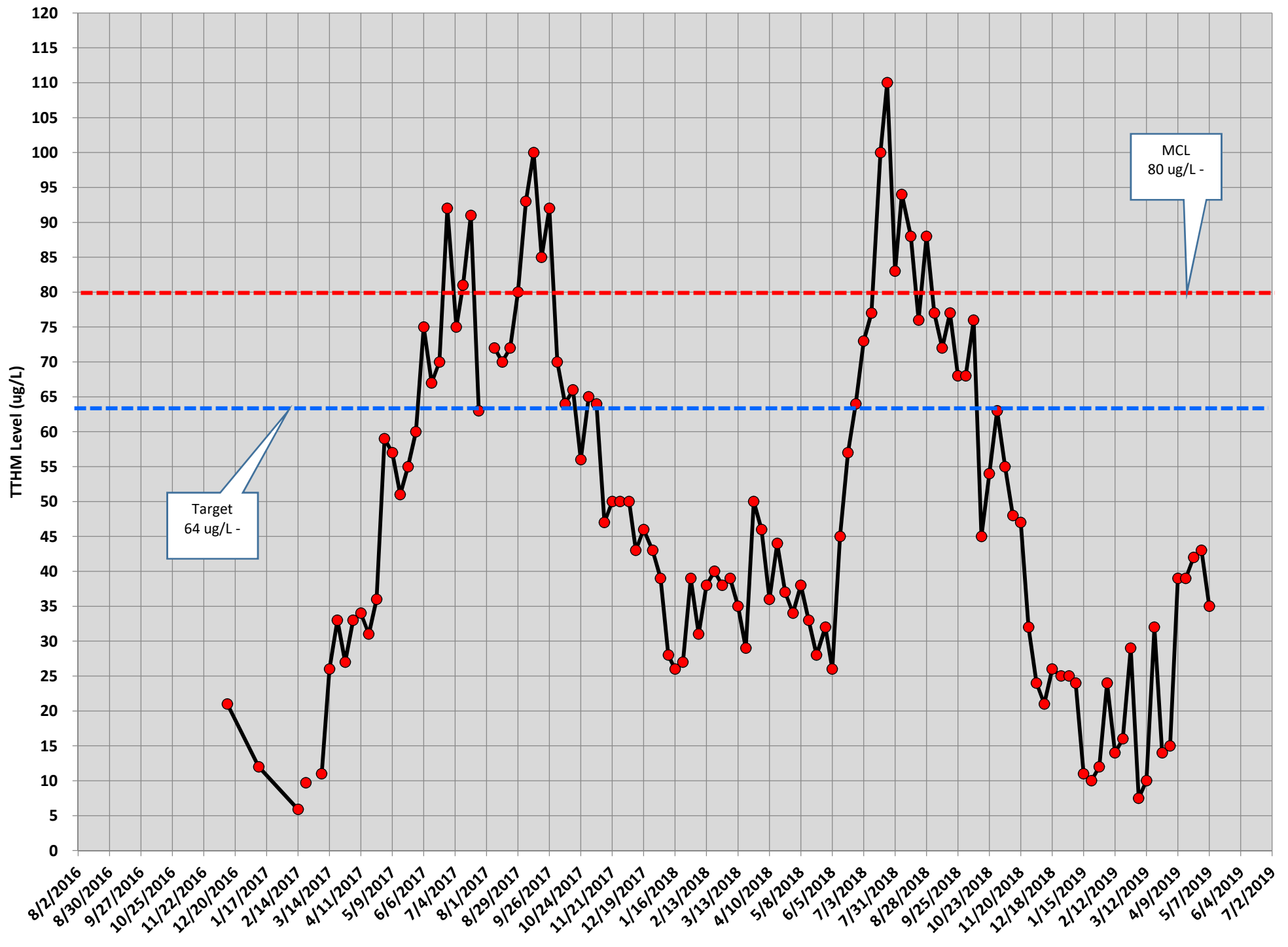
Edmund No. 2 (Zone 9) - TTHMs Levels



Shields Reservoir (Zone 10) - TTHMs Levels



Pickens Reservoir (Zone 11) - TTHMs Levels



CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 3
May 14, 2019

To: Honorable President and Members of the Board of Directors
From: David S. Gould, P.E. – District Engineer
Subject: CVWD's Advanced Metering Infrastructure (AMI) Program

ACTION ITEM:

Advanced Metering Infrastructure (AMI) Consulting Services, Project E-998 - Consideration and motion to authorize the General Manager to enter into an agreement with UtiliWorks Consulting, LLC to provide consulting services for the procurement of the AMI communication network as part of the District's AMI program at a cost of \$28,900 and establish a contingency amount of \$2,890 (10% of contract) to cover the cost of additional work.

BACKGROUND:

UtiliWorks made a presentation for the AMI business case at the April 9, 2019 Board meeting, which was well received by the Board. UtiliWorks preliminary cost estimate for the entire project was \$3.3M over an initial 30-month period. The Board requested that staff look into making the overall project scalable, where the AMI network and customer engagement portal would be installed in the next 2-years and to bring the meters into the AMI network system over a 5-year period, thereby spreading the cost of the overall project.

DISCUSSION:

As the District proceeds forward with AMI, the next step will be preparing a Request for Proposal (RFP) for the procurement and installation of the AMI communication network. Staff requested a proposal from UtiliWorks for the development of a RFP to solicit vendors that can provide an AMI communications network that meets the District's needs (see attached proposal).

UtiliWorks' scope of work includes meeting with staff to finalize core functions of the AMI communication network such as:

- **Functional Requirements:** What does CVWD want this new technology to do?
- **Telecommunications Requirements:** Does CVWD have existing structures to mount communications equipment and what backhaul methods are available?
- **Business Requirements:** What business needs are fulfilled by an AMI Program?
- **Integration Requirements:** How does CVWD want this new technology to interface with other systems?
- **Performance Requirements:** What measures of performance should be specified in the RFP for the vendor to satisfy CVWD's business requirements?
- **Reporting Requirements:** What types of reports and reporting tools will the District need to optimize the information?

UtiliWorks will meet with staff to prepare a scope of work for the RFP with the purpose of providing necessary information to the AMI Network vendors for the complete project. UtiliWorks will also provide a list of potential vendors that can complete the work and include options for purchasing or leasing the equipment.

The project schedule will be for UtiliWorks to start on May 15, 2019 and complete the RFP by July 31, 2019. The RFP will not be sent out to vendors until the Board has approved the FY 19/20 Water Budget and CIP program, thereby giving the Board additional time to discuss possible funding options for the AMI program.

AMI Program Implementation Schedule:

A summary of tasks and installation of the AMI system based on a 5-year implementation schedule was discussed at the Engineering Committee meeting and outline in the attached ECM Memo. However, if CVWD is awarded a grant as part of the U.S. Bureau of Reclamation (USBR), WaterSMART Program for Water and Energy Efficiency, the AMI implementation schedule will have to be accelerated and the project has to be complete within two (2) years starting in October 2019.

RECOMMENDATION:

It is staff's recommendation to award a contract to UtiliWorks at a cost of \$28,900 and to establish a contingency amount of \$2,890 (10% of contract) to cover the cost of additional work. This item was reviewed with the Engineering Committee on April 26, 2019 and the Committee recommended award of the project to UtiliWorks.

ENVIRONMENTAL REVIEW:

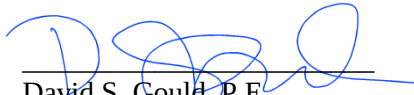
N/A

FUNDING AVAILABILITY:

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

Account Description	Amount
FY 18/19 Administrative Consultants - Water and Wastewater Budget	\$142,596.00
Amount Spent to Date	<\$88,757.80>
Amount Remaining	\$53,838.30
GIS Support Services	<\$28,900.00>
Contingency – 10%	<\$2,890.00>
Amount Remaining in FY 18/19 Administrative Consultants Water and Wastewater Budget	\$22,048.20

Prepared by:


David S. Gould, P.E.
District Engineer

Submitted by:


Nem Ochoa
General Manager

Attachment:

1. Utiliworks Consulting Proposal dated April 17, 2019
2. Engineering Committee Memo dated April 26, 2019

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CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 4

May 14, 2019

To: Honorable President and Members of the Board of Directors
From: David S. Gould, P.E. – District Engineer
Subject: **Recommendation to Award Contract for the Installation of a New Emergency Electrical Generator at 2700 Foothill Blvd, Project C-993**

ACTION ITEM:

Installation of New Standby Emergency Electrical Generator, Project C-993 – Consideration and motion to authorize General Manager to award a contract to Affordable Generator Services for the installation of a new stand-by emergency electrical generator at the CVWD's office for a cost of \$80,337, establish a contingency amount of \$8,033 (10% of contract) to cover the cost of unforeseen or additional work and to find said project exempt from the provisions of the California Environmental Quality Act (CEQA).

BACKGROUND:

Based on direction from the Board of Directors, staff will be replacing the existing standby emergency generator at 2700 Foothill Blvd., currently being rented from Affordable Generator Services, with a new stationary emergency standby generator. The new generator would reduce future costs associated with the current rental while allowing staff to maintain operations in case of a power outage.

Permitting for diesel generators can be a very detailed and involved process. After determining the sizing threshold for permitting a diesel generator, Staff determined that Air Quality Management District (AQMD) permit notifications would be required for this project. To comply with AQMD, staff must notify all residents within 1000-ft of the proposed construction. Since La Crescenta Elementary school is also located within 1000-ft of the proposed generator location, additional notifications must be sent to each family that has a child attending La Crescenta Elementary prior to installation.

DISCUSSION:

On May 1, 2019, District Staff sent a request for quotes for the installation of a new diesel generator at CVWD's main office located at 2700 Foothill Blvd. A mandatory pre-bid meeting was held on May 7, 2019, which was attended by two (2) contractors. CVWD specifications indicate that only contractors who attend this meeting are allowed to bid on the project.

Staff asked both contractors what the lead time of a new generator would be and the feasibility of mailing permit notifications prior to the school year ending. Both seemed optimistic regarding the notification letter schedule, however, they informed staff that the lead time on a new generator, not including time to review and approve submittals, would be 19-21 weeks.

On Friday, May 10, 2019, at 12:00 P.M., staff opened and read aloud the following bid proposals for this project. The results were as follows:

	<u>Bidder</u>	<u>Total Bid Amount</u>
Low	Affordable Generator Services, Inc.	\$80,336.82
2 nd	Data Specialties Inc.	\$123,420.00
	All American Generator Services, Inc.	Declined to Bid
	AAAA Generator Services, Inc.	Declined to Bid

Affordable Generator Services of Santa Fe Springs was the apparent lowest responsible bidder for the project. The engineer's estimate was \$58,400 and the low bid was 37.6% above the engineer's estimate.

Affordable Generator Services submitted all proper documentation to the District. The references provided to the District found the contractor to have carried out similar projects on schedule, in a professional manner, with a high standard of workmanship. Staff has also worked with Affordable Generator Services on past projects that have all been successfully completed.

RECOMMENDATION:

It is staff's recommendation to award the contract for the subject project to the lowest responsible bidder, Affordable Generator Services, at a cost of \$80,337, establish a contingency amount of \$8,033 to cover the cost of unforeseen or additional work. Considering the long lead time of the generator, 19-21 weeks, this project will be included in the Water and Wastewater Capital Outlay Budget for FY 19/20.

ENVIRONMENTAL REVIEW:

This project is found to be exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15302 of the CEQA Guidelines.

FUNDING AVAILABILITY:

The Budget for FY 19/20 has not yet been approved, and \$284,500 of funding is being proposed for FY 2019/20 Water and Wastewater Capital Outlay – Equipment. Staff recommends adding \$88,370 to the capital outlay budget to accommodate this project.

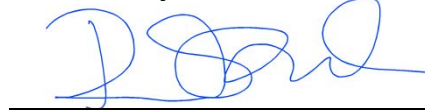
Account Description	Amount
FY 19/20 Water and Wastewater Capital Outlay – Equipment (Proposed)	\$ 284,500
Total Cost for Furnishing and Installing a New 40kW Emergency Generator	\$ 80,337
Contingency – 10%	\$ 8,033
Additional Amount Necessary for FY 19/20 - Capital Outlay - Equipment	\$ 88,370
FY 19/20 Water and Wastewater Capital Outlay – Equipment	\$ 372,870

Prepared by:



Brook Yared, P.E.
Senior Engineer

Submitted by:



David S. Gould, P.E.
District Engineer

Attachments: C-993 – Bid Summary

CRESCENTA VALLEY WATER DISTRICT

Title: Installation of New Standby Emergency Electrical Generator
 E-Job No: C-993
 Engr's Est.: \$58,400
 Proj. Manager: Brook Yared

BID LOCATION: CVWD's Main Office
 TIME: 2:00 PM
 DATE: 5/10/2019
 BY: BY CHECKED: DSG

DATE: 5/10/2019

				Engineers Estimate		Affordable Generator Services		Data Specialties			
ITEM	DESCRIPTION	QUANTITY		UNIT	AMOUNT	UNIT	AMOUNT	UNIT	AMOUNT	UNIT	AMOUNT
1	Mobilization and Demobilization	1	LS	\$6,000.00	\$6,000.00	\$17,996.00	\$17,996.00	\$4,949.00	\$4,949.00		\$0.00
2	Sizing Analysis and Report	1	LS	\$500.00	\$500.00	\$920.00	\$920.00	\$2,600.00	\$2,600.00		\$0.00
3	Permitting & Notifications	1	LS	\$7,700.00	\$7,700.00	\$11,354.60	\$11,354.60	\$26,593.00	\$26,593.00		\$0.00
4	Construct Base Pad	1	LS	\$11,700.00	\$11,700.00	\$8,400.00	\$8,400.00	\$18,275.00	\$18,275.00		\$0.00
5	Furnish and install 36 KW, Stationary Emergency I	1	LS	\$28,500.00	\$28,500.00	\$36,067.22	\$36,067.22	\$52,635.00	\$52,635.00		\$0.00
6	Connection to Existing Automatic Transfer Switch	1	LS	\$3,000.00	\$3,000.00	\$4,599.00	\$4,599.00	\$14,618.00	\$14,618.00		\$0.00
7	Provide On-Site Startup and Test	1	LS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$3,750.00	\$3,750.00		\$0.00
				Engineers Estimate	\$58,400.00	low	\$80,336.82	2nd	\$123,420.00	3rd	\$0.00

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 5
May 14, 2019

To: Honorable President and Members of the Board of Directors
From: Ron L. Mitchell, Secretary-Treasurer
Subject: **FY 2019-20 Budget Update**

ACTION ITEM

1. Discuss the District's FY 2019-20 updated budget and related items.

DISCUSSION

Staff and the Board have discussed the proposed budget in regularly scheduled board meetings held on March 26th, April 9th and April 23rd. Staff has also mailed the 218 Notice - discussing proposed rates, to all customers, as required by law. The attached schedule highlights past and future meetings required to complete the budget process.

RECOMMENDATION

Discuss any questions or future requests related to the proposed budget and pursuant schedule.

Prepared by:



Ron L. Mitchell, Secretary-Treasurer

Submitted by:



Nemesciano Ochoa, General Manager

Budget Schedule for FY 2019-20 - as of May 2019

March 21, 2019	Finance Committee (Tejeda/Putnam) - Preliminary Water/WW Budget
March 26, 2019	Board Meeting - Preliminary Water/WW Budget
April 4, 2019	Finance Committee (Tejeda/Putnam) - Updated Water/WW Budget
April 9, 2019	Board Meeting - Updated Water/WW Budget - Review Draft Prop 218 Notice
April 23, 2019	Board Meeting - Updated Water/WW Budget - Approve Final Prop 218 Notice
April 26, 2019	Last Day to Send out Prop 218 Notice
May 2019 <i>(to confirm)</i>	Citizen's Budget Advisory Meeting(s)
May 21, 2019 <i>(to confirm)</i>	Board Workshop
June 10, 2019	End of 45-Day Clock for Prop 218 Notice
June 11, 2019	Public Hearing
June 25, 2019	Board Meeting - Consideration for Approving Proposed Budget & Rates

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No.6
May 14, 2019

To: Honorable President and Members of the Board of Directors
From: Nemesciano Ochoa, General Manager
Subject: MTBE Reserve Fund Transfer to Water Reserve Fund

ACTION ITEM:

Consideration and motion to transfer remaining MTBE Reserve Fund balance to Water Reserve Fund.

DISCUSSION:

In November 2013, the Board adopted a policy – Resolution No. 712 – that created an MTBE reserve fund and established rules on how those funds can be utilized. Per Policy Section 21.05, the District can elect to transfer the balance of the MTBE Reserve Fund to the General Water Fund after July 1, 2018. This date marked the end of a restriction period that limited the utilization of those funds to pay for strictly MTBE-related expenses. Since the MTBE Reserve was created, the District has utilized the reserve for various purposes including stabilization of operating reserves, funding capital projects, and paying down OPEB liabilities, all of which were actions approved by the Board of Directors.

