

# **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, April 9, 2019 at 7:00 p.m.**

**Posted: April 5, 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 March 26, 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. **Clean Power Alliance** – Presentation by Clean Power Alliance and discussion related to the District's power supply and level of renewable energy.
2. **Business Case Presentation for Automated Meter Infrastructure (AMI)** – Presentation by and discussion with UtiliWorks related to the implementation of an Automated Meter Infrastructure (AMI) system.
3. **TTHM Study and Disinfection Process Upgrades, Project E-995** - Discussion and update of CVWD's TTHM study and disinfection process upgrades.
4. **FY 2019/20 Water & Wastewater Budgets** – Review of Draft FY 2019/20 Water & Wastewater Budgets.
5. **Board of Directors Vacancy** - Discussion related to filling the impending vacancy on the Board of Directors.

## **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, 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**

**March 26, 2019**

Pursuant to the order of the Board of Directors of the Crescenta Valley Water District, made at the Regular Meeting on March 12, 2019, an Adjourned Regular Meeting was held on March 26, 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:

|                             |                                                                                                                                                                                                                                                                                                                         |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Directors:</b>           | <b>James D. Bodnar<br/>Michael L. Claessens<br/>Kerry D. Erickson (Absent)<br/>Kenneth R. Putnam<br/>Judy L. Tejeda</b>                                                                                                                                                                                                 |
| <b>Attorney:</b>            | <b>Thomas S. Bunn</b>                                                                                                                                                                                                                                                                                                   |
| <b>General Manager:</b>     | <b>Nem Ochoa (Absent)</b>                                                                                                                                                                                                                                                                                               |
| <b>Secretary-Treasurer:</b> | <b>Ron L. Mitchell</b>                                                                                                                                                                                                                                                                                                  |
| <b>District Engineer:</b>   | <b>David S. Gould (Absent)</b>                                                                                                                                                                                                                                                                                          |
| <b>Others Present:</b>      | <b>Mark Hass, IT Manager<br/>Christy Scott, Program Manager<br/>Wendy Holloway, Customer Service Supervisor<br/>Dennis Maxwell, Operation &amp; Maintenance Manager<br/>James Lee, Accounting &amp; Finance Manager<br/>Arturo Montes, Accountant<br/>Brook Yared, Senior Engineer<br/>Frank Colcord, FMWD Director</b> |

**PLEDGE OF ALLEGIANCE**

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

**ADOPTION OF AGENDA**

**It was moved by Director Putnam, seconded by Director Tejeda and carried by a 4-0 vote that the Agenda for the Adjourned Regular Meeting of March 26, 2019, be adopted as presented.**

**PUBLIC COMMENTS** - None

**FOOTHILL MUNICIPAL WATER DISTRICT REPORT** – Mr. Colcord reported that the Colorado River Drought Contingency Plan was approved by all 7 States and now it will go to Congress for final approval before implementation. The State Water Project has upped its allocation to 70%, and the month of February was the second lowest sales of water for FMWD for the last 20 years due to all the rainfall we

have had, and CVWD water conservation to date is 17% below the baseline of 2013/14. The General Manager of FMWD, Nina Jazmadarian, has been selected to participate as a Stakeholder for the LA River Flows Project.

### **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 March 12, 2019 and to ratify the disbursements for February 2019.**

**Payment of demands against the Crescenta Valley Water District on or before February 28, 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 One Million One Hundred Forty-Five Thousand, Eight Hundred Eighteen Dollars and Thirteen cents (\$1,145,818.13), which is composed of the individual items set forth herein.**

### **ACTION CALENDAR**

**FY 2019/20 Water and Wastewater Budgets** – Mr. Lee gave a presentation to the Board and reviewed the preliminary FY 2019/20 Water and Wastewater Budget. He explained the different analysis and scenarios staff had been discussing, and showed different costs and percentages of rate increases. The Board discussed the preliminary budget and has requested that staff reduce the operating budget by 3%-5% and bring back to a future meeting for discussion.

**Approval of the District's Social Media Policy and Protocols** – Ms. Scott reported that as part of the District's communication plan, that Social Media will be used as a method of communication with the District's customers. Staff and CV Strategies have developed a one-page policy regarding Social Media. The Community Relations Committee reviewed the Social Media Policy and Protocols, and recommends approval from the Board.

Following discussion:

**It was moved by Director Tejeda, seconded by Director Claessens and carried by a 4-0 vote to adopt the District's Social Media Policy and Protocol.**

**INFORMATION ITEMS** – None

**WRITTEN COMMUNICATIONS TO DISTRICT** – None

### **REPORTS OF PERSONNEL**

#### **GENERAL MANAGER** –

Mr. Mitchell reported on the Directors Stipend report for March 2019. He reported that Clean Power Alliance will be at the next Board meeting to give a presentation. Also, the District received an Engineering award for the technology of Well 2. The process of the job at Well 2 was submitted to ACWA, and the District has been selected as a finalist for the Clair A. Hill Award that will be presented at the ACWA Spring Conference on May 9, 2019.

Mr. Maxwell reported that on March 20, 2019 we had a 6" main break at 5911 Canyonside, and on March 21, 2019 there was a lateral leak in the 2500 block of Whittier.

Ms. Scott gave an update on the Well 2 status saying that we are still waiting on the Division of Drinking Water to finalize the permit.

**ATTORNEY** –Mr. Bunn reported on the proposed water tax that will aid disadvantaged communities and that this would be a state wide tax on the water bills. ACWA and others think this is a bad idea. Last year this started out as a legislative bill, and got put in as a budget trailer item. The water industry was successful in beating back this item last year. It has come back again and Governor Newsom again wants to process this as a budget trailer item. However, this year the water industry has put in an alternative idea, which is called a water trust which will take money from the State general fund in times of surplus to aid the disadvantaged communities. This is referred to as SB669. It is going to the first hearing of the Senate Environmental Quality on April 10, 2019.

### **REPORTS OF COMMITTEES**

**Engineering Committee** – Director Bodnar reported that the Committee met on March 15, 2019 and reviewed the status of groundwater wells and capacity, discussion of Water Systems pressure, CVWD's AMI Business Case, Project update for TTHM Study, Oak Creek Reservoir rehabilitation, Well 2, Well Rehabilitation of Wells 1 & 7 and the Stormwater Capture Facilities at CVC Park. The next meeting will be on April 12, 2019 at 9:00 a.m.

**Finance Committee** – Director Putnam reported that the Committee met on March 21, 2019 and reviewed the Draft FY 2019/20 Water and Wastewater Budget. The next meeting will be on March 21, 2019 at 9:00 a.m.

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

**Policy Committee** – Director Claessens 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 met on March 20, 2019 and reviewed the Draft of Social Media Policy and Protocol, Survey Results, and the Board Meeting signs.

**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 reported that he attended the Law of the Colorado River Conference last week at no cost to the District. At the conference he learned about the priority system on the Colorado River and how water is allocated among the Lower Basin States. A main topic of discussion was the Drought Contingency Plan. The plan, if approved by Congress, would allow Metropolitan to store additional water in Lake Mead during surplus conditions. There is still some uncertainty on whether Congress will

approve the plan. Should the plan be approved, the water supply reliability of Southern California will be improved.

Director Claessens – No Report

Director Tejeda – No Report

Director Putnam – No Report

Director Erickson – No Report

**CLOSED SESSION**

A Closed Session was held with no reportable action taken.

**ADJOURNMENT**

There being no other business to come before the Board, at 9:20 p.m., it was moved by Director Claessens, seconded by Director Tejeda and carried by a 4-0 vote that the meeting be adjourned to April 9, 2019, at 7:00 p.m.

**APPROVED**

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James D. Bodnar  
President

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Ron L. Mitchell  
Secretary-Treasurer

# CRESCENTA VALLEY WATER DISTRICT

## BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 1

April 9, 2019

**To:** Honorable President and Members of the Board of Directors  
**From:** Nem Ochoa, P.E. – General Manager  
**Subject:** Clean Power Alliance

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### **ACTION ITEM:**

#### **Clean Power Alliance**

Presentation by Clean Power Alliance and discussion on renewable energy offering.

### **BACKGROUND:**

Clean Power Alliance (CPA) was established in 2017 to provide cost competitive electric services, reduce electric sector greenhouse gas emissions, stimulate renewable energy development, implement distributed energy resources, promote energy efficiency and demand reduction programs, and sustain long-term rate stability for residents and businesses through local control.

Originally established as a joint powers authority with unincorporated Los Angeles County, Rolling Hills Estates, and South Pasadena as founding members, CPA has quickly grown to a coalition of 31 agencies across Los Angeles and Ventura Counties.

Crescenta Valley Water District is within the service territory of CPA and has the option to utilize CPA as its primary energy provider or opt to maintain service with Southern California Edison (SCE).

CPA will present an overview of their agency and its service offering, and entertain any questions the Board may have regarding CPA.

### **RECOMMENDATION:**

View presentation by Clean Power Alliance and partake in discussion regarding CPA renewable energy offering.

### **ENVIRONMENTAL REVIEW:**

Not applicable

### **FUNDING AVAILABILITY:**

Not applicable.

Submitted by:



Nem Ochoa, P.E.  
General Manager

# CRESCENTA VALLEY WATER DISTRICT

## BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 2  
April 9, 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) Business Case

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### **ACTION ITEM:**

**Advanced Metering Infrastructure (AMI) Business Case Presentation, Project E-998** – Presentation by UtiliWorks Consulting of the Business Case and Implementation of the District's AMI program

### **BACKGROUND:**

CVWD retained the services of UtiliWorks Consulting in November 2018 to prepare a business case analysis for implementation of CVWD's AMI program that included reviewing existing CVWD AMI information and data, meeting with staff, prepare a cost-benefit analysis for installation and implementation of the program, estimation of costs to complete the project, project time line and possible funding options,

Staff met with the team from UtiliWorks for a 3-day seminar in January 2019 to begin the assessment of CVWD's AMI program. From the information gathered, Utiliworks prepared a draft report for staff's review at the end of February 2019.

UtiliWorks finalized CVWD's AMI Business case, and the report was presented at the Engineering Committee on March 15, 2019. Comments from the Engineering Committee were incorporated into the final report.

### **DISCUSSION:**

UtiliWorks have prepared a presentation of the AMI business case for discussion and comments from the full Board (See attached). The Business Case Report was sent out on April 2, 2019 to Board Members for review. In addition, UtiliWorks prepared an AMI recommendation memorandum (See attached) that outlines the process, scope, recommendations for equipment, implementation plan, engineer's cost estimate and different timelines to complete the project for review and discussion with the Board.

Staff also submitted two (2) grant applications to the U.S. Bureau of Reclamation (USBR), WaterSMART Program for Water and Energy Efficiency Grant on March 19, 2019 for \$300,000 and \$1.5M, respectfully and we anticipate a response by July 2019.

### **RECOMMENDATION:**

It is staff's goal to get feedback and direction from the Board of Directors on the next steps for implementation of the AMI program, which will be included in the FY 19/20 Water Budget.

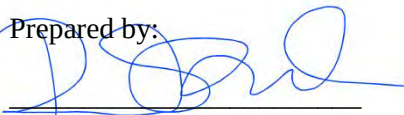
### **ENVIRONMENTAL REVIEW:**

N/A

### **FUNDING AVAILABILITY:**

N/A

Prepared by:



David S. Gould, P.E.  
District Engineer

Submitted by:



Nem Ochoa  
General Manager

Attachment:

1. Advanced Metering Infrastructure (AMI) Business Case Presentation
2. AMI Recommendations Memorandum
3. AMI Business Case Report (previously sent on 4/2/19)





# Crescenta Valley Water District (CVWD)

## Board of Directors Presentation

### Advanced Metering Infrastructure (AMI) Business Case



April 9, 2019

UtiliWorks™

# Agenda

- UtiliWorks Introduction
- Business Case Assumptions
- Key Benefits
- Business Case Results
- Deployment Approach and Considerations
- Recommendations and Next Steps
- Questions and Answers



# UtiliWorks Introduction

- Started in 2005 to address the municipal advanced metering and related technologies market
  - This is the exclusive focus of our company
- Corporate office in Baton Rouge, LA with associates around the U.S.
- No vendor affiliations
  - Our recommendations are based on the best fit for your unique environment
- Recognized nationally as an industry expert
  - Regularly engaged as subject matter experts for speaking events
- Over 85 Past and Current AMR/AMI Clients



# Business Case Assumptions - General

- Base Assumptions
  - 20-year lifespan for the project based on vendor warranty
    - 10 years full replacement and 10 years pro-rated for the meters is typical
  - 30-month project duration including a Proof of Concept phase
- Expenditure Assumptions
  - 2,245 meters to be replaced
  - 5,912 meters to be retrofit
  - All software to be in a 'Vendor Hosted Environment'
  - Third-Party installer will be utilized
  - All meter box lids to be replaced

# Business Case Assumptions - Expenses

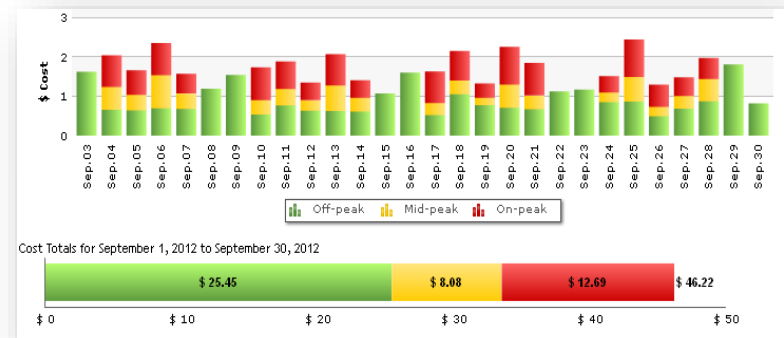
- Capital Expense (CapEx)
  - AMI Infrastructure
  - Related Software
  - Installation
  - Professional Services (Project Management, Training, Systems Integration, etc.)
- Operational Expenses (OpEx)
  - Annual Software Hosting Fees
  - Maintenance of Meters, Transmitters, and Data Collectors

# Business Case - Benefit Categories

- Category 1: Hard Dollar Benefits
  - Real dollars that can be directly attained either by avoided cost or revenue recovery
- Category 2: Reallocation for Higher Service Delivery Benefits
  - Re-distribute employee time to services lacking resources or new operational and/or customer service functionality
- Category 3: Intangible Benefits
  - Increased system knowledge and troubleshooting tool
  - Network availability for other devices
  - Strategic customer information
  - Public perception/expectation

# Key Customer Benefits

- Proactive customer outreach
- Expedited leak detection and conservation
- Improved customer experience and customer satisfaction
  - Faster response times
  - More informed customer service representatives
  - Visibility into more granular usage (days and hours)
  - Averted high bills
  - Targeted messaging



## Key Operational Benefits

- Meter reading, re-reads, and meter downloads - reduced truck rolls and staff time for manual reads and usage reporting
- Billing exception handling - reduced staff time for billing exceptions and estimations
- Customer inquiries - self-serve tools to assist customers with near-real-time alerts, improved understanding of consumption
- Move-in/move-out - ability to perform remote disconnect (or virtual disconnect) and obtain final read
- Theft identification - near-real-time theft/tamper alerts
- Leak detection and better accounting/reduction of nonrevenue water
- Non Revenue Water - improved tracking/reduction through use of zone analysis (net inflow and outflow)



# Business Case - Results Overview

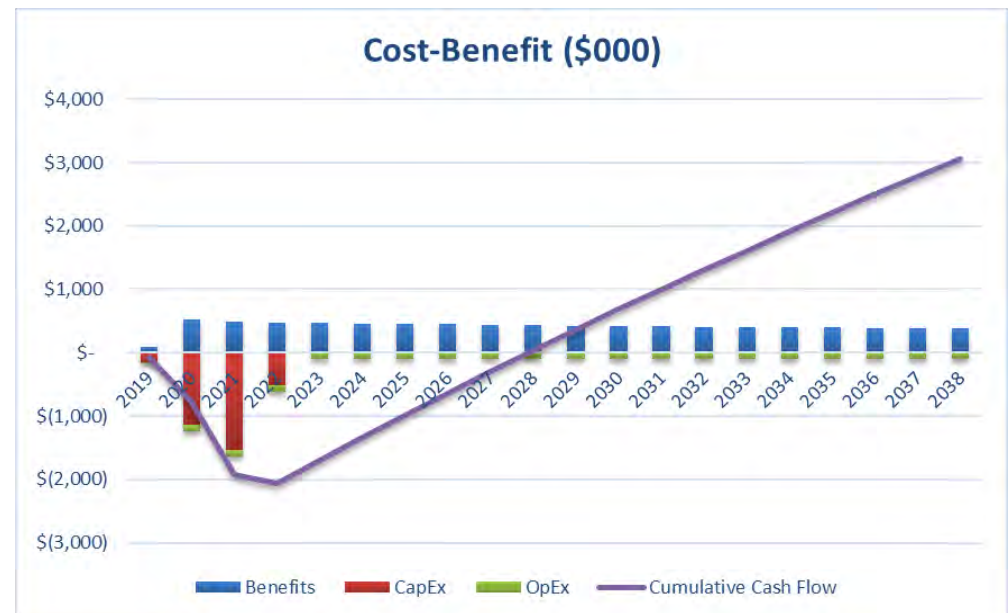
- Iterations
  - Iteration 1: Hard Dollar Benefits
  - Iteration 2 : Hard Dollar Benefits, Plus Reallocation for High Service Delivery Benefits
- Financial Metrics
  - Present Value: Cumulative benefits minus the costs of a project
  - Payback Period: The length of time for the investment to show a positive return
  - Return on Investment (ROI): Calculated by looking at total profit (revenue minus cost) divided by the total investment over a specific period (%)

# Business Case Results Comparison

| Financial Metric           | Iteration 1: Hard Dollar Benefits Results | Iteration 2: Hard Dollar Benefits, plus Reallocation for High Service Delivery Benefits Results |
|----------------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------|
| Present Value (\$000)      | \$(234)                                   | \$3,070                                                                                         |
| Return on Investment (ROI) | -4%                                       | 58%                                                                                             |
| Payback Period             | > 20 Years                                | 10                                                                                              |
| Estimated Benefits (\$000) | \$5,020                                   | \$8,325                                                                                         |
| Estimated OpEx (\$000)     | \$1,927                                   | \$1,927                                                                                         |
| Estimated CapEx (\$000)    | \$3,328                                   | \$3,328                                                                                         |
| CapEx Cost/Meter (\$000)   | \$408                                     | \$408                                                                                           |

