

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

August 23, 2019 at 9:00 AM

Posted August 22, 2019 at 9:00 AM

Call to Order

Adoption of Agenda

Information Items

1. Status of Groundwater Wells and Well Capacity
2. FY 2019/20 Grant Assistance Consulting Services
3. Status – 8-inch main on 4700 & 4800 Blocks of Pennsylvania, Project E-1009
4. Status – Conversion to Chloramines, Project E-995
5. FY 19/20 – Capital Improvement Project (CIP) Program

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.

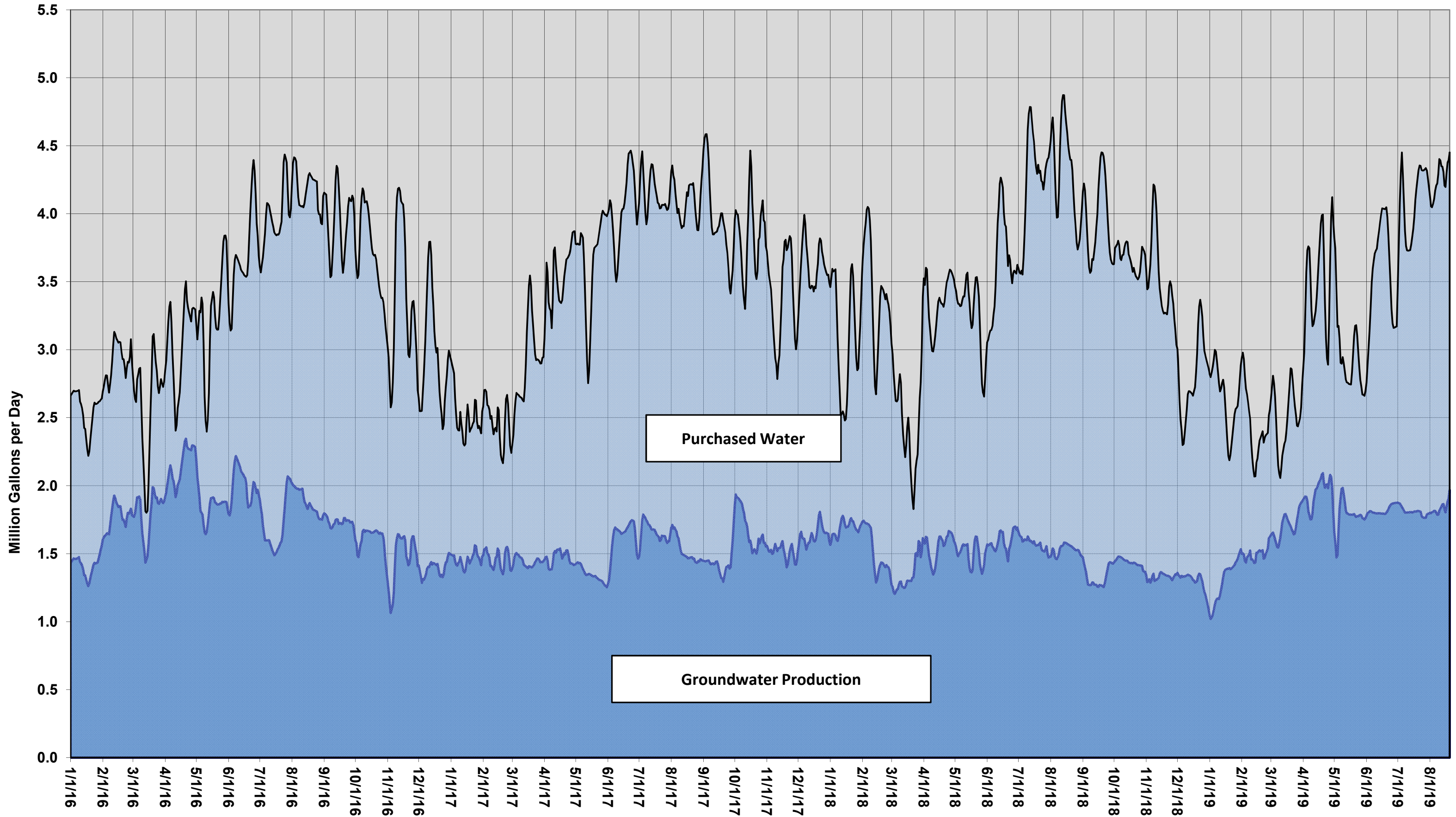
Committee Member's Request for Future Agenda Items

Next Engineering Committee Meeting – September 20, 2019

Adjournment

Water Production Chart 2016 - 2019

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



CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 2

August 23, 2019

To: Engineering Committee

From: David S. Gould, P.E. – District Engineer

Subject: Award of Contract – FY 2019/20 Grant Assistance Consulting Services, Project M-965

INFORMATION ITEM:

FY 2019/20 Grant Assistance Consulting Services, Project M-965 - Consideration and motion to authorize the General Manager to enter into an agreement with John Robinson Consulting to provide services for coordination and preparation of applications for State and Federal Grants at a cost of \$30,000 and establish a contingency amount of \$3,000 (10% of contract) to cover the cost of additional work

BACKGROUND:

In FY 18/19, staff utilized the services of John Robinson Consulting, Inc. (JRC) to provide assistance on a number of projects and with research and information gathering to obtain various Federal, State and Local grant funding for CVWD project's as shown below:

- Submittal of two (2) grant application to U.S. Bureau of Reclamation (USBR) WaterSMART Program for Water and Energy Efficiency Grant for CVWD's AMI program.
- Submittal of a grant application to Office of Emergency Services (OES) to prepare a Local Hazard Mitigation Plan (LHMP) that outlined potential high priority hazards and created projects that could be implemented to reduce overall risk to the District during a natural or man-made event.
- Attendance at the Greater Los Angeles County Region Integrated Regional Water Management Plan (IRWMP) and the Upper Los Angeles River (ULAR) Sub-region steering committee meetings and reporting on the current status of the Prop 84 grant program.
- CVWD's Crescenta Valley County Park (CVC Park) Stormwater capture project – Meeting with ULRA Steering committee, coordinating stakeholders and consultants
- Attendance at California Financing Coordinating Committee funding fair to acquire information about currently available infrastructure grants, loans, bond financing programs and options.
- Project management services for CVWD's Well 2 and related facilities project including coordinating with City of Glendale on permitting issues

JRC's consulting contract was for \$30,000, which was included in the FY 18/19 Administrative Consultants budget.

DISCUSSION:

Staff requested JRC to provide a new proposal for grant assistance and project management services during FY 19/20 which includes the following:

1. Crescenta Valley County Park Storm Water Project:
 - a. Metropolitan Water District Local Resource Program – working with MWD on a potential grant under the local resource program
 - b. Los Angeles County Department of Public Works - Measure W - assist CVWD to obtain either regional or municipal funding from Measure W for the Crescenta Valley County Park Stormwater Recharge Project.
 - c. Coordination with potential project partners - City of Glendale, Glendale Water & Power, County of Los Angeles Department Parks & Recreation and Los Angeles County Department of Public Works
 - d. Assist CVWD with conversations to the SWRCB Division of Water Rights and Los Angeles Department of Water & Power regarding diverting stormwater flow and surface water rights discussions
 - e. Assist CVWD with the development of a Conceptual Stormwater Capture and Improvement Plan for CVC Park
 - f. Assist CVWD with the development of the overall project development costs for stormwater capture project
 - g. Assist CVWD with obtaining grant funding through the Prop 1 IRWMP process

2. USBR WaterSMART Water and Energy Grant Funding - investigate with (USBR) Fiscal Year 2020 funding for CVWD's investments into AMI installation in the service area
3. FEMA Hazard Mitigation Grant Program – investigate Federal Emergency Management Agency (FEMA) grant funding to potentially assist with the design and/or construction for potential at risk facility such as repair of roadways at Edmund #2 & Pickens Reservoirs and other mitigation projects.
4. Local Hazard Mitigation Plan (LHMP) – Follow up with grant application and coordination of consultants if CVWD awarded \$125,000 grant.
5. Coordinate with CVWD to research other grant opportunities to support CIP projects including grants through USBR, FEMA and DWR
6. Assist CVWD with financing opportunities such as State Water Resource Control Board Division of Financial Assistance Drinking Water State Revolving Funding for future CIP projects

JRC provided a proposal dated August 12, 2019 (see attached) for \$30,000 to provide grant assistance and project management services for FY 19/20.

RECOMMENDATION:

Staff recommends that the Engineering Committee approves the General Manager to enter into an agreement with John Robinson Consulting, Inc. for \$30,000 for grant assistance and project management services for FY 19/20 at the September 10, 2019 Board meeting.

ENVIRONMENTAL REVIEW:

N/A

FUNDING AVAILABILITY:

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

Account Description	Amount
FY 19/20 Administrative Consultants	\$132,000
Hydraulic Modeling – Akel Engineering	<\$60,793>
Amount Remaining in Administrative Consultants	\$71,707
Grant Assistance and Project Management Services	<\$30,000>
Contingency amount to cover the cost of additional work	<\$3,000>
Total Cost	<\$33,000>
Amount Remaining in FY 19/20 Administrative Consultants	\$37,707

Prepared & Submitted by:



David S. Gould, P.E.
District Engineer

Attachments:

1. John Robinson Consulting, Inc. proposal dated August 12, 2019



August 12, 2019

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

Subject: Letter Proposal to Provide On-Call Consulting

Dear Mr. Gould:

John Robinson Consulting, Inc. (JR Consulting) is pleased to offer is letter proposal to Crescenta Valley Water District (CVWD) based on our discussion on July 30th which reviewed the progress with the 2018-2019 on-call consulting contract and brainstormed scope of services for the 2019-2020 on-call contract. Our firm is a California S Corporation, is certified as Small Business Enterprise (SBE) by Metropolitan Water District and is located locally in Pasadena. This letter proposal outlines our recommended scope of service, schedule and compensation.

SCOPE OF SERVICES

Task 1 – Metropolitan Water District Local Resource Program

JR Consulting will assist CVWD with obtaining grant funds for the Crescenta Valley County Park Stormwater Recharge Project. CVWD wants to install a stormwater recharge facility at the Crescenta Valley County (CVC) Park to capture and infiltrate stormwater and dry-weather flow within the Verdugo Wash to recharge the Verdugo Basin. CVC Park which is owned by the LACDPR, located within the County of Los Angeles and surrounded by the City of Glendale provides a rich partnership project opportunity to implement the goal for the stormwater recharge facility to increase groundwater supplies, improve local water supply reliability particularly during times of drought, improve groundwater quality and reduce surface water runoff within CVC Park. The potential grant being investigated would be the 2017 Integrated Regional Water Management Grant Program, Chapter 7 under Department of Water Resources.

Deliverable: JR Consulting in coordination with CVWD staff would pursue Metropolitan Water District Local Resource Program funding. JR Consulting will coordinate with CVWD and MWD on this new grant opportunity.

Schedule: Metropolitan Water District Grant applications are expected to begin in Fall 2019.

Task 2 – Los Angeles County Department of Public Works - Measure W

In November 2018, Measure W was approved by the voters. Measure W creates a special tax for parcels located in the Los Angeles County Flood Control District, which covers the majority of

Los Angeles County. Revenue generated from Measure W will be used to pay for 1. Regional and 2. Municipal projects that improve water quality and may also increase water supply and provide community benefits such as parks or wetlands. Ten percent of the revenue will go to the L.A. County Flood Control District for administration. The Safe, Clean Water Act is a parcel tax of 2.5 cents a square foot of “impermeable space” such paved or built-on surfaces that that prevent “stormwater and urban runoff from entering the earth,” like concrete patios and driveways). JR Consulting will assist CVWD will look to obtain either regional or municipal monies from Measure W for the Crescenta Valley County Park Stormwater Recharge Project. CVWD wants to install a stormwater recharge facility at the Crescenta Valley County (CVC) Park to capture and infiltrate stormwater and dry-weather flow within the Verdugo Wash to recharge the Verdugo Basin.

Deliverable: *JR Consulting in coordination with CVWD staff would pursue Measure W funding. JR Consulting will coordinate with CVWD and LACDPW on this new grant opportunity. Unknown schedule but research would be developed during 2019-2020.*

Task 3 – USBR WaterSMART Water and Energy Grant Funding

JR Consulting will investigate United States Bureau of Reclamation (USBR) Fiscal Year 2020 funding to help offset CVWD’s investments into AMI installation in the service area. CVWD current installation is estimated at approximately 5,000 AMI installation on meters installed in the late 1970’s to mid-1980 with measurable improvements in losses of approximately 4.0%. The potential funding would help accelerate the remaining installation as well as the development of a fixed area network to have the AMI meters to be read automatically versus manually.

Deliverable: *JR Consulting will investigate and if requested resubmit for USBOR funding for AMI installations and fixed area network via two submittals. One submittal for \$300,000 to be completed in 2 years and another submittal for \$1,000,000 to be completed in 3 years.*

Schedule: *USBR issues Proposed Solicitation Packages (PSPs) in October to mid-November. After the PSPs are approved grants can be submitted typically from November 2019 to June 2020.*

Task 4 – FEMA Hazard Mitigation Grant Program

JR Consulting will investigate Federal Emergency Management Agency (FEMA) grant funding to potentially assist with the design and/or construction for potential at risk facility such as repair of roadways at Edmund #2 & Pickens Reservoirs and other mitigation projects.

Deliverable: *JR Consulting will investigate and provide the findings to CVWD regarding potential FEMA funding for design and/or construction for potential at risk facility such as repair of roadways at Edmund #2 & Pickens Reservoirs.*

Schedule: *FEMA grants can be submitted anytime but typically new applications occur from November 2019 to June 2020.*

Task 5 – SWRCB DFA Drinking Water SRF

JR Consulting will investigate the potential to obtain a State Water Resource Control Board Division of Financial Assistance Drinking Water State Revolving Funding for capital improvement projects (CIP) which could be provided at a low interest loan (2.875%). JR Consulting is currently developing a DWSRF application package for another water retailer and will take that knowledge of the process and make recommendations to CVWD based upon CVWD 5-year CIP.

Deliverable: *JR Consulting will investigate and provide the findings to CVWD regarding potential SWRCB DFA DWSRF future CVWD CIP projects.*

Schedule: *DWSRF can be submitted anytime and currently SWRCB Division of Final Assistance are looking for projects to fund and the process typically takes 12 to 18 months so would not impact the current 2018-2019 CIP budget.*

Task 6 - Crescenta Valley County Park Stormwater Recharge Project:

JR Consulting will assist CVWD and their consultant (Wood Environment & Infrastructure Solutions, Inc.) with the next steps of implementation including the followings:

- A. Coordination with potential project partners (City of Glendale, Glendale Water & Power, County of Los Angeles Department Parks & Recreation (LACDPR) and Los Angeles County Department of Public Works.
- B. Assist CVWD with conversations with SWRCB Division of Water Rights and Los Angeles Department of Water & Power regarding Pueblo surface water rights discussions.
- C. Assist CVWD with the development of a preliminary engineer's cost estimate, potential funding and cost/benefit analysis.

Task 7 - Well #2 and Related Facilities:

JR Consulting will assist CVWD with Well #2 and Related Facilities project wrapping of the project. Those tasks include:

- A. Any wrap up permitting coordination with City of Glendale Public Works, City of Glendale Fire Department and Glendale Water & Power.
- B. Assist in the coordination of the testing protocol and reporting required by SWRCB Division of Drinking Water.

MEETINGS

JR Consulting will be available for up to three (3) meetings including Executive management, Engineering Committee and Board of Directors to discuss the deliverables from the tasks.

TIME SCHEDULE

JR Consulting will commence with the proposed scope of services after the Professional Services Agreement (PSA) has fully been executed. JRC will provided a copy of our Certificate of Insurance per the PSA requirements and will keep the insurance valid throughout the project. JR Consulting will have a meeting with CVWD staff to determine the time schedule for Tasks 1 through 6.

The scope of work will be starting on September 1, 2019 through June 30, 2020 (10 months).

COMPENSATION

JR Consulting will provide the scope of services with the proposed schedule as set forth in this proposal to CVWD on a time and material basis. Based on JR Consulting's present knowledge of the services described above, it is recommended that \$30,000 and is based on 200 hours at \$150 per hour which is \$3,000 per month but hours will only be charged for those hours worked as this is a not a lump sum proposal. JR Consulting for the 4th year will maintain our hourly rate at \$150 per hour.

JR Consulting commits to timely, responsive services, and to deliver excellence in the offered services. We are eager and enthusiastic to begin this technical memorandum for CVWD.

If there are any questions, please feel free to contact me at (626) 375-9389 or jrobinson@johnrobinsonconsulting.com

Very truly yours,

John Robinson Consulting, Inc.

A handwritten signature in blue ink, appearing to read "John Robinson", is positioned above the printed name.

John Robinson, Principal

CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 3

August 23, 2019

To: Honorable President and Members of the Board of Directors
From: David S. Gould, P.E. – District Engineer
Subject: **Emergency Pavement Repairs & Pipeline Replacement the 4600 to 4900 Blocks of Pennsylvania Ave, Project E-1009A**

ACTION ITEM:

Emergency Pavement Repairs & Pipeline Replacement on the 4600 to 4900 Blocks of Pennsylvania Ave, Project E-1009 – Status report on the progress of the project.

BACKGROUND:

On August 4, 2019, there was a major water main break on the existing 8-inch pipeline in front of 4811 Pennsylvania that did significant damage to the existing AC pavement on Pennsylvania Ave. from El Caminito Street to Fairesta Street. There were a number of areas where the pavement sank and other areas where the pavement was uplifted as shown in the attached incident report.

Staff met in the field with City of Glendale Public Works Department (GPWD) and County of Los Angeles, Department of Public Works (LADPW) to assess the damage and determine the best course of action. Currently, Pennsylvania Ave is closed to thru traffic between El Caminito and Stevens Street with traffic being diverted around the damaged pavement. Residents in the area do have access to their driveways and water service has been restored to the area in a reduced capacity.

Attached are the staff reports from the Board meeting on 8/13/19 about the emergency pavement repair and pipeline replacement for reference.

DISCUSSION:

Emergency Pavement Repair:

Staff prepared plans and specifications for the “temporary” pavement repairs on Pennsylvania Ave to bring the roadway back into service for the community. The plans were sent to two (2) paving contractors, GM Sager Construction and Paveco Construction. Paveco Construction was the lowest responsible bidder at \$274,982.50 (see attached bid summary). The bid amount was higher than the amount approved by the Board of \$225,000. Since time is of the essence to get the paving started, staff awarded the contract to Paveco with the intent to go back to the Board to get approval for the additional funding.

A pre-construction meeting was held on August 20, 2019 with Paveco, Associated Soils, Glendale Public Works and County of Los Angeles Department of Public Works. The agreed upon schedule is for Paveco to start work on August 23, 2019 and to be completed by September 6, 2019. Glendale requested that CVWD post signs at the site about the project schedule. In addition, staff has sent out letters to the residents and posted an update on CVWD’s website.

Staff has also received numerous phone calls from residents and Valley View Elementary School’s principal Brook Reynolds on the impact to traffic with the street being closed. We provided a detour route map to the principal at Valley View for distribution to parents.

Staff has also met with representatives from ACWA-JPIA regarding the claim and has provided information on the contract, permits, traffic control and costs to date.

Pipeline Replacement:

Staff has prepared 80% design plans and specifications to replace about 770 feet of pipeline from El Caminito St. to Alabama Street. With all the existing utilities in Pennsylvania Ave, the best alignment was to remove a portion of the existing pipeline and use that alignment. This will require a line-stop being installed, north of the project such that the pipeline can be removed without any residents being out of water.

Staff contacted a number of pipeline contractors to check their availability to start work in early September. Allen Pipeline and Brkich Construction were available to meet the District's schedule. The plans and specifications were sent to the contractors on August 21, 2019, and the bids are due on August 27, 2019. A staff report will be prepared for the Board meeting and staff will bring the bid summary and costs at the Board meeting.

At the same time the plans were being design, staff started ordering the material for the project including the pipe, valves, fittings and meter boxes. The material should be here by September 9, 2019. The project schedule is to start pipeline construction on September 9, 2019 and to be completed by October 11, 2019.

RECOMMENDATION:

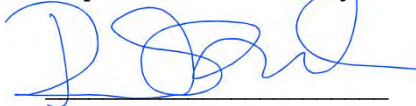
It is staff's recommendation to proceed with the paving repairs and the pipeline replacement with the goal of completing all the work by October 14, 2019. In addition, staff will be recommending additional funding of \$125,000 to complete the emergency pavement repairs.

FUNDING AVAILABILITY:

There are funding available for the projects estimated below:

Account Description	Amount
Total Engineer's Cost Estimate for Emergency Pavement Repairs includes 20% contingency	\$325,000
Additional costs for soils inspection and engineering & inspection labor costs	\$25,000
Total Preliminary Cost Estimate	\$350,000
Cost Recovery Estimate (ACWA-JPIA) [Total cost minus \$10,000 deductible and assume 85% recovery of total cost]	<\$272,000>
Requested funding from the Water Fund Reserves	\$78,000

Prepared and Submitted by:



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

Attachments:

1. 8/13/19 Staff Report – Emergency Pavement Repairs on the 4600 to 4900 Blocks of Pennsylvania
2. 8/13/19 Staff Report – 8-inch Water Main Replacement on the 4700 & 4800 Blocks of Pennsylvania
3. Bid Summary – Emergency Pavement Repairs
4. Design Plans – 8-inch Water Main Replacement

G:\Engineering Committee\2019 EC Memo\08-23-19 ECM - E-1009 - Penn Update.docx

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 2

August 13, 2019

To: Honorable President and Members of the Board of Directors

From: David S. Gould, P.E. – District Engineer

Subject: **Emergency Pavement Repairs on the 4600 to 4900 Blocks of Pennsylvania Ave, Project E-1009A**

ACTION ITEM:

Emergency Pavement Repairs – 4600 to 4900 Blocks of Pennsylvania Ave, Project E-1009A –

Consideration and motion to waive the Bid Procurement and Purchasing Policy per Article 18.01 of CVWD's Rules and Regulations and allow the General Manager to select and negotiate with a contractor for the emergency pavement repairs on the 4600 to 4900 Blocks of Pennsylvania Ave at an estimated cost of \$225,000.

BACKGROUND:

On August 4, 2019, there was a major water main break on the existing 8-inch pipeline in front of 4811 Pennsylvania that did significant damage to the existing AC pavement on Pennsylvania Ave. from El Caminito Street to Fairesta Street. There were a number of areas where the pavement sank and other areas where the pavement was uplifted as shown in the attached incident report.

Staff met in the field with City of Glendale Public Works Department (GPWD) and County of Los Angeles, Department of Public Works (LADPW) to assess the damage and determine the best course of action. Currently, Pennsylvania Ave is closed to thru traffic between El Caminito and Stevens Street with traffic being diverted around the damaged pavement. Residents in the area do have access to their driveways and water service has been restored to the area in a reduced capacity.

DISCUSSION:

The preliminary plan discussed was to remove the existing pavement that was damaged, re-compact the base material and re-pave the areas with a "temporary" AC pavement to get the roadway back into service. Then over the next few months, observe the pavement for any additional sinkholes or uneven surfaces that may occur as the pavement and base material settles over time. After this period, staff will meet again with GPW and LADPW to determine the limits of work for final pavement of Pennsylvania.

Staff's goal is to hire a paving contractor as soon as possible to repair the pavement and return Pennsylvania Ave back into service for the community since Pennsylvania Ave is a major street for the area. Staff has met in the field with GM Sager Construction and Paveco Construction to look at the damaged pavement and get preliminary costs for the temporary emergency repair. In addition, GPWD provided a plan showing which areas need to be removed, re-compacted and paved and are shown on the attached plans.

Staff has preliminarily estimated the cost for the temporary repair at \$225,000, which includes a 20% contingency as it is anticipated that the repair area will increase as the existing pavement is removed. The cost of the final pavement is undetermined at this time and will be discussed further after the pavement settling period.

Staff has also filed a claim with ACWA-JPIA to recover the cost for repair of the pavement. JPIA has assigned a claim adjuster who will be contacting us to review the claim. The District's deductible for this type of property claim is \$10,000.

Mr., Brook Yared will be the project manager, and Mr. Cory Whitman will provide field inspection. The preliminary cost estimate for the project also includes costs for soil inspection, staff engineering and inspection, and contingencies.

Project Schedule:

The following is a proposed project schedule as shown below:

Preliminary Project Temp Paving Schedule		
Task	Start Date	End Date
Design/Specs/Quantities	8/8/19	8/12/19
Permits - LA County PW/Glendale	8/12/19	8/16/19
Staff Report - Approval	8/9/19	8/13/19
Board Approval	8/13/19	8/13/19
Send RFQ	8/9/19	8/12/19
Bids Due	8/12/19	8/14/19
Send Soils RFP Out/due	8/12/19	8/18/19
Award Contract	8/14/19	8/15/19
Agreement	8/15/19	8/16/19
Pre-Construction Meeting	8/16/19	8/16/19
Start Construction	8/19/19	8/23/19
Street back into service	8/23/19	8/23/19

RECOMMENDATION:

It is staff's recommendation to waive the Bid Procurement and Purchasing Policy per Article 18.01 of CVWD's Rules and Regulations and allow the General Manager to select and negotiate with a paving contractor for the emergency temporary pavement repairs on the 4600 to 4900 Blocks of Pennsylvania Ave at an estimated cost of \$225,000.

ENVIRONMENTAL REVIEW:

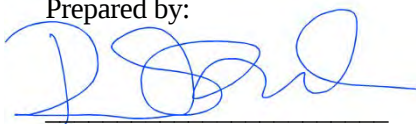
This project is exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15301 of the CEQA Guidelines. This exemption covers the repair of existing facilities involving negligible or no expansion of existing use.