The MTBE fund balance is estimated to be \$3.75 million by the end of the fiscal year. Transferring the MTBE funds into the Water Reserve Fund will re-establish target reserves levels and provide flexibility in how the District manages its cash flow to fund Water Operations and water-related Capital Projects. The transfer will supplement the proposed rate increase to stabilize the District's financial position. Resolution No. 712 is attached for reference.

RECOMMENDATION:

Approve the transfer of remaining MTBE Reserve Fund balance to the Water Reserve Fund.

Prepared by:



Nemesciano Ochoa
General Manager

Attachments:

1. Resolution No. 712 – MTBE Settlement and Reserve Policy

RESOLUTION NO. 712

RESOLUTION OF THE BOARD OF DIRECTORS OF CRESCENTA VALLEY WATER DISTRICT ESTABLISHING THE DISTRICT'S POLICY ON USE OF METHYL TERTIARY BUTYL ETHER (MTBE) SETTLEMENT AND RESERVE POLICY

WHEREAS, the Crescenta Valley Water District is a County Water District empowered under the State of California Water Code;

WHEREAS, the purpose of this Resolution is to restrict the use of funds received by the District for methyl tertiary butyl ether (MTBE) contamination settlements for use in addressing damages caused by MTBE contamination to groundwater resources and the water system.

WHEREAS, the Board of Directors makes the following findings: Groundwater resources are a portion of the water supply source for the District to obtain potable water for use by its customers; groundwater resources, from which the District's wells extract potable water, have been and continue to be subject to contamination from MTBE, notwithstanding efforts to prevent such contamination, and present a material risk of harm to the District's groundwater resources and its ability to provide safe and reliable drinking water to its customers;

WHEREAS, the District initiated an action entitled Crescenta Valley Water District v. Exxon Mobil Corporation, et. al, U.S. District Court-Central District of California Case No. CV 07-2630-JST, herein after referred to as the "ACTION" to recover damages related to MTBE contamination of groundwater resources and the water system.

WHEREAS, the cost and expense of addressing MTBE contamination of groundwater resources and the water system are uncertain since MTBE contamination of the groundwater basin water is wide-spread.

WHEREAS, in order to ensure that funds received by the District as a result of the ACTION, whether from settlement, judgments or otherwise, excluding interest earned, are used responsibly and solely for addressing the damages from MTBE contamination, the Board of Directors desires to segregate the funds received by it as a result of the ACTION to pay for cost and expenses associated with damages from MTBE contamination of groundwater resources and the water system.

WHEREAS, the District must enact this Resolution in order to segregate and restrict these funds pursuant to Generally Accepted Accounting Principles into a separate account called the "MTBE Reserve Fund";

WHEREAS, the Board of Directors determines that it is in the best interest of the District to enact this Resolution to ensure that funds received as a result of the ACTION are available to address damages from MTBE contamination of groundwater resources and the Water System.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Crescenta Valley Water District authorize that the District's Rules and Regulations include ARTICLE 21 Methyl Tertiary Butyl Ether (MTBE) Reserve Fund (subsections 21.01 through 21.07, inclusive) of the District's Rules & Regulations, the terms of which are set forth in the attached Exhibit A and incorporated by this reference;

PASSED, APPROVED, AND ADOPTED at an Adjourned Meeting of the Board of Directors of Crescenta Valley Water District held on November 19, 2013. Resolution No. 712 was adopted by the following vote:

AYES:	Director	Director Bodnar Director Erickson Director Putnam Director Ross Director Tejeda
--------------	-----------------	--

NOES:	Director	None
--------------	-----------------	-------------

President, Board of Directors
Crescenta Valley Water District

ATTEST:

Secretary of the Board of Directors

STATE OF CALIFORNIA)
)
COUNTY OF LOS ANGELES) ss.

I, RON MITCHELL, Secretary of the Crescenta Valley Water District, DO HEREBY CERTIFY that the foregoing is a full, true and correct copy of Resolution No. 712 of the Board of Directors of Crescenta Valley Water District adopted at an Adjourned Regular Meeting held on November 19, 2013, and that the same has not been amended or repealed.

Secretary of the Board of Directors of
Crescenta Valley Water District

EXHIBIT A

ARTICLE 21: METHYL TERTIARY BUTYL ETHER (MTBE) RESERVE FUND

21.01 POLICY AND PURPOSE

The purpose of this section is to restrict the use of funds received by the District from MTBE contamination settlements and judgment(s) for use in addressing damages caused by MTBE contamination of groundwater resources and the Water System. It is essential that the District manage these financial resources to ensure that these funds are available to address damages caused by MTBE contamination.

21.02 SEPARATE ACCOUNTING FUND

The funds collected by the District as a result of action entitled Crescenta Valley Water District v. Exxon Mobil Corporation, et. al, U.S. District Court-Central District of California Case No. CV 07-2630-JST (ACTION), whether from settlements, judgments or otherwise, excluding interest earned, shall be restricted by the District for the uses described in Section 21.03, below. The Secretary/Treasurer, who is an Officer of the District, shall establish a separate accounting fund within the Water General Fund for funds received from the ACTION. This separate accounting fund shall be titled the "MTBE Reserve Fund".

21.03 USE OF MTBE RESERVE FUNDS

The funds received by the District from the action shall be deposited in the MTBE Reserve Fund and used solely and exclusively for the costs and expenses associated with addressing damages from MTBE contamination of groundwater resources and the Water System. These costs and expenses include, but shall not be limited to, the following:

- A. **Repayment for MTBE related costs occurred by CVWD:** CVWD used its Water Reserve Fund to pay for costs related to MTBE contamination from January 2004 through December 2013. Any settlement funds received from the defendants shall be first distributed towards repayment of costs occurred by CVWD from 2004 to 2013. Any remaining settlement funds shall be used towards establishing a "MTBE Reserve Fund".
- B. **MTBE Action Studies:** Items such as consultant costs to prepare and update technical reports on the status of the MTBE contamination and engineer's cost estimate for treatment/removal.
- C. **Capital Costs:** MTBE related costs for capital improvements, capital outlay and all other tangible assets that are used in the operations of the District.
- D. **Operating Costs:** MTBE related costs for water sampling, chemicals and laboratory costs and supplies.
- E. **Labor and Overhead Costs:** MTBE related costs for labor and overhead costs.
- F. **Other Related Costs:** MTBE related costs for legal expenses and fees, consultants and other costs and expenses as determined by the District.

21.04 ANNUAL REPORT.

The District shall prepare an annual report on the status of the MTBE Reserve Fund. The report shall include, in addition to those matters required by Generally Accepted Accounting Principles, a detailed description of the funds actually used or committed to be used over the past year, estimated budget for anticipated uses of the funds for the period consistent with the District's Five-Year Forecast, and any other related information the District determines

reasonable or necessary. The report shall be presented to the District's Board of Directors during a noticed regular public meeting of the District's Board of Directors as part of the normal annual budget process. CVWD will include a review of the MTBE Reserve Fund Assets and Liabilities as part of the annual audit.

21.05 MTBE RESERVE FUND RESTRICTIONS:

The following restrictions shall apply to the MTBE Reserve Fund:

- a. **Restriction Period:** Funds shall be restricted to the MTBE Reserve Fund until July 1, 2018. The Board of Directors shall review and take action on the restriction period on or before July 1, 2018.
- b. **Return to Water General Fund:** After the restriction period is complete, the MTBE Reserve Fund may be transferred to the Water General Fund as directed by the Board of Directors.
- c. **Transfer of Available Funds:** Interest earned on the MTBE Reserve Fund will be transferred to the Water General Fund.
- d. **Borrow from the MTBE Reserve Fund:** CVWD can borrow from the MTBE Reserve Fund as a "short-term" loan to the Water General Fund, on approval by the Board of Directors. Loans need to be paid back to the MTBE Reserve Fund, without interest, within a 3-year period, and total loans are not to exceed 50% of the MTBE Reserve Fund.

21.06 RULES AND REGULATIONS

The District shall have the authority to create rules, regulations, and procedures to implement and carry out the intent and purpose of this section provided such rules, regulations, and procedures are consistent with this section

21.07 AMENDMENT/MODIFICATION/TERMINATION

This Article 21 may be amended, modified or terminated by the District at any time after its adoption. Amendments, modifications, or termination shall be considered and approved, or disapproved, only at a public meeting of the District's Board of Directors.

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No.7
May 14, 2019

To: Honorable President and Members of the Board of Directors
From: Nemesciano Ochoa, General Manager
Subject: **Director Recruitment**

ACTION ITEM:

Review, discuss and finalize candidate pool, interview schedule, and interview questions.

DISCUSSION:

Pursuant to Section 1780 of the Government Code of the State of California, the vacancy on the Board of Directors of CVWD, created by the resignation of Director Michael L. Claessens (effective May 15, 2019) will be filled by appointment by the Board of Directors within sixty days of the effective date of vacancy.

Staff has posted the notice of vacancy in several locations in efforts to attract a strong pool of candidates with which to fill the Director position. The District received 9 letters of interest to be considered for appointment. Having provided the letters of interest and accompanying resumes that were submitted, the Board of Directors can begin the selection process.

RECOMMENDATION:

Review, discuss and finalize candidate pool, interview schedule, and interview questions.

Prepared by:



Nemesciano Ochoa
General Manager



**Signatures Needed to Submit
Comments to CVWD**

The Crescenta Valley Water District, which is considering a rate increase, is alerting concerned residents who submitted an electronic message protesting the possible increase. An electronic submission, without a signature, does not meet the requirements to be counted as a valid protest under Proposition 218. In order to make a letter count, it has to include the parcel site address, the name and signature of the parcel owner or tenant, a statement that the proposed rates are being protested (a reason does not need to be included). The protest then needs to either be mailed or hand delivered to the district offices (2700 Foothill Blvd., La Crescenta, 91214). Scanned or photographed protest letters with a handwritten signature can be emailed to customerservice@cvwd.com. Email text will not be accepted. Please ensure scans/photos are clear and legible. Recommended file types are: pdf, jpg, bmp, png, or tiff. Protests may also be handed to the staff at the public hearing prior to the closing of the hearing.

All messages received will be communicated to the general manager.

For more information, visit www.cvwd.com.



CVWD Proposes Raising Rates

By Julian MITCHELL

The Crescenta Valley Water District is again considering raising its usage rates. The CVWD will hold a public hearing on June 11 at the CVWD boardroom at 2700 Foothill Blvd., La Crescenta to present its case and hear responses by the public. If the board feels that enough of the public has reached out against a raise in rates, then it will consider not implementing any increases.

As of now, the proposed raises are a 4% increase in the wastewater rate and an increase of up to 7% in the standard water usage rates.

To have a public record of complaints, the CVWD will be accepting signed letters up until the close of the public hearing on June 11.

"Proper protest letters should have a signature," said CVWD representative Christy Scott.

According to Scott, the CVWD is accepting emailed letters; however, there still has to be a written signature. In this case, the letter would have to be signed, scanned on to a computer, and then emailed for it to register. (To learn more, see the In Brief section on page 3.)

The maximum proposed increase of 7% would raise average costs by about \$5 monthly, according to the CVWD. The water district has stated that a typical household has the smallest meter, a ¾ inch meter, and uses approximately 17 units of water, 17,000 gallons, in a two-month period.

The 4% increase in wastewater rates would have an approximate increase of \$1.50 monthly on the average household described above. These costs go directly to collection methods for wastewater as well as treatment of wastewater.

The CVWD sent out information pamphlets on April 26 with information about the increase. The pamphlet cited general maintenance as well as increased demand for water as the reasons for increase.

According to the CVWD, due to a limited amount of ground water in the area, "more expensive" water is being imported to the Crescenta Valley through aqueducts. The CVWD

spends 32% of its budget on water purchases and an additional 23% on operating expenses, not including labor.

"There is a list of capital improvement projects," said Scott, "but the board still gets to prioritize those after it votes on the increase."

If the proposed increases pass, many of the projects scheduled are rehabilitation projects. The most expensive project on the list is the potential replacement of pipelines on Brookhill Street.

Presently the CVWD is working on flushing its water system. This means that the system has needed a "deep clean" to prevent build up of chlorine and other bi-products, such as sand and rust. That project is scheduled to end in mid-May.

The CVWD board of directors will also be filling a vacancy left by Mike Claessens. Applications are no longer being accepted.

The board meets the second and fourth Tuesdays each month at the District's Administration Office located at 2700 Foothill Blvd., La Crescenta. It is expected to vote on the proposals on June 25, which will be the first meeting after the public hearing.

Written communication

LA CAÑADA IRRIGATION DISTRICT

P.O. Box 39
1443 FOOTHILL BOULEVARD
LA CAÑADA, CALIFORNIA 91012-0039
818/790-6749

RECEIVED

MAY 08 2019

DOUGLAS M. CAISTER
MANAGER-SECRETARY

CRESCENTA VALLEY
WATER DISTRICT

May 3, 2019

Mr. Nem Ochoa, General Manager
Crescenta Valley Water District
2700 Foothill Blvd.
La Crescenta, CA 91214

Dear Nem,

La Cañada Irrigation District wants to take this opportunity to thank you and the entire Crescenta Valley Water District staff for the help and support provided this last week, during the Foothill Municipal Water District transmission main failure on Foothill Boulevard. Without your immediate response and supply of emergency water into our system, we would have had potential outages.

Again, thank you for your cooperation in providing the emergency water at this critical time.

Best Regards,



Doug Caister, Mgr/Sec

CRESCENTA VALLEY WATER DISTRICT

General Manager Report

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

GM Report
May 14, 2019

General Managers Report Topics:

- GM Activities

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

- Water Production
- Hydrology Report
- Engineering Projects
- Operational Activities

STAFFING

One (1) employee has a work anniversary in May. Kellen Boyce – 17 years.

As of May 10th the District has gone 1,795 days without a lost time accident.

GENERAL MANAGER ACTIVITIES

Meetings:

Engineering Committee Meeting	- April 26 th
Employee Relations Committee Meeting	- April 26 th
Labor Negotiation Meeting	- April 30 th
Executive Committee Meeting	- May 3 rd
Management staff meetings	- May 6 th , May 13 th

Submitted by:



Nem Ochoa
General Manager

Engineering and Operations

May 14, 2019
Staff Report

To: Honorable President and Members of the Board of Directors
From: David S. Gould, P.E. – District Engineer
Subject: Engineering & Operations – April 2019

1. **Water Production Report**

- April 1 – 30 - Water production – 53%/47% split – 107.9 MG for the time period
- Average use – 5.6% greater than 2018 and 1.2% greater than 5-yr average

2. **Rainfall Update**

- 0.19” for April 2019
- Rainfall Total for Rainfall Year 2018/19 – 29.67”

3. **Report on Engineering**

- **CIP Projects**
 - Oak Creek #1 & #2 Reservoir Rehabilitation - Complete
 - Well 1 & 7 Rehabilitation
 - Well 1 – Complete
 - Well 7 – Work started on May 8, 2019
 - FY 18/19 – Project Cost Summary – No Report
- **Nitrate Removal Treatment Facility at Well 2 Project**
 - DDW approval – anticipated by May 17, 2019
 - APTwater to transfer operations to CVWD by the end of May 2019
- **Crescenta Valley County Park Stormwater Recharge Facility Study**
 - John Robinson Consulting and Wood Environmental working on Conceptual Plan, preliminary cost estimate and cost/benefit analysis.
 - To be discussed at May 24, 2019 Engineering Committee Meeting
- **ULARA**
 - No Report
- **Grant Program**
 - Hazard Mitigation Grant Program (HMGP) – Approved to proceed with submitting a grant application for a \$150,000 Local Hazard Mitigation Plan by July 5, 2019
- **Water Meter Replacement Program**
 - See Staff Report on AMI program

4. **Report on Administrative and Field Operations**

- **Wells – Status** - Well production capacity – increased to 2.1 MGD

5. **Developer Jobs**

- 2225 Mira Vista – New 9-unit apartments – Design Phase
- 2218 Montrose – New 9-unit apartments – Final Plans Approved
- 2454 Montrose – New 16-unit apartments – Under Construction
- 4520 Montrose – New 6-unit apartments – Assessing Connection Fees
- 2341 Mira Vista – New 6-unit apartments – Assessing Connection Fees
- 2314 Montrose – New 5 unit apartments – Assessing Connection Fees

6. **Street Projects**

- Pennsylvania Paving Project – City of Glendale – Under Construction
- Verdugo Paving Project – City of Glendale – Design Phase
- Retractable Bollards on Ocean View – City of Glendale Design Phase
- Sports Medicine Building – CVHS – Design Phase

7. **Field Maintenance & Operations – April 1, 2018 – April 30, 2019**

- **Water Lateral Leaks & Repairs**

4923 El Sereno	2312 Teasley	2234 Maurice
2547 Mayfield	2500 Hermosa	

- **Water Main Leaks**

- 4-inch main – 3300 Block of Brookhill

- **Valve Replacement**

- Replacement of broken valve at intersection of Ramsdell and Sycamore

- **Fire Hydrant Repair**

- No Report

- **Booster Pump Maintenance**

- No Report

- **Reservoir Maintenance**

- Reservoir Inspection & Cleaning – Rosemont, Markridge, Shields, & Edmund #2 – May 20, 2019

