

CRESCENTA VALLEY WATER DISTRICT

**2700 Foothill Boulevard
La Crescenta, California**

**Agenda for the
Adjourned Regular Meeting of the Board of Directors
of the Crescenta Valley Water District
to be held on Tuesday, November 20, 2018 at 7:00 p.m.**

Posted: November 16, 2018 at 3:00 p.m.

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

Call to Order and Determination of Quorum

Pledge of Allegiance

Adoption of Agenda

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

Foothill Municipal Water District Report

1. Report on activities at Foothill Municipal Water District.

Consent Calendar

1. Consideration and approval of Minutes of the Regular Meeting on November 6, 2018.
2. Ratification of disbursements for October 2018.

Action Calendar

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

1. **TTHM Mitigation and Disinfection Process Upgrades, Project E-995** –
 - A. Consideration and motion to transfer \$500,000 from the MTBE reserve fund for the operation and maintenance costs necessary for the conversion to chloramines.
 - B. 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 consultants and contractors for the operations and maintenance for the new chloramination systems at a cost not to exceed \$500,000.
2. **Advanced Metering Infrastructure (AMI) Consulting Services, Project E-998** - Consideration and motion to authorize the General Manager to enter into an agreement with UtiliWorks Consulting, LLC to provide consulting services for implementation of the District's AMI program at a cost of \$39,660 and establish a contingency amount of \$3,966 (10% of contract) to cover the cost of additional work.
3. **Resolution 741, Acceptance of Water Facilities at 1941 Waltonia Ave, Project D-12-10** – Consideration and adoption of Resolution No. 741 to authorize the General

Manager to accept the water facilities within the public right-of-way for Lot 100 of Tract 7001 located at 1941 Waltonia Avenue.

Information Items

Written Communications to District/Board

General Manager's Report

Attorney Report

Reports of Committees

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

Director's Oral Reports

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

Board Members' Request for Future Agenda Items

Adjournment

CRESCENTA VALLEY WATER DISTRICT

REGULAR MEETING, BOARD OF DIRECTORS

November 6, 2018

Pursuant to the order of the Board of Directors of the Crescenta Valley Water District, made at the Adjourned Regular Meeting of October 23, 2018, a Regular Meeting was held on November 6, 2018 at 7:00 p.m. at the District office at 2700 Foothill Blvd., La Crescenta, California, with President James D. Bodnar presiding.

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

Directors:	James D. Bodnar Michael L. Claessens Kerry D. Erickson Kenneth R. Putnam Judy L. Tejeda
Attorney:	Thomas S. Bunn
General Manager:	Nem Ochoa
Secretary-Treasurer:	Ron L. Mitchell
District Engineer:	David S. Gould
Others Present:	Mark Hass, IT Manager Wendy Holloway, Customer Service Supervisor Dennis Maxwell, Operation & Maintenance Mgr. James Lee, Finance & Accounting Manager Brook Yared, Senior Engineer

PLEDGE OF ALLEGIANCE

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

ADOPTION OF AGENDA

It was moved by Director Tejeda, seconded by Director Erickson and carried by a 5-0 vote that the Agenda for the Regular Meeting of November 6, 2018, be adopted as presented.

PUBLIC COMMENT – None

FOOTHILL MUNICIPAL WATER DISTRICT REPORT – No Report

CONSENT CALENDAR

It was moved by Director Claessens, seconded by Director Tejeda and carried by a 5-0 vote to approve the Minutes of the Adjourned Regular Board meeting held on October 23, 2018.

ACTION CALENDAR

Appeal of a High Water Bill – Mr. Mitchell reported that Mr. Pinkal Jogani is the owner at 2354 Panorama and at the August 15, 2018 billing staff discovered a leak of 0.6 gpm. The normal consumption for that period is 124,000 gallons, and for that period he used 260,000 gallons. On September 13, 2018, Mr. Jogani emailed a letter stating that he worked with his landscaper and plumber and found that his float

valve for the pool was leaking. Staff sent out a service request to verify the leak had been fixed and granted the maximum adjustment of \$300.00. On October 26, 2018, Mr. Jogani emailed a letter requesting the Board's additional consideration for a further adjustment. The last bill was about \$2,400 in tier 3, and he was concerned how this would affect his next billing. Staff checked the next billing and it showed he was over his normal usage by 23,000 gallons. Staff has recalculated the overage of water usage from a tier 3 rate to a tier 2 rate which shows the August 15, 2018 billing would be \$2,489.60 instead of \$3,017.28 which is a difference of \$527.68. The overage for the October 15, 2018 billing would result in a credit of \$89.24, for a total difference of \$616.92. Staff already applied the \$300.00 adjustment to his account so the additional credit would be for \$316.92 if the Board were to choose this solution.

Following discussion:

It was moved by Director Tejeda, seconded by Director Putnam and carried by a 5-0 vote to provide an additional credit of \$316.92.

Two Year Water & Wastewater Budgets – Mr. Mitchell reported that staff will be starting the Budget process in January 2019 and the concept of a 2-year budget was discussed with the Finance Committee who requested this item to be brought to the whole Board. He discussed with the Board the pros and cons of a 2-year budget process. Some of the pros are significant savings in staff and Board time, improved long-range planning, and less politicized budget process. Some of the cons are public perception of a double rate increase, significant staff time during the first 2-year cycle, economic downturns, regulatory changes, and unexpected events, e.g., conversion to Chloramination. The Board discussed this and has requested that staff provide more information regarding the 2-year budget back at a future Board Meeting.

TTHM Study and Disinfection Process Upgrades, Project E-995 – Mr. Gould discussed the background of what has been done since August 2018. Currently the TTHM's are between the 64ug/L and 80ug/L, except for the Ocean View Reservoir which is at 85ug/L. Staff is checking to see why this went up. He also discussed costs of equipment, SCADA programming, project schedule of installation and conversion to Chloramine, operation and maintenance, and monitoring for Nitrification.

General Manager Goals and Objectives – Director Bodnar reported that it is important for the Board of Directors to have goals and objectives and directions for the General Manager. He said that the Executive Committee met on November 20, 2018 and discussed a list that was compiled on August 14, 2018.

Following discussion:

It was moved by Director Tejeda, seconded by Director Putnam and carried by a 5-0 vote to approve the Goals and Objectives for the General Manager and regular monthly reports by Mr. Ochoa.

INFORMATION ITEMS – None

WRITTEN COMMUNICATIONS TO DISTRICT – None

REPORTS OF PERSONNEL

GENERAL MANAGER- Mr. Ochoa reported that he had emailed the Board requesting input on what are their priorities for the District and information on a process called the Effective Utility Management. A group of eight agencies put together a guideline on what aspects the utilities should be focusing on that include ten different areas. He sent a survey to each Board member that focuses on where we are in the 10 areas and the importance of each area. Three employees have work anniversaries in November. Ron Mitchell – 25 years, Alex Sandoval – 19 years, and Stephen Korejwo – 5 years. As of November 3rd, the District has gone 1,606 days without a lost time accident.

Mr. Mitchell reviewed with the Board the FY 2018/19 Budget versus Actual First Quarter report.

Mr. Gould reported on the water production of 113.6 MG for the time period of October 1 to October 31st. The average use is 4.0% less than 2017, and 7.6% less than the 5-year average. The rainfall for October 2018 is 0.45”, which is 50% below average. At Well 2, APTwater has completed the testing and is preparing the report for DDW and our hope is to have the approval by December 2018. The contractor started the work at Oak Creek #2 and staff had a community meeting on October 17th out at the sight and explained the process. Foothill Blvd. median project is still in process and City of Glendale will be paving Pennsylvania Avenue starting November 13th. Also, on October 30th, there was a CV Fire Safety Council meeting where David Gould gave a presentation on how CVWD would handle an emergency.

ATTORNEY- No Report

REPORTS OF COMMITTEES

Engineering Committee – Director Putnam reported that the Committee met on November 2, 2018 and discussed the Status of Groundwater Wells and Well Capacity, TTHM Study and Upgrades, Advanced Metering Infrastructure (AMI) Program and the FY 18/19 CIP.

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

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

Policy Committee – Director Tejeda reported that the Committee will meet on November 20, 2018 at 10:00 a.m.

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

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

Executive Committee – Director Bodnar reported that the Committee met on November 2, 2018, and discussed the Goals and Objectives of the General Manager.

DIRECTORS ORAL REPORT

Director Bodnar reported on October 24, 2018 he attended So Cal Water Dialogue meeting and it focused on the pros and cons of Measure W regarding storm water capture.

Director Claessens – No Report

Director Tejeda reported she attended the Fire Safe meeting on October 30th. She said it was a good meeting with lots of materials and information. LA County has a department where they will send someone out to your home to evaluate it for emergency preparation.

Director Putnam – No Report

Director Erickson reported on comments from Facebook regarding the District and that we should do an article in the CV Weekly to address the concerns of the community.

ADJOURNMENT

There being no other business to come before the Board, at 8:25 p.m. it was moved by Director Claessens, seconded by Director Erickson and carried by a 5-0 vote that the meeting be adjourned to November 20, 2018 at 7:00 p.m.

APPROVED:

James D. Bodnar
President

Ron L. Mitchell
Secretary-Treasurer

CASH DISBURSEMENTS LIST

OCTOBER 2018



Check		<u>Payable To</u>	<u>Description</u>	Water	Wastewater
<u>Check#</u>	<u>Date</u>			<u>Amount</u>	<u>Amount</u>
0	10/1	CalPERS	Fees for GASB-68 reports & schedules	420.00	280.00
0	10/23	Los Angeles County Public Works	Excavation permit for 6 locations	3,210.00	-
0	10/23	CalPERS	PERS contributions for 10/2018	24,511.21	14,669.68
0	10/23	Southern California Edison	Power purchased 10/2018	32,484.75	578.75
38208	10/3	All American Landscape Co.	Monthly landscape 10/2018	217.50	72.50
38209	10/3	Allen Pipeline, Inc.	6 hours welding for D-18-34	918.00	
38210	10/3	BC Laboratories, Inc	Water analysis	3,102.50	
38211	10/3	BC Laboratories, Inc	Water analysis	2,136.75	
38212	10/3	CCS Interactive, Inc.	Monthly website hosting 10/2018	78.75	26.25
38213	10/3	Cerdant, Inc.	Network security 10/2018	206.25	68.75
38214	10/3	Citibank	Misc supplies	436.27	436.26
38215	10/3	Costco Wholesale Membership	Membership renewal 2018-2019	135.00	45.00
38216	10/3	Dell Financial Services	Lease contract for 09/2018	727.71	242.57
38217	10/3	Direct Connection	Printing and mailing information for TTHM's	733.18	
38218	10/3	Foothill Car Wash, Lube & Oil	Oil changes Unit #8 and #44	93.29	31.10
38219	10/3	Gsolutionz Professional Services	Landline support 10/2018	282.12	94.04
38220	10/3	Harrington Ind Plastics LLC	4" butterfly valve, actuator for nitrate plant	1,787.76	
38221	10/3	J's Maintenance	Janitorial service 09/2018	732.00	244.00
38222	10/3	Joe Service Inc.	Tow Unit 27	64.50	21.50
38223	10/3	KR Nida Companies	Unit #51 - Install backup alarm, light bar, spot light, and cell booster	459.76	153.21
38224	10/3	Lightning Oil Co. & Vacuum Svc	Booster Pump waste oil disposal	150.00	
38225	10/3	LJ's Access Systems, Inc.	Automatic gate maintenance at various sites	506.25	168.75
38226	10/3	Northern Safety Co., Inc	First aid kit for engineering side	13.13	4.38
38227	10/3	Office Depot - Credit Plan	Misc supplies 09/2018	739.05	619.28
38228	10/3	Paper Cuts, Inc	Paper shredding 09/2018	26.88	26.87
38229	10/3	Ramco	Bobtail loads for 09/2018	3,375.00	
38230	10/3	Rassac Air Systems	HVAC maintenance for Office 10/2018	356.25	118.75
38231	10/3	Reliable Road Service, Inc.	Unit #18 - Reservoir cap and coolant flush	177.71	59.23