FUNDING AVAILABILITY:

There are funding available for the project estimated below:

Account Description	Amount
Engineer's Cost Estimate for Construction includes 20% contingency	\$200,000
Additional costs for soils inspection and engineering & inspection labor costs	\$25,000
Total Preliminary Cost Estimate	\$225,000
Cost Recovery Estimate (ACWA-JPIA) [Total cost minus \$10,000 deductible and assume 85% recovery of total cost]	<\$183,000>
Requested funding from the Water Fund Reserves	\$42,000

Prepared by:



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

Submitted by:



Nem Ochoa
General Manager

Attachments:

1. 8-inch Water Main incident report
2. Preliminary pavement replacement plans provided by Glendale, Public Works

CRESCENTA VALLEY WATER DISTRICT

Incident Report

8-inch Water Main Break – 4800 Block of Pennsylvania

Date: August 4, 2018

- 3:30 am: Call received by Glendale Water & Power (GWP) about water leak at 4811 Pennsylvania.
- 4:00 am: Frank Williams from GWP arrived on the scene. GWP dispatched a crew with equipment to make the repair. It appeared to be a leak from GWP's meter to house. Crew broke angle stop to meter. Preparing to replace angle stop when water blew out from the hole.
- 4:30 am: Post on Facebook regarding no water on Pennsylvania at El Caminito.
- 6:15 am: Frank Williams from GWP called stand-by person.
- 6:20 am: Dennis Maxwell was contacted by Frank Williams from GWP and headed to the site.
- 6:50 am: Dennis Maxwell sent out email with video on the situation with more information to follow.
- 7:25 am: CVWD & GWP determined it was CVWD's 8-inch water main underneath the water meter box.
- 7:30 am: Nem Ochoa informed board members of the water main break.
- 7:45 am: David Gould arrives to assist with locating CVWD infrastructure and act as incident commander from the administrative office.
- 8:50 am: Dennis Maxwell & Bryan Jones called in David Rawlings, Alex Sandoval and Siaki Mortenson to assist. The water main was turned off and about 15 customers were out of water. Dennis also requested additional assistance from GWP and contact Casey from Allen Pipeline for welding.
- 9:00 am: David Gould walked Pennsylvania from El Caminito to Fairesta to determine the limits of the AC pavement damage.
- 10:30 am: Pipe exposed. Water leaking through bottom of pipe. 6-inch sewer lateral to 4811 Pennsylvania damaged and appeared debris was going into Glendale's sewer main.
- 10:30 am: Dennis Maxwell contact Glendale Sewer Department about inspecting the sewer main.
- 10:45 am: Dennis Maxwell contact Glendale Police and Fire Departments about shutting down the street. Pennsylvania was closed to traffic between El Caminito and Stevens St.
- 11:00 am: Brook Yared arrived at the site to help with paving and traffic control.
- 11:15 am: David Gould issued a press release about the incident. Mark Hass posted it on CVWD's website. Christy Scott forward the press release to the Crescenta Valley Weekly newspaper and Harry Leon from the CV Town Council.
- 11:30 am: Nem Ochoa provided an update to the board members.
- 11:30 am: David Gould sent email to Gary Edsall – Glendale Public Works on the main break and AC Pavement damage. Brook Yared forward message to Sarkis Oganessian and Saumil Mody, project managers for the Glendale paving project on Pennsylvania.

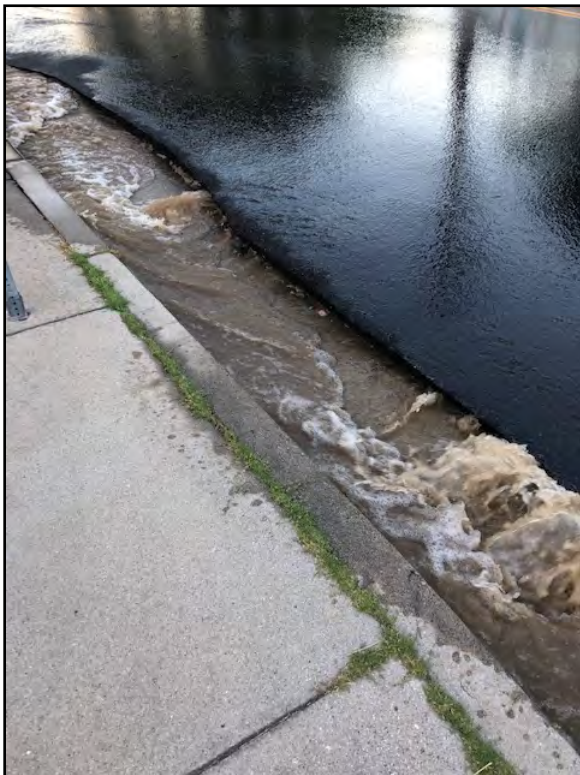
- 1:00 pm: Glendale police assisted with moving cars along Pennsylvania Ave.
- 2:00 pm: Gary Edsall contacted CVWD and said he was aware of the situation. CVWD and Glendale set up a meeting for 8/5 to go over the AC pavement repair.
- 2:05 pm: Dennis Maxwell sent an update email. He said there was a sewer back-up on the 8-inch sewer main on Pennsylvania. Glendale sewer crews were on-site working on removing rocks and debris from Glendale's sewer main.
- 2:30 pm: Dennis Maxwell sent an update email on the sewer back-up. Glendale's crew could not unplug the sewer and sewer bypass pump and piping was set up to bypass Glendale sewer to CVWD's sewer in case Glendale's sewer could not be unclogged. Brook Yared remained on site in case a sewer spill overflow occurred.
- 3:30 pm: Nem Ochoa visits site to assess damage.
- 4:00 pm: Glendale Crews continued cleaning downstream and got the blockage removed. Glendale crews also CCTV the sewer main from El Caminito to Alabama and it showed no damage to the sewer main. Glendale sewer crews to return on Monday (8/5) for additional cleaning and CCTV downstream of the main break.
- 4:00 pm: CVWD's crews repaired the 6-inch sewer lateral to 4811 Pennsylvania.
- 4:30 pm: CVWD crews finished installing 8-inch repair clamps on the water main.
- 4:30 pm: CVWD board president visits site to assess damage.
- 4:35 pm: Stemar Equipment delivered 150 traffic delineators for traffic control.
- 5:10 pm: David Gould sent out an updated Press Release that the water will be back in service by 8:00 pm.
- 5:30 pm: Water service was restored to the 15 customers.
- 8:00 pm: Dennis Maxwell sent an update email. The 6-inch sewer lateral was repaired. Crews were filling holes in street with base material. The hole where the main break was located was left open and temporary fencing was installed. Steel plates were set at Pennsylvania and Fairesta to protect storm drain manhole. Traffic control was set up on the south-bound lane of Pennsylvania. Equipment and tools were picked up. Crews finished around 9:00 pm.
- 8:46 pm: Nem Ochoa provided final update (of the day) to the board members.



Main Break – Pennsylvania Ave – Looking North



Leak in front of 4811 Pennsylvania



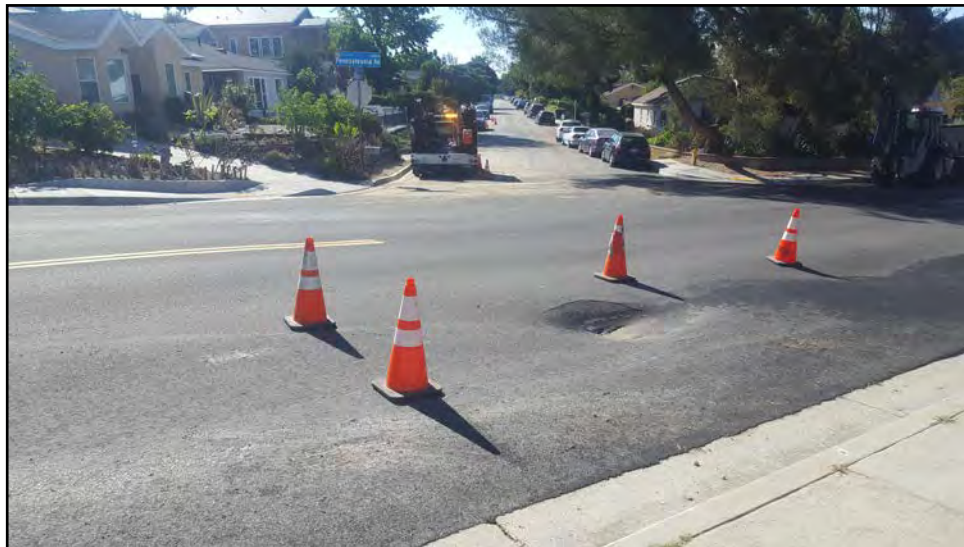
Water coming out of pavement



Pavement Failure



8-inch Pipeline – Leak on bottom of pipe and 4-inch Sewer Lateral



Pavement Failure



Pavement uplifting at edge of gutter



Water coming out of edge of storm drain manhole



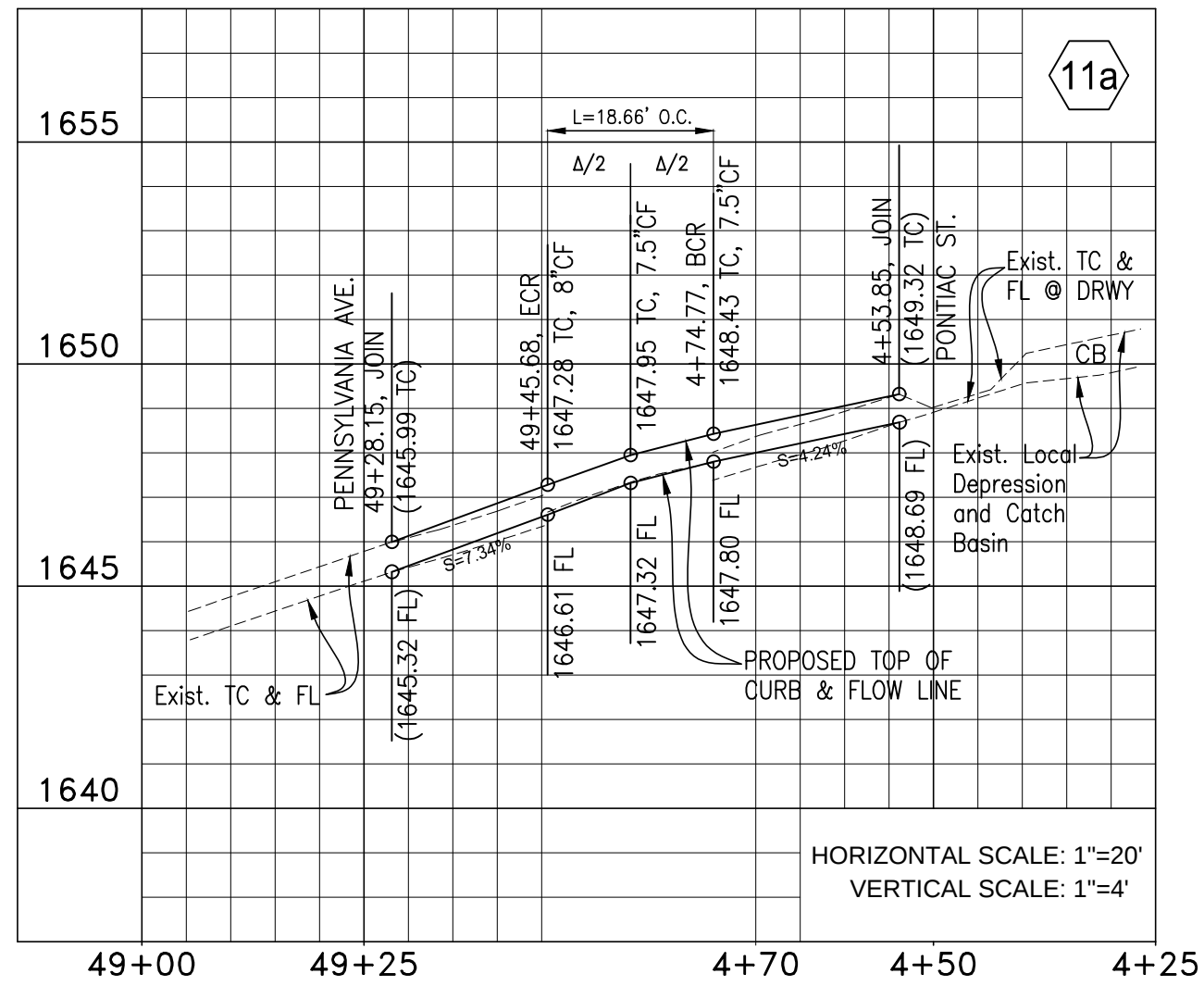
Pavement uplifting at Penn. & Stevens – Looking North



Pavement Damage – Looking South

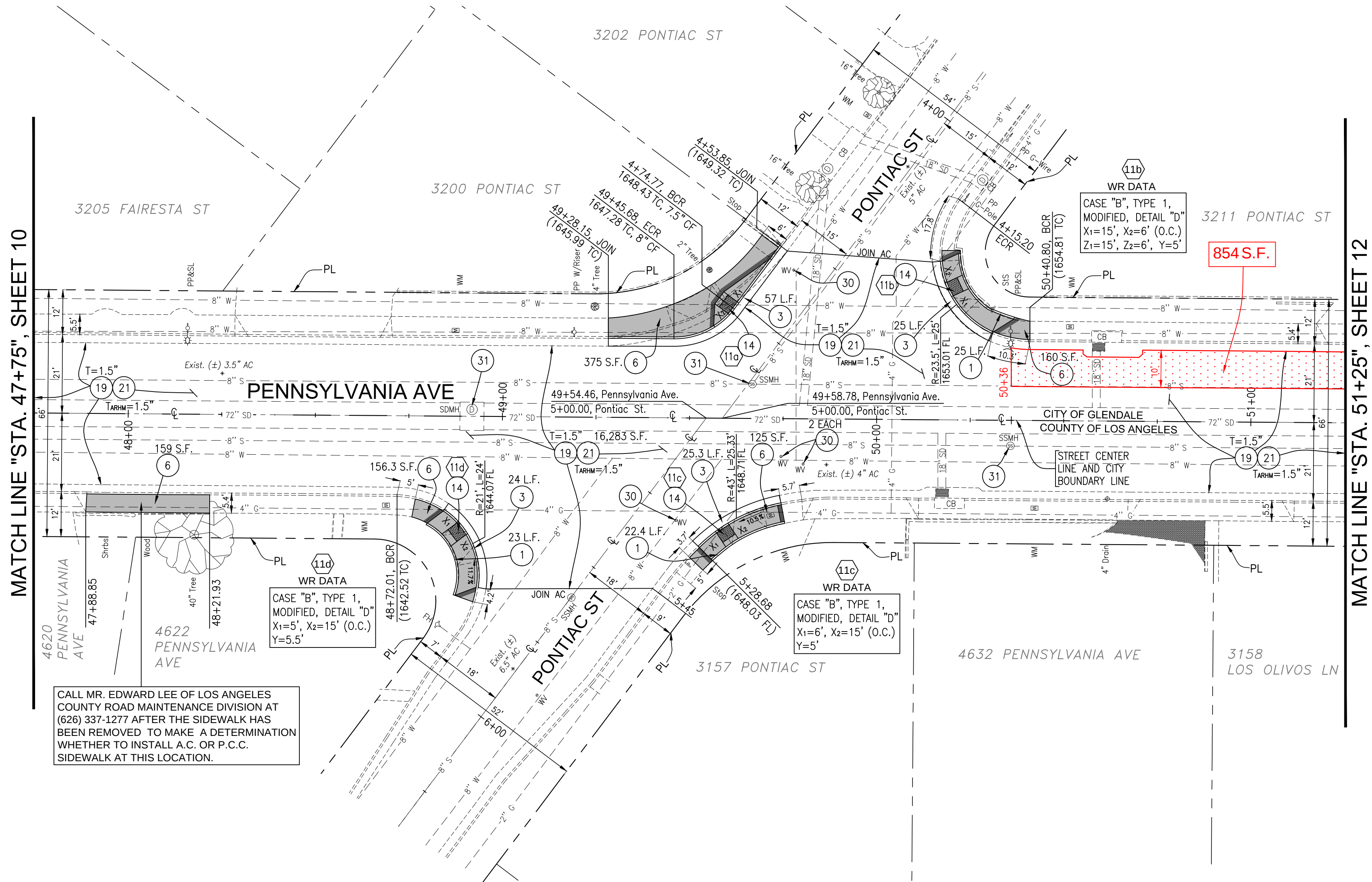


Temporary Pipe Repair



CURB RETURN & RAMP DATA	
11a	
Δ	53°27'16"
R	20.00'
L	18.66'
T	10.07'
BCR	4+74.77, Pontiac St., 1648.43 TC, 7.5" CF
Δ/2	1647.95 TC, 7.5" CF
ECR	49+45.68, Pennsylvania Ave., 1647.28 TC, 8" CF
WCR	CASE "A", TYPE 1, X ₁ =15', X ₂ =5', Y=5', CL OF WCR AT BCR

DO NOT USE FOR CONSTRUCTION



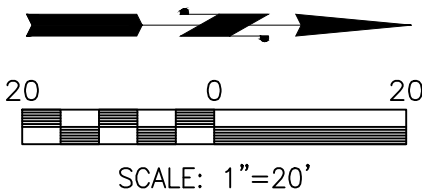
- CONSTRUCTION NOTES**
- 1—CONSTRUCT P.C.C. CURB PER SPPWC STD. PLAN NO. 120-2.
 - 2—CONSTRUCT P.C.C. CURB TYPE A1-6 PER CALTRANS STD. PLAN A87A.
 - 3—CONSTRUCT INTEGRAL P.C.C. CURB AND GUTTER PER SPPWC STD. PLAN NO. 120-2, A2-6(150), W=2-Feet (UNLESS OTHERWISE NOTED) AND PER DETAIL NO. 1, SHEET 22.
 - 4—CONSTRUCT INTEGRAL P.C.C. CURB AND GUTTER PER SPPWC STD. PLAN NO. 120-2, A3-6(150), W=1-Feet.
 - 5—CONSTRUCT INTEGRAL P.C.C. CURB AND GUTTER TYPE A2-6 OR A2-8 PER CALTRANS STD. PLAN A87A, AND PER DETAIL NO. 1, SHEET 22 & 23.
 - 6—CONSTRUCT 4-INCH P.C.C. PAVEMENT (SIDEWALK).
 - 7—CONSTRUCT 4-INCH P.C.C. PAVEMENT (STAMPED CONCRETE).
 - 8—CONSTRUCT P.C.C. DRIVEWAY APPROACH PER SPPWC STD. PLAN NO. 110-2 (COMMERCIAL - TYPE "A" 6 - INCH P.C.C., RESIDENTIAL - TYPE "B" 5 - INCH P.C.C.).
 - 9—CONSTRUCT 6-INCH P.C.C. PAVEMENT.
 - 10—CONSTRUCT 8-INCH P.C.C. PAVEMENT.
 - 11—CONSTRUCT 8-INCH P.C.C. LOCAL DEPRESSION PER SPPWC STD. PLAN NO. 313-3.
 - 12—NOT USED.
 - 13—CONSTRUCT ALLEY INTERSECTION PER SPPWC STD. PLAN NO. 130-2.
 - 14—CONSTRUCT P.C.C. CURB RAMP WITH DETECTABLE WARNING SURFACE (YELLOW COLOR, UNLESS OTHERWISE NOTED) PER SPPWC STD. PLAN NO. 111-4.
 - 15—CONSTRUCT P.C.C. CURB RAMP WITH DETECTABLE WARNING SURFACE (YELLOW COLOR, UNLESS OTHERWISE NOTED) PER CALTRANS REVISED PLAN RSP A88A.
 - 16—INSTALL YELLOW (UNLESS OTHERWISE NOTED) SURFACE MOUNT DETECTABLE WARNING SURFACE ("TRUNCATED DOMES") PER ARMOR-TILE SPECIFICATIONS OR APPROVED EQUAL.
 - 17—REMODEL/RECONSTRUCT CURB (ROOF) DRAIN PER DETAIL NO. 3, SHEET 22.
 - 18—REMOVE EXISTING PAVEMENT.
 - 19—SURFACE PLANE TO THICKNESS IN INCHES INDICATED BY T=---" AND AS SHOWN PER DETAIL NO. 6, SHEET 22.
 - 20—CONSTRUCT 1.5-INCH ASPHALT RUBBER HOT MIX (A.R.H.M.) PAVEMENT OVER 0.5-INCH ASPHALT CONCRETE LEVELING COURSE, UNLESS OTHERWISE NOTED ON THE PLANS, PER DETAIL NO. 4 (CALTRANS RIGHT OF WAY), SHEET 22 & DETAIL NO. 2, SHEET 23.
 - 21—CONSTRUCT ASPHALT RUBBER HOT MIX (A.R.H.M.) PAVEMENT OVERLAY (THICKNESS INDICATED BY T_{ARHM} =---") PER DETAIL NO. 4, SHEET 22.
 - 22—CONSTRUCT 1.5-INCH ASPHALT RUBBER HOT MIX (A.R.H.M.) PAVEMENT OVER ASPHALT CONCRETE BASE COURSE (THICKNESS INDICATED BY T_{AC} =---"), OVER CRUSHED MISCELLANEOUS BASE (THICKNESS AS INDICATED ON PLANS).
 - 23—CONSTRUCT VARIABLE THICKNESS A.C. PAVEMENT (THICKNESS INDICATED BY T_{AC} =---"), OVER VARIABLE THICKNESS CRUSHED MISCELLANEOUS BASE (2-INCH MINIMUM) ONLY IF INDICATED.
 - 24—RELOCATE G.W.P./A D.W.P. STREET LIGHT POLE PER TRAFFIC SIGNAL MODIFICATION PLAN NO. 50-608.
 - 25—RELOCATE TRAFFIC SIGNAL PULL BOX PER ENGINEER'S DIRECTION IN THE FIELD.
 - 26—RELOCATE STREET LIGHT PULL BOX PER ENGINEER'S DIRECTION IN THE FIELD.
 - 27—RELOCATE FIRE HYDRANT PER ENGINEER'S DIRECTION IN THE FIELD.
 - 28—RELOCATE G.W.P./A D.W.P. WATER METER PER ENGINEER'S DIRECTION IN THE FIELD.
 - 29—RELOCATE G.W.P./A D.W.P. WATER VALVE.
 - 30—ADJUST WATER VALVE/WELL COVER TO NEW FINISHED GRADE.
 - 31—ADJUST MANHOLE FRAME AND COVER TO NEW FINISHED GRADE.
 - 32—ADJUST WATER VAULT TO NEW FINISHED GRADE BY G.W.P..
 - 33—REMOVE AND REPLACE TOP SLAB OF EXISTING CATCH BASIN, PER SPPWC STD. PLAN NO. 314-3 AND PER DETAIL NO. 5, SHEET 22.
 - 34—INSTALL CLEAN PLANTING SOIL AND SOD PER ENGINEER'S DIRECTION.
 - 35—NOT USED.
 - 36—PLANT TYPE BLOODGOOD SYCAMORE (PLATANUS A. "BLOODGOOD") TREE, PER DETAIL NO. 7, SHEET 22, UNLESS OTHERWISE NOTED ON PLANS.
 - 37—INSTALL TYPE "E" AND "D" DETECTOR LOOPS, SEE GENERAL NOTE NO. 32, PER CALTRANS STD. PLAN NO. ES-5B.
 - 38—INSTALL 1.5-INCH P.V.C. LOOP STUB-OUT.

BM 1781 PENNSYLVANIA AVE. AND FAIRESTA ST.
ROUND HEAD NAIL IN LEAD IN S'LY CURB OF FAIRESTA ST. 75.0 FT. W'LY OF BCR. S-W'LY CORNER CHSLD. "BM".
2004 ELEV.=1629.41 FT.

BM 1782 PENNSYLVANIA AVE. AND PONTIAC ST.
ROUND HEAD NAIL IN LEAD IN N'LY CURB OF PONTIAC ST. 80.0 FT. E'LY OF BCR. N-E'LY CORNER CHSLD. "BM".
2004 ELEV.=1647.45 FT.