- **Sewer Maintenance – April 1, 2018 – April 30, 2019**

- Program on hold until work for the conversion to chloramines at Glenwood and Mills plants are completed

CRESCENTA VALLEY WATER DISTRICT

WATER PRODUCTION REPORT

April 1 - April 30, 2019

Well Production:	51,047,100	Gals		
GWP Production:	4,828,000	Gals		
Gravity Production:	1,493,400	Gals	% GW	53%
Purchased Water:				
FMWD:	50,489,166	Gals		
City of Glendale:	0	Gals	% Import	47%
TOTAL:	107,857,666	Gals		
	331.00	ac-ft		
Glenwood Nitrate Water				
Reclamation Plant:*	11,272,000		*Included in Well Production	

WATER DEMAND COMPARISON

Time Period	Average Daily Usage (gals)	Current Period Change
April 1 - April 30, 2019	3,542,615	
April 1 - April 30, 2018	3,354,084	5.6%
5-yr Average - April 2014 - 2018	3,501,703	1.2%

RAINFALL: April 1 - April 30, 2019 0.19"
Season-To-Date: 29.67"

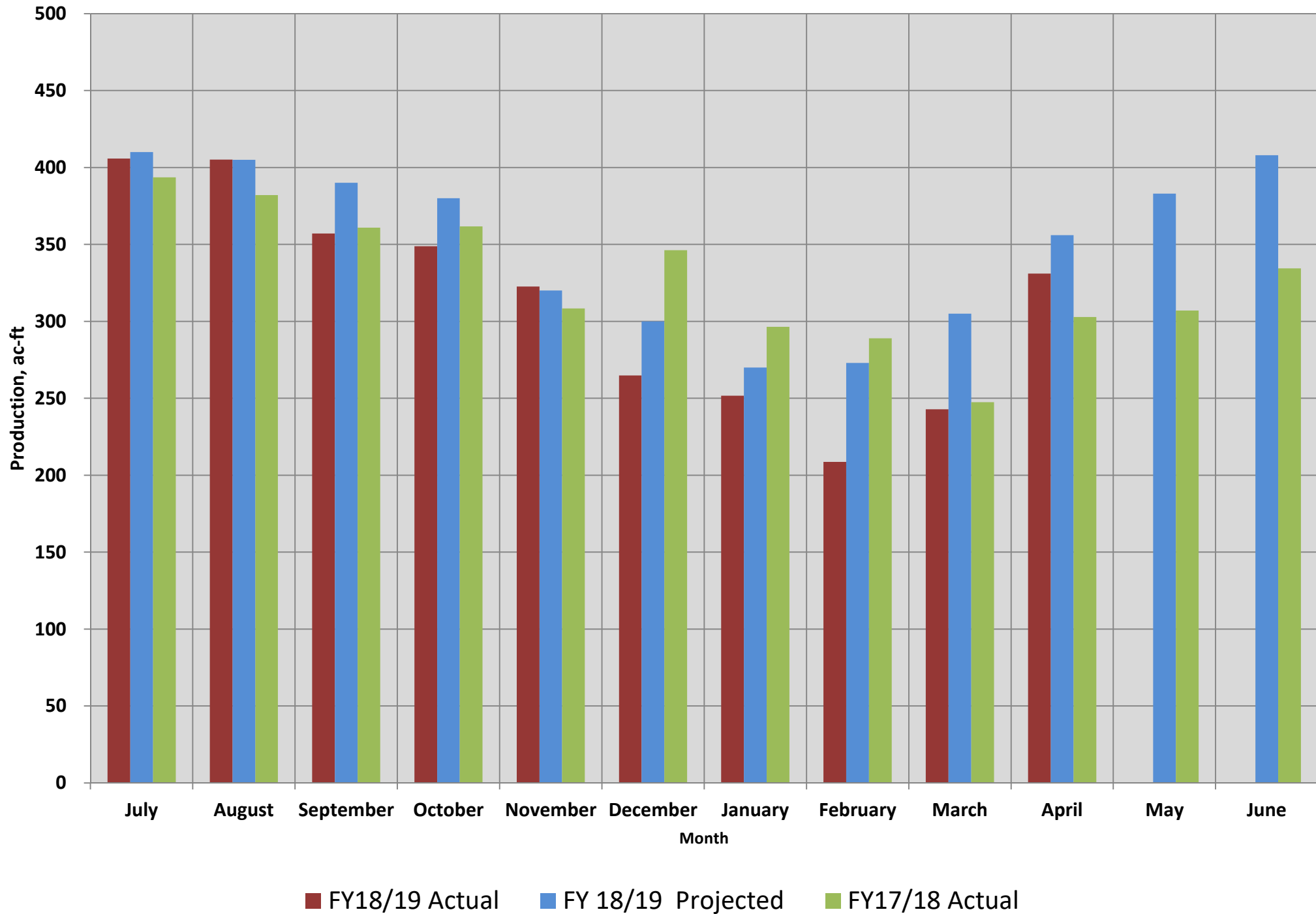
2018/19 Fiscal Year Water Production			WY 18/19 - Groundwater Production Water Rights		GWP (Well 16) Water Production - 2019		Purchased Water Production Tier 2 Allocation - 2019	
Month	Actual Total Water Production (ac-ft)	Projected Total Water Production (ac-ft)	Month	Month	Month	Well Production (ac-ft)	Month	Imported Water Production (ac-ft)
July	406	410	October	115	January	18	January	123
August	405	405	November	108	February	16	February	77
September	357	390	December	103	March	16	March	77
October	349	380	January	111	April	15	April	155
November	323	320	February	116	May		May	
December	265	300	March	149	June		June	
January	252	270	April	161	July		July	
February	209	273	May		August		August	
March	243	305	June		September		September	
April	331	356	July		October		October	
May		383	August		November		November	
June		408	September		December		December	
Total to Date	3,138	3,409	Total to Date	862	Total to Date	65	Total to Date	432
Projected	3,929	4,200	Water Rights	3,294			Tier 2	2,154
% of Projected	74.7%	81.2%	% of Rights	26%			% of Allocation	20%
Remaining	1,062	791	Remaining	2,432			Remaining	1,722

NOTE:

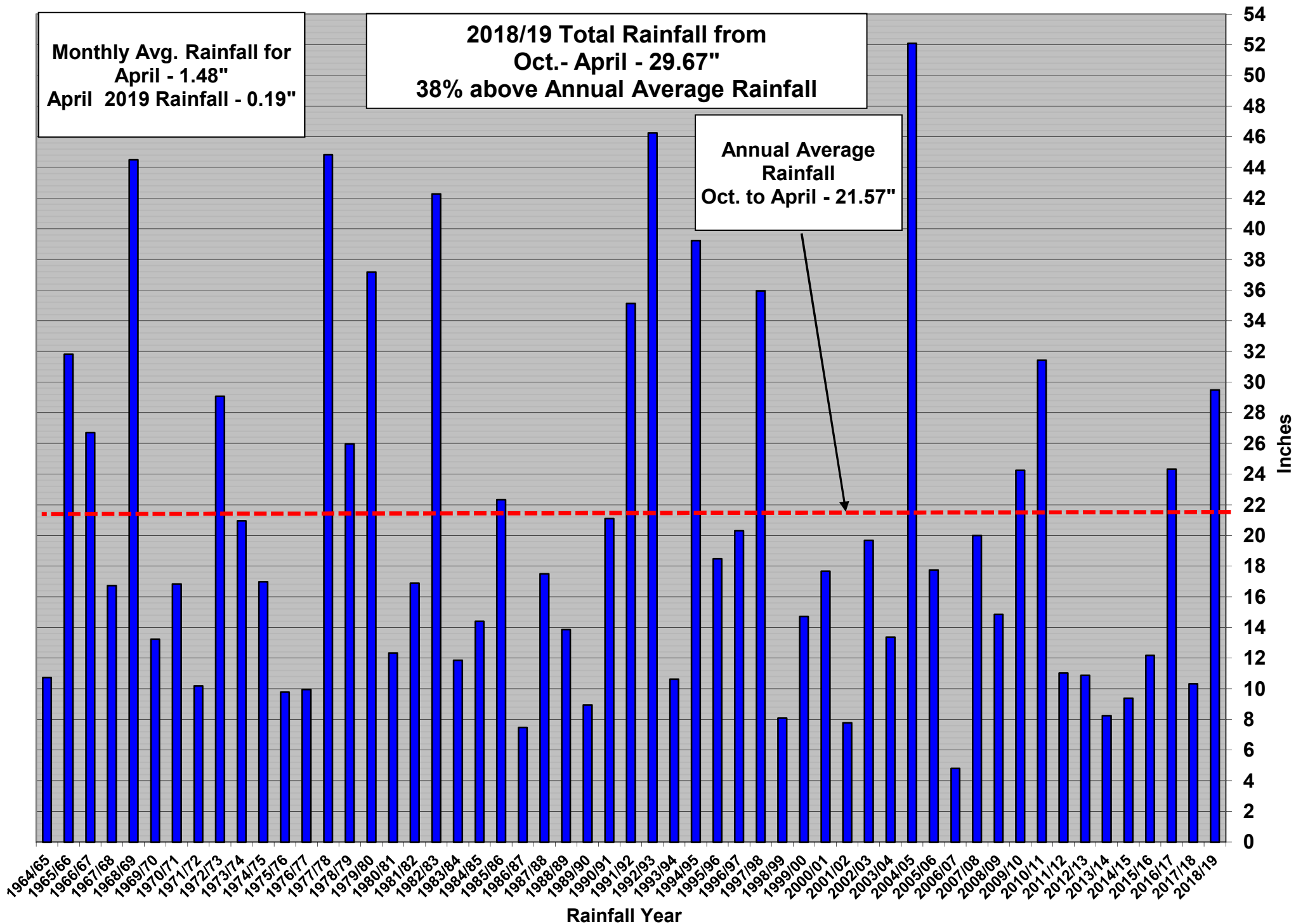
1) Blue Numbers = Estimated Water Production

Monthly Water Production:

FY18/19 Actual, FY18/19 Projected & FY17/18 Actual



Monthly Rainfall - 1964/65 - 2018/19 (Oct.- April)



CRESCENTA VALLEY WATER DISTRICT

MEMORANDUM

DATE: April 26, 2019
TO: Engineering Committee
FROM: David S. Gould, District Engineer
SUBJECT: CVWD Engineering Committee Meeting No. 310

Following is a summary of Engineering Committee Meeting No. 310, held at 3:30 PM on April 26, 2019, at the CVWD main office, and was attended by the following:

Director Kerry Erickson - Committee Chairperson	CVWD
Director James Bodnar	CVWD
Nem Ochoa – General Manager	CVWD
David Gould – District Engineer	CVWD
James Lee – Finance & Accounting Manager	CVWD

1. Status of Groundwater Wells and Well Capacity

Mr. Gould provided an updated chart on water production from 2016 to present that indicated that groundwater production has increased over the last few months. Mr. Gould discussed that water production capacity increased over the last month as operations have been adjusted to increase water flow and water levels within the Verdugo Basin have increased.

2. Discussion of Graphical Information System (GIS) Upgrades

Mr. Gould discussed that it is has been a goal of the Engineering Department to update and improve the District's GIS system including base information of parcels, accounts location of water meters and other base information that can be used to update the CVWD's Customer Information System. Mr. Gould explained that the Department's original intention was to update the GIS system with staff as time allowed. However, the number of developer projects and O & M projects has increased over the year and has not allowed staff to fully concentrate on the detailed work necessary to update the GIS system. Mr. Gould indicated that staff has met with Miller Spatial Services (Miller), which provides GIS support services to discuss using their services to update CVWD's GIS system and to provide this information in a "cloud" environment for use by CVWD staff.

Miller provided a scope of work and proposal, which includes reviewing CVWD's existing GIS system, data hosting and updating the base map and providing integration with the District's CIS system at a cost of \$31,175. The Engineering Committee reviewed the information and recommended awarding a contract at the next Board meeting.

3. Discussion of Advanced Metering Infrastructure (AMI) Project Update, Project E-998

Mr. Gould discussed the next step with implementation of AMI will be to prepare an RFP for the procurement and installation of AMI communication network. Staff requested a proposal from UtiliWorks for the development of a RFP to solicit vendors that can provide an AMI communications network that meets the District's needs. Mr. Gould also discussed a preliminary project schedule and cost estimate to bring the meters into the AMI network system over a 5-year period to spread the cost of the overall project.

UtiliWorks provided a proposal for consulting services at a cost \$28,900 to prepare a RFP for the procurement and installation of the AMI communication network. The Engineering Committee reviewed the information and recommended awarding a contract at the next Board meeting.

4. FY 19/20 – Capital Improvement Project (CIP) Program

Mr. Gould discussed the draft FY 19/20 CIP budget and priority list, which is based on a 7% water rate increase and transfer of the MTBE reserve fund with the Engineering Committee. The draft FY 19/20 CIP budget includes various projects for the coming year and for the next 5-years including well rehabilitation, groundwater stormwater recharge, steel tank rehabilitation, pipeline replacement, booster pump upgrades; installation of AMI system, SCADA hardware upgrades and improvements at William Reservoir.

5. FY 18/19 CIP Project Update:

a. TTHM Study and Upgrades to Disinfection System, Project E-995

Mr. Gould provided an update on the ammonia skids, the precast concrete vault, construction schedule, coordination with the Division of Drinking Water (DDW) to amend the District's permit to operate, and projected date to convert to chloramines. Mr. Gould indicated that the lead time for the precast concrete vault has been delayed with delivery scheduled near the middle of May 2019.

b. Steel Reservoir Rehabilitation at Oak Creek Reservoir #2, Project E-970

Mr. Gould discussed the status of steel reservoir rehabilitation at the Oak Creek Reservoirs. Mr. Gould indicated that Oak Creek Reservoir #1 was completed in May 2018. The work at Oak Creek Reservoir #2 was completed on April 9, 2019.

c. Well 2 and Related Facilities, Project E-956

Mr. Gould indicated that APTwater and staff have been working with DDW on responding to comments, which included providing an Operations & Maintenance Manual. Staff resubmitted to DDW on April 3, 2019, and it anticipates DDW will approve the system by the end of May 2019. In addition, APTwater has been training CVWD's water operations staff over the past few weeks to take over operations and maintenance.

d. Rehabilitation of Wells 1 & 7, Project E-999

Mr. Gould discussed the status of the rehabilitation of Wells 1 and 7 which is part of the District's ongoing well rehabilitation program. The contractor, General Pump Company completed the work on Well 1 and Well 1 is back into service. General Pump will be starting on Well 7 in early May 2019.

e. Stormwater Capture Project, Project E-985

Mr. Gould discussed that John Robinson Consulting (JRC) has been assisting CVWD and their consultant, Wood Environmental with developing a conceptual plan to depict the planned facilities at CVC Park. Mr. Gould provided a project update which included reviewing the Preliminary Conceptual Plan, developing a preliminary cost estimate and cost/benefit analysis that will be discussed further at the next Engineering Committee meeting.

6. Next Meeting

- May 24, 2019 at 9:00 am

Adjournment - The Engineering Committee meeting was adjourned at 4:48 pm on April 26, 2019

**See CVWD Website www.cvwd.com
for the Engineering Committee Packet**

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

April 26, 2019 at 3:30 PM

Posted April 25, 2019 at 9:00 AM

Call to Order

Adoption of Agenda

Information Items

1. Status of Groundwater Wells and Well Capacity
2. Graphical Information System (GIS) Upgrades
3. Advance Metering Infrastructure (AMI) Project Update, Project E-998
4. FY 19/20 – Capital Improvement Project (CIP) Program
5. Project Update
 - TTHM Study and Upgrades to Disinfection System, Project E-995
 - Well 2 and Related Facilities, Project E-956
 - Well Rehabilitation of Wells 1 & 7, Project E-999
 - Stormwater Capture Facilities at CVC Park, Project E-985

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.