<u>Check#</u>	<u>Check Date</u>	<u>Payable To</u>	<u>Description</u>	<u>Water Amount</u>	<u>Wastewater Amount</u>
38232	10/3	Royal Industrial Solutions	2 - 24 volt DC power supplies for flow meters	600.15	
38233	10/3	Simpler Systems	Monthly maintenance 10/2018	375.00	125.00
38234	10/3	Spectrum Business	Data communications 09/2018 Office	2,137.92	712.64
38236	10/3	Rondi Springer	Refund Check	15.29	
38237	10/3	Sully-Miller Contracting Co.	Minimum load charge	24.64	
38238	10/3	The Gas Company	Gas purchased 09/2018 Mills	27.69	9.22
38239	10/3	Traffic Management, Inc.	Traffic control signs	320.30	106.76
38240	10/3	Underground Service Alert/SC	Underground notification 09/2018	163.42	54.48
38241	10/3	Univar USA Inc	1,790 gallons of liquid bleach for Mills & Glenwood	3,529.84	
38242	10/3	Univar USA Inc	1,680 gallons of liquid bleach for Mills & Glenwood	3,312.93	
38243	10/3	UPS	Shipping charges	39.55	39.55
38244	10/3	Gayane Vartanian	Refund Check	41.56	
38245	10/3	Waste Management - Sun Valley	Disposal service Office & Plant 10/2018	865.97	288.64
38246	10/3	Wells Fargo Card Services	Hass:Monthly recurring charges, GPS software, microphone for Board mtg	3,141.76	74.98
38247	10/3	Western Water Works	W5-1/4 meter boxes, steel coverall lids, and lid inserts for stock	2,984.43	
38248	10/8	Rowland Water District	SEMS/NINS/ICS training course	637.50	212.50
38249	10/9	Accurate Measurement Systems, Inc.	Mag meter cable splice kit for Well #2	1,515.70	505.21
38250	10/9	ACWA Joint Powers Ins Authority	Group Health 11/2018	37,804.71	24,521.07
38251	10/9	ACWA/JPIA	Auto & General Liability Program 10/1/18 to 10/1/19	38,237.50	38,237.50
38252	10/9	ADS, LLC	Sewer monitoring 09/2018		1,100.00
38253	10/9	Affordable Generator Services, Inc.	Generator rental for main office 09/2018	1,229.90	
38254	10/9	AGM Electronics, Inc	E-933-CS - Loop powered isolator for Williams Chlorination Station	315.38	
38255	10/9	Airgas National Carbonation	Carbon Dioxide liquidator for Well 2	55.00	
38256	10/9	Airgas USA, LLC	Monthly cylinder rental 09/2018	311.05	237.50
38257	10/9	AM Conservation Group, Inc.	Water Conservation materials (hose nozzles, dye tablets, moisture probes)	7,718.02	
38258	10/9	Ameripride Uniform Services, Inc	Uniform rentals for 09/2018	708.28	236.10
38259	10/9	Anawalt Lumber & Materials Co.	Misc hardware 09/2018	11.40	3.79
38260	10/9	Apex Manufacturing Solutions	Williams Booster Pump Station SCADA upgrades	2,443.12	814.38
38261	10/9	ARC	Monthly MPS billing 09/2018	594.02	198.00
38262	10/9	Regino Avalos	Landscape maintenance 09/2018 various locations	929.37	125.63
38263	10/9	BC Laboratories, Inc	Water analysis	6,858.00	
38264	10/9	BC Laboratories, Inc	Water analysis	6,099.25	
38265	10/9	Campbell's Automotive Service	Unit #33 - Tune-up, fuel filter, oil change, service transmission		1,412.67
38266	10/9	Dataprose LLC	Pringing & Postage for Controls 1-4 09/2018	1,406.72	1,406.71

<u>Check#</u>	<u>Check Date</u>	<u>Payable To</u>	<u>Description</u>	<u>Water Amount</u>	<u>Wastewater Amount</u>
38267	10/9	Do-it Center	Misc hardware 09/2018	118.62	1.33
38268	10/9	Empire Fleetwash, LLC	Monthly fleet wash 10/2018	213.00	71.00
38269	10/9	Grainger	Ball valves, tees, elbows, reducers, fittings, caps for stock	516.92	
38270	10/9	Hach Company	Analyzers and PH probe equipment	4,360.29	
38271	10/9	Hamilton Tool & Engineering	28 - pipe fittings for 1" pipe for D-18-34	1,173.10	100.00
38272	10/9	Joe Service Inc.	Charges to tow Unit 27 from Glenwood to repair shop	67.50	22.50
38273	10/9	Just Tires, Inc.	Unit #34 - 4 new tires and alignment	1,481.19	493.72
38274	10/9	Koppl Pipeline Services, Inc.	Labor and equipment used to complete 4" test and tap only on CMC	665.00	
38275	10/9	L.A. County Dept. Public Works	E-982 excavation permit	1,786.21	
38276	10/9	Lagerlof, Senecal, Gosney & Kr	PWAG charges for 07/2018	756.29	252.10
38277	10/9	Logan Supply Co. Inc	Shovels, rakes and brooms for stock	207.99	207.96
38278	10/9	Microflex Corporation	Safegrip gloves for sewer crews		524.28
38279	10/9	Newegg, Inc.	Enterprise Wi-Fi system wireless ports	418.74	139.58
38280	10/9	Northern Safety Co., Inc	Safety vests for crews	164.56	54.82
38281	10/9	O'Reilly Auto Parts	Misc parts 09/2018	46.79	15.59
38282	10/9	Orchard Supply Hardware	Misc hardware 09/2018	497.55	307.85
38283	10/9	Paveco Construction Inc	List No. 2018-19-04 Paving in various locations	8,352.27	
38284	10/9	Powers Electric Products, Co.	Repair and parts for Well sounder	113.68	
38285	10/9	Reliable Road Service, Inc.	Check engine light and clear inactive codes on Unit #2	135.00	45.00
38286	10/9	Rowland Water District	SEMS/NIMS/ICS training course for Dave Spain	37.50	12.50
38287	10/9	Royal Industrial Solutions	4000' of locating wire for stock	569.40	
38288	10/9	Skaug Truck Body Works	Labor to remove and replace drawers and latches on Unit #2	2,186.25	728.75
38289	10/9	So Cal Turf & Tractor	Parts & labor for OSHA valve and hose reels for Unit #22	958.02	319.33
38290	10/9	St Water Resource Control Brd.	Renewal for Grade T4 Raymond Dodge	105.00	
38291	10/9	Sterling Water Technologies, LLC	50 lb pail phosphoric acid for Well 2	194.32	
38292	10/9	Sully-Miller Contracting Co.	8 tons of cold patch	807.48	
38293	10/9	Univar USA Inc	1,400 gallons of liquid bleach for Mills & Glenwood	2,760.76	
38294	10/9	Ver Sales, Inc	8' red straps for lifting pipe and valves	224.02	74.68
38295	10/9	Western Water Works	1" brass elbows and adapters for stock	2,196.58	
38296	10/12	David Gould	Health reimbursement	392.26	261.50
38298	10/17	Ron Mitchell	Health reimbursment	263.65	175.77
38299	10/23	ACWA/JPIA	Workers Comp July 1, 2018 to September 30, 2018	7,819.09	5,212.73
38300	10/23	Affordable Generator Services, Inc.	Generator rental for main office 8/9/18 to 9/6/18	1,229.90	
38301	10/23	Aflac	Employee paid insurance 10/2018	1,854.23	

<u>Check#</u>	<u>Check Date</u>	<u>Payable To</u>	<u>Description</u>	<u>Water Amount</u>	<u>Wastewater Amount</u>
38302	10/23	Airgas National Carbonation	Carbon Dioxide for Well 2	171.64	
38303	10/23	AT&T	Voice communication 10/2018	237.86	79.28
38304	10/23	AT&T Mobility	Cell service 10/2018	1,793.32	597.77
38305	10/23	AV Enviromental Technologies	Refund for flooding meter	940.00	
38306	10/23	BC Laboratories, Inc	Water analysis	4,584.00	
38307	10/23	Cannon	E-956 - Well 2 inspection services through 08/31/18	3,459.05	
38308	10/23	Cellular Outlet, Inc.	Cellular booster kits for Office and Glenwood	3,848.69	1,282.83
38309	10/23	Choice Pest Control	Monthly service at Well 9 & Mills	90.50	12.50
38310	10/23	City of Glendale	Glendale Utililty Water tax 09/2018	42,432.88	
38311	10/23	City of Glendale Water & Power	Power purchased 10/2018	37,284.81	58.45
38312	10/23	City of Los Angeles	Capital charges reconciliation for FY 2016-17		89,079.00
38313	10/23	Civiltec Engineering Inc	Consulting services -validation of water audits	2,565.00	
38314	10/23	Contractor Compliance & Mont Inc.	E-956 Labor compliance 09/2018	878.75	
38315	10/23	Cypress Ancillary Benefits	Group Dental for 11/2018	2,252.04	1,501.36
38316	10/23	Direct Connection	Graphic design for newspaper ad for rain barrel event	82.13	
38317	10/23	First Choice	Coffee service for Plant & Office	195.09	195.09
38318	10/23	Foothill Municipal Water	Purchased water for 9/2018	345,418.30	
38319	10/23	Grainger	Copper cutters, signs, marking paint, drain valve, & misc parts for stock	360.75	198.50
38320	10/23	Great America Leasing Corp.	Kyocera copiers rental 10/2018	218.46	218.45
38321	10/23	Gsolutionz Professional Services	Modify answering attendent and options	675.00	225.00
38322	10/23	Hazen and Sawyer	E-995 TTHM's service through 08/31/2018	4,165.50	
38323	10/23	Joseph A. Huerta	Mileage reimbursement for July - Sept 2018	33.33	9.80
38324	10/23	John Robinson Consulting, Inc.	E-995 Grant consulting through 09/30/2018	1,740.00	
38325	10/23	Joseph G. Pollard Co., Inc	12 Meter sticks for stock	517.41	
38326	10/23	Koppl Pipeline Services, INC.	Labor & Equipment to test 4" water line for D-18-34	665.00	
38327	10/23	LA Dept Water and Power	Power purchased 10/2018	56.31	
38328	10/23	Lagerlof, Senecal, Gosney & Kr	Legal service through 09/2018	2,415.00	805.00
38329	10/23	Lagerlof, Senecal, Gosney & Kr	PWAG - EMC for 08/2018	749.94	249.98
38330	10/23	Lincoln Financial Group	Life & Disability Insurance	952.98	635.32
38331	10/23	Loeb & Loeb LLP	Legal services for BKK Toiling Agreement	507.00	169.00
38332	10/23	Matt-Chlor Inc	Chlorination for D-18-34	1,840.00	
38333	10/23	Mimecast North America, Inc.	Email security 10/2018	531.26	177.08
38334	10/23	Jaysen Ortega	Special Comp License for Grade D2	400.00	
38335	10/23	Paveco Construction Inc	Grinding of recessed plates for D-18-34	3,150.00	

Check		Payable To	Description	Water	Wastewater
Check#	Date			Amount	Amount
38336	10/23	Rassac Air Systems	Repairs to A/C at Glenwood	202.50	67.50
38337	10/23	Reliable Road Service, Inc.	Unit #27 - fix battery terminals	168.75	56.25
38338	10/23	Robert Brkich Const. Corp	E-982 -Brookhill pipeline replacement - payment #3	401,975.40	
38339	10/23	SA Associates	Well 2 Services through 09/30/2018	1,775.50	
38340	10/23	Sawyer Petroleum	700 gallons of clear diesel	2,355.08	785.03
38341	10/23	Shell	Gas purchased 09/2018	2,091.39	697.13
38342	10/23	Spectrum Business	Data communications 10/2018 Mills Plant	269.96	89.98
38343	10/23	St Water Resource Control Brd.	Grade T1 renewal Joe Huerta	70.00	
38344	10/23	St Water Resource Control Brd.	New Certification fee for Jaysen Ortega Grade D2	80.00	
38345	10/23	Sully-Miller Contracting Co.	8 tons of cold patch	809.47	
38346	10/23	Tesco Controls, Inc	Annual Emass Maintenance agreement 7/1/18 to 6/30/19	4,650.00	
38347	10/23	The Gas Company	Gas purchased Office 10/2018	14.30	4.76
38348	10/23	Ultra Welding, Inc.	Welding for D-18-34	480.00	
38349	10/23	Univar USA Inc	1,550 Gallons of liquid bleach at Mills & Glenwood	3,056.57	
38350	10/23	UPS	Shipping charges	16.09	16.07
38351	10/23	Vision Service Plan Co-(CA)	Group Vision for 11/2018	278.46	185.64
38352	10/23	Water Quality & Treatment Solutions	E-995 - TTHM's conversion	7,292.50	
38353	10/23	Western Water Works	Ball valves and meter adapters for stock	1,185.22	
38354	10/23	Wood Environment & Infrastructure	E-985 - Services through 08/31/18	1,810.00	
38355	10/23	WS Pave, Inc.	Thermo plastic STOP legend tape	637.50	212.50
Subtotals				<u>\$ 1,139,640.79</u>	<u>\$ 195,013.46</u>
Total Disbursements for October 2018				<u><u>\$ 1,334,654.25</u></u>	

Payroll Report

Directors	\$ 1,530.00
Office Regular Payroll	\$ 134,782.00
Office OT	\$ 734.00
Plant Regular Payroll	\$ 114,147.00
Plant OT & Standby	\$ 10,972.00
Employer Payroll Taxes	\$ 18,018.00
Payroll Service Charges	<u>\$ 389.00</u>

Total Payroll for October 2018	<u><u>\$ 280,572.00</u></u>
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CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 1
November 20, 2018

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

ACTION ITEM:

TTHM Mitigation and Disinfection Process Upgrades, Project E-995

- a) Consideration and motion to transfer \$500,000 from the MTBE reserve fund for the operation and maintenance costs necessary for the conversion to chloramines.
- b) 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 consultants and contractors for the operations and maintenance for the new chloramination systems at a cost not to exceed \$500,000.