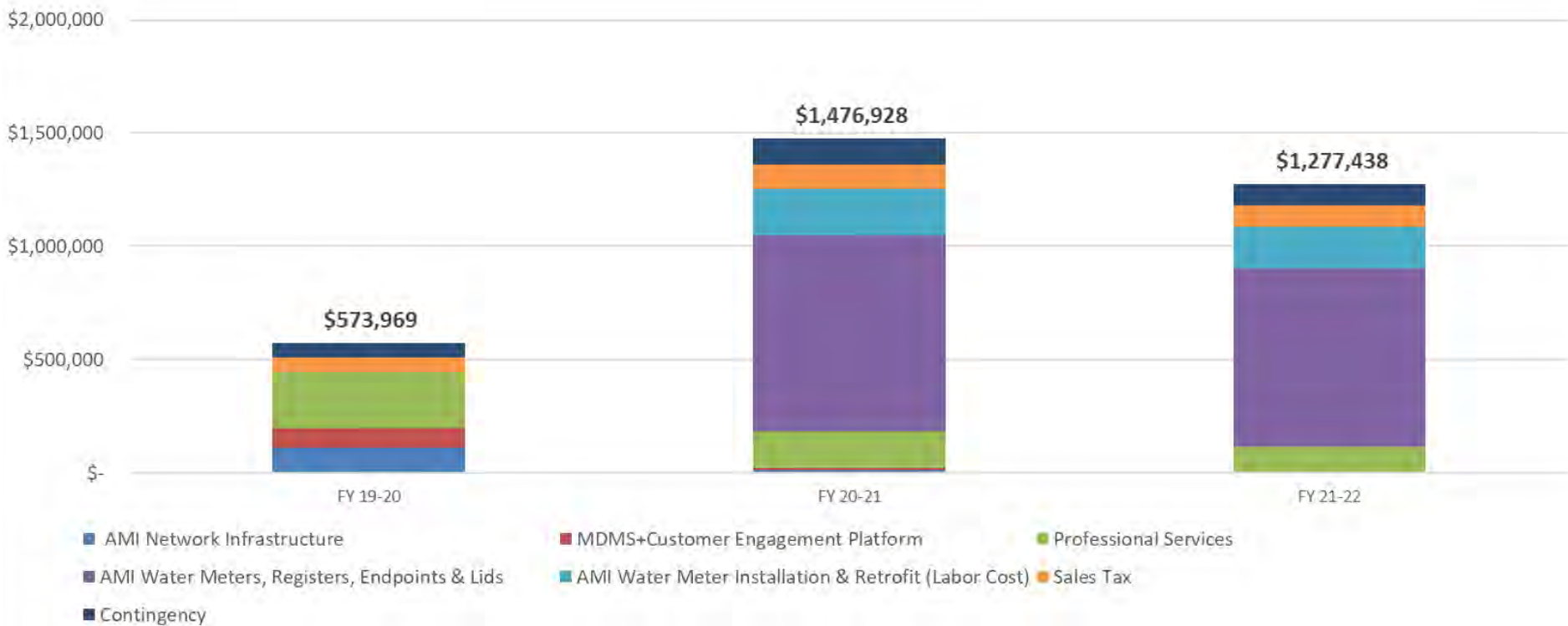
# Business Case Results Summary

- Business case shows positive results
- 60% of total benefits (approx. \$5 million) can be attributed to hard dollar savings
- CVWD can expect about \$3.3 million in additional operational and customer service value
- Benefits assumptions are conservative

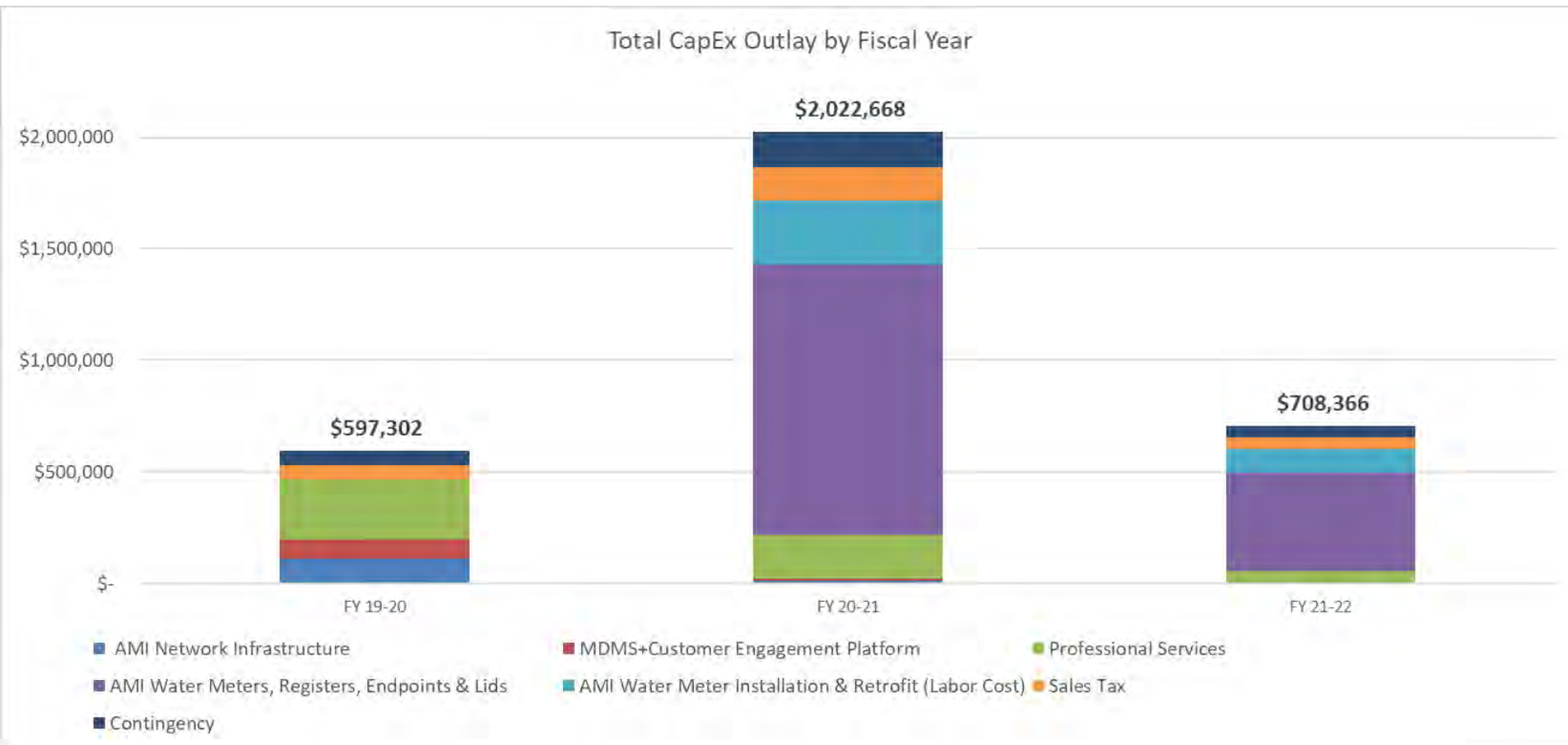


# Capital Outlay: 30 Month Project Duration

Total CapEx Outlay by Fiscal Year

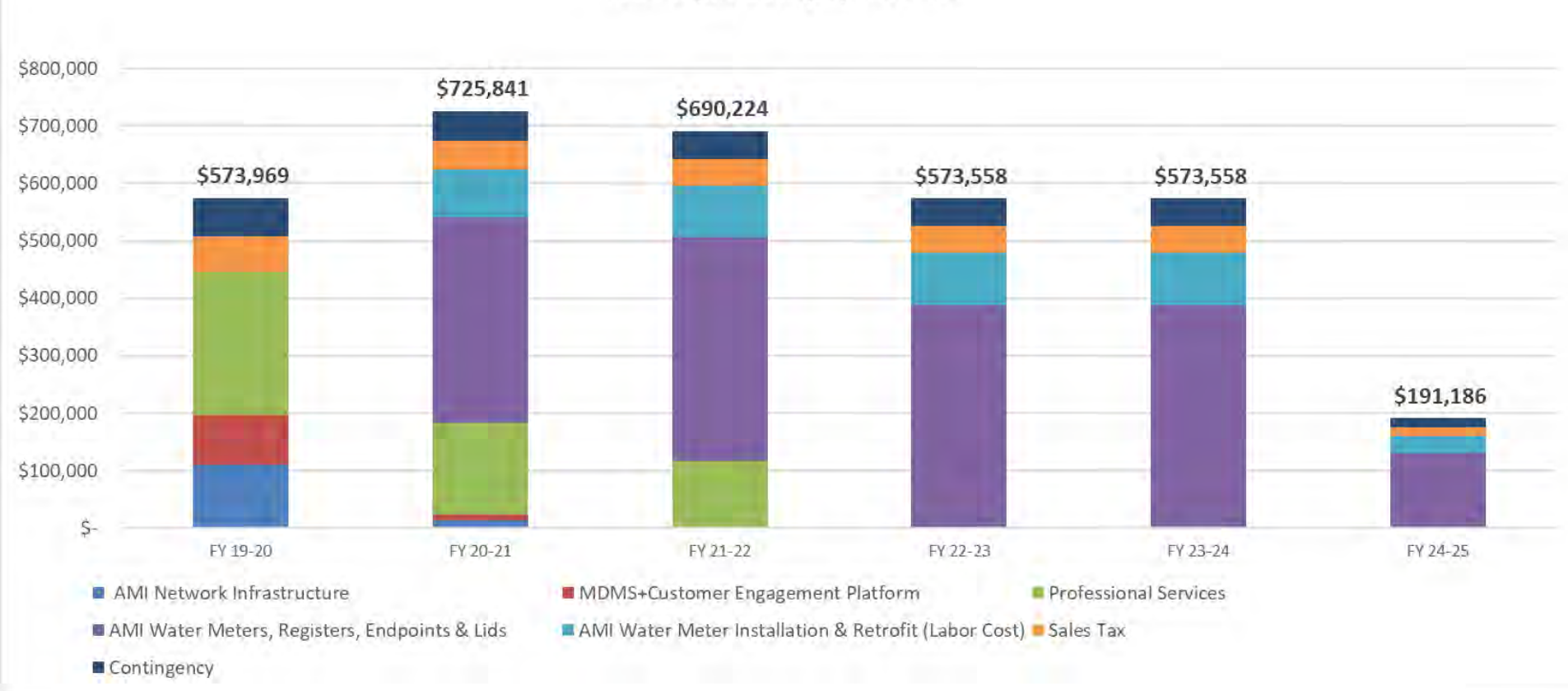


# Capital Outlay: 24 Month Project Duration



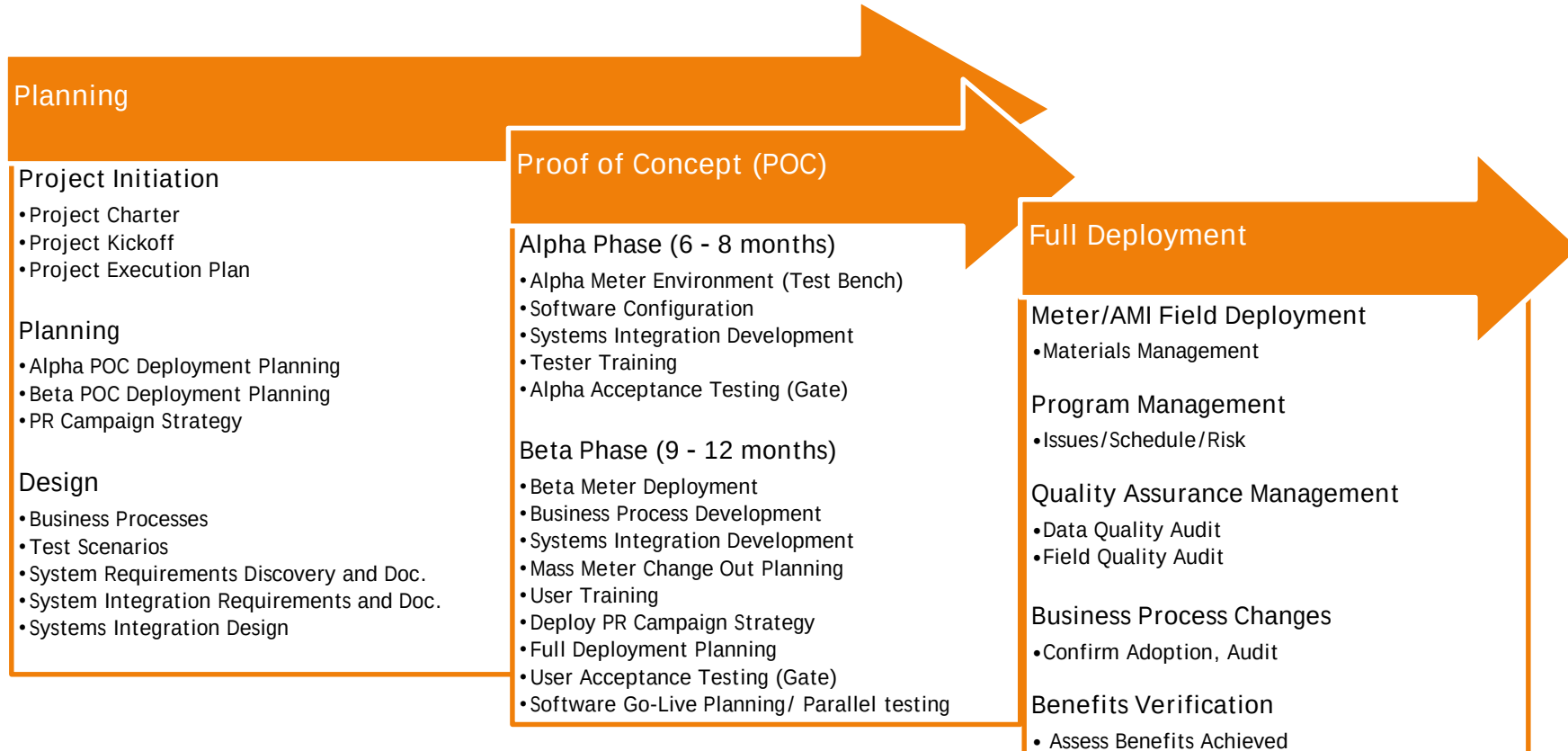
# Capital Outlay: 60 Month Project Duration

Total CapEx Outlay by Fiscal Year



# Recommended Deployment Approach

- Three (3) key phases: Planning, Proof of Concept, & Full Deployment
- Phased approach provides the utility with specific *hold points* that will halt progression, and capital outlay, if the system does not meet requirements
- Reduces risk while reaching basic system functionality





# Deployment Considerations

- AMI infrastructure is relatively unobtrusive
- Vendors typically use utility-owned assets or lease space from third-parties



Floor-Mounted Collector with Solar Panels



Tank Rail-Mounted Collector with Long Mast



Tank Rail-Mounted Collector with Short Mast



# Full Deployment Duration Considerations

- If CVWD extends the full deployment duration of meters/endpoints, the following should be considered:
  - Advantages
    - Reduces annual capital budget outlay
    - Staggers end-of-life for the roughly 2,200 meters that will be replaced
  - Disadvantages
    - Full benefits will take longer to realize
    - Inconsistent availability of information across customer base
    - Requires parallel business processes for a longer period of time which can create inefficiencies

# Recommendations and Next Steps

- Recommendations

- Proceed with the implementation of an AMI Program
- Utilize a phased approach to deployment
- Actively engage staff throughout the effort to keep them informed of the project

- Next Steps

- Obtain Board of Directors approval to proceed
- Identify and secure project funding (e.g. WaterSMART grant, loans, etc.)
- Solicit proposals for AMI, MDMS, a customer engagement platform, and meter installation services in accordance with CVWD's purchasing policy

# Questions?

# Thank You

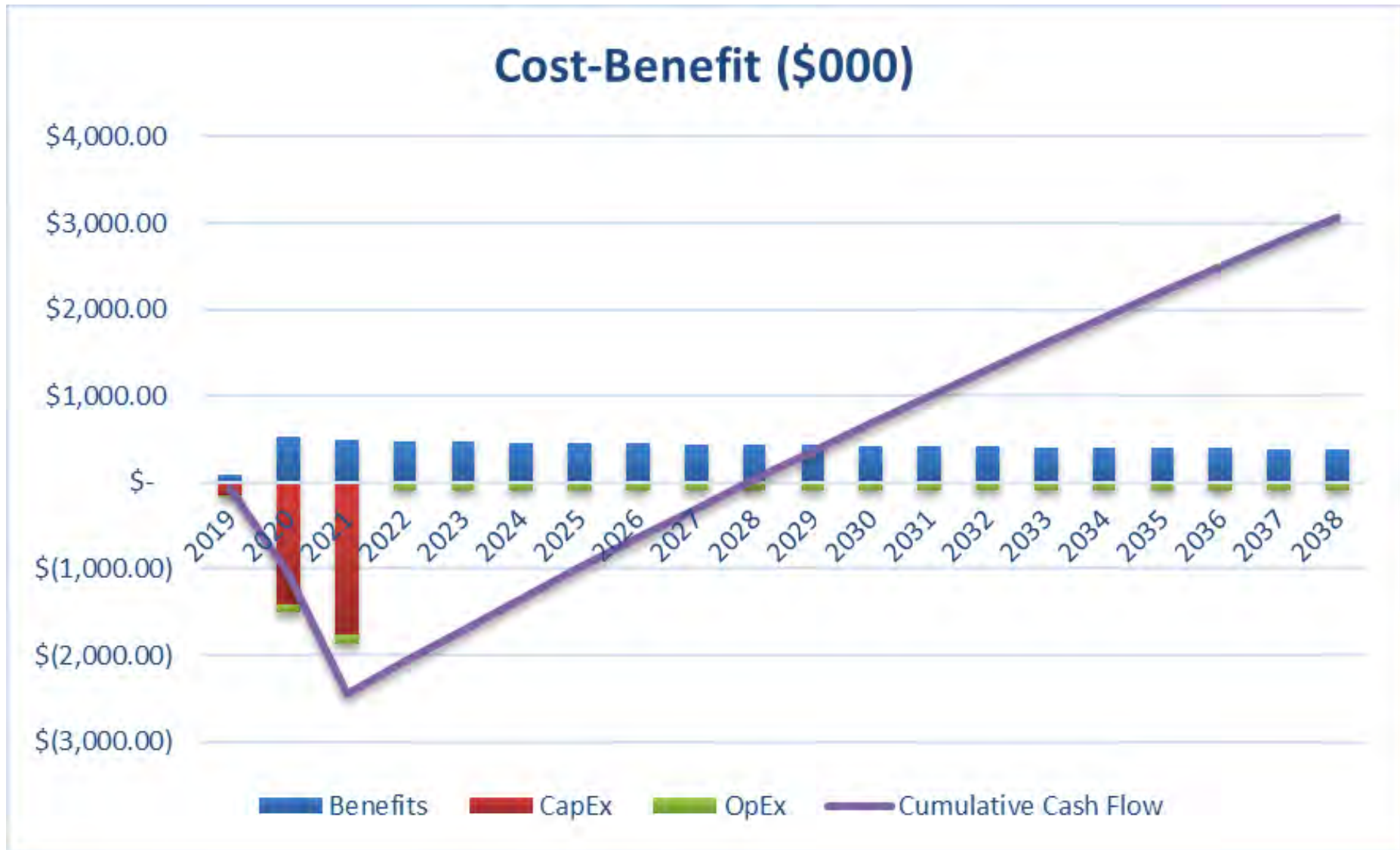
Nicole Naassan  
Director of Consulting Services  
UtiliWorks Consulting, LLC.

