CRESCENTA VALLEY WATER DISTRICT

2700 FOOTHILL BOULEVARD
LA CRESCENTA, CALIFORNIA

To be held on

May 8, 2020 at 9:00 AM

Agenda for the Meeting of the Engineering Committee
of the Crescenta Valley Water District
Posted May 7, 2020 at 9:00 AM

TELECONFERENCING NOTICE

[This meeting will be held by teleconference only.]

Pursuant to the provisions of Executive Order N-29-20 issued by Governor Gavin Newsom on March 18, 2020, the public may not attend the meeting in person.

Any member of the public may participate using a touchtone phone. You may select any of the following phone numbers (there are more than one for increased reliability during this time of increased phone traffic)

(669) 900-6833	**(346) 248-7799**	**(929) 205-6099**
(253) 215-8782	**(301) 715-8592**	**(312) 626-6799**

Then, enter Access Code: _____

[Pursuant to the above Executive Order, the public may not attend the meeting in person]

Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by contacting the District by phone at (818) 248-3925 or in writing at this email address, dgould@cvwd.com. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that District staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the District to provide the requested accommodation.

Call to Order

Adoption of Agenda

Information Items

1. Discussion of FY 20/21Capital Improvement Project Program
2. Project Update - Disinfection Conversion to Chloramines
3. CVWD Wastewater System – Review of Agreement with City of Los Angeles

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 – June 12, 2020

Adjournment

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CRESCENTA VALLEY WATER DISTRICT
STAFF REPORT

Information Item No. 1

To: Engineering Committee — May 8, 2020

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

Subject: **FY 20/21 Water Capital Improvement Project Program**

BACKGROUND:

Staff has presented several Capital Improvement Project (CIP) budget scenarios with various financing options for review and discussion with the Board over the past few months.

At the April 28, 2020, the Board agreed on refinancing the current bond debt and request additional funding for a total $5M available for CIP and that the bond proceeds need to be spent within 3-years of issuance of the bonds.

DISCUSSION:

Staff's goal at this Engineering Committee meeting is for the Committee to prioritize and build the FY 20/21 budget based on the proposed projects, funding available from the bond proceeds and funding available from the Water Fund reserves.

Staff has prepared a preliminary 5-year CIP program for discussion with the Engineering Committee as shown on the attached CIP Summary Table. In addition, staff has updated the Long-Term CIP Program Summary (also attached) that provides detailed information on specific projects.

The bond proceeds need to be spent within 3-years of issuance of the bonds and staff is proposing that $3M of the bond funding be used in FY 20/21 and $2M of the bond funding be used in FY 21/22. The proposed CIP budget shows in FY 22/23, funding will return to Pay-Go as we decided how to proceed with future capital financing.

RECOMMENDATION:

Staff recommends that the Committee and staff work together to build the FY 20/21 CIP program that will be presented to the Board at a future meeting.

Prepared & Submitted by:

David S. Gould, P.E.
District Engineer

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5- year CIP Program FY 20/21 Pipe replace @ 1.0 Mile - Yr 1; 0.85 Mile - Yr 2; 0.5 Mile - Yr 3 - 5 Bond Financing: $5M Date 05/05/20	Projected FY 19/20	Budget FY 20/21	Forecast FY 21/22	Forecast FY 22/23	Forecast FY 23/24	Forecast FY 24/25
5-Year Capital Improvement Project Summary						
1. Water Supply	$ 190,000	$ 170,000	$ 205,000	$ 250,000	$ 129,000	$ 133,000
2. Water Storage	$ 453,300	$ 480,000	$ 775,000	$ 500,000	$ 581,000	$ 595,000
3A. Water Distribution - Pipeline	$ 1,317,136	$ 2,300,000	$ 2,290,000	$ 1,250,000	$ 1,288,000	$ 1,327,000
3B. Water Distribution - Other	$ 87,500	$ 710,000	$ 78,000	$ 155,500	$ 86,000	$ 89,000
4. Water Treatment	$ 225,000	$ -	$ -	$ -	$ -	$ -
5. Technology	$ 138,500	$ 1,070,000	$ 152,000	$ 822,000	$ 591,000	$ 531,000
6. Public Safety/Emergency Response	$ 7,500	$ 165,000	$ -	$ -	$ -	$ -
7. Facilities & Planning	$ -	$ 105,000	$ -	$ 132,500	$ -	$ -
Capital Improvement Projects - Total	$ 2,418,936	$ 5,000,000	$ 3,500,000	$ 3,110,000	$ 2,675,000	$ 2,675,000
Bond Financing - CIP	$ -	$ 3,000,000	$ 2,000,000	$ -	$ -	$ -
Water Fund Financing - CIP	$ 2,418,936	$ 2,000,000	$ 1,500,000	$ 3,110,000	$ 2,675,000	$ 2,675,000
Total Financing - CIP	$ 2,418,936	$ 5,000,000	$ 3,500,000	$ 3,110,000	$ 2,675,000	$ 2,675,000

5- year CIP Program FY 20/21 Pipe replace @ 1.0 Mile - Yr 1; 0.85 Mile - Yr 2; 0.5 Mile - Yr 3 - 5 Bond Financing: $5M Date 05/05/20	Projected FY 19/20	Budget FY 20/21	Forecast FY 21/22	Forecast FY 22/23	Forecast FY 23/24	Forecast FY 24/25
1. Water Supply						
A. Groundwater Water Supply						
i. Well Rehabilitation						
Well 16 Rehabilitation	$ 130,800					
Well 11 Rehabilitation	$ 59,200					
Well 9 Rehabilitation		$ 95,000				
Well 14 Rehabilitation			$ 105,000			
Well Rehabilitation (1 Wells per year)				$ 125,000	$ 129,000	$ 133,000
iii. Groundwater Basin Recharge						
Storm water Recharge - Planning		$ 75,000	$ 100,000			
D. Water Supply Studies						
Verdugo Basin Groundwater Model				$ 125,000		
WS Total	$ 190,000	$ 170,000	$ 205,000	$ 250,000	$ 129,000	$ 133,000
2. Water Storage						
A. Reservoir Rehabilitation						
i. Steel Reservoir Re-Coating/Roof/Vents Rehabilitation						
Markridge	$ 453,300					
Rosemont		$ 480,000				
Eagle Canyon			$ 775,000			
Edmund #2				$ 500,000		
Goss Canyon #1					$ 581,000	
Goss Canyon #2						$ 595,000
WS Total	$ 453,300	$ 480,000	$ 775,000	$ 500,000	$ 581,000	$ 595,000
3. Water Distribution						
A. Pipeline Replacement						
3200 & 3300 Blocks of Brookhill	$ 510,000					
4700 & 4800 Block of Pennsylvania	$ 807,136					
Annual Pipeline Replacement		$ 2,300,000	$ 2,290,000	$ 1,250,000	$ 1,288,000	$ 1,327,000
C. Booster Pump System						
Boosters - Glenwood 32 & 33	$ 62,500					
Annual Booster Replace - 1 Booster		$ 75,000	$ 78,000	$ 81,000	$ 86,000	$ 89,000
D. Pressure Reducing Stations						
PRS - Zone 2 to Zone 1	$ 25,000	$ 150,000				
E. Miscellaneous Projects						

5- year CIP Program FY 20/21 Pipe replace @ 1.0 Mile - Yr 1; 0.85 Mile - Yr 2; 0.5 Mile - Yr 3 - 5 Bond Financing: $5M Date 05/05/20	Projected FY 19/20	Budget FY 20/21	Forecast FY 21/22	Forecast FY 22/23	Forecast FY 23/24	Forecast FY 24/25
i. Water Surge Control						
Rehabilitation Surge Tank at Glenwood		$ 35,000				
iii. Misc.						
Upgrade - Ramsdell Mixing Station	$ -	$ 450,000				
Mills Plant - Aeration Tower				$ 74,500		
WD Total	$ 1,404,636	$ 3,010,000	$ 2,368,000	$ 1,405,500	$ 1,374,000	$ 1,416,000
4. Water Treatment						
C. Disinfection - Convert to Chloramines						
Conversion to Chloramination	$ 225,000					
WT Total	$ 225,000	$ -	$ -	$ -	$ -	$ -
5. Technology						
A. Automated Meter Information (AMI) System						
AMI - 3/4" to 1" - Smart Meters	$ 43,500	$ 50,000	$ 78,000			
1-1/2" - to 4" Smart Meters				$ 357,500	$ 357,500	$ 252,250
AMI - Meter Lids				$ 100,000	$ 100,000	$ 278,750
AMI - Communication		$ 150,000		$ 231,000		
AMI - Customer Service Interface				$ 133,500	$ 133,500	
B. Supervisory Control and Data Acquisition (SCADA) System						
Communication Radio Network		$ 260,000				
SCADA Replacement - Design	$ 95,000					
SCADA Replace - Installation		$ 610,000	$ 74,000			
TECH Total	$ 138,500	$ 1,070,000	$ 152,000	$ 822,000	$ 591,000	$ 531,000
6. Public Safety/Emergency Response						
B. Water Storage						
Dunsmore/Pickens - Seismic Sensors	$ 7,500					
D. Miscellaneous						
FEMA Local Hazard Mitigation Plan		$ 165,000				
SF/ER Total	$ 7,500	$ 165,000	$ -	$ -	$ -	$ -
7. Facilities & Planning						
D. Reservoir Site Improvements						
Williams Reservoir Site Improvements	$ -					
Roof for Old Encinal - Storage Bldg		$ 105,000				
Facilities Maintenance Master Plan				$ 135,500		
F & P Total	$ -	$ 105,000	$ -	$ 132,500	$ -	$ -

Revised Date: 5/7/2020

Crescenta Valley Water District

FY 20/21 Capital Improvement Project Priority List

Capital Improvement Project Program	Budget FY 20/21	Category	Committee Priority	Staff Priority Level	Cumulative Estimated Costs	Project Description
Steel Reservoir Rehabilitation - Rosemont	**$480,000**	**Water Storage**		**1**	**$480,000**	**Reservoir Rehabilitation** - Structural repairs and re-coating at Rosemont Reservoir during low demand (Winter) season
Annual Pipeline Replacement - 1.0 Mile	**$2,300,000**	**Water Distribution**		**2**	**$2,780,000**	**Pipeline Replacement** - Pipelines that are greater than 50 years old - 5,280 LF
Well 9 Rehabilitation	**$95,000**	**Water Supply**		**3**	**$2,875,000**	**Well Rehabilitation Increase Well Capacity -** Remove & Inspect Well Pump & Casing, Chemical Treatment Well Casing, Pump Test, New Pump & Motor
PRS - Zone 2 to Zone 1/Upgrade - Ramsdell Mixing Station	**$600,000**	**Water Distribution**		**4**	**$3,475,000**	**New Pressure Reducing Station & Upgrade Ramsdell Mixing Station** - PRS for water from Zone 2 to zone 1 need when Ramsdell Mixing Station out of service during construction
Replacement - SCADA System	**$610,000**	**Technology**		**5**	**$4,085,000**	**Replacement of SCADA System** - Replacement of RTU/PLC Equipment at 26 sites including equipment, programing, integration and testing
Replacement - SCADA Communication Radio Network	**$260,000**	**Technology**		**6**	**$4,345,000**	**Replacement of SCADA Radio Communication System** - Replace 900 MHz radios with upgraded 5.8GHz radios
FEMA Local Hazard Mitigation Plan	**$165,000**	**Public Safety/ Emerg. Resp.**		**7**	**$4,510,000**	**FEMA Grant** - **$125,000 grant**, $40,000 CVWD to Prepare a local hazard mitigation plan
Annual Booster Pump Replacement	**$75,000**	**Water Distribution**		**8**	**$4,585,000**	**Replace 15-year vertical turbine pump** - replace with new pump assembly and high efficiency motor
AMI - 3/4" to 1" - Smart Meters & AMI Communication Network	**$200,000**	**Technology**		**9**	**$4,785,000**	**Installation of 1,000 water meters -** in Zones 1 & 2 by CVWD crews
Stormwater Recharge CVC Park - Planning	**$75,000**	**Water Supply**		**10**	**$4,860,000**	**Concept Plan, grant funding options and coordination with stakeholders** - Proposed Stormwater Recharge Project at CVC Park
New Roof for Old Encinal - Storage Bldg	**$105,000**	**Facilities & Planning**		**11**	**$4,965,000**	**Installation of a new roof -** convert old concrete reservoir to storage facilities bldg.
Rehabilitation Surge Tank at Glenwood	**$35,000**	**Water Distribution**		**12**	**$5,000,000**	**Rehabilitation of water surge tank** - replacement of piping & appurtenances and recoating at Glenwood
Total	**$5,000,000**					

Crescenta Valley Water District

Long-Term

Capital Improvement Project

Program Summary

May 2020

Crescenta Valley Water District

Long Term Capital Improvement Project Program Summary

Well Rehabilitation

- Maintain CVWD's existing groundwater well production through annual well rehabilitation to meet annual adjudicated rights of 3,294 ac-ft.
- Rehabilitate each well at least 1 or 2 times each over the next 9 years depending on well efficiency and water levels as shown on the schedule.
- Estimate a 2% to 3% annual increase in well production at current conditions after cleaning and chemical treatment of well casings, development of the aquifer, and replacing pump and motors assemblies.
- Increases in well production will vary depending on annual rainfall and stormwater recharge into the Verdugo Basin.
- Estimate for construction costs on average are about $105,000 per well including design and construction management, private contractor and materials.
- Average payback period for well rehabilitation based on avoided costs for purchasing imported water is about 8 to 11 months.

CVWD - 10-yr Well Replacement Project
FY 20/21 - FY 30/31

Well No.	Last Rehab Date	FY 20/21	FY 21/22	FY 22/23	FY 23/24	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	FY 30/31	Total
1	2019					X						X	2
2	2019			X				X					2
5	2018				X					X			2
6	2004												0
7	2019						X					X	2
8	2016				X						X		2
9	2014	X					X						2
10	2017								X				1
11	2015					X				X			2
12	2014		X						X				2
14	2012	X					X						2
15	2006												0
16	2016					X					X		2
18	2023			X					X				2
Total		2	1	2	2	3	3	1	3	2	2	2	23

Crescenta Valley Water District
Groundwater Well - Years in Service

Well No.	Date Well Drilled	Casing Diameter	Years in Service
1	1931	16"	89
2	1927	14"	93
5	1949	20"	71
6	1949	20"	71
7	1930	16"	90
8	1951	16"	69
9	1945	20"	75
10	1945	20"	75
11	1946	20"	74
12	1948	16"	72
14	1950	16"	70
15	2000	12"	20
16	2011	12"	9
Average Age Wells 1 - 14			77

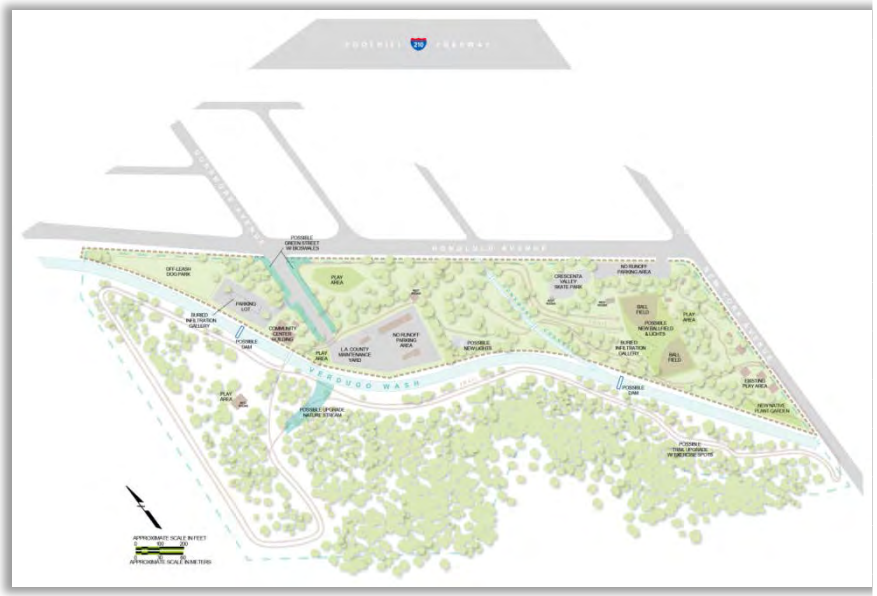
New Groundwater Wells (Future)

- Most of CVWD's groundwater wells were installed from 1927 to 1950.
- Well Nos. 1 – 14 beyond their useful life expectancy of 50 years for steel casing.
- Future Project to install new Well 18 & housing on Sycamore Ave to replace Well 10 at Glenwood Plant
- Estimated construction cost for design $175,000 and construction $2.6M.
- Payback period for a new well, based on capital costs, operations & maintenance costs and avoided costs for purchasing imported water, is between 13 to 15 years.
- New Well 19 to be construction at the best location as recommended from the Groundwater Well Replacement Study discussed below.

Crescenta Valley Water District

Long Term Capital Improvement Project Program Summary

Groundwater Basin Recharge

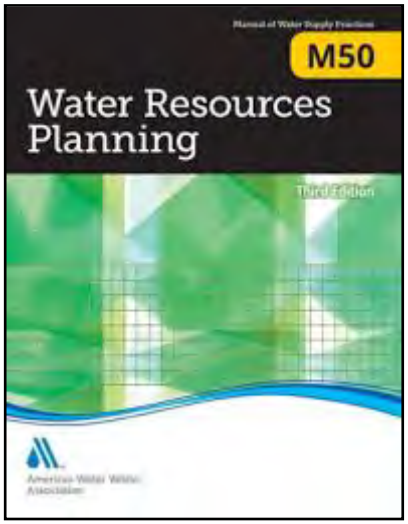


- Stormwater Recharge Project at Crescenta Valley County Park (CVC Park).
- Design and install a stormwater infiltration system within CVC Park that will direct stormwater from the Verdugo Wash into infiltration galleries for groundwater recharge.
- Feasibility Study indicated about 500 ac/ft per year could be infiltrated into the Verdugo Basin with about 85% captured by CVWD's wells.
- Stormwater recharge would reduce the fluctuation of water levels during wet and dry rainfall seasons.
- Allow for capture of stormwater in the Crescenta Valley before going to the Los Angeles River.
- Stakeholders include City of Glendale, Los Angeles County Department of Public Works and Parks & Recreation, CV Town Council and ULARA Watermaster.
- Estimated costs for planning, $175,000, design $240,000 and construction ranging from $2.4M to $4.8M.
- Potential Grant Funding Availability:
  - Proposition 1 Integrated Regional Water Management (IRWM) Implementation Grant – California Department of Water Resources
  - Proposition 1 Storm Water Grant Program – State Water Resources Control Board – Division of Financial Assistance
  - Proposition W – Los Angeles County
  - Local Resource Program - Metropolitan Water District of Southern California
  - Most grants require 50% matching funds
- Outstanding Issues:
  - Storm Water Rights – City of Los Angeles
  - State Water Resources Control Board – Division of Water Rights Approval
  - CEQA Documentation

Crescenta Valley Water District

Long Term Capital Improvement Project Program Summary

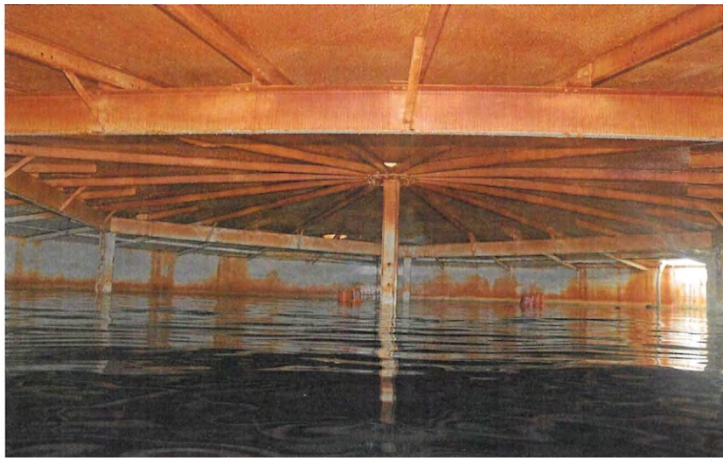
Water Supply Studies (Future)



- Water Resource Planning Study - Develop a water resource planning study to ensure a reliable water supply system that will meet the water challenges of today and tomorrow.
- GWP Water Supply Feasibility Study - Feasibility study to determine if CVWD can utilize Glendale Water as a potential water supply.
- Verdugo Basin Groundwater Model - Update the 2006 Groundwater model with updated data and to utilize the model for predict groundwater trends into the future.
- Groundwater Well Replacement Study - Study to locate potential sites within the Verdugo Basin to drill new water production wells.
- Groundwater Pilot Hole Study – Drill 4-inch diameter pilot holes in areas defined by the Groundwater Well Replacement Study for geological information, depth to water table and potential new water production wells.