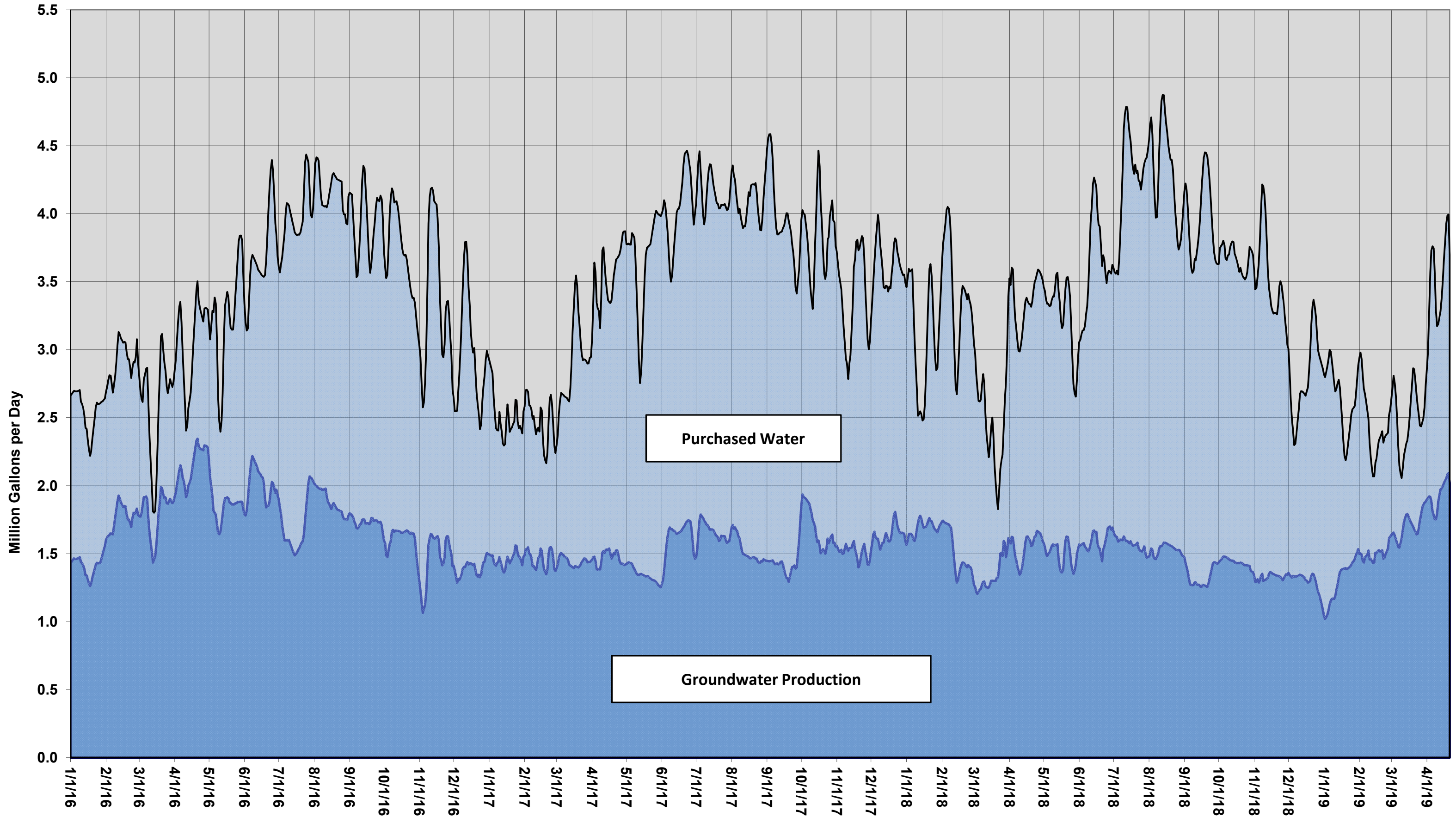
Committee Member's Request for Future Agenda Items

Next Engineering Committee Meeting – May 24, 2019

Adjournment

Water Production Chart 2016 - 2019

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



CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 2
April 26, 2019

To: Engineering Committee
From: David S. Gould, P.E. – District Engineer
Subject: Graphical Information System (GIS) Update

INFORMATION ITEM:

Graphical Information System (GIS) Update: Award a contract to Miller Spatial to provide GIS support services to upgrade CVWD's GIS system for a cost of \$31,175.

BACKGROUND:

An Engineering Department goal that was set in August 2018 was to update and improve the District's GIS system to include base information of parcels, accounts location of water meters and other base information. This information will be utilized as an update the CVWD's Customer Information System and provide update data for staff.

DISCUSSION:

It was the Department's original intention was to update the GIS system with staff as time allowed. However, the number of developer projects and O & M projects has increased over the year and has not allowed staff to fully concentrate on the detailed work necessary to update the GIS system.

Staff met with Mr. David Manuwa from Miller Spatial (Miller), which provides GIS support services to discuss using their services to update CVWD's GIS system and to provide this information in a "cloud" environment for use by CVWD staff.

Miller provided a proposal with a scope of work that includes reviewing CVWD's existing GIS system, data hosting and updating the base map and providing integration with the District's CIS system.

RECOMMENDATION:

It is staff's recommendation to award a contract to Miller Spatial for \$31,175 at the next Board meeting on May 14, 2019. There is funding available in the FY 18/19 Administrative Consultants budget for these services.

Prepared & Submitted by:



David S. Gould, P.E.
District Engineer

Attachment:

1. Miller Spatial proposal dated April 16, 2019



PROPOSAL

GEOGRAPHIC INFORMATION SYSTEMS (GIS) CONSULTING SERVICES

Submitted To: Crescenta Valley Water District
Attention: David Gould
2700 Foothill Blvd
La Crescenta, CA 91214

Submitted On: April 16, 2019



Miller Spatial Services
3499 Tenth Street
Riverside, CA 92501



Contents

Cover Letter:3

General Information:4

Project Scope:5

Compensation:7

Project Schedule:8

Cover Letter:

RE: Geographic Information System (GIS) Consulting Services

Dear Mr. Gould,

It was a pleasure to meet with you and the other staff at the Crescenta Valley Water District (CVWD) office. As we discussed, this proposal is for GIS Consulting Services to CVWD to assist the district in the evaluation and updating of the existing GIS data, CIS water and sewer tables, associated spatial datasets, user accessibility, and data management to help streamline workflow processes. The scope of services in this proposal is for evaluating existing databases, systems, and work already completed by CVWD. More importantly, provide deliverables and recommendations for data consolidation, system connectivity, and the foundation to meet the district's current and future GIS needs.

The goal of CVWD is to leverage its investment in technology, consolidate information, improve data quality, increase user collaboration, and expand GIS within the agency. As an Esri business partner, we will work with Esri on behalf of district to identify a GIS solution that best fits CVWD's workflows and needs. CVWD provides services to approximately 8,000 accounts that include both water and wastewater. The district is using Springbrook Utility Billing software for customer billing and information. It is critical, that GIS and CIS data to be synchronized allowing for better decision making, customer service, and operational maintenance.

Miller Spatial Services (MSS), is a leading GIS Consulting firm specializing in the development and deployment of Esri Technologies and Enterprise Asset Management Systems. Our, customers consist of public utilities (Water) and local government agencies. We bring over fifty-years of combined work experience to this project.

This proposal is valid and binding for a period of sixth (60) days after the proposal due dates. Thank you for considering Miller Spatial Services for this project and we look forward to working with CVWD. Should you have any questions, feel free to contact me or David Manuwa.

Sincerely,



Bruce Miller, GISP
Founder | GIS Consultant



General Information:

Miller Spatial Services, LLC (Miller) is a multi-service organization providing specialized services in asset lifecycle management, Geographic Information Systems (GIS), and application software services. Miller provides professional services including consulting, implementation, training, staffing and technical support.

The Miller Spatial team has implemented and customized Esri software and GIS data in over 50 organizations. Our team has an unmatched breadth of experience, unique talent and industry leading know-how that will complement your existing GIS program and server your future needs.

Miller Spatial is comprised of a core group of GIS professionals, as well as Asset Management, networking, and programming professionals with extensive experience in the industry. Miller Spatial has 10 technical employees and specialized network of trusted partners that can be utilized as needed. Our employees have expertise in Esri software implementation, customization and integration, application development, asset management, and database administration.

Miller Spatial sets the standard for high quality CMMS/AMS implementation projects, particularly within organizations who manage water, sewer, and park assets. Our asset management and GIS teams are staffed with a wide range of industry and technical experts, combining for over 30 years of experience in GIS and asset management. We have achieved certification with the Institute of Asset Management and maintain active partnerships with ESRI, Cityworks, CitySourced and others. MSS currently has about 50 active clients throughout the western United States, but our business is primarily in Southern California and can be on-site, same day if necessary.



MSS is fully insured and bonded for all services that we offer. We are a Dun & Bradstreet verified business (DUNS 03-076-7626). We have been contracted for over \$1,000,000 in services over the past 5 years, and the company has no debt.



PARTNER NETWORK



We are official Business Partners of Esri, Cityworks®, and CitySourced. Each of these partnerships provides opportunities for access to developer teams and support personnel as needed. Our employees also have access to training and education with these specific partners that keeps them up to date on the latest developments and technologies. Our strong relationships allow us to be early accepters for the latest releases and applications.

Location and Address: Miller Spatial Services, LLC
3499 Tenth Street
Riverside, CA 92501

Telephone Number: (888) 890-5611

Company Officer: Bruce Miller

President
brucemiller@millerspatialservices.com
(888) 890-5611 x700 office
(951) 505-9276 mobile

Key Contact: David Manuwa
dmanuwa@millerspatialservices.com
(310) 953-1844 mobile

Form of Business: Limited Liability Company

Federal Tax ID Number: 45-4791831

Company Owner: Bruce Miller, President

Surety Information: General Liability, Automobile, E&O, Workers Compensation (Certifications)

Project Scope:

TASK 1: PROJECT SETUP AND KICKOFF MEETING

A project initiation meeting will be scheduled with CVWD staff to review the project scope of work, timeline, and discuss team member roles and responsibilities. MSS will collect a copy of datasets (Water/Sewer/Billing) as well as any additional information deemed relevant to the success of the project.

- Review Project Scope of Work
- Review Project Timeline
- Identify Team Member Roles and Responsibilities
- Data Acquisition

TASK 2: KNOWLEDGE DISCOVERY AND DATA ASSESSMENT

MSS will perform a review and evaluation of CVWD's existing GIS water and sewer data in comparison to Esri's Utility Data Model and identify any missing fields or data that may be required by an Esri' application or template which CVWD may use in the future. The evaluation process will determine the feature status, data themes (layers), data content, data integrity, connectivity, and flush out any unforeseen shortfalls related to the GIS database. A follow-up meeting will be scheduled to discuss the findings with District staff.

- Identify Account Status
- Review Data Themes (points, lines, polys)
- Review Data Content (structure and standards)
- Review Data Integrity (connectivity and tables)

TASK 3: DATA HOSTING AND SYSTEM CONNECTIVITY (GIS/CIS)

MSS will review the existing GIS and CIS databases and identify critical attribute fields and information to establish connectivity between the GIS and CIS Billing systems. Once, this has been completed the team will update the GIS water and sewer geodatabase feature class to include the necessary attribute fields and information for a seamless data migration of the two systems.

- Establish data connectivity between the GIS and CIS databases
- Review existing Esri licensing and provide a hosted solution roadmap
- Define data management and storage protocols
- Define end-user needs

TASK 4: BASE MAP DATA DISCOVERY AND ACQUISITION

MSS will review existing base map spatial datasets and acquire updated spatial datasets from surrounding local agencies and County (If available), to support objectives within CVWD's service area. Once, the spatial datasets have been acquired and migrated into the GIS system, CVWD staff will have the ability to overlay the water and sewer data to validate CVWD's accounts and service area. The validation process provides a representation of accounts currently serviced by CVWD.

- Acquire spatial datasets (Boundary) for local agencies and county
- Migrate boundary spatial datasets into CVWD GIS system
- Perform CVWD Account Assessment within Service Area

TASK 5: CVWD CIS ACCOUNT ASSESSMENT AND DATA UPDATES

MSS will review the existing CVWD account table and compare the Account No. to Ref No. and define and capture critical account information related to water and sewer accounts. MSS will update the CIS water and sewer account information to reflect Account, Lot or Parcel, Service Type, Water, Sewer or combination, Active, Inactive or Suspended.

- Review CVWD Account Table
- Update CVWD Water/Sewer Account Table

TASK 6: METER (CIS) INTEGRATION WITH GIS WATER GDB

MSS will migrate water meter information from the CIS database into the GIS water geodatabase. Once, the data has been migrated MSS will work with CVWD staff to ensure the newly updated feature-class layer is compatible with CVWD GIS system and meets CVWD requirements.

- Update Water Meter Geodatabase (Point Layer)
- Training if required

TASK 7: ASSESSOR DATA AND BILLING DATA ASSESSMENT

MSS will conduct a review and comparison of the County assessor database to CVWD's CIS account (Meter) database and identify data relationship discrepancies i.e. One-to-One, One-to-Many, between the assessor information (APN) and CIS meter information (Ref No.). MSS will update the meter database to reflect the most update locational information (APN/Address/RefNo.), based on the information available from the County and CVWD.

- Updated CVWD Table
- Updated Assessor Information (If available)
- Identify other options to County Assessor offerings

DELIVERABLES:

- Project Kickoff Meeting Notes
- Knowledge Discovery and Data Assessment Findings Document
- Data Hosting Road Map and GIS/CIS Data Connectivity
- Base Map (Boundary) Findings and Data Acquisition
- GIS and CIS Account Findings and Data Updates
- Update GIS Water Geodatabase (Meter) Information
- Updated CVWD Table and Property Information (If available)

Compensation:

Task	Description	Total Cost
1	Project Setup and Kick Off Meeting	\$ 1,500
2	Knowledge Discovery and Data Assessment	\$ 2,500
3	Data Hosting and System Connectivity (GIS/CIS)	\$ 5,800
4	Base Map Data Discovery and Acquisition	\$ 1,200
5	CVWD CIS Account Assessment and Data Updates	\$ 5,800
6	Meter (CIS) Integration with GIS	\$ 6,700
7	Assessor Property and CVWD Meter Assessment	\$ 7,675
	Total Project Cost	\$ 31,175

Total project cost not exceed \$31,175. Tasks 1 through 7 will be billed fix fee.

Project Schedule:

The project schedule will be dependent on the availability of District staff. MSS anticipates that this scope of work can be completed by June 28, 2019 after the Project kickoff meeting depending on the availability of District staff for meetings and data acquisition.

Thank you for considering Miller Spatial Services for this project. Please contact me or David Manuwa if you have any questions or concerns.

Sincerely,



Bruce Miller, GISP
President | GIS Consultant

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the last date below written.

President, Miller Spatial Services, LLC

CVWD Authorizing Signature

Date

Date

CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 3
April 26, 2019

To: Engineering Committee
From: David S. Gould, P.E. – District Engineer
Subject: CVWD's Advanced Metering Infrastructure Project Update

INFORMATION ITEM:

Award a contract to Utiliworks Consulting to provide services to prepare a Request for Proposal (RFP) for the procurement and installation of the AMI communication network for a cost of \$28,900.

BACKGROUND:

UtiliWorks made a presentation for the AMI business case at a previous Board meeting, which was well received by the Board. UtiliWorks preliminary cost estimate for the entire project was \$3.3M over an initial 30-month period. The Board requested that staff look into making the overall project scalable, where the AMI network and customer engagement portal would be installed in the next 2-year and to bring the meters into the AMI network system over a longer period of time, thereby spreading the cost of the overall project over a 5-year period on the attached AMI summary.

DISCUSSION:

As the District proceeds forward with AMI, the next step will be preparing an RFP for the procurement and installation of AMI communication network. Staff requested a proposal from UtiliWorks for the development of a RFP to solicit vendors that can provide an AMI communications network that meets the District's needs (see attached proposal).

UtiliWorks' scope of work include meeting with staff to finalize core functions of the AMI Network such as:

- Functional Requirements: What does CVWD want this new technology to do?
- Telecommunications Requirements: Does CVWD have existing structures to mount communications equipment and what backhaul methods are available?
- Business Requirements: What business needs is fulfilled by an AMI Program?
- Integration Requirements: How does CVWD want this new technology to interface with other systems?
- Performance Requirements: What measures of performance should be specified in the RFP for the vendor to satisfy the business requirements?
- Reporting Requirements: What types of reports and reporting tools will the District need to optimize the information?

After meeting with staff, UtiliWorks will prepare a scope of work for the RFP with the purpose of providing necessary information to the AMI Network vendors for a complete project. UtiliWorks will also provide a list of potential vendors that can complete the work and include options for purchasing or leasing the equipment.

UtiliWorks proposal to provide consulting services is \$28,900 and staff will be bring the award of contract at the next Board meeting on May 14, 2019. There is funding available in the FY 18/19 Administrative Consultants budget for these services.

The project schedule will be for UtiliWorks to start on May 15, 2019 and complete the RFP by July 31, 2019. The RFP will not be sent out to vendors until the Board has approved the FY 19/20 Water Budget and CIP program, thereby giving the Board additional time to discuss possible funding options for the AMI program.

Summary of AMI Program for FY 19/20

The District's AMI program for FY 19/20 includes coordination, deployment, programing and integration of the AMI communications network (as discussed above), installation of a small amount of lids and connectors to perform proof of concept, incorporating the AMI communications network into the District's current Customer Information System (CIS), and GIS system, and resume water meter replacement in Pressure Zones 1, 2 & 3 by CVWD crews.

The District's project manager will be David Gould, who will coordinate the project with CVWD staff and field crews. Mr. Gould will also need additional consulting services from Utiliworks including evaluation of proposals, contract negotiations, maintaining the overall project schedule; working with all project participants to monitor progress and adjust the work plan as needed to stay on schedule; facilitating regular project progress and other meetings; creating project status reports; and, tracking project budgets for the installation, programing and integration of the AMI communications network. Staff has estimated this cost to be approximately \$95,000, which is part of the overall cost for AMI communications network deployment.