[nnaassan@utiliworks.com](mailto:nnaassan@utiliworks.com)

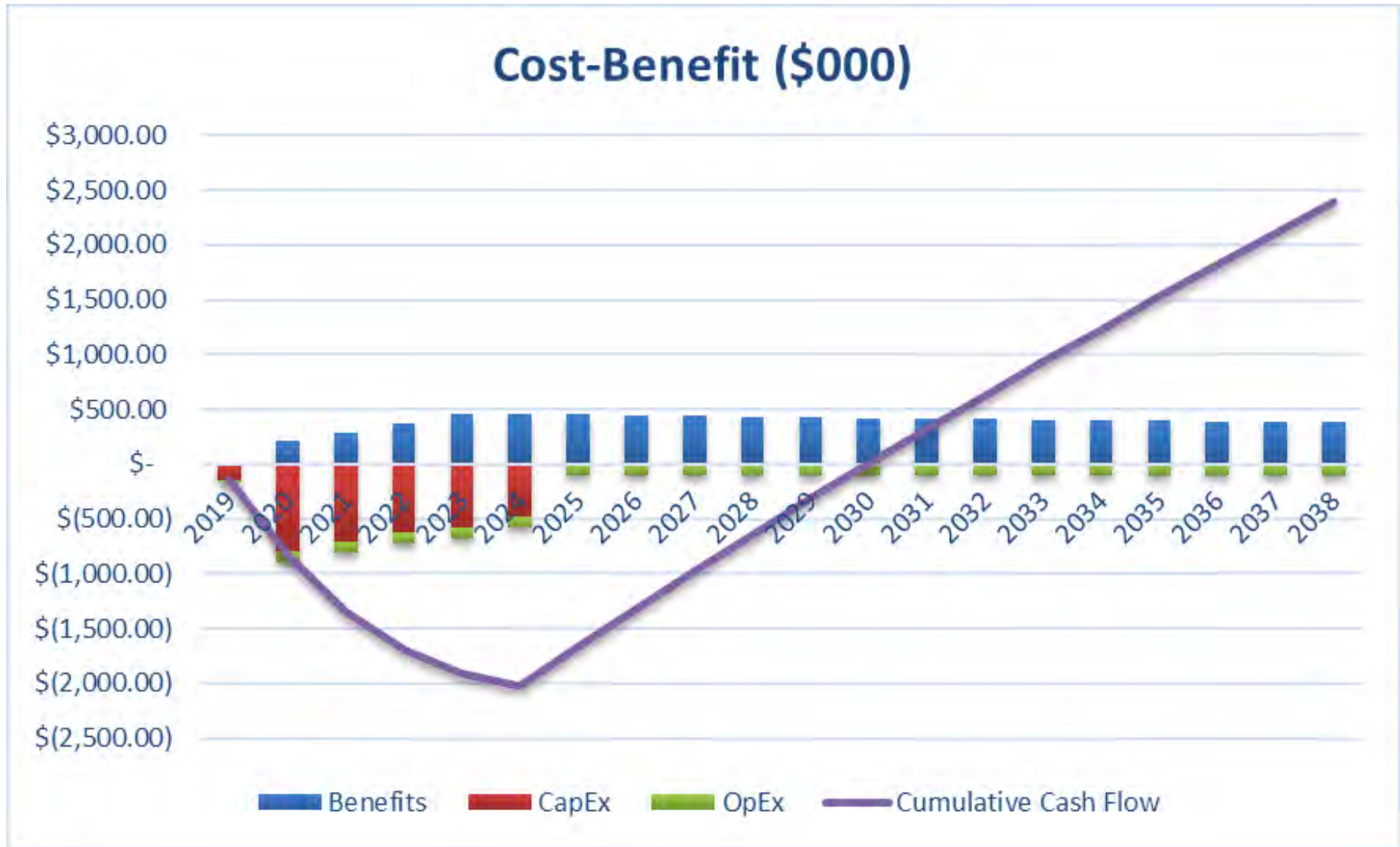
(703) 216-5752

# Appendix

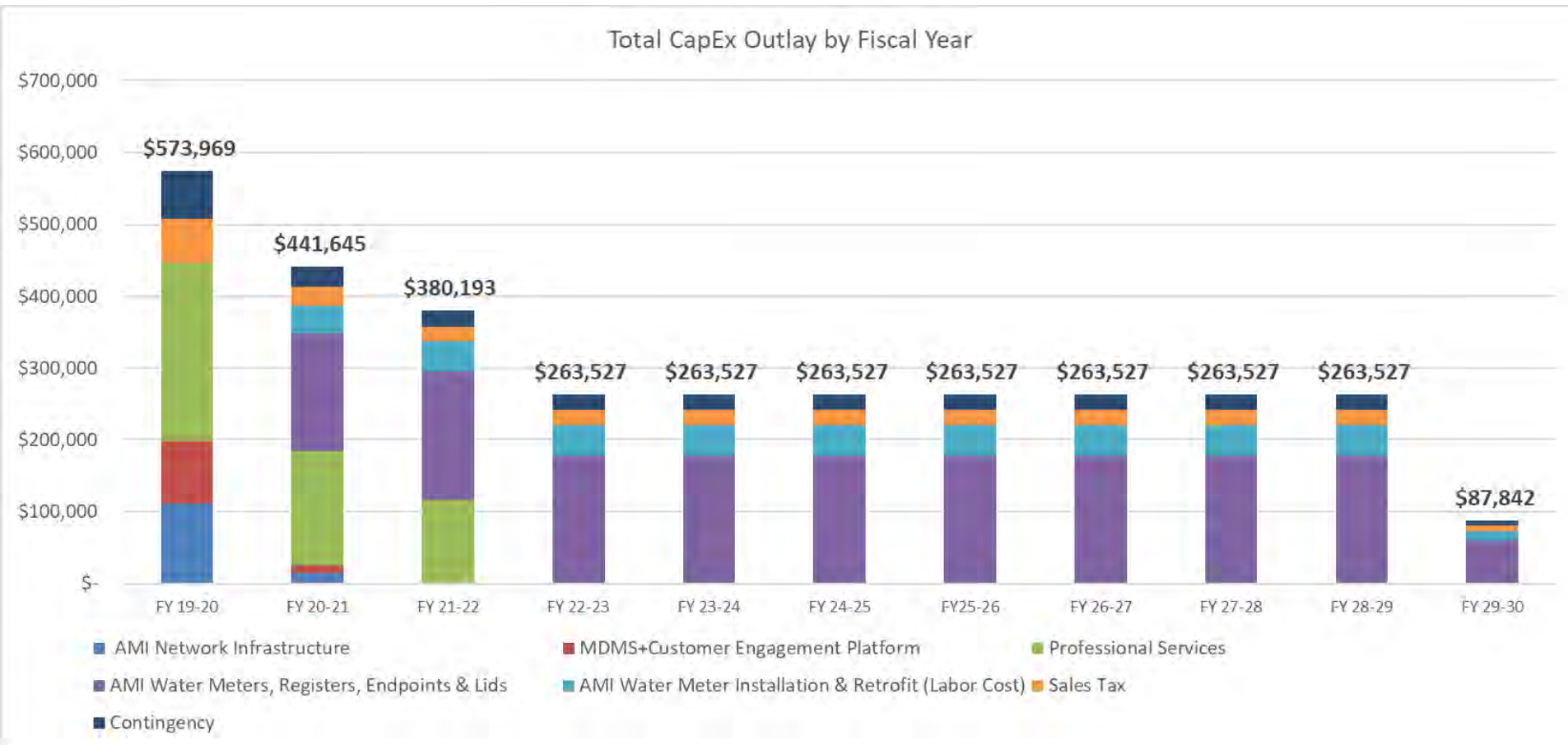
## Cost-Benefit: 24 Months



## Cost-Benefit: 60 Months

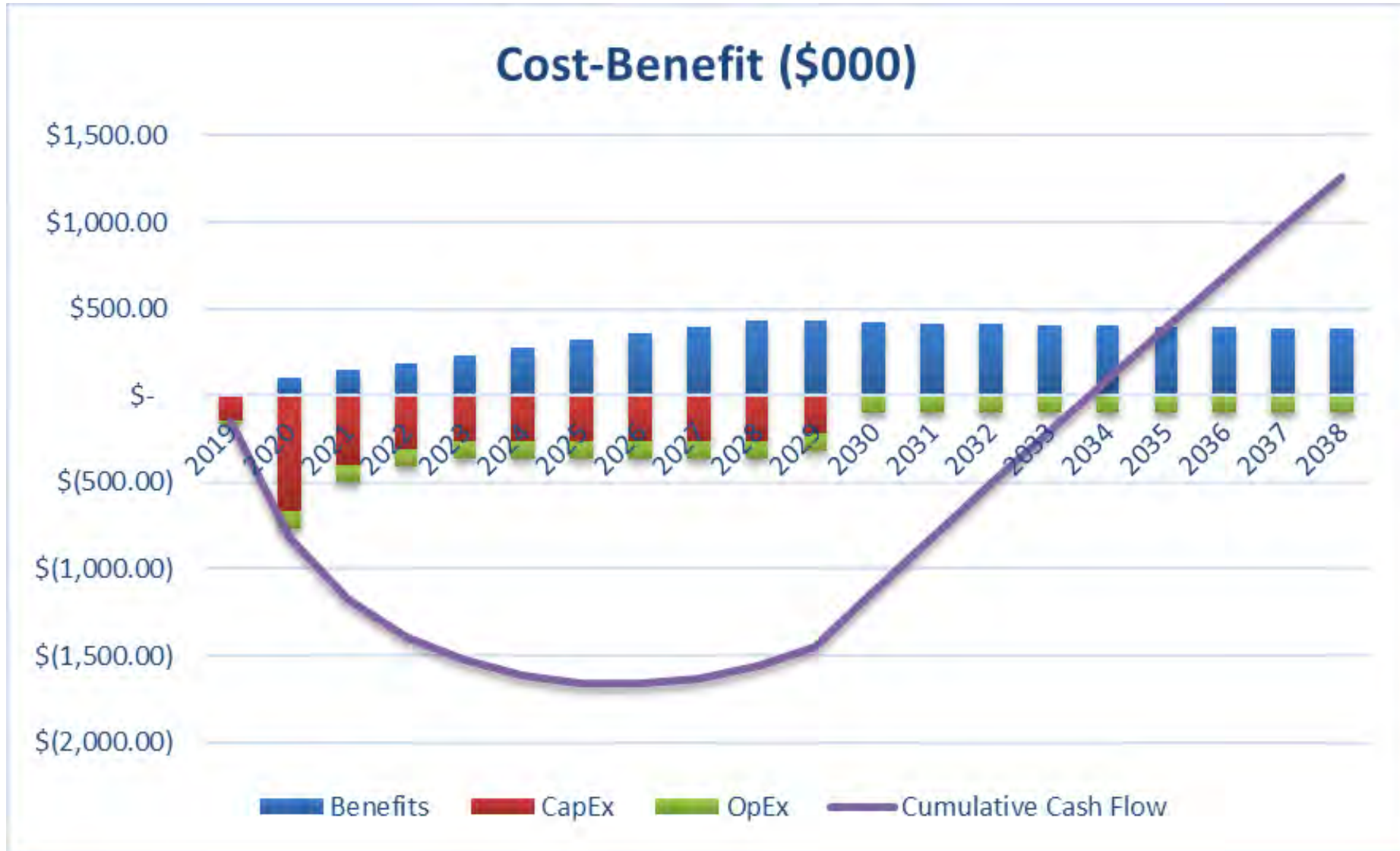


# Capital Outlay: 120 Month Project Duration





## Cost-Benefit: 120 Months



# CRESCENTA VALLEY WATER DISTRICT

## BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 3

April 9, 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

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### **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 shown have remained under or near the target level of 64 ug/L due to decreasing water demands and lower winter temperatures. However, we have seen a rise in TTHM for FMWD/MWD as MWD is using more State Water Project water at the Weymouth Plant.

#### **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 installing ammonia skid and building at Mills Plant.
- o Field crews working on installation of the six (6) new chlorine analyzers, starting at Dunsmore Reservoir
- o Staff completing construction plans to upgrade the chlorination system at Pickens Canyon Tunnel.
- o Staff and WQTS finalizing submittal to DDW for amending permit.

#### **Water Distribution Flushing:**

ValveTek has completed dead-end water main flushing in Zones 1 – 5, which is 72 of the 136 dead-end water mains. Valvetek is on-schedule to complete the work by mid-May 2019. Staff has received one (1) water quality complaint about cloudy water to date.

### **PROJECT SCHEDULE:**

#### **Project Schedule - Installation of Ammonia Injection System:**

Staff has updated the project schedule based on the lead-time for the precast concrete vault provided by the vendor. The precast concrete vault delivery date was revised to May 15, 2019 due to back order on steel lid.

#### **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. 2019 1<sup>st</sup> quarter samples were completed and the running annual average was below the MCL as shown on the attached charts.

The next compliance sampling date is June 2019, which will be an average of April, May and June. Staff anticipates that the TTHM level will be below the target level of 64 ug/L. Staff still has concerns about the TTHM levels increasing during the summer of 2019 due to higher demands, higher temperature, and more SWP water from MWD.

Staff and its consultants are also 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 in April 2019 and amendment to the permit completed by the end of May 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 were 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

**Updated Cost Estimate:**

| Account Description                                                  | Amount -<br>2/26/19 | Amount -<br>4/9/19 | 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             |
| <b>Total Estimated Cost for Project</b>                              | <b>\$1,000,000</b>  | <b>\$1,000,000</b> | <b>\$0</b>      |
| <b>Consultants - Planning, Design &amp; Construction Admin</b>       |                     |                    |                 |
| WQTS - Planning                                                      | \$10,000            | \$10,000           | \$0             |
| WQTS - Design                                                        | \$144,040           | \$144,040          | \$0             |
| Hazen & Sawyer - Water Quality                                       | \$11,970            | \$11,970           | \$0             |
| John Robinson Consulting - Project Management                        | \$45,225            | \$45,225           | \$0             |
| Grace Environmental Services (3 months part-time service) (Estimate) | \$5,000             | \$5,000            | \$0             |
| Apex Manufacturing Solution - SCADA programing and integration       | \$54,165            | \$54,165           | \$0             |
| New Chlorine Analyzers - 6 locations - Hazen and Sawyer - Design     | \$53,255            | \$53,255           | \$0             |
| Public Notification - CV Strategies , Printing & Mailing             | \$11,168            | \$11,168           | \$0             |
| WQ Sampling - 7/1/18 to 2/28/19                                      | \$65,681            | \$78,759           | \$13,078        |
| WQ Sampling - 3/1/19 to 6/1/19 (Estimate)                            | \$34,560            | \$28,000           | (\$6,560)       |
| <b>Subtotal</b>                                                      | <b>\$435,064</b>    | <b>\$441,582</b>   | <b>\$6,518</b>  |
| <b>Construction</b>                                                  |                     |                    |                 |
| Ammonia Injection Skids (2)                                          | \$29,850            | \$33,844           | \$3,994         |
| SCADA - Equipment (RTU's, Communication, cabinets, etc..) (Estimate) | \$19,700            | \$23,200           | \$3,500         |
| Concrete Pad & Grading at Mills                                      | \$7,011             | \$7,011            | \$0             |
| Ammonia Inject Vault at Glenwood                                     | \$36,775            | \$36,775           | \$0             |
| Ammonia Tank at Mills                                                | \$7,153             | \$6,922            | (\$231)         |
| Static Mixer & Ammonia Injection System                              | \$11,000            | \$11,236           | \$236           |
| Conduits/Wiring/Electrical Materials (Estimate)                      | \$6,500             | \$8,200            | \$1,700         |
| Upgrade Chlorine Analyzers (Mills & Glenwood)                        | \$14,165            | \$18,665           | \$4,500         |
| Safety - Eye Wash, Containment, etc.. (materials only) (Estimate)    | \$3,200             | \$3,700            | \$500           |
| On-site Welding (Estimate)                                           | \$9,000             | \$9,000            | \$0             |
| Misc (Estimate)                                                      | \$5,146             | \$5,146            | \$0             |
| <b>Subtotal</b>                                                      | <b>\$149,500</b>    | <b>\$163,699</b>   | <b>\$14,199</b> |
| <b>Operations &amp; Maintenance</b>                                  |                     |                    |                 |
| Upgrade Chlorine Analyzers - 4 locations Equipment (Hach)            | \$23,020            | \$27,520           | \$4,500         |
| Upgrade Chlorine Analyzers - 7 locations Equipment (ProMinent)       | \$36,372            | \$36,372           | \$0             |
| New Chlorine Analyzers - 6 locations - SCADA Programing              | \$32,090            | \$32,090           | \$0             |
| New Chlorine Analyzers - 6 locations - SCADA Equipment (Estimate)    | \$30,000            | \$30,000           | \$0             |
| New Chlorine Analyzers - 6 locations - Equipment (HACH)              | \$54,375            | \$58,875           | \$4,500         |
| Dead-ends Water Main Flushing - Valvetek                             | \$131,000           | \$131,000          | \$0             |
| Misc (Estimate)                                                      | \$5,245             | \$5,245            | \$0             |
| <b>Subtotal</b>                                                      | <b>\$312,102</b>    | <b>\$321,102</b>   | <b>\$9,000</b>  |
| <b>Total Cost</b>                                                    | <b>\$896,666</b>    | <b>\$926,383</b>   | <b>\$29,717</b> |
| <b>Amount Remaining</b>                                              | <b>\$103,334</b>    | <b>\$73,617</b>    |                 |