Steel & Concrete Reservoir Re-Coating & Rehabilitation

- CVWD's goal is to maintain or improve conditions of the existing reservoirs to sustain the longevity of the water storage system which is between 35 years to 71 years old as shown in the table.
- Steel Reservoirs – re-coat at least one (1) steel reservoir site per year until FY 28/29.
- Concrete Reservoirs – inspection and rehabilitation of concrete reservoirs
- Rehabilitation includes repairing structural members in the roof, steel columns and the roof shell, removal of coal-tar enamel on floor and safety modifications (i.e. new exterior stairs)



- Estimated cost based on previous projects and the overall size of the reservoir. (i.e. 0.5MG tank – approximately $480,000)

Crescenta Valley Water District
Reservoir Inventory

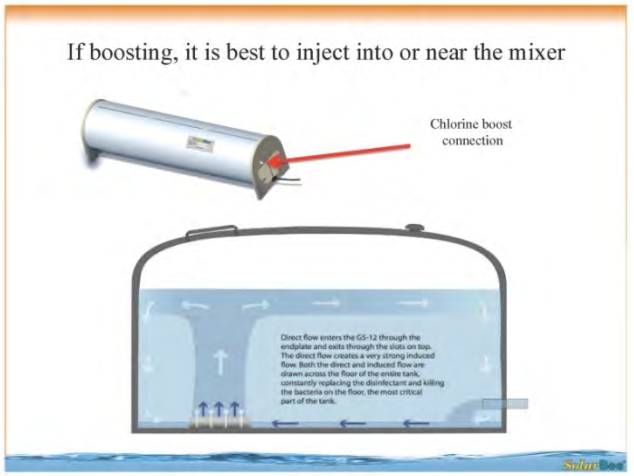
Site	Zone	Capacity (MG)	Material	Year Installed	Year In Service
Rosemont	3	0.50	Steel	1949	71
Markridge	5	0.50	Steel	1951	69
Goss Canyon #1	6	0.42	Steel	1954	66
Dunsmore	7	0.42	Steel	1954	66
Edmund #1	9	0.50	Concrete	1956	64
Oak Creek #1	4	1.60	Steel	1958	62
Goss Canyon #2	6	0.50	Steel	1961	59
Oak Creak #2	4	0.50	Steel	1961	59
Eagle Canyon	5	1.50	Steel	1961	59
Pickens Canyon	11	0.50	Steel	1962	58
Cresta Heights # 2	8	0.50	Steel	1965	55
Edmund #2	9	0.50	Steel	1966	54
Cresta Heights # 1	8	0.50	Steel	1966	54
Shields	10	0.60	Steel	1967	53
Ordunio	2	2.75	Steel	1970	50
Encinal	1	3.00	Concrete	1983	37
Williams	2	3.60	Concrete	1985	35

Crescenta Valley Water District

Long Term Capital Improvement Project Program Summary

Steel Reservoir Corrosion Protection System (Future)

- Inspection of cathodic protection system – every 5 years
- Replacement of cathodic protection system – FY 26/27
- Estimated Cost is $75,000.



Reservoir Water Quality Mixing System (Future)

- Installation of water quality mixing systems including chlorine and ammonia injection systems to maintain chloramine levels in reservoirs and to make disinfection adjustments to prevent nitrification.
- Estimated cost based on quote from manufacturer is between $22,000 and $25,000 per reservoir.

Water Storage Studies (Future)

- Reservoir Inlet/Outlet & Overflow Piping Study – Study to review each reservoir site and provide recommendations for upgrading the common inlet/outlets and to review the overflow discharge locations relative to state and local agencies requirements.
- Ocean View #2 Reservoir Feasibility Study – Study to determine the feasibility of constructing a new reservoir, pump station and pipeline to the most northerly area of Ocean View Blvd. The new reservoir will provide water to homes on Ocean View Blvd, which are on the easterly side of Pickens Canyon. This project would eliminate the three (3) pipeline crossings of Pickens Canyon.
- Conditional Assessment of Reservoir – Perform an assessment of CVWD's steel and concrete reservoirs to determine the remaining life expectance and reservoir replacement.

Pipeline Replacement

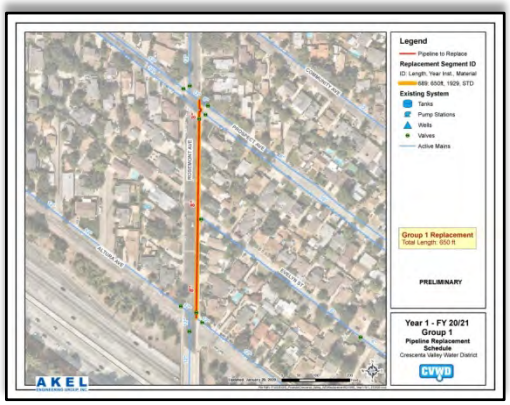
- Goal is to replace 50-yrs & older pipelines within the next 85-years. Currently about 45% of CVWD's pipelines are 50 years or older.
- CVWD would have to replace about 2 miles a pipe a year for the next 20-years to meet the 85-year replacement goal.
- Replacement ranking based on age of pipeline and grouping pipelines within a specific area of the District for ease of construction.
- Pipeline replacement budget based on average cost of $450 per foot, which was established by using previously, completed pipeline costs, current material costs and use of outside consultants for design and construction management.

Crescenta Valley Water District

Long Term Capital Improvement Project Program Summary

- Pipeline replacement areas within the District
  - Year 1 – 1 mile (5,200 LF); Year 2 – 0.85 mile (4,500 LF); Year 3 – 0.5 Mile
  - Design – CVWD Staff
  - Materials – Purchased by CVWD
  - Contractor – 1 or 2 contractors
  - Cost Estimate:
    - Year 1 – Length – 5,280 ft; Cost - $2.38M
    - Year 2 – Length – 4,500 ft; Cost - $2.29M
    - Year 3 – Length – 2,260 ft; Cost - $1.25M
    - Year 4 – Length – 2,260 ft; Cost - $1.29M
    - Year 5 – Length – 2,260 ft; Cost - $1.33M

      Total Cost - $8.53M



Annual Pump /Motor Replacement

- Maintain, replace, or upgrade CVWD's 34 booster pumps to meet customer water demands, maximize "water to wire" efficiency and control electrical power usage.
- Replace or repair at least one (1) booster pumps per year based on pump hours, pump efficiency, vibrations, and last time pump was repaired/replaced.
- Replace existing motors with premium efficiency motors to decrease power costs.
- Estimated construction cost for one (1) booster replacement based on past projects is about $75,000 per booster pump.

Pump Station and Motor Control Center Upgrades (Future)

- CVWD's objective is to upgrade the existing booster pump stations with new buildings to protect the equipment from the environment, increase the life of the booster motors and worker's safety.
- Replace or upgrade the fourteen (14) electrical motor control centers that provide electrical power and controls to booster pumps, maximum the use of new technology to reduce power costs and connections for the District's portable electrical generators to run boosters during a power outage.

Crescenta Valley Water District

Long Term Capital Improvement Project Program Summary

- Past experience with the design and construction of the previous MCC, was that design, planning with SCE or Glendale, and ordering equipment will occur during one fiscal year and construction the next fiscal year.
- For planning purposes, below is a schedule for six (6) pump station upgrades and replacement of the electrical motor control centers over the next 10-years. The remaining pump stations/MCC centers will be planned for the next 10-years.
- These improvements have been put on hold as we determine the next level of funding.

Crescenta Valley Water District
Pump Station and MMC Upgrade Schedule

Priority	Location	Pressure Zones From/To	Type of Pump	# of Pumps	Total Capacity (gpm)	Building	Last Date MCC Update	Years in Service 2020	FY for Design	Cost Estimate	FY for Const.	Cost Estimate	Total Cost Estimate
1	Paschall Booster Station	0 to 4	Vertical turbine	2	1,750	No	1980	40	20/21	$170,000	21/22	$1,127,000	$1,297,000
2	Edmund #2 Booster Station	9 to 10	Vertical turbine	2	650	No	1996	24	22/23	$176,000	23/24	$935,000	$1,111,000
3	Cresta Heights Booster Station	8 to 9	Vertical turbine	1	460	No	1997	23	24/25	$182,000	25/26	$1,049,000	$1,231,000
4	Ocean View Booster Station	2 to 3	Vertical turbine	3	2,340	No	1997	23	26/27	$190,000	27/28	$1,160,000	$1,350,000
5	Goss Canyon Booster Station	6 to 9	Vertical turbine	1	575	No	1985	35	28/29	$194,000	29/30	$1,222,000	$1,416,000
6	Rosemont Booster Station	3 to 5	Submersible	1	1,000	No	1998	22	30/31	$196,000	31/32	$1,250,000	$1,446,000
	Total									$1,108,000		$6,743,000	$7,851,000

Crescenta Valley Water District

Long Term Capital Improvement Project Program Summary

Pressure Reducing Valve Stations

- CVWD's objective is to install pressure reducing valve (PRV) stations within a vault between pressure zones to allow for the movement of water during an emergency event from a higher pressure zone to a lower pressures zone.
- The PRV stations will replace the existing "Zone" valves, which a manual method to flow water between pressure zones. However, a number of the Zone valves have not been operated in over twenty years or more and there is a concern that if a zone valve is opened; it may not be able to close, which can cause increased pressure in a lower zone.
- PRV Station - Zone 2 to Zone 1 near Ramsdell and Mayfield – This is for the installation of a new PRV station near the intersection of Mayfield Ave and Ramsdell Ave. to provide water from Zone 2 to Zone 1 when Encinal Reservoir is out of service. Scheduled for FY 19/20. Project moved to FY 20/21 and will be included with the upgrades to the Ramsdell/Mayfield Mixing Station.
- Pressure Reducing Valve (PRV) Station Analysis Study – A future study to determine the location and flow requirements to install PRV stations for each pressure zone and review the existing PRV's to determine if they need to be upgraded. The study will include a project schedule and estimated design and construction costs that will be included in an updated 10-year CIP program.

Water Surge Control

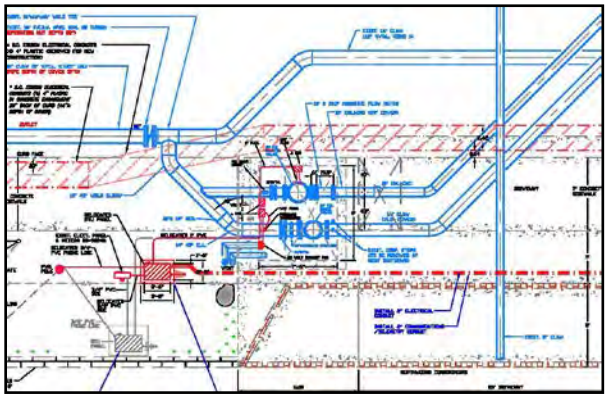
- CVWD's objective is to install and upgrade the water surge suppression system to protect existing booster pumps and pipelines from damage during a water surge condition.
- A water surge condition occurs when there is a sudden loss of power, booster pumps shut off and a wave of water and energy occurs inside the pipe. This wave usually starts at the upstream side of a pressure zone and travels downstream to the booster pump that had just been shut off. The wave speed could generate over 300 psi of pressure inside the pipe, which could burst the pipe or damage the downstream booster pump.
- There are two (2) existing surge protection devices, one at Paschall and the other at Glenwood. The surge protection device at Paschall was installed in 1955 and the device at Glenwood was installed in 1972 and is also out of service.

Crescenta Valley Water District

Long Term Capital Improvement Project Program Summary

- The surge protection tank at Glenwood will be replaced in FY 20/21 at an estimated cost of $45,000.
- The surge protection tank at Paschall Booster Station is included as part of the future upgrade to the Paschall Booster Station.
- A new surge protection tank at Mills including design and construction are for the future at an estimated cost of $105,000.

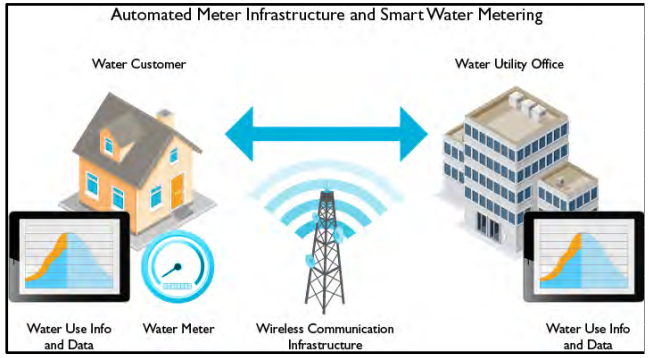
Other Water Distribution Projects



- Ramsdell/Mayfield Mixing Station – CVWD maintains an underground vault near the intersection of Ramsdell Ave and Mayfield Ave that is used to mix imported water from FMWD and groundwater from the Glenwood plant. The existing piping, valves and controls are in very bad condition and need to be replaced.
  - The majority of the design has been completed by staff and the final design will be completed by an outside consultant in FY 20/21 and estimated construction cost based on past projects of about $450,000.
- Replacement of Aeration Tower at Mills Plant – the aeration tower, which is used to increase pH in the water, was installed in 1969. The exterior and base of the tower are corroded and needs to be replaced.

Water Distribution Studies (Future)

- Pressure Reducing Valve (PRV) Station Analysis Study - A future study to determine the location and flow requirements to install PRV stations for each pressure zone and review the existing PRV's if determine if they need to be upgraded. The study will include a project schedule and estimated design and construction costs.
- Energy Use Efficiency Study – A study to review CVWD's energy supply and provide recommendations to increase efficiency and reduce the amount of energy used by the District that utilizes from SCE, GWP or other renewable sources.
- Water Distribution Hydraulic Analysis Study – Continue updating the existing hydraulic model with additional studies on water quality age, chlorination and other studies as requested.



Advanced Metering infrastructure (AMI) System

- CVWD's objective is to install an AMI system within the next five (5) years to replace older meters, decrease water loss, increase efficiencies, increase customer service, outage detection, tamper notification and reduce labor costs as a result of automating reads.

Crescenta Valley Water District

Long Term Capital Improvement Project Program Summary

- CVWD will also be able to offer new innovative products, flexible billing cycles, leak detection, and on-line water consumption.
- Over 6,200 ¾-inch and 1-inch meters have been replaced with new Sensus Iperl "Smart Meters and about 1,700 more meters need to be installed by a contractor.
- CVWD's large meters (1-½ to 4-inch meters) need to be upgraded to Master Meter Octave "Smart Meters" and installed by a contractor.
- All of CVWD's Meter Box lids need to be replaced with new meter box lids with end points to connect the smart meter to the AMI communications network.
- Design and installation of an AMI communications network to bring the water meter data from the smart meter to a central data host
- Design and installation of a customer service interface to allow residents to track their water use, pay bills and get helpful information.
    - Year 1 & 2 – Continue with ¾-inch and 1-inch meter replacement
    - Year 3 – Install AMI communications network
    - Year 3 & 4 – Install 1-½ to 4-inch meters and meter box lids
    - Year 3 – Install AMI customer service interface and continue with installation of meter box lids
    - Year 3, 4 & 5 – Continue with installation of meter box lids and training for AMI System
    - Year 5 – Complete installation of meter box lids and go "Live" with AMI System.

Radio Communication Network for SCADA

- CVWD has an existing radio communication network that works on the 900 MHz radio frequency. In the past year, the radio system has seen interference with other communication devices and the equipment is near the end of its useful life.
- CVWD's objective is design and install an upgraded radio communication network including analysis of available radio frequencies, upgrading radio equipment, creating a redundancy system and increasing efficiency of the network.
- This project will be a one year project to replace the District's 26 radio devices at an estimated cost of $266,000.

Crescenta Valley Water District

Long Term Capital Improvement Project Program Summary

Supervisory Control and Data Acquisition (SCADA) System Upgrade

- CVWD has an existing SCADA system with RTU/PLC's installed at each of the District's facilities. The existing system was installed in 1996 by Tesco Controls and the equipment, programing and integration are all proprietary to Tesco.
- CVWD's objective is to design and install an upgraded system such that the equipment, programing and integration are "universal" and can be installed, repaired and/or replaced by different companies.
- This project will be a two-year project for the design, new equipment, programing, integration at the District's 26 locations at an estimated cost of $684,000.

New Emergency Electrical Generator (Future)

- Future Project - Design and installation of a permanent emergency electrical generator with automatic transfer switch at CVWD's Mills Plant to operate Well 1, two (2) 150 Hp booster pumps, disinfection system and future nitrate removal treatment plant.

Seismic Sensors & Valve Actuators (Future)

- Design and installation of seismic sensors and valve actuators system on the inlet and outlet valves of the reservoir to turn the valves during an earthquake event to prevent water from flowing out of the reservoir during a downstream main break.
- Future Project - The seismic systems are to be installed at Ordunio, Oak Creek, Encinal and Ocean View Reservoirs.

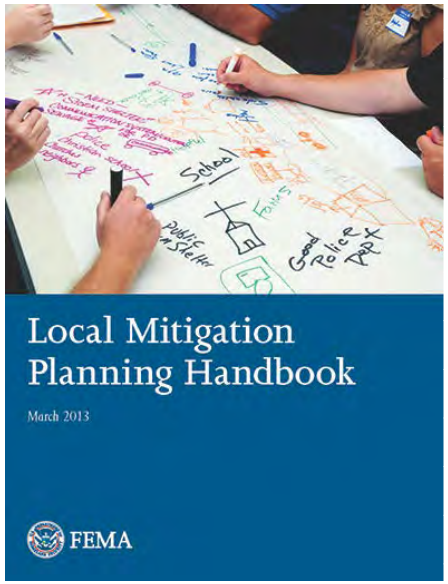
Local Hazard Mitigation Plan - FEMA Grant

- CVWD has been awarded a grant from Cal OES and FEMA to prepare a Local Hazard Mitigation Plan to address high priority hazards related to its water and sewer systems including drought, water shortage, energy shortage/outage, wildfire, earthquake, terrorim and cyber-attack.
- The Local Hazard Mitigation Plan requires coordination with local, state, and federal agencies, takes the "whole community" approach including non-profits, religious institutions, disability access and functional need groups, experts, or members of the public; and may also include a cross-section of the community, such as residents, community leaders, and business owners.

Crescenta Valley Water District

Long Term Capital Improvement Project Program Summary

- The Local Hazard Mitigation Plan will identify projects that could be funded through the Pre-Disaster Mitigation (PDM) program which makes Federal funds available to local communities to plan for and implement and sustain cost-effective measures designed to reduce the risk to individuals and property from natural hazards, while also reducing reliance on Federal funding from future disasters.