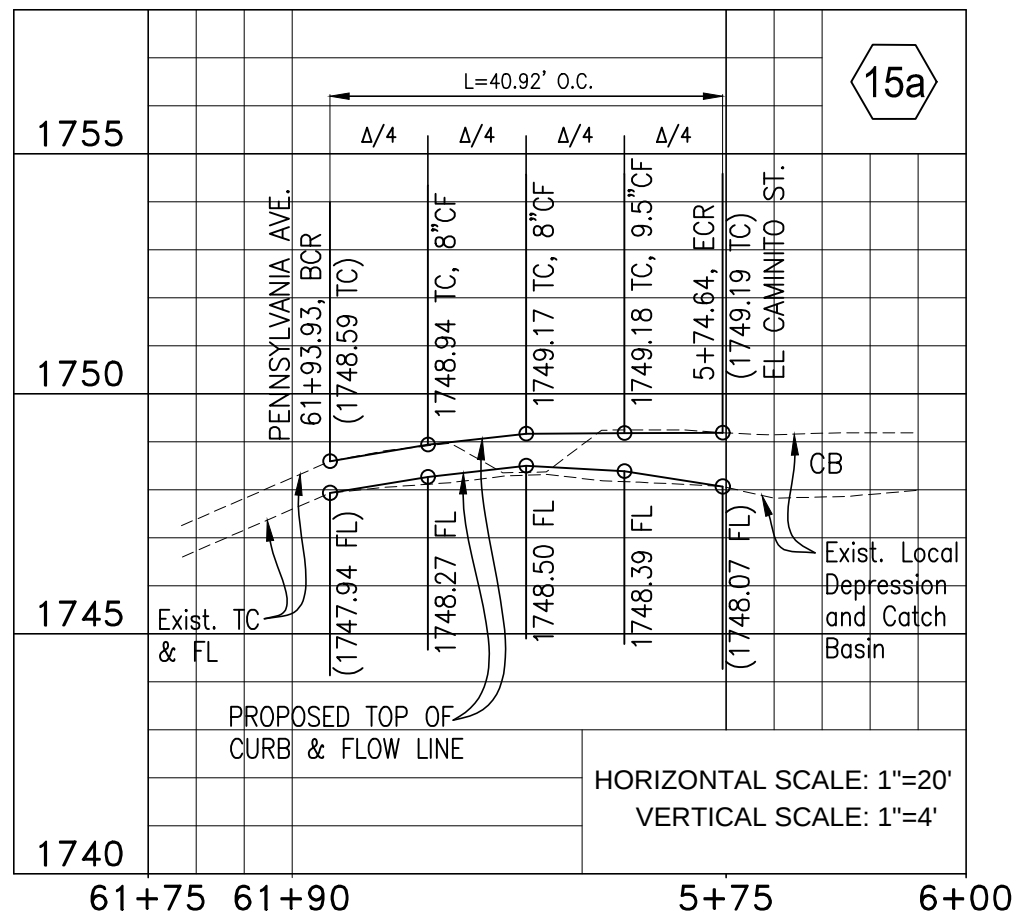
HATCHING LEGEND

- 4" P.C.C. SIDEWALK
- 5", 6" & 8" P.C.C. (DRIVEWAY APPROACHES, CROSS GUTTER, LOCAL DEPRESSION, BUS PAD)
- DETECTABLE WARNING SURFACE
- REMOVE EXISTING PAVEMENT



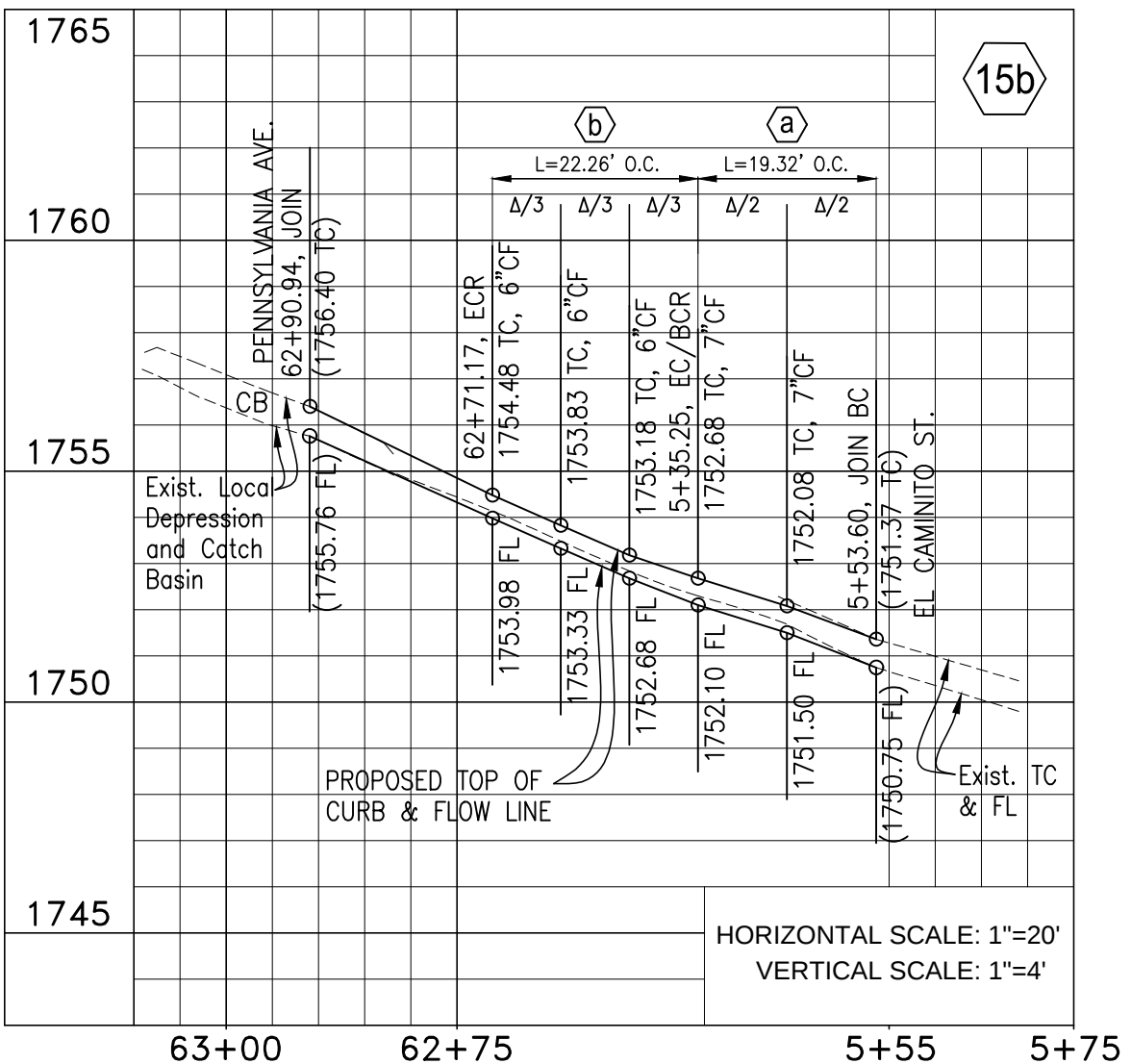
COUNTY OF LOS ANGELES	
APPROVED FOR CONSTRUCTION. APPLIES ONLY TO WORK IN AREAS OF COUNTY JURISDICTION.	
REVIEWED:	
BY	DESIGN DIVISION - DESIGN TEAM 4 DATE

REV. NO.	REVISION DESCRIPTION	REV. DATE	REV. BY
1			
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION		PLAN NO. 1 - 3002 SHEET 11 OF 23	
CITY OF GLENDALE CALIFORNIA			



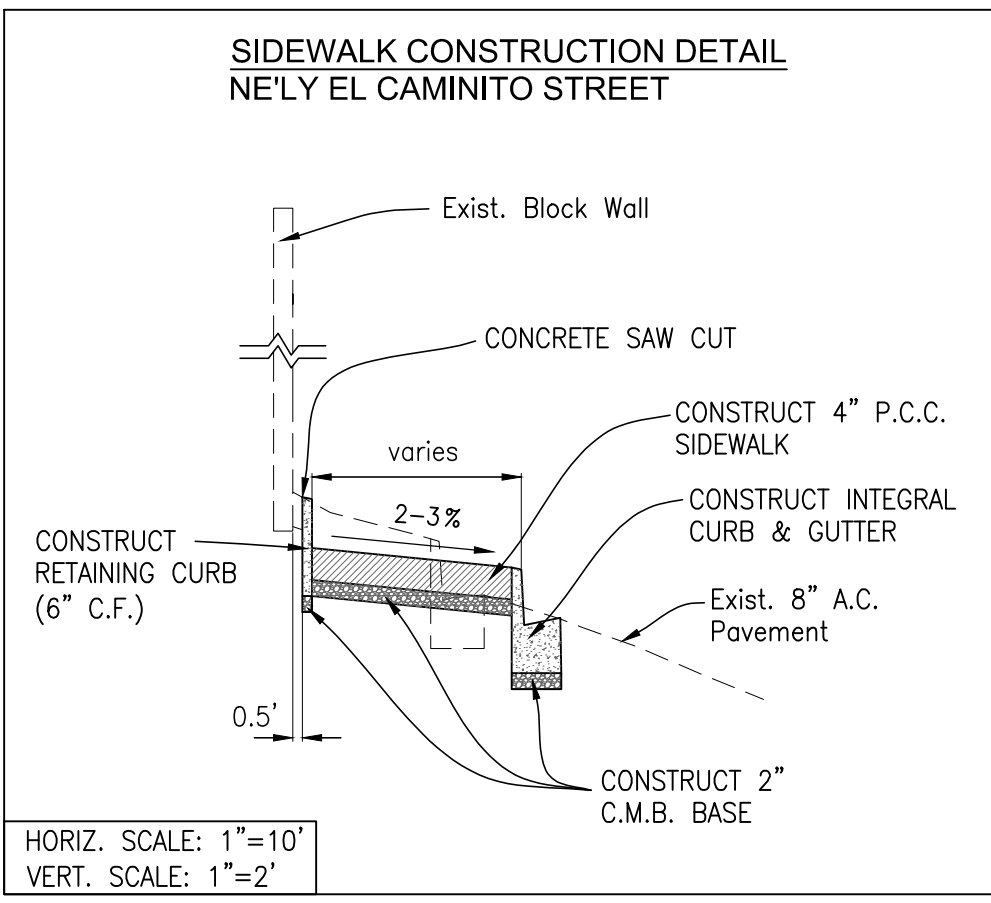
CURB RETURN & RAMP DATA

15a	
Δ	117'13"25"
R	20.00'
L	40.92'
T	32.78'
BCR	61+93.93, Pennsylvania Ave., (1748.59 TC)
Δ/4	1748.94 TC, 8" CF
Δ/2	1749.17 TC, 8" CF
3Δ/4	1749.18 TC, 9.5" CF
ECR	5+74.64, El Caminito St., (1749.19 TC)
WCR	CASE "A", TYPE 3, SECTION B-B, DETAIL D, X ₁ =6.2', X ₂ =7.8', Z ₁ =3', Z ₂ =5.3', Y=4', CL OF WCR AT Δ/2.

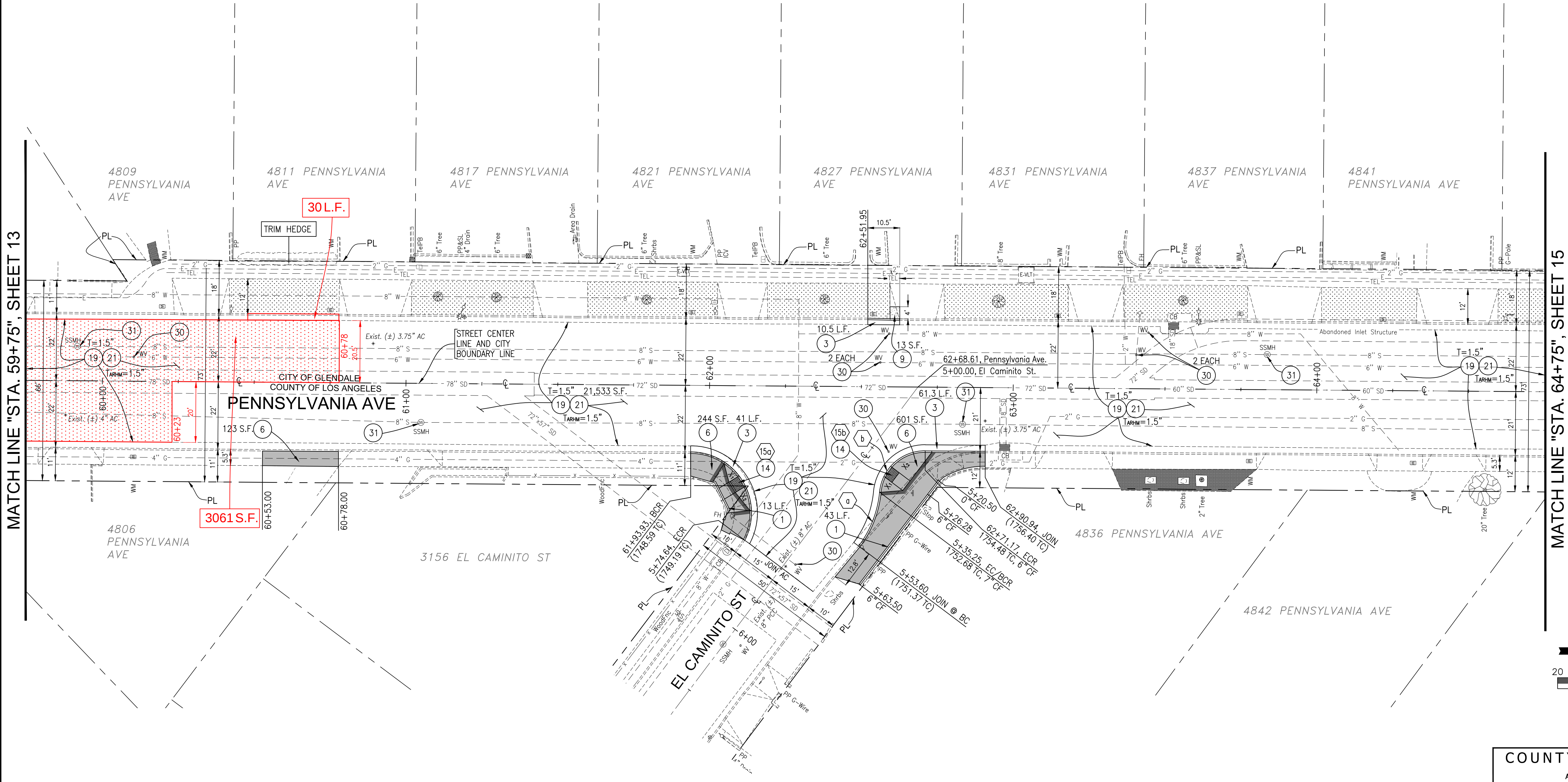


CURB RETURN & RAMP DATA

15b	
Δ	31'37"31"
R	35.00'
L	19.32'
T	9.91'
BC	5+53.60, El Caminito St., (1751.37 TC)
Δ/2	1752.08 TC, 7" CF (HIKE-UP=1")
EC	5+35.25, Abella St., 1752.68 TC, 7" CF (HIKE-UP=1")
Δ	85'02"41"
R	15.00'
L	22.26'
T	13.76'
BCR	5+35.25, Abella St., 1752.68 TC, 7" CF (HIKE-UP=1")
Δ/3	1753.18 TC, 6" CF (HIKE-UP=1")
2Δ/3	1753.83 TC, 6" CF (HIKE-UP=1.5")
ECR	62+71.17, Pennsylvania Ave., 1754.48 TC, 6" CF
WCR	CASE "A", TYPE 3, SECTION A-A, X ₁ =5', X ₂ =12.20' (15' O.C.), Z ₁ =Z ₂ =0', Y=8', CL OF WCR PERPEND. TO EL CAMINITO ST. CL, AT Δ/3 (STA. 5+28.24)



DO NOT USE FOR CONSTRUCTION

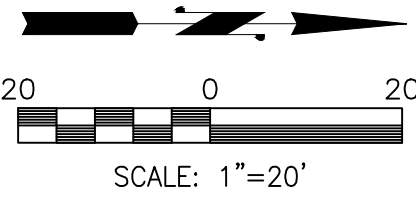


- CONSTRUCTION NOTES**
- 1- CONSTRUCT P.C.C. CURB PER SPPWC STD. PLAN NO. 120-2.
 - 2- CONSTRUCT P.C.C. CURB TYPE A1-6 PER CALTRANS STD. PLAN A87A.
 - 3- CONSTRUCT INTEGRAL P.C.C. CURB AND GUTTER PER SPPWC STD. PLAN NO. 120-2, A2-6(150), W=2-Feet (UNLESS OTHERWISE NOTED) AND PER DETAIL NO. 1, SHEET 22.
 - 4- CONSTRUCT INTEGRAL P.C.C. CURB AND GUTTER PER SPPWC STD. PLAN NO. 120-2, A3-6(150), W=1-Feet.
 - 5- CONSTRUCT INTEGRAL P.C.C. CURB AND GUTTER TYPE A2-6 OR A2-8 PER CALTRANS STD. PLAN A87A, AND PER DETAIL NO. 1, SHEET 22 & 23.
 - 6- CONSTRUCT 4-INCH P.C.C. PAVEMENT (SIDEWALK).
 - 7- CONSTRUCT 4-INCH P.C.C. PAVEMENT (STAMPED CONCRETE).
 - 8- CONSTRUCT P.C.C. DRIVEWAY APPROACH PER SPPWC STD. PLAN NO. 110-2 (COMMERCIAL - TYPE 'A' 6 - INCH P.C.C., RESIDENTIAL - TYPE 'B' 5 - INCH P.C.C.).
 - 9- CONSTRUCT 6-INCH P.C.C. PAVEMENT.
 - 10- CONSTRUCT 8-INCH P.C.C. PAVEMENT.
 - 11- CONSTRUCT 8-INCH P.C.C. LOCAL DEPRESSION PER SPPWC STD. PLAN NO. 313-3.
 - 12- NOT USED.
 - 13- CONSTRUCT ALLEY INTERSECTION PER SPPWC STD. PLAN NO. 130-2.
 - 14- CONSTRUCT P.C.C. CURB RAMP WITH DETECTABLE WARNING SURFACE (YELLOW COLOR, UNLESS OTHERWISE NOTED) PER SPPWC STD. PLAN NO. 111-4.
 - 15- CONSTRUCT P.C.C. CURB RAMP WITH DETECTABLE WARNING SURFACE (YELLOW COLOR, UNLESS OTHERWISE NOTED) PER CALTRANS REVISED PLAN RSP A88A.
 - 16- INSTALL YELLOW (UNLESS OTHERWISE NOTED) SURFACE MOUNT DETECTABLE WARNING SURFACE ("TRUNCATED DOMES") PER ARMOR-TILE SPECIFICATIONS OR APPROVED EQUAL.
 - 17- REMODEL/RECONSTRUCT CURB (ROOF) DRAIN PER DETAIL NO. 3, SHEET 22.
 - 18- REMOVE EXISTING PAVEMENT.
 - 19- SURFACE PLANE TO THICKNESS IN INCHES INDICATED BY T=---" AND AS SHOWN PER DETAIL NO. 6, SHEET 22.
 - 20- CONSTRUCT 1.5-INCH ASPHALT RUBBER HOT MIX (A.R.H.M.) PAVEMENT OVER 0.5-INCH ASPHALT CONCRETE LEVELING COURSE, UNLESS OTHERWISE NOTED ON THE PLANS, PER DETAIL NO. 4 (CALTRANS RIGHT OF WAY), SHEET 22 & DETAIL NO. 2, SHEET 23.
 - 21- CONSTRUCT ASPHALT RUBBER HOT MIX (A.R.H.M.) PAVEMENT OVERLAY (THICKNESS INDICATED BY T_{ARHM} =---") PER DETAIL NO. 4, SHEET 22.
 - 22- CONSTRUCT 1.5-INCH ASPHALT RUBBER HOT MIX (A.R.H.M.) PAVEMENT OVER ASPHALT CONCRETE BASE COURSE (THICKNESS INDICATED BY T_{AC} =---"), OVER CRUSHED MISCELLANEOUS BASE (THICKNESS AS INDICATED ON PLANS).
 - 23- CONSTRUCT VARIABLE THICKNESS A.C. PAVEMENT (THICKNESS INDICATED BY T_{AC} =---"), OVER VARIABLE THICKNESS CRUSHED MISCELLANEOUS BASE (2-INCH MINIMUM) ONLY IF INDICATED.
 - 24- RELOCATE G.W.P./A.D.W.P. STREET LIGHT POLE PER TRAFFIC SIGNAL MODIFICATION PLAN NO. 50-608.
 - 25- RELOCATE TRAFFIC SIGNAL PULL BOX PER ENGINEER'S DIRECTION IN THE FIELD.
 - 26- RELOCATE STREET LIGHT PULL BOX PER ENGINEER'S DIRECTION IN THE FIELD.
 - 27- RELOCATE FIRE HYDRANT PER ENGINEER'S DIRECTION IN THE FIELD.
 - 28- RELOCATE G.W.P./A.D.W.P. WATER METER PER ENGINEER'S DIRECTION IN THE FIELD.
 - 29- RELOCATE G.W.P./A.D.W.P. WATER VALVE.
 - 30- ADJUST WATER VALVE/WEEL COVER TO NEW FINISHED GRADE.
 - 31- ADJUST MANHOLE FRAME AND COVER TO NEW FINISHED GRADE.
 - 32- ADJUST WATER VAULT TO NEW FINISHED GRADE BY G.W.P..
 - 33- REMOVE AND REPLACE TOP SLAB OF EXISTING CATCH BASIN, PER SPPWC STD. PLAN NO. 314-3 AND PER DETAIL NO. 5, SHEET 22.
 - 34- INSTALL CLEAN PLANTING SOIL AND SOD PER ENGINEER'S DIRECTION.
 - 35- NOT USED.
 - 36- PLANT TYPE BLOODGOOD SYCAMORE (PLATANUS A. "BLOODGOOD") TREE, PER DETAIL NO. 7, SHEET 22, UNLESS OTHERWISE NOTED ON PLANS.
 - 37- INSTALL TYPE "E" AND "D" DETECTOR LOOPS, SEE GENERAL NOTE NO. 32, PER CALTRANS STD. PLAN NO. ES-5B.
 - 38- INSTALL 1.5-INCH P.V.C. LOOP STUB-OUT.

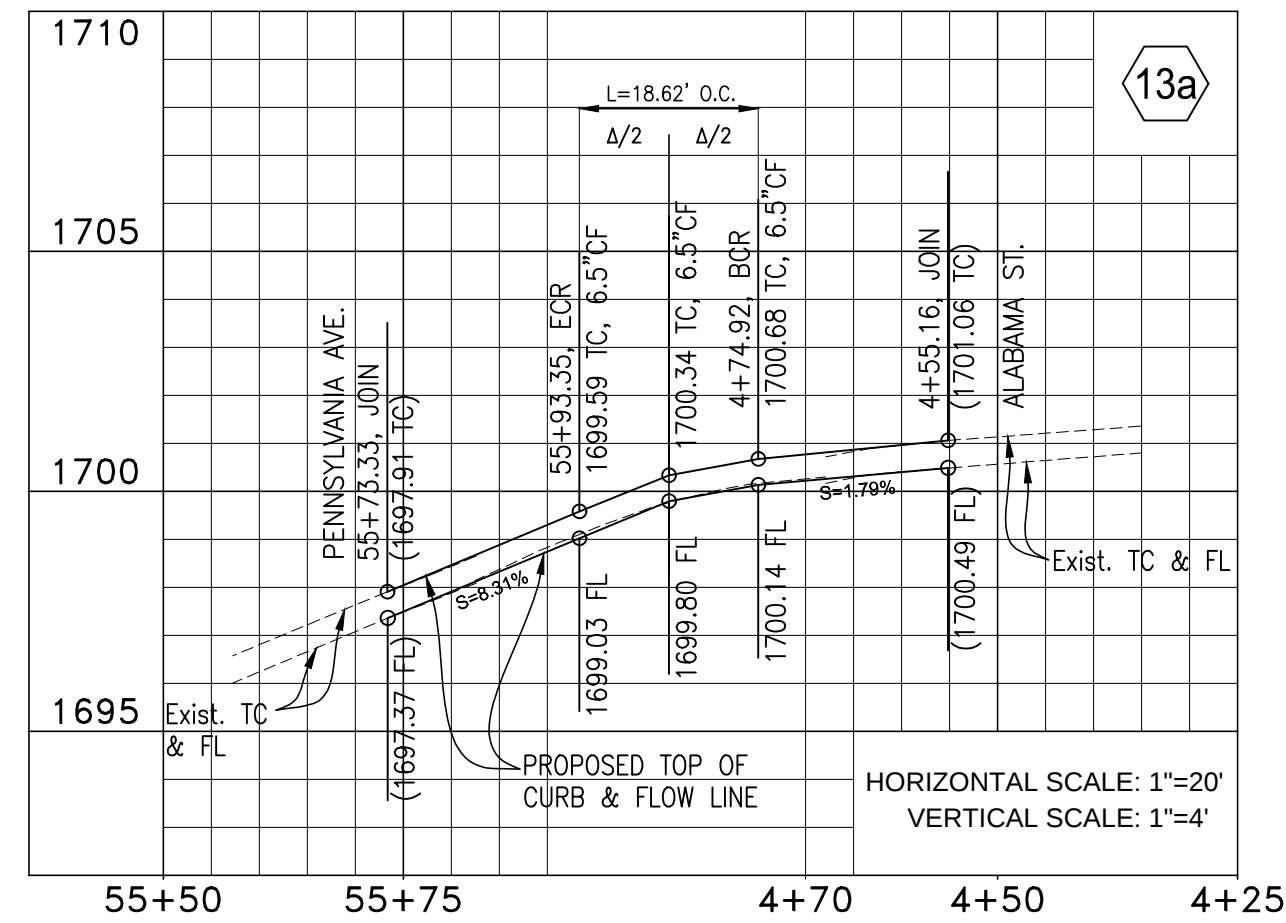
BM 1784 PENNSYLVANIA AVE. AND STEVENS ST.
ROUND HEAD NAIL IN LEAD IN N'LY CURB OF STEVENS ST. 22.0 FT. E'LY OF E'LY TOP OF "X" OF DRIVEWAY TO RES. 3155 CHSLD. "BM".
2004 ELEV.=1724.52 FT.

BM 1785 PENNSYLVANIA AVE. AND EL CAMINITO ST.
ROUND HEAD NAIL IN LEAD IN S'LY CURB OF EL CAMINITO ST. 18.0 FT. E'LY OF BCR. S-E'LY CORNER CHSLD. "BM".
2004 ELEV.=1749.22 FT.