**RECOMMENDATION:**

It is staff's recommendation to continue with the planning, design and 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:

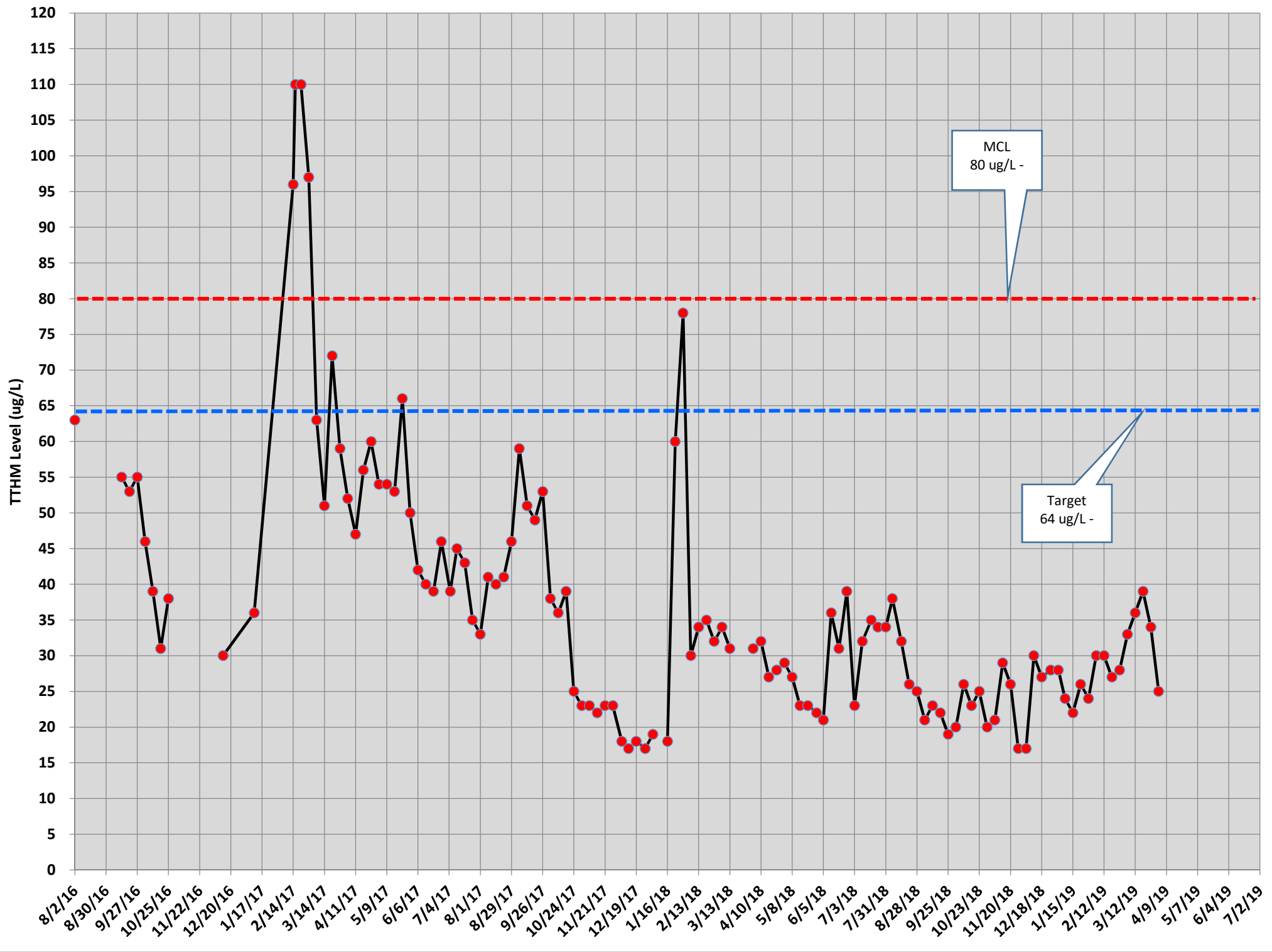


Nem Ochoa  
General Manager

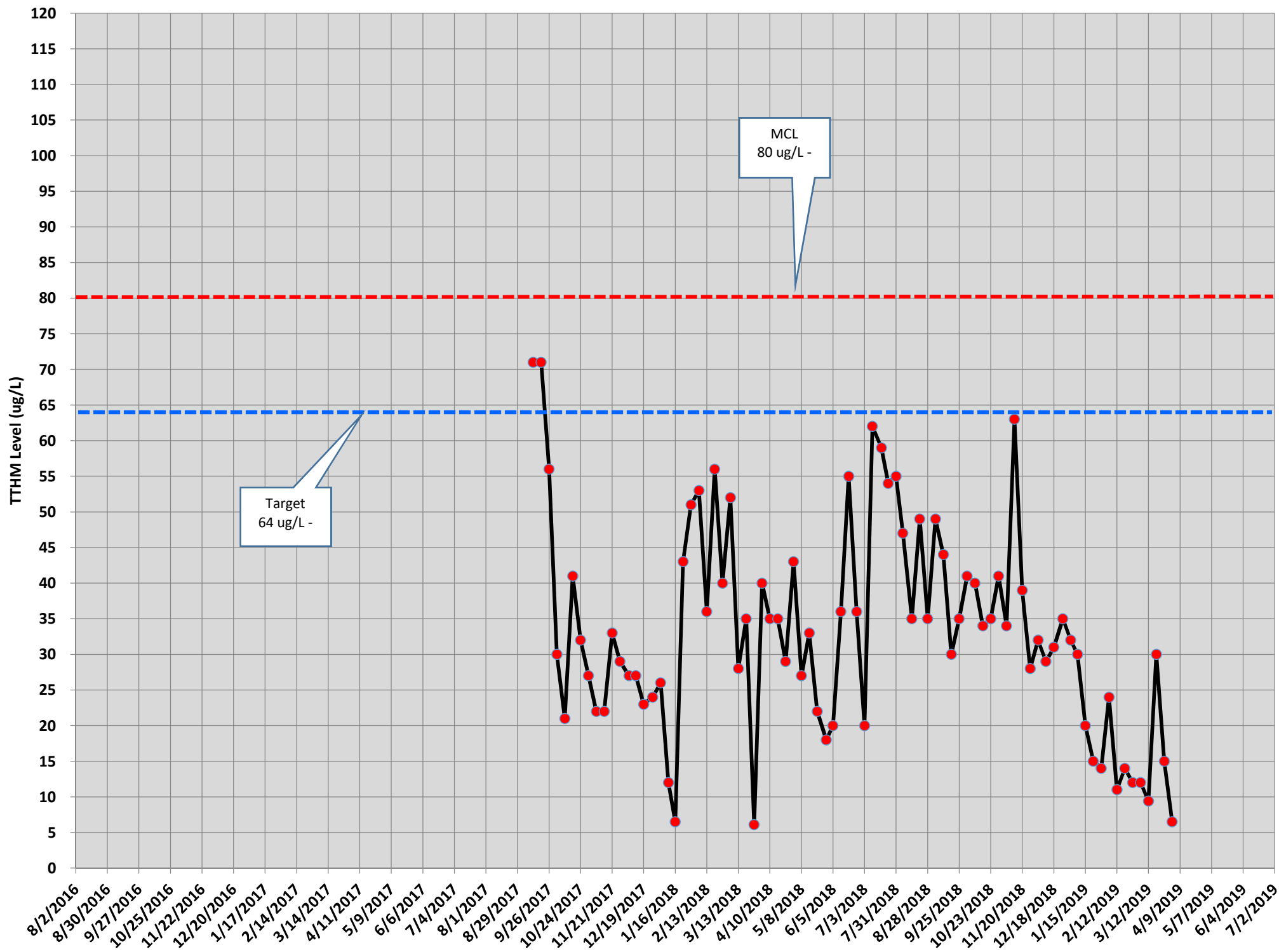
Attachments:

1. TTHM Charts dated 04-02-19
2. Compliance Charts dated 04-02-19

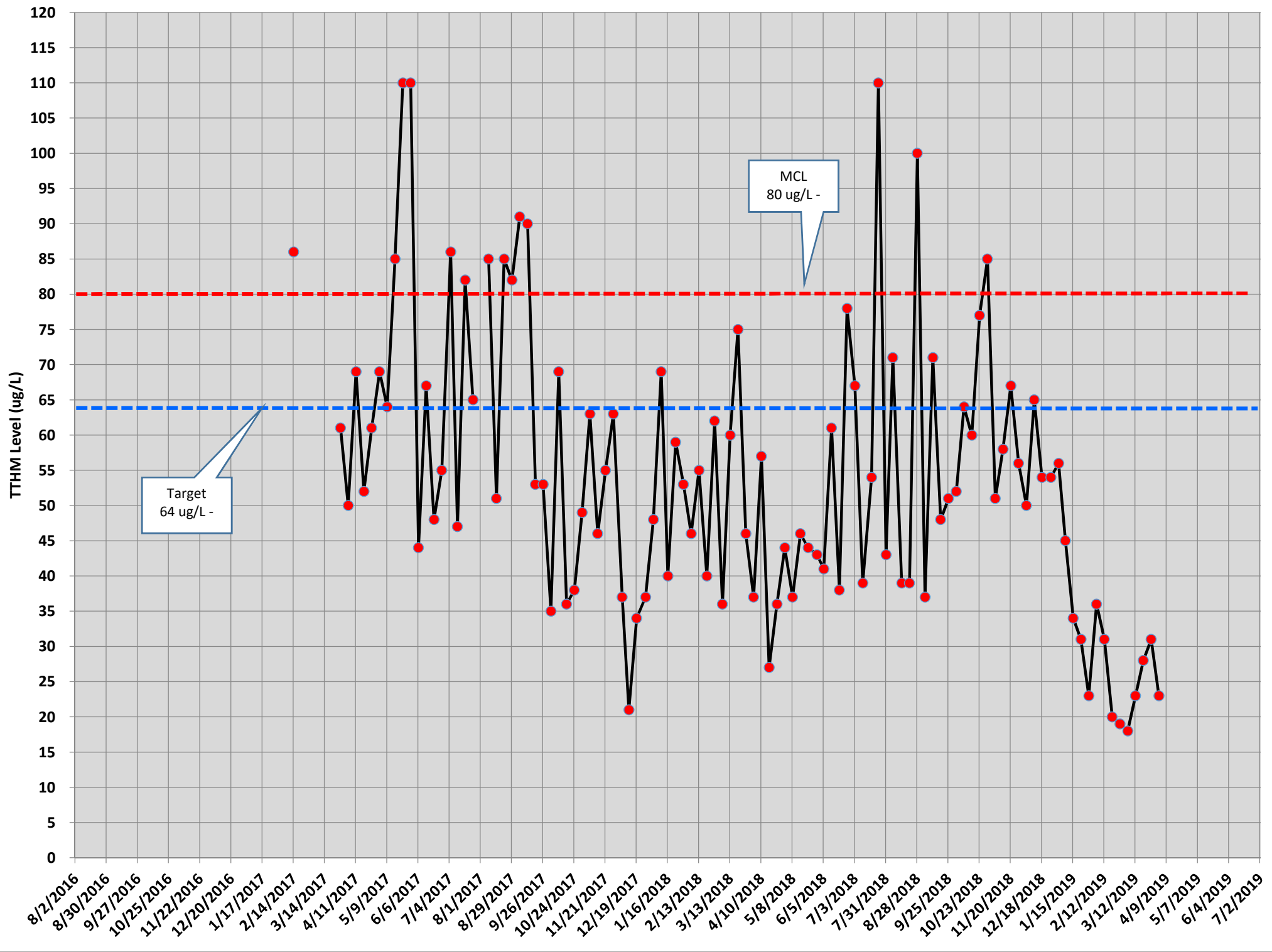
# FMWD at Paschall Booster - TTHM's Levels