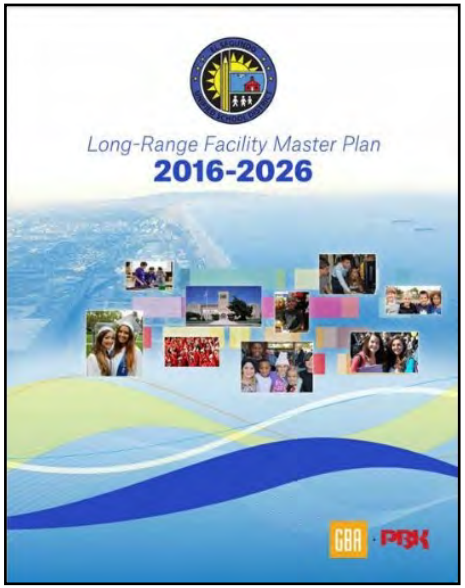


Williams Reservoir Site Evaluation and Improvement Study (Future)

- Future Project will be to prepare a site evaluation study based on updated topography, soils investigation and utility research to determine the most effect way to utilize the site for storage of material, cleaning of equipment and accessibility.
- Report will include preliminary site layouts and estimated construction costs to meet the District's needs.

New Roof – Old Encinal Concrete Reservoir for Storage

- CVWD has an existing 70 ft diameter concrete reservoir that is being used for storage of material and equipment with no roof. The material and equipment are exposed to the environment (rain, sun, etc.).
- The District wants to put a permanent roof over the existing structure and utilize the area for storage.
- This project will be a one-year project for design and installation of the new roof at an estimated cost of $125,000.



Facilities Maintenance Master Plan

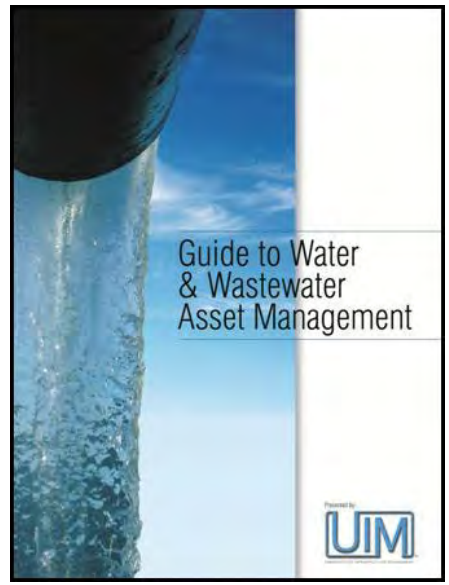
- CVWD's objective is to prepare a facilities maintenance master plan that will evaluate CVWD owned sites with respect to site improvements, roadway improvements, security, accessibility, worker's safety and miscellaneous improvements.
- The master plan will include a recommendation for improvements for each site and a preliminary cost estimate.
- The master plan would not include an evaluation of the reservoirs, booster pumps, motor control center and other large equipment.
- The results of the master plan will provide the District a road map for improving all sites within a 10-year period.

Crescenta Valley Water District

Long Term Capital Improvement Project Program Summary

Asset Management Study (Future):

- CVWD's objective is to prepare an asset management study that can be used to make sure that planned maintenance can be conducted and capital assets (pumps, motors, pipes, etc.) can be repaired, replaced, or upgraded on time and that there is enough funding available.
- Asset management programs with good data—including asset attributes (e.g., age, condition, and criticality), life-cycle costing, proactive operations and maintenance, and capital replacement plans based on cost-benefit analyses—can be the most efficient method of meeting this challenge.



RESCENTA VALLEY WATER DISTRICT
STAFF REPORT

Information Item No. 2

To: Honorable President and Members of the Board of Directors — May 8, 2020

From: David S. Gould. P.E. – Director of Engineering

Subject: **Project Update – Disinfection Conversion to Chloramines, Project E-995**

INFORMATION ITEM:

Disinfection Conversion to Chloramines, Project E-995

Project update of CVWD's disinfection 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 the additional chlorine needed to achieve breakpoint chlorination in the system; caused an increase in TTHMs levels at the four (4) regulatory compliance points within the distribution system.

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 how chlorine residual levels are adjusted. The results from these operational changes and the data from the study as shown on the attached charts show that there was significantly reduction in the TTHM levels were over the last year.

Staff and its consultants have been working over the past year on the installation of the ammonia injection systems at the Glenwood, Mills plants, Pickens Canyon Tunnel and Well 2, chlorine analyzers at all reservoir sites, SCADA programing and integration upgrades, water main flushing, and coordination with DDW.

DISCUSSION:

The following tasks have been completed:

- 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.
- 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.
- 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 connection to CVWD's SCADA system.
- Water Main Flushing – 111 dead-end locations throughout the distribution system using the "No-Des" technology that saved over 700,000 gallons of water.
- SCADA programing and integration – Upgrades to SCADA programing that included the new ammonia injection system and integration of the process to create chloramines.
- Design and installation of ammonia injection system and SCADA programming and integration at Pickens Canyon Reservoir & Well 2
- Upgrading existing chlorine analyzers with new chlorine probes and controllers

Staff has submitted an amended permit application to DDW, and the permit application is under review. Staff anticipates DDW will approve the permit by the end of May 2020. Staff is also working with consultants and operations on preparing and implementing standard operating procedures for converting to chloramines

Next Step: Conversion to Chloramines

The next step will be to convert the water distribution system to chloramines and when this should occur. Staff has been looking at two options based on the current daily staffing levels (which has been reduced due to the COVID-19 Pandemic), the water demands on the system (i.e. summer high demands vs. winter low demands) and the current TTHM levels at the compliance locations.

Option 1: Change Disinfection in July/August 2020

Staff anticipates DDW approval by the end of May 2020 and as shown by the Option 1 schedule below, the distribution system could be changed over by early August 2020. The advantages to convert in July/August are that the higher demands will move the chloramine water through the system at a faster rate, TTHM levels probably will remain below the MCL even with the additional imported water and total conversion can be completed in a shorter period. The disadvantages are that the higher water temperatures could create nitrification within a reservoir at a higher rate, increasing the need for additional water quality sampling. This would require additional staff time and due to COVID-19, we have reduced the number of operators during the day.

Option 1 Schedule:

ID No	Task	Description	April				May				June					July				August			
			6	13	20	27	4	11	18	25	1	8	15	22	29	7	14	21	28	4	11	18	25
1	DDW Approval	Submitted - 4/20; Approve - 5/31																					
2	Public Outreach	Annual WQ Report & Flyer																					
3	Conversion Update/Schedule mtg	Team Meeting																					
4	Project - Walk through	Injection Pts; Cl2 Analyzer; SCADA																					
5	Nitrification - SOP	Prepare, Review & Approve																					
6	Sampling Plan	Prepare, Review & Approve																					
7	Pre-Conversion Mtg/Action Items	Team Meeting																					
8	Ammonia - Set up/Order	Order/ Fill																					
9	Conversion Mtg	Team Meeting																					
10	Convert - FMWD	Shutdown wells, take FMWD; WQ testing																					
11	Chloramine System Testing	Test Chlorine & Ammonia System																					
12	Convert - Wells	Wells on; combine with FMWD																					
13	Reservoir WQ testing	Baseline; Total Cl & Nitrite																					

Option 2: Change Disinfection in Oct/Nov 2020

Again, Staff anticipates DDW approval by the end of May 2020 and as shown by the Option 2 schedule below, the distribution system could be changed over by early November 2020. The advantages to converting in October/November are that the lower water demands will allow Staff to closely monitor the chloramine conversion through the distribution system and reduce the probability of nitrification with lower water temperatures. It is probable that COVID-19 staff reductions will be lifted, and staff will be back to a full-time schedule. The disadvantages are that increased imported water during the high demand season could increase the levels of TTHM's in the system and therefore, the water system storage capacity would continue to be at reduced levels during the high demand season. However, based on communication with MWD staff, it is likely that MWD will utilize more Colorado River water than usual this summer, which is lower in organics that contribute to higher TTHMs.

Option 2 Schedule:

ID No	Task	Description	April				May				June					July				August				September				October				November			
			6	13	20	27	4	11	18	25	1	8	15	22	29	7	14	21	28	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24
1	DDW Approval	Submitted - 4/20; Approve - 5/31																																		
2	Public Outreach	Annual WQ Report & Flyer																																		
3	Conversion Update/Schedule mtg	Team Meeting																																		
4	Project - Walk through	Injection Pts; Cl2 Analyzer; SCADA																																		
5	Nitrification - SOP	Prepare, Review & Approve																																		
6	Sampling Plan	Prepare, Review & Approve																																		
7	Pre-Conversion Mtg/Action Items	Team Meeting																																		
8	Ammonia - Set up/Order	Order/ Fill																																		
9	Conversion Mtg	Team Meeting																																		
10	Convert - FMWD	Shutdown wells, take FMWD; WQ testing																																		
11	Chloramine System Testing	Test Chlorine & Ammonia System																																		
12	Convert - Wells	Wells on; combine with FMWD																																		
13	Reservoir WQ testing	Baseline; Total Cl & Nitrite																																		

RECOMMENDATION:

It is staff's recommendation is to change over the disinfection system in October/November 2020 as this will allow us to be better prepared for the conversion as well as work through the COVID-19 staff situation.

Submitted & Prepared by:

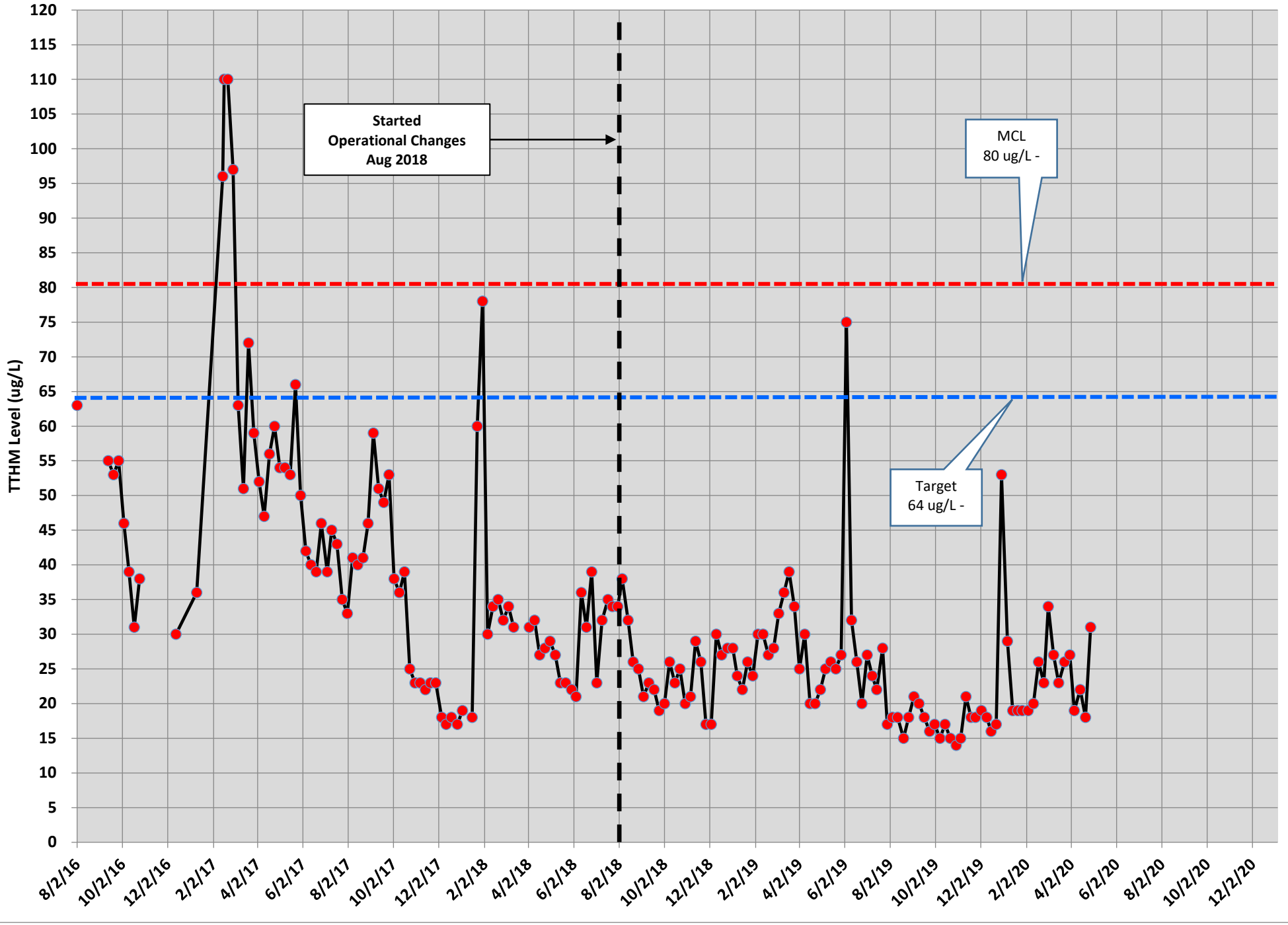
David S. Gould, P.E.
Director of Engineering

Attachments:

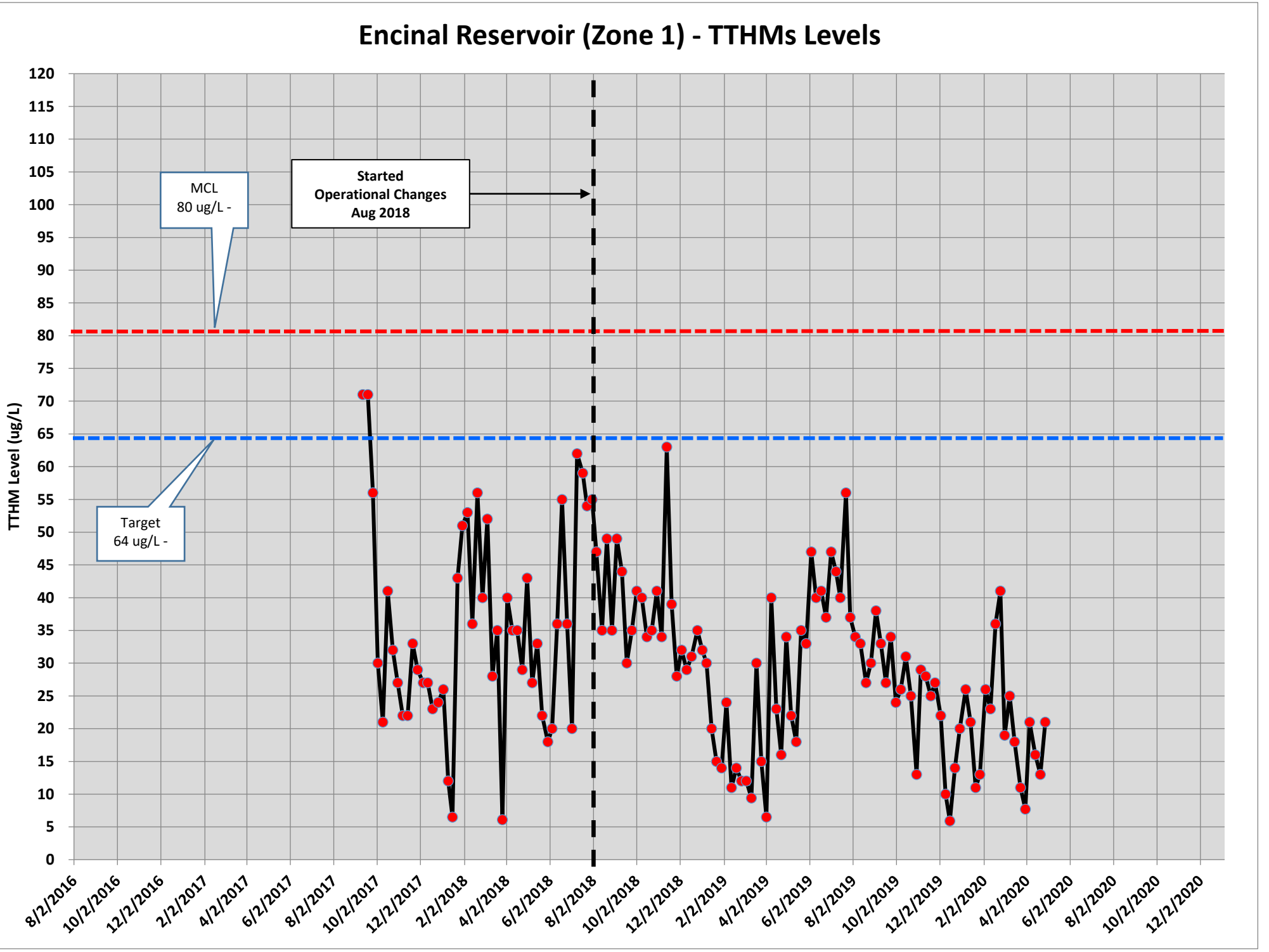
1. TTHM Reservoir site charts & TTHM Compliance charts

g:\engineering committee\2020 ec memo\05-08-20 ecm - e-995 disinfection process upgrades - update 18.docx

FMWD at Paschall Booster - TTHM's Levels



Date: 5/7/2020


Encinal Reservoir (Zone 1) - TTHMs Levels
TTHM Level (ug/L)
MCL
80 ug/L -
Started
Operational Changes
Aug 2018
Target
64 ug/L -
120
115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
8/2/2016
10/2/2016
12/2/2016
2/2/2017
4/2/2017
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2/2/2020
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6/2/2020
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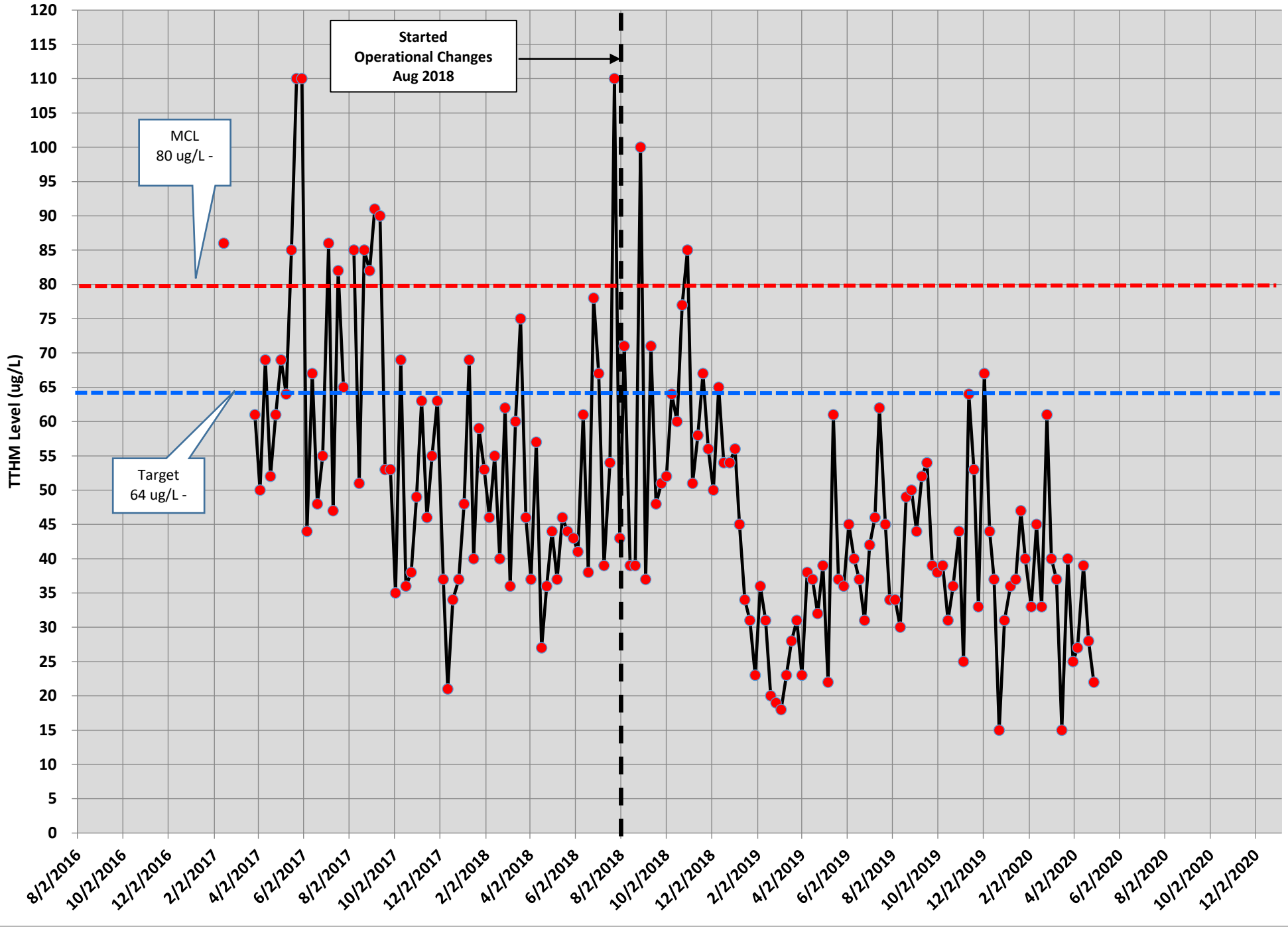
10/2/2020
12/2/2020