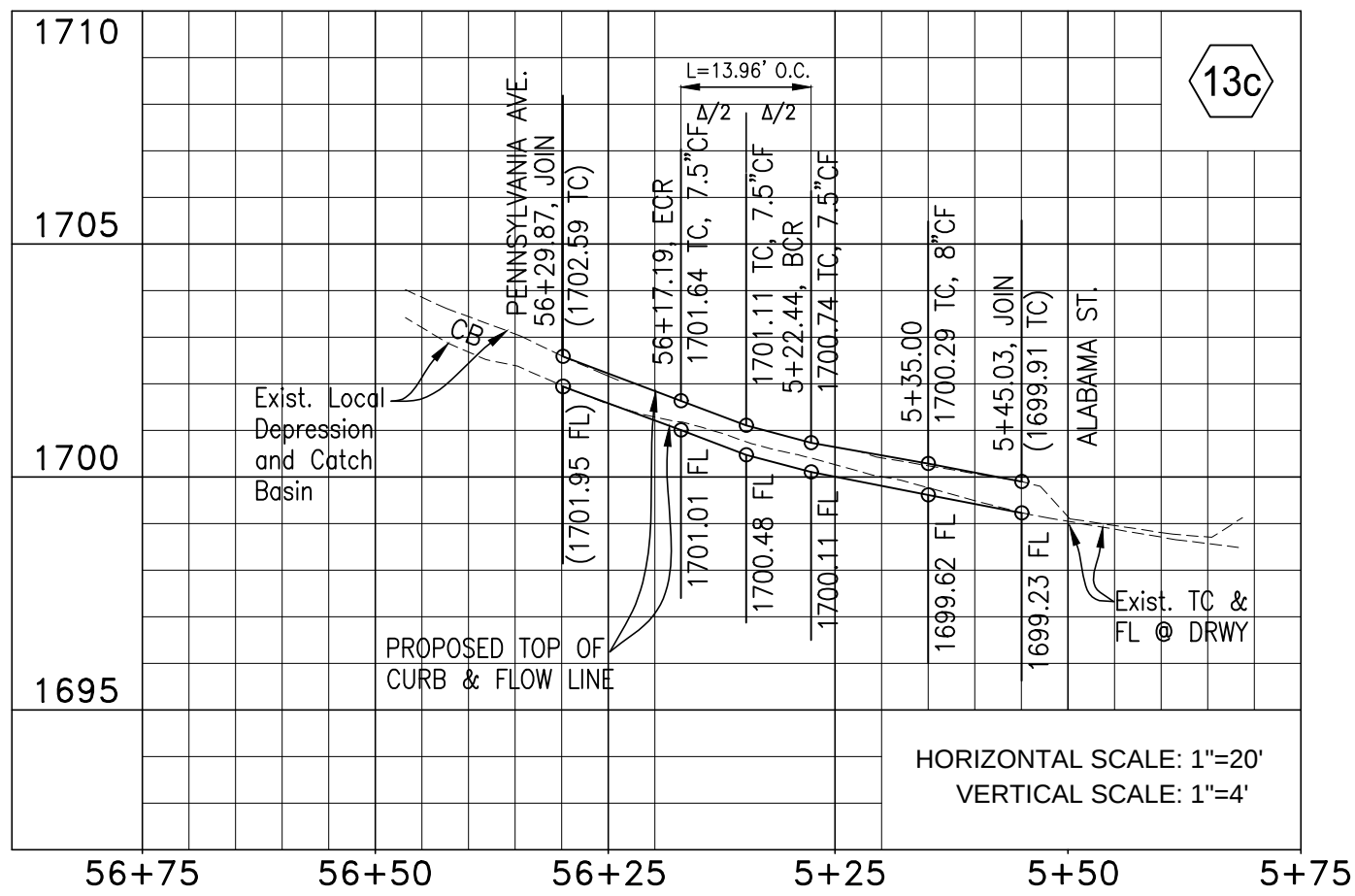
- HATCHING LEGEND**
- 4" P.C.C. SIDEWALK
 - 5", 6" & 8" P.C.C. (DRIVEWAY APPROACHES, CROSS GUTTER, LOCAL DEPRESSION, BUS PAD)
 - DETECTABLE WARNING SURFACE
 - REMOVE EXISTING PAVEMENT



COUNTY OF LOS ANGELES		REV. NO.	REVISION DESCRIPTION	REV. DATE	REV. BY
APPROVED FOR CONSTRUCTION. APPLIES ONLY TO WORK IN AREAS OF COUNTY JURISDICTION.		△			
REVIEWED:		PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION		PLAN NO. 1 - 3002	
BY _____		CITY OF GLENDALE CALIFORNIA		SHEET 14 OF 23	
DESIGN DIVISION - DESIGN TEAM 4		DATE			

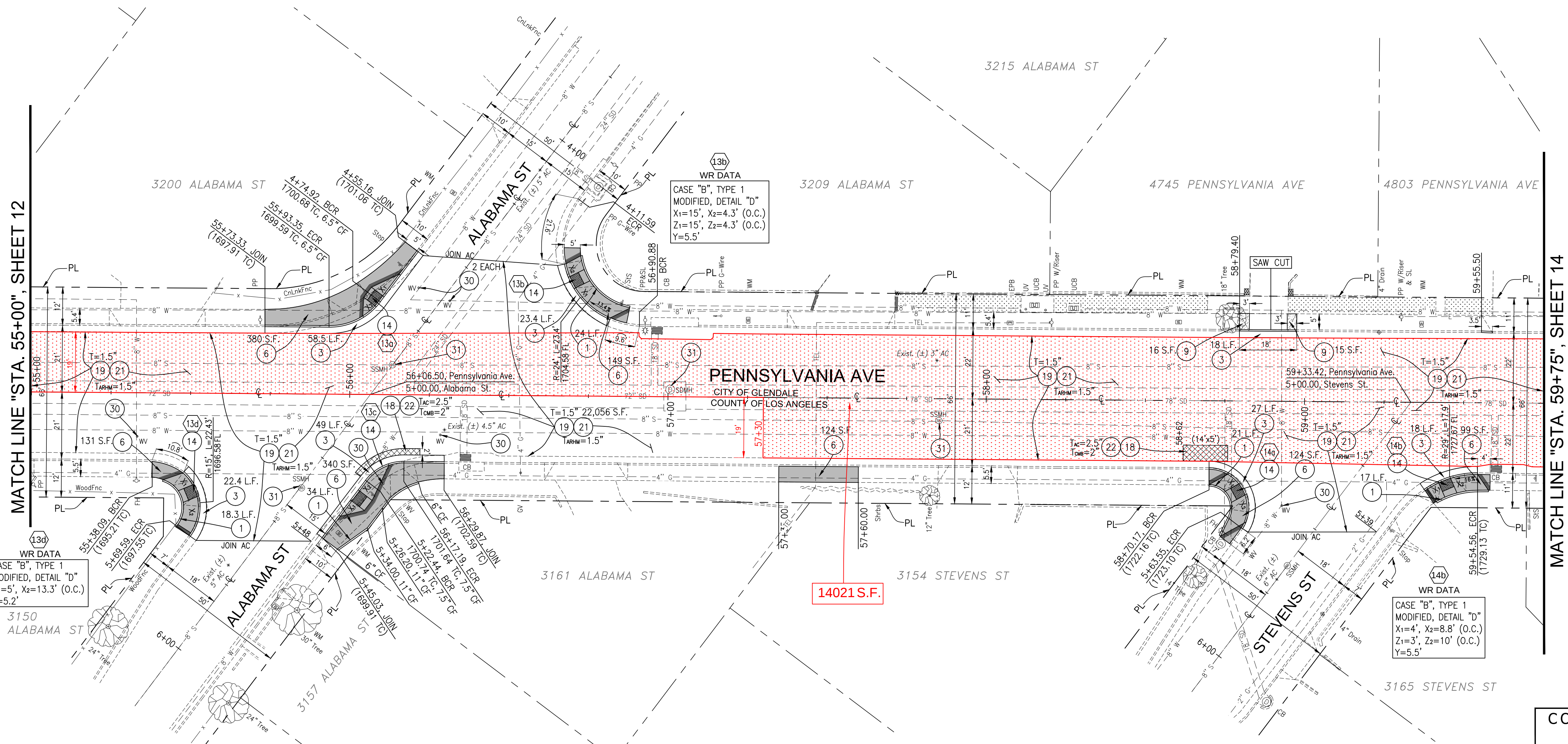


CURB RETURN & RAMP DATA	
13a	
Δ	52°54'29"
R	20.00'
L	18.62'
T	9.95'
BCR	4+74.92, Alabama St., 1700.68 TC, 6.5" CF
Δ/2	1699.59 TC, 6.5" CF
ECR	55+93.35, Pennsylvania Ave., 1699.59 TC, 6.5" CF
WCR	CASE "A", TYPE 1, X ₁ =8.5', X ₂ =5', Y=5', CL OF WCR AT BCR



CURB RETURN & RAMP DATA	
13c	
Δ	53°20'30"
R	15.00'
L	13.96'
T	7.53'
BCR	5+22.44, Alabama St., 1700.74 TC, 7.5" CF (HIKE-UP=1")
Δ/2	1701.11 TC, 7.5" CF
ECR	56+17.19, Pennsylvania Ave., 1701.64 TC, 7.5" CF
WCR	CASE "A", TYPE 1, X ₁ =6', X ₂ =12.3' (12.8' O.C.), CL OF WCR AT STA. 5+28.23 VARIABLE CURB FACE RETAINING CURB AT BACK OF WALK (6" TO 11")

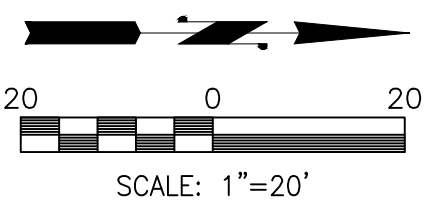
DO NOT USE FOR CONSTRUCTION



- ### CONSTRUCTION NOTES
- 1—CONSTRUCT P.C.C. CURB PER SPPWC STD. PLAN NO. 120-2.
 - 2—CONSTRUCT P.C.C. CURB TYPE A1-6 PER CALTRANS STD. PLAN A87A.
 - 3—CONSTRUCT INTEGRAL P.C.C. CURB AND GUTTER PER SPPWC STD. PLAN NO. 120-2, A2-6(150), W=2-Feet (UNLESS OTHERWISE NOTED) AND PER DETAIL NO. 1, SHEET 22.
 - 4—CONSTRUCT INTEGRAL P.C.C. CURB AND GUTTER PER SPPWC STD. PLAN NO. 120-2, A3-6(150), W=1-Feet.
 - 5—CONSTRUCT INTEGRAL P.C.C. CURB AND GUTTER TYPE A2-6 OR A2-8 PER CALTRANS STD. PLAN A87A, AND PER DETAIL NO. 1, SHEET 22 & 23.
 - 6—CONSTRUCT 4-INCH P.C.C. PAVEMENT (SIDEWALK).
 - 7—CONSTRUCT 4-INCH P.C.C. PAVEMENT (STAMPED CONCRETE).
 - 8—CONSTRUCT P.C.C. DRIVEWAY APPROACH PER SPPWC STD. PLAN NO. 110-2 (COMMERCIAL - TYPE "A" 6 - INCH P.C.C., RESIDENTIAL - TYPE "B" 5 - INCH P.C.C.).
 - 9—CONSTRUCT 6-INCH P.C.C. PAVEMENT.
 - 10—CONSTRUCT 8-INCH P.C.C. PAVEMENT.
 - 11—CONSTRUCT 8-INCH P.C.C. LOCAL DEPRESSION PER SPPWC STD. PLAN NO. 313-3.
 - 12—NOT USED.
 - 13—CONSTRUCT ALLEY INTERSECTION PER SPPWC STD. PLAN NO. 130-2.
 - 14—CONSTRUCT P.C.C. CURB RAMP WITH DETECTABLE WARNING SURFACE (YELLOW COLOR, UNLESS OTHERWISE NOTED) PER SPPWC STD. PLAN NO. 111-4.
 - 15—CONSTRUCT P.C.C. CURB RAMP WITH DETECTABLE WARNING SURFACE (YELLOW COLOR, UNLESS OTHERWISE NOTED) PER CALTRANS REVISED PLAN RSP A88A.
 - 16—INSTALL YELLOW (UNLESS OTHERWISE NOTED) SURFACE MOUNT DETECTABLE WARNING SURFACE ("TRUNCATED DOMES") PER ARMOR-TILE SPECIFICATIONS OR APPROVED EQUAL.
 - 17—REMODEL/RECONSTRUCT CURB (ROOF) DRAIN PER DETAIL NO. 3, SHEET 22.
 - 18—REMOVE EXISTING PAVEMENT.
 - 19—SURFACE PLANE TO THICKNESS IN INCHES INDICATED BY T=---" AND AS SHOWN PER DETAIL NO. 6, SHEET 22.
 - 20—CONSTRUCT 1.5-INCH ASPHALT RUBBER HOT MIX (A.R.H.M.) PAVEMENT OVER 0.5-INCH ASPHALT CONCRETE LEVELING COURSE, UNLESS OTHERWISE NOTED ON THE PLANS, PER DETAIL NO. 4 (CALTRANS RIGHT OF WAY), SHEET 22 & DETAIL NO. 2, SHEET 23.
 - 21—CONSTRUCT ASPHALT RUBBER HOT MIX (A.R.H.M.) PAVEMENT OVERLAY (THICKNESS INDICATED BY T_{ARHM} =---") PER DETAIL NO. 4, SHEET 22.
 - 22—CONSTRUCT 1.5-INCH ASPHALT RUBBER HOT MIX (A.R.H.M.) PAVEMENT OVER ASPHALT CONCRETE BASE COURSE (THICKNESS INDICATED BY T_{AC} =---"), OVER CRUSHED MISCELLANEOUS BASE (THICKNESS AS INDICATED ON PLANS).
 - 23—CONSTRUCT VARIABLE THICKNESS A.C. PAVEMENT (THICKNESS INDICATED BY T_{AC} =---"), OVER VARIABLE THICKNESS CRUSHED MISCELLANEOUS BASE (2-INCH MINIMUM) ONLY IF INDICATED.
 - 24—RELOCATE G.W.P./A.D.W.P. STREET LIGHT POLE PER TRAFFIC SIGNAL MODIFICATION PLAN NO. 50-608.
 - 25—RELOCATE TRAFFIC SIGNAL PULL BOX PER ENGINEER'S DIRECTION IN THE FIELD.
 - 26—RELOCATE STREET LIGHT PULL BOX PER ENGINEER'S DIRECTION IN THE FIELD.
 - 27—RELOCATE FIRE HYDRANT PER ENGINEER'S DIRECTION IN THE FIELD.
 - 28—RELOCATE G.W.P./A.D.W.P. WATER METER PER ENGINEER'S DIRECTION IN THE FIELD.
 - 29—RELOCATE G.W.P./A.D.W.P. WATER VALVE.
 - 30—ADJUST WATER VALVE/WEEL COVER TO NEW FINISHED GRADE.
 - 31—ADJUST MANHOLE FRAME AND COVER TO NEW FINISHED GRADE.
 - 32—ADJUST WATER VAULT TO NEW FINISHED GRADE BY G.W.P..
 - 33—REMOVE AND REPLACE TOP SLAB OF EXISTING CATCH BASIN, PER SPPWC STD. PLAN NO. 314-3 AND PER DETAIL NO. 5, SHEET 22.
 - 34—INSTALL CLEAN PLANTING SOIL AND SOD PER ENGINEER'S DIRECTION.
 - 35—NOT USED.
 - 36—PLANT TYPE BLOODGOOD SYCAMORE (PLATANUS A. "BLOODGOOD") TREE, PER DETAIL NO. 7, SHEET 22, UNLESS OTHERWISE NOTED ON PLANS.
 - 37—INSTALL TYPE "E" AND "D" DETECTOR LOOPS, SEE GENERAL NOTE NO. 32, PER CALTRANS STD. PLAN NO. ES-5B.
 - 38—INSTALL 1.5-INCH P.V.C. LOOP STUB-OUT.

BM 635 PENNSYLVANIA AVE. AND ALABAMA ST.
ROUND HEAD NAIL IN LEAD IN N'LY CURB OF ALABAMA ST. 2.0 FT. W'LY OF BCR. N-W'LY CORNER CHSLD. "BM".
2004 ELEV.=1703.51 FT.
BM 1784 PENNSYLVANIA AVE. AND STEVENS ST.
ROUND HEAD NAIL IN LEAD IN N'LY CURB OF STEVENS ST. 22.0 FT. E'LY OF E'LY TOP OF "X" OF DRIVEWAY TO RES. 3155 CHSLD. "BM".
2004 ELEV.=1724.52 FT.

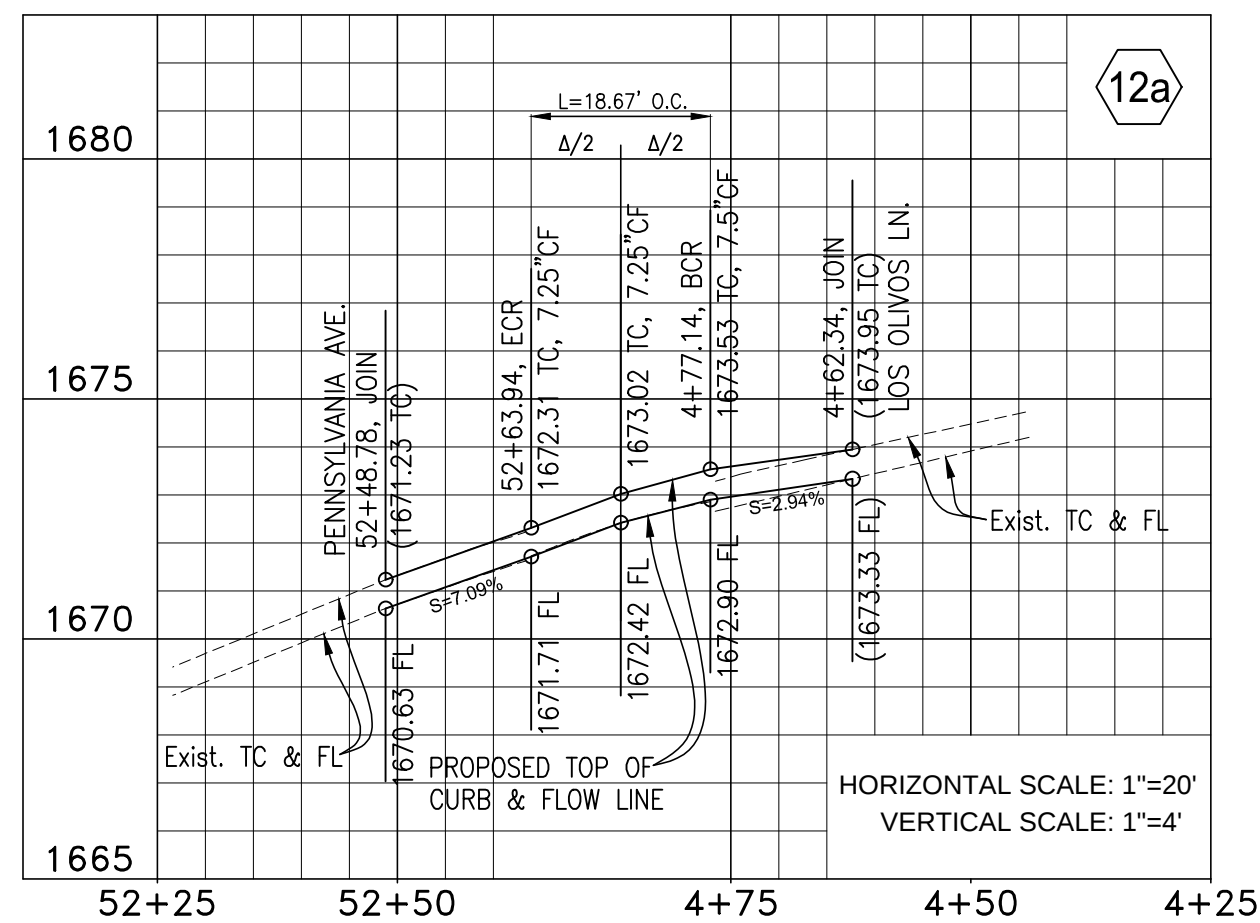
- ### HATCHING LEGEND
- 4" P.C.C. SIDEWALK
 - 5", 6" & 8" P.C.C. (DRIVEWAY APPROACHES, CROSS GUTTER, LOCAL DEPRESSION, BUS PAD)
 - DETECTABLE WARNING SURFACE
 - REMOVE EXISTING PAVEMENT



COUNTY OF LOS ANGELES
APPROVED FOR CONSTRUCTION.
APPLIES ONLY TO WORK IN AREAS OF COUNTY JURISDICTION.
REVIEWED:
BY: _____
DESIGN DIVISION - DESIGN TEAM 4 DATE

REV. NO.	REVISION DESCRIPTION	REV. DATE	REV. BY
1	PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION CITY OF GLENDALE CALIFORNIA		

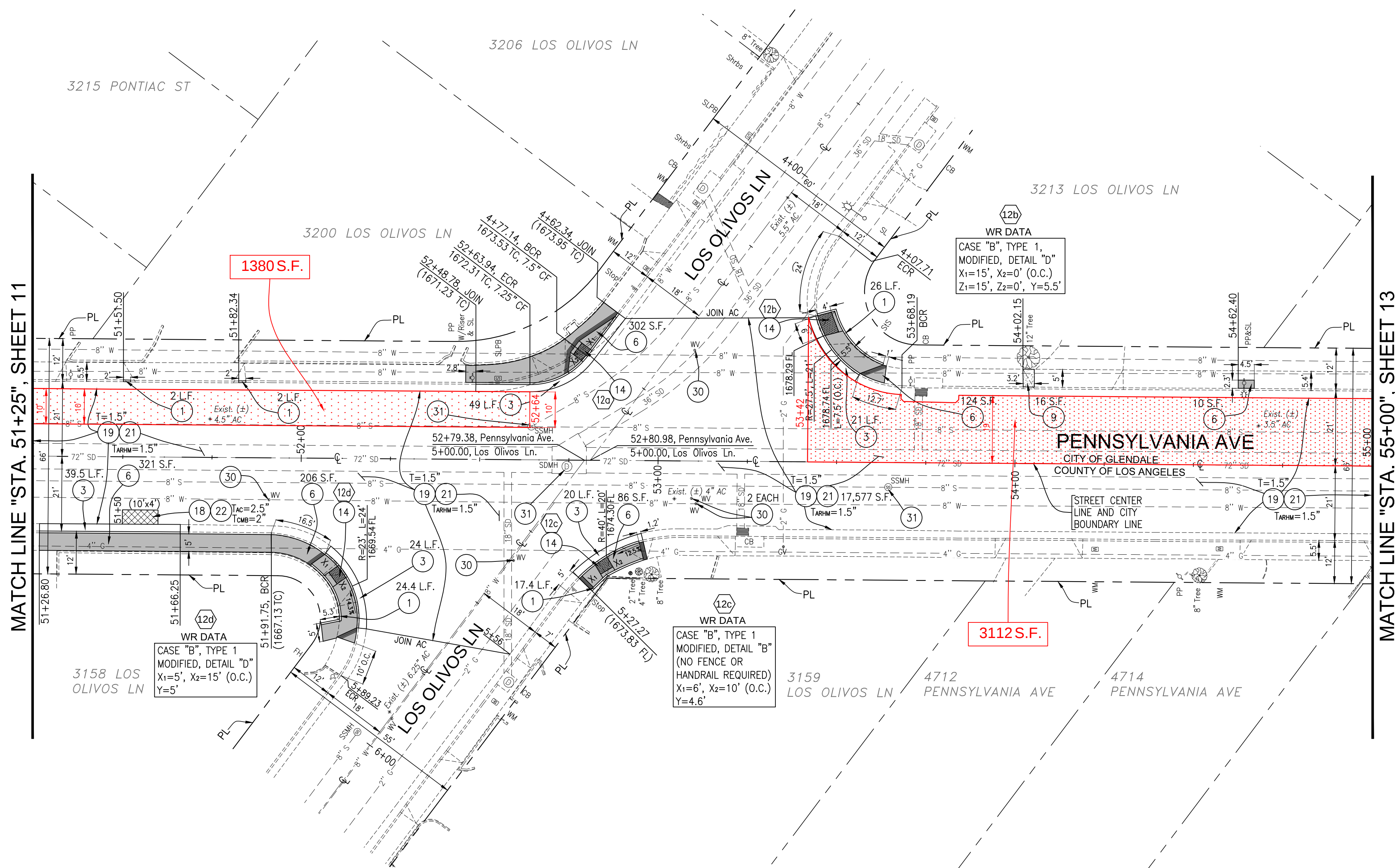
PLAN NO.
1 - 3002
SHEET 14 OF 23



CURB RETURN & RAMP DATA

	12a
Δ	53°29'27"
R	20.00'
L	18.67'
T	10.08'
BCR	4+77.14, Los Olivos Ln., 1673.53 TC, 7.5" CF
$\Delta/2$	1673.02 TC, 7.25" CF
ECR	52+63.94, Pennsylvania Ave., 1672.31 TC, 7.25" CF
WCR	CASE "A", TYPE 1, $X_1=11.5'$, $X_2=5'$, $Y=4.5'$, CL OF WCR AT BCR

DO NOT USE FOR CONSTRUCTION



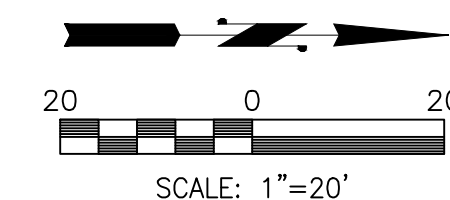
CONSTRUCTION NOTES

- 1—CONSTRUCT P.C.C. CURB PER SPPWC STD. PLAN NO. 120-2.
- 2—CONSTRUCT P.C.C. CURB TYPE A1-6 PER CALTRANS STD. PLAN A87A.
- 3—CONSTRUCT INTEGRAL P.C.C. CURB AND GUTTER PER SPPWC STD. PLAN NO. 120-2, A2-6(150), W=2-Feet (UNLESS OTHERWISE NOTED) AND PER DETAIL NO. 1, SHEET 22.
- 4—CONSTRUCT INTEGRAL P.C.C. CURB AND GUTTER PER SPPWC STD. PLAN NO. 120-2, A3-6(150), W=1-Feet.
- 5—CONSTRUCT INTEGRAL P.C.C. CURB AND GUTTER TYPE A2-6 OR A2-8 PER CALTRANS STD. PLAN A87A, AND PER DETAIL NO. 1, SHEET 22 & 23.
- 6—CONSTRUCT 4-INCH P.C.C. PAVEMENT (SIDEWALK).
- 7—CONSTRUCT 4-INCH P.C.C. PAVEMENT (STAMPED CONCRETE).
- 8—CONSTRUCT P.C.C. DRIVEWAY APPROACH PER SPPWC STD. PLAN NO. 110-2 (COMMERCIAL - TYPE 'A' 6 - INCH P.C.C., RESIDENTIAL - TYPE 'B' 5 - INCH P.C.C.).
- 9—CONSTRUCT 6-INCH P.C.C. PAVEMENT.
- 10—CONSTRUCT 8-INCH P.C.C. PAVEMENT.
- 11—CONSTRUCT 8-INCH P.C.C. LOCAL DEPRESSION PER SPPWC STD. PLAN NO. 313-3.
- 12—NOT USED.
- 13—CONSTRUCT ALLEY INTERSECTION PER SPPWC STD. PLAN NO. 130-2.
- 14—CONSTRUCT P.C.C. CURB RAMP WITH DETECTABLE WARNING SURFACE (YELLOW COLOR, UNLESS OTHERWISE NOTED) PER SPPWC STD. PLAN NO. 111-4.
- 15—CONSTRUCT P.C.C. CURB RAMP WITH DETECTABLE WARNING SURFACE (YELLOW COLOR, UNLESS OTHERWISE NOTED) PER CALTRANS REVISED PLAN RSP A88A.
- 16—INSTALL YELLOW (UNLESS OTHERWISE NOTED) SURFACE MOUNT DETECTABLE WARNING SURFACE ("TRUNCATED DOMES") PER ARMOR-TILE SPECIFICATIONS OR APPROVED EQUAL.
- 17—REMODEL/RECONSTRUCT CURB (ROOF) DRAIN PER DETAIL NO. 3, SHEET 22.
- 18—REMOVE EXISTING PAVEMENT.
- 19—SURFACE PLANE TO THICKNESS IN INCHES INDICATED BY T=---" AND AS SHOWN PER DETAIL NO. 6, SHEET 22.
- 20—CONSTRUCT 1.5-INCH ASPHALT RUBBER HOT MIX (A.R.H.M.) PAVEMENT OVER 0.5-INCH ASPHALT CONCRETE LEVELING COURSE, UNLESS OTHERWISE NOTED ON THE PLANS, PER DETAIL NO. 4 (CALTRANS RIGHT OF WAY), SHEET 22 & DETAIL NO. 2, SHEET 23.
- 21—CONSTRUCT ASPHALT RUBBER HOT MIX (A.R.H.M.) PAVEMENT OVERLAY (THICKNESS INDICATED BY T_{ARHM} =---") PER DETAIL NO. 4, SHEET 22.
- 22—CONSTRUCT 1.5-INCH ASPHALT RUBBER HOT MIX (A.R.H.M.) PAVEMENT OVER ASPHALT CONCRETE BASE COURSE (THICKNESS INDICATED BY T_{AC} =---"), OVER CRUSHED MISCELLANEOUS BASE (THICKNESS AS INDICATED ON PLANS).
- 23—CONSTRUCT VARIABLE THICKNESS A.C. PAVEMENT (THICKNESS INDICATED BY T_{AC} =---"), OVER VARIABLE THICKNESS CRUSHED MISCELLANEOUS BASE (2-INCH MINIMUM) ONLY IF INDICATED.
- 24—RELOCATE G.W.P./A D.W.P. STREET LIGHT POLE PER TRAFFIC SIGNAL MODIFICATION PLAN NO. 50-608.
- 25—RELOCATE TRAFFIC SIGNAL PULL BOX PER ENGINEER'S DIRECTION IN THE FIELD.
- 26—RELOCATE STREET LIGHT PULL BOX PER ENGINEER'S DIRECTION IN THE FIELD.
- 27—RELOCATE FIRE HYDRANT PER ENGINEER'S DIRECTION IN THE FIELD.
- 28—RELOCATE G.W.P./A D.W.P. WATER METER PER ENGINEER'S DIRECTION IN THE FIELD.
- 29—RELOCATE G.W.P./A D.W.P. WATER VALVE.
- 30—ADJUST WATER VALVE/Well COVER TO NEW FINISHED GRADE.
- 31—ADJUST MANHOLE FRAME AND COVER TO NEW FINISHED GRADE.
- 32—ADJUST WATER VAULT TO NEW FINISHED GRADE BY G.W.P..
- 33—REMOVE AND REPLACE TOP SLAB OF EXISTING CATCH BASIN, PER SPPWC STD. PLAN NO. 314-3 AND PER DETAIL NO. 5, SHEET 22.
- 34—INSTALL CLEAN PLANTING SOIL AND SOD PER ENGINEER'S DIRECTION.
- 35—NOT USED.
- 36—PLANT TYPE BLOODGOOD SYCAMORE (PLATANUS A. "BLOODGOOD") TREE, PER DETAIL NO. 7, SHEET 22, UNLESS OTHERWISE NOTED ON PLANS.
- 37—INSTALL TYPE "E" AND "D" DETECTOR LOOPS, SEE GENERAL NOTE NO. 32, PER CALTRANS STD. PLAN NO. ES-5B.
- 38—INSTALL 1.5-INCH P.V.C. LOOP STUB-OUT.