AMI Program – FY 20/21 to FY 23/24

As shown on the attached AMI project summary, staff is planning to implement the AMI program over a five year period. As shown, each year, a portion of the ¾" and 1" meters will be equipped with new lids and connectors, the larger meters will be incorporated into the AMI system and deployment of the customer engagement platform for customer interaction. Other tasks that still need to be discussed further are opt-out policy, community outreach, changing billing period from bi-monthly to monthly and other business policies.

The project schedule as proposed above is a 5-year deployment schedule based on current funding available. If the District receives a \$300,000 grant from the US Bureau of Reclamation, the project schedule will need to be accelerated as the USBR Grant stipulates the project has to be completed in 2-years. If the District decides to obtain bond financing for the CIP program, then the AMI program need to be completed within 30 to 36 months to meet the requirements of the bond financing.

SUMMARY:

It is staff's recommendation to move forward with the AMI program by utilizing UtiliWorks to prepare the RFP to solicit vendors that can provide an AMI communications network for \$28,900. The award of contract will be placed on the agenda at the next Board meeting on May 14, 2019.

Prepared & Submitted by:



David S. Gould, P.E.

District Engineer

Attachments:

1. Advanced Metering Infrastructure (AMI) Project Summary
2. Utiliworks Consulting Proposal dated April 17, 2019

Advanced Metering Infrastructure (AMI) Project Summary

Staff utilized the AMI Recommendations Memorandum (Memo) dated 4/16/19 from UtiliWorks to develop a preliminary project schedule and estimated project costs for discussion and as shown below.

FY 19/20 – Year 1

- AMI communication network
 - Procure AMI Network Vendor
 - Installation AMI Network
 - AMI Software programing and integration
 - Program Management - Consultant
- CIS & GIS programing and integration
 - Integration of CIS program to accept data from AMI Network
 - Upgrade GIS data from information from AMI Network
 - Program Management - CVWD
- Proof of Concept – Alpha & Beta Testing
 - Program Management – Consultant
 - Install and testing – 50 meters – CVWD crews
- Meter Replacement
 - Install ¾" & 1" meters in Zone 1, 2 & 3 - CVWD Crews
 - Program Management – CVWD

YEAR 1 - Summary FY 19/20				Comments
Task	Quality	Unit Cost	Cost	
AMI/MDMS Deployment	1	\$289,575	\$289,575	RFP, award, integration, installation, testing
CIS & GIS Integration	1	\$65,000	\$65,000	Integration AMI into CIS & GIS
Proof of Concept - 50 meters	50	\$175	\$8,750	Replacing Meters, Lids & Connectors (CVWD)
Project Management - UtiliWorks	1	\$15,000	\$15,000	Alpha & Beta Testing - 50 meters (CVWD)
Pressure Zone 1,2 & 3 - Meters Only	1,190	\$150	\$178,500	Install new meters (CVWD)
			\$556,825	

FY 20/21 – Year 2

- MDMS and Customer Engagement Platform (MDMS/CEP)
 - Program Management - Consultant
 - Procure MDMS/CEP Vendor
 - Installation MDMS/CEP
 - MDMS/CEP Software programing and integration
- AMI Connectors at meter box
 - Zone 9, 10 & 11 – Contractor
 - Meter Box Lids and Connectors
 - Program Management - CVWD
- Replace 1-½" and 2" Meters
 - Install 1-½" and 2" Meters – CVWD crews
 - Install meter lids and connectors – CVWD crews
 - Program Management – CVWD

YEAR 2 - Summary FY 20/21				Comments
Task	Quality	Unit Cost	Cost	
MDMS + Customer Engagement Platform	1	\$218,450	\$218,450	RFP, award, integration, installation, testing including Project Management
Project Management - CVWD	1	\$60,000	\$60,000	Project Management for Proof of Concept & install of Zones 9 - 11
Zone 9, 10 & 11 - lids & connectors	694	\$175	\$121,450	New Lids, Connectors & Labor Cost (contractor)
1.5" & 2" Meter, replace	179	\$2,500	\$447,500	Install new meters (CVWD)
1.5" & 2" lids & connectors	212	\$750	\$159,000	New Lids, Connectors & Labor Cost (CVWD)
Total			\$787,950	

FY 21/22 – Year 3

- AMI Connectors at meter box
 - o Zone 6, 7 & 8 – Contractor
 - o Meter Box Lids and Connectors
 - o Program Management - CVWD
- Replace 3” and 4” Meters
 - o Install 3” and 4” Meters – CVWD crews
 - o Install meter lids and connectors – CVWD crews
 - o Program Management – CVWD

YEAR 3 - Summary FY 21/22				Comments
Task	Quality	Unit Cost	Cost	
Zone 6, 7 & 8 - lids & connectors	1,395	\$175	\$244,125	New Lids, Connectors & Labor Cost (contractor)
Project Management - CVWD	1	\$60,000	\$60,000	Project Management (CVWD)
3" & 4 " Meter, replace	15	\$3,500	\$52,500	Install new meters (CVWD)
3" & 4" - lids & connectors	31	\$750	\$23,250	New Lids, Connectors & Labor Cost (CVWD)
Total			\$379,875	

FY 22/23 – Year 4

- AMI Connectors at meter box
 - o Zone 3, 4 & 5 – Contractor
 - o Meter Box Lids and Connectors
 - o Program Management – CVWD

YEAR 4 - Summary FY 22/23				Comments
Task	Quality	Unit Cost	Cost	
Pressure Zone 3, 4 & 5	2,477	\$175	\$433,475	New Lids, Connectors & Labor Cost (contractor)
Project Management - CVWD	1	\$60,000	\$60,000	Project Management
Total			\$493,475	

FY 23/24 – Year 4

- AMI Connectors at meter box
 - o Zone 1 & 2 – Contractor
 - o Meter Box Lids and Connectors
 - o Program Management - CVWD

YEAR 5 - Summary FY 23/24				Comments
Task	Quality	Unit Cost	Cost	
Pressure Zone 1 & 2	2,415	\$175	\$422,625	New Lids, Connectors & Labor Cost (contractor)
Project Management - CVWD	1	\$60,000	\$60,000	Project Management
Total			\$482,625	

Total Estimated Project Costs	\$2,700,750	
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CRESCENTA VALLEY
WATER DISTRICT

Advanced Metering Infrastructure Phase II RFP Development



Date: April 17, 2019

Crescenta Valley Water District
Attn: David S. Gould, P.E.
District Engineer
2700 Foothill Blvd.
La Crescenta, CA 91214

UtiliWorks Consulting, LLC.
2351 Energy Dr. STE 1010
Baton Rouge, LA 70808

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UtiliWorks™

Strategic Utility Consulting

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Exhibit A - Scope of Work

Purpose

This Scope of Work (SOW) specifies, in detail, the services UtiliWorks Consulting, LLC. (“UtiliWorks”) will provide Crescenta Valley Water District (“CVWD” or “the District”) related to Advanced Metering Infrastructure (AMI) RFP Development Support (Phase II). This SOW is authorized following the completion of UtiliWorks/CVWD’s Advanced Metering Infrastructure Strategic Planning and Roadmap Development (Phase I) activity and the District’s Board of Directors recommendation to proceed with the project.

Assumptions

- A single AMI/MDMS/Customer Engagement Platform/ Meter Installation RFP will be produced.
- CVWD will be responsible for all legal and purchasing requirements (terms and conditions) to be outlined in the RFP.
- CVWD will assign a project manager to participate in status calls with the UtiliWorks project manager to review open issues and remove barriers to progress.
- Work will be performed by UtiliWorks resources either on-site or off-site in the completion of deliverables.
- CVWD will provide access to key resources that will be required.
- CVWD agrees to provide the UtiliWorks project team with online, interactive access capability as well as workspace for consultants while on-site.
- Any required state, city, or local government taxes, fees, or business licenses costs will be invoiced to the client at actual cost incurred.
- The anticipated start for the project is mid-May 2019. Based on current assumptions, the expected end date is July 2019.

Scope of Work Activities

Task 1 - Kickoff and Procurement Strategy

Prior to launching the project, UtiliWorks will work with CVWD to compile the internal project team organizational chart for the procurement phase which will facilitate effective communications. UtiliWorks will hold an on-site kickoff meeting to review the project scope, timeline, communications plan, and housekeeping items.

UtiliWorks will conduct a procurement strategy meeting to discuss different AMI implementation options/scenarios and the critical RFP requirements, including the option to solicit multiple vendors for separate components of the system (e.g. meters, AMI system, meter data management system, etc.). The intent of this session is to ensure CVWD is aware of all the possible approaches before beginning work on the actual RFP.

Deliverables: RFP Development Kickoff (.ppt)*

Task 2 - Requirements and Specifications

UtiliWorks' approach to the procurement of technology is premised on the need to identify tight, detailed specifications and requirements. UtiliWorks will conduct discovery with the project stakeholders to develop specifications based on CVWD's business goals, objectives, current situation, and plans for future changes. Findings from the requirements workshops and the AMI strategic planning and roadmap phase, will be utilized in conjunction with our findings on known system requirements and documentation to arrive at a "foundational" set of requirements for CVWD. The following topics and questions will be addressed that will roll up to the RFP document:

- Functional Requirements - What does CVWD want this new technology to do?
- Telecommunications Requirements - Does CVWD have existing structures to mount communications equipment? What backhaul methods are available?
- Business Requirements - What business needs are fulfilled by an AMI Program?
- Integration Requirements - How does CVWD want this new technology to interface with other systems?
- Performance Requirements - What measures of performance should be specified in the RFP / Scope of Work for the vendor to satisfy the business requirements?
- Reporting Requirements - What types of reports and reporting tools will the District need to optimize the information?

Deliverables: AMI, MDMS, Customer Engagement Platform, and Installation Requirements and Specifications workbooks (.xls)*

Task 3 - RFP Draft Scope of Work

UtiliWorks will prepare the RFP Scope of Work with the intent to provide the vendor community with essential information to prepare a robust response that is tailored to the District. UtiliWorks will incorporate the SOW into CVWD's standard RFP boilerplate and review with the District team (including purchasing and legal) to ensure that all requirements are accurately reflected. It is anticipated that there will be several iterations for the RFP draft until we reach the point where the RFP is complete and acceptable for publication. UtiliWorks will also compile a comprehensive list of potential proposers that would represent viable options to satisfy the goals and requirements of the District.

Deliverables: Publish-ready RFP (.doc), Vendor List and Contact Information (*.xls)*

Exhibit B - Cost

Fees

The services in this task order are for a fixed fee, not to exceed price of \$28,900 for this scope of work which is inclusive of all services and estimated travel. Travel is estimated at 3-person trips, to be billed at cost, not to exceed \$4,500.

UtiliWorks will invoice CVWD monthly based on progress against percent of task completed. Travel will be billed monthly at actual cost. Details are outlined in the table below.

Tasks	Fee
Task 1 - Kickoff & Procurement Strategy	\$6,400.00
Task 2 - Requirements and Specifications	\$8,400.00
Task 3 - RFP Development	\$9,600.00
Travel and Expenses Estimate (NTE)	\$4,500.00
Total	\$28,900.00

CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 4
April 26, 2019

To: Engineering Committee
From: David S. Gould, P.E. – District Engineer
Subject: FY 19/20 Capital Improvement Project (CIP) Program

DISCUSSION:

Staff and Board have been discussing the FY 19/20 CIP program at the last few Board meetings with respect to the number of projects, project funding options (i.e. water rate increase, Pay Go, Debt Financing etc.). The attached FY 19/20 CIP program priority list and estimated costs is based on a 7% water rate increase and transfer of the MTBE reserve fund for review and discussion from the Engineering Committee. In addition, it has been suggested to assemble a Board CIP workshop to further discuss projects, priority and funding options.

SUMMARY - The following is a summary goals, objectives and projects for the FY 19/20 CIP program:

1. WATER SUPPLY

GOAL: Provide a sustainable water supply to meet existing and future water demands.

1. Groundwater Wells – Produce annual adjudicated rights of 3,294 ac-ft per water year
2. Imported Water – Utilize imported water to meet demands and to stay within FMWD's Tier 1 limits per calendar year
3. Groundwater Basin Recharge – Recharge the Verdugo Groundwater basin with other water sources such that it will increase the amount of groundwater water available in the basin and lessen the effects of fluctuating water levels during droughts or dry weather conditions
4. Recycled Water – Develop a plan to utilize recycled water for irrigation customers

Groundwater Wells:

OBJECTIVE: Groundwater Wells:

1. Maintain CVWD's existing groundwater wells through Well Rehabilitation
2. Install at least two (2) new wells or re-activate an existing well within the next 5 to 10 years to increase CVWD's ability to produce its adjudicated right in the Verdugo Basin and replace 70 year wells that are well beyond the end of their useful life

Objective No. 1 - Well Rehabilitation – Well rehabilitation projects include repairing or replacing pump and motors assemblies, cleaning or chemical treatment of well casings, installation of well liners, replacement of meters, valves or other appurtenances which has been ongoing since 1998

CVWD - Well Rehabilitation Projects - 1998 - 2018																							
Well No.	Location	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
1	3246 Mills Ave						X										X					X	3
2	4029 Lowell Ave										X												1
5	3937 Pennsylvania		X					X										X			X		4
6	3730 Glenwood Ave	X						X															2
7	3117 Mills Ave			X					X													X	3
8	1425 Val Verde			X	X			X										X		X			5
9	3312 Honolulu							X			X		X					X					4
10	3730 Glenwood Ave				X						X					X					X		4
11	3812 Honolulu					X								X					X				3
12	3730 Glenwood Ave								X			X				X		X					4
14	2760 Sycamore	X		X			X	X				X			X	X							7
15	3730 Glenwood Ave				X					X													2
16	2740 Hermosa Ave																			X			1
17	3246 Mills Ave																						0
	Total	2	1	3	3	1	2	5	2	1	3	2	1	1	1	3	1	4	1	2	2	2	43

FY 19/20 - Rehabilitation of Well No 11 & 14 – The well efficiencies for Well 11 and Well 14 were tested at the end of 2018 and they were 24.6% and 32.1% respectfully. If the well efficiencies were increased through down-sizing pumps and well rehabilitation to about 56%, the District could see an electrical cost savings around \$22,000 per year. Well rehabilitation projects typically include repairing or replacing the pump and motor assembly, cleaning or chemical treatment of well casing, replacement of meters, valves or other appurtenances.

Project Schedule: The project will be designed in-house using previous bid specification and should be completed by the end of September 2019.

The project will be advertised for bids in October 2019 and award a contract in November 2019. Construction will begin in January 2020, during the low winter demand and completed by the end of May 2020.

Cost Estimate: - Staff's engineer's cost estimate is based on previous bids provided in 2017 and 2018. As shown in the table below, the cost estimate is \$95,000 per Well.

Project Payback: Staff anticipates that Well 11 could see a 50% increase in production from 65 gpm to 100 gpm and Well 14 could see a 50% increase in production from 70 gpm to 105 gpm. Well 11 & 14 are projected to produce an additional 9.3 ac-ft per month. There is an approximate cost difference of \$700/ac-ft between import and local water production. CVWD would see a monthly cost savings of \$6,505, not including efficiency gains of the pump and motor assembly. The payback period for this work is estimated to be about 24 months.

Well 11 & 14 - Engineer's Cost Estimate					
Bid Item	Description	Quantity		Unit Cost	Amount
1	Mobilization and Demobilization	1	LS	\$15,000	\$15,000
2	Remove Existing Pump Assembly, Line Shaft and Column Pipe	2	LS	\$4,500	\$9,000
3	Wire Brush Casing and Airlift/Bail Sediment	48	Hr	\$320	\$15,360
4	Chemical Treatment Using Acids and Dispersants	2	LS	\$19,000	\$38,000
5	Mechanical Development	24	Hr	\$450	\$10,800
6	New Pump & Motor Assembly	2	LS	\$19,500	\$39,000
7	Column Piping, Line Shaft and Chemical Feed Tube	400	LF	\$45	\$18,000
8	Start-up and Testing	2	LS	\$3,420	\$6,840
	Subtotal				\$152,000
	Contingency	20%			\$30,400
	Video Inspection & Engineering/Inspection Labor				\$7,600
	Total				\$190,000
	Engineer's Cost Estimate per Well				\$95,000

Objective No. 2 – New Groundwater Wells – Installation of new groundwater wells to increase CVWD's well capacity and its ability to extract its groundwater adjusted rights on an annual basis.