# Encinal Reservoir (Zone 1) - TTHMs Levels

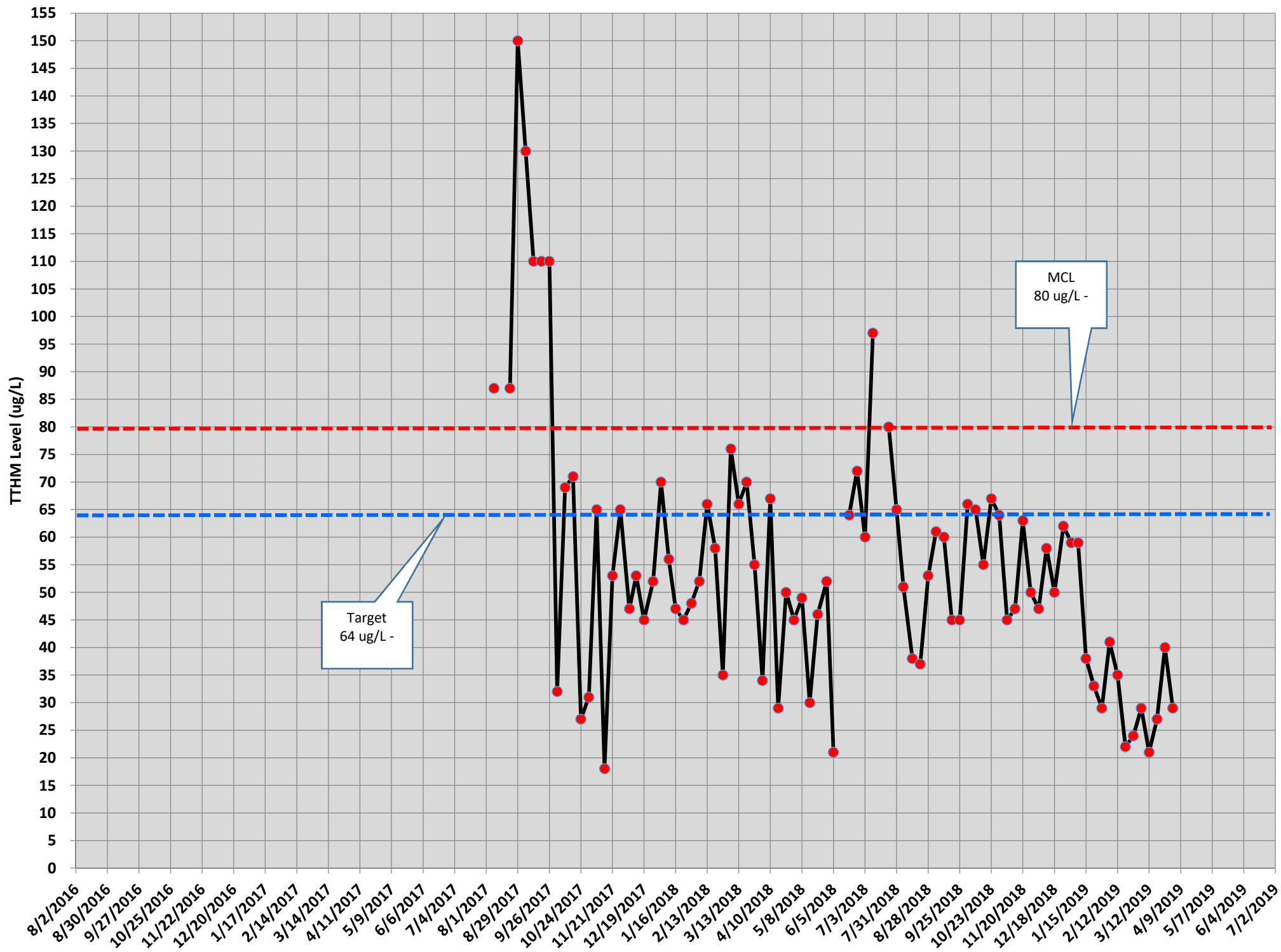


# Williams Reservoir (Zone 2) - TTHMs Levels

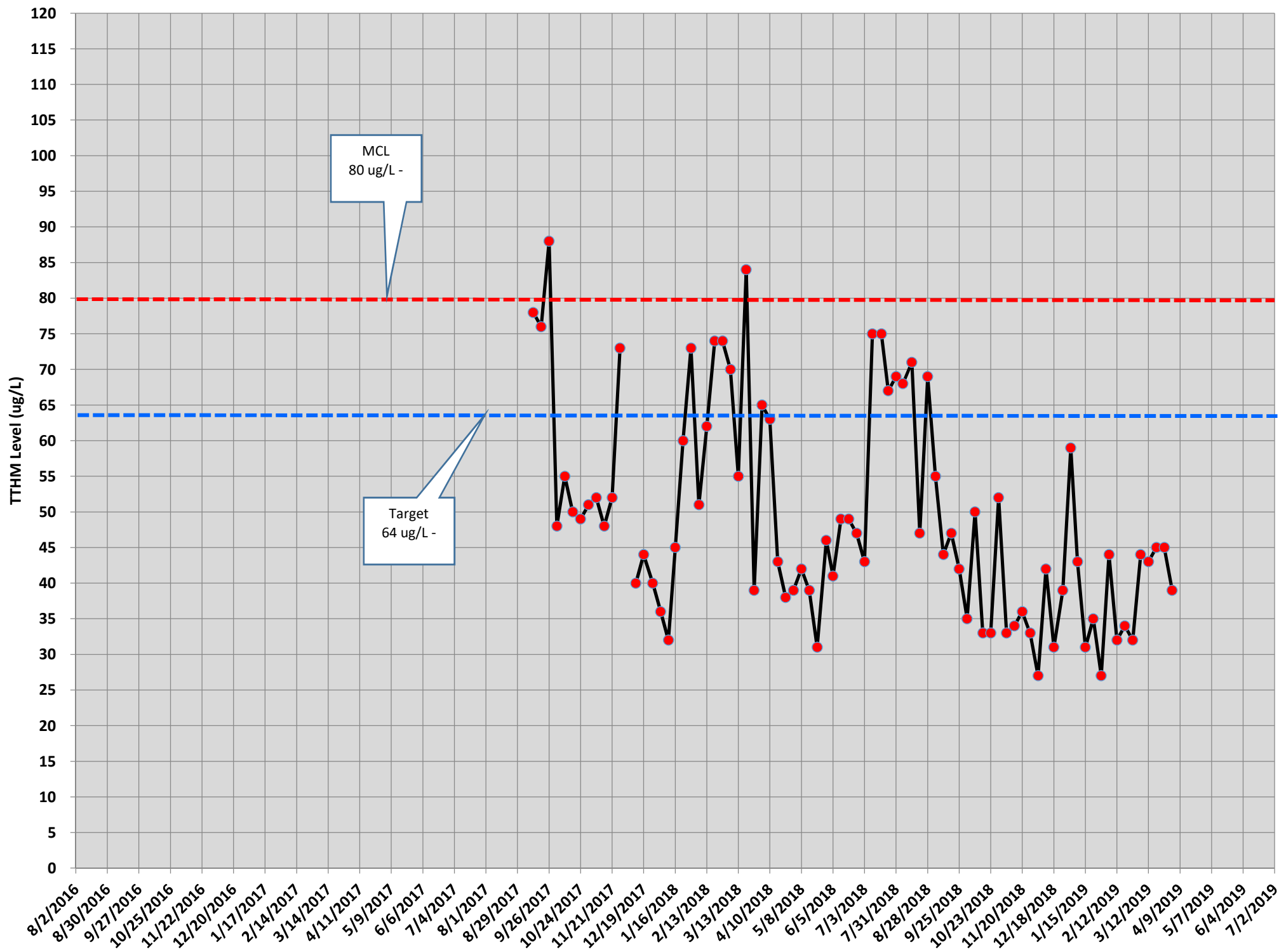




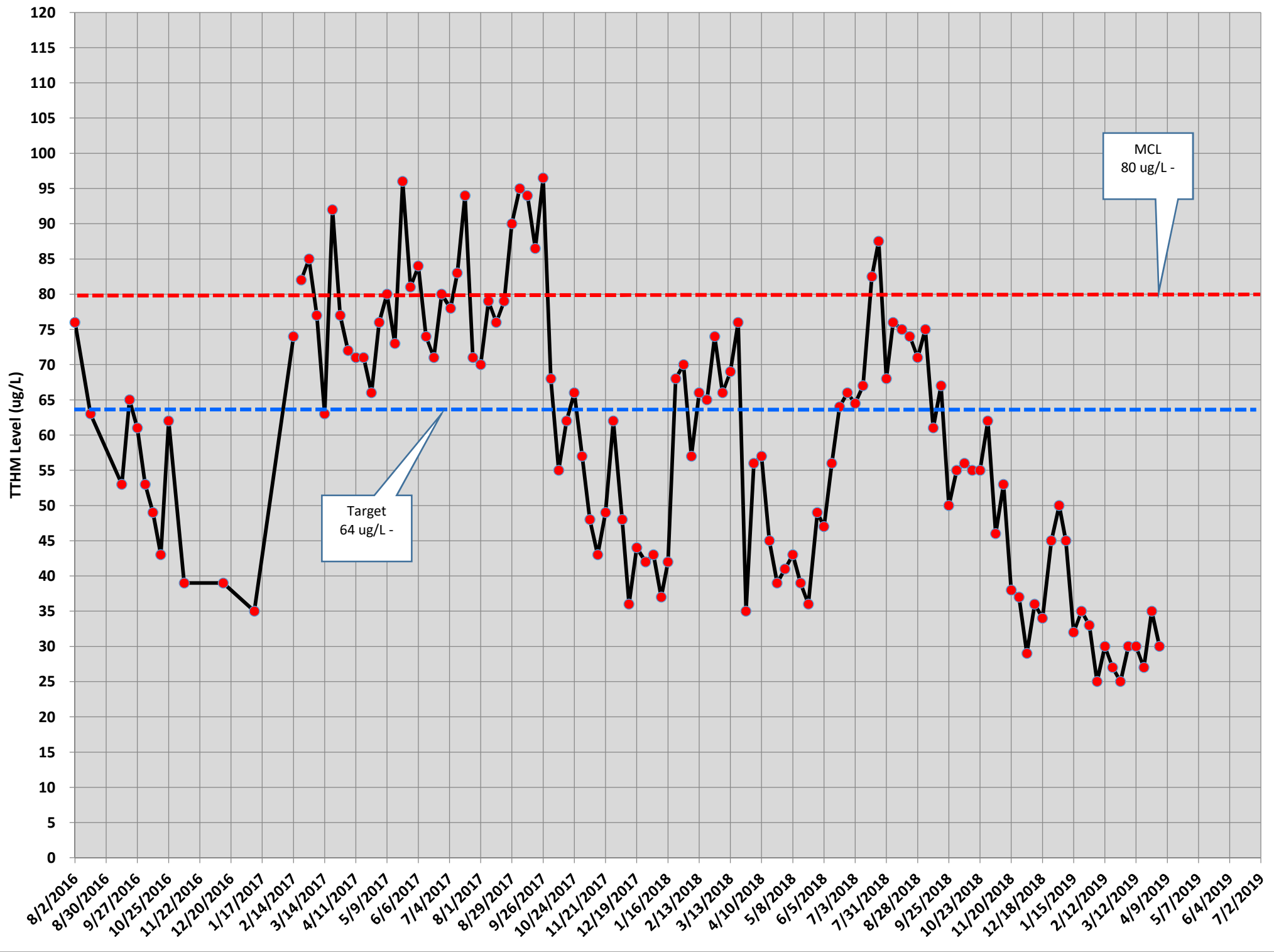
# Ordunio Reservoir (Zone 2) - TTHMs Levels



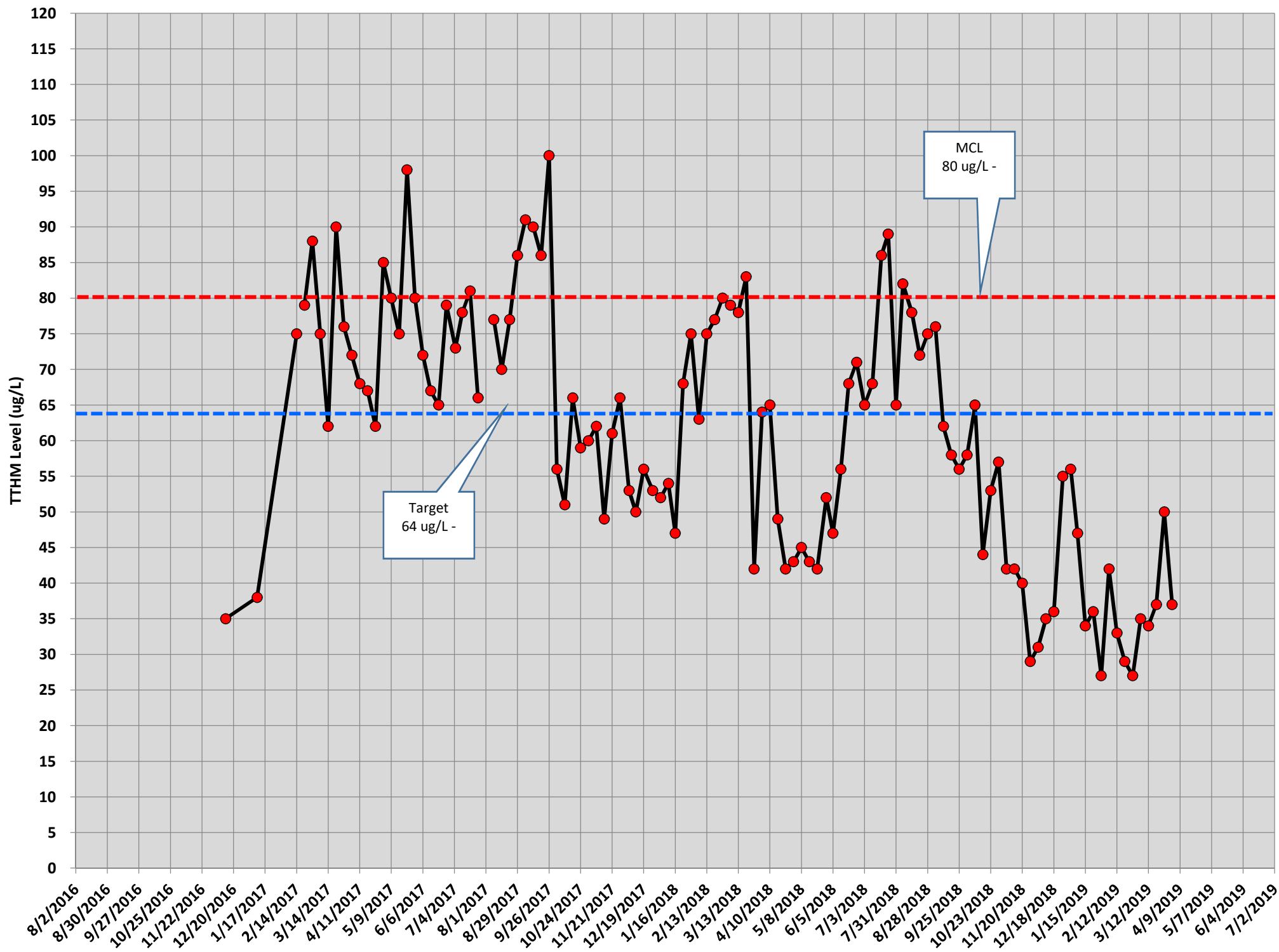
# Rosemont Reservoir (Zone 3) - TTHMs Levels



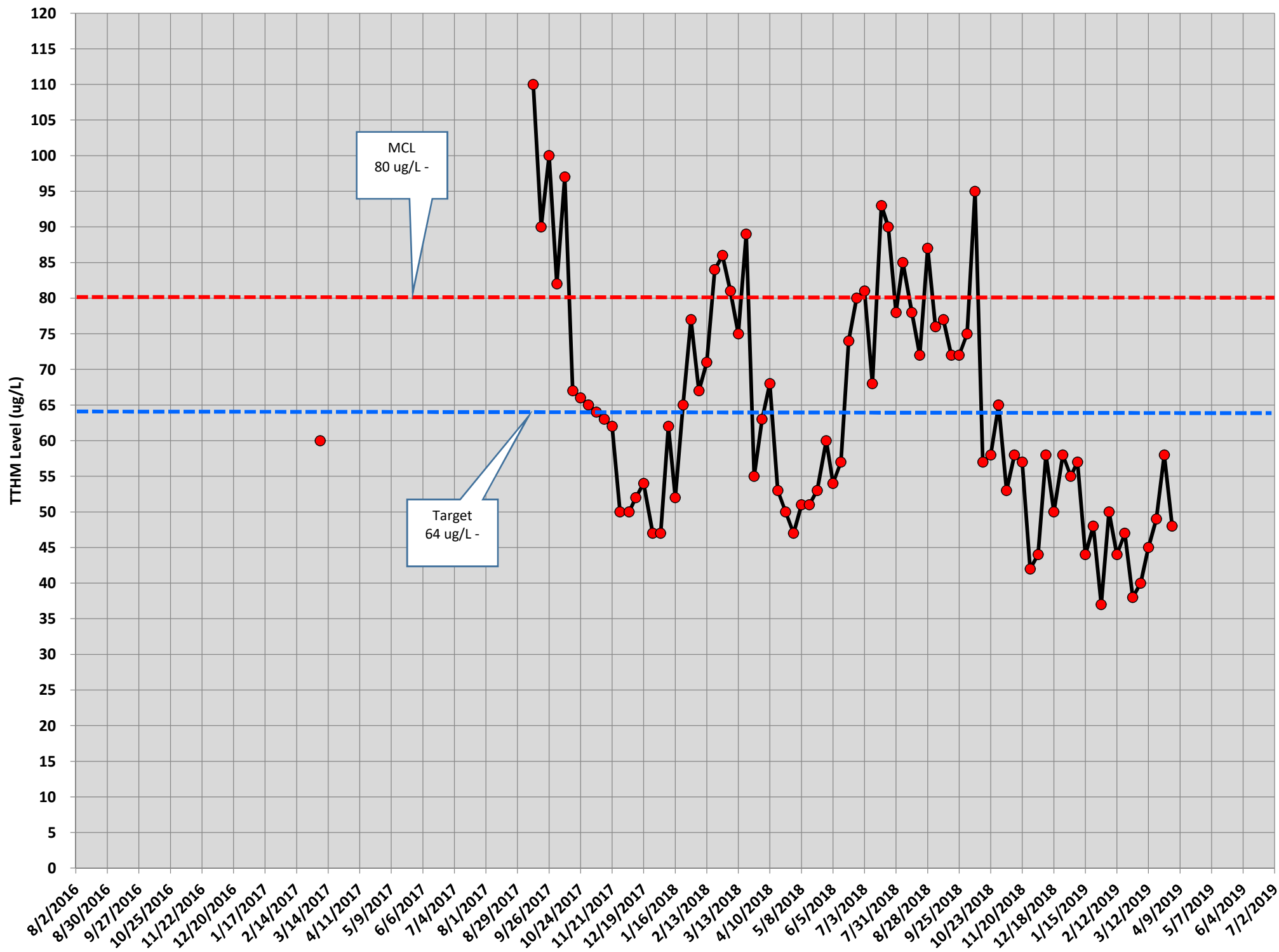
# Oak Creek Reservoir (Zone 4) - TTHMs Levels



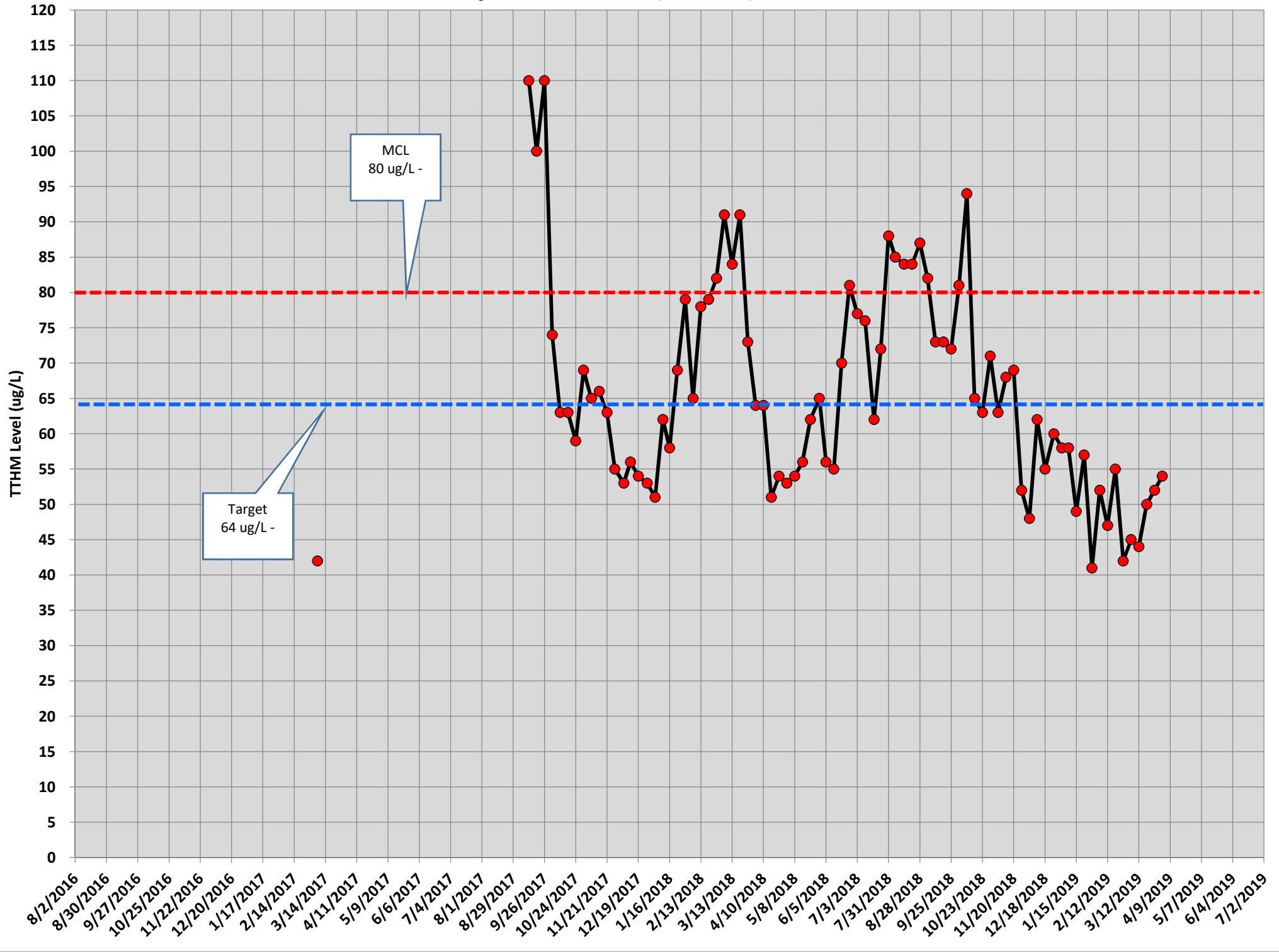
# Markridge Reservoir (Zone 5) - TTHMs Levels