BACKGROUND:

The District uses chlorine as a disinfectant to treat drinking water. Chlorine can create disinfection by-products during treatment, known as total Trihalomethanes or TTHMs, as chlorine reacts with naturally occurring organic matter in imported water supplied by FMWD/MWD from either the Colorado River (CRW) or the State Water Project (SWP). Typically, the water supply blend for CVWD is 60% groundwater and 40% imported water. With the on-going localized drought, CVWD's water supply blend has shifted to 37% groundwater and 63% imported water. CVWD has seen a rise in the concentration of TTHMs because CVWD is using more imported water as groundwater levels have not yet recovered from the latest drought. This, coupled with additional chlorine needed for breakpoint chlorination in the system, has led to an increase in TTHMs in the distribution system.

Past Actions:

- o August 14, 2018
 - Discussion by Dr. Issam Najm of WQTS on TTHMs and Chloramines.
 - Awarded a \$10,000 consulting services contract to WQTS for initial study and evaluation.
- o August 28, 2018
 - Awarded a contract to WQTS for \$99,800 for chloramine conversion, public outreach, staff and operator training, Department of Drinking Water (DDW) permitting support, development of necessary mitigation plans, and preparation of 30% design plans.
 - Awarded a contract to Hazen and Sawyer for \$9,971 to perform bench testing of CVWD's source water to determine proper breakpoint chlorination and formation of TTHMs.
- o September 11, 2018
 - Staff, working with WQTS and CV Strategies, mailed out public information brochures with a list of frequently asked questions.
 - Staff posted information on website and articles in the CV Weekly and Glendale Newspress.
- o September 15, 2018 – Public Workshop at the Glenwood Plant
- o September 25, 2018
 - Authorized General Manager to select and negotiate with consultants and contractors for the installation of chloramination systems at the Glenwood and Mills Plants for \$410,000.
 - Award contract to John Robinson Consulting (JRC) for \$45,225 for contract and construction administration for the new ammonia injection system.
 - Amended contract to WQTS for \$44,240 for additional design work by Carollo Engineers.
- o October 9, 2018
 - Office & field staff trained on the nitrification and chloramines processes
 - Carollo Engineers submitted preliminary 30% design plans for review
- o October 23, 2018
 - Site walk at Glenwood and Mills Plants to determine location of ammonia injection skids, ammonia injection conduits, SCADA and electrical conduits.
 - JRC prepared and sent out a request for quote for purchase of two (2) ammonia injection pump skids.

- Grace Environmental Services (Grace) provided a proposal for a system operator to assist staff during the chloramine conversion process in the distribution system.
- Site visit from Apex Manufacturing Solution (APEX), on the design and installation of SCADA equipment and integration at Glenwood and Mill Plants.
- Met with Hazen and Sawyer on design and installation of new chlorine analyzers at six (6) locations to provide additional monitoring after conversion to chloramines.
- o November 6, 2018
 - Field crews potholed the 14-inch water main at the Glenwood Plant for depth and location for the ammonia injection concrete vault.
 - Awarded a contract and ordered the concrete vault from Jensen Precast for \$36,775 at the Glenwood Plant and estimated delivery is 8 – 10 weeks.
 - Awarded a contract and ordered the ammonia injection pump skids from Cortech Engineering for \$29,850 and estimated delivery 8 – 10 weeks.
 - 30% design plans were reviewed and sent back to Carollo Engineers for final edits.
 - Awarded a contract to BrikArt Construction for \$7,011 to install the concrete pad at the Mills Plant.
 - Awarded contract to APEX for \$47,725 for the design and installation of SCADA equipment and integration at Glenwood and Mill Plants.

DISCUSSION:

Operational Changes:

Staff continued with water system operational changes to lower the TTHM levels to the target level 64 ug/L and below the MCL limit of 80 ug/L as shown on the attached charts. The TTHM levels shown are slightly higher this week, as the District increased the amount of water storage in response to the high wind warnings and possible wildfires in the area.

Staff also performed TTHM sampling at the four (4) reservoirs (Oak Creek, Dunsmore, Shields and Edmund No. 2) for the 2018 4th quarter TTHM compliance. The results as shown on the attached charts show that the annual running average level and the operational exceedance level are below the MCL limit of 80 ug/L.

Construction – Chloramine Conversion:

Installation of Ammonia Injection System for Chloramine Conversion:

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

- o JRC working with ammonia chemical suppliers (Hill Brothers Chemical Company and Univar) on the type of ammonia (liquid ammonia sulfate), containment units, transportation, delivery and costs.
- o JRC received a quote from Poly Processing Company for the 405 gallon tank at Mills Plant of \$3,000.
- o JRC scheduling a meeting with Glendale Fire Department to review the design and obtain permits.
- o APEX provided a list of SCADA equipment that CVWD will purchase through Royal Industrial Solutions with an estimate cost of \$15,200.
- o Staff met with a representative from HACH online analyzers for chlorine and ammonia monitoring.
- o Staff met with a representative from ValveTek Utility Services about performing water main flushing.
- o WQTS and staff continued working on Nitrification Monitoring & Control Plan for submittal to DDW.

Operations & Maintenance:

Additional Monitoring for Nitrification after Conversion to Chloramines:

Staff has been working with WQTS and Hazen and Sawyer on planning for the conversion to chloramines and water quality issues. A major concern is the possibility of nitrification in CVWD's reservoirs, which can result in a reservoir being taking out of service and water being wasted. Currently, we have chlorine analyzers at eleven (11) of the reservoir sites and we will need an additional six (6) chlorine analyzers to monitor for total chlorine, total ammonia and nitrite. Nitrite is a pre-cursor for nitrification and monitoring these levels will give staff advanced notification if nitrification is going to occur at a reservoir.

Upgrade Existing Chlorine Analyzers:

Staff met with HACH to discuss upgrading CVWD's existing chlorine analyzers from measuring free chlorine to total chlorine at five (5) sites and adding new total ammonia analyzers at the Glenwood and Mills plants. In addition, staff will be meeting with representatives from Prominent Analyzers, where we have eight (8) Prominent chlorine analyzers in the system. The estimated cost for the upgrade at the Glenwood and Mills plants is \$64,500, and the estimated cost for the other sites is \$53,420.

New Chlorine Analyzers:

Staff met with Hazen and Sawyer to discuss a scope of work for engineering services for the installation of the six (6) chlorine analyzers at Cresta Heights Reservoir, Dunsmore Reservoir, Eagle Canyon Reservoir, Goss Canyon Reservoir, Paschall Booster Station, and Shields Reservoir.

- Scope of work included visits to each site to determine the ideal location of the chlorine analyzers to get representative chlorine samples, prepare design plans and specifications for construction at each site, project management, and meetings. The proposal cost from Hazen and Sawyer was \$53,255, which is about \$9,200 per site.
- Staff met with HACH regarding providing equipment for six (6) new chlorine analyzers that will measure total chlorine and pH levels. The estimated cost for these six sites is \$52,080.
- The estimated costs for purchasing new SCADA equipment, programming and integration into CVWD's SCADA system is about \$17,000 per site for a total cost of \$102,000.

Water Distribution Flushing:

Another water quality issue will be the possibility of nitrification occurring in the distribution system, which could result in positive total coliform results and additional flushing or wasting water. It has been suggested to perform water flushing of the entire distribution system to remove any biofilm that may react with the ammonia.

Staff met with Valvetek Utilities Services (Valvetek) about performing water main flushing for the 95 miles of CVWD's pipelines. Valvetek discussed the use of their no-discharge flushing truck which is called NO-DEC Flushing. Valvetek proposed using a system that will connect to one fire hydrant, pump the water through a filtration system and then put the water back into the distribution system. This technology eliminates wasting water to the storm drain system and obtaining a NPDES permit for discharging. Valvetek provided a preliminary quote to perform these services for about \$94,000, and the work should take about 8 weeks.

As an alternative, staff looked into utilizing CVWD crews and lost water to compare the costs. Staff estimated that with a 2-man crew working 3 days a week, the water distribution system will be flushed within 12 – 15 weeks (if no other emergencies occur during that period). The water lost is estimated to be about 7.5MG, and the total estimated cost for lost water and labor is estimated to be \$105,000.

PROJECT SCHEDULE:

Project Schedule - Installation of Ammonia Injection System:

Staff has updated the project schedule based on the lead time for the ammonia skids and the precast concrete vault provided by the vendors. Cortech Engineering and Jensen Precast both indicated that shop drawings should be submitted to CVWD within the next 2-3 weeks, and the estimated delivery will be in 6-8 weeks. It is anticipated that delivery will be around January 11, 2019. CVWD's crews will install the ammonia equipment after arrival, and it is anticipated that it will be completed in early February 2019. Staff is also working with State Water Resources Control Board, Division of Drinking Water (DDW), and it is anticipated to be completed by the middle of February.

Project Schedule – Conversion to Chloramines:

Staff has reviewed the TTHMs Mitigation Option Decision Tree that was provided by WQTS, which set specific dates for converting to chloramines based on TTHM levels in the reservoirs.

As shown in the attached TTHM charts, the TTHM levels have been reduced and are in compliance for the 2018 4th quarter sampling for TTHMs. The next compliance sampling will be in February 2019 for the 2019 1st quarter sampling. Staff believes that the TTHM levels will remain below the MCL limit of 80 ug/L during this period as a result of the low winter demands and lower temperatures,

Staff still has concerns that TTHM levels will rise during the spring and summer of 2019 due to high demands, temperature and reduced groundwater. Staff is looking at this period to start the disinfection conversion to chloramines and the ammonia injection systems.

Preliminary Cost Estimate:

The table below shows updated estimated and final costs for planning, design, construction and operations & maintenance for the conversion to chloramines.

Account Description	Amount
Transfer from MTBE Reserve Fund (9/25/18)	\$500,000
Transfer from MTBE Reserve Fund - Request 11/20/18	\$500,000
Total Estimated Cost for Project	\$1,000,000
Consultants - Planning, Design & Construction Admin	
WQTS - Planning	\$10,000
WQTS - Design	\$144,040
Hazen & Sawyer - Water Quality	\$9,970
John Robinson Consulting - Project Management	\$45,225
Grace Environmental Services (3 months part-time service)	\$15,000
Apex Manufacturing Solution - SCADA programing and integration	\$47,525
Public Notification - CV Strategies , Printing & Mailing	\$11,168
WQ Sampling - 7/1/18 to 10/30/18	\$50,124
WQ Sampling - 11/1/18 to 12/31/18 (Estimate)	\$21,948
Subtotal	\$355,000
Construction	
Ammonia Injection Skids (2)	\$29,850
SCADA - Equipment (RTU's, Communication, cabinets, etc..) (Estimate)	\$15,200
Concrete Pad & Grading at Mills	\$7,011
Ammonia Inject Vault at Glenwood	\$34,690
Ammonia Tank at Mills	\$4,532
Conduits/Wiring/Electrical Materials (Estimate)	\$7,000
Upgrade Chlorine Analyzers (Mills & Glenwood)	\$64,500
Safety - Eye Wash, Containment, etc.. (materials only) (Estimate)	\$3,200
On-site Welding (Estimate)	\$9,000
Misc (Estimate)	\$5,017
Subtotal	\$180,000
Operations & Maintenance	
Upgrade Chlorine Analyzers - 13 locations Equipment (Estimate)	\$53,420
New Chlorine Analyzers - 6 locations - Hazen and Sawyer - Design	\$53,255
New Chlorine Analyzers - 6 locations - SCADA Programing & Equipment (Estimate)	\$102,000
New Chlorine Analyzers - 6 locations - Equipment (Estimate)	\$52,080
Flushing - Water Distribution System including Dead-ends (Estimate) (8 weeks)	\$94,000
Misc (Estimate)	\$5,245
Subtotal	\$360,000
Total Cost	\$895,000
Amount Remaining	\$105,000

Update of MTBE reserve fund:

MTBE Reserve Fund	
Account Description	Amount
MTBE Reserve Fund Balance as of 7/1/18	\$5,300,000
Transfer - Rate Stabilization (\$150k) & OPEB (\$400k)	(\$550,000)
Revised MTBE Reserve Fund Balance as of 9/21/18	\$4,750,000
Additional Funding Transferred – 9/25/18	(\$500,000)
Revised MTBE Reserve Fund Balance as of 10/01/18	\$4,250,000
Request for Additional Funding Transfer	(\$500,000)
Projected MTBE Reserve Fund Balance	\$3,750,000

RECOMMENDATION:

It is staff's recommendation to transfer \$500,000 from the MTBE reserve fund for the operation and maintenance costs necessary for the conversion to chloramines. In addition, staff is recommending that the Board authorize the General Manager to select and negotiate with consultants and contractors for the operation and maintenance of \$500,000.