BM 1782 PENNSYLVANIA AVE. AND PONTIAC ST.
ROUND HEAD NAIL IN LEAD IN N'LY CURB OF PONTIAC ST. 80.0 FT. E'LY OF BCR. N-E'LY CORNER CHSLD. "BM".
2004 ELEV.=1647.45 FT.
BM 1783 PENNSYLVANIA AVE. AND LOS OLIVOS LN.
ROUND HEAD NAIL IN LEAD IN W'LY HEADWALL OF CATCH BASIN IN N'LY CURB OF LOS OLIVOS LN. 10.0 FT. W'LY OF BCR. N-W'LY CORNER CHSLD. "BM".
2004 ELEV.=1678.53 FT.

HATCHING LEGEND

- 4" P.C.C. SIDEWALK
- 5", 6" & 8" P.C.C. (DRIVEWAY APPROACHES, CROSS GUTTER, LOCAL DEPRESSION, BUS PAD)
- DETECTABLE WARNING SURFACE
- REMOVE EXISTING PAVEMENT



COUNTY OF LOS ANGELES		REV. NO.	REVISION DESCRIPTION	REV. DATE	REV. BY
APPROVED FOR CONSTRUCTION. APPLIES ONLY TO WORK IN AREAS OF COUNTY JURISDICTION.					
REVIEWED:		PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION			
BY _____		CITY OF GLENDALE CALIFORNIA			
DESIGN DIVISION - DESIGN TEAM 4		PLAN NO. 1 - 3002 SHEET 12 OF 23			

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 3

August 13, 2019

To: Honorable President and Members of the Board of Directors

From: David S. Gould, P.E. – District Engineer

Subject: **Advertise for Bids - Water Main Replacement on the 4700 & 4800 Blocks of Pennsylvania Ave., Project E-1009**

ACTION ITEM:

8-inch Water Main Replacement on the 4700 & 4800 Blocks of Pennsylvania Ave, Project E-1009 –

Consideration and motion to authorize the General Manager to advertise for bids for the construction of 850 lineal feet of pipeline replacement on the 4700 & 4800 Blocks of Pennsylvania Ave. with an engineer's estimate of \$165,000 and to find said project exempt from the provisions of CEQA

BACKGROUND:

On August 4, 2019, there was a major water main break on the existing 8-inch pipeline on the 4800 Block of Pennsylvania Ave. See Action Item #2 for details of the water main break. The existing pipeline was installed in 1946. During the emergency repair; the pipeline continued leaking at different locations as the crews worked to fix the original leak.

It was decided to replace the old 8-inch pipeline from south of the intersection of El Caminito St. to Alabama St. The condition of the existing pipe warranted its replacement and CVWD could take advantage of replacing the pipe during the AC pavement restoration. Note: Pennsylvania Ave was recently re-paved by the City of Glendale and there is a five-year moratorium for new construction on the street.

DISCUSSION:

Staff immediately started work on the design of 850 feet of pipeline replacement to look at possible water main alignments in Pennsylvania Ave. Staff's goal is to complete a 70% design, which can be used for bidding for contractors. There are currently two (2) water mains (both CVWD & GWP); two (2) sewer mains, 3-inch gas main and a 78-inch storm drain line within the existing street which makes the design difficult for the new main.

As the design proceeds, staff will be ordering material such as steel pipe, valves, flanges and special fittings. Staff will also submit to the City of Glendale and the County of Los Angeles for permit approval, which could take up to two weeks. Finally, staff has contacted a number of pipeline contractors to see their availability.

Staff prepared a preliminary project schedule as shown below such that work could start in early September 2019, which will be after the "Temporary" AC Replacement (See Action Item #2).

Preliminary Project Schedule		
Task	Start Date	End Date
Design/Specs/Quantities - 70%	8/5/19	8/19/19
Permits - LA County PW/Glendale	8/19/19	9/2/19
Staff Report - Advertise for Bids	8/9/19	8/13/19
Board Approval - Advertise for Bids	8/13/19	8/21/19
Bid Opening	8/21/19	8/22/19
Staff Report - Award Contract	8/23/19	8/27/19
Board Approval - Award Contract	8/27/19	8/27/19
Materials - Order	8/12/19	8/16/19
Sign Agreement	8/27/19	8/29/19
Pre-Construction Meeting	8/29/19	9/4/19
Start Construction	9/9/19	9/9/19
Water Main - Construction	9/9/19	9/20/19
Water Services - Construction	9/23/19	9/27/19
Pressure Testing/Disinfection	9/30/19	10/4/19
Reconnection to existing water mains	10/7/19	10/9/19

Another option that staff is considering is to include this pipeline project with the 8-inch water main replacement on Brookhill (See Action Item #4). The Brookhill project is slated to start in October 2019 and this would delay this project by a month.

Ms. Christina Olmedo will be the project manager, and Mr. Cory Whitman will provide field inspection. The construction cost estimate for the project is \$165,000, and the entire project costs including materials, soils engineer, staff engineering and inspection, and contingencies are estimated at \$258,500.

RECOMMENDATION:

It is staff's recommendation to authorize the General Manager to advertise for bids for the project. Staff will send out plans to selected contractors.

ENVIRONMENTAL REVIEW:

This project is exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15301 of the CEQA Guidelines. This exemption covers the repair of existing facilities involving negligible or no expansion of existing use.

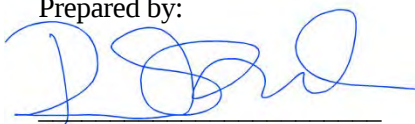
FUNDING AVAILABILITY:

Staff reviewed the pipeline replacement projects planned for FY 19/20, which included pipeline replacement on the 3200 & 3300 blocks of Brookhill Ave and the 2400 & 2500 Blocks of Janet Lee Dr. The design for the Brookhill project is complete and ready to be advertised for bids (See Action Item #4). Staff was starting the design of the Janet Lee project. Staff re-assessed the engineer's cost estimates for the pipeline projects that were shown in the FY 19/20 Capital Improvement Project (CIP) budget to determine if there was enough funding available to proceed with all three (3) projects.

As shown below, there is not enough funding available for all three (3) projects in FY 19/20, therefore the pipeline project on Janet Lee Dr. will be postponed until next fiscal year.

Account Description	Amount
FY 19/20 Water CIP– Water Distribution	\$1,056,000
Engineer's Cost Estimate for Brookhill Project (See Action Item #4)	<\$562,000>
Amount Remaining for Janet Lee & Pennsylvania Projects	\$494,000
Engineer's Cost Estimate for Construction – Pennsylvania Project	<\$165,000>
Additional costs such as material purchase by CVWD, soils engineer, engineering & inspection labor costs & contingency	<\$93,500>
Total Cost Estimate for Pennsylvania Project	<\$258,500>
Amount Remaining in Water CIP – Distribution System (insufficient funding available for Janet Lee Project with estimate of \$491,000)	\$232,500

Prepared by:



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

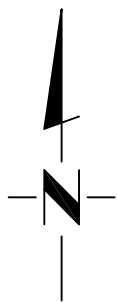
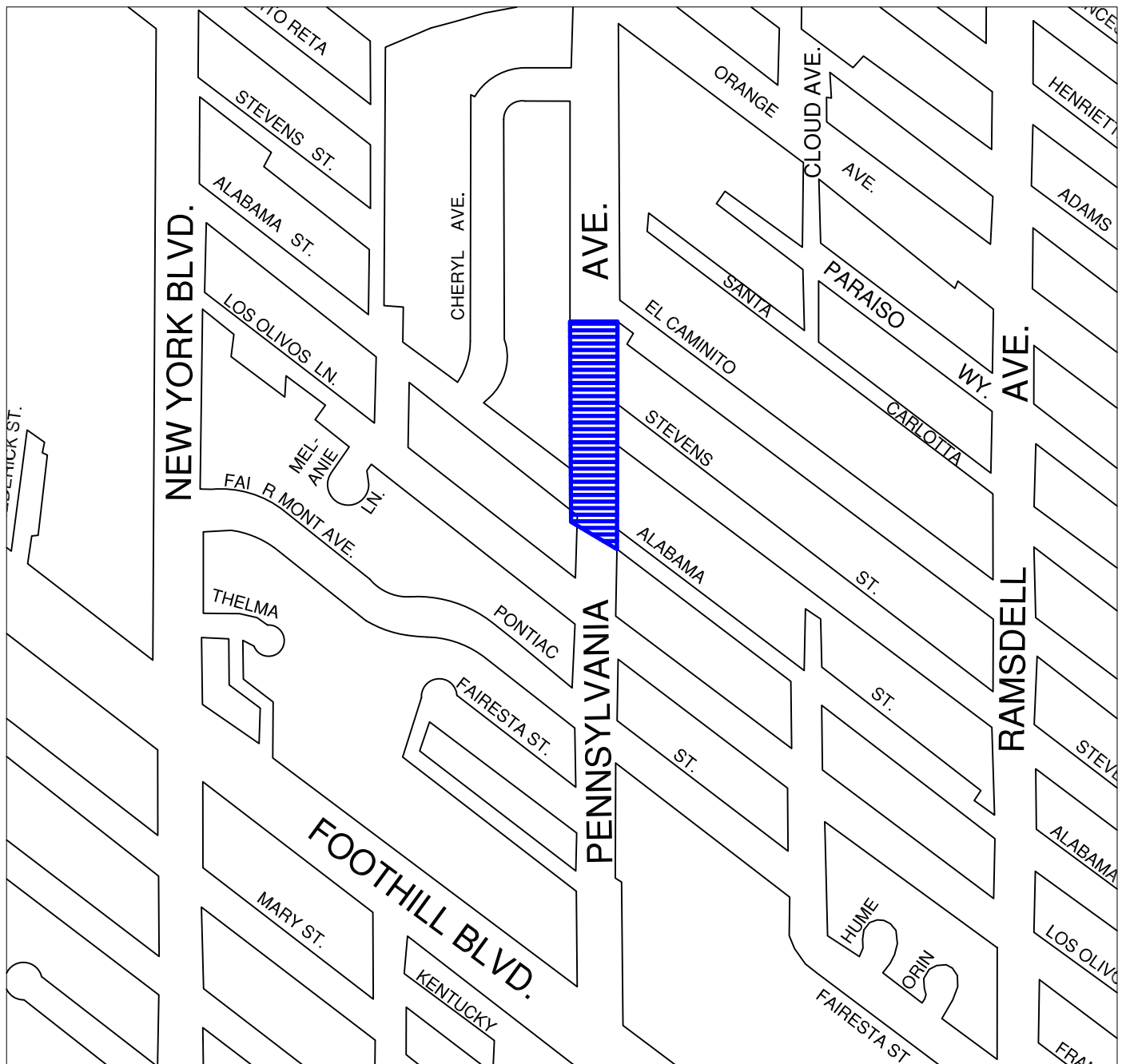
Attachments:

1. Project Location Map

Submitted by:



Nem Ochoa
General Manager



NOT TO SCALE

PROJECT LOCATION 4700-4800 BLOCKS OF
PENNSYLVANIA AVENUE



CRESCENTA VALLEY WATER DISTRICT PROJECT LOCATION MAP

8-INCH WATER MAIN INSTALLATION ON THE 4700 & 4800 BLOCKS OF PENNSYLVANIA AVENUE
OF LA CRESCENTA, CA 91214. PROJECT E-1009

CRESCENTA VALLEY WATER DISTRICT

Title: Emergency Pavement Repairs on the 4600 to 4900 Blocks of Pennsylvania Ave

E-Job No: E-1009A

Engineer's Estimate: \$202,800

Project Manager: Brook Yared

Bid Location: CVWD's Office

Time: 12:00 PM

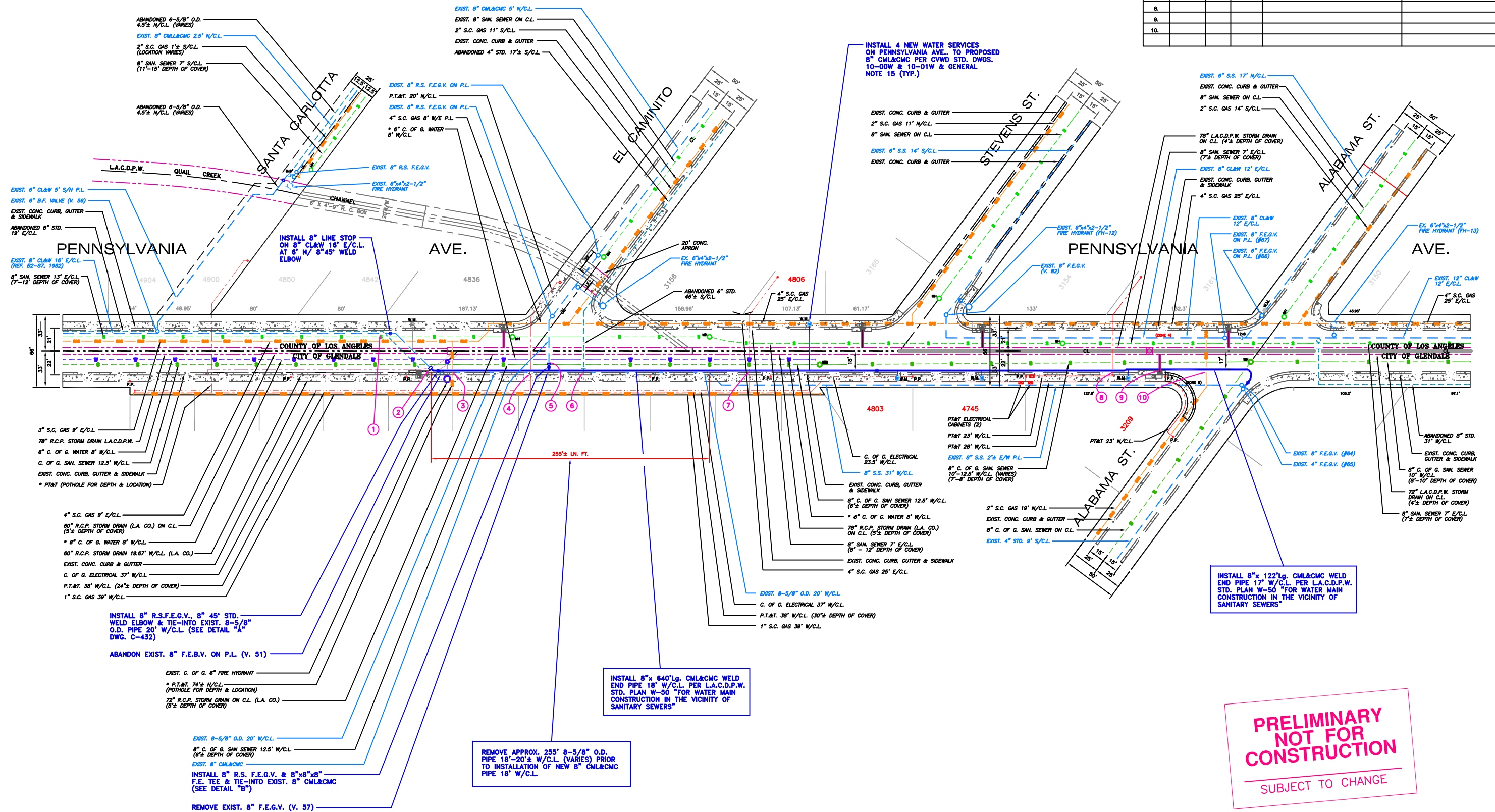
Date: 8/19/2019

By: Brook Yared

Checked: D. Gould Date: 8/19/2019

			Engineers Estimate		Paveco Construction		GM Sager Construction			
ITEM	DESCRIPTION	QUANTITY	UNIT	AMOUNT	UNIT	AMOUNT	UNIT	AMOUNT		
1	Mobilization and Demobilization:	Lump Sum	\$5,000.00	\$5,000.00	\$10,000.00	\$10,000.00	\$20,000.00	\$20,000.00		
2	AC Pavement & Base Removal	22,450 SF	\$2.00	\$44,900.00	\$3.10	\$69,595.00	\$4.00	\$89,800.00		
3	Replace & Compact Base Material	18,500 SF	\$2.00	\$37,000.00	\$2.25	\$41,625.00	\$3.00	\$55,500.00		
4	6-inch Thick Base Course Paving	22,450 SF	\$2.88	\$64,650.00	\$5.25	\$117,862.50	\$5.50	\$123,475.00		
5	Replace Concrete Curb and Gutter	30 LF	\$15.00	\$450.00	\$150.00	\$4,500.00	\$100.00	\$3,000.00		
6	Manhole Ring and Cover Repair	2 EA	\$500.00	\$1,000.00	\$4,500.00	\$9,000.00	\$1,500.00	\$3,000.00		
7	Adjust to Grade – Manholes:	4 EA	\$1,000.00	\$4,000.00	\$1,850.00	\$7,400.00	\$2,000.00	\$8,000.00		
8	Adjust to Grade – Valve Cans:	40 EA	\$100.00	\$4,000.00	\$125.00	\$5,000.00	\$50.00	\$2,000.00		
9	Traffic Control:	Lump Sum	\$8,000.00	\$8,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00		
	Subtotal			\$169,000.00						
	Contingency		20%	\$33,800.00						
			EE	\$202,800.00	LOW	\$274,982.50	2ND	\$314,775.00		

POTHOLE DATA					
NO.	UTILITY	SIZE	DEPTH	LOCATION	CONDITION / DATE
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					



**PRELIMINARY
NOT FOR
CONSTRUCTION**

SUBJECT TO CHANGE



DISCLAIMER

Approval by C.V.W.D. does not constitute a representation as to the accuracy of design or the existence and location of underground utilities, structures, and conditions within the limits of this project.

SCALE: 1" = 40'	DATE
DRAWN BY: J.A. HUERTA	8/5/19
CHECKED BY: D.S.G./B.Y.	00
APPROVED: B. YARED	00
AS BUILT:	

CRESCENTA VALLEY WATER DISTRICT 
8" WATER MAIN INSTALLATION ON
PENNSYLVANIA AVE.
FROM SANTA CARLOTTA ST. TO ALABAMA ST.

CITY OF GLENDALE PERMIT #	
SHT. <u>1</u> OF <u>0</u> SHTS.	
COMPLETION DATE:	LINEAR FT. 770'
JOB NO. E-1009	FILE NO. C-431

CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 4

August 23, 2019

To: Honorable President and Members of the Board of Directors
From: David S. Gould, P.E. – District Engineer
Subject: Conversion to Chloramines, Project E-995

INFORMATION ITEM:

Conversion to Chloramines, Project E-995

Status update of CVWD's conversion to chloramines

BACKGROUND:

The District uses chlorine as a disinfectant to treat drinking water. Chlorine can create disinfection by-products during treatment, also known as Total Trihalomethanes or TTHMs as chlorine reacts with naturally occurring organic matter in imported water. CVWD's imported water supplied by FMWD/MWD is from either the Colorado River (CRW) or the State Water Project (SWP). Typically, CVWD's water supply blend is 60% groundwater and 40% imported water. In August 2018, with groundwater production not fully recovered from the past 5-year drought, CVWD's water supply blend had shifted to 40% groundwater and 60% imported water. This coupled with additional chlorine needed to achieve breakpoint chlorination in the system; it has caused an increase in TTHMs levels at the four (4) regulatory compliance points within the distribution system.

DISCUSSION:

Operational Changes:

Starting in August 2018, staff performed an on-going system-wide TTHM sampling study at each reservoir site with sampling on a weekly basis. This information was used by the system operators to make operational changes such as reducing the amount of water storage, the length of time that water is stored and adjusting chlorine residual levels. The results from these operation changes and the data from the study as shown on the attached charts that there was significantly reduction in the TTHM levels were over the last year.

Staff also had concerns that the TTHM levels will rise during June, July & August with the higher demand and higher temperatures, which had happened in the summer of 2018. As shown on the charts, the quarterly TTHM running annual average (RAA) at the four (4) compliance locations have decreased below CVWD's target level of 64 ug/L and CVWD has been compliance with DDW over the past year.

Chloramine Conversion:

Staff and its consultants have been working over the past year on the installation of the ammonia injection systems at the Glenwood and Mills plants, chlorine analyzers at the reservoir sites, SCADA programing and integration upgrades, water main flushing, and coordination with DDW. The following tasks were completed:

- o Glenwood Plant – Design and installation of ammonia injection system with new vault and piping, new chlorine analyzers, new SCADA RTU/PLC's, electrical upgrades and site improvements.
- o Mills Plant – Design and installation of ammonia injection system with tank, piping and housing, new chlorine analyzers, new SCADA RTU/PLC's, electrical upgrades and site improvements.
- o New Chlorine Analyzers with new PLC's – Design and installation of new analyzers at Dunsmore, Goss Canyon, Cresta Hts, Eagle Canyon and Shields Reservoirs and connect to CVWD's SCADA system.
- o Water Main Flushing – 111 dead end locations throughout the distribution system using the "No-Des" technology that saved over 700,000 gallons of water.
- o SCADA programing and integration – Upgrades to SCADA programing that included the new ammonia injection system and integration of the process to create chloramines.

Tasks that need to be completed:

- o Coordination with DDW for approval of amended permit
- o Design and installation of ammonia injection system at Pickens Canyon Reservoir & Well 2
- o Upgrading existing chlorine analyzers with new chlorine probes and controllers
- o Addition SCADA programming and integration for Pickens Canyon Reservoir, Well 2 and operational scenarios
- o Working with consultant and staff on preparing and implementing standard operating procedures for converting to chloramines

Staff has been working on a detailed analysis of each reservoir site to determine if there are any additional design or improvements that need to be completed prior to conversion to chloramines. Through staff's discussion with its consultants, it was determined that an ammonia injection system needs to be added at Pickens Canyon Reservoir and at Well 2. The determining factor for the upgrades at Pickens Canyon Reservoir was during the low demand winter season, where water can sit for up to 2 days, that the Pickens tunnel water will dilute the chloramines over this period. Therefore, an ammonia injection will have to be added to maintain the chloramine residual. At Well 2, it was determined that during the winter season there will have the same effect in Ordunio Reservoir and an ammonia injections system will also need to be added.

Project Schedule – Conversion to Chloramines:

ID No.	Task	Person Responsible	Start Date	End Date
1	Design of Ammonia Injection System at Pickens Canyon Reservoir & Well 2	CVWD, WQTS & Carollo	8/7/2019	9/13/2019
2	Installation of Total Chlorine Probes & Controllers - 11 site	CVWD	8/19/2019	8/30/2019
3	DDW Submittal Packet for Amending Permit	CVWD & WQTS	8/28/2019	9/16/2019
4	DDW review and approval	DDW	9/16/2019	10/21/2019
5	Water main flushing - 21 locations	CVWD	9/16/2019	9/30/2019
6	Pickens Canyon Reservoir & Well 2 - materials/equipment & construction	CVWD & Contractor	9/16/2019	10/31/2019
7	Standard Operating Procedures & Water System Adjustments	CVWD & WQTS	10/7/2019	11/14/2019
8	Conversion to Chloramines	CVWD & WQTS	11/4/2019	11/15/2019

As shown in the project schedule above, staff will be working with its consultants to finalize the design and installation of the ammonia systems, which should be completed by the end of October 2019. Once these tasks are completed, then staff will proceed with adjustments to the water system and conversion by the middle of November 2019.

In addition, 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 by the middle of September and amendment to the permit completed by the end of October 2019.