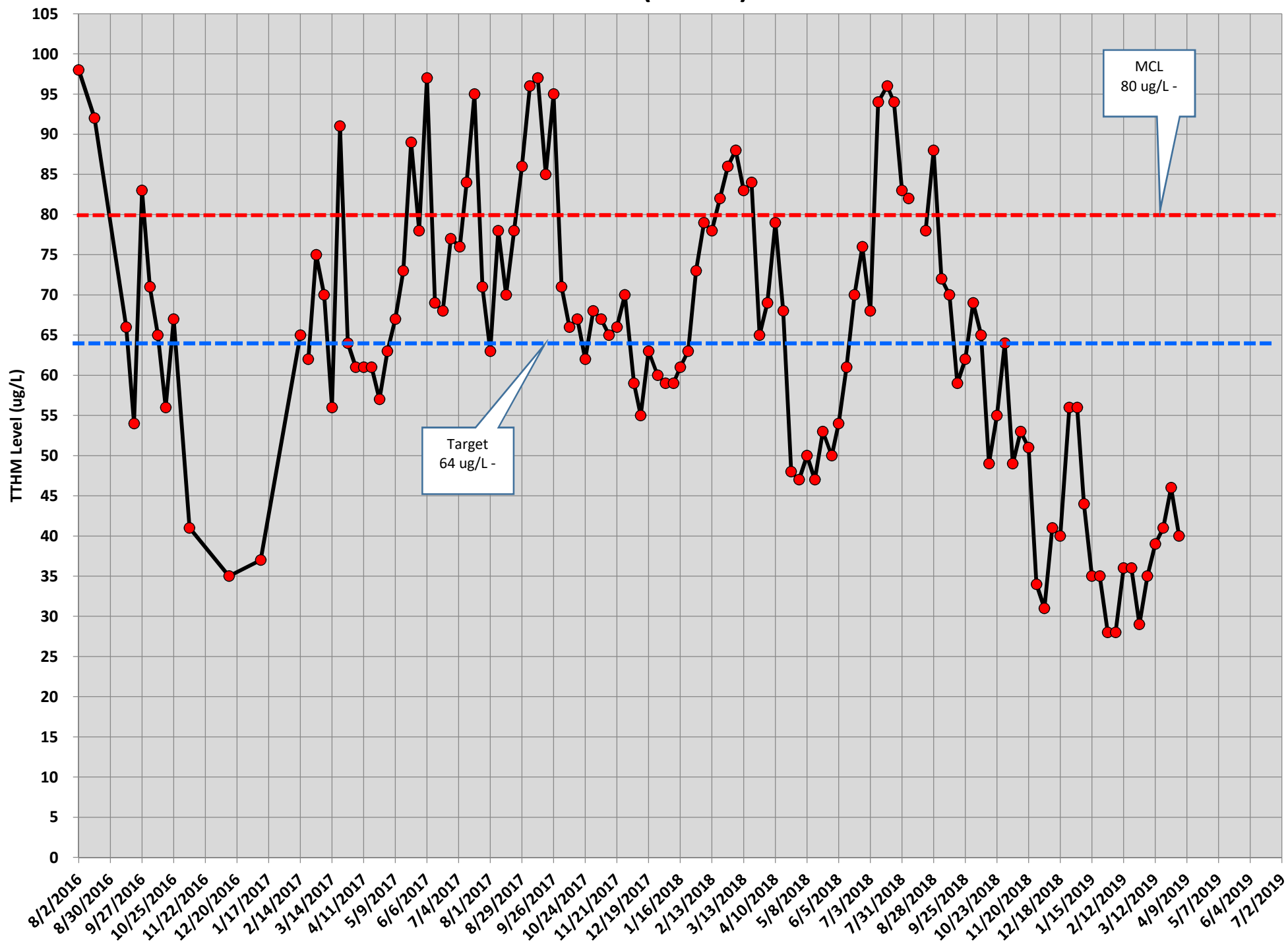
# Eagle Canyon Reservoir (Zone 5) - TTHMs Levels



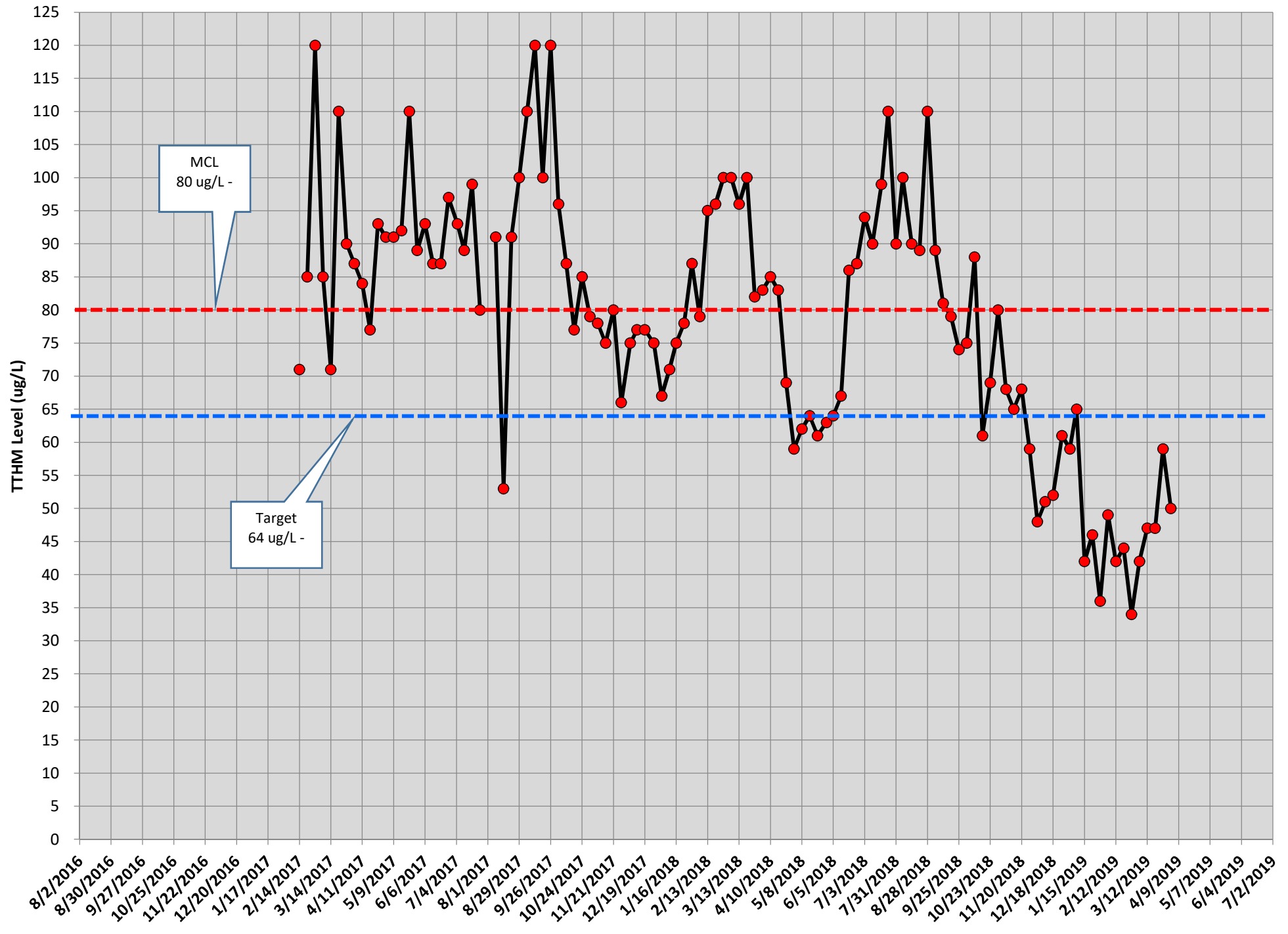
# Goss Canyon Reservoir (Zone 6) - TTHMs Levels



# Dunsmore Reservoir (Zone 7) - TTHMs Levels

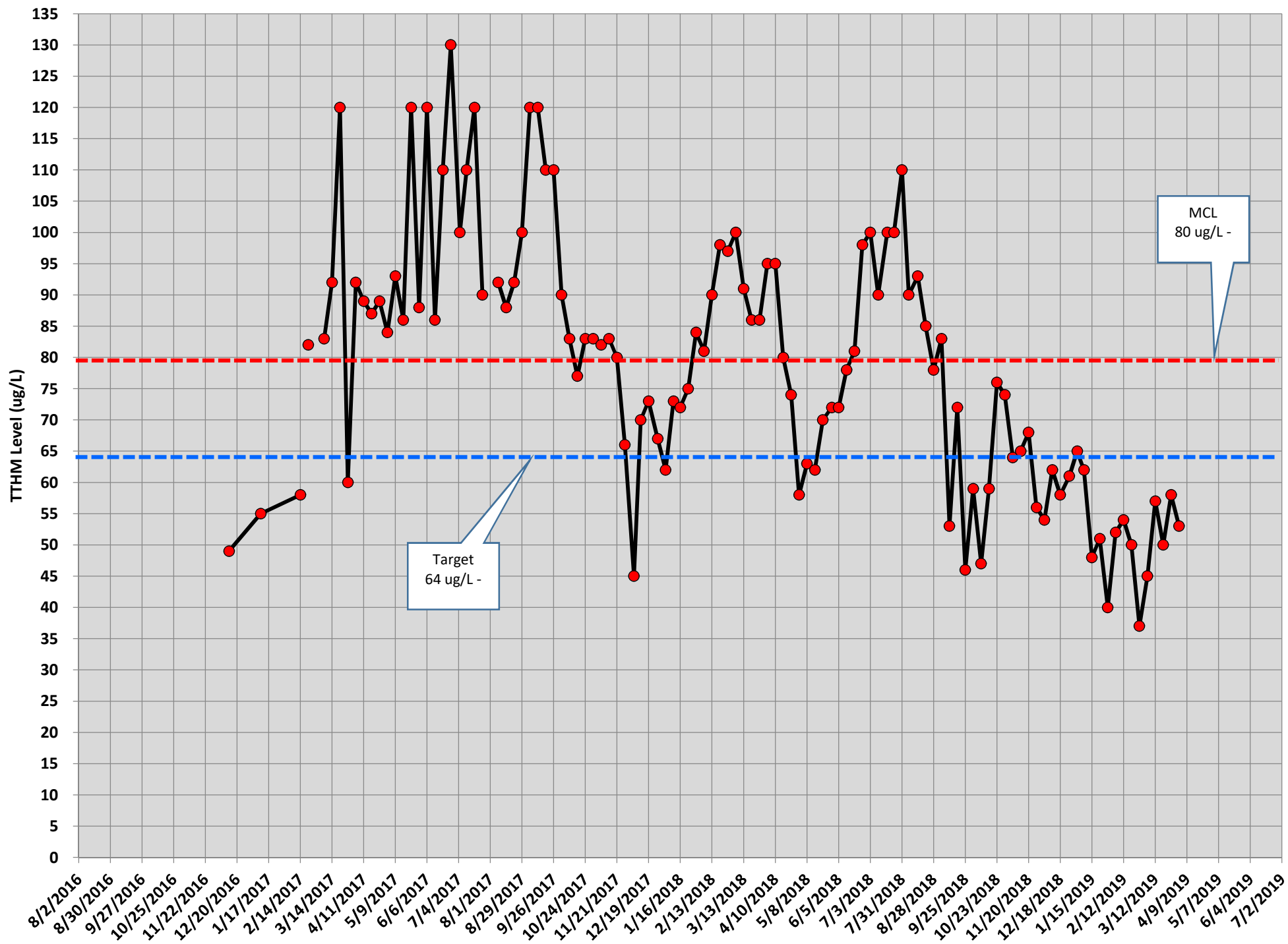


# Cresta Heights Reservoir (Zone 8) - TTHMs Levels

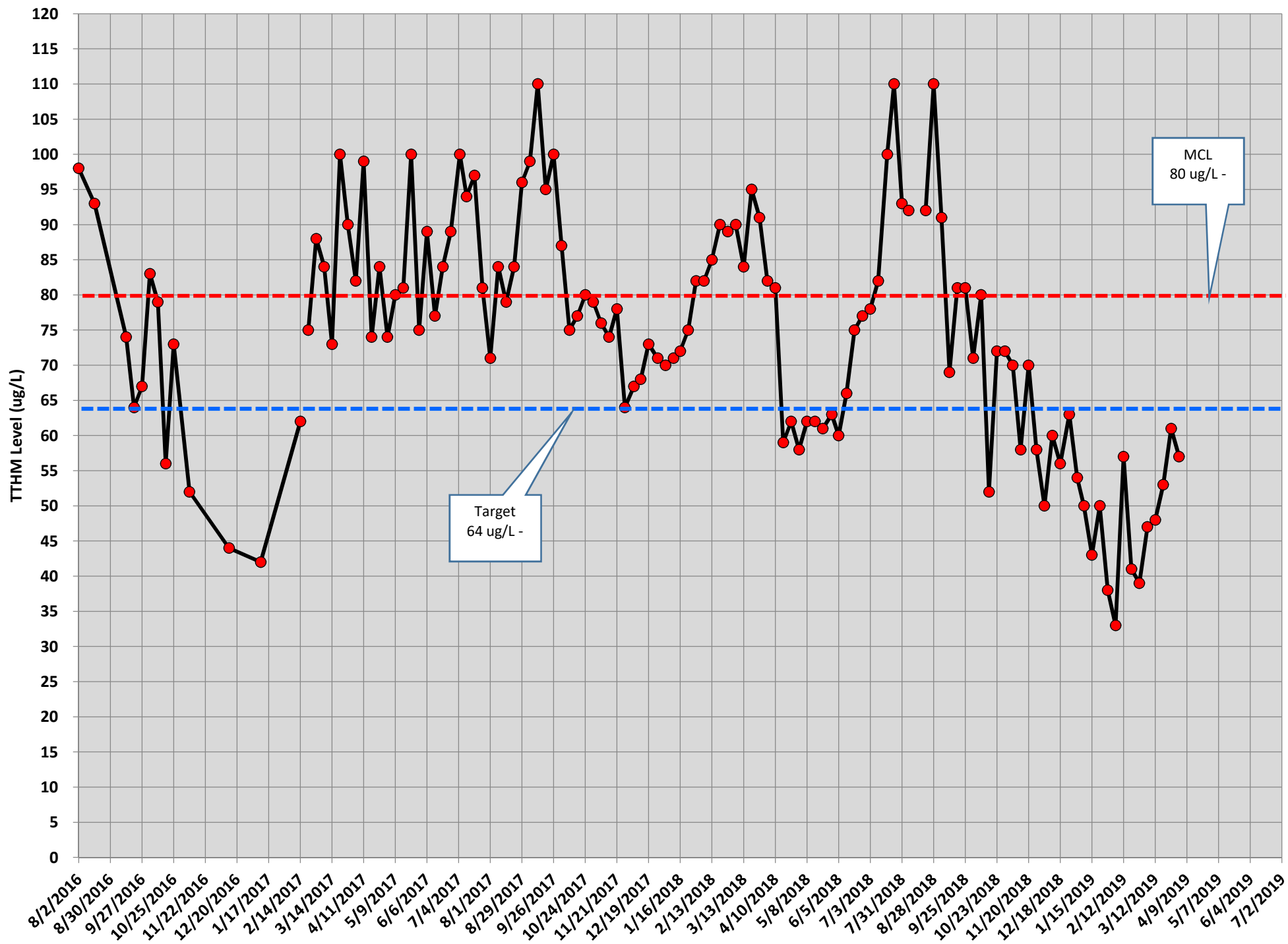




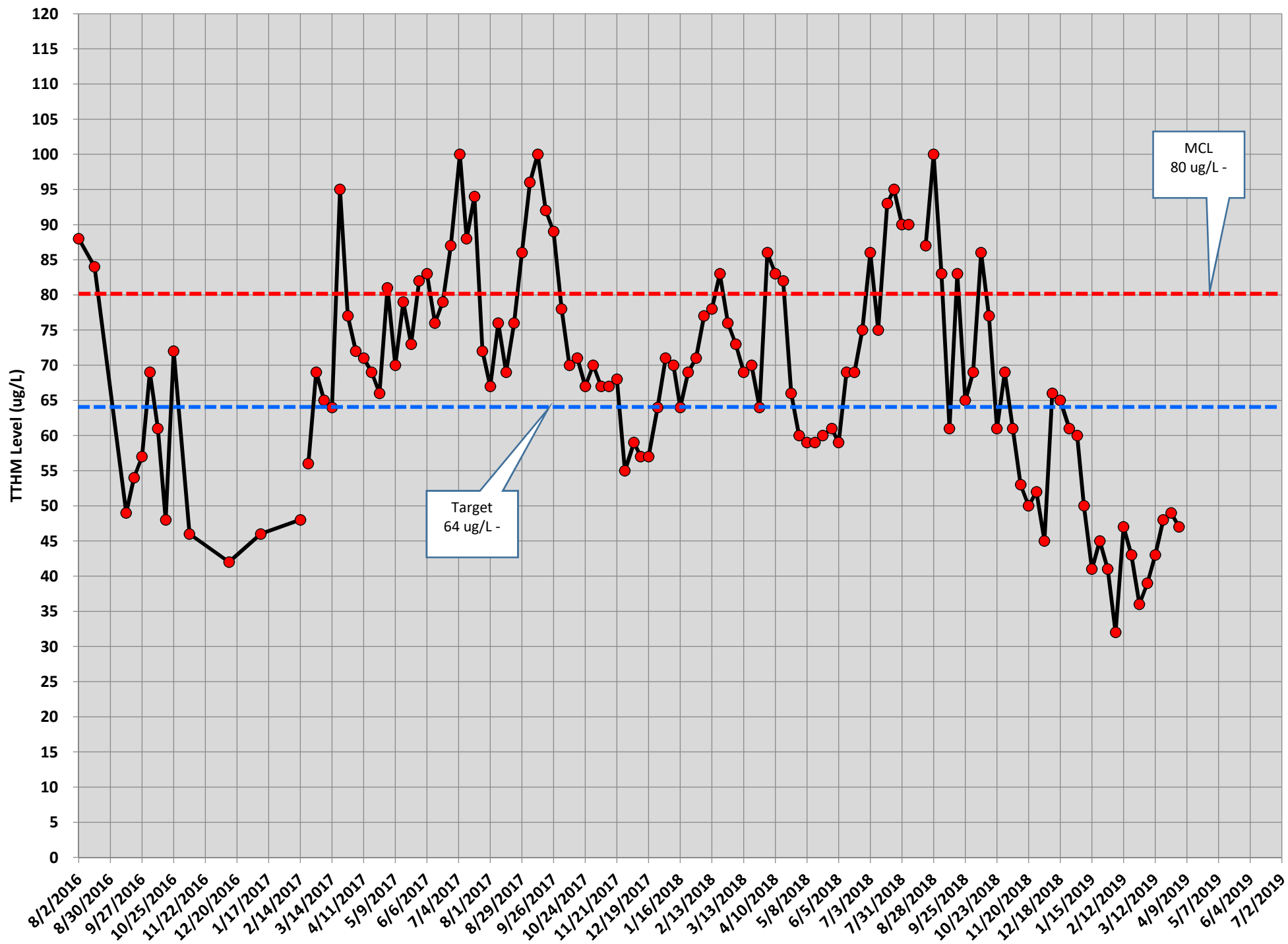
# Edmund No. 1 Reservoir (Zone 9) - TTHMs Level



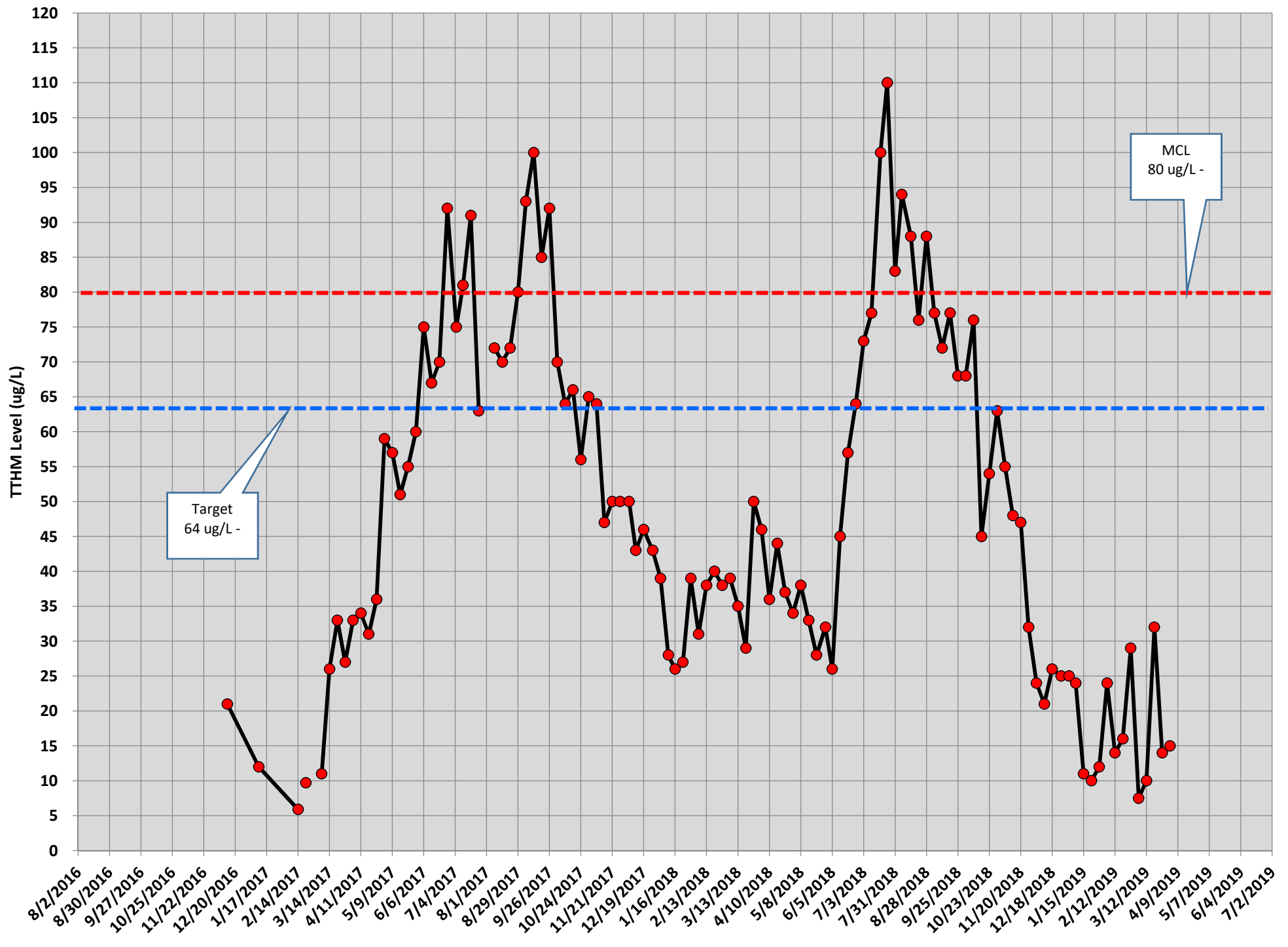
## Edmund No. 2 (Zone 9) - TTHMs Levels



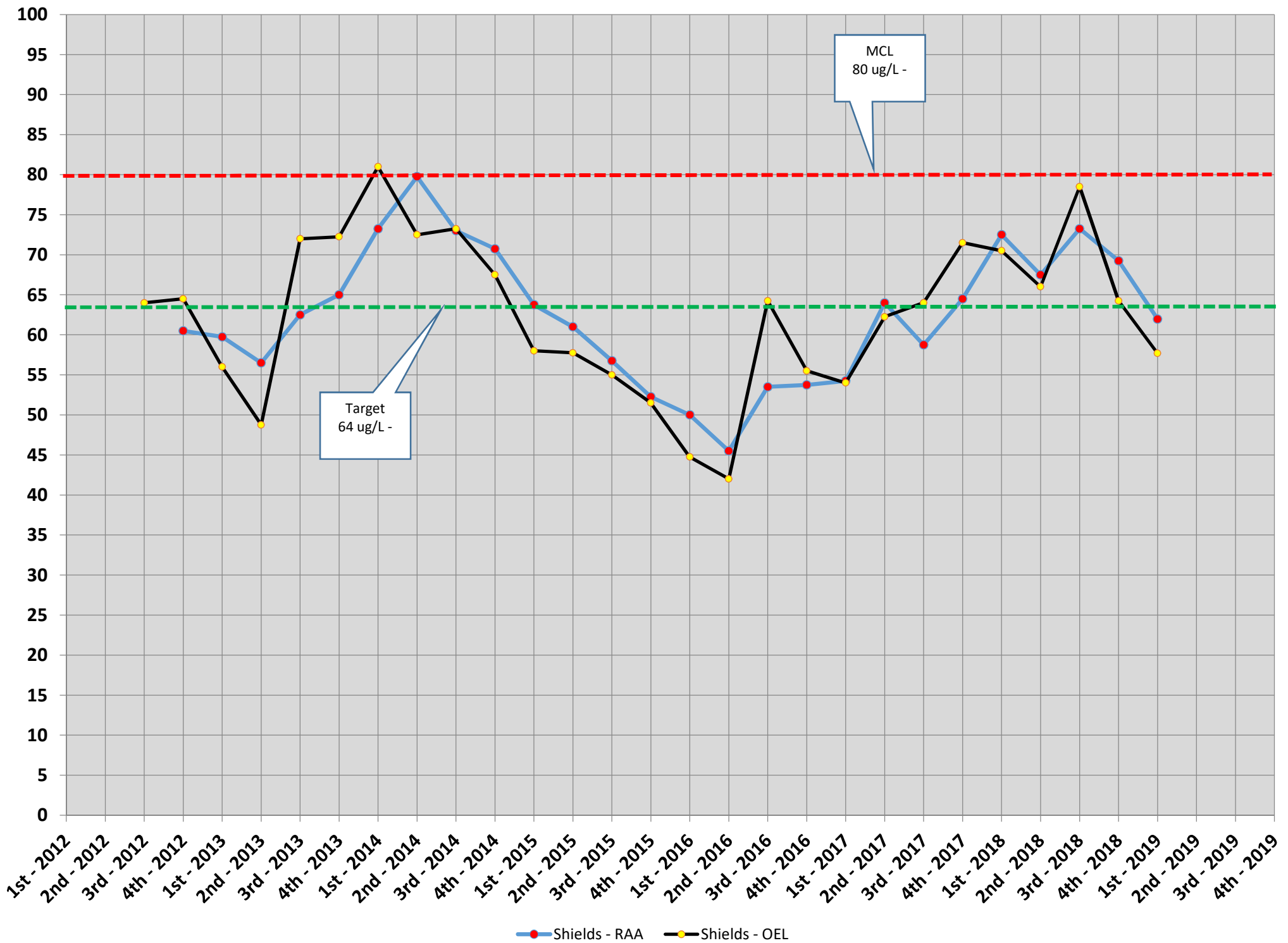
# Shields Reservoir (Zone 10) - TTHMs Levels



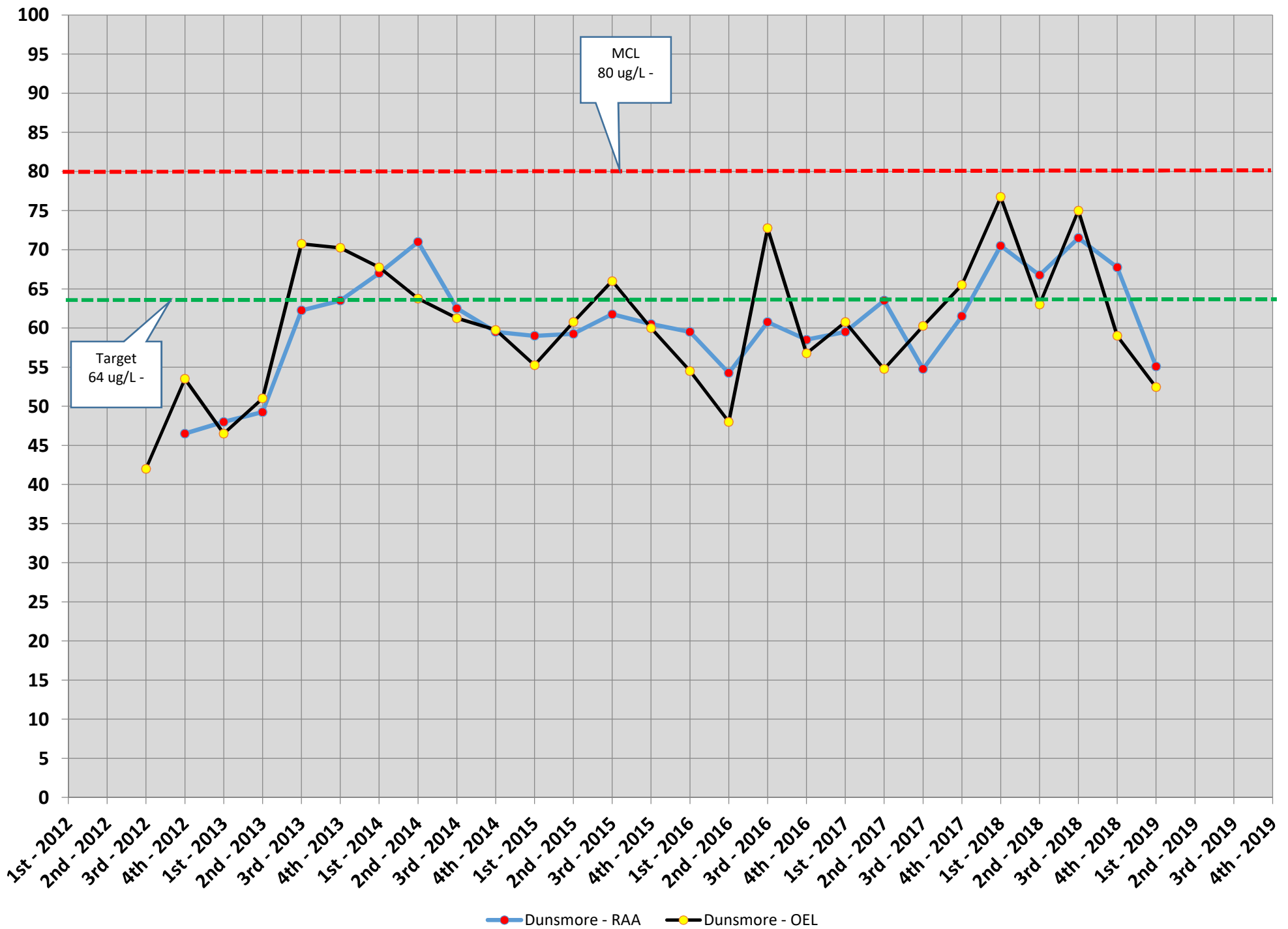
# Pickens Reservoir (Zone 11) - TTHMs Levels



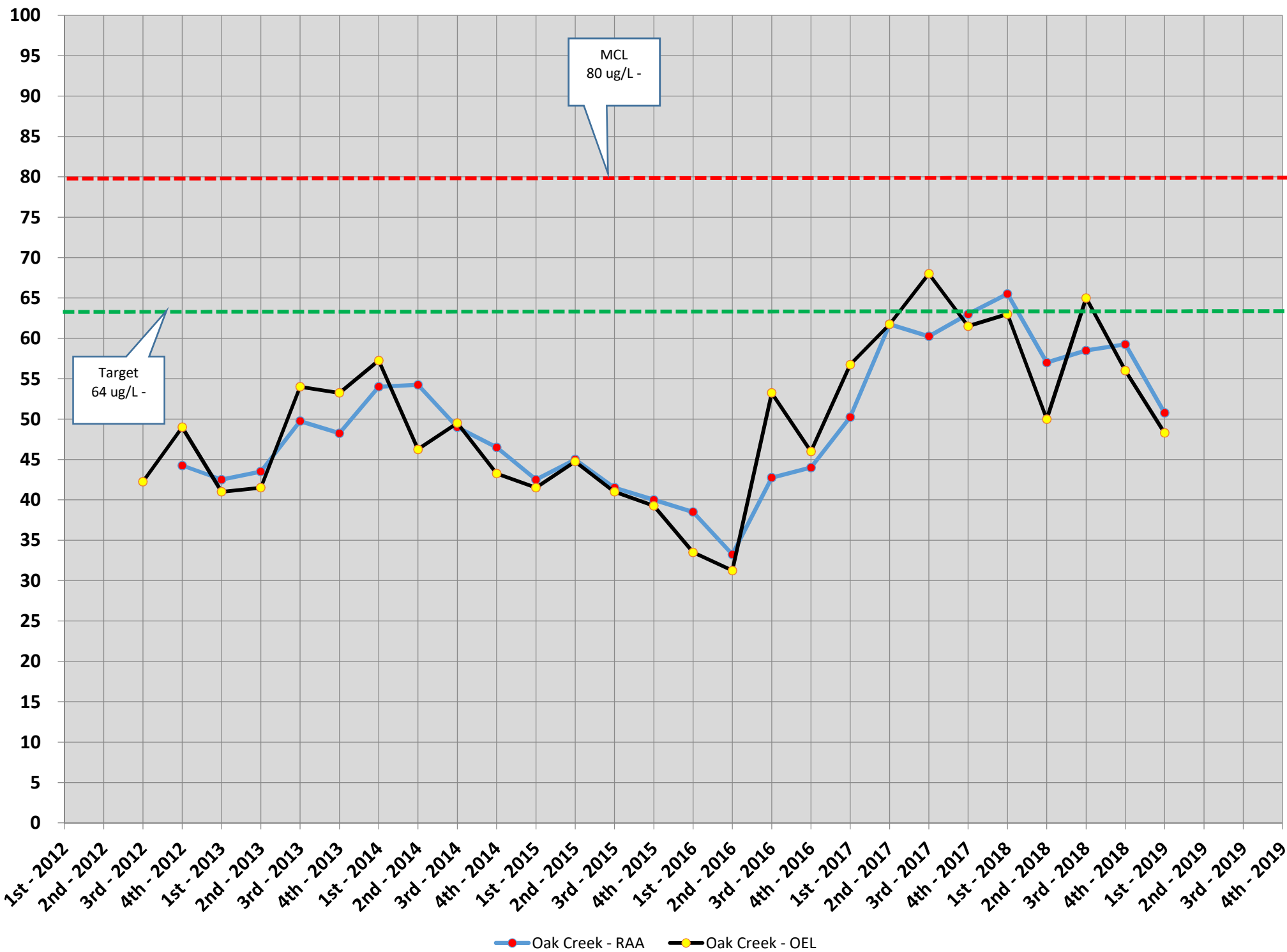
# Shields - Quarterly TTHM - Running Annual Average 2012 - 2019



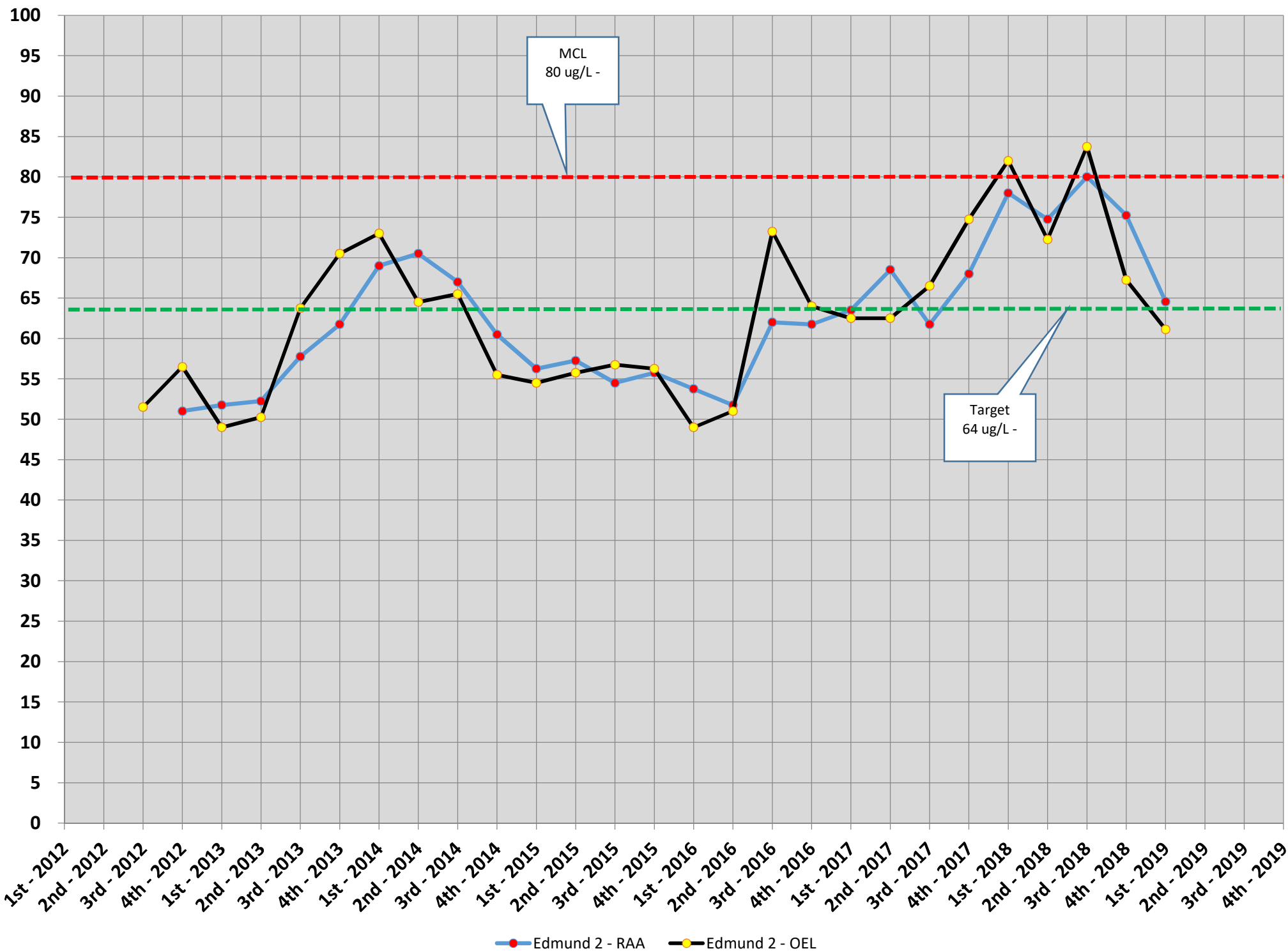
# Dunsmore - Quarterly TTHM - Running Annual Average 2012 - 2019



# Oak Creek - Quarterly TTHM - Running Annual Average 2012 - 2019



# Edmund II - Quarterly TTHM - Running Annual Average 2012 - 2019





# CRESCENTA VALLEY WATER DISTRICT

## BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 4  
Tuesday, April 9, 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**

#### **OPERATING BUDGET**

The preliminary FY 2019-20 budget was discussed at the March 26, 2019 Board meeting. Staff received direction to identify three percent savings within operating expenses. Staff identified reductions and how these reductions update the District's overall financial position going forward. These updates were presented to the Finance Committee on April 4, 2019, and the Committee directed staff to present the updates to the Board.

#### **ALTERNATIVE FINANCING**

The possibility of debt financing was discussed at the March 26, 2019 Board meeting. Staff received direction to provide additional detail on the considerations for financing including benefits, risks, the various available financing mechanisms, and potential capital projects to be processed with the proceeds from financing. These considerations were presented to the Finance Committee on April 4, 2019, and the Committee directed staff to present them to the Board. Staff is prepared to discuss details with the Board.

### **RECOMMENDATION**

Review and discuss the District's updated budget and related items and discuss options going forward.

Prepared by:



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Ron L. Mitchell, Secretary-Treasurer

Submitted by:



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Nemesciano Ochoa, General Manager

# CRESCENTA VALLEY WATER DISTRICT

## BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 5  
April 9, 2019

**To:** Board of Directors  
**From:** Ron L. Mitchell, Secretary-Treasurer  
**Subject:** **Board of Directors Vacancy**

### **ACTION ITEM:**

**Board of Directors Vacancy**– Discussion related to filling the impending vacancy on the Board of Directors.

### **DISCUSSION:**

At the conclusion of the March 26, 2019 Board meeting, Director Claessens informed the Board and staff that he would not be seeking re-election to the Board when his term expires in 2020. He indicated that he would be submitting his letter of resignation from the Board soon in order to give the Board the ability to select his replacement in a timely manner.

On March 30, 2019 Director Claessens sent an email to President Bodnar and others, including General Manager Nem Ochoa and legal counsel Thomas Bunn, officially resigning from the Board effective May 15, 2019.

Mr. Bunn has prepared a memorandum for the Board that outlines the procedures to appoint a director to fill this vacancy. Mr. Bunn will review these procedures and answer any questions for the Board related to this matter.

### **RECOMMENDATION:**

It recommended that the Board proceed with filling this vacancy as soon as possible.

Prepared and Submitted by:

A handwritten signature in blue ink that reads "Ron Mitchell". The signature is fluid and cursive, with the first name "Ron" and last name "Mitchell" clearly distinguishable.

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Ron L. Mitchell, Secretary-Treasurer



301 North Lake Avenue  
10th Floor  
Pasadena, CA 91101-5123  
Phone: 626.793.9400  
Fax: 626.793.5900  
www.lagerlof.com  
*Established 1908*

To: Board of Directors, Crescenta Valley Water District

From: Lagerlof, Senecal, Gosney & Kruse, LLP

Date: April 3, 2019

Re: Procedure to appoint director to fill vacancy.

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The resignation of Director Claessens, effective May 15, 2019, will create a vacancy on the Board of Directors. Pursuant to Government Code §1780, the Board may appoint a new director to fill the vacancy for the balance of Director Claessens' term, which expires in 2020.

To properly appoint a director to fill the vacancy, the Board must perform the following actions within the timeframes provided:

1. Notify the county elections official of the vacancy by May 30, 2019.
2. Appoint the new director to fill the vacancy by July 14, 2019.
3. Post notice of the vacancy in 3 or more conspicuous places in the district at least 15 days before the Board makes the appointment.
4. Notify the county elections official of the appointment within 15 days after the appointment.

**From:** [Michael Claessens](#)  
**To:** [James Bodnar](#)  
**Cc:** [Nem Ochoa](#); [Ron Mitchell](#); [Bunn Thomas S. III](#)  
**Subject:** CVWD Board Resignation  
**Date:** Saturday, March 30, 2019 4:35:42 PM

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Dear James,

It has been my pleasure to serve with you on the board of the Crescenta Valley Water District. As Board President, you have given us strong leadership, and I have enjoyed working with you, the other members of the Board and District staff for the last five years.

That said, it is time for me to resign my position. I am not going to run for reelection when my term is up next year. My resignation will allow the Board to appoint someone to serve the balance of my term.

Please consider my resignation effective May 15, 2019. Until then, I plan to participate in my committee assignments and I am happy to help in the selection of my replacement.

Best wishes,

Mike Claessens

# 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**

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GM Report  
April 9, 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
- Asset Management

## STAFFING

One (1) employee has a work anniversary in April. Arturo Montes – 1 year.

As of April 5<sup>th</sup> the District has gone 1,760 days without a lost time accident.

## GENERAL MANAGER ACTIVITIES

### Meetings:

|                           |                                                 |
|---------------------------|-------------------------------------------------|
| Management staff meetings | - April 1 <sup>st</sup> , April 8 <sup>th</sup> |
| Management Budget Meeting | - April 2 <sup>nd</sup>                         |
| Finance Committee Meeting | - April 4 <sup>th</sup>                         |

Submitted by:



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Nem Ochoa  
General Manager

# Engineering and Operations

April 9, 2019  
Staff Report

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

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1. **Water Production Report**

- March 1 – 31 - Water production – 68%/32% split – 79.1 MG for the time period
- Average use – 0.5% less than 2018 and 16.2% less than 5-yr average

2. **Rainfall Update**

- 3.95” for March 2019
- Rainfall Total for Rainfall Year 2018/19 – 29.48”

3. **Report on Engineering**

- **CIP Projects**
  - Oak Creek #1 & #2 Reservoir Rehabilitation
    - Oak Creek #2 – Filled on April 4, 2019; Back in Service – April 10, 2019
    - Oak Creek #1 – One-year warranty inspection – April 15, 2019
  - Well 1 & 7 Rehabilitation
    - Well 1 - Completed bailing, brushing & chemical treatment; Pump to be installed April 9, 2019; Anticipated to be back in service by April 19, 2019
    - Well 7 – Work to start on April 22, 2019
  - FY 18/19 – Project Cost Summary – See attached
- **Nitrate Removal Treatment Facility at Well 2 Project**
  - APTwater Testing report submitted to DDW – March 26, 2019
  - DDW approval – June 2019
- **Crescenta Valley County Park Stormwater Recharge Facility Study**
  - John Robinson Consulting and Wood Environmental working on Conceptual Plan
  - Conceptual Plan to be reviewed at April 12, 2019 Engineering Committee Meeting
- **ULARA**
  - Administrative Committee Meeting – April 11, 2019
- **Grant Program**
  - US Bureau of Reclamation – WaterSMART – AMI Grant – Received March 19, 2019
- **Water Meter Replacement Program**
  - See Staff Report

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

- **Wells – Status** - Well production capacity – increased to 1.92 MGD

5. **Developer Jobs**

- 2225 Mira Vista – New 9-unit apartments
- 2218 Montrose – New 9-unit apartments
- 2454 Montrose – New 16-unit apartments

6. **Street Projects**

- Pennsylvania Paving Project – City of Glendale – Under Construction
  - Raising valve cans, sewer manhole lids & upgrade fire hydrant – Estimate Cost \$50,000 to \$65,000

7. **Field Maintenance & Operations – March 1, 2018 – March 31, 2018**

- **Water Lateral Leaks & Repairs**

|                 |               |               |
|-----------------|---------------|---------------|
| 4831 Cheryl     | 2444 Harmony  | 3041 Orange   |
| 4911 Canyonside | 4647 Rosemont | 2545 Whittier |
| 3042 Hermosa    | 5846 Freeman  | 4823 Briggs   |

- **Water Main Leaks**

- No Report

- **Valve Replacement**

- Replacement of broken valve, north of Orange and Pennsylvania – Estimate Cost \$20,000 to \$25,000

- **Fire Hydrant Repair**

- No Report

- **Booster Pump Maintenance**

- No Report

- **Reservoir Maintenance**

- Reservoir Inspection & Cleaning – Markridge, Shields, Edmund #1 & #2 – May 20, 2019

- **Sewer Maintenance - – March 1, 2018 – March 31, 2018**

- Program on hold until work at Glenwood and Mills plants completed

| <b>Capital Improvement Project Program<br/>FY 18-19 Project Cost Summary</b>                     | <b>Budget<br/>FY 18/19</b> | <b>FY 18/19<br/>Cost to date<br/>from 7/1/18<br/>to 3/31/19</b> | <b>FY 18/19<br/>Cost<br/>Committed<br/>from 4/1/19<br/>to 6/30/19</b> | <b>Projected<br/>FY 18/19</b> | <b>Amount<br/>Over/<br/>Under<br/>Budget</b> | <b>Comments</b>                                                                                                           |
|--------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Well 1 Rehabilitation                                                                            | \$75,000                   | \$0                                                             | \$70,190                                                              | \$70,190                      | (\$4,810)                                    | Under Construction                                                                                                        |
| Well 7 Rehabilitation                                                                            | \$75,000                   | \$0                                                             | \$70,190                                                              | \$70,190                      | (\$4,810)                                    | Under Construction                                                                                                        |
| Re-Activate Well 2 - Construction                                                                | \$405,000                  | \$482,411                                                       | \$66,191                                                              | \$548,602                     | \$143,602                                    | Additional costs for APTwater, lab testing, inspection, staff field adjustment, labor, materials & final progress payment |
| Oak Creek #1 & #2 - Roof/Air Vents/Recoat                                                        | \$514,800                  | \$77,950                                                        | \$398,410                                                             | \$476,360                     | (\$38,440)                                   | Project completion - April 2019                                                                                           |
| Lower Pickens Canyon Crossing & Slope - 600 LF                                                   | \$0                        | \$2,976                                                         | \$0                                                                   | \$2,976                       | \$2,976                                      | Costs to complete the 2-yr inspection for landscaping portion of the project                                              |
| 2700, 3000 & 3100 Blocks of Brookhill & 5100 Block of La Crescenta                               | \$ 406,700                 | \$534,149                                                       | \$0                                                                   | \$534,149                     | \$127,449                                    | Additional costs for CVWD labor, inspection, materials and Contractor CO's                                                |
| Boosters - Encinal B & C                                                                         | \$0                        | \$27,304                                                        | \$0                                                                   | \$27,304                      | \$27,304                                     | Installed in FY 17/18 - Invoiced in FY 18/19                                                                              |
| Street Rehabilitation - Pennsylvania Ave                                                         | \$0                        | \$0                                                             | \$65,000                                                              | \$65,000                      | \$65,000                                     | New Project - Estimated Cost - Staff to request additional funding when costs are finalized with Glendale                 |
| Conversion to Chloramination Disinfection<br>(includes transfer of funds from MTBE Reserve Fund) | \$1,000,000                | \$433,281                                                       | \$493,119                                                             | \$926,400                     | (\$73,600)                                   | New Project - Transfer \$1M from MTBE                                                                                     |
| <b>Capital Improvement Projects - Total</b>                                                      | <b>\$2,476,500</b>         | <b>\$1,558,072</b>                                              | <b>\$1,163,100</b>                                                    | <b>\$2,721,172</b>            | <b>\$244,672</b>                             |                                                                                                                           |



# CRESCENTA VALLEY WATER DISTRICT

## WATER PRODUCTION REPORT

March 1 - March 31, 2019

|                            |            |       |                              |     |
|----------------------------|------------|-------|------------------------------|-----|
| <b>Well Production:</b>    | 47,088,100 | Gals  |                              |     |
| <b>GWP Production:</b>     | 5,332,000  | Gals  |                              |     |
| <b>Gravity Production:</b> | 1,463,800  | Gals  | % GW                         | 68% |
| <b>Purchased Water:</b>    |            |       |                              |     |
| FMWD:                      | 25,221,750 | Gals  |                              |     |
| City of Glendale:          | 0          | Gals  | % Import                     | 32% |
| <b>TOTAL:</b>              | 79,105,650 | Gals  |                              |     |
|                            | 242.77     | ac-ft |                              |     |
| Glenwood Nitrate Water     |            |       |                              |     |
| Reclamation Plant:*        | 14,650,000 |       | *Included in Well Production |     |

## WATER DEMAND COMPARISON

| Time Period                      | Average Daily Usage (gals) | Current Period Change |
|----------------------------------|----------------------------|-----------------------|
| March 1 - March 31, 2019         | 2,519,148                  |                       |
| March 1 - March 31, 2018         | 2,531,230                  | -0.5%                 |
| 5-yr Average - March 2014 - 2018 | 3,007,454                  | -16.2%                |

RAINFALL: March 1 - March 31, 2019      3.95"  
Season-To-Date:      29.48"

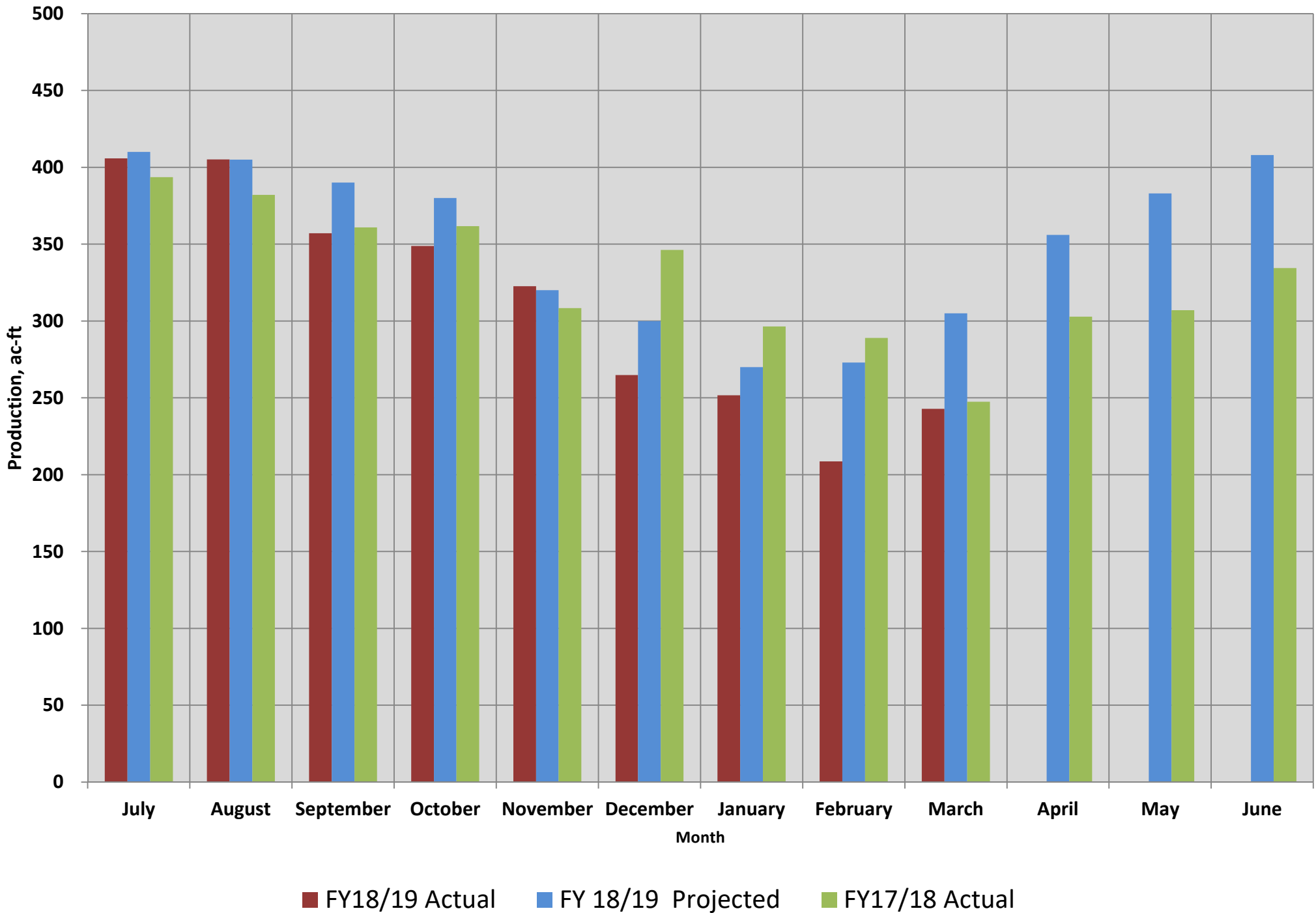
| 2018/19 Fiscal Year Water Production |                                       |                                          | WY 18/19 - Groundwater Production Water Rights |       | GWP (Well 16) Water Production - 2019 |                         | Purchased Water Production Tier 2 Allocation - 2019 |                                   |
|--------------------------------------|---------------------------------------|------------------------------------------|------------------------------------------------|-------|---------------------------------------|-------------------------|-----------------------------------------------------|-----------------------------------|
| 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                                 |                         | April                                               |                                   |
| November                             | 323                                   | 320                                      | February                                       | 116   | May                                   |                         | May                                                 |                                   |
| December                             | 265                                   | 300                                      | March                                          | 149   | June                                  |                         | June                                                |                                   |
| January                              | 252                                   | 270                                      | April                                          |       | July                                  |                         | July                                                |                                   |
| February                             | 209                                   | 273                                      | May                                            |       | August                                |                         | August                                              |                                   |
| March                                | 243                                   | 305                                      | June                                           |       | September                             |                         | September                                           |                                   |
| April                                |                                       | 356                                      | July                                           |       | October                               |                         | October                                             |                                   |
| May                                  |                                       | 383                                      | August                                         |       | November                              |                         | November                                            |                                   |
| June                                 |                                       | 408                                      | September                                      |       | December                              |                         | December                                            |                                   |
| Total to Date                        | 2,807                                 | 3,053                                    | Total to Date                                  | 701   | Total to Date                         | 50                      | Total to Date                                       | 277                               |
| Projected                            | 3,954                                 | 4,200                                    | Water Rights                                   | 3,294 |                                       |                         | Tier 2                                              | 2,154                             |
| % of Projected                       | 66.8%                                 | 72.7%                                    | % of Rights                                    | 21%   |                                       |                         | % of Allocation                                     | 13%                               |
| Remaining                            | 1,393                                 | 1,147                                    | Remaining                                      | 2,593 |                                       |                         | Remaining                                           | 1,877                             |

### 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.- March)