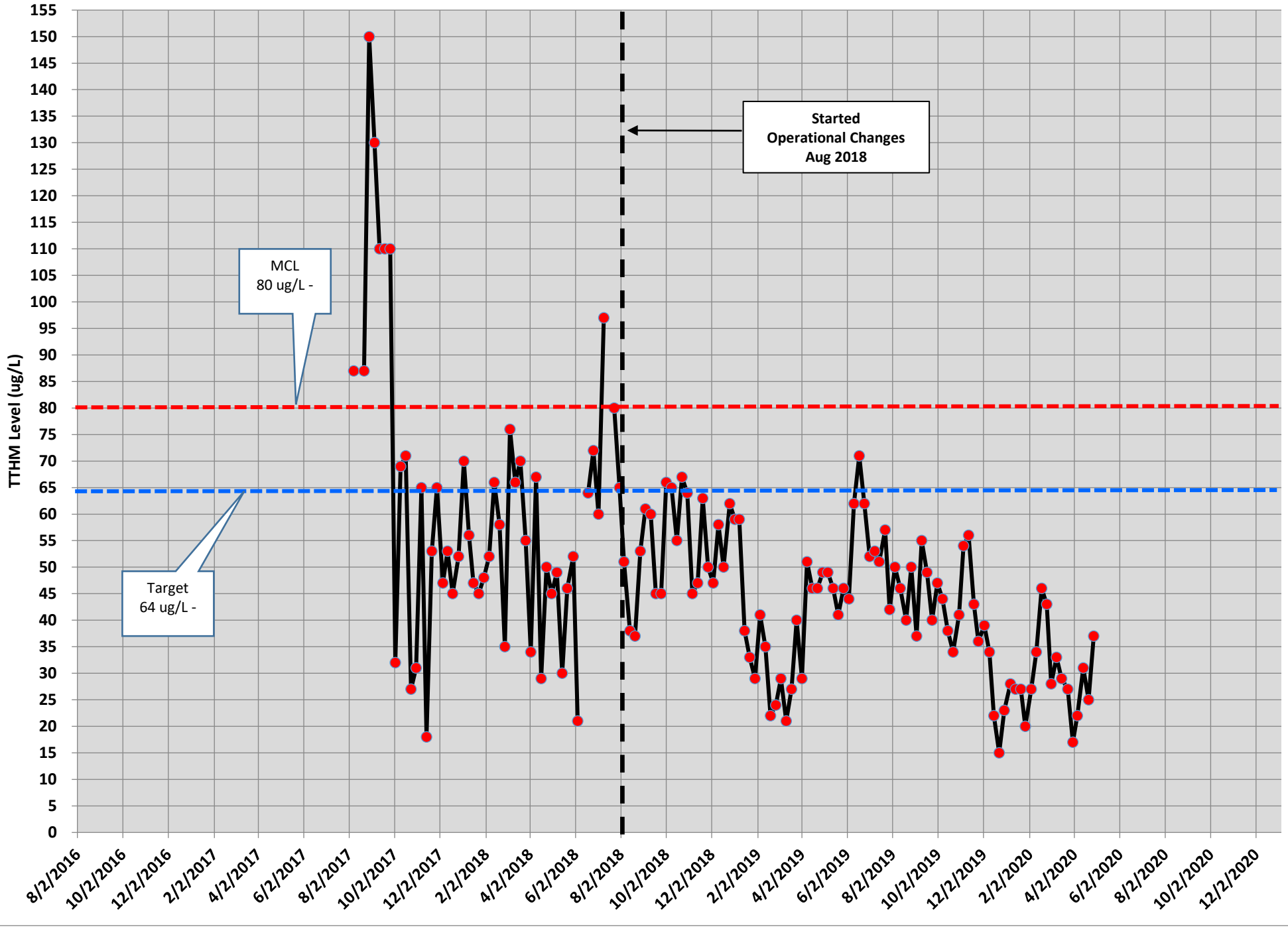
Date: 5/7/2020

Williams Reservoir (Zone 2) - TTHMs Levels



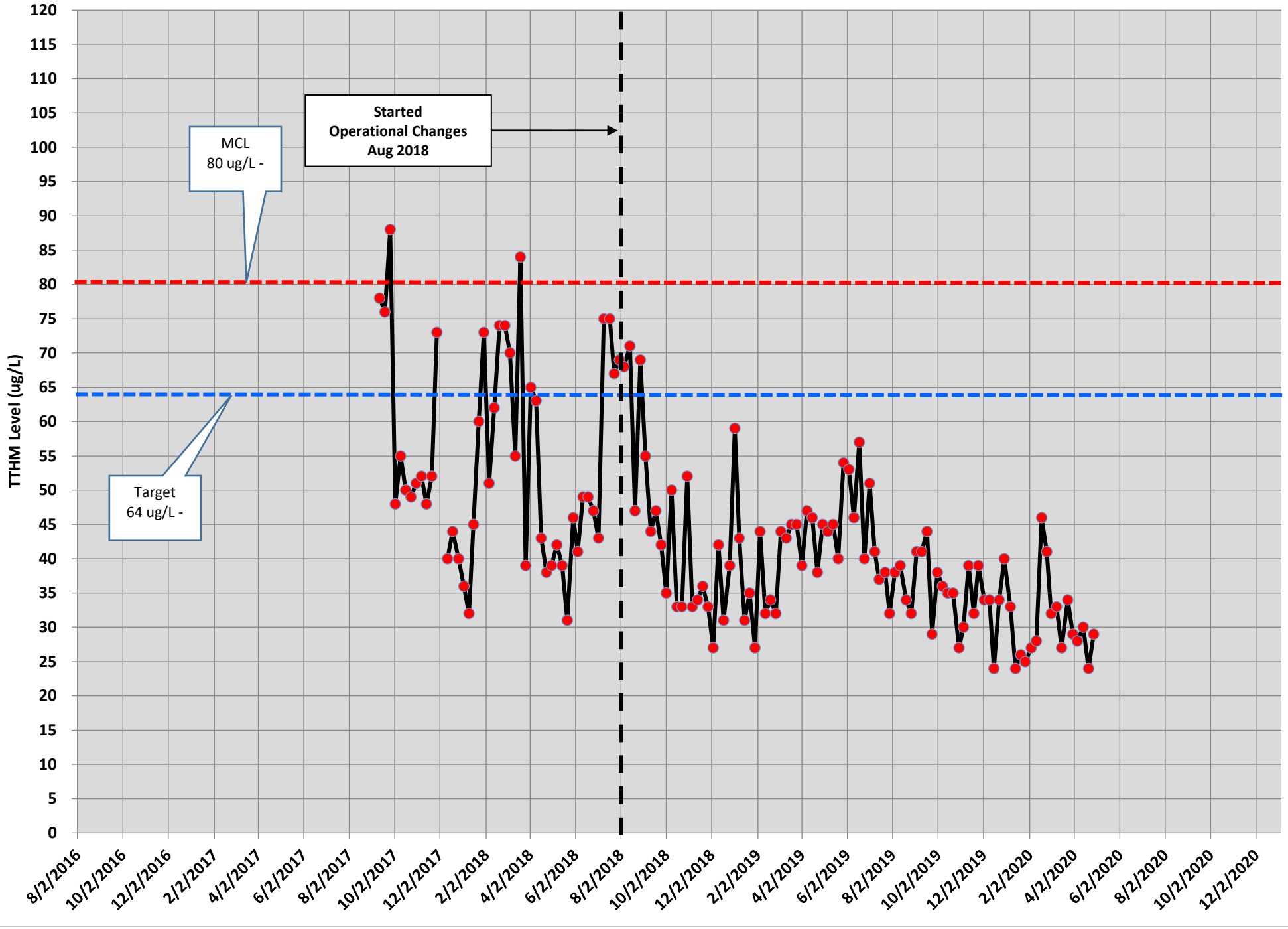
Date: 5/7/2020

Ordunio Reservoir (Zone 2) - TTHMs Levels



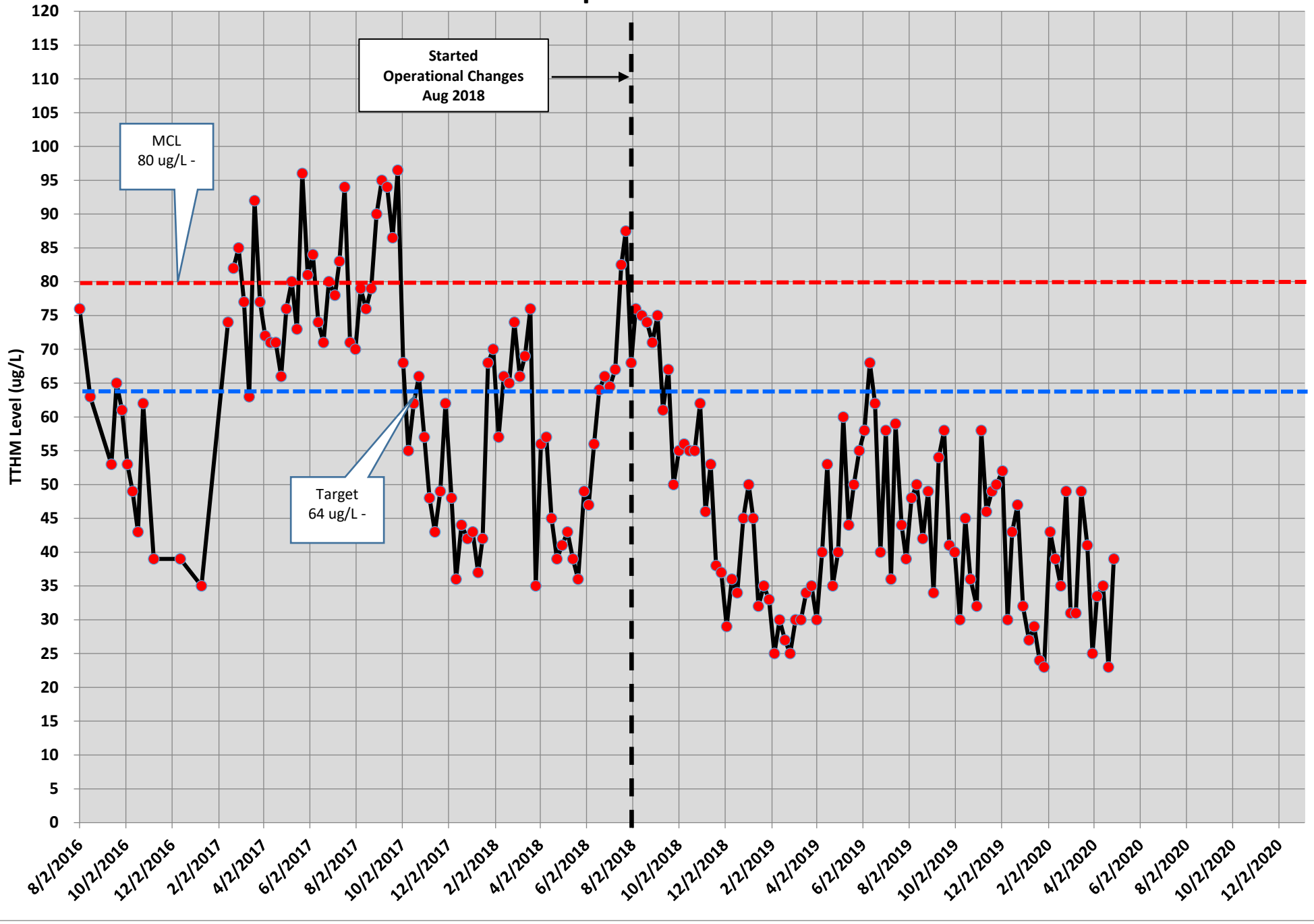
Date: 5/7/2020

Rosemont Reservoir (Zone 3) - TTHMs Levels



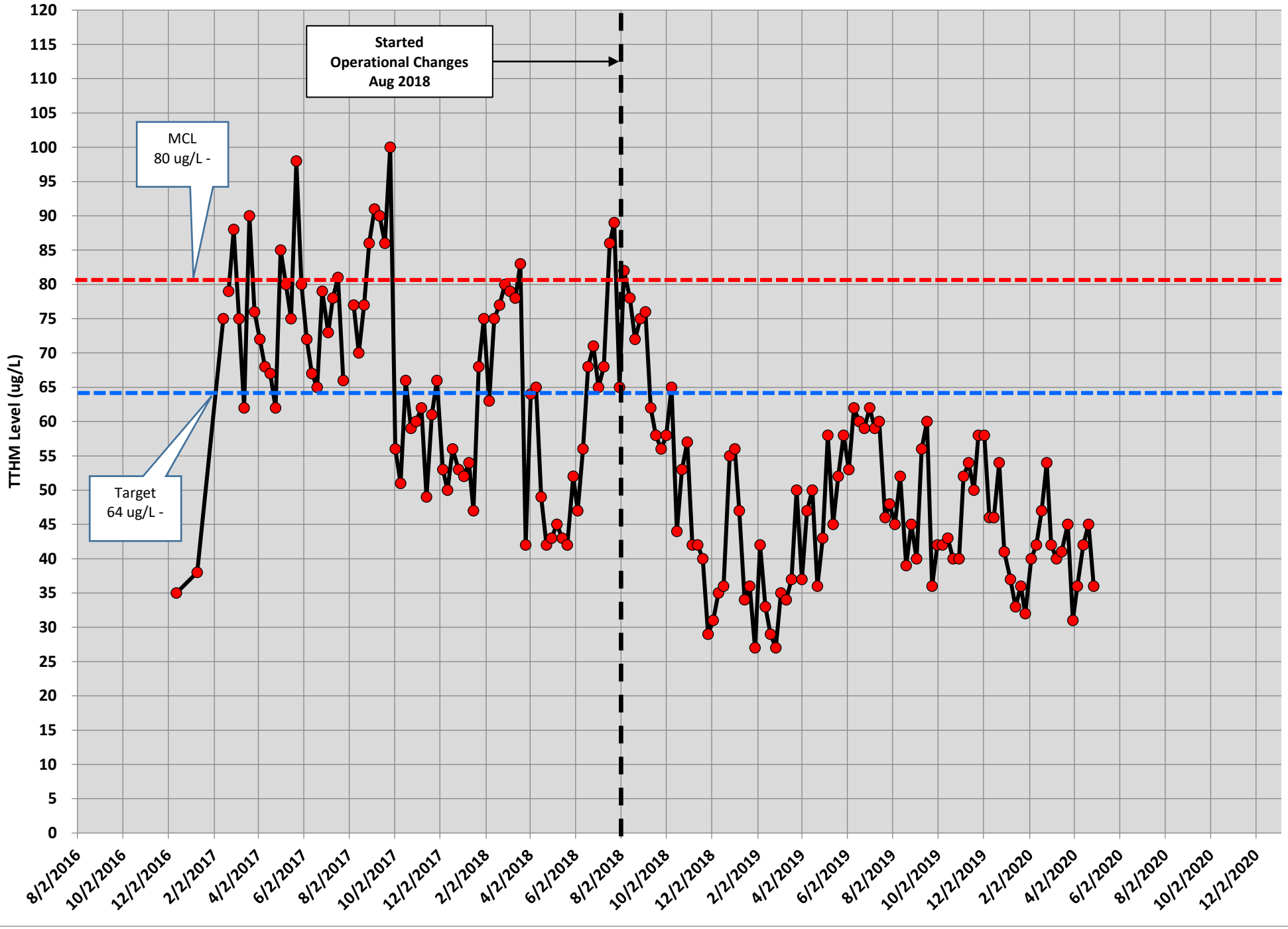
Date: 5/7/2020

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



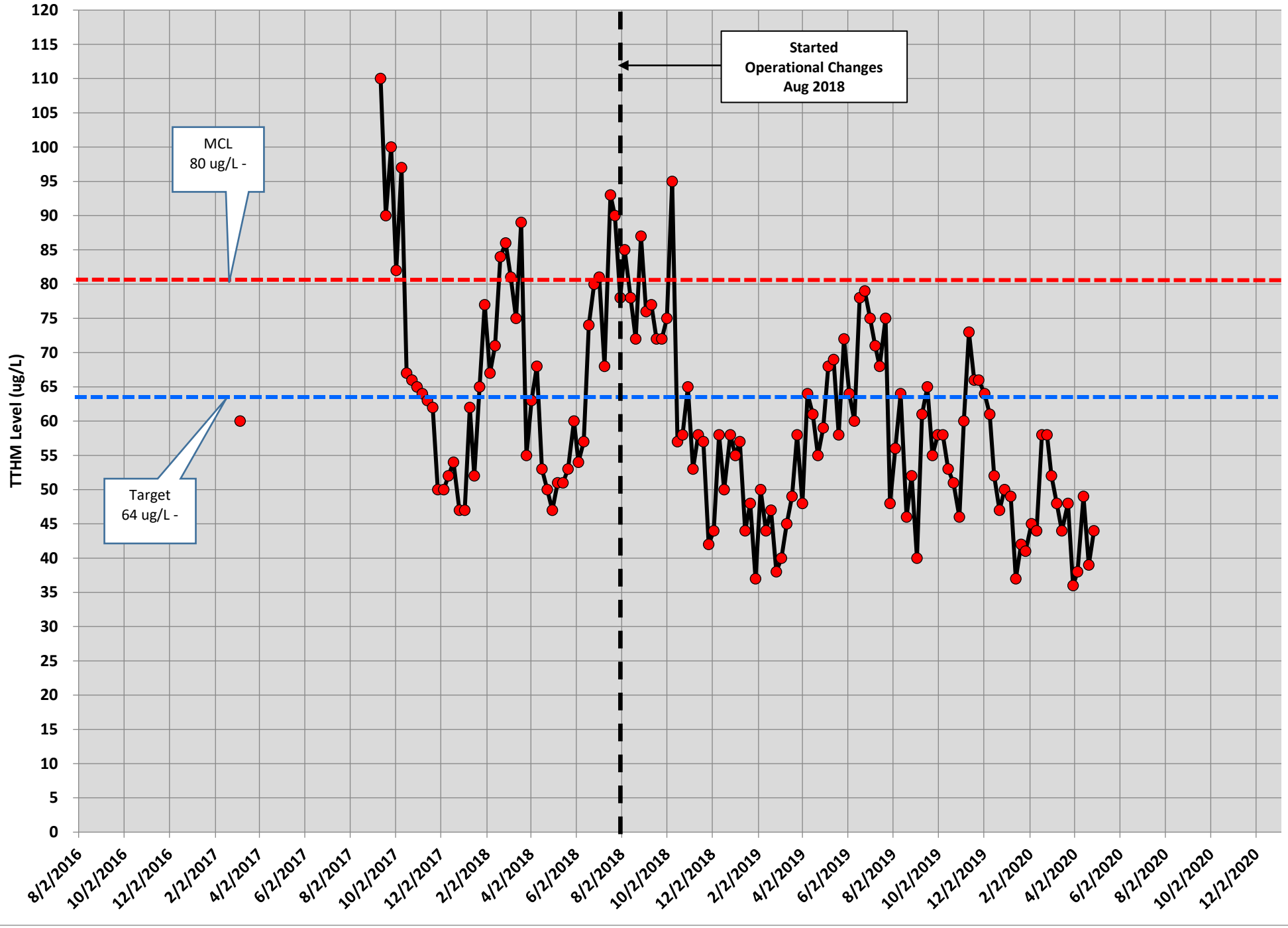
Date: 5/7/2020

Markridge Reservoir (Zone 5) - TTHMs Levels



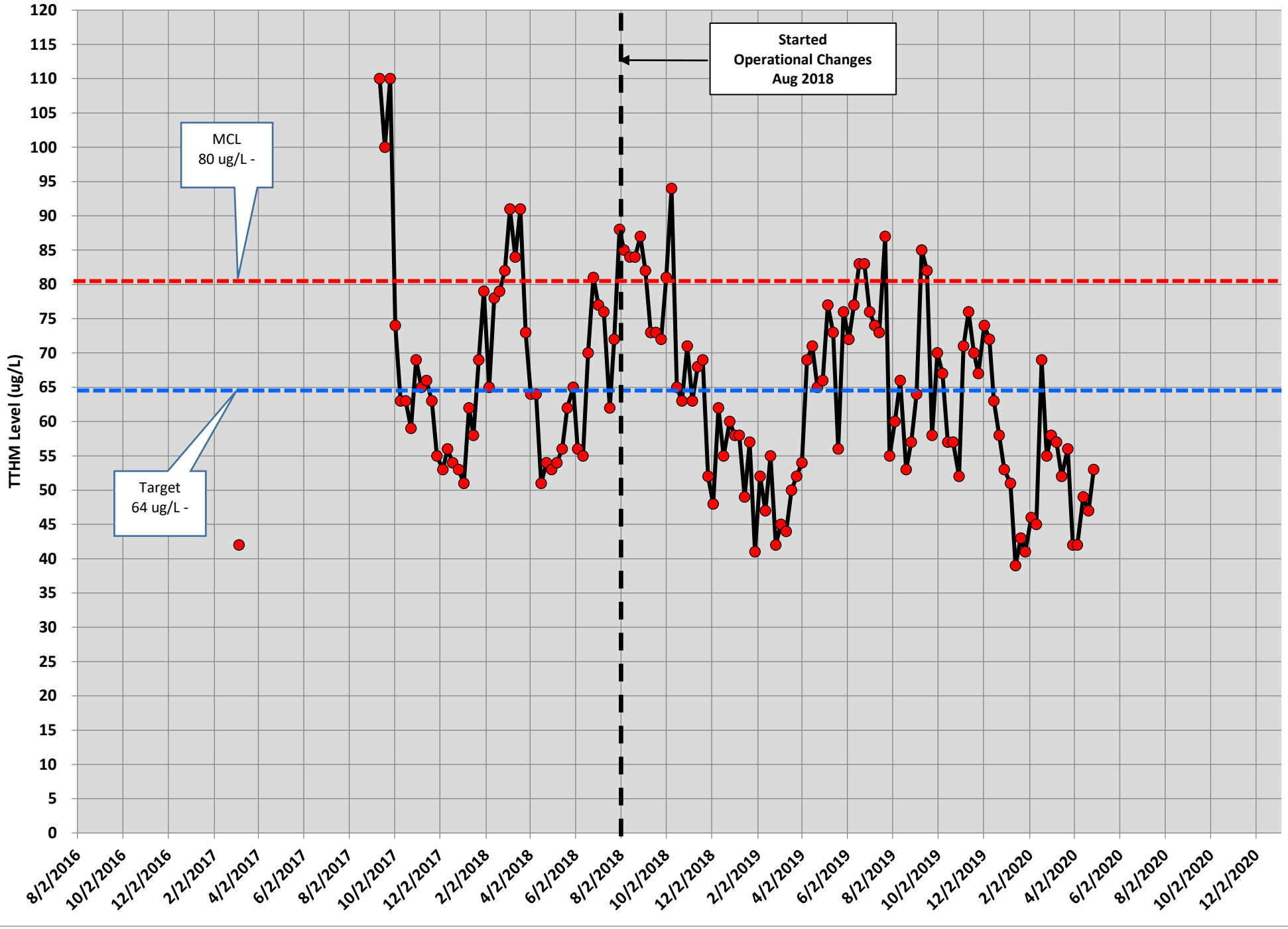
Date: 5/7/2020

Eagle Canyon Reservoir (Zone 5) - TTHMs Levels



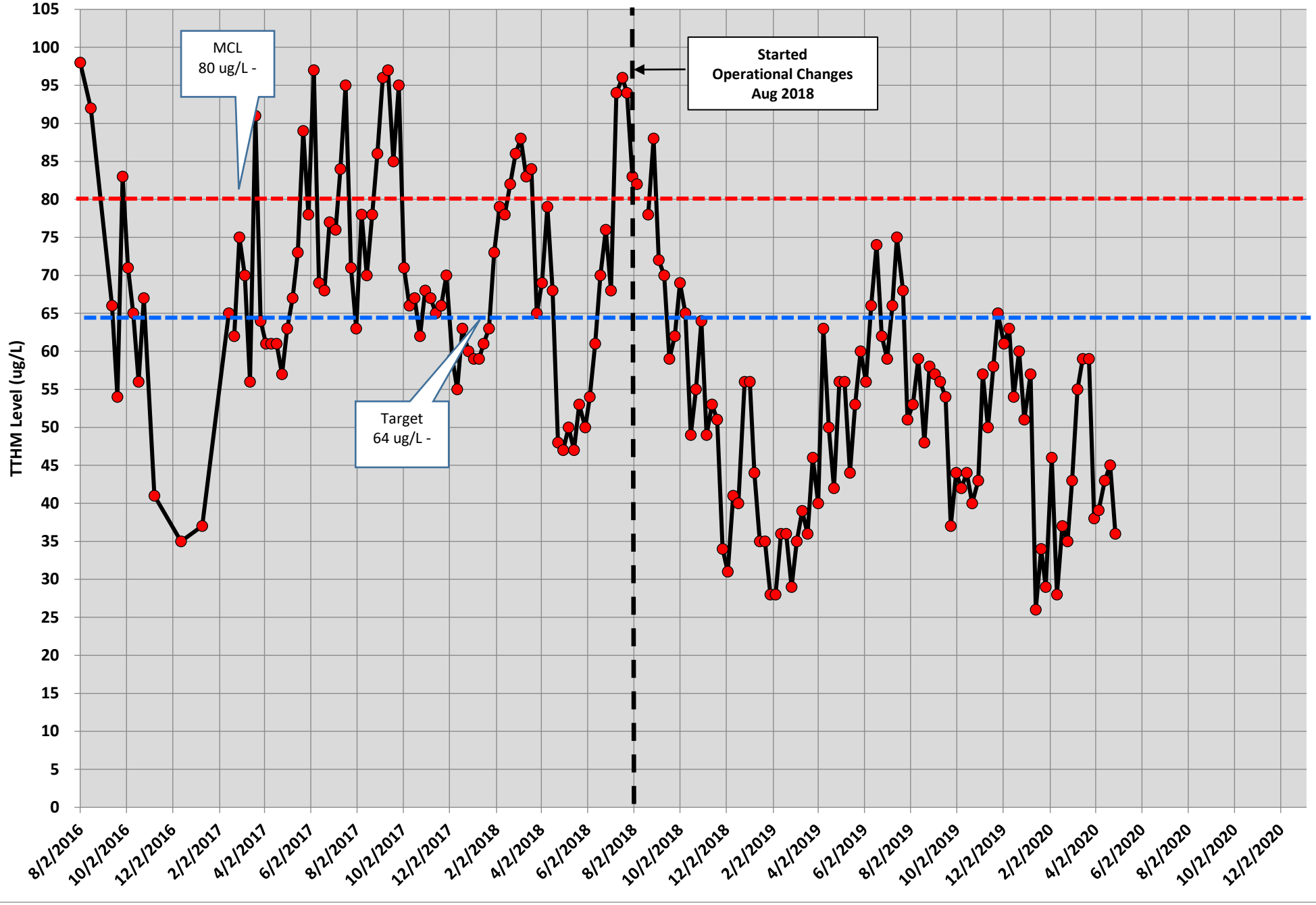
Date: 5/7/2020

Goss Canyon Reservoir (Zone 6) - TTHMs Levels



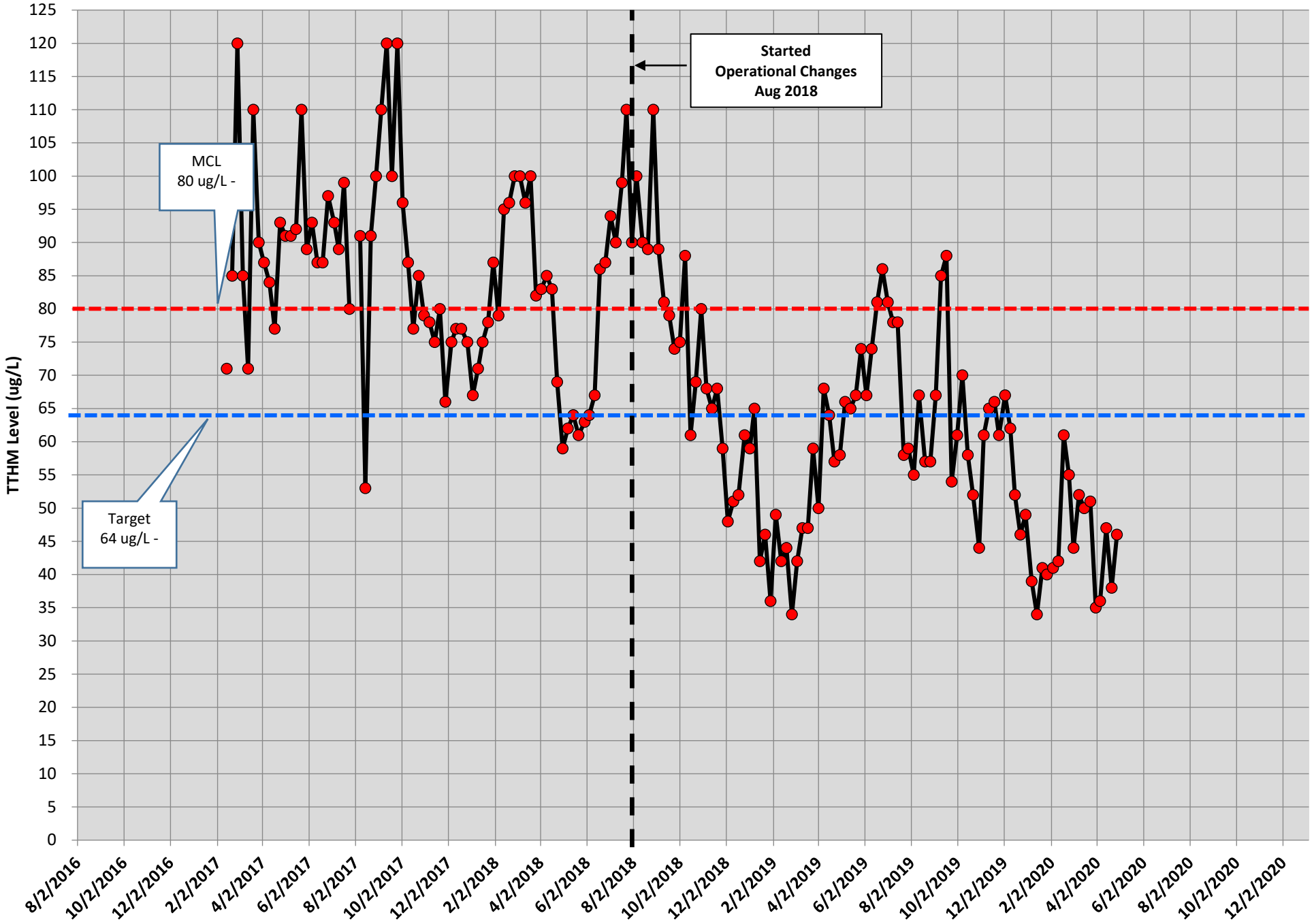
Date: 5/7/2020

Dunsmore Reservoir (Zone 7) - TTHMs Levels
Compliance Location



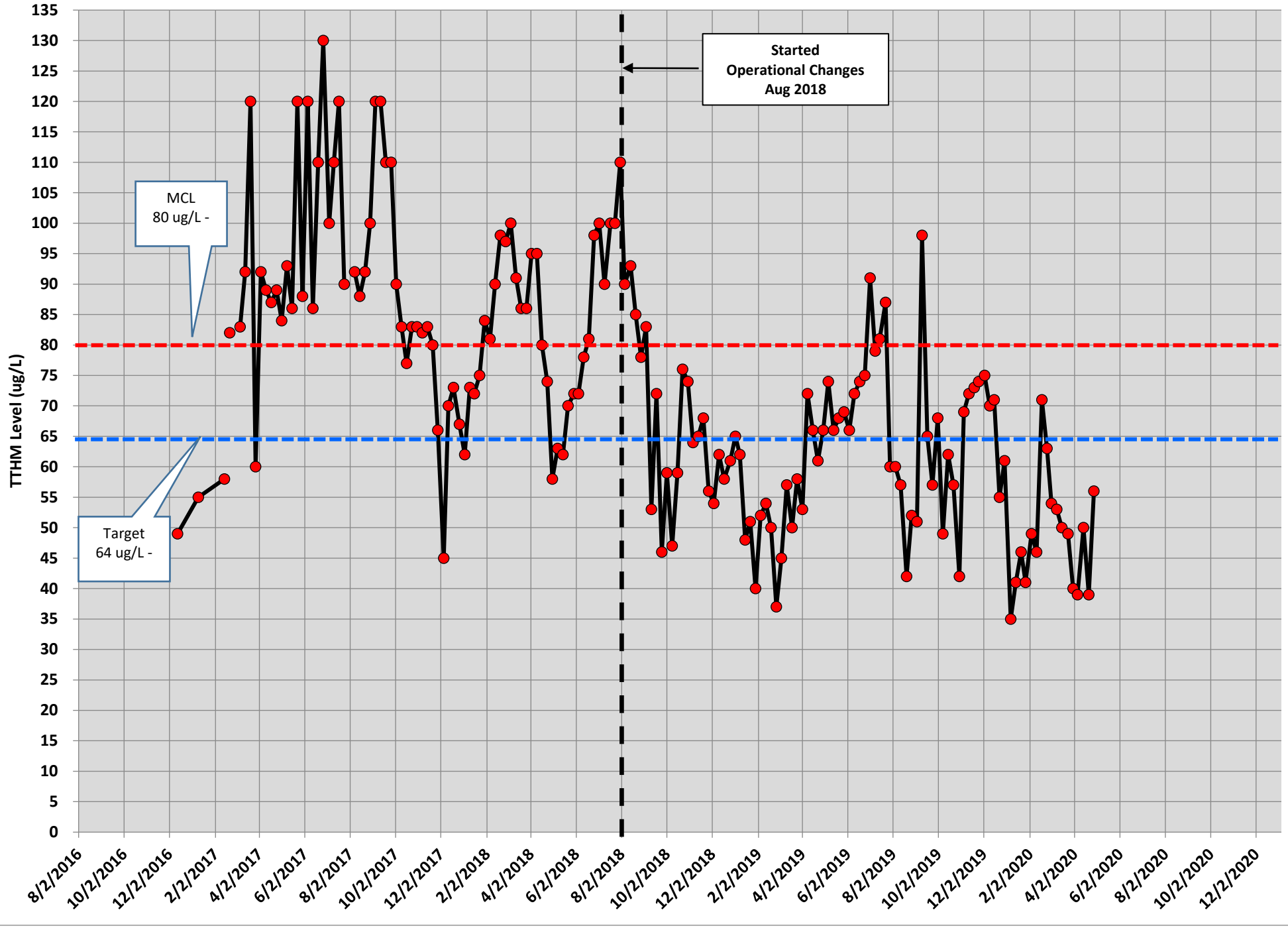
Date: 5/7/2020

Cresta Heights Reservoir (Zone 8) - TTHMs Levels



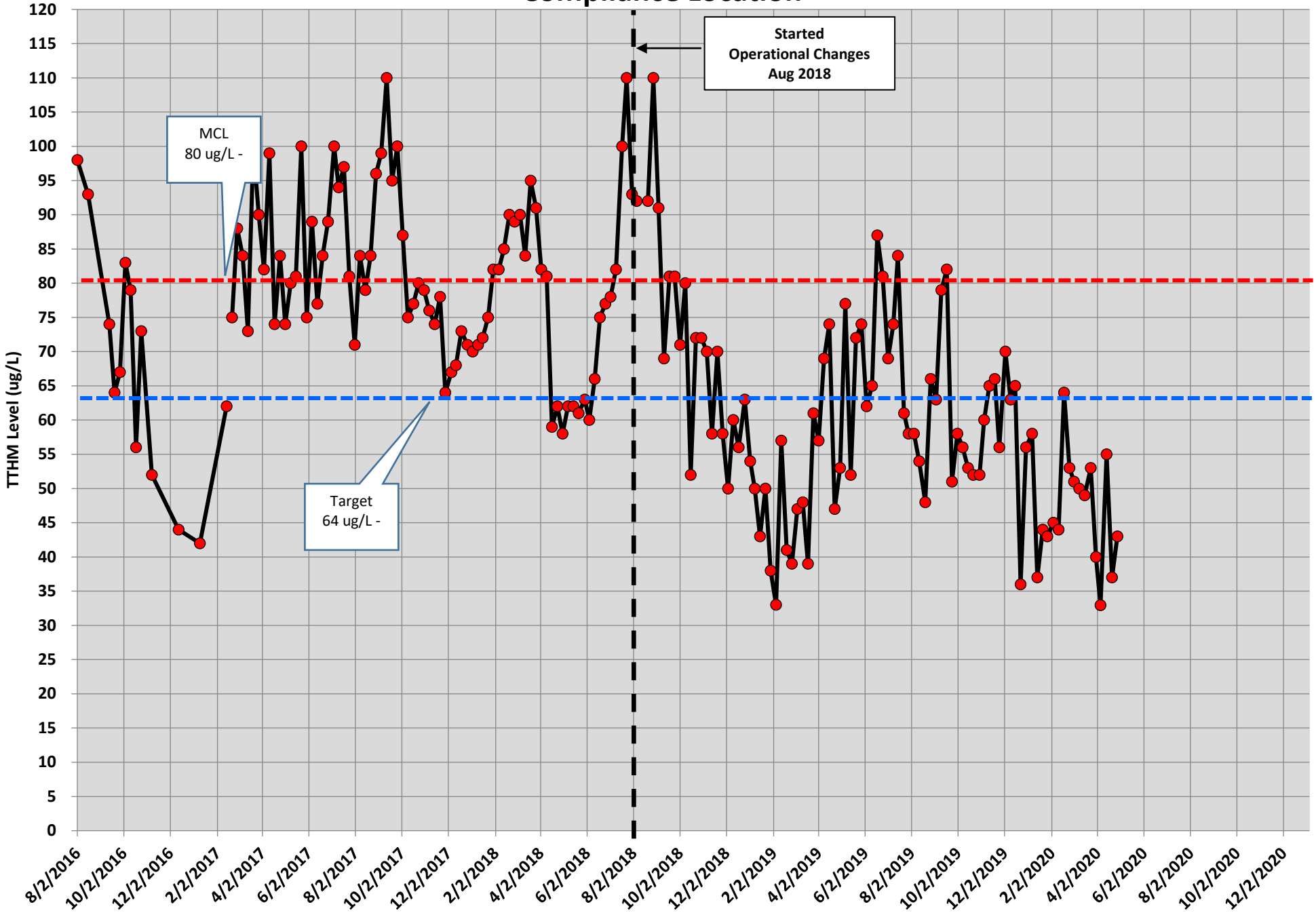
Date: 5/7/2020

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



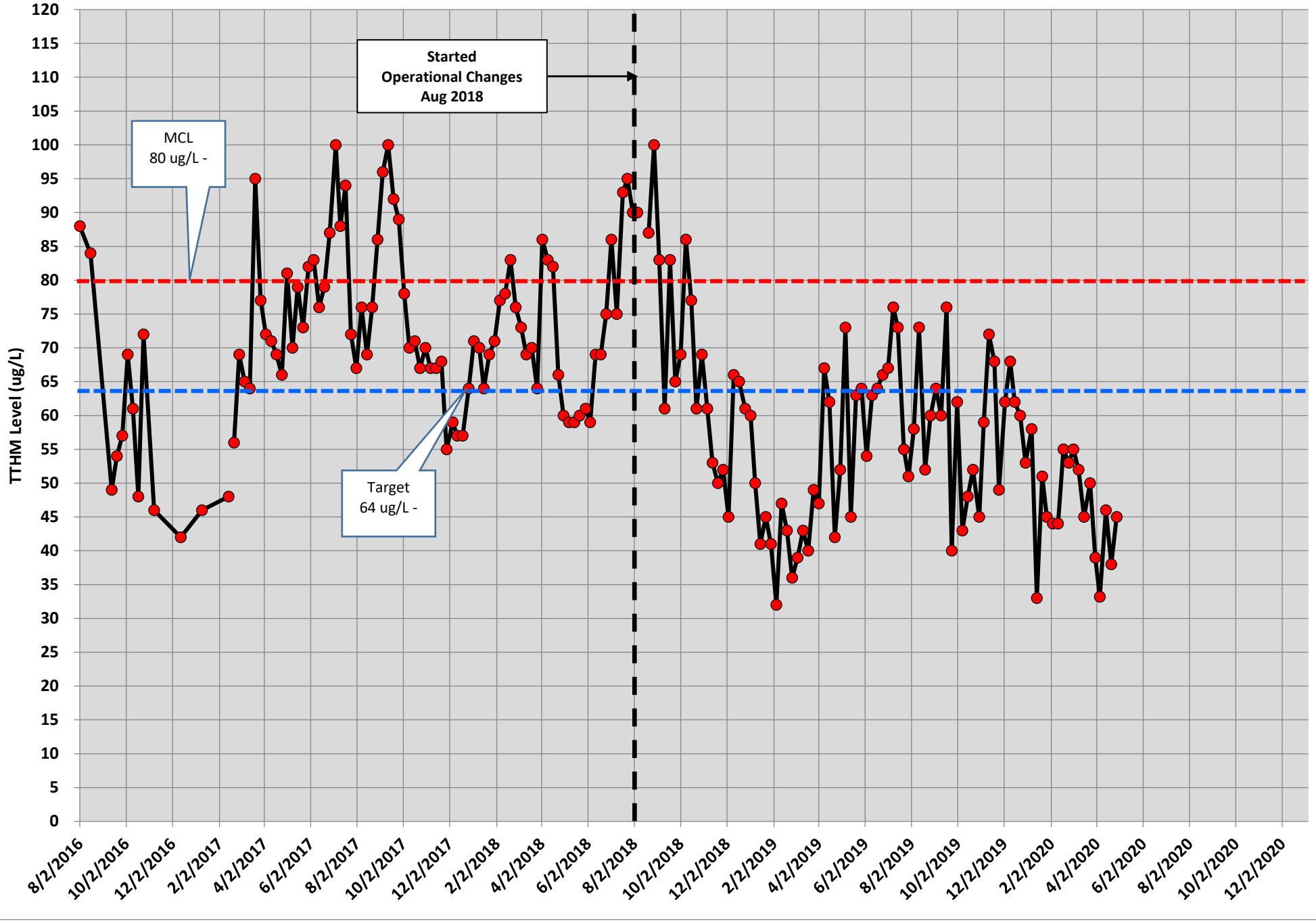
Date: 5/7/2020

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



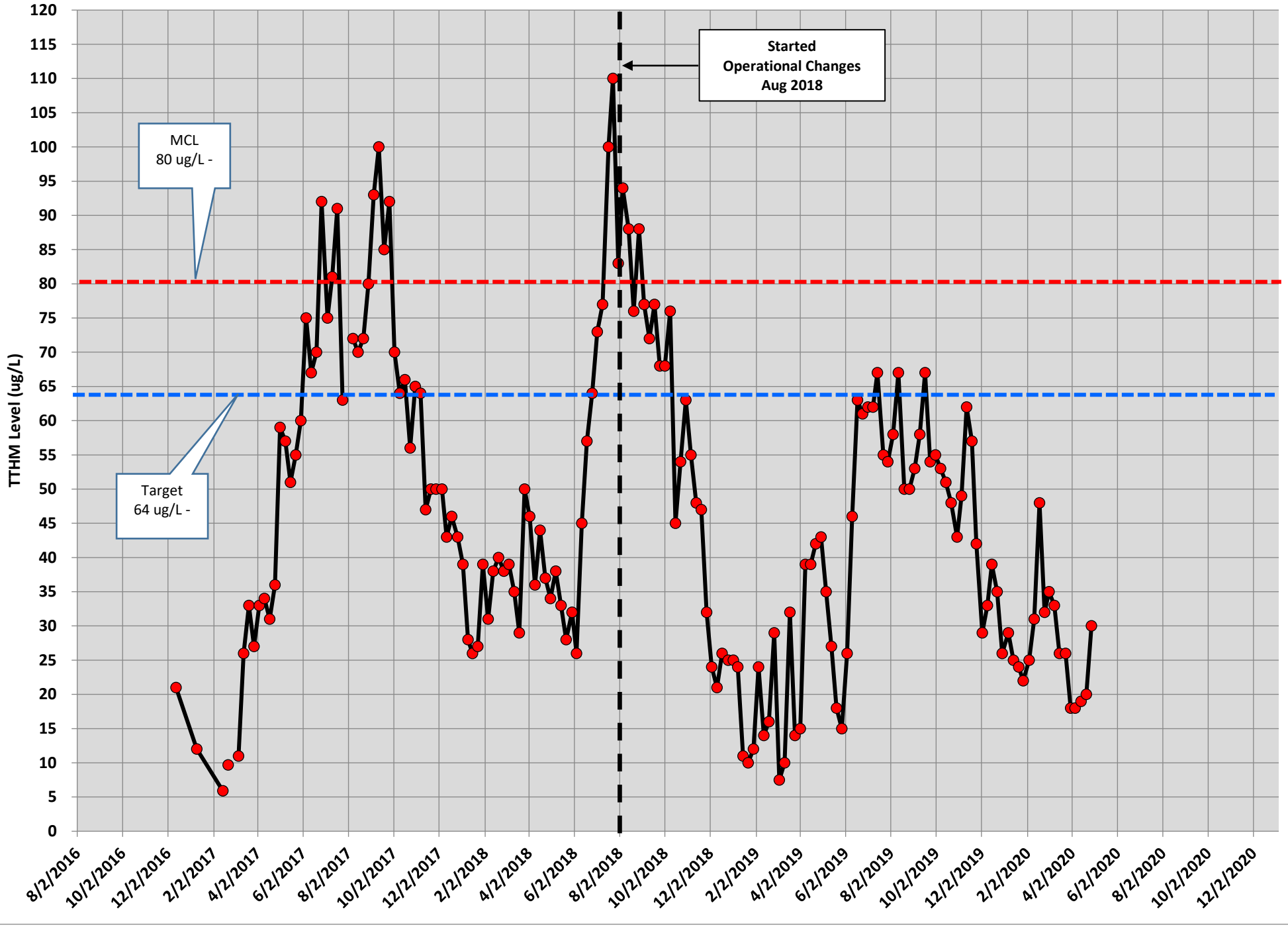
Date: 5/7/2020

Shields Reservoir (Zone 10) - TTHMs Levels
Compliance Location



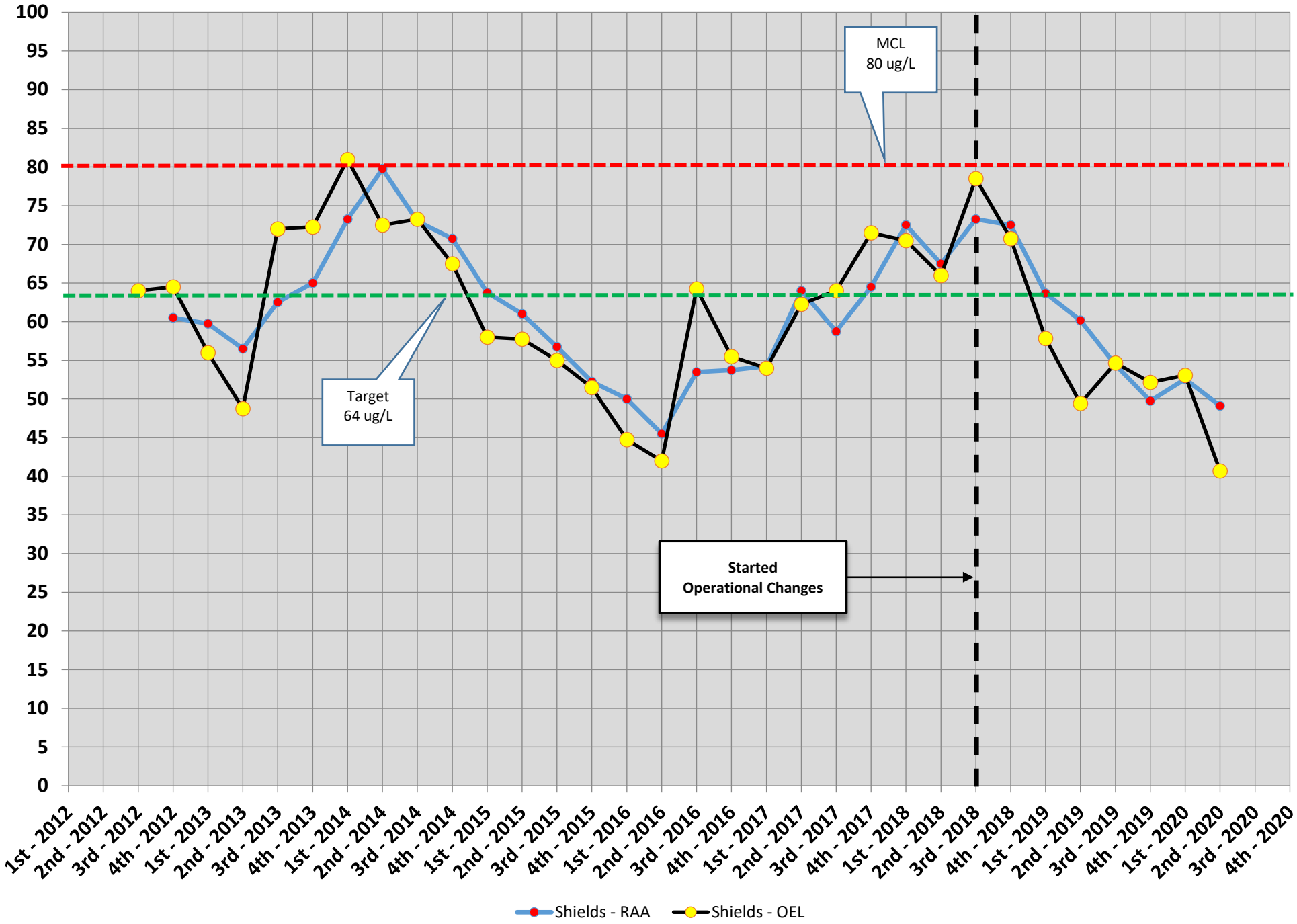
Date: 5/7/2020

Pickens Reservoir (Zone 11) - TTHMs Levels



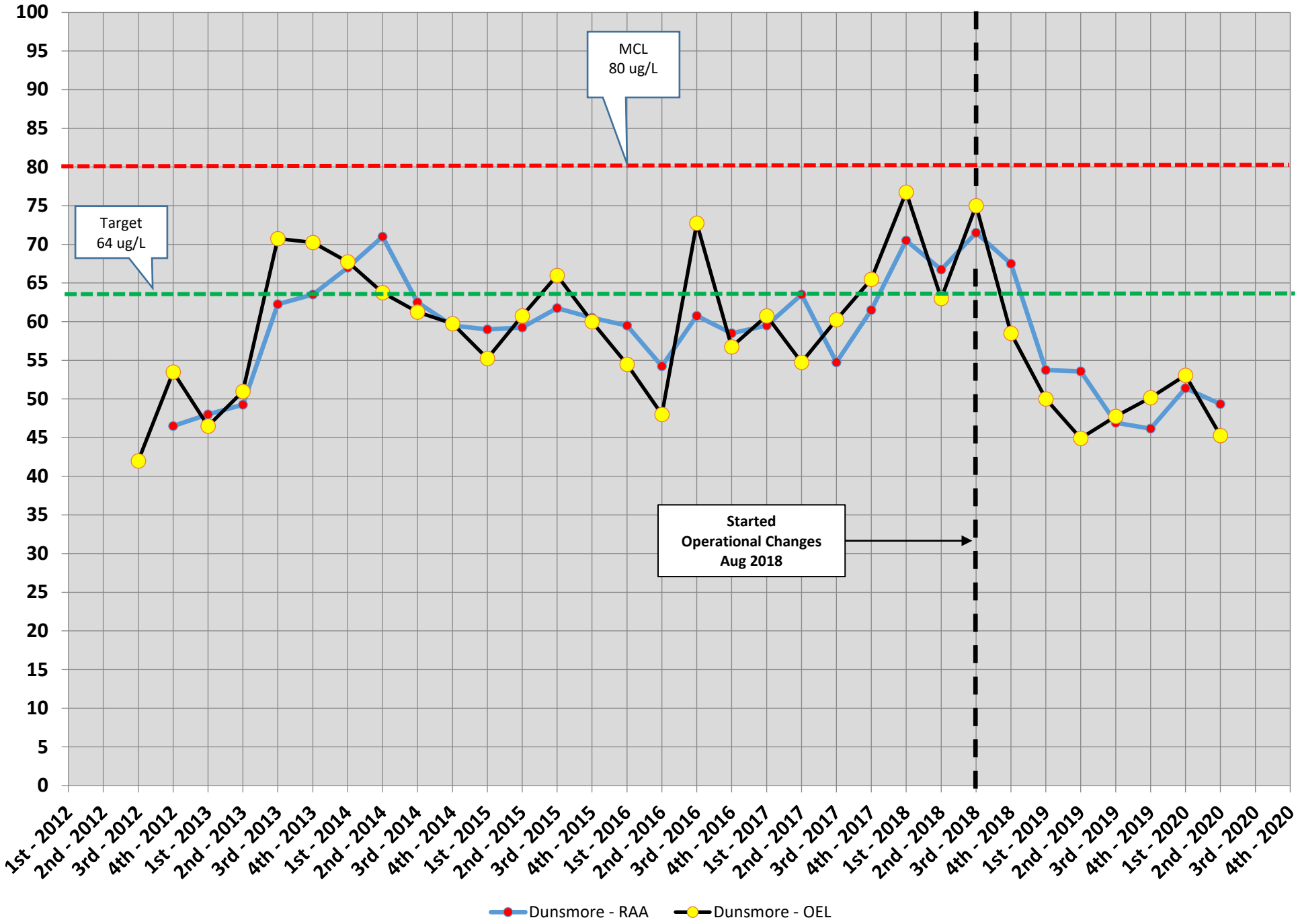
Date: 5/7/2020

Shields - Quarterly TTHM - Running Annual Average 2012 - 2020



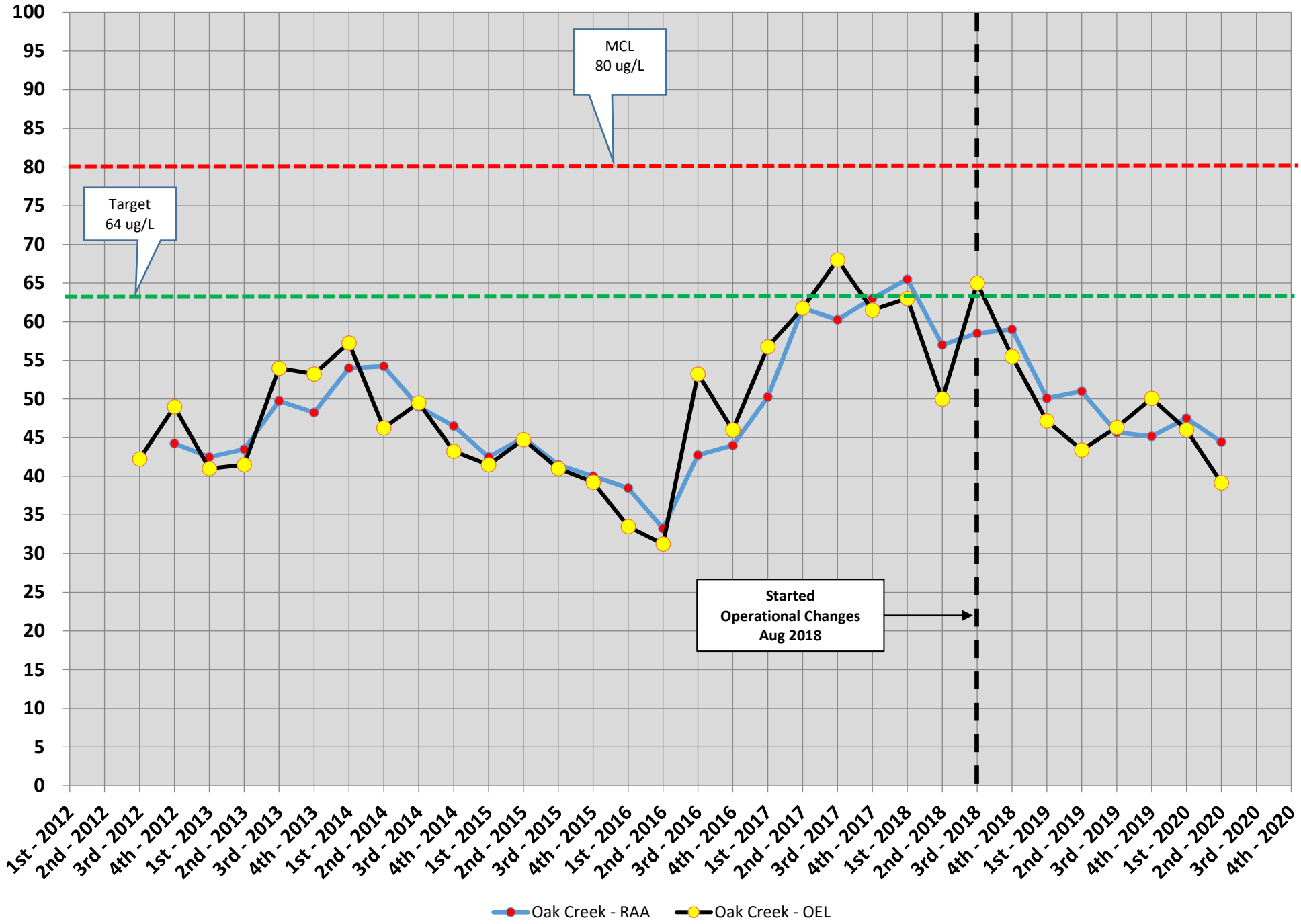
Date: 5/7/2020

Dunsmore - Quarterly TTHM - Running Annual Average 2012 - 2020



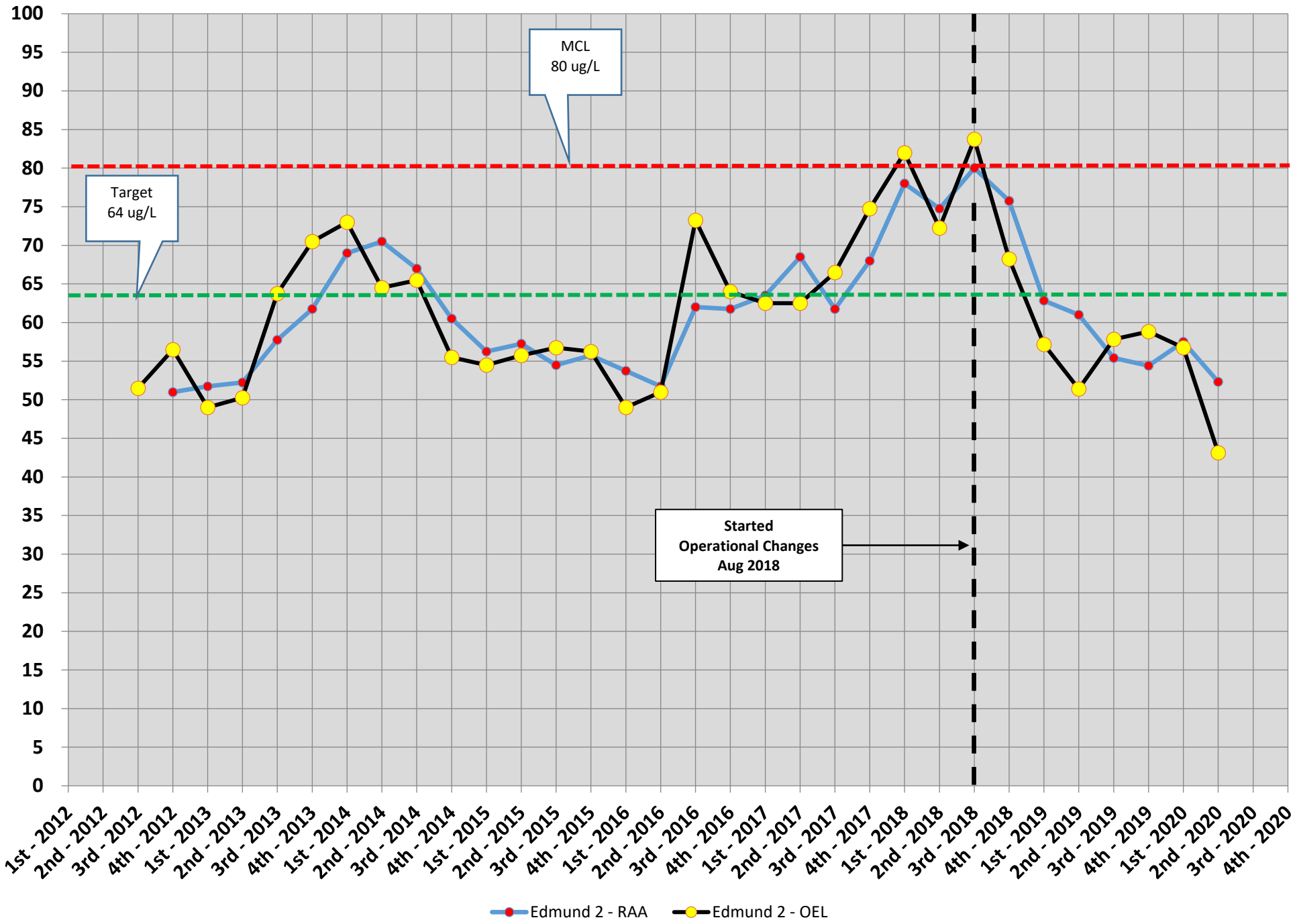
Date: 5/7/2020

Oak Creek - Quarterly TTHM - Running Annual Average 2012 - 2020



Date: 5/7/2020

Edmund II - Quarterly TTHM - Running Annual Average 2012 - 2020



Date: 5/7/2020

CRESCENTA VALLEY WATER DISTRICT
STAFF REPORT

Information Item No. 3

To: Honorable President and Members of the Board of Directors May 8, 2020

From: Brook Yared, P.E. – Senior Engineer

Subject: **CVWD Wastewater System – Review of Agreement with City of Los Angeles**

BACKGROUND:

The Crescenta Valley Water District (CVWD) has maintained and operated its own wastewater collection system since construction of the collection system was completed in the mid-1980s. In order to cost effectively treat and dispose of all its wastewater, CVWD entered into an agreement with the City of Los Angeles in May of 2005 for the conveyance and treatment of our wastewater flows. All of CVWD's wastewater merges into a large trunk sewer line (Interceptor) that travels to the Los Angeles and Glendale Water Reclamation Plant (LAGWRP) located in the City of Los Angeles. The majority, 98% or more, of CVWD's wastewater is treated at LAGWRP. CVWD does generate a small volume of high brine waste associated with the Glenwood Nitrate Removal Facility that is sent to the Hyperion Treatment Plant.

DISCUSSION:

The cost of CVWD's treatment contract with the City of Los Angeles Bureau of Sanitation (City) is comprised of 2 major components, the first being a capacity increase charge (ASSFC), which is based on bi-monthly reporting of development in the Crescenta Valley. The second charge, Amalgamated System Sewerage System Charge (ASSSC), covers the costs of Capital Improvement, Operations and Maintenance, and treatment costs of the amalgamated system.