Prepared by:



David S. Gould, P.E.
District Engineer

Submitted by:

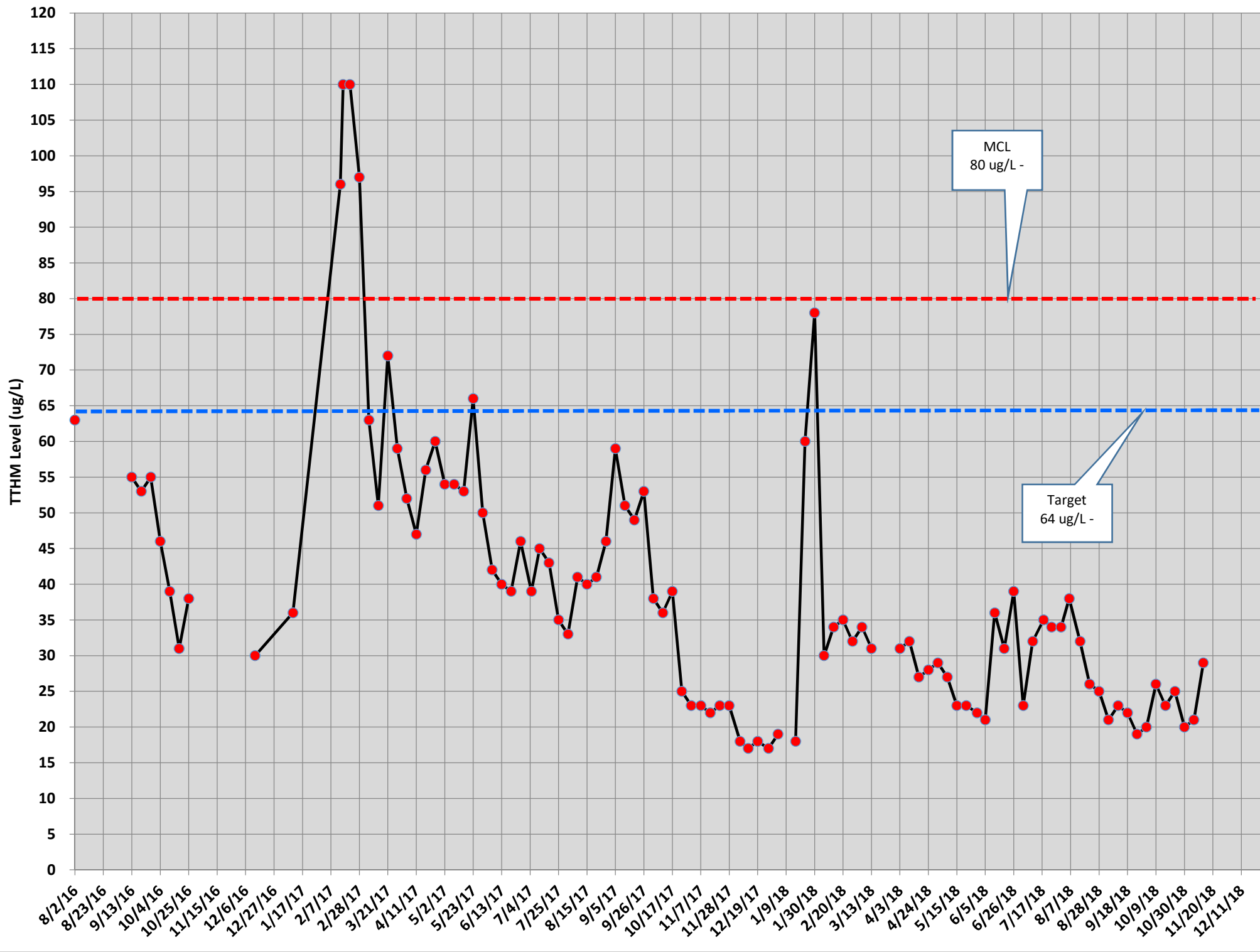


Nem Ochoa
General Manager

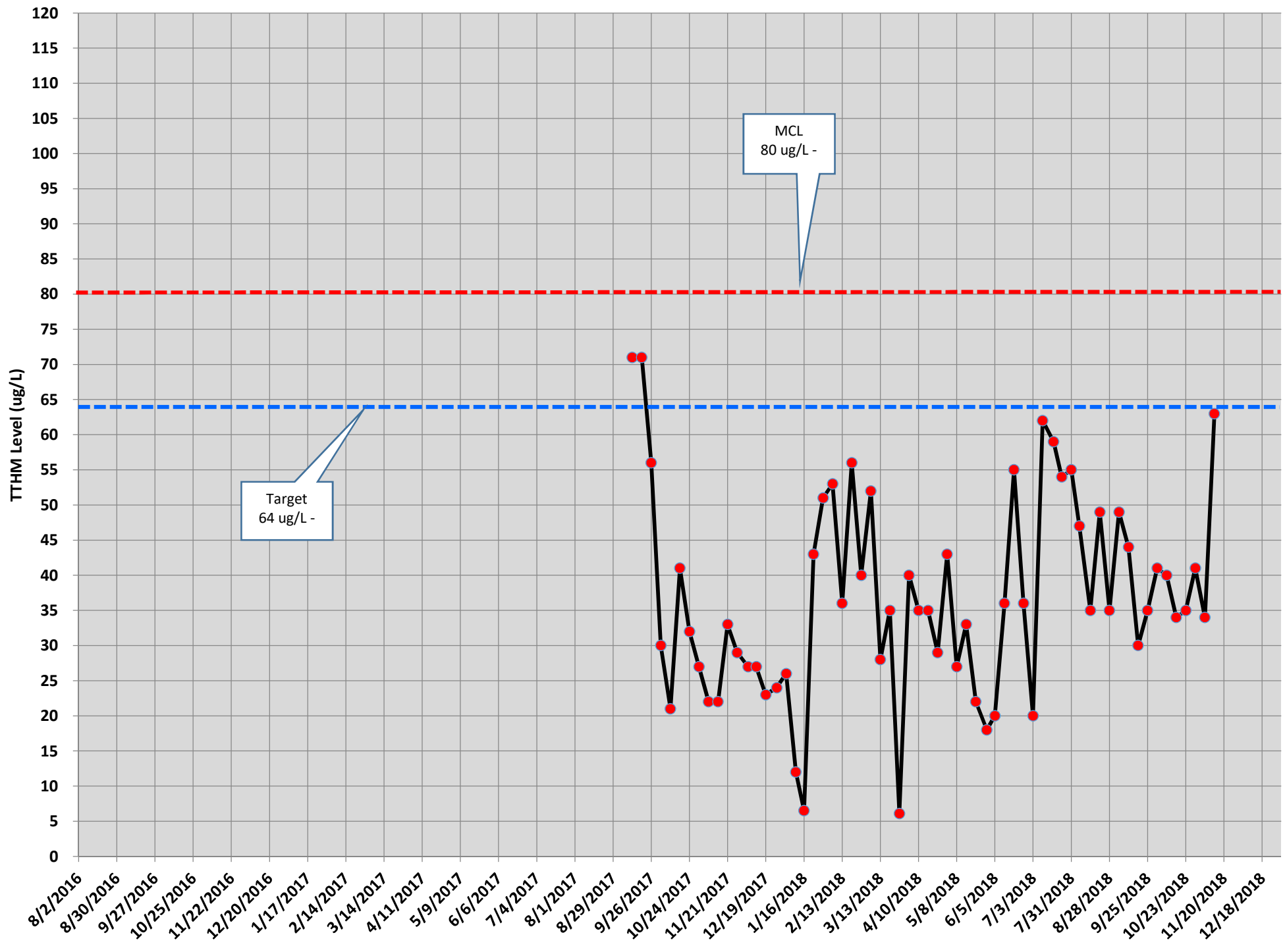
Attachments:

1. TTHM Charts dated 11-13-18
2. Information on No-Des discharge technology

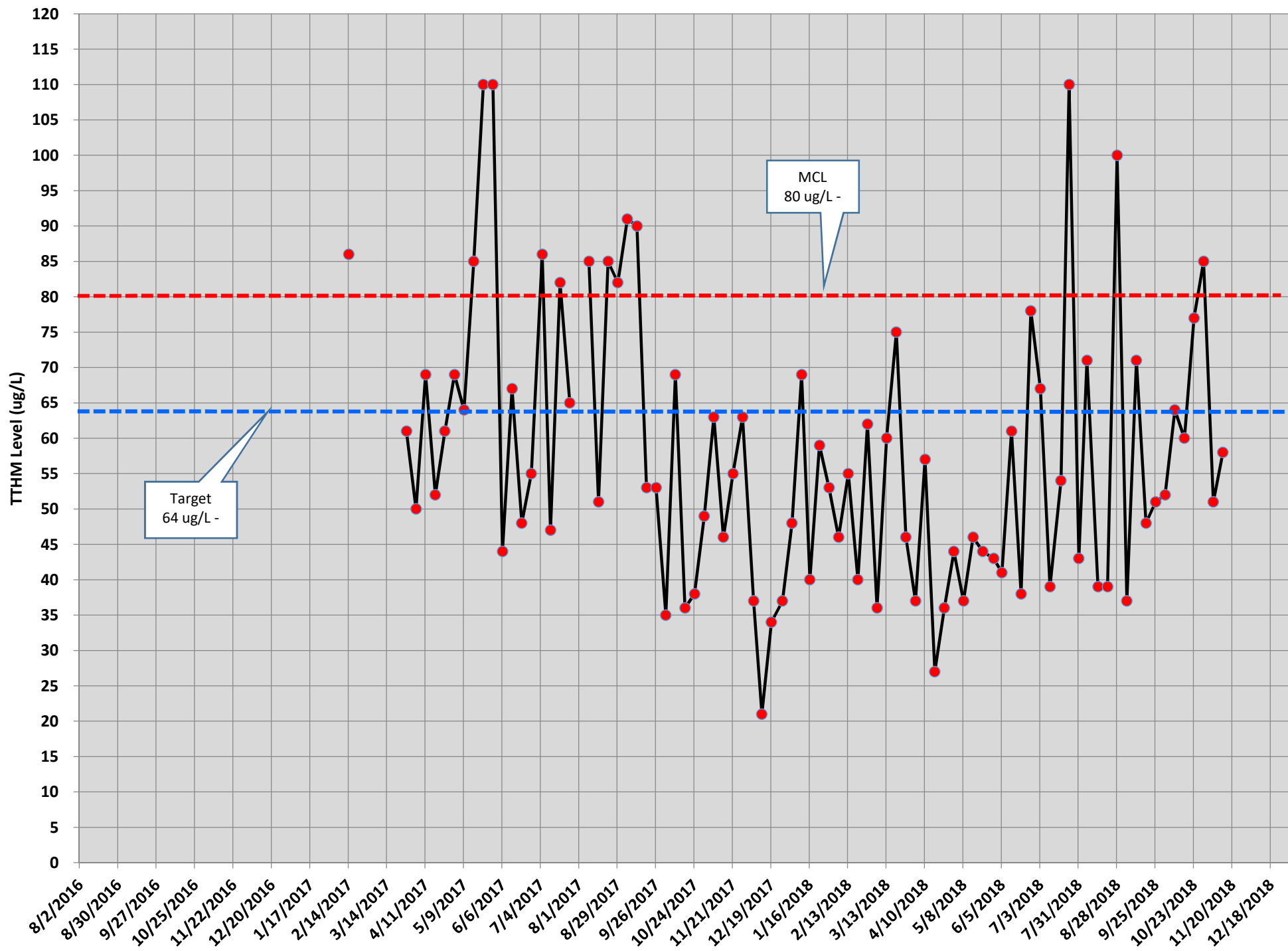
FMWD at Paschall Booster - TTHM's Levels



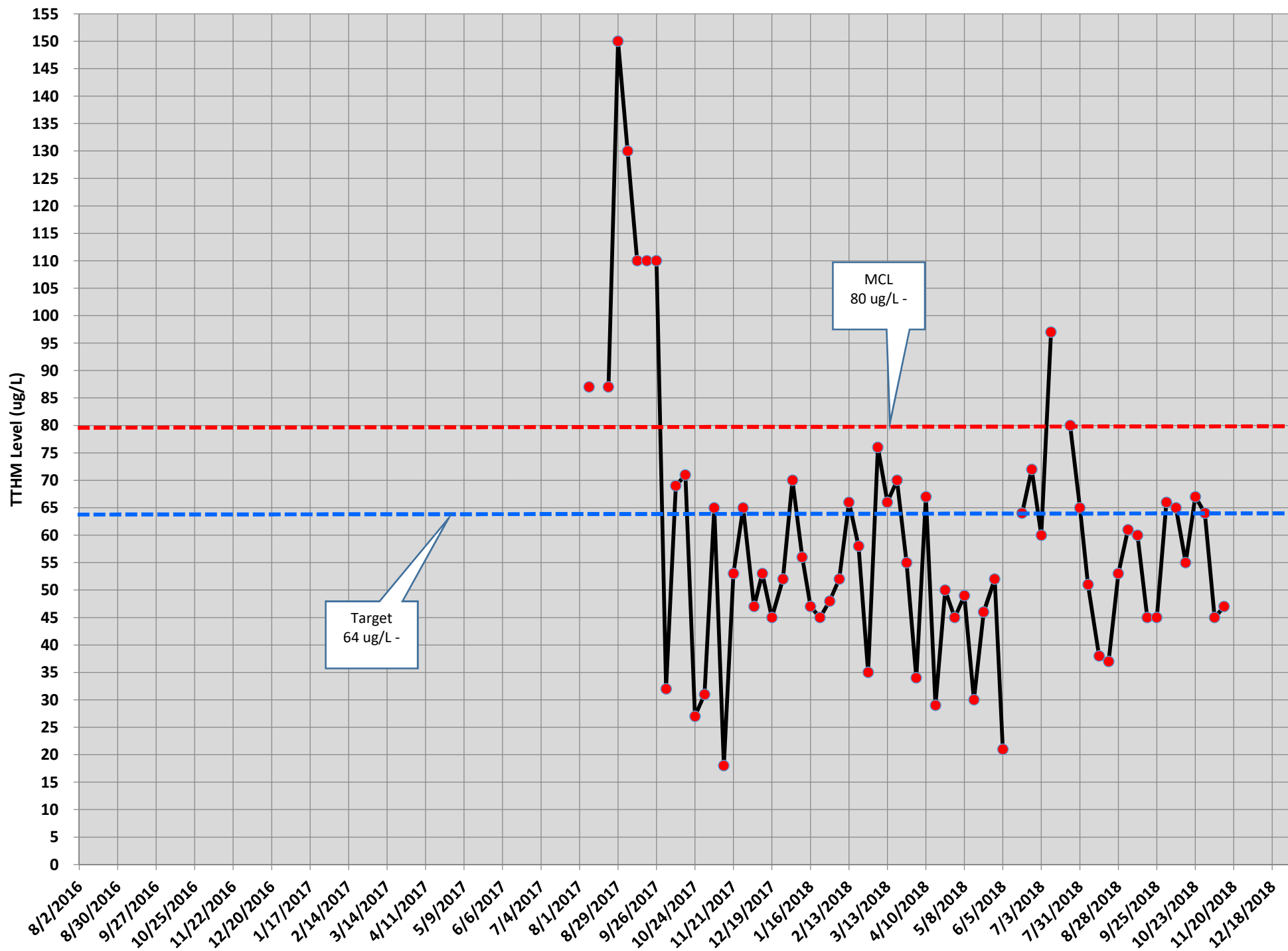
Encinal Reservoir (Zone 1) - TTHMs Levels