1. **Well 18 at 2815 Sycamore Ave.** – CVWD purchased the property in 2011, which is located north the of the Glenwood Operations facility with the intention of drilling a new groundwater well to replace Well 10. The current 5-year CIP budget calls for the design of the project starting in FY 23/24 and construction in FY 24/25 with a preliminary cost of \$2,000,000.
2. **Update Water Well Replacement Study** – Staff is proposing to update the 1999 Water Well Replacement Study with new data from the 2004 Geophysical Study and new monitoring wells that will be inputted into the Verdugo Basin Groundwater Model. The updated model and study will be utilized to determine optimal locations of future well sites and transmission pipeline that will replace the older existing groundwater wells. The current 10-year CIP budget shows this study in FY 22/23 with a preliminary cost of \$150,000.

3. **Pilot Hole Study** - This involves drilling 4-inch diameter pilot holes in areas near the proposed new locations to determine the geological profile, water quality and well capacity parameters of the site. It is anticipated that five (5) pilot holes will be drilled. This is typically performed at a lower cost to determine if the site is feasible for a water production well before proceeding with drilling a new well with the accompany facilities. The Pilot Hole study will start in FY 23/24 with a preliminary cost of \$250,000.

Groundwater Basin Recharge:

Objection No. 1 – Recharge the Verdugo Groundwater basin with other water sources

1. **Crescenta Valley County Park Storm Water Recharge Facility** – Staff completed the Crescenta Valley County Park (CVC Park) Stormwater Recharge Project Facility Feasibility Study (Study) in March 2017, which provided important groundwater flow data and geologic information. This study concluded that portions of CVC Park can be utilized for stormwater capture for groundwater recharge to reduce fluctuation in groundwater levels during dry and wet rainfall years. Use of stormwater runoff for groundwater recharge will also help improve groundwater quality, increase water-supply reliability and improve surface water quality in downstream receiving waters.

The following is a summary of project tasks over the next three to 12 months:

Conceptual Plan & Cost Estimate: Staff and its consultants (Wood Environmental and John Robinson Consulting) will be working on a preliminary conceptual plan to locate the infiltration galleries within CVC Park, creating a “Green” street on Dunsmore Ave, south of Honolulu, add a native landscaping garden, and possible upgrades to CVC Park. The “Green” Street concept could include swales with native landscaping and under drains to direct stormwater flow into the ground.

Included with the conceptual plan, consultants will prepare a preliminary construction cost estimate including a benefit/cost analysis for review and discussion at the April 2019 Engineering Committee.

Presentation to Board of Directors: Staff and its consultants will make a presentation to the Board of Directors to discuss the project, the preliminary conceptual plan and preliminary construction cost estimate for review.

Staff is planning to complete the conceptual plan, cost estimate and presentation to the Board by the beginning of July 2019. Staff’s goal will be to get Board acceptance of the project before proceeding with the next set of planning tasks. The work effort describe below will be completed within FY 19/20 and will used to determine if the District wants to proceed with the project.

Planning Tasks: The following tasks will be performed concurrently as to determine if there are any “road blocks” to the project. Staff will report at future Board meetings on the status of the project.

1. **City of Los Angeles – Stormwater Rights:** The ULARA Judgement states that the City of Los Angeles owns the “Pueblo” or stormwater rights within the ULARA watershed. Staff and its consultants will meet and confer with LADWP about the stormwater rights and work on an agreement to utilize these rights within the Verdugo Basin.
2. **Meeting with Stakeholders:** Consultants will be meeting with stakeholders such as City of Glendale, Los Angeles County Department of Parks and Recreation (LACDPW) Los Angeles County Department of Public Works (LACDPR), Crescenta Valley Town Council and non-government organization such as Tree People, Arroyo Seco Foundation, and Council for Watershed Health to get input on the preliminary conceptual plan and discuss the possibility of providing funding for the project.
3. **Permit from State Water Resources Control Board, Division of Water Rights:** Consultants will meet with the SWRCB, Division of Water Rights to determine the water rights permitting and licensing requirements. Initial discussion with legal counsel and SWRCB indicate that this process could take up to 2-years to complete the permitting and licensing.
 - o **Permitting** is the process of filing an application to request that the SWRCB authorize the development of a water diversion project by issuing a permit. A permit provides the legal

authorization to develop the project and divert water in accordance with conditions and within a time schedule.

- o Licensing is the process of reviewing a permitted project that is complete to confirm the amount of water put to beneficial use and that the permit conditions were met. A license is the final confirmation of the water right and remains effective as long as its conditions are met and beneficial use continues.
- 4. Grant Funding: Consultants will be looking into getting grant funding under Proposition 1, Integrated Regional Water Management (IRWM) Grant program, Los Angeles County Measure W and other state and federal grants available for the project. Consultant will summarize the grants available and the time-frame for funding available, application submittal and award of grants.
- 5. CEQA Process: The project and grant requirements will necessitate the need for the District to go through the CEQA process from the initial environmental study to determine the type of CEQA documentation will be need. Staff will need the assistance of a consultant to determine the limits of the CEQA work and the involvement of LACDPW and LACDPR.

Project Schedule: The conceptual plan and preliminary cost estimate will be completed in July 2019 for approval by the Board before proceeding to the next planning tasks.

Staff is planning as part of the FY 19/20 CIP program to include time and funding for consultants to proceed with the planning elements described above over the next 12-months. As staff reports on each element to the Board, it will give the Board the opportunity to re-adjust the project schedule or to determine the project's feasibility.

Cost Estimate: - Staff's cost estimate for consulting services is based on previous experience. In addition, the cost for legal services is included as this is outside their normal scope service to the District. As shown in the table below, the anticipated cost is \$105,000 for FY 19/20.

Task No.	Task	CVWD Staff	John Robinson Consulting	Wood Environment & Infrastructure Solutions	Lagerlof, Senecal, Gosney & Kruse	Total
1	Meeting with Stakeholders:	\$4,000	\$5,000	\$15,000	\$0	\$24,000
2	City of Los Angeles – Stormwater Rights	\$4,000	\$3,000	\$10,000	\$10,000	\$27,000
3	Permit from State Water Resources Control Board, Division of Water Rights	\$3,000	\$8,000	\$10,000	\$2,000	\$23,000
4	Grant Funding:	\$4,000	\$15,000	\$10,000	\$2,000	\$31,000
	Total	\$15,000	\$31,000	\$45,000	\$14,000	\$105,000

2. Water Storage:

Goal: Provide a water storage system to meet average, high or peak demands, emergency water storage, and water quality parameters.

1. Reservoir Rehabilitation - maintain or improve conditions of the existing steel or concrete reservoirs to sustain the longevity of the water storage system.
2. Reservoir Water Quality - maintain or improve the water quality within the water storage system.

Objective No. 1 - Reservoir Rehabilitation:

1. Removal and replacement of interior and exterior coatings for steel reservoirs
2. Re-conditioning and rehabilitation of concrete reservoirs
3. Maintain corrosion protection system for steel reservoirs
4. Modification to reservoirs to maintain air circulation and reduce corrosion

Steel Reservoir Rehabilitation at Markridge Reservoir - The District has a 0.5 MG steel tank at the Markridge Reservoir site built in 1961. The Markridge Reservoir was re-coated and seismic structural upgrades in 2001. In 2005, the reservoir was inspected and the report indicated general corrosion on the roof and rafters. The reservoir was re-coated in 2007 and additional air vents were added to the roof. In 2015, the reservoir was inspected and the report stated that there was increased corrosion on the roof and rafters above the water line.

The 2015 inspection report showed that the underside of the roof and structural elements are in poor condition. It was recommended to sand blast, remove the coating and corrosion, and re-coat the interior roof and shell. In addition, any structural members damaged by the corrosion should also be replaced and additional roof fans will be installed.

Project Schedule: - Project design will commence in July 2019 and the project will be advertised for bid in October 2019. The contract will be awarded in November 2019 and construction will start in January 2020 during the winter low demand season.

Cost Estimate: - Staff's engineer's cost estimate is based on previous bids provided in 2018 and as shown in the table below, the cost estimate is \$475,000.

Markridge			Engineers Estimate	
Description	Quantity		Unit	Amount
Interior Coating: Prepare surfaces and coat interior with epoxy coatings	1	LS	\$150,000	\$150,000
Disinfection: Prepare surfaces and disinfect interior.	1	LS	\$3,000	\$3,000
Exterior Painting: Prepare and paint designated exterior surfaces with and epoxy/urethane paint	1	LS	\$20,000	\$20,000
Interior Caulking: Caulk all designated voids on the interior surfaces	1	LS	\$5,000	\$5,000
Auxiliary Vent Screen: Remove existing vent screen and install new stainless steel screen	1	LS	\$2,000	\$2,000
Center Vent : Remove the existing center vent and install a new 48" center vent	1	LS	\$8,000	\$8,000
Roof Hatch: Remove the existing roof hatch and install a new 36"x36" hatch with hinged aluminum cover	1	LS	\$4,500	\$4,500
Auxiliary Vents: Furnish and install three (3) new 24" auxiliary vents and modify the existing auxiliary vent for installation of the fan and solar panel	1	LS	\$15,000	\$15,000
Vent Fans: Furnish and install vent fans, solar panels, conduit, junction box and wiring	1	LS	\$10,000	\$10,000
Fall Restraint System: Install fall restraint stainless steel cables, attachments, and mounting hardware	1	LS	\$3,000	\$3,000
Stairway: Remove the existing exterior ladder and cage and furnish and install a new spiral stairway	1	LS	\$17,500	\$17,500
Cathodic Protection: Remove and dispose of the existing system and install a galvanic cathodic protection system	1	LS	\$17,000	\$17,000
Dehumidification: Dehumidification system for interior work	7	Wks	\$2,500	\$17,500
Pit/Perforation Treatment: Fill pits or weld plates over pitted or corroded areas	16	Hrs	\$300	\$4,800
Grinding: Grind smooth sharp edges of the rafter and girder flanges	16	Hrs	\$500	\$8,000
Inspection Spot Blasting: Abrasively blast clean severely corroded surfaces	8	Hrs	\$300	\$2,400
Cathodic Protection: Remove the existing system and reinstall the system with new hand hole covers.	1	LS	\$10,000	\$10,000
Misc	1	LS	\$2,300	\$2,300
Subtotal				\$300,000
Contingency	20%			\$60,000
Total Construction Estimate				\$360,000
Design/Inspection - HAEI; CVWD Inspection labor	1	LS	\$115,000	\$115,000
Total Cost Estimate for Project				\$475,000

Objective No. 2 - Reservoir Water Quality:

1. Maintain or improve the water quality such as reducing Total Trihalomethanes's (TTHM) and maintaining proper water mixing to eliminate stagnate water.
2. Replace common inlet/outlet piping that will improved water flow in and out of the reservoir, and to prevent future nitrification.

Installation of Potable Water Circulation System: Staff is completing the conversion of the disinfection system from free chlorine to chloramines by the end of FY 18/19. This involved the installation of a new ammonia injection system to create chloramines which will reduce the TTHM levels in the District's reservoirs and water distribution system. Staff is concerned about the possibility of nitrification in a reservoir, which may require discharging water for a reservoir. One method to prevent nitrification is to install a water mixing system inside each reservoir to maintain chloramines over time. Staff discussed this with its consultants and researched various types of equipment on the market.

Staff met with the Medora Corporation about their GridBee Potable Water Circulation Equipment, which will circulate water inside a reservoir with minimal installation. The equipment also includes the ability to connect chlorine and ammonia feeds line to increase the levels in case of nitrification. The majority of the work could be completed by field staff; however, there will still need to be consultant work to tie the system into the SCADA monitoring system.

Project Schedule: - Project design will commence in early fall 2019 as staff observes the conversion to chloramines and nitrification concerns. Equipment would be ordered in October 2019 and staff will start installation in early 2020 at critical locations and the remainder of the system completed in FY 20/21.

Cost Estimate: - Staff's engineer's cost estimate is based on bid provided by Medora Corporation, estimate of staff time and consulting services for SCADA upgrades as shown in the table below:

FY 19/20					FY 20/21				
Equipment	Quantity		Cost/Unit	Cost	Equipment	Quantity		Cost/Unit	Cost
GS-9-120v Submersible Electric Mixer:	4	EA	\$6,880.00	\$27,520	GS-9-120v Submersible Electric Mixer:	4	EA	\$6,880.00	\$27,520
GS-12-120v Submersible Electric Mixer:	2	EA	\$9,580.00	\$19,160	GS-12-120v Submersible Electric Mixer:	3	EA	\$9,580.00	\$28,740
GS Series Control Box with SCADA Monitoring:	6	EA	\$1,090.00	\$6,540	GS Series Control Box with SCADA Monitoring:	7	EA	\$1,090.00	\$7,630
Portable Disinfectant Boost System	2	EA	\$8,720.00	\$17,440	Portable Disinfectant Boost System	0	EA	\$8,720.00	\$0
Subtotal				\$70,660	Subtotal				\$63,890
Tax			9.5%	\$6,713	Tax			9.5%	\$6,070
Delivery				\$1,140	Delivery				\$1,140
Subtotal - Equipment				\$78,513	Subtotal - Equipment				\$71,100
Installation					Installation				
Installation - Each Site - Power; Conduit & Misc	6	EA	\$5,000.00	\$30,000	Installation - Each Site - Power; Conduit & Misc	7	EA	\$5,000.00	\$35,000
Labor	6	EA	\$2,500.00	\$15,000	Labor	7	EA	\$2,500.00	\$17,500
Misc	1	EA	\$6,487.00	\$6,487	Misc	1	EA	\$6,400.00	\$6,400
Subtotal - Installation				\$51,487	Subtotal - Installation				\$58,900
SCADA Programing & Integration	1	LS	\$35,000.00	\$35,000	SCADA Programing & Integration	1	LS	\$15,000.00	\$15,000
Subtotal				\$130,000	Subtotal				\$130,000
Contingency			10.0 %	\$13,000	Contingency			10.0 %	\$13,000
Total				\$143,000	Total				\$143,000

3. **Water Distribution:**

Goal: Provide for the ability to move water within the distribution system to meet existing and future water demands, fire flow requirements, and emergency conditions.

1. **Pipeline Replacement** – To replace existing older water pipelines based on age, size and number of leaks to meet existing or future water demands and have reached the end of their useful life.
2. **New Pipelines** – install new water pipelines to meet future water demands, fire flow requirements, and conductivity between pressure zones, water quality, and recommendations from the Water Master Plan.
3. **Booster Pump System** – maintain, replace, or upgrade the 34 booster pumps to meet customer water demands, maximize "water to wire" efficiency and controlling electrical power usage.
4. **Motor Control Center Replacement** – Replace and upgrade existing electrical motor control centers with standardized Allen-Bradley equipment and SCADA monitoring and controls.
5. **Pressure Reducing Stations** – install pressure reducing valve (PRV) stations between pressure zones to allow for the movement of water in an emergency from higher pressure zones to lower pressures zones.
6. **Water Surge Control** – Analysis and installation of water surge control system to prevent cavitation and pump damage during a water surge event.
7. **Miscellaneous Projects** – Replacement and/or repairs to existing water distribution system structures and control systems.

Objective No. 1 - Pipeline Replacement:

1. Replacement of existing older water pipelines based on age, size and number of leaks to meet existing or future water demands and have reached the end of their useful life.
2. Replacement of existing pipelines with yoke assembly water services as part of the water meter replacement project.

Pipeline Replacement – As shown in the table below, 49% of the District’s pipelines are over 50 years old and should be replaced within the next 5 – 10 years. The table also shows the breakdown by pipe size, pipe material and number of leaks on a section of pipeline. Staff utilizes this information to determine the next pipelines to replace during the next fiscal year.

Crescenta Valley Water District																				
Pipeline - Breakdown by Category - 2018																				
Year	2018	Cost/LF			\$450															
Pipe Age	Pipe Length	Pipe (miles)	Percent	Cost Estimate	Pipe Size (inch)	Pipe Length	Pipe (miles)	Percent	Cost Estimate	Pipe Material	Pipe Length	Pipe (miles)	Percent	Cost Estimate	No of Leaks	Pipe Length	Pipe (miles)	Percent	Cost Estimate	
> 50 years	247,730	46.9	48.9%	\$111,478,500	2	2,700	0.5	0.5%	\$1,215,000	AC	0	0.0	0.0%	\$0	> 7	740	0.1	0.1%	\$333,000	
40-49 years	73,280	13.9	14.5%	\$32,976,000	3	1,200	0.2	0.2%	\$540,000	PE	270	0.1	0.1%	\$121,500	6	310	0.1	0.1%	\$139,500	
30-39 years	37,760	7.2	7.4%	\$16,992,000	4	16,970	3.2	3.3%	\$7,636,500	GALV	0	0.0	0.0%	\$0	5	820	0.2	0.2%	\$369,000	
20-29 years	54,230	10.3	10.7%	\$24,403,500	5	1,740	0.3	0.3%	\$783,000	CI	500	0.1	0.1%	\$225,000	4	3,990	0.8	0.8%	\$1,795,500	
15-19 years	40,970	7.8	8.1%	\$18,436,500	6	149,520	28.3	29.5%	\$67,284,000	SS	1,980	0.4	0.4%	\$891,000	3	5,640	1.1	1.1%	\$2,538,000	
10-14 years	34,970	6.6	6.9%	\$15,736,500	8	185,080	35.1	36.5%	\$83,286,000	OD	9,040	1.7	1.8%	\$4,068,000	2	10,140	1.9	2.0%	\$4,563,000	
< 9 years	18,030	3.4	3.6%	\$8,113,500	10	23,960	4.5	4.7%	\$10,782,000	STD	55,970	10.6	11.0%	\$25,186,500	1	35,750	6.8	7.1%	\$16,087,500	
	506,970	96.0	100.0%	\$228,136,500	12	101,970	19.3	20.1%	\$45,886,500	CML&CMC	98,030	18.6	19.3%	\$44,113,500	0	449,580	85.1	88.7%	\$202,311,000	
					14	6,120	1.2	1.2%	\$2,754,000	CL&W	341,180	64.6	67.3%	\$153,531,000		506,970	96.0	100.0%	\$228,136,500	
					16	17,710	3.4	3.5%	\$7,969,500		506,970	96.0	100.0%	\$228,136,500						
						506,970	96.0	100.0%	\$228,136,500											

Staff also assessed the need to replace the older pipelines (50 years or older) in a timely and cost effective manner. As shown in the table below, CVWD would have to replace about 5 miles of pipe each year to replace the entire amount of older pipes within 10 years at a cost of \$11.2M per year. Staff understands that this is not attainable with budget limitation. Typically, staff has recommended replacing about 2,700 liner feet of pipe each year and at this rate, it will take about 94 years to replace the older pipelines.