ASSFC Monitoring and Reporting: Similar to CVWD's connection fees, the City charges CVWD a fee based on additions made to homes in our service area to cover the cost of an increase in design capacity of the amalgamated system. This is largely a pass-through cost that is paid for by developers, plus an additional 10% administrative fee. CVWD reports all paid development work to the City and transfers all ASSFC funds collected to the City on a bimonthly basis.

The costs for ASSFCs are recalibrated every year. A template and transmittal (see attached) are provided to CVWD along with a list of predefined sewage generation factors. While most of the numbers provided by the City are calculated based on development work and conveyance data across all 26 participating agencies, CVWD provides an annual report to the City in order to calculate the MGD-Miles. This number captures the amount of miles of conveyance pipe each agency utilizes in proportion to their capacity.

MGD-miles can vary from numbers calculated by staff. Occasionally, LAGWRP is not able to treat all wastewater flows it receives. During high flow periods, excess wastewater capacity is conveyed to the Hyperion Treatment Plant, which represents an additional seventeen (17) miles of conveyance. This unknown quantity of wastewater can drive MGD-miles up.

ASSSC Monitoring and Reporting:

a) **Capital Improvements and O&M**: Every year there is a Contract Agency's meeting hosted by the City. It is mandatory for all twenty-six contracting agencies to attend this meeting. Prior to this meeting, The City Releases billing projections based on their future Capital and Operations and Maintenance goals (see Attached. These projections are Used by CVWD staff during budgeting.

   During the contract agency meeting, The City provides several presentations that detail recent planned and unplanned operations and maintenance activities, and the coming five (5) years of planned capital projects. This information gives agencies an idea of where the capital and operations and maintenance portions of the ASSSC fees for the coming years will be trending.

b) **Treatment**: CVWD maintains an annual contract with ADS Environmental Services to operate a flow monitoring and composite sampling station at the end of CVWD's Interceptor. Using this data, CVWD and the City both generate annual flow, strength and capacity amounts and agree upon a final annual report that is then compiled and distributed by the City (see attached).

Later in the year, the City releases a "Transmittal of ASSSC Rates and Estimated Invoices" (see attached). In this transmittal the City provides estimated ASSSC billing based on all the reporting provided to it by the contract agencies and the numbers it reported in the billing projections report and during the annual contract agencies meeting. CVWD pays these estimated bills on a bi-monthly basis

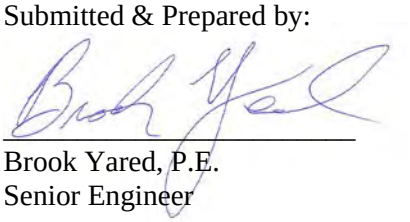
After all the work for the fiscal year has concluded and the strength and loading of wastewater flows has been calculated, the City then releases a reconciliation bill/credit (see attached) based on any unforeseen events that may have driven the initial estimated bills up or down. For the past two years CVWD has experienced reconciliation bills that are considerably higher than initial estimates.

CONCLUSIONS:

Based on the Contract Agencies Meeting held in 2019, the City has very ambitious capital improvement goals and plans to transition the Hyperion Treatment Plant to a 100% reclaim facility. Also, recent damage to a major sewer main in the area surrounding LAGWRP has caused O&M costs over the last several years increase significantly. Finally, conservation efforts in Southern California have resulted lower volumes of higher strength wastewater at treatment plants which may drive our reconciliation bill up. Staff predicts that the costs of wastewater conveyance and treatment will continue to increase in years to come.