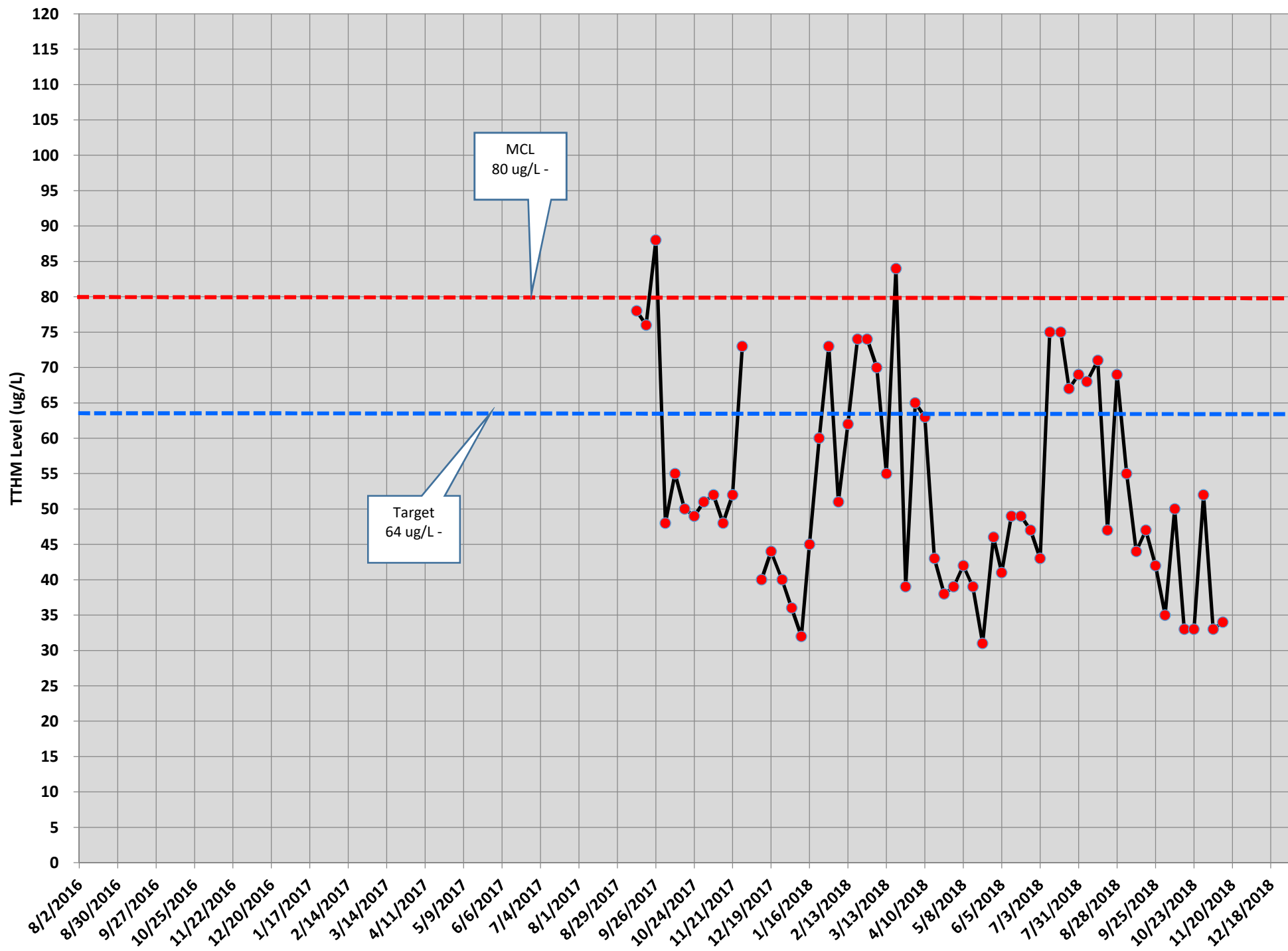
Williams Reservoir (Zone 2) - TTHMs Levels



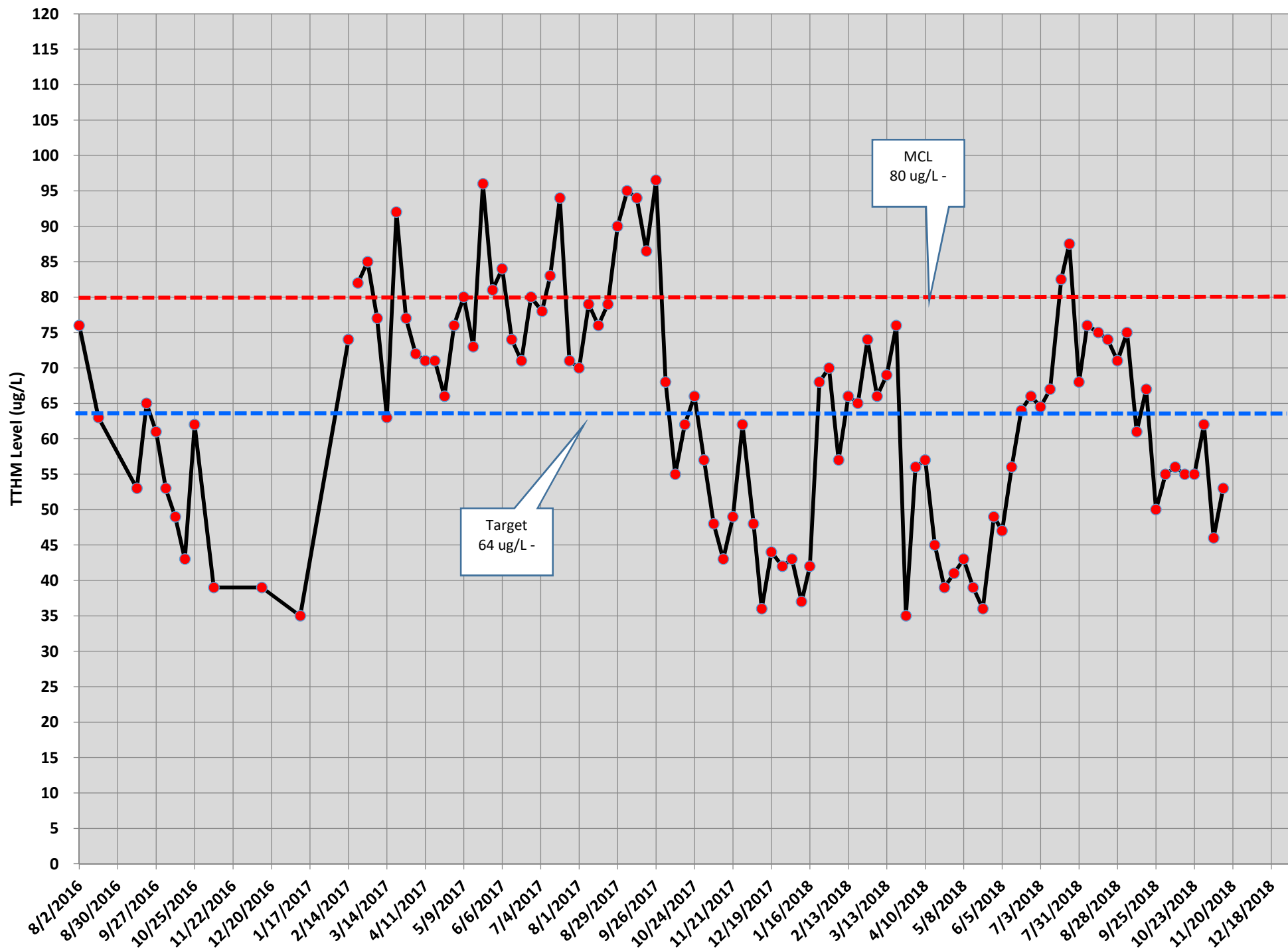
Ordunio Reservoir (Zone 2) - TTHMs Levels



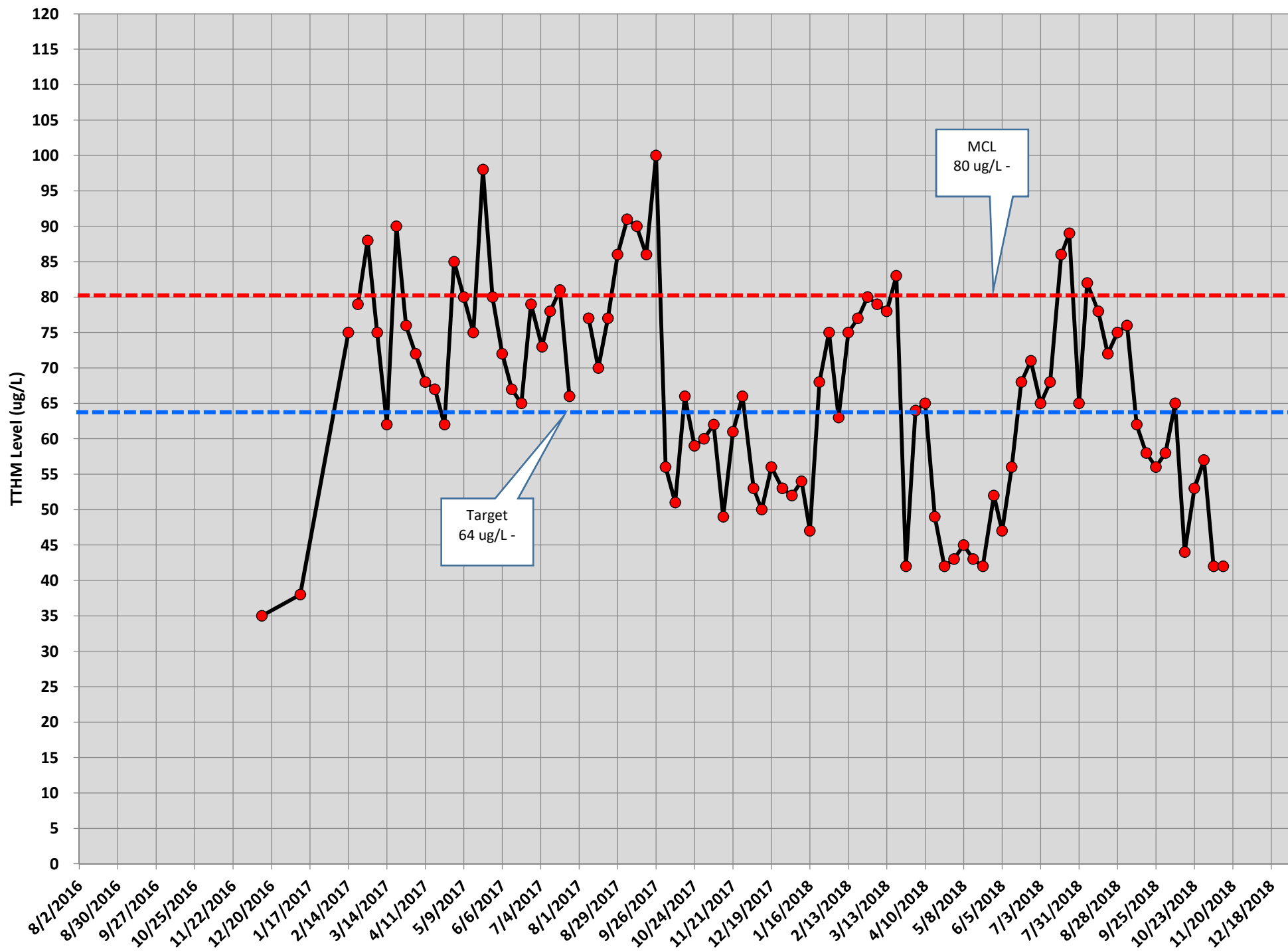
Rosemont Reservoir (Zone 3) - TTHMs Levels