Pipeline Replacement Recommendation for FY 19/20:

- 3200 & 3300 Blocks of Brookhill Ave:** Staff has been working on replacement of the old 4-inch water main on Brookhill Avenue over the past year including the 2700 Block & the 3000 – 3100 Blocks of Brookhill. The 3200 & 3300 Blocks are within the City of Glendale and are the last pipelines in the area that need to be upgraded. In addition, these pipelines have developed 7 leaks within the last 2-years and the pipeline is located in the resident’s front yard.
- 2400 & 2500 Blocks of Janet Lee:** This is an existing 6-inch pipeline that was installed in 1951 with yoke assembly water service laterals. As part of the water meter replacement program, the 34 water meters could not be replaced because of the yoke assemblies. Staff is including this pipeline are part of the replacement program to also replace the water meters.

CVWD - Pipeline Replacement				
FY 19/20 - Engineer's Cost Estimate				
ITEM	DESCRIPTION	QUANTITY	UNIT	AMOUNT
1	Excavation and Backfill	4,135	LF	\$85
2	Resurfacing Trench	12,480	SF	\$10.00
3	8" CML & CMC Steel Pipe	2,785	LF	\$65
4	6" Fire Hydrant Assembly	8	EA	\$3,000
5	1-inch Water Services	72	EA	\$1,500
6	Traffic Control	1	LS	\$10,700
7	Replace Valve	1	EA	\$2,000
	Subtotal			\$800,000
	Contingency	10.0%		\$80,000
	Total Construction			\$880,000
	Total Materials			\$140,000
	Soils Eng			\$6,500
	Engineering/Permits			\$88,500
	Contractor Cost/LF	2,785	LF	\$315.98
	Total Cost/LF	2,785	LF	\$400.36
				\$1,115,000

Project Schedule: - Design should be completed by October 2019 and advertising for bids in November 2019. The contract will be awarded in December 2019 and construction will start in late January 2020.

Cost Estimate: - The following engineer’s cost estimate shown below is based on previous bids from 2017 and 2018 and staff’s experience with pipeline contractors.

Objective No. 3 - Booster Pump System:

1. Maintain, replace, or upgrade the 34 booster pumps to:
 - a. Meet customer water demands
 - b. Maximize "water to wire" efficiency
 - c. Controlling electrical power usage

Annual Booster Pump Replacement – Staff plan is to replace two booster pumps and motors per year as part of the annual budget. For FY 19/20, Boosters 32 & 33 located at the Glenwood Plant is planned for replacement. Booster 32 & 33 are 800 gpm pumps, which were last placed in 2003, the pumps have been running basically 24 hours/7days a week for the last 7 years and they are beyond their useful life. These boosters are the main booster to pump groundwater into the system and if the pumps failed, we would not be able to use the wells at the Glenwood plant.

Project Schedule: Design should be completed by November 2019 and advertising for bids in December 2019. The contract will be awarded in January 2020 and construction will start in late February 2020.

Cost Estimate: - The following engineer's cost estimate shown below is based on previous bids from 2017 and 2018 and staff's experience with booster pump contractors.

CVWD - Booster Pump Replacement					
FY 19/20 - Engineer's Cost Estimate					
Item	Description	Quantity		Unit	Amount
1	Mobilization and Demobilization	1	LS	\$1,500.00	\$1,500.00
2	Remove Existing Pump and Motor Assembly	2	LS	\$4,500.00	\$9,000.00
3	New Vertical Turbine Pump	2	LS	\$12,000.00	\$24,000.00
4	New Vertical Turbine Motor	2	LS	\$6,500.00	\$13,000.00
5	Discharge Head, Column Pipe and Additional Equipment	2	LF	\$2,000.00	\$4,000.00
6	Field Balancing, Start-up and Testing	2	LS	\$1,000.00	\$2,000.00
	Subtotal				\$53,500
	Contingency	10%			\$5,350
	Total Construction				\$58,850
	Total Materials				\$2,750
	Engineering/Inspection - Labor				\$13,400
	Total Construction Costs				\$75,000

Objective No. 6: Water Surge Control:

1. Analysis and installation of water surge control system to prevent cavitation and pump damage during a water surge event
2. Repair/replacement of existing water surge tanks

Rehabilitation Surge Tanks at Glenwood - CVWD has an existing surge tank for three (3) booster pumps located at the Glenwood Plant. The purpose of the surge tank is to defuse a water surge wave during an outage event and protect the booster pumps. The surge tank was installed in 1955 and needs to be rehabilitated with an air-surge system. Staff has been working with GEI Consultants on the design of this project. The recommendations included resizing the piping and replacing the surge tank equipment.

Project Schedule: - Prepare plans and specifications by October 2019, advertise for bids in November 2019, award contract in December 2019, and construction beginning in February 2020.

Cost Estimate: - \$75,000 for construction.

Objective No. 7: Miscellaneous Projects:

1. Replacement and/or repairs to existing water distribution system structures and control systems

Repairs to Ramsdell-Mayfield Mixing Station: The piping, meters and pressure flow valves inside the vault have been detreating over the last 5-years and reduced the crews' ability to maintain the equipment. However, the original design did not include an isolation valve for Zone 1 and it cannot be shut down without taking Zone 1 out of service.

CVWD installed a pressure reducing valve station to allow water from to flow from Zone 2 to Zone 1 on Montrose Avenue. A second pressure reducing valve station needs to be installed adjacent to the mixing station to allow proper flow into Zone 1.

The FY 19/20 project will be the installation of the second pressure reducing valve station and isolation valve. In FY 20/21, the equipment and piping will be replaced inside the vault.

Project Schedule: - Prepare plans and specifications by December 2019, advertise for bids in January 2020, award contract in February 2019, and construction beginning in April 2020.

Cost Estimate: - \$165,000 for construction.

CVWD - New PRV - Zone 2 to Zone 1					
FY 19/20 - Engineer's Cost Estimate					
1	Excavation and Backfill (pipeline, laterals & appurtenances)	375	LF	\$80.00	\$30,000
2	Resurfacing Trench	1,125	SF	\$10.00	\$11,250
3	Install 8" CML & CMC Steel Water Pipeline and appurtenant Construction	200	LF	\$90.00	\$18,000
4	Install New 8" Pressure Reducing Station, 6'x12'x6' Vault and appurtenant construction	1	LS	\$50,750.00	\$50,750
5	Provide traffic control for the Project	1	LS	\$12,500.00	\$12,500
	Subtotal				\$122,500
	Contingency	10%			\$12,250
	Total Construction				\$134,750
	Total Materials				\$23,000
	Engineering/Inspection - Labor				\$7,250
	Total Construction Costs				\$165,000

4. **Water Quality and Treatment:**

Goal: Provide high quality water by improving existing treatment processes or installing new water treatment systems to meet Federal and State water quality standards.

1. Nitrate Removal - provide nitrate removal treatment for all groundwater wells to maintain a maximum 35 mg/L nitrate level throughout the water distribution system.
2. Chlorine Disinfection - provide for chlorine disinfection treatment to maintain minimum 1.0 mg/L chlorine residual throughout the water distribution system.
3. New Federal and State Regulations - comply with all new United States Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH) water quality regulations.
4. Water Quality Studies - perform studies to improve water quality and/or as required by USEPA/CDPH.
5. MTBE Removal - provide MTBE removal treatment for groundwater wells

No projects are planned for FY 19/20

5. **Technology:**

Goal: Ability to utilize advancements in technology to maximum efficiency for CVWD.

1. Advanced Meter Information (AMI) system - install an AMI system to increase efficiencies, outage detection, tamper notification and reduce labor costs.
2. Supervisory Control and Data Acquisition (SCADA) System - upgrade the existing SCADA/Telemetry system to maximum newer technology and increase effectiveness
3. Graphical Information System (GIS) - implement a GIS to integrate with asset tagging, customer service and operations

Objective No. 1 - Advanced Meter Information (AMI) system:

1. Replacement of residential meters with Iperl "Smart Meter" with radio transceivers.
2. Installation of an AMI collection system to transmit the meter data to the internet
3. Installation of a meter data management system (MDMS) to provide information to customers and to utilize data information for short-term and long-term goals

Advanced Metering Information System: Staff has been working with UtiliWorks on an AMI business case report to determine the planning, implementation and financial elements for full implementation of an AMI program.

CVWD has replaced over 5,000 residential meters since 2012 with smart meters in anticipation of an AMI program. UtiliWorks will be making a presentation to the Board of Directors in April 2019 to discuss the business case to implement the program. Staff utilized this information and preliminary cost estimates for FY 19/20 budget preparation. It has been discussed that the AMI program will be completed over a 3-year fiscal budget with the first year planning, and installation of the meters and radio transceivers, second year the AMI collection system and starting on the MDMS system and the third year will be implementation of the MDMS system, training and field testing.

Project Schedule: - To be determined

Cost Estimate: - \$535,000 for FY 19/20.

Objective No. 2 - Supervisory Control and Data Acquisition (SCADA) System:

1. Upgrade the existing SCADA/Telemetry hardware system to maximum newer technology and increase effectiveness
2. Upgrade the existing SCADA/Telemetry software interface system to maximum newer technology and increase effectiveness

SCADA RTU Replace - Equipment & Integration: Staff embarked on a project to upgrade District's SCADA system in 2016 with improvements and upgrades to the system software platforms to a newer version of Wonderware software and integration into the existing. The majority of this work was completed in 2018. The next step will be the upgrade and replacement of the existing Remote Terminal Units (RTUs) to modern equipment that utilize a common programming language and processes.

The existing SCADA hardware system was installed in 1996 with proprietary equipment and programming. This will be a 2-year program to design and install the new equipment and utilizing a consultant for programming and integration.

Project Schedule: - Prepare plans and specifications by January 2020; advertise for bids in February 2020, award contract in April 2020, and installation beginning in June 2020. Staff anticipates this program to be completed over 2-years.

Cost Estimate: - \$300,000 for FY 19/20 & \$300,000 for FY 20/21.

6. Public Safety/Emergency Response:

Goal: Ability to meet customer water demands during local emergencies or natural disasters.

1. Emergency Electrical Generators - provide portable emergency electrical generators at strategic locations within the District to ensure CVWD can meet water demands during a local emergency or natural disaster when electrical power has been disrupted
2. Water Storage - install seismic sensors and valve actuators on all District reservoirs to prevent loss of water in case of an earthquake event from a break in the downstream piping
3. Security - install security cameras at the Main Office, Glenwood Plant, Mills Plant, Reservoir Sites, Well Sites and other CVWD facilities

No projects are planned for FY 19/20

7. Facilities & Planning:

Goal: Maintain and/or upgrade CVWD facilities to increase the life span of the facility, improve efficiency, and to meet the needs of the District. Also perform various planning studies to assist in defining the future direction of the District.

Objective No. 1 - Reservoir Site Improvements

1. Maintain and/or improve the existing reservoir sites to meet the needs of the staff and operations.
2. Make an assessment to determine needed repairs, infrastructure, and equipment at each reservoir site.

Williams Reservoir Site Improvements: The Williams Reservoir (also called Ocean View Reservoir) has been utilized over the years as a storage area for pipe, base material and other equipment.

However, the site is underutilized and needs better planning for access and site storage. Other improvements that are need as re-design of the driveway entrance for larger truck access, upgrading to an automatic gate for security and re-grading of the site for better drainage. In addition, the site can be better utilized for storage of equipment and materials to better assist the field crews. The project will be a 2-year project with the first year of planning and design and construction the second year.

Project Schedule: - Site Assessment and topographic survey by January 2020; complete design and specifications by May 2020 and advertise for bids in June 2020. Staff anticipates construction to be start and be completed in FY 20/21.

Cost Estimate: - \$110,000 for FY 19/20 & \$300,000 for FY 20/21.

RECOMMENDATION:

It is staff's recommendation \to assemble a Board CIP workshop to further discuss projects, priority and funding options.

Prepared & Submitted by:

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

David S. Gould, P.E.
District Engineer

Attachments:

1. FY 19/20 CIP Program Priority List & Cost Summary
2. 5-year CIP Cost Summary

Crescenta Valley Water District					
FY 19/20 Capital Improvement Project Priority List					
Transfer MTBE Funds; No Bond/Debt; 7.0% Water Rate increase					
Capital Improvement Project Program	Budget FY 19/20	Category	Priority Level	Cumulative Estimated Costs	Project Description
Well 11 & 14 Rehabilitation	\$ 190,000	Water Supply	1	\$ 190,000	Remove & Inspect Well Pump & Casing, Chemical Treatment Well Casing, Pump Test, New Pump & Motor Increase Well Capacity for 2 wells
Markridge - Roof/Air Vents/Recoat	\$ 475,000	Water Storage	2	\$ 665,000	Reservoir Rehabilitation - Structural Repairs and Re-coating at Markridge Reservoir during low demand (Winter) season
3200 & 3300 Blocks of Brookhill - 1,485 LF	\$ 590,000	Water Distribution	3	\$ 1,255,000	Replace 71 year old 4" pipeline with a new 8-inch water main with new fire hydrants - 1,485LF
2400 & 2500 Block of Janet Lee - 1,300 LF	\$ 525,000	Water Distribution	4	\$ 1,780,000	Replace 67 year old 6" pipeline with new 8-inch water main and replace water services with yoke assemblies (part of water meter replacement program) - 1,300 LF
Boosters - Glenwood 32 & 33	\$ 75,000	Water Distribution	5	\$ 1,855,000	Replace Glenwood Booster 32 & 33 with new 800 gpm pump assembly and 40 HP motor
AMI - Conversion of 3/4" to 4" Meters to Smart Meters	\$ 535,000	Technology	6	\$ 2,390,000	Installation of AMI Fixed Area Network, programming, integration and testing of selected areas
Rehabilitation Surge Tank at Glenwood	\$ 75,000	Water Distribution	7	\$ 2,465,000	Rehabilitation surge tank including replacement of piping & appurtenances and recoating of interior
SCADA RTU Replace - Equipment & Integration	\$ 300,000	Technology	8	\$ 2,765,000	Replacement of SCADA System - Replacement of RTU/PLC Equipment
Repairs to Ramsdell Mixing Station	\$ 165,000	Water Distribution	9	\$ 2,930,000	Installation of a new Pressure Reducing Station from Zone 2 to Zone 1 to help with isolating Zone 1 & Encinal Reservoir
Reservoir Mixing System Design & Construction	\$ 145,000	Water Storage	10	\$ 3,075,000	Installation of Reservoir Mixing equipment to maintain chloramines within the reservoirs - 9 sites
Stormwater Recharge Project - Planning & Design	\$ 105,000	Water Supply	11	\$ 3,180,000	Preliminary Design, Grant Application and Coordination with stakeholders for Proposed Stormwater Recharge Project at CVC Park
Williams Reservoir Site Improvements	\$ 120,000	Facilities & Planning	12	\$ 3,300,000	Planning and Design of site improvements at Williams Reservoir to control drainage and better utilization of the property for storage of materials and equipment
FY 19/20 - Preliminary Budget - Projects 1- 12 - 7.0% Increase					