CVWDs Contract with the City of Los Angeles is set to expire on March 21, 2030.

Submitted & Prepared by:



Brook Yared, P.E.
Senior Engineer

Attachments:

1. Summary of HTP Flow Estimates
2. ASSFC Transmittal
3. Billing Projections
4. ASSSC Estimated Invoice
5. Annual Report
6. ASSSC Reconciliation

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Crescenta Valley Water District
Summary of HTP Flow Estimates

Totals for FY	Percent to LA GWTP	Percent to HTP	Annual Flow (MG/yr)	Flow to LAGWTP (MG/yr)	Flow to HTP (MG/yr)	Average daily flow to HTP (MG/day)	MGD Miles Calcs	5 yr avg
2018/19	99.43%	0.56%	581.84	578.52	3.32	0.009	12.07	11.67
2017/18	99.36%	0.64%	571.98	568.29	3.69	0.010	11.89	11.46
2016/17	99.11%	0.89%	575.13	570.02	5.11	0.014	12.01	11.42
2015/16	98.75%	1.23%	544.78	537.96	6.83	0.019	11.47	11.43
2014/15	99.13%	0.87%	522.14	517.59	4.55	0.012	10.90	11.46
2013/14	99.31%	0.69%	531.49	527.83	3.66	0.010	11.05	11.56
2012/13	99.29%	0.71%	559.73	555.77	3.96	0.011	11.65	11.75
2011/12	99.23%	0.77%	580.11	575.62	4.49	0.012	12.09	11.94
2010/11	98.35%	1.65%	547.67	538.49	9.19	0.025	11.63	12.41
2009/10	99.05%	0.95%	544.80	539.58	5.22	0.014	11.40	13.02
2008/09	98.90%	1.10%	570.49	564.19	6.29	0.017	11.97	
2007/08	99.03%	0.97%	602.67	596.75	6.00	0.016	12.62	
2006/07	99.11%	0.89%	690.80	684.57	6.32	0.017	14.44	
2005/06	98.35%	1.65%	690.15	678.61	11.77	0.032	14.67	
Average	98.97%	1.03%	580.00	573.91	6.12	0.017		

Date: 5/7/2020

CITY OF LOS ANGELES
CALIFORNIA

BOARD OF PUBLIC WORKS MEMBERS

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ASSISTANT DIRECTORS

TIMEYIN DAFETA
HYPERION EXECUTIVE PLANT MANAGER

1149 SOUTH BROADWAY, 9TH FLOOR
LOS ANGELES, CA 90015
TEL: (213) 485-2210
FAX: (213) 485-2979
WWW.LACITYSAN.ORG

JUL 0 2 2019

Mr. Brook Yared
Crescenta Valley Water District
2700 Foothill Blvd.
La Crescenta, CA 91214

Dear Mr. Yared:

CRESCENTA VALLEY WATER DISTRICT
TRANSMITTAL OF ASSFC RATES FOR WASTEWATER SERVICE IN FY 2019-20

This letter is transmitting the Amalgamated System Sewerage Facilities Charge (ASSFC) rates for wastewater service in Fiscal Year 2019-20. The ASSFC calculation is based on Los Angeles' wastewater system fixed assets register, construction work in progress as of June 30, 2018, and the capital improvement program (CIP) expenditure from July 1, 2018 through June 30, 2019.

ASSFC rates:

Conveyance	$432,252.49 per mgd-mile
Treatment Flow	$1,704,590.17 per mgd
Biochemical Oxygen Demand (BOD)	$448.32 per pound per day (ppd)
Suspended Solids (SS)	$353.35 per ppd

The calculation of the ASSFC rates is a lengthy document. If you would like to review the calculation, please call Susan Rocha at (213) 485-2328 and she will be happy to send you a copy. In addition, please contact her with any questions or comments you may have on the rates.

Sincerely,

ENRIQUE C. ZALDIVAR, P.E.
Director and General Manager
LA Sanitation and Environment

By: Eva P. Sung
Division Manager
Financial Management Division

ECZ/EPS/SR/TD:ab

SEP 2 8 2018

Mr. Brook Yared
Crescenta Valley Water District
2700 Foothill Blvd.
La Crescenta, CA 91214

Dear Mr. Yared:

CRESCENTA VALLEY WATER DISTRICT
TRANSMITTAL OF ASSSC RATES AND ESTIMATED INVOICES
FOR WASTEWATER SERVICES IN FY 2018-19