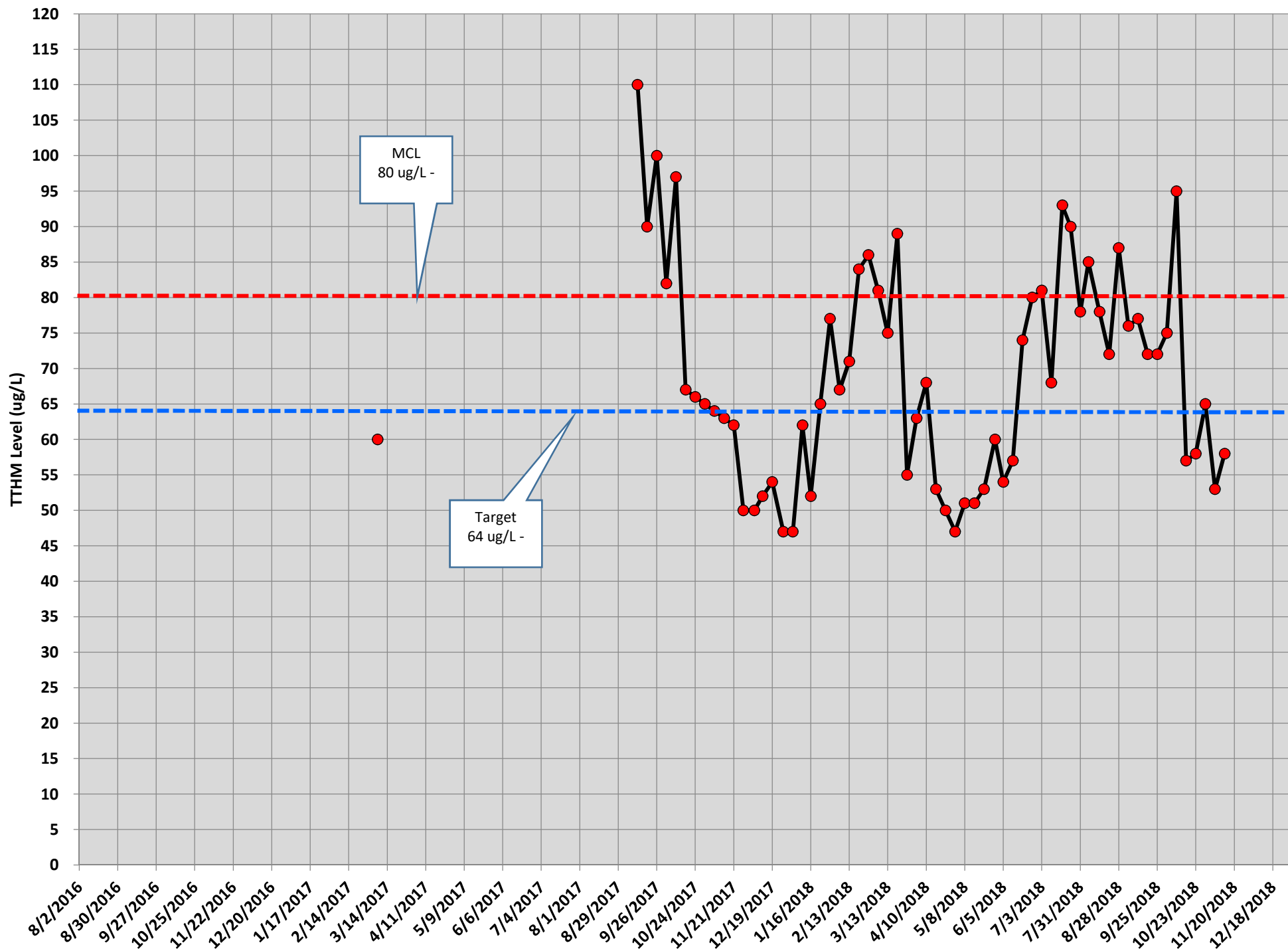
Oak Creek Reservoir (Zone 4) - TTHMs Levels



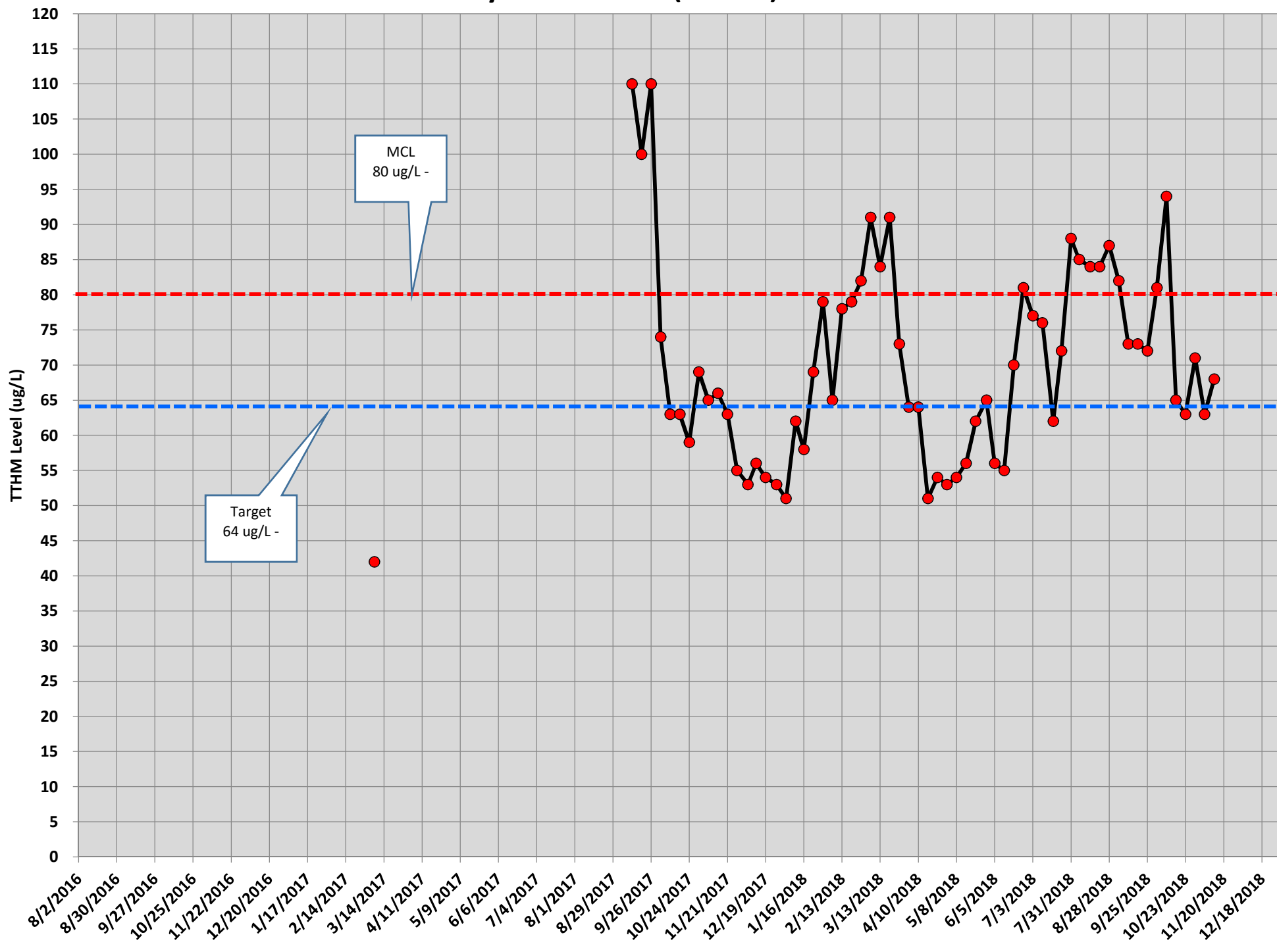
Markridge Reservoir (Zone 5) - TTHMs Levels



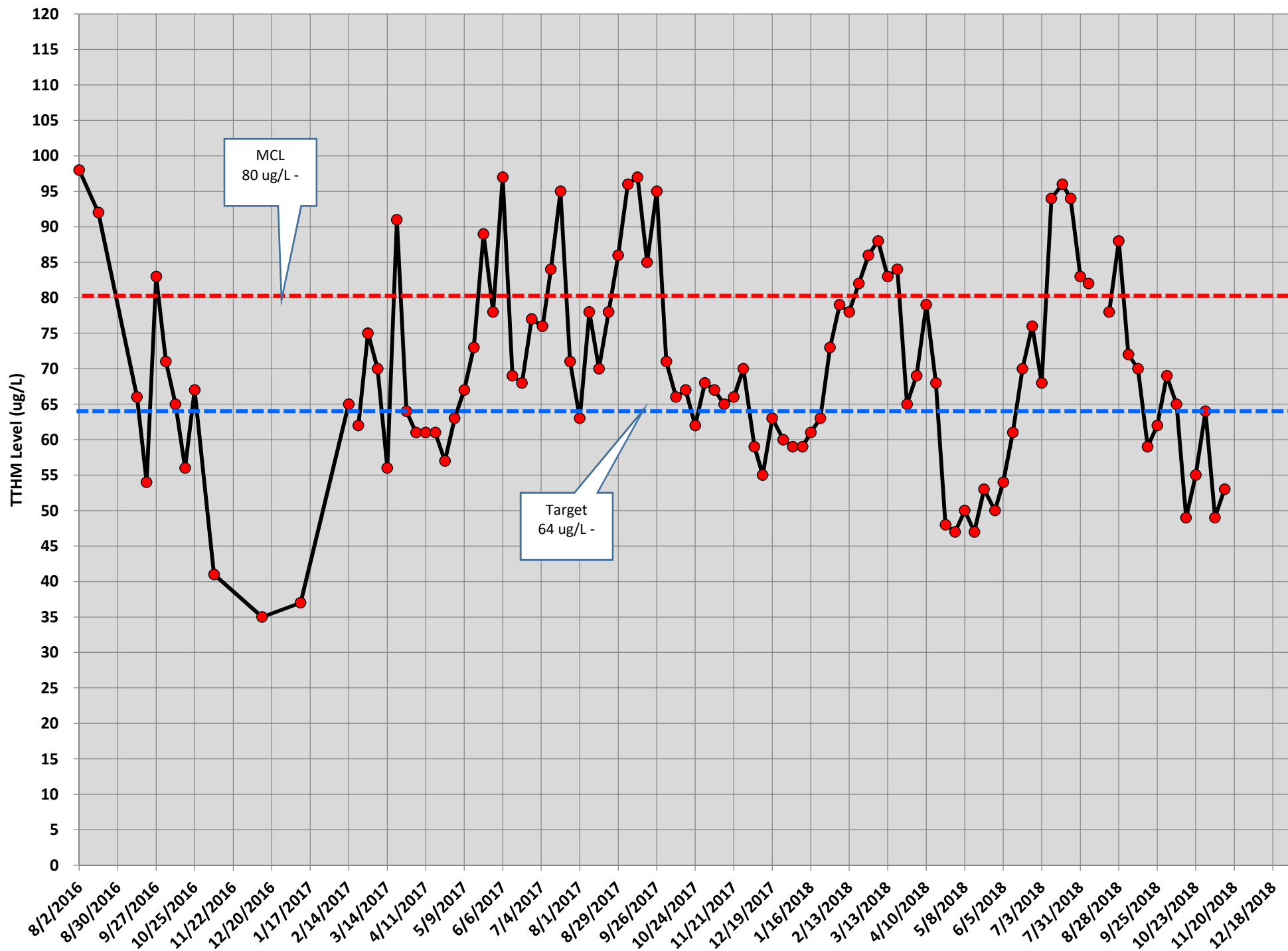
Eagle Canyon Reservoir (Zone 5) - TTHMs Levels



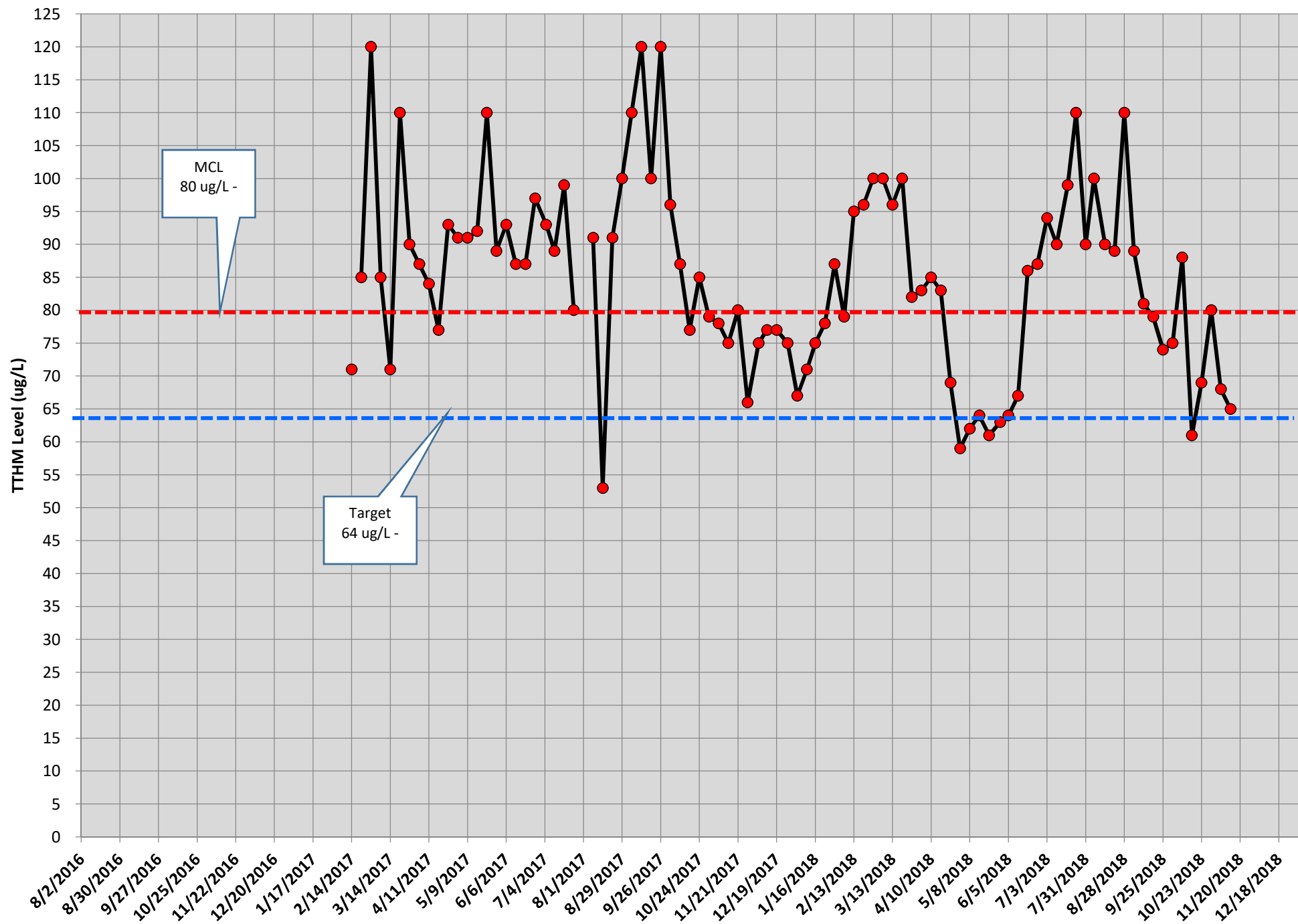
Goss Canyon Reservoir (Zone 6) - TTHMs Levels



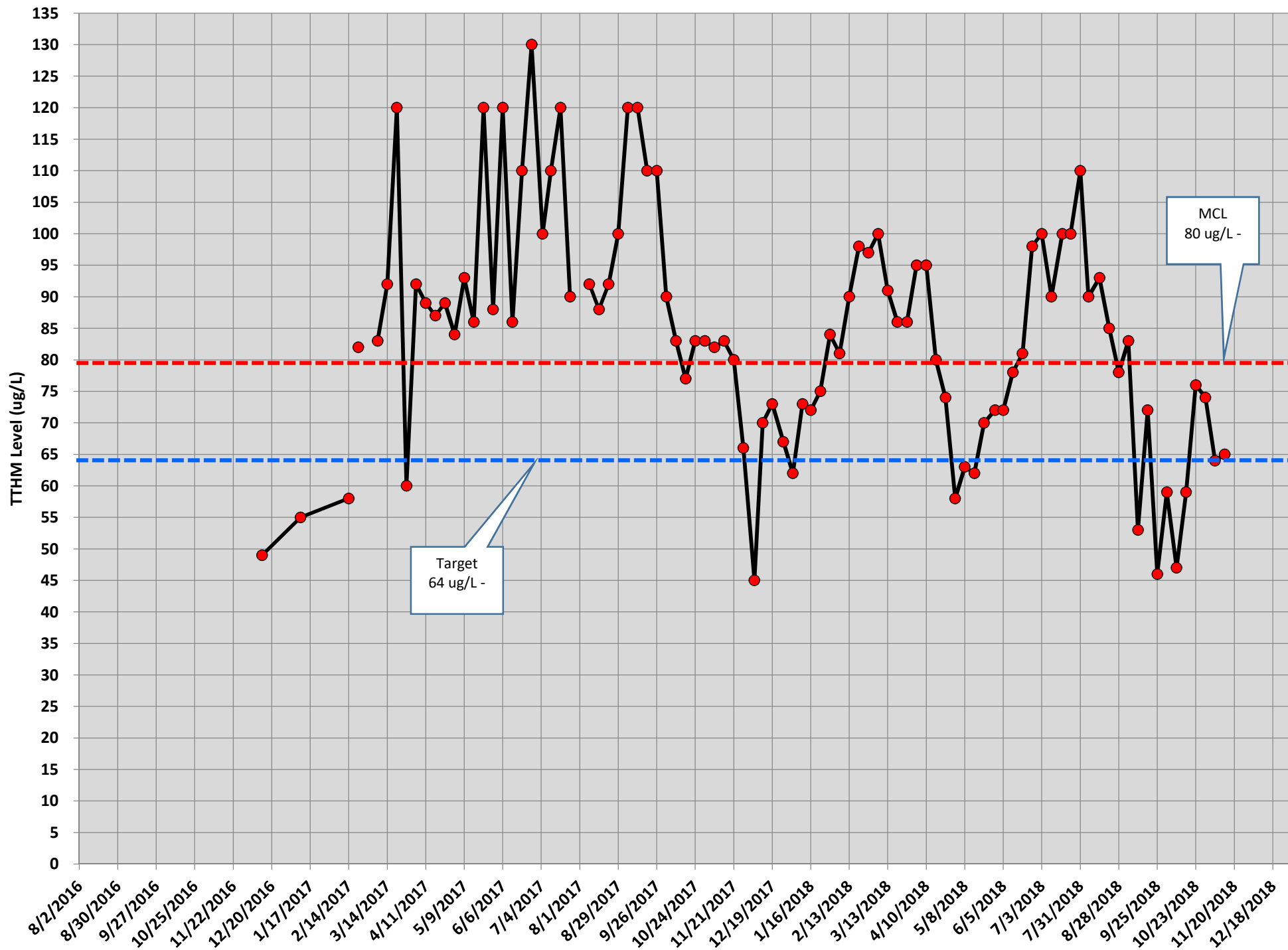
Dunsmore Reservoir (Zone 7) - TTHMs Levels



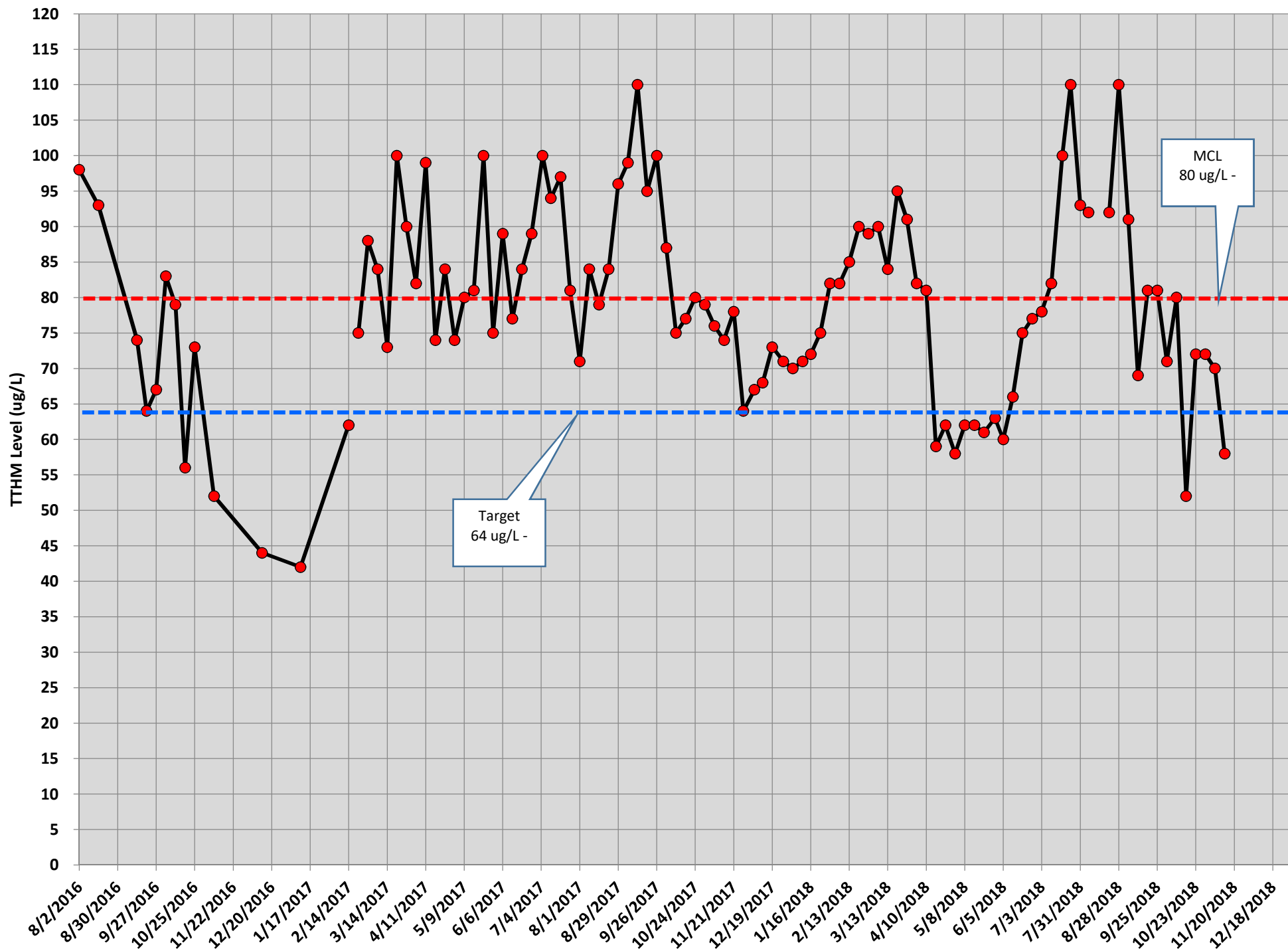
Cresta Heights Reservoir (Zone 8) - TTHMs Levels



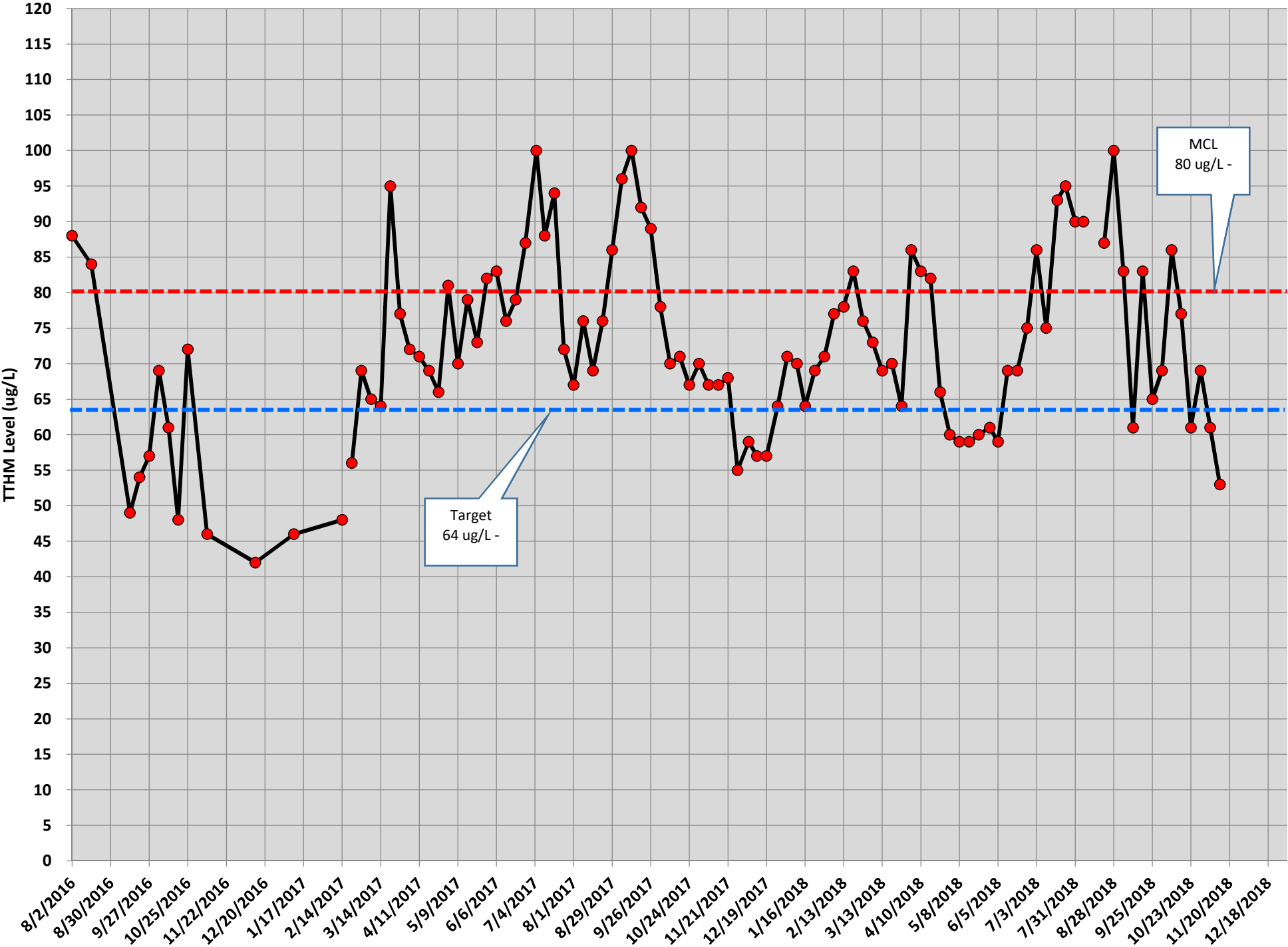
Edmund No. 1 Reservoir (Zone 9) - TTHMs Level



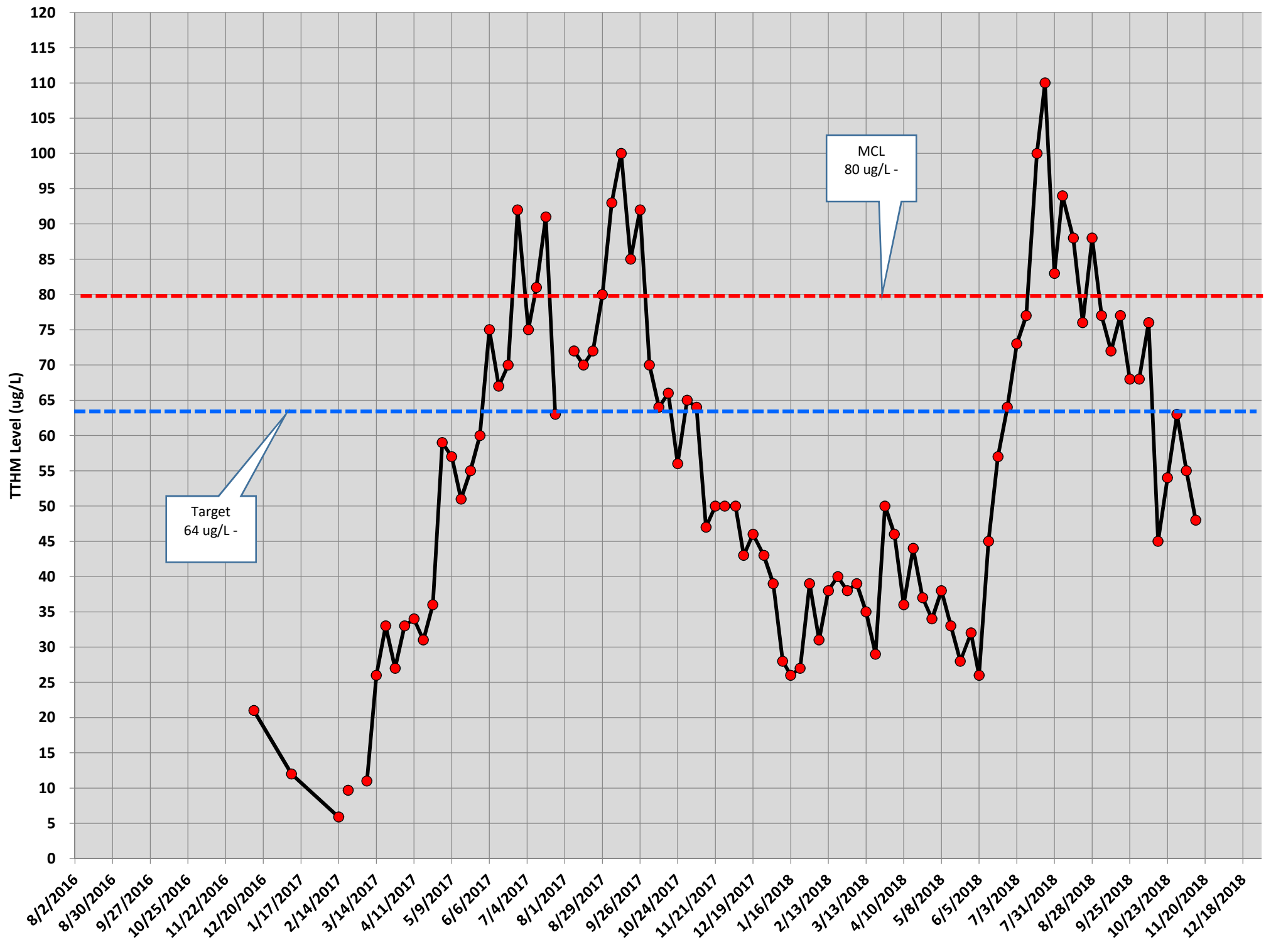
Edmund No. 2 (Zone 9) - TTHMs Levels



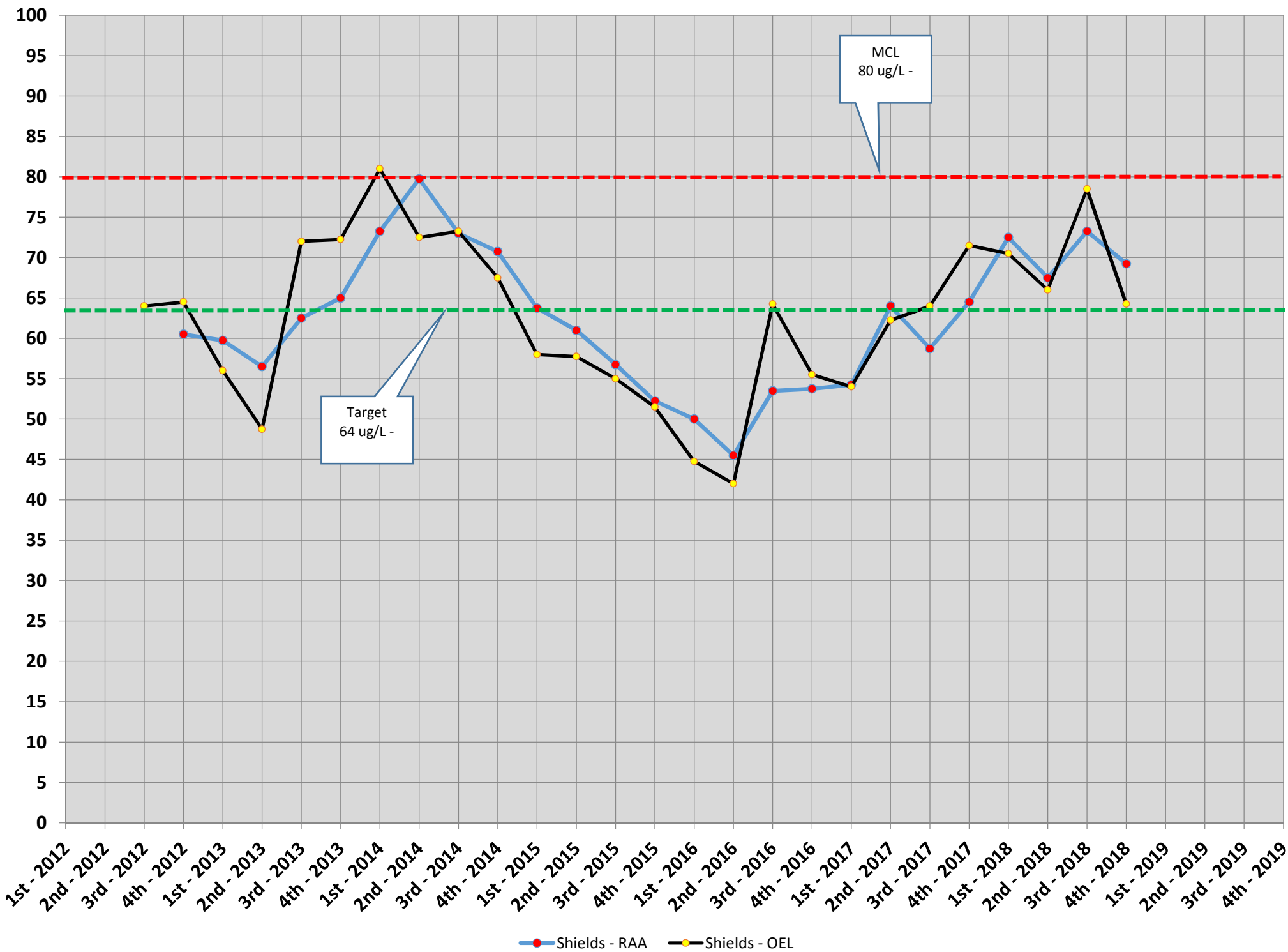
Shields Reservoir (Zone 10) - TTHMs Levels



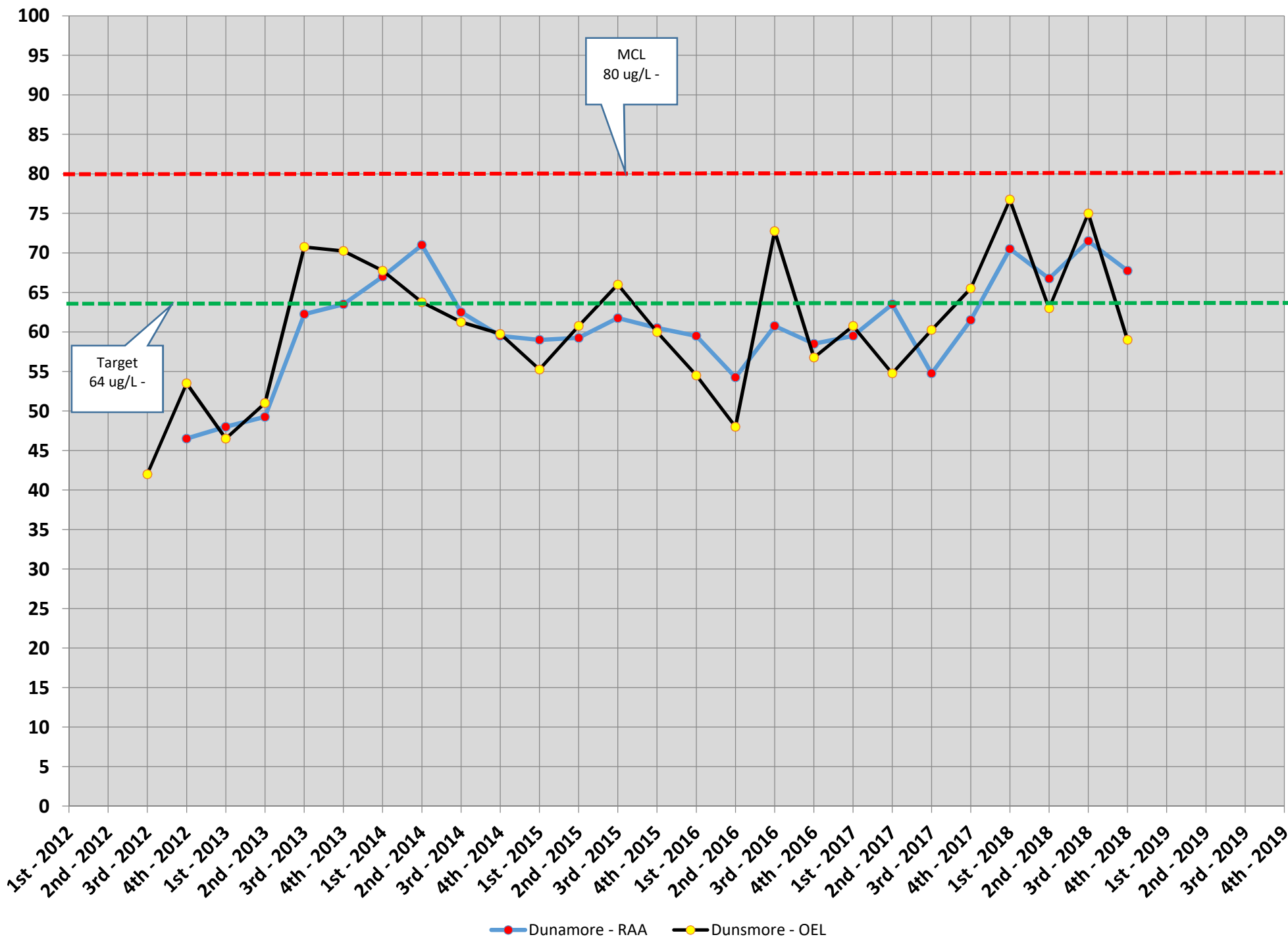
Pickens Reservoir (Zone 11) - TTHMs Levels