Updated Cost Estimate:

Account Description	Amount - 7/09/19	Amount - 8/23/19	Difference
Transfer from MTBE Reserve Fund (9/25/18)	\$410,000	\$410,000	\$0
Transfer from MTBE Reserve Fund - (11/20/18)	\$500,000	\$500,000	\$0
Transfer from MTBE Reserve Fund - (5/28/19)	\$90,000	\$90,000	\$0
FY 19/20 - Additional Funding (Estimate)	\$0	\$100,000	\$0
Total Estimated Cost for Project	\$1,000,000	\$1,100,000	\$0
Consultants - Planning, Design & Construction Admin			
WQTS - Planning	\$4,500	\$4,500	\$0
WQTS - Design (Estimate on final cost)	\$130,000	\$144,240	\$14,240
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)	\$0	\$0	\$0
Apex Manufacturing Solution - SCADA programing and integration	\$54,165	\$79,165	\$25,000
New Chlorine Analyzers - 6 locations - Hazen and Sawyer - Design	\$44,505	\$44,505	\$0
Public Notification - CV Strategies , Printing & Mailing	\$11,168	\$11,168	\$0
WQ Sampling - 7/1/18 to 6/30/19	\$95,079	\$95,079	\$0
WQ Sampling - 7/1/19 to 9/30/19 (Estimate)	\$13,260	\$15,000	\$1,740
Subtotal	\$409,873	\$450,853	\$40,980
Construction			
Ammonia Injection Skids (2)	\$41,166	\$41,166	\$0
SCADA - Equipment (RTU's, Communication, cabinets, etc..) (Estimate)	\$14,642	\$14,642	\$0
Concrete Pad & Grading at Mills	\$7,011	\$7,011	\$0
Ammonia Inject Vault at Glenwood	\$48,233	\$48,233	\$0
Ammonia Tank at Mills	\$6,922	\$6,922	\$0
Static Mixer & Ammonia Injection System	\$11,236	\$11,236	\$0
Conduits/Wiring/Electrical Materials (Estimate)	\$11,542	\$11,542	\$0
Upgrade Chlorine Analyzers (Mills & Glenwood)	\$18,647	\$18,647	\$0
Safety - Eye Wash, Containment, etc.. (materials only) (Estimate)	\$10,230	\$10,230	\$0
On-site Welding (Estimate)	\$4,249	\$4,249	\$0
Misc	\$425	\$425	\$0
Pickens Canyon Reservoir - Ammonia/Chlorine System (Estimate)	\$0	\$45,000	\$45,000
Well 2 - Ammonia System (Estimate)	\$0	\$25,000	\$25,000
Subtotal	\$174,303	\$244,303	\$70,000
Operations & Maintenance			
Upgrade Chlorine Analyzers - 4 locations Equipment (Hach)	\$27,494	\$27,494	\$0
Upgrade Chlorine Analyzers - 7 locations Equipment (ProMinent)	\$36,372	\$36,372	\$0
New Chlorine Analyzers - 6 locations - APEX SCADA Programing	\$37,365	\$42,600	\$5,235
New Chlorine Analyzers - 6 locations - SCADA Equipment	\$63,792	\$63,792	\$0
New Chlorine Analyzers - 6 locations - Equipment (HACH)	\$58,819	\$58,819	\$0
Dead-ends Water Main Flushing - Valvetek	\$154,624	\$154,624	\$0
Misc	\$90	\$90	\$0
Subtotal	\$378,556	\$383,791	\$5,235
Total Cost	\$962,731	\$1,078,946	\$116,215
Amount Remaining	\$37,269	\$21,054	

RECOMMENDATION:

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

Submitted & Prepared by:

David S. Gould, P.E.

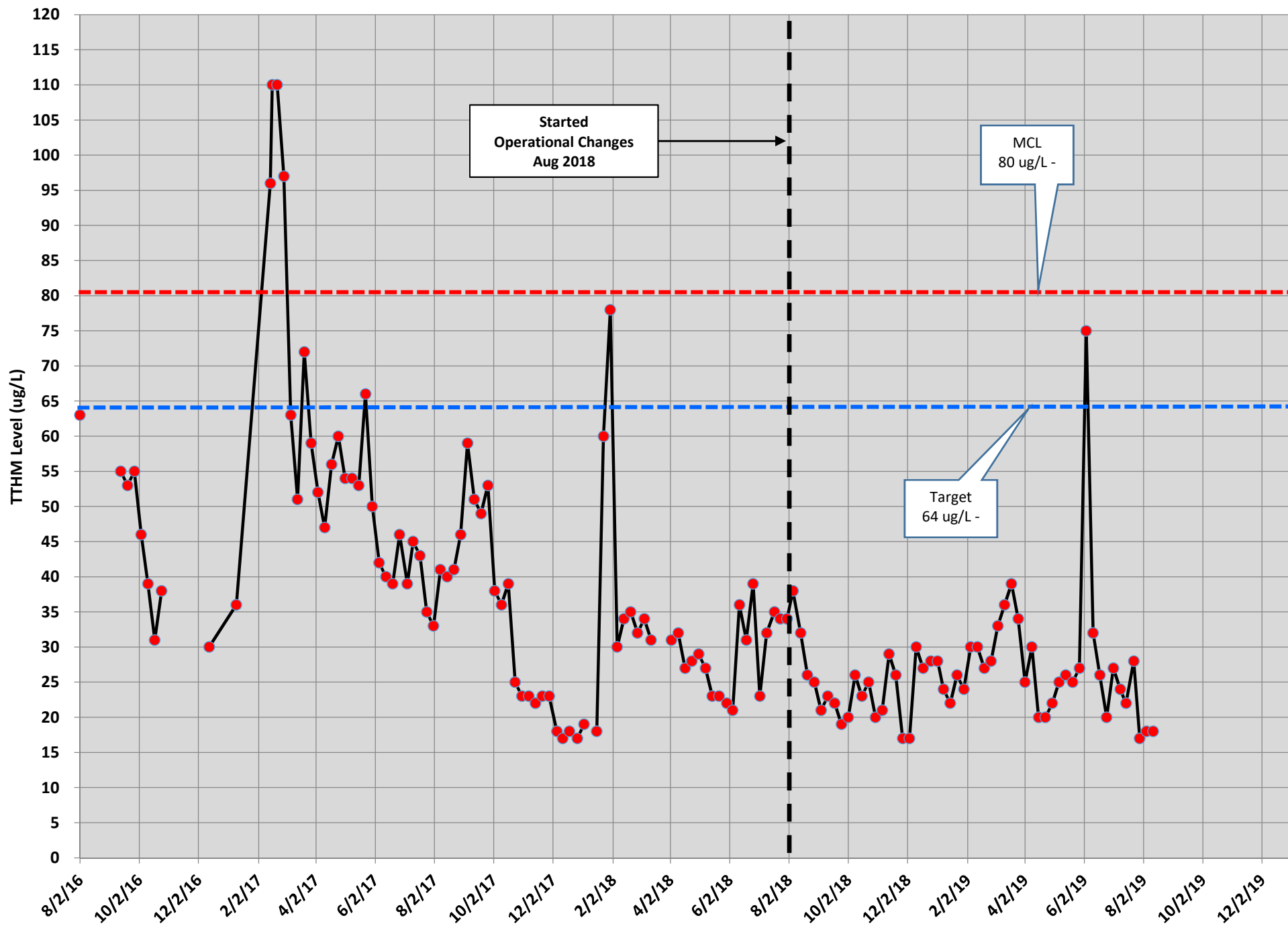
District Engineer

Attachments:

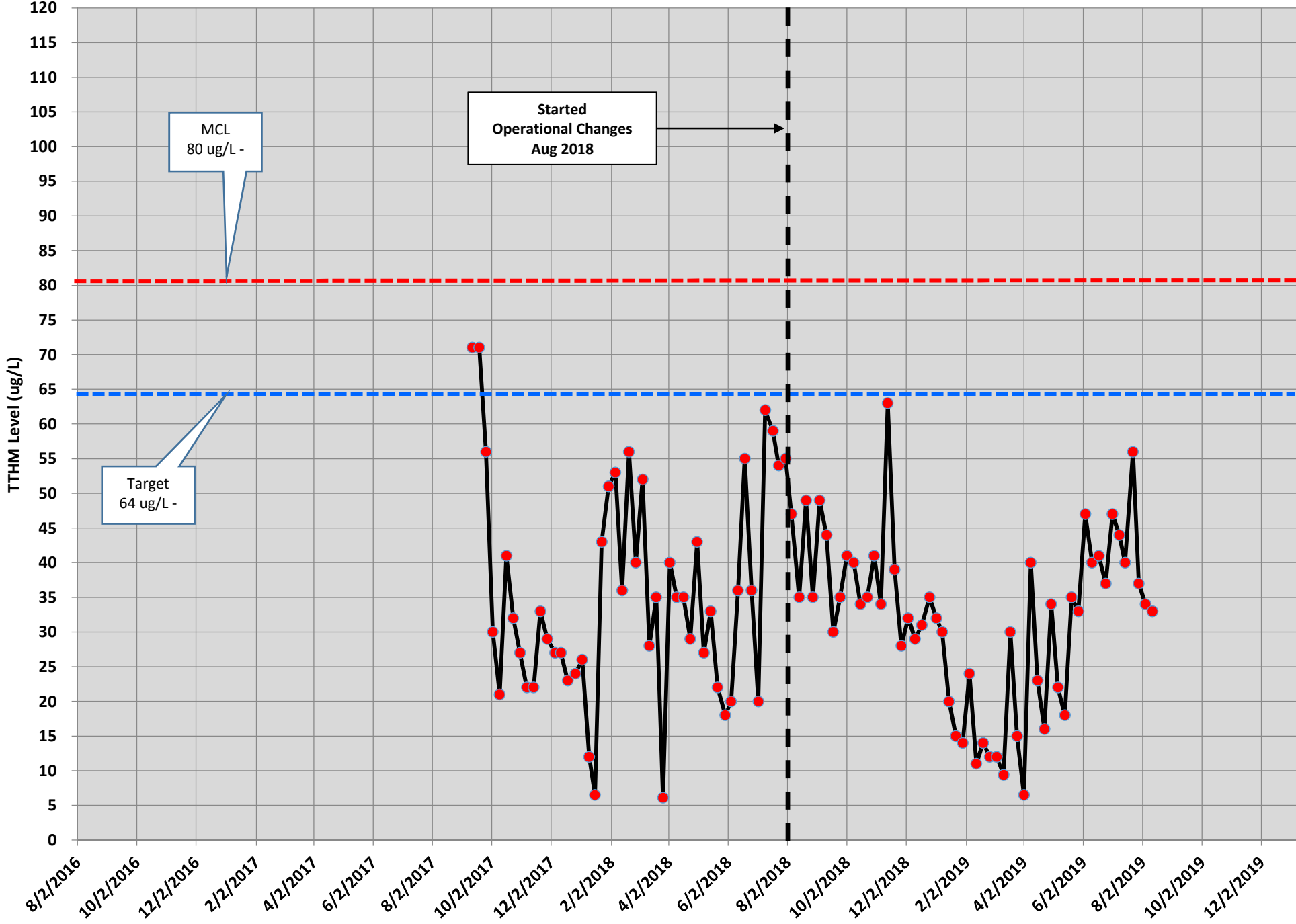
1. TTHM Charts

g:\engineering committee\2019 ec memo\08-23-19 ecm - e-995 disinfection process upgrades - update 17.docx

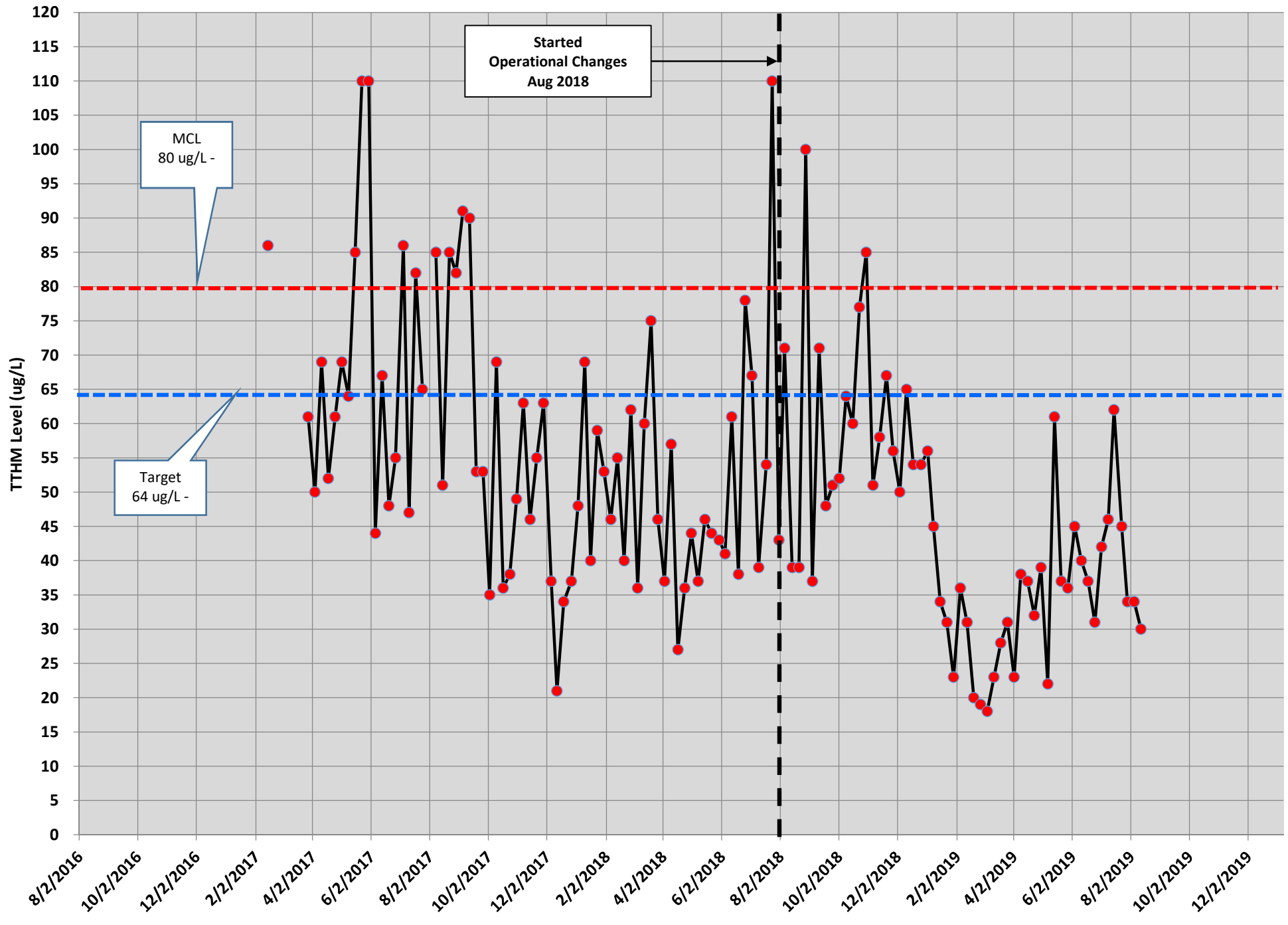
FMWD at Paschall Booster - TTHM's Levels



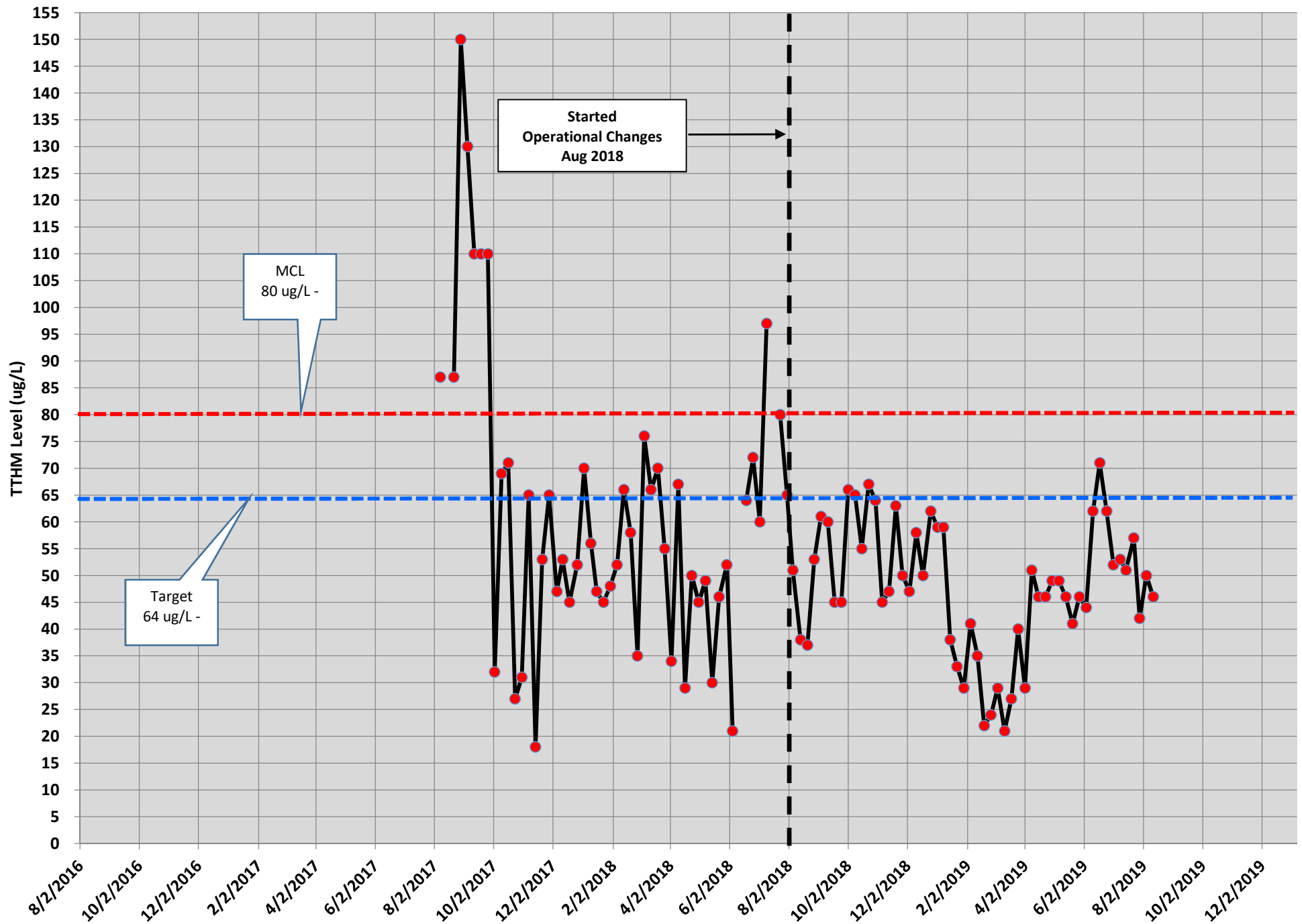
Encinal Reservoir (Zone 1) - TTHMs Levels



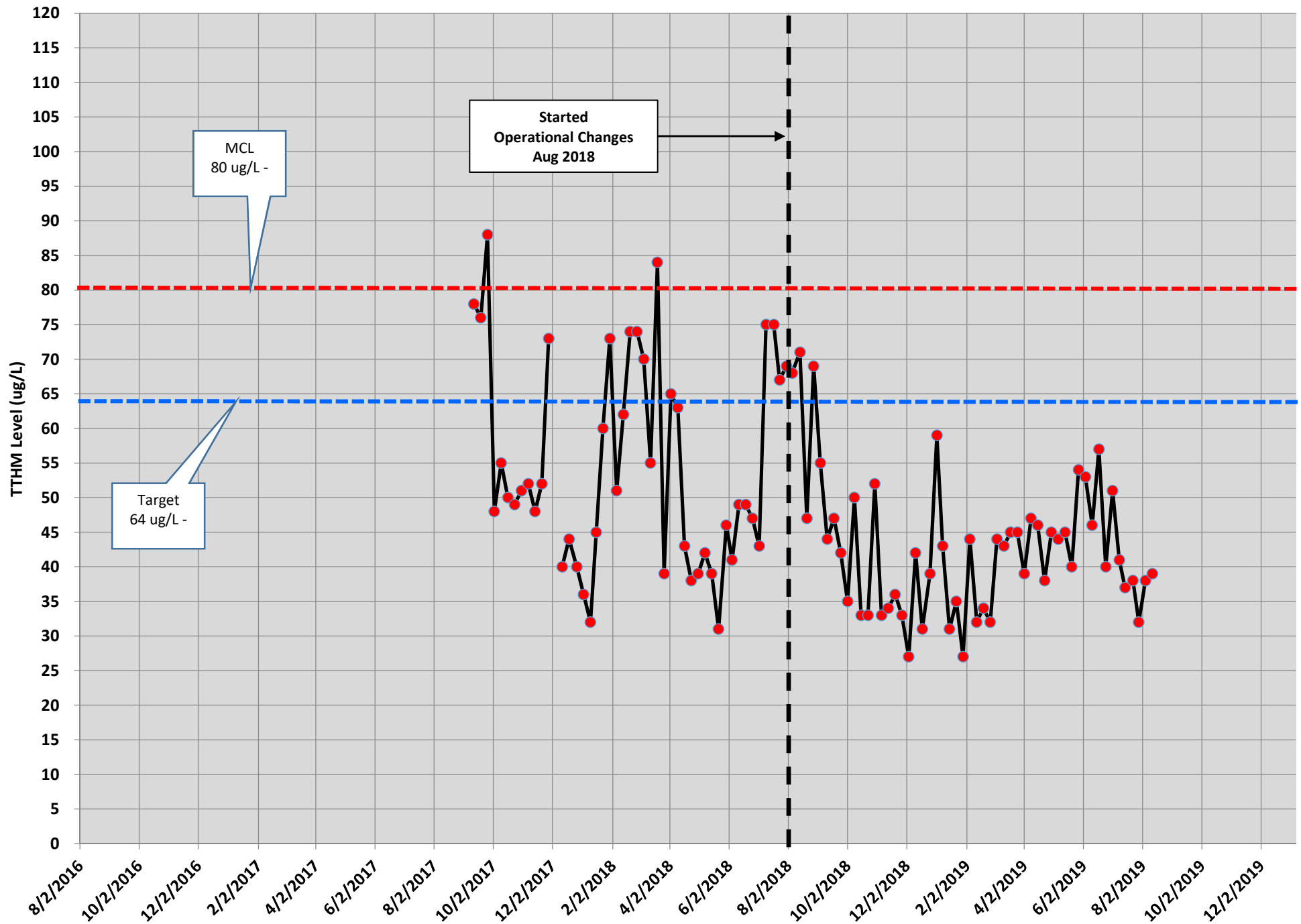
Williams Reservoir (Zone 2) - TTHMs Levels



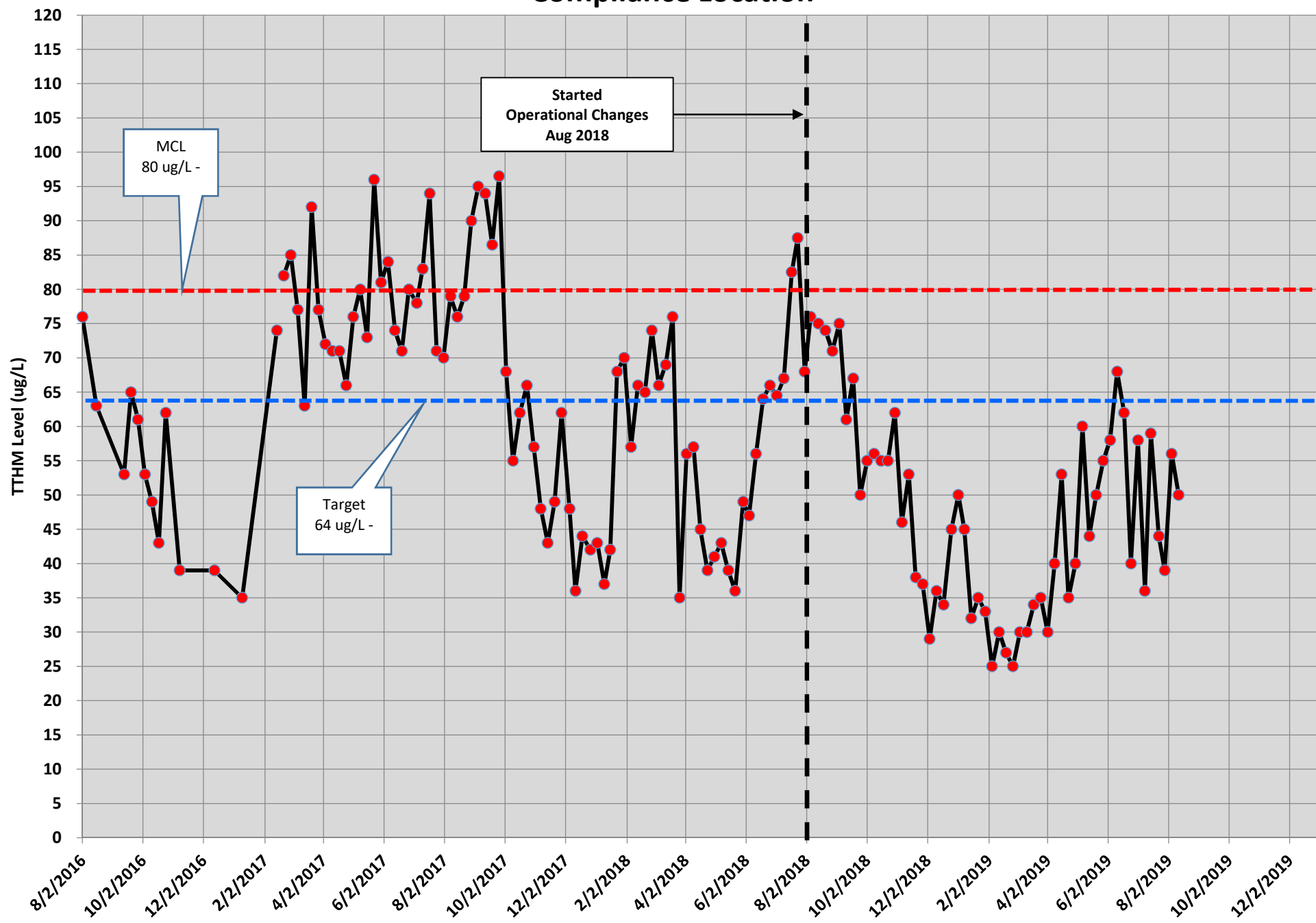
Ordunio Reservoir (Zone 2) - TTHMs Levels