This letter is transmitting the Amalgamated System Sewerage System Charge (ASSSC) rates for wastewater service in fiscal year 2018-19. These rates and a breakdown of the rates between operation and maintenance (O&M) and capital are shown in the following tables. The ASSSC calculation is based on Los Angeles' estimated costs for the fiscal year and the actual flows and strengths of wastewater at the treatment plants in Flow Year 2016-17 (April 1, 2016 through March 31, 2017).

a. ASSSC Rates

Conveyance	$21,954 per mgd-mile
Treatment Flow	$1,347.66 per million gallons
Biochemical Oxygen Demand (BOD)	$377.15 per thousand pounds
Suspended Solids (SS)	$272.49 per thousand pounds

b. Classification of ASSSC Rates between O&M and Capital

	O&M	Capital
Conveyance	6.96%	93.04%
Treatment Flow	65.79%	34.21%
Biochemical Oxygen Demand (BOD)	71.79%	28.21%
Suspended Solids (SS)	78.58%	21.42%

MAR 0 2 2018

Thomas Love
General Manager
Crescenta Valley Water District
2700 Foothill Boulevard
La Crescenta, CA 91214

Attention: Brook Yared

Dear Mr. Love:

CRESCENTA VALLEY WATER DISTRICT
TRANSMITTAL OF BILLING PROJECTIONS FOR FY 2018-19 THROUGH FY 2022-23

This letter is transmitting the 5-year billing projections for wastewater service for fiscal years 2018-19 through 2022-23, attached. The calculation is based on Los Angeles' Wastewater Capital Improvement Programs (WCIP). Since the WCIP is evaluated and adjusted based on the project schedule, available resources, project needs and revised cost estimates among other factors, this projection could be lower or higher than the projection submitted to you last year for a given year. Please note that the budgeted capital costs included in this projection are only for amalgamated system projects with prioritization scores above the level corresponding to the available funds. Charge rates for flow and strength are higher for fiscal year 2018-19 due to the proposed budget that includes more amalgamated treatment plant projects.

If you would like to review the calculation of the 5-year projections, please call Susan Rocha of my staff at (213) 485-2328 and she will be happy to send you a copy. In addition, please contact her with any questions or comments you may have on the projections.

Sincerely,

Enrique C. Zaldivar, Director
LA Sanitation

By: Eva P. Sung
Division Manager
Financial Management Division

ECZ/EPS/DHB/SR/TD:ab

Attachment: 5-Year Projections

TABLE 1. SUMMARY OF PROJECTED AGENCY CHARGES
O&M AND CAPITAL PORTIONS OF ASSSCS

	2018-19 ($000)	2019-20 ($000)	2020-21 ($000)	2021-22 ($000)	2022-23 ($000)
Aneta Street	59.0	61.7	55.4	51.9	49.7
Beverly Hills	5,049.2	5,533.0	4,551.0	4,520.8	4,249.1
Burbank	4,632.4	4,698.3	4,671.9	4,278.1	4,121.2
Crescenta Valley	1,326.9	1,492.7	1,159.8	1,181.3	1,106.0
CSD 4	4,500.6	5,052.5	3,930.9	4,023.7	3,748.8
CSD 5	804.3	862.7	739.1	714.8	677.5
CSD 16	599.6	702.5	505.5	546.6	502.0
CSD 27	76.6	84.8	68.4	68.8	64.4
Culver City	3,110.3	3,348.8	2,764.1	2,701.5	2,542.1
El Segundo	1,870.2	1,884.2	1,826.7	1,646.1	1,595.4
Federal Office Building	9.8	11.4	8.1	8.5	8.0
Glendale	8,625.5	9,401.5	7,809.3	7,788.6	7,277.3
Karl Holton Camp	4.6	7.0	2.6	4.6	3.8
La Canada	247.3	279.5	213.4	218.4	204.3
Las Virgines	515.2	581.0	453.0	467.6	434.2
Marina Del Rey	1,288.0	1,349.3	1,201.5	1,125.7	1,078.9
San Fernando	2,657.4	2,950.2	2,350.4	2,384.8	2,222.2
Santa Monica	10,295.8	11,161.6	9,290.3	9,090.6	8,586.9
Triunfo	179.9	207.1	156.1	163.9	152.1
Universal City	1,099.3	1,250.0	954.9	993.8	921.6
Veterans Administration	393.8	437.1	350.8	350.1	330.3
WLA Community College	20.9	22.4	19.2	18.6	17.6
CSD 9	274.9	282.6	262.0	241.2	232.1
City of Long Beach	38.5	39.3	37.0	33.7	32.5
Total	$47,680.0	$51,701.1	$43,381.5	$42,623.8	$40,157.9