Capital Improvement Project Program 5- year CIP Program Date: 4/26/19		Recorded FY 17/18		Budget FY 18/19	<u>FY 18/19</u> Cost to date from 7/1/18 to 12/31/18	<u>FY 18/19</u> Cost Committed from 1/1/19 to 6/30/19	Projected FY 18/19		Budget FY 19/20		Forecast FY 20/21	Forecast FY 21/22	Forecast FY 22/23	Forecast FY 23/24	Forecast FY 24/25
1. Water Supply															
A. Groundwater															
i. Well Rehabilitation															
	Well 7 Rehabilitation														
	Well 8 Rehabilitation	\$ 3,453													
	Well 5 Rehabilitation	\$ 69,388													
	Well 10 Rehabilitation	\$ 76,008													
	Well 1 Rehabilitation			\$ 65,000	\$ -	\$ 70,200	\$ 70,200								
	Well 7 Rehabilitation			\$ 65,000	\$ -	\$ 70,200	\$ 70,200								
	Well 11 Rehabilitation								\$ 95,000						
	Well 14 Rehabilitation								\$ 95,000						
	Well Rehabilitation (2 Wells per year)										\$ 210,000	\$ 220,000	\$ 230,000	\$ 240,000	\$ 250,000
ii. New Wells															
	Re-Activate Well 2 - Design	\$ 99,746		\$ -											
	Re-Activate Well 2 - Construction	\$ 2,001,593		\$ 405,000	\$ 354,389	\$ 197,000	\$ 551,389								
	Well 18 (Sycamore House) - Design													\$ 175,000	
	Well 18 (Sycamore House) - Construction														\$ 1,825,000
iii. Studies															
B. Imported Water															
	Ocean View - Final	\$ 43,459		\$ -	\$ 2,819	\$ 1,181	\$ 4,000								
C. Groundwater Basin Recharge															
	Stormwater Recharge Project - Planning & Design								\$ 105,000		\$ 360,000	\$ 2,560,000			
D. Recycled Water System															
WS Total		\$ 2,293,647		\$ 535,000	\$ 357,208	\$ 338,581	\$ 695,789		\$ 295,000		\$ 570,000	\$ 4,030,000	\$ 1,130,000	\$ 665,000	\$ 2,075,000
2. Water Storage															
A. Reservoir Rehabilitation															
i. Steel Reservoir Re-Coating/Roof/Vents Rehabilitation															
	Oak Creek #1 & #2 - Roof/Air Vents/Recoat	\$ 502,096		\$ 514,800	\$ 8,325	\$ 484,000	\$ 492,325								
	Markridge - Roof/Air Vents/Recoat								\$ 475,000						
	Rosemont - Roof/Air Vents/Recoat										\$ 550,000				
	Eagle Canyon - Roof/Air Vents/Recoat													\$ 700,000	
	Edmund #2 - Roof/Air Vents/Recoat														\$ 700,000
ii. Concrete Reservoir Rehabilitation															
	Encinal Reservoir - Concrete Rehabilitation											\$ 175,000			
	Ocean View Reservoir - Concrete Rehabilitation												\$ 175,000		
iii. Corrosion Protection															
	Cathodic Protection Inspection & Replacement														\$ 130,000

Capital Improvement Project Program 5- year CIP Program Date: 4/26/19		Recorded FY 17/18		Budget FY 18/19	<u>FY 18/19</u> Cost to date from 7/1/18 to 12/31/18	<u>FY 18/19</u> Cost Committed from 1/1/19 to 6/30/19	Projected FY 18/19		Budget FY 19/20		Forecast FY 20/21	Forecast FY 21/22	Forecast FY 22/23	Forecast FY 23/24	Forecast FY 24/25
B. Reservoir Water Quality															
i. Water Mixing System															
Reservoir Mixing System Design & Construction									\$ 145,000		\$ 175,000				
iv. Replace common inlet and outlet piping															
C. New Reservoir Water Storage															
WS Total		\$ 502,096		\$ 514,800	\$ 8,325	\$ 484,000	\$ 492,325		\$ 620,000		\$ 725,000	\$ 175,000	\$ 175,000	\$ 700,000	\$ 830,000
3. Water Distribution															
A. Pipeline Replacement															
Lower Pickens Canyon Crossing & Slope - 600 LF		\$ 90,702		\$ -	\$ 2,976	\$ -	\$ 2,976								
4200 - 4400 Block - Penn - 1,450 LF		\$ 224,130													
2700 Block - Brookhill - 800 LF		\$ 120,088		\$ 94,600	\$ 132,569	\$ 40,600	\$ 173,169								
5100 Block of La Crescenta - 400 LF		\$ 53,832		\$ 42,900	\$ 59,428	\$ 18,200	\$ 77,628								
3000 Block of Brookhill - 800 LF		\$ 120,088		\$ 94,600	\$ 132,569	\$ 40,600	\$ 173,169								
3100 Block of Brookhill - 800 LF		\$ 120,088		\$ 94,600	\$ 132,569	\$ 40,600	\$ 173,169								
3200 & 3300 Blocks of Brookhill - 1,485 LF									\$ 590,000						
2400 & 2500 Block of Janet Lee - 1,300 LF									\$ 525,000						
Annual Pipeline Replacement - 2,700 LF											\$1,215,000	\$1,485,000	\$1,485,000	\$2,250,000	\$200,000
C. Booster Pump System															
i. Annual Pump /Motor Replacement															
Boosters - Encinal B & C		\$ 7,021		\$ -	\$ 27,304	\$ -	\$ 27,304								
Boosters - Glenwood 32 & 33									\$ 75,000						
Boosters - Booster 26 at CH											\$ 35,000				
Boosters - Paschall B												\$ 35,000			
Boosters - Ocean View B & Booster 25 at Markridge													\$ 85,000		
Annual Booster Replacement - 2 Boosters														\$ 95,000	\$ 95,000
ii. Pump Station Upgrade															
Upgrade - Paschal Booster Station manifold & outlet piping															
Upgrade Paschall Booster Station - Design & Construction												\$ 85,000	\$ 450,000		
iv. MCC Replacement															
MCC upgrade at Paschall - - Design & Construction												\$ 85,000	\$ 450,000		
E. Miscellaneous Projects															
i. Water Surge Control															
Rehabilitation Surge Tank at Glenwood									\$ 75,000						
Rehabilitation Surge Tank at Mills Plant													\$ 125,000		
Surge Analysis Study															

Capital Improvement Project Program 5- year CIP Program Date: 4/26/19		Recorded FY 17/18		Budget FY 18/19	<u>FY 18/19</u> Cost to date from 7/1/18 to 12/31/18	<u>FY 18/19</u> Cost Committed from 1/1/19 to 6/30/19	Projected FY 18/19		Budget FY 19/20		Forecast FY 20/21	Forecast FY 21/22	Forecast FY 22/23	Forecast FY 23/24	Forecast FY 24/25
iii. Misc.															
Repairs to Ramsdell Mixing Station		\$ 16,737		\$ -	\$ 2,869	\$ 2,131	\$ 5,000		\$ 165,000		\$ 435,000				
Street Rehabilitation - Pennsylvania Ave				\$ -	\$ -	\$ 65,000	\$ 65,000								
Mills Plant - Aeration Tower Rehabilitation											\$ 75,000				
WD Total		\$ 752,685		\$ 326,700	\$ 490,285	\$ 207,131	\$ 697,416		\$ 1,430,000		\$ 1,760,000	\$ 1,690,000	\$ 2,595,000	\$ 2,345,000	\$ 295,000
4. Water Treatment															
A. Nitrate Removal															
i. Glenwood															
Replace Ion Exchange Resin at Glenwood															\$ 500,000
ii. Mills															
iii. Ordunio															
Replace Bio Remediation AroNite Media at Ordunio													\$ 200,000		
C. Convert to Chloramines															
Conversion to Chloramination Disinfection				\$ 100,000	\$ 189,048	\$ 740,952	\$ 930,000								
WT Total		\$ -		\$ 100,000	\$ 189,048	\$ 740,952	\$ 930,000		\$ -		\$ -	\$ -	\$ 200,000	\$ -	\$ 500,000
5. Technology															
A. Automated Meter Information (AMI) System															
AMI - Conversion of 3/4" to 4" Meters to Smart Meters									\$ 535,000		\$ 845,000	\$ 380,000	\$ 495,000	\$ 485,000	
B. Supervisory Control and Data Acquisition (SCADA) System															
SCADA RTU Replacement (35 sites) - Design															
SCADA RTU Replace - Equipment & Integration		\$ 13,193							\$ 300,000		\$ 300,000				
C. Graphical Information System (GIS)															
TECH Total		\$ 13,193		\$ -	\$ -	\$ -	\$ -		\$ 835,000		\$ 1,145,000	\$ 380,000	\$ 495,000	\$ 485,000	\$ -
6. Public Safety/Emergency Response															
A. Emergency Electrical Generators															
New Emergency Electrical Generator - Field													\$ 75,000		
B. Water Storage															
Dunsmore/Pickens - Seismic Sensors & Valve Actuators		\$ 12,689		\$ -	\$ 199	\$ 4,801	\$ 5,000								
Ordunio - Seismic Sensors & Valve Actuators												\$ 105,000			
Oak Creek #1 & #2 - Seismic Sensors & Valve Actuators													\$ 105,000		
Encinal & Ocean View - Seismic Sensors & Valve Actuators														\$ 125,000	
SF/ER Total		\$ 12,689		\$ -	\$ 199	\$ 4,801	\$ 5,000		\$ -		\$ -	\$ 105,000	\$ 180,000	\$ 125,000	\$ -

Capital Improvement Project Program 5- year CIP Program Date: 4/26/19		Recorded FY 17/18		Budget FY 18/19	<u>FY 18/19</u> Cost to date from 7/1/18 to 12/31/18	<u>FY 18/19</u> Cost Committed from 1/1/19 to 6/30/19	Projected FY 18/19		Budget FY 19/20		Forecast FY 20/21	Forecast FY 21/22	Forecast FY 22/23	Forecast FY 23/24	Forecast FY 24/25
7. Facilities & Planning															
A. Main Office															
Expansion with New Roof with Solar Panels												\$ 125,000			
D. Reservoir Site Improvements															
Williams Reservoir Site Improvements									\$ 120,000		\$ 300,000				
Roof for Old Encinal - Storage Bldg												\$ 150,000			
Pickens - Access Road Improvements													\$ 250,000		
Edmund #2 - Lower Access Road Improvements														\$ 300,000	
Goss Canyon - Site Improvements															\$ 250,000
5. Misc. Properties															
6. District Planning															
F & P Total		\$ -		\$ -	\$ -	\$ -	\$ -		\$ 120,000		\$ 300,000	\$ 275,000	\$ 250,000	\$ 300,000	\$ 250,000
Capital Improvement Projects - Total		\$ 3,574,310		\$ 1,476,500	\$ 1,045,065	\$ 1,775,465	\$ 2,820,530		\$ 3,300,000		\$ 4,500,000	\$ 6,655,000	\$ 5,025,000	\$ 4,620,000	\$ 3,950,000
5-Year Capital Improvement Project Summary															
1. Water Supply		\$ 2,293,647		\$ 535,000	\$ 357,208	\$ 338,581	\$ 695,789		\$ 295,000		\$ 570,000	\$ 4,030,000	\$ 1,130,000	\$ 665,000	\$ 2,075,000
2. Water Storage		\$ 502,096		\$ 514,800	\$ 8,325	\$ 484,000	\$ 492,325		\$ 620,000		\$ 725,000	\$ 175,000	\$ 175,000	\$ 700,000	\$ 830,000
3. Water Distribution		\$ 752,685		\$ 326,700	\$ 490,285	\$ 207,131	\$ 697,416		\$ 1,430,000		\$ 1,760,000	\$ 1,690,000	\$ 2,595,000	\$ 2,345,000	\$ 295,000
4. Water Treatment		\$ -		\$ 100,000	\$ 189,048	\$ 740,952	\$ 930,000		\$ -		\$ -	\$ -	\$ 200,000	\$ -	\$ 500,000
5. Technology		\$ 13,193		\$ -	\$ -	\$ -	\$ -		\$ 835,000		\$ 1,145,000	\$ 380,000	\$ 495,000	\$ 485,000	\$ -
6. Public Safety/Emergency Response		\$ 12,689		\$ -	\$ 199	\$ 4,801	\$ 5,000		\$ -		\$ -	\$ 105,000	\$ 180,000	\$ 125,000	\$ -
7. Facilities & Planning		\$ -		\$ -	\$ -	\$ -	\$ -		\$ 120,000		\$ 300,000	\$ 275,000	\$ 250,000	\$ 300,000	\$ 250,000
Capital Improvement Projects - Total		\$ 3,574,310		\$ 1,476,500	\$ 1,045,065	\$ 1,775,465	\$ 2,820,530		\$ 3,300,000		\$ 4,500,000	\$ 6,655,000	\$ 5,025,000	\$ 4,620,000	\$ 3,950,000

CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 5
April 26, 2019

To: Engineering Committee
From: David S. Gould, P.E. – District Engineer
Subject: **Project Status - FY 18/19 - Capital Improvement Project Program**

FY 18/19 – CIP Project Schedule & Cost Estimate - The FY 18/19 Capital Improvement Project (CIP) program includes the following projects which are summarized below:

1. **TTHM Study and Chloramine Disinfection, Project E-995** – Staff has updated the project schedule based on delivery of equipment and materials including the precast concrete vault which will be delivered on May 3, 2019. CVWD's crews are working on installing the ammonia equipment at the Mills Plant and the Glenwood Plant, which should be completed by the end of May 2019.

Staff and its consultants are also working with the Division of Drinking Water (DDW) to amend the District's permit to operate should be completed by the end of May 2019.

As staff continues monitoring the trends in the TTHM levels over the next few months, it's believed that the levels will stay near or below the target level of 64 ug/L. Staff has discussed their concerns that TTHM levels will rise during the summer of 2019 due to high demands, temperature and reduced groundwater. Staff is in discussion on a start date for the conversion to chloramines and is tentatively looking at July 2019.

04/26/19 Project Update:

- Equipment and materials ordered and delivered
 - Construction at Mills Plant & Glenwood Plant – May 2019
 - Water Main – Dead-End Flushing complete May 10, 2019
 - DDW approval – anticipated in May 2019
 - Installation of Chlorine Analyzers at 6 sites – April - May 2019
 - Tentative Date – Conversion to Chloramines – June or July 2019
2. **Steel Reservoir Rehabilitation at Oak Creek Reservoir #2, Project E-970** – The District has two (2) 1.6 MG steel tanks at its Oak Creek Reservoir site which were built in 1958 and 1961. The Oak Creek Reservoirs were re-coated with seismic structural upgrades in 2001. In 2005 and 2011, the reservoirs were again inspected, and the report stated that there was increased corrosion on the roof and rafters above the water line. Oak Creek Reservoir #1 was completed in May 2018, and Oak Creek Reservoir #2 was postponed until November 2018.

04/26/19 Project Update:

- Oak Creek Reservoir #2 – Project Complete
 - o Back in Service – 4/9/19
 - o Final Retention
3. **CVWD's Well 2 and Related Facilities, Project E-956** – APTwater completed the testing phase of the project including water quality testing to reduce nitrates. The AroNite Verification Report was returned with comments from DDW on 2/12/19. APTwater and staff have been working on responding to comments, which included providing an Operations & Maintenance Manual. Staff resubmitted to DDW on April 3, 2019, and it anticipates DDW will approve the system by the end of May 2019. In addition, APTwater has been training CVWD's water operations staff over the past few weeks to take over operations and maintenance.

4. **Rehabilitation of Wells 1 & 7, Project E-999** – The FY 18/19 Capital Improvement Project (CIP) budget included the rehabilitation of Wells 1 and 7 as part of the District's on-going well rehabilitation program. The design and specifications were completed in early December 2019 and a contract was awarded to General Pump Company in January 2019 for \$127,000.

04/26/19 Project Update:

- Construction – Well 1
 - o Completed and back in service – April 15, 2019
 - o Well production at 95 gpm, 12% increase
 - o Static Well level rose by 17.75' after cleaning of casing
 - o Pump Well level at 52' above the pump bowls after cleaning; 10' above the pump bowls before cleaning. Increased pump efficiency
- Construction – Well 7 – To start by May 3, 2019 and completed by June 14, 2019

5. **Stormwater Capture Project, Project E-985** – John Robinson Consulting (JRC) has been assisting CVWD and their consultant, Wood Environmental with developing a conceptual plan to depict the planned facilities at CVC Park that will include:

- Tier 1 - Infiltration galleries beneath the ball field area and parking areas, including piping from the Verdugo Wash
- Tier 2 - Conversion of the southern end of Dunsmore Avenue to a “green street,” including improved drainage, bioswales, and other improvements,
- Tier 3 - Native plant demonstration garden in the southeast end of the park
- Tier 4 - Park improvements to ball field, basketball court and picnic areas

The next steps will be to complete the conceptual plan, prepare a preliminary construction cost estimate and economic analysis for review at the next Engineering Committee meeting.

04/26/19 Project Update:

- Preliminary Conceptual Plan – to be reviewed at 4/12/19 Engineering Committee meeting.
- Meet with City of Los Angeles to discuss storm water rights within the Verdugo Basin.
- Meet with Stakeholders (County of Los Angeles Department of Parks & Recreation and Department of Public Works, City of Glendale, and CV Town Council) for input and comments.
- Develop a project schedule for design, review, approvals and construction.
- Develop a list of potential project funding options.

Prepared & Submitted by:



David S. Gould, P.E.
District Engineer

Attachment:

1. FY 18/19 – Project Cost Summary