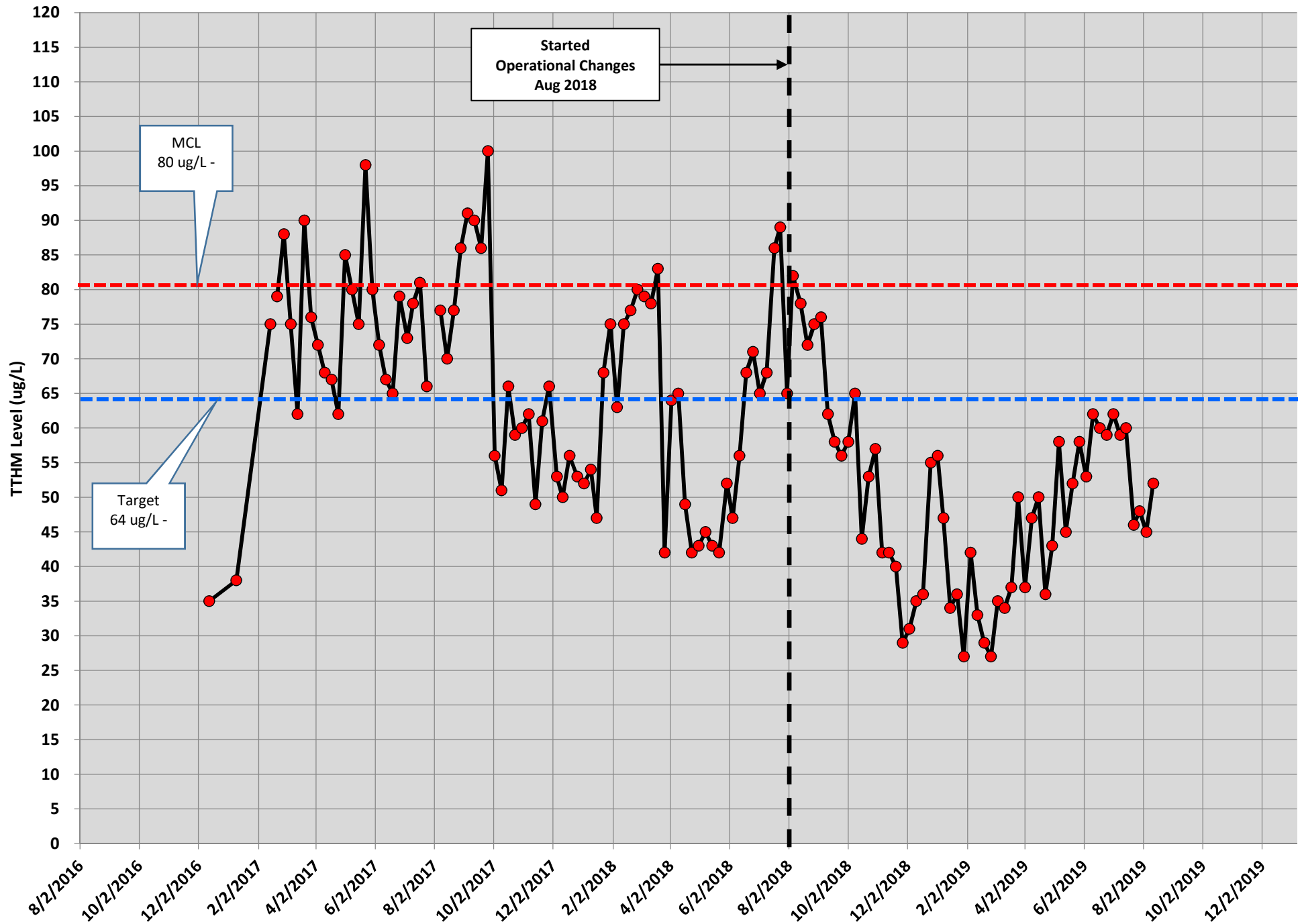
Rosemont Reservoir (Zone 3) - TTHMs Levels



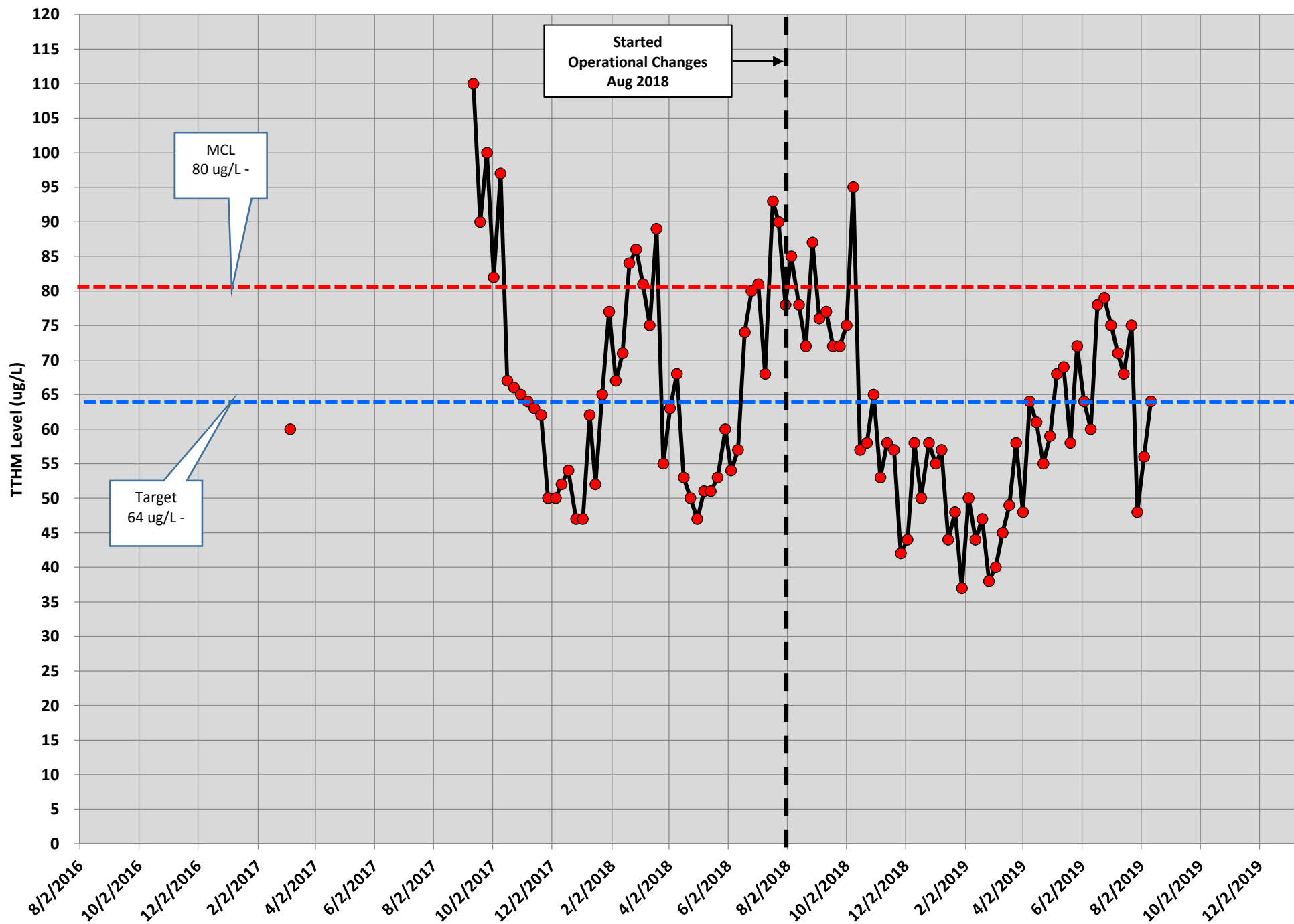
Oak Creek Reservoir (Zone 4) - TTHMs Levels Compliance Location



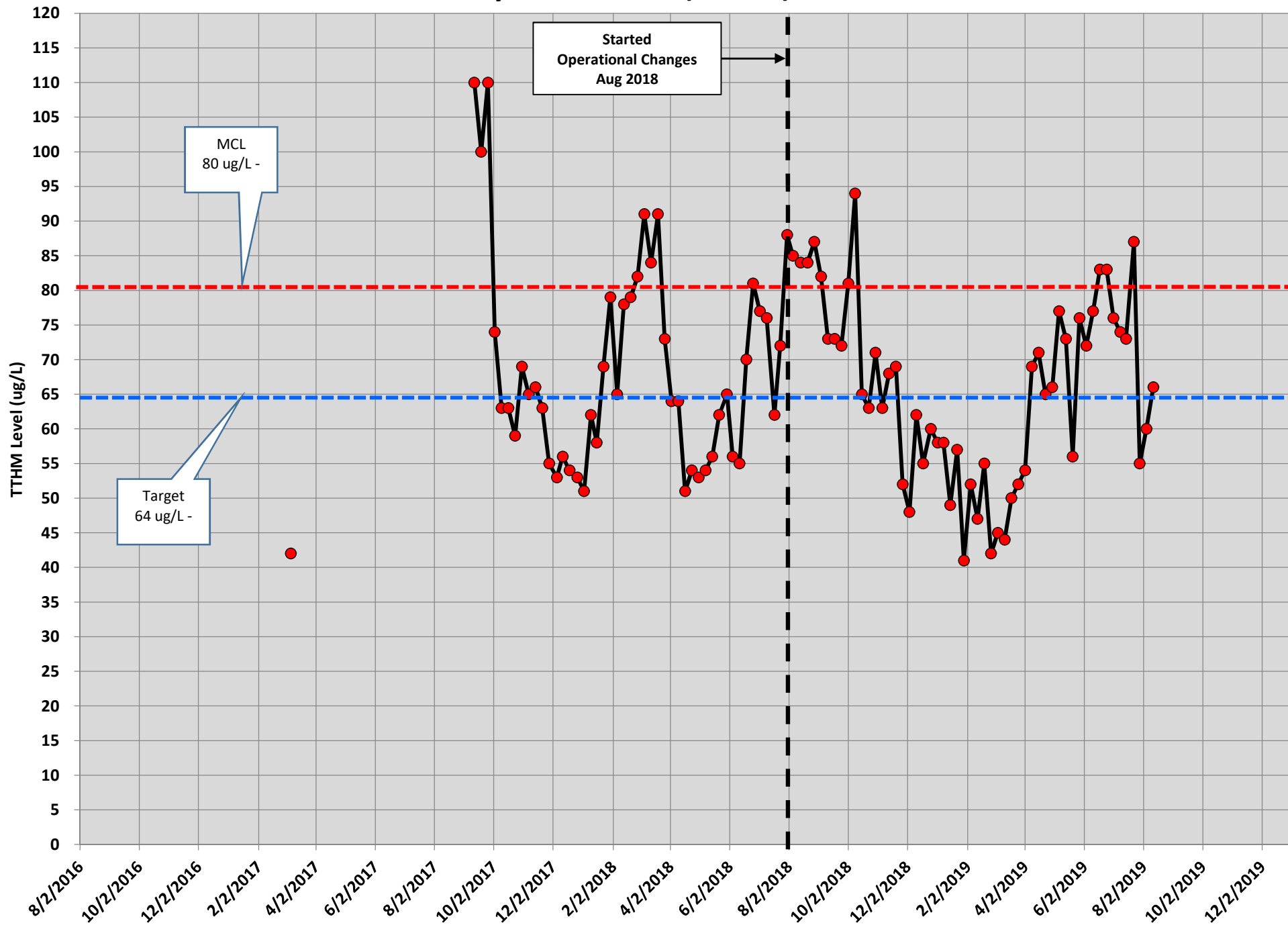
Markridge Reservoir (Zone 5) - TTHMs Levels



Eagle Canyon Reservoir (Zone 5) - TTHMs Levels

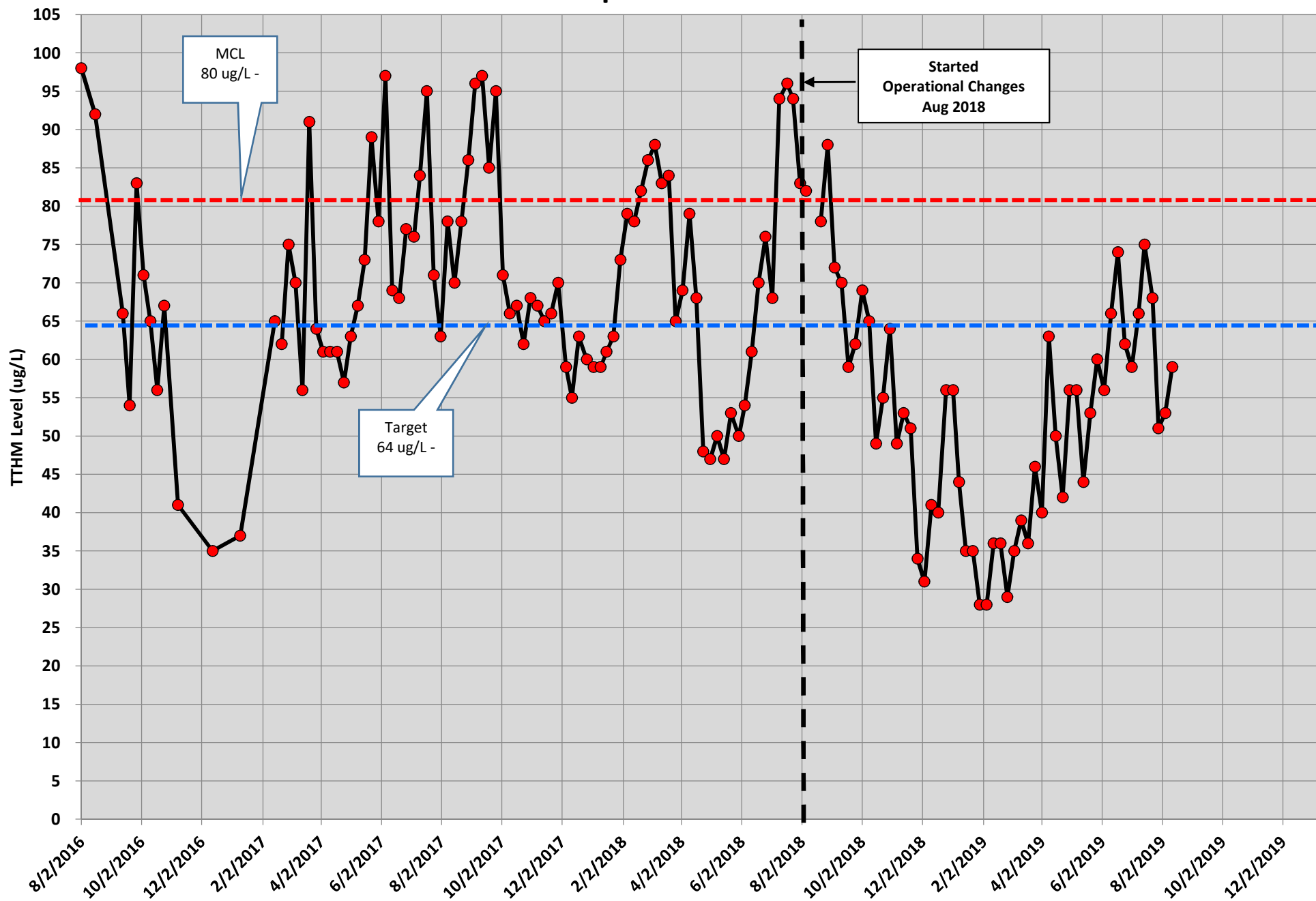


Goss Canyon Reservoir (Zone 6) - TTHMs Levels

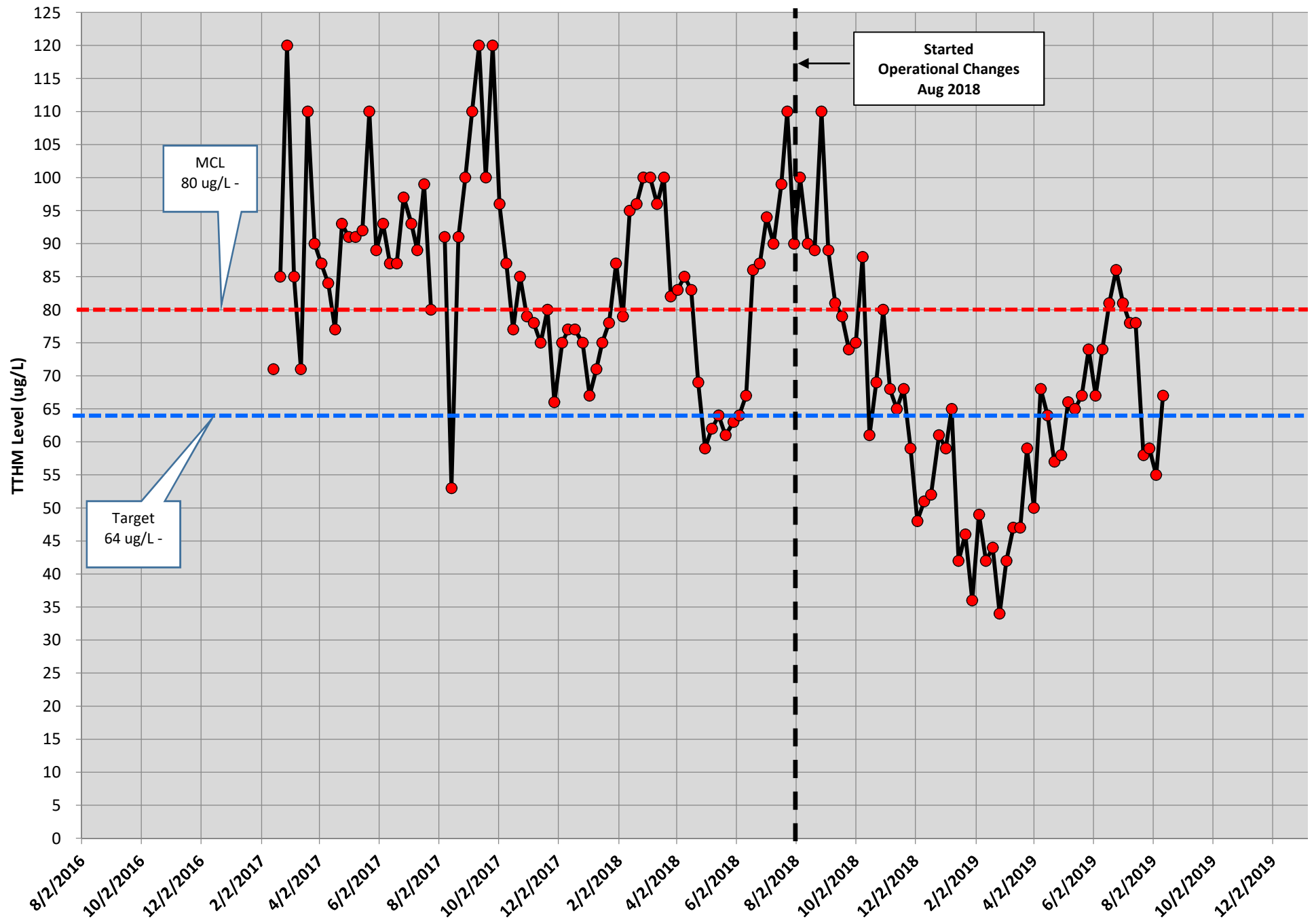


Dunsmore Reservoir (Zone 7) - TTHMs Levels

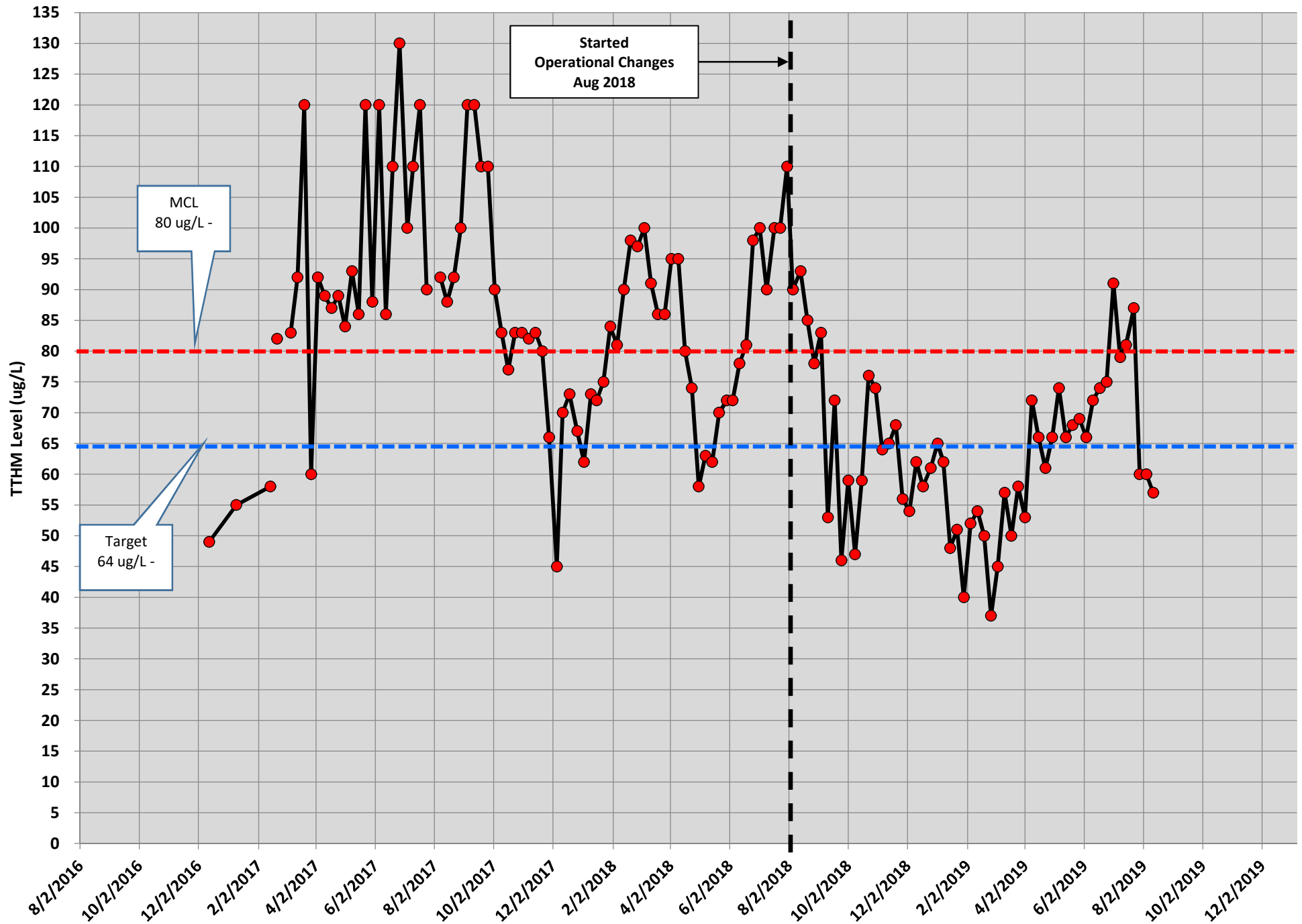
Compliance Location



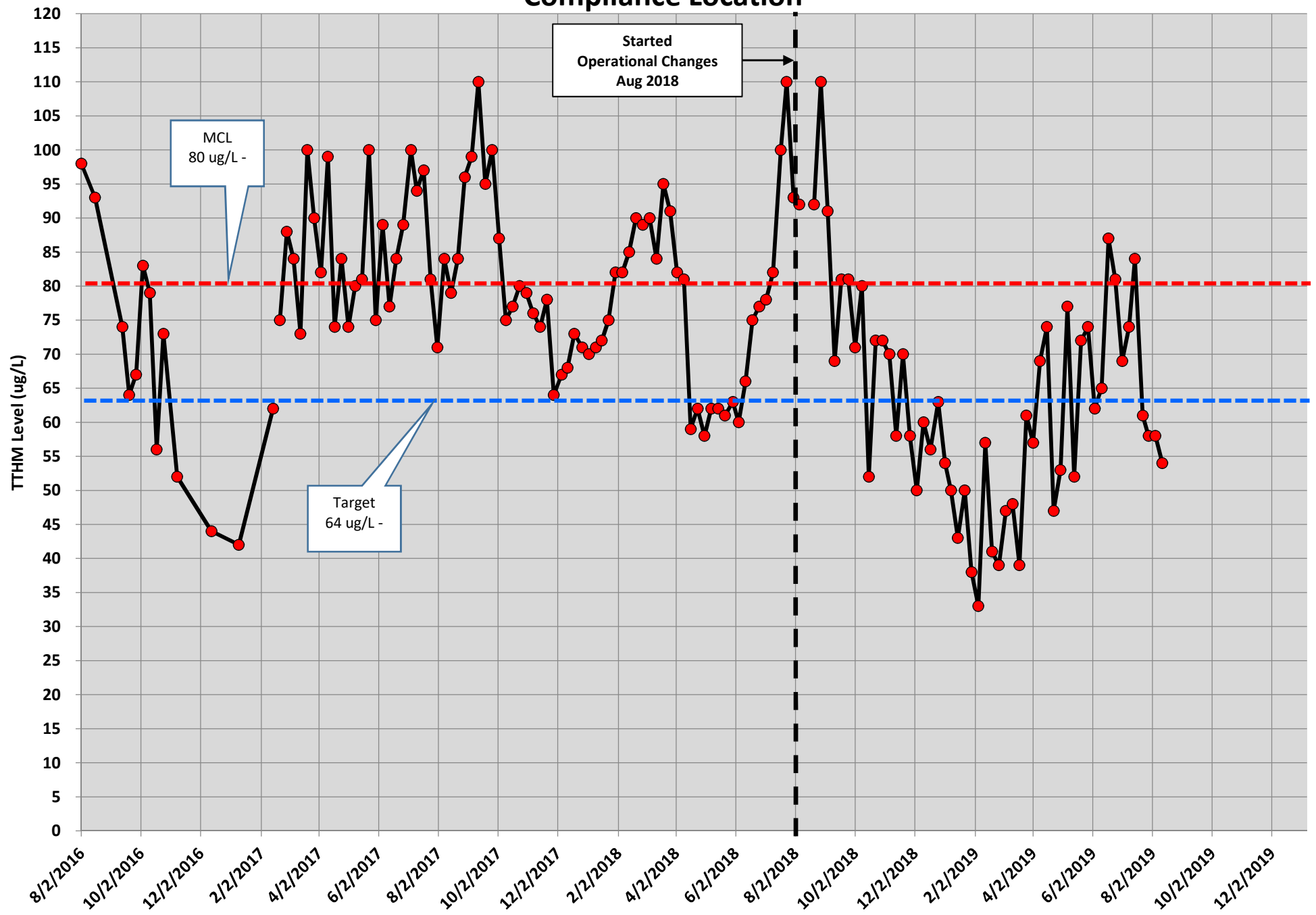
Cresta Heights Reservoir (Zone 8) - TTHMs Levels



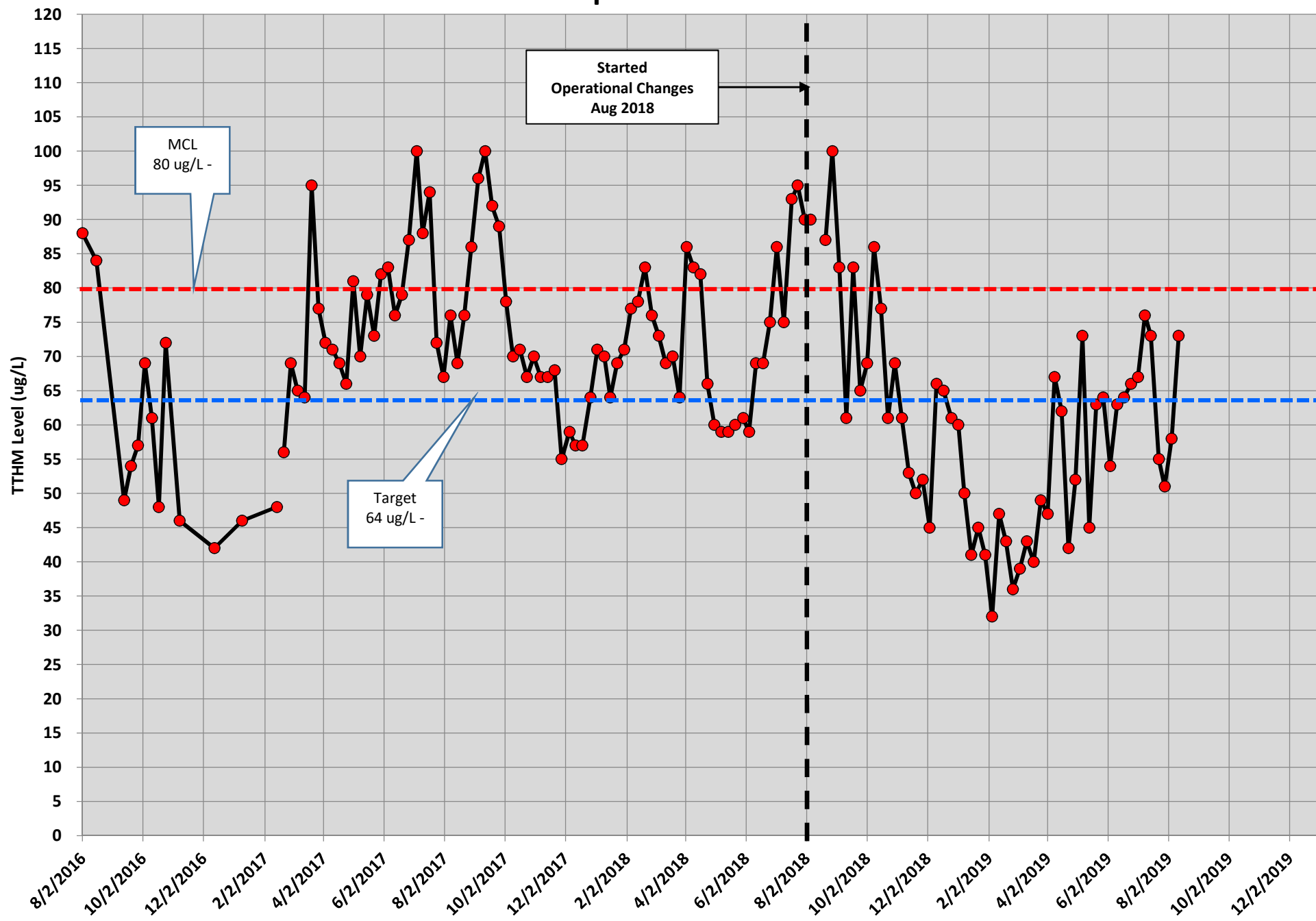
Edmund No. 1 Reservoir (Zone 9) - TTHMs Level



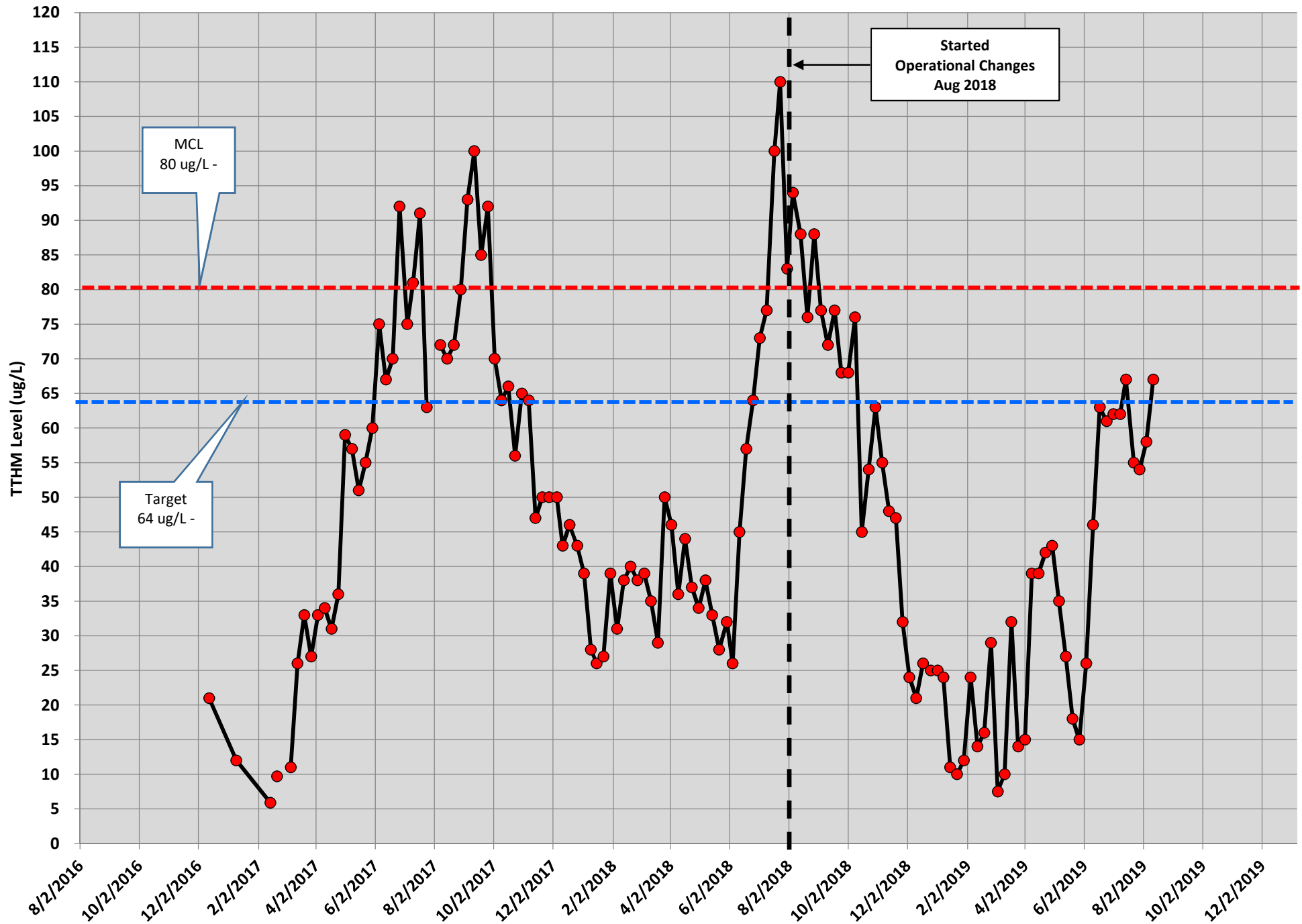
Edmund No. 2 (Zone 9) - TTHMs Levels Compliance Location



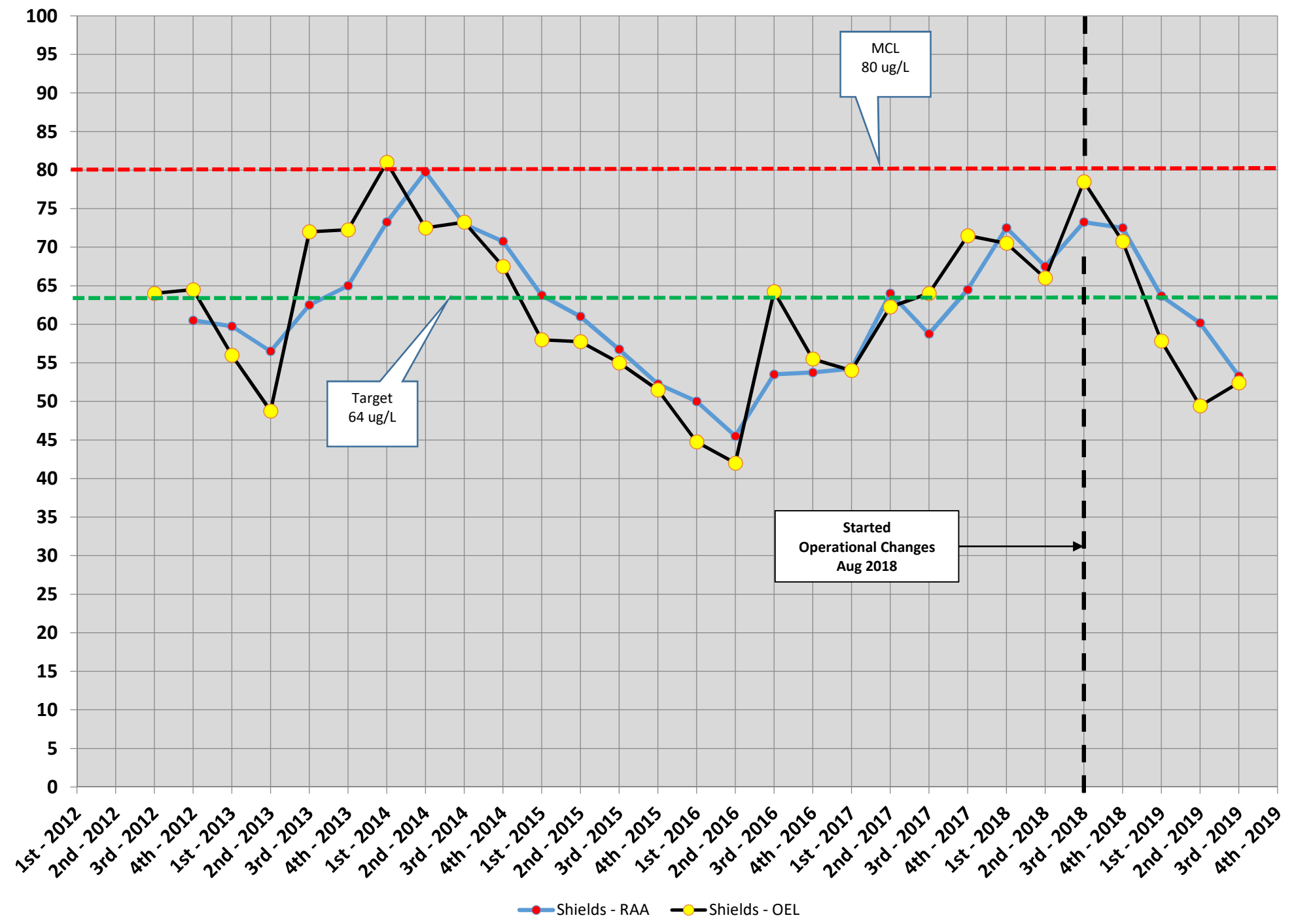
Shields Reservoir (Zone 10) - TTHMs Levels Compliance Location



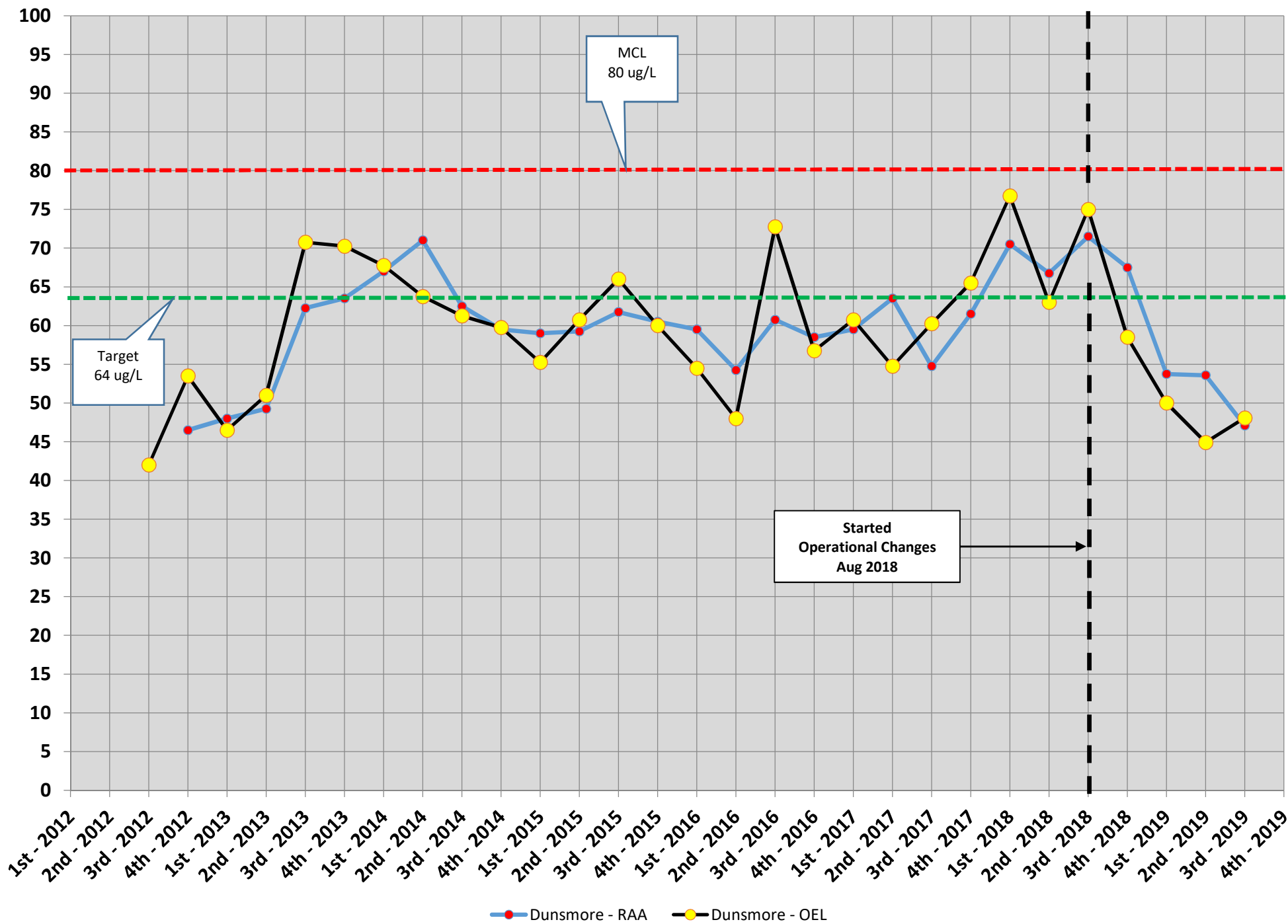
Pickens Reservoir (Zone 11) - TTHMs Levels



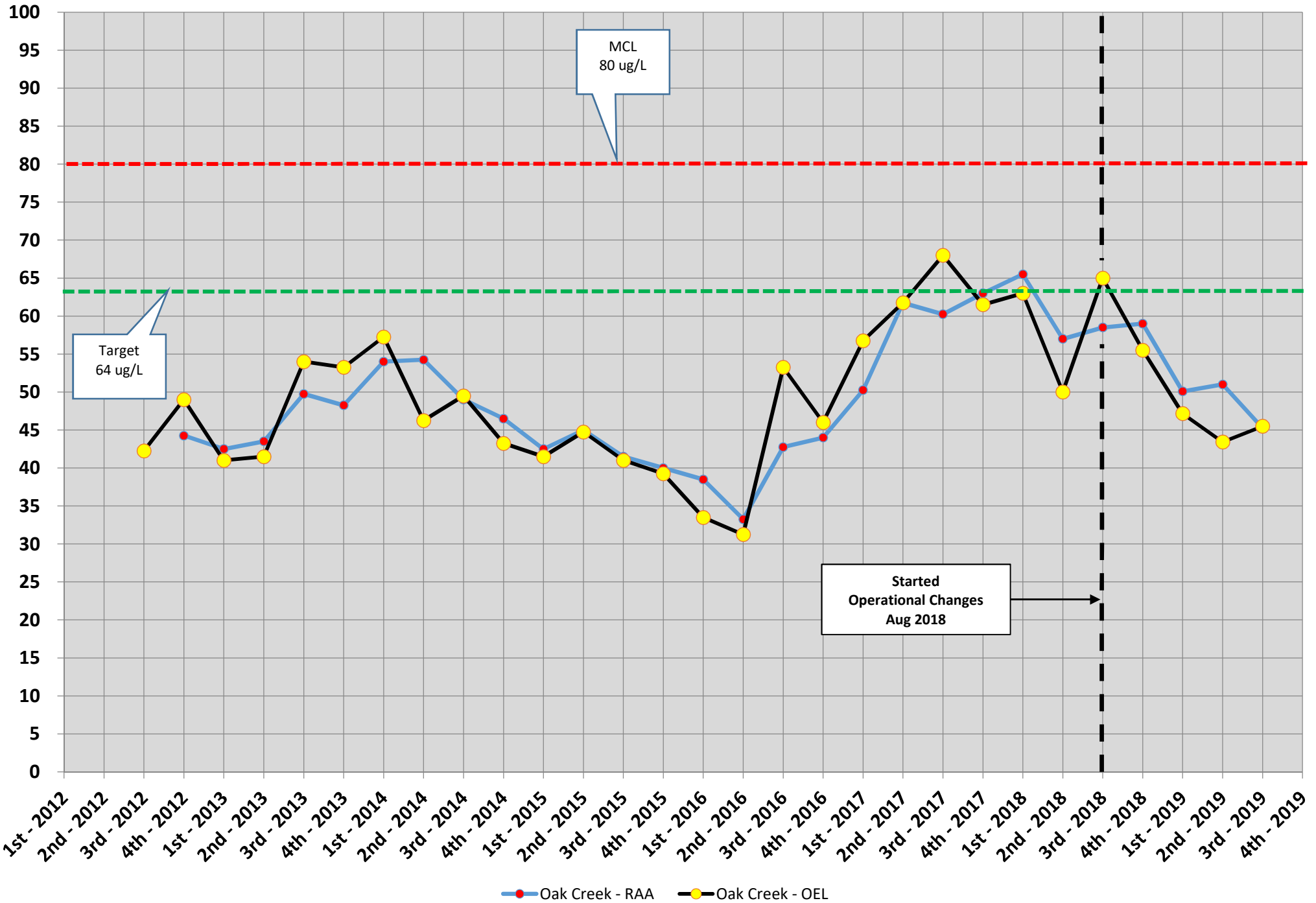
Shields - Quarterly TTHM - Running Annual Average 2012 - 2019



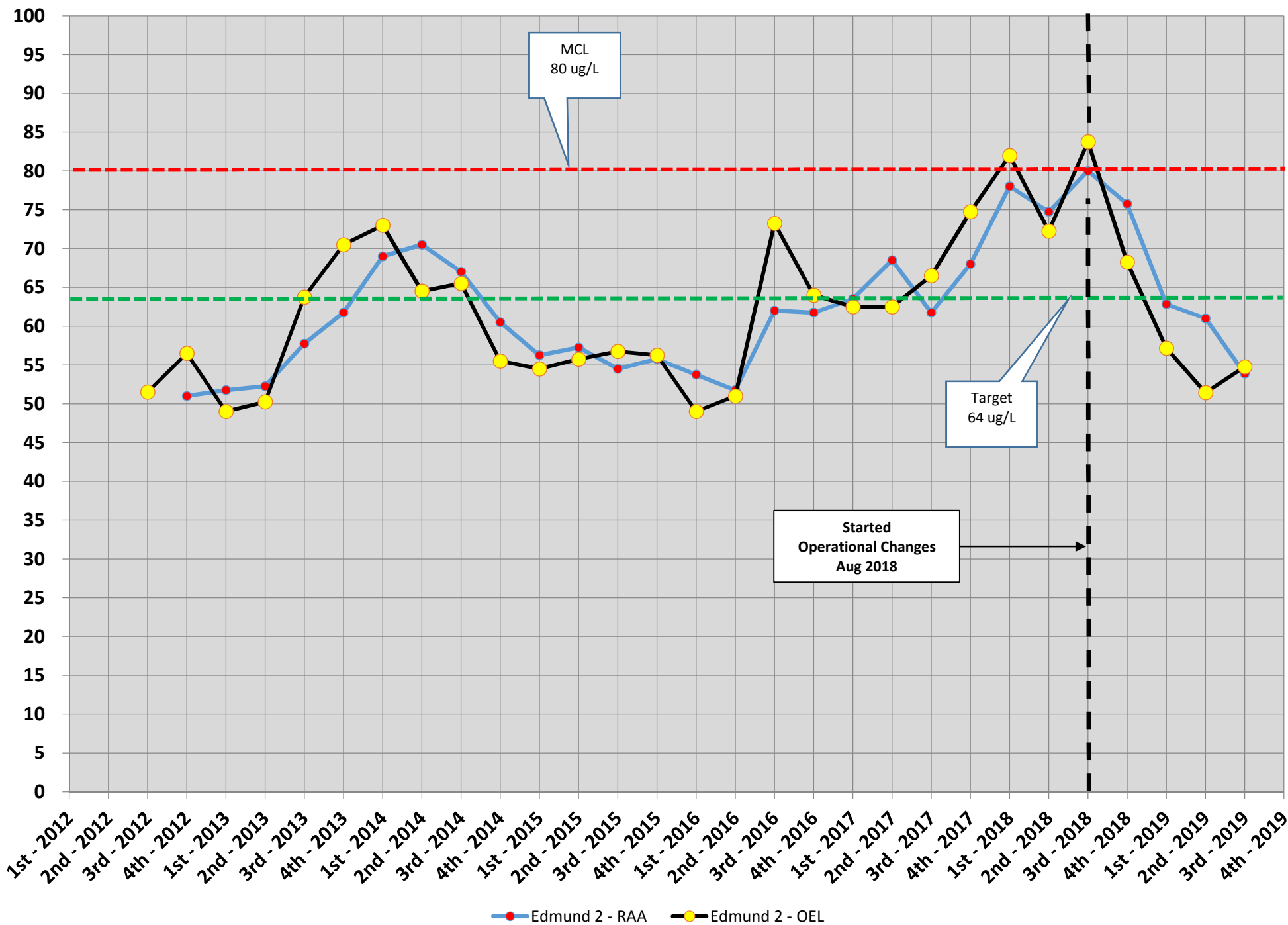
Dunsmore - Quarterly TTHM - Running Annual Average 2012 - 2019



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



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



CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 5
August 23, 2019

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

BACKGROUND:

A board workshop was held on May 21, 2019 where staff and the Board reviewed the proposed CIP program for FY 19/20, which is shown below and included in the final budget:

Capital Improvement Project Program Project Name	Budget FY 19/20	Project Description
Well Rehabilitation	\$190,000	Well Rehabilitation - Well 11 & 14
Reservoir Rehabilitation	\$410,000	Reservoir Rehabilitation - Markridge Reservoir
Annual Pipeline Replacement	\$1,056,000	Pipeline Replacement - 3200 & 3300 Blocks of Brookhill & 2400 & 2500 Block of Janet Lee
Annual Booster Pump Replacement	\$75,000	Replace vertical turbine pumps - Glenwood Plant
Rehabilitation of Ramsdell/Mayfield Blending Station	\$165,000	Install new Pressure Reducing Station - Zone 2 to Zone 1
SCADA Replacement - Equipment & Integration	\$315,000	Replacement of SCADA System - Replacement, programing, integration and testing of RTU/PLC equipment
Advanced Metering Infrastructure (AMI) Program	\$557,000	Installation of AMI communication network - including programming, integration and testing of selected areas
District Facility Improvements	\$110,000	Williams Reservoir site improvements - Planning and design
Priority A - Total	\$2,878,000	

On the June 25, 2019, the Board directed staff to reduce the CIP by \$1M and slow down the planning of projects until the proposed rate increase was discussed on August 27, 2019. Staff recommended that the design of pipeline and reservoir rehabilitation projects continue such that construction could commence in Fall 2019.

DISCUSSION:

Staff has reviewed the FY 19/20 CIP budget with respect to the recent water main break on Pennsylvania Ave. and added the additional costs to complete the conversion to chloramines project as shown in the table below:

Capital Improvement Project Program Project Name	Budget FY 19/20	Project Description
Well Rehabilitation	\$190,000	Well Rehabilitation - Well 11 & 14
Reservoir Rehabilitation	\$410,000	Reservoir Rehabilitation - Markridge Reservoir
Annual Pipeline Replacement	\$565,000	Pipeline Replacement - 3200 & 3300 Blocks of Brookhill
	\$277,000	Pipeline Replacement - 4700 & 4800 Blocks of Pennsylvania Ave
Annual Booster Pump Replacement	\$75,000	Replace vertical turbine pumps - Glenwood Plant
Rehabilitation of Ramsdell/Mayfield Blending Station	\$165,000	Install new Pressure Reducing Station - Zone 2 to Zone 1
Conversion to Chloramines	\$100,000	Additional work - Installation of Ammonia Stations at Pickens & Well 2
SCADA Replacement - Equipment & Integration	\$315,000	Replacement of SCADA System - Replacement, programing, integration and testing of RTU/PLC equipment
Advanced Metering Infrastructure (AMI) Program	\$378,500	Install AMI communication network - programming, integration and testing of selected areas
	\$178,500	Installation of Water Meters - Zones 1, 2 & 3
District Facility Improvements	\$110,000	Williams Reservoir site improvements - Planning and design
Priority A - Total	\$2,764,000	

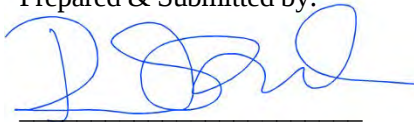
Staff reviewed the FY 19/20 budget again with respect to the delay in the proposed rate increase for discussion with the Engineering Committee. This is based on the 7% recommended rate increase, however, due to the postponement of the rate increase, it has been estimated that the District lost an estimated \$275,000 in revenue. To make up this budget shortfall, staff revised the FY 19/20 budget as shown below:

Capital Improvement Project Program Project Name	Budget FY 19/20	Project Description
Well Rehabilitation	\$190,000	Well Rehabilitation - Well 11 & 14
Reservoir Rehabilitation	\$410,000	Reservoir Rehabilitation - Markridge Reservoir
Annual Pipeline Replacement	\$565,000	Pipeline Replacement - 3200 & 3300 Blocks of Brookhill
	\$277,000	Pipeline Replacement - 4700 & 4800 Blocks of Pennsylvania Ave
Annual Booster Pump Replacement	\$75,000	Replace vertical turbine pumps - Glenwood Plant
Rehabilitation of Ramsdell/Mayfield Blending Station	\$165,000	Install new Pressure Reducing Station - Zone 2 to Zone 1
Conversion to Chloramines	\$100,000	Additional work - Installation of Ammonia Stations at Pickens & Well 2
SCADA Replacement - Equipment & Integration	\$315,000	Replacement of SCADA System - Replacement, programing, integration and testing of RTU/PLC equipment
Advanced Metering Infrastructure (AMI) Program	\$0	Install AMI communication network - programming, integration and testing of selected areas
	\$178,500	Installation of Water Meters - Zones 1, 2 & 3
District Facility Improvements	\$0	Williams Reservoir site improvements - Planning and design
Revised Budget Total	\$2,275,500	
Priority A - Total	\$2,764,000	
CIP Budget Reduction for FY 19/20	(\$488,500)	

RECOMMENDATION:

It is staff's recommendation to proceed with the proposed project schedule and costs as shown above and to re-assess the CIP budget in December 2019 with respect to water revenue and CIP expenses through the first 6 months of FY 19/20 water budget.

Prepared & Submitted by:



David S. Gould, P.E.
District Engineer