TABLE 2. SUMMARY OF PROJECTED AGENCY CHARGES
O&M PORTION OF ASSSCS

	2018-19 ($000)	2019-20 ($000)	2020-21 ($000)	2021-22 ($000)	2022-23 ($000)
Aneta Street	40.5	40.2	41.4	42.7	42.7
Beverly Hills	3,141.8	3,118.9	3,213.0	3,310.2	3,312.2
Burbank	3,549.6	3,522.4	3,629.8	3,740.8	3,742.3
Crescenta Valley	768.4	763.0	785.9	809.5	810.1
CSD 4	2,615.4	2,596.7	2,674.7	2,755.3	2,757.2
CSD 5	524.5	520.6	536.4	552.7	553.0
CSD 16	313.7	311.5	320.8	330.4	330.7
CSD 27	46.6	46.3	47.6	49.1	49.1
Culver City	1,944.3	1,930.0	1,988.3	2,048.6	2,049.8
El Segundo	1,390.3	1,379.7	1,421.8	1,465.3	1,465.8
Federal Office Building	5.1	5.0	5.2	5.3	5.3
Glendale	5,442.0	5,402.2	5,565.3	5,733.8	5,737.2
Karl Holton Camp	0.3	0.3	0.3	0.3	0.3
La Canada	140.0	139.0	152.6	157.0	157.3
Las Virgines	300.4	298.3	307.2	316.5	316.7
Marina Del Rey	875.6	869.0	895.4	922.7	923.2
San Fernando	1,593.1	1,581.1	1,628.7	1,677.9	1,679.0
Santa Monica	6,493.9	6,446.2	6,639.6	6,840.8	6,844.7
Triunfo	100.1	99.4	102.3	105.4	105.5
Universal City	623.9	619.5	638.1	657.2	657.7
Veterans Administration	237.3	235.6	242.7	250.1	250.2
WLA Community College	13.6	13.5	13.9	14.3	14.4
CSD 9	195.2	193.7	199.6	205.7	205.8
City of Long Beach	27.8	27.6	28.4	29.3	29.3
Total	$30,383.5	$30,159.8	$31,079.2	$32,020.9	$32,039.6

TABLE 3. SUMMARY OF PROJECTED AGENCY CHARGES
CAPITAL PORTION OF ASSSCS

	2018-19 ($000)	2019-20 ($000)	2020-21 ($000)	2021-22 ($000)	2022-23 ($000)
Aneta Street	18.5	21.5	14.0	9.3	7.0
Beverly Hills	1,907.4	2,414.1	1,338.0	1,210.6	936.9
Burbank	1,082.8	1,175.9	1,042.1	537.3	378.9
Crescenta Valley	558.5	729.7	373.9	371.8	295.9
CSD 4	1,885.2	2,455.7	1,256.2	1,268.5	991.6
CSD 5	279.8	342.1	202.7	162.1	124.5
CSD 16	285.9	391.0	184.7	216.2	171.3
CSD 27	30.0	38.5	20.8	19.7	15.3
Culver City	1,166.0	1,418.8	775.8	652.9	492.3
El Segundo	479.8	504.5	404.9	180.8	129.6
Federal Office Building	4.7	6.3	3.0	3.2	2.6
Glendale	3,183.5	3,999.3	2,244.1	2,054.9	1,540.1
Karl Holton Camp	4.2	6.6	2.3	4.3	3.4
La Canada	107.3	140.5	60.7	61.4	47.0
Las Virgines	214.8	282.7	145.8	151.1	117.4
Marina Del Rey	412.4	480.3	306.1	203.0	155.7
San Fernando	1,064.3	1,369.1	721.7	707.0	543.2
Santa Monica	3,802.0	4,715.4	2,650.7	2,249.8	1,742.1
Triunfo	79.8	107.8	53.7	58.5	46.6
Universal City	475.4	630.5	316.8	336.5	263.8
Veterans Administration	156.5	201.5	108.1	100.1	80.1
WLA Community College	7.3	8.9	5.3	4.2	3.3
CSD 9	79.7	88.9	62.4	35.5	26.3
City of Long Beach	10.7	11.7	8.5	4.4	3.2
Total	$17,296.5	$21,541.2	$12,302.2	$10,602.9	$8,118.3

INVOICE

CITY OF LOS ANGELES

Customer Number	Invoice Number	Date Printed	Date Due
0600362900	74 WP190000064	09-18-18	10-18-18
Customer Name			**Amount Due**
CRESCENTA VALLEY WATER DIST.			$595,236.00

For any questions about this invoice, please contact: Allison Pang
213-978-0991

Invoice Charges

Line No.	Description	Service Date From	Service Date To	Charges/Credits
1	O&M PORTION OF ASSSC 208/50/439301	07-01-18	06-30-19	$595,236.00

Total Invoice Charges $595,236.00

Credit Payments Applied	-	$0.00
Total Amount Due		**$595,236.00**

If payment has already been made, please disregard this notice.

SCHEDULE OF PAYMENTS:

JULY 31, 2018	$ 99,206
SEPTEMBER 28, 2018	$ 99,206
NOVEMBER 30, 2018	$ 99,206
JANUARY 31, 2019	$ 99,206
MARCH 29, 2019	$ 99,206
MAY 31, 2019	$ 99,206

THE FY 2018-19 BILLING FOR 79.32% PERCENT OF THE ESTIMATED FY 2018-19 AMALGAMATED SYSTEM SEWERAGE SYSTEM CHARGE PURSUANT TO THE SERVICE AGREEMENT. THE INVOICED AMOUNT IS DUE IN SIX INSTALLMENTS, AS OUTLINED IN THE ABOVE PAYMENT SCHEDULE.

THE DUE DATES SHOWN IN THE PAYMENT SCHEDULE SUPERSEDE THE DUE DATES APPEARING ELSEWHERE ON THIS INVOICE.

Return this portion with your payment.

INVOICE

Customer Number	Invoice Number	Date Printed
0600362900	74 WP190000064	09-18-18
Customer Name		Date Due
CRESCENTA VALLEY WATER DIST.		10-18-18

Amount Due	Amount Enclosed
$595,236.00	$

CITY OF LOS ANGELES

Please write Invoice Number on check or money order.
DO NOT MAIL CASH

Please make checks payable to: CITY OF LOS ANGELES, DEPARTMENT OF PUBLIC WORKS

Bill To:

CRESCENTA VALLEY WATER DIST.
ATTN: GENERAL MANAGER
2700 FOOTHILL BOULEVARD
LA CRESCENTA CA 91214

Remit To:

City of Los Angeles
Bureau of Sanitation – FMD
Eva P. Sung – Division Manager
1149 South Broadway Street, 9th Floor
Los Angeles, CA 90015

Contact: Allison Pang
(213) 978-0991

74 WP190000064 00000000595236009

1149 SOUTH BROADWAY, 9TH FLOOR
LOS ANGELES, CA 90015
TEL: (213) 485-2210
FAX: (213) 485-2979
WWW.LACITYSAN.ORG

Brook Yared
Crescenta Valley Water District
2700 Foothill Blvd.
La Crescenta, CA 91214

Dear Mr. Yared:

CRESCENTA VALLEY WATER DISTRICT
ANNUAL REPORT OF WASTEWATER FLOW AND STRENGTH LOADINGS
FOR THE FLOW YEAR 2018-19

The City of Los Angeles is submitting the attached annual report of wastewater flow and strength loadings for the Flow Year 2018-19 for Crescenta Valley Water District. This report has been prepared in accordance with the wastewater service agreement between the City of Los Angeles and Crescenta Valley Water District for the conveyance, treatment, and disposal of wastewater.

Crescenta Valley Water District's net wastewater flow to the City of Los Angeles wastewater system is **1.4525 mgd**. The net wastewater flow is based on estimated flows tributary to the City of Los Angeles. The net strength loadings are **1,282 ppd** and **2,832 ppd** for Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) respectively. The BOD and TSS loadings are based on the samples taken during the three most recently completed flow years (see attached "Three-Year Average Loading" Report).

If you have any questions, please contact Susan Rocha at (213) 485-2328.

Sincerely,

ENRIQUE C. ZALDIVAR, P.E.
Director and General Manager
LA Sanitation and Environment

By: Eva P. Sung
Division Manager
Financial Management Division

ECZ/EPS/SR/TL/KV:ab

Enclosed: Annual Wastewater Discharge Report
Penalty Assessment
Three-Year Average Loading

Annual Wastewater Discharge Report
Flow Year 2018 - 19
Agency: Crescenta Valley Water District

I. Crescenta Valley Water District (CVWD)

A. Measured Data Summary

Station	Flow (mgd)	BOD (ppd)	SS (ppd)
ELK1ALT	1.5888	1,525	3,072
Sub-Total	1.5888	1,525	3,072

B. Estimated Data Summary

Tributary Area	Flow (mgd)	BOD (ppd)	SS (ppd)
Sub-Total	0.0000	0	0

C. CVWD Sub-Total Measured and Estimated Discharge

Sub-Total	1.5888	1,525	3,072

II. City of Los Angeles Pass-Through and Boundary Line Flow

A. Measured Data Summary

Station	Flow (mgd)	BOD (ppd)	SS (ppd)
Sub-Total	0.0000	0	0

B. Estimated Data Summary

Tributary Area	Flow (mgd)	BOD (ppd)	SS (ppd)
Sub-Total	0.0000	0	0

C. City of Los Angeles Sub-Total Measured and Estimated Discharge

Sub-Total	0.0000	0	0

Prepared by: Kim Vu
Checked by: Thu Do
Date: 7/16/2019

Annual Wastewater Discharge Report
Flow Year 2018 - 19
Agency: Crescenta Valley Water District

III. City of La Cañada Flintridge Pass-Through and Boundary Line Flow

A. Measured Data Summary

Station	Flow (mgd)	BOD (ppd)	SS (ppd)
LCF_02ROCK	0.1231	210	221
Sub-Total	0.1231	210	221

B. Estimated Data Summary

Tributary Area	Flow (mgd)	BOD (ppd)	SS (ppd)
LC_OVIEW01	0.0132	33	20
Sub-Total	0.0132	33	20

C. City of La Cañada Flintridge Sub-Total Measured and Estimated Discharge

Sub-Total	0.1363	243	241

IV. CVWD Net Wastewater Discharge Calculations

	Flow (mgd)	BOD (ppd)	SS (ppd)
CVWD Measured & Estimated Discharge	1.5888	1,525	3,072
CLA Pass-Through & Boundary Line Flow	0.0000	0	0
City of La Cañada Flintridge Pass-Through & Boundary Line Flow	0.1363	243	241
CVWD Net Wastewater Discharge to Los Angeles Wastewater System	1.4525	1282	2,832
	1.4525 mgd	**1,282 ppd**	**2,832 ppd**
Concentration		**106 mg/l**	**234 mg/l**

Prepared by: Kim Vu
Checked by: Thu Do
Date: 7/16/2019

ELK1ALT Flow FY 2018 - 19

Day	Daily Average	Data Points	% Data Points	Missed Days	Rolling 30	Rolling 45	Base + Penalty	Final
1-Apr	1.6736	96	100%					1.6736
2-Apr	1.6111	96	100%					1.6111
3-Apr	1.5698	96	100%					1.5698
4-Apr	1.5907	96	100%					1.5907
5-Apr	1.5282	96	100%					1.5282
6-Apr	1.5134	96	100%					1.5134
7-Apr	1.5871	96	100%					1.5871
8-Apr	1.6331	96	100%					1.6331
9-Apr	1.5627	96	100%					1.5627
10-Apr	1.5107	96	100%					1.5107
11-Apr	1.5126	96	100%					1.5126
12-Apr	1.5206	96	100%					1.5206
13-Apr	1.4976	96	100%					1.4976
14-Apr	1.5770	96	100%					1.5770
15-Apr	1.6294	96	100%					1.6294
16-Apr	1.5616	96	100%					1.5616
17-Apr	1.5342	96	100%					1.5342
18-Apr	1.5354	96	100%					1.5354
19-Apr	1.5153	96	100%					1.5153
20-Apr	1.5260	96	100%					1.5260
21-Apr	1.5800	96	100%					1.5800
22-Apr	1.6634	96	100%					1.6634
23-Apr	1.5459	96	100%					1.5459
24-Apr	1.5080	96	100%					1.5080
25-Apr	1.5399	96	100%					1.5399
26-Apr	1.5212	96	100%					1.5212
27-Apr	1.5180	96	100%					1.5180
28-Apr	1.5908	96	100%					1.5908
29-Apr	1.6479	96	100%					1.6479
30-Apr	1.5808	96	100%					1.5808
1-May	1.5673	96	100%					1.5673
2-May	1.5778	96	100%					1.5778
3-May	1.5630	96	100%					1.5630
4-May	1.5469	96	100%					1.5469
5-May	1.6065	96	100%					1.6065
6-May	1.6462	96	100%					1.6462
7-May	1.5697	96	100%					1.5697
8-May	1.5377	96	100%					1.5377
9-May	1.5569	96	100%					1.5569
10-May	1.5485	96	100%					1.5485
11-May	1.5126	96	100%					1.5126
12-May	1.6039	96	100%					1.6039
13-May	1.6197	96	100%					1.6197
14-May	1.6088	96	100%					1.6088
15-May	1.5776	96	100%					1.5776
16-May	1.5448	96	100%					1.5448
17-May	1.5543	96	100%					1.5543
18-May	1.5137	96	100%					1.5137
19-May	1.5974	96	100%					1.5974
20-May	1.6471	96	100%					1.6471
21-May	1.6001	96	100%					1.6001
22-May	1.5663	96	100%					1.5663
23-May	1.5732	96	100%					1.5732
24-May	1.5851	96	100%					1.5851
25-May	1.5683	96	100%					1.5683
26-May	1.5959	96	100%					1.5959
27-May	1.5280	96	100%					1.5280
28-May	1.6779	96	100%					1.6779
29-May	1.6130	96	100%					1.6130
30-May	1.5846	96	100%					1.5846
31-May	1.5767	96	100%					1.5767
1-Jun	1.5581	96	100%					1.5581

THREE-YEAR AVERAGE LOADING
Agency: Crescenta Valley Water District

Month	Sample Date	Average Flow (mgd)	BOD (mg/l)	SS (mg/l)	BOD (ppd)	SS (ppd)	
Flow Year 16-17		**ELK STREET STATION (ELK1ALT)**					
April	04/06/16	1.506	89	50.8	1,118	638	Received 7/14/16
May							
June							
July	07/13/16	1.542	92	53.5	1,183	688	Received 10/20/16
August							
September							
October	10/04/16	1.423	192	393	2,279	4,664	Received 1/19/17
November							
December							
January	01/04/17	1.502	60	50.3	752	630	Received 4/20/17
February							
March							
Annual Average					1,333	1,655	
3-YR Average					**1,780**	**1,957**	
Flow Year 17-18		**ELK STREET STATION (ELK1ALT)**					
April	04/21/17	1.502	46	322	576	4,034	Received 5/12/17
May							
June							
July	07/07/17	1.560	18	370	234	4,814	Recevied 10/13/17
August							
September							
October	10/03/17	1.512	125	438	1,576	5,523	Recevied 01/19/18
November							
December							
January	01/11/18	1.565	60	50.8	783	663	Recevied 04/13/18
February							
March							
Annual Average					792	3,758	
3-YR Average					**1,190**	**2,323**	
Flow Year 18-19		**ELK STREET STATION (ELK1ALT)**					
April	04/12/18	1.521	229	47.4	2,904	602	Recevied 07/30/18
May							
June							
July	07/17/18	1.526	212	344	2,698	4,378	Recevied 09/15/18
August							
September							
October							
November							
December	12/04/18	1.534	200	476	2,559	6,091	Recevied 01/18/19
January							
February							
March	03/06/19	1.988	99	250	1,641	4,145	Recevied 04/22/19
Annual Average					2,451	3,804	
3-YR Average					**1,525**	**3,072**	

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CALIFORNIA

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1149 SOUTH BROADWAY, 9TH FLOOR
LOS ANGELES, CA 90015
TEL: (213) 485-2210
FAX: (213) 485-2979
WWW.LACITYSAN.ORG

Mr. Brook Yared
Crescenta Valley Water District
2700 Foothill Boulevard
La Crescenta, CA 91214

Dear Mr. Yared:

CRESCENTA VALLEY WATER DISTRICT
RECONCILIATION OF FY 2017-18 WASTEWATER SERVICE CHARGES

The City of Los Angeles has completed the reconciliation of wastewater charges for FY 2017-18. The results indicate that, based on the mutually agreed upon flow and strength data, Crescenta Valley owes Los Angeles an additional amount of $331,219 ($134,744 for the wastewater system O&M costs and $196,475 for capital costs) for the service in FY 2017-18 as shown in the attached table 7.3. In general, such additional amounts are because the actual costs of this year were higher than the budgeted costs multiplied by the payment factor (F factor) used in the estimated billing.

Besides the reconciled service charges, Section III.B.4 of the service agreement requires that we report the following to you:

- The final ASSSC rates. These are shown in Table 3 of the attached calculations.
- A statement of flow and strength for each entity discharging into the Amalgamated System. Table 4.2 gives this.
- Final ASSSC fees and ASSSC fees already paid. These are shown in Table 7.1.
- A breakdown of the Net Amalgamated System Expenses for FY 2017-18 into expenses attributable to O&M and capital. This is shown in Table 3. In addition, Table 6 shows the O&M percentage of each agency's final ASSSC.

- Table 7.3 summarizes all of the charges.

Complete calculations are available for your review upon request. If you would like a copy, please contact Susan Rocha.

Enclosed are your invoices for the reconciliation of the FY 2017-18 wastewater charges. Regardless of the due date shown on the invoices, payments will be due thirty (30) days following your receipt of the invoices, pursuant to the service agreement.

Please submit your payments to the following address:

Ms. Eva P. Sung
City of Los Angeles
Bureau of Sanitation, Financial Management Division
Public Works Building
1149 South Broadway, 9th Floor
Los Angeles, CA 90015

Attention: Ms. Nancy Obiacoro

Please contact Susan Rocha of my staff at (213) 485-2328 if you have any questions or comments.

Sincerely,

ENRIQUE C. ZALDIVAR, P.E.
Director and General Manager
LA Sanitation and Environment

By: Eva P. Sung
Division Manager
Financial Management Division

ECZ/EPS/DHB/SR/TD/KV:pt

Enclosures: Reconciliation Tables 3, 4.2, 7.1, 6 and 7.3
Invoices

c: Nancy Obiacoro
Katherine Wiseman
Monique Dionisio

INVOICE

CITY OF LOS ANGELES

Customer Number	Invoice Number	Date Printed	Date Due
0600362900	74 WP190000154	06-14-19	07-14-19
Customer Name			**Amount Due**
CRESCENTA VALLEY WATER DIST.			$134,744.00

For any questions about this invoice, please contact: Nancy Obiacoro
213-978-0990

Invoice Charges

Line No.	Description	Service Date From	Service Date To	Charges/Credits
1	O&M PORTION OF ASSSC FY17-18 RECON 208/50/439301	07-01-17	06-30-18	$134,744.00

Total Invoice Charges $134,744.00

Credit Payments Applied	- $0.00
Total Amount Due	**$134,744.00**

If payment has already been made, please disregard this notice.

O&M PORTION OF ASSSC RECONCILED BILLING FOR WASTEWATER SERVICES PROVIDED IN FY2017-18 BASED ON ACTUAL COSTS LESS PAYMENT OF ESTIMATED CHARGES.

Return this portion with your payment.

INVOICE

Customer Number	Invoice Number	Date Printed
0600362900	74 WP190000154	06-14-19
Customer Name		Date Due
CRESCENTA VALLEY WATER DIST.		07-14-19

Amount Due	Amount Enclosed
$134,744.00	$

CITY OF LOS ANGELES

Please write Invoice Number on check or money order.
DO NOT MAIL CASH

Please make checks payable to: CITY OF LOS ANGELES, DEPARTMENT OF PUBLIC WORKS

Bill To:

CRESCENTA VALLEY WATER DIST.
ATTN: GENERAL MANAGER
2700 FOOTHILL BOULEVARD
LA CRESCENTA CA 91214

Remit To:

City of Los Angeles
Bureau of Sanitation – FMD
Eva P. Sung – Division Manager
1149 South Broadway Street, 9th Floor
Los Angeles, CA 90015

Contact: Nancy Obiacoro
(213) 978-0991

74 WP190000154 00000000134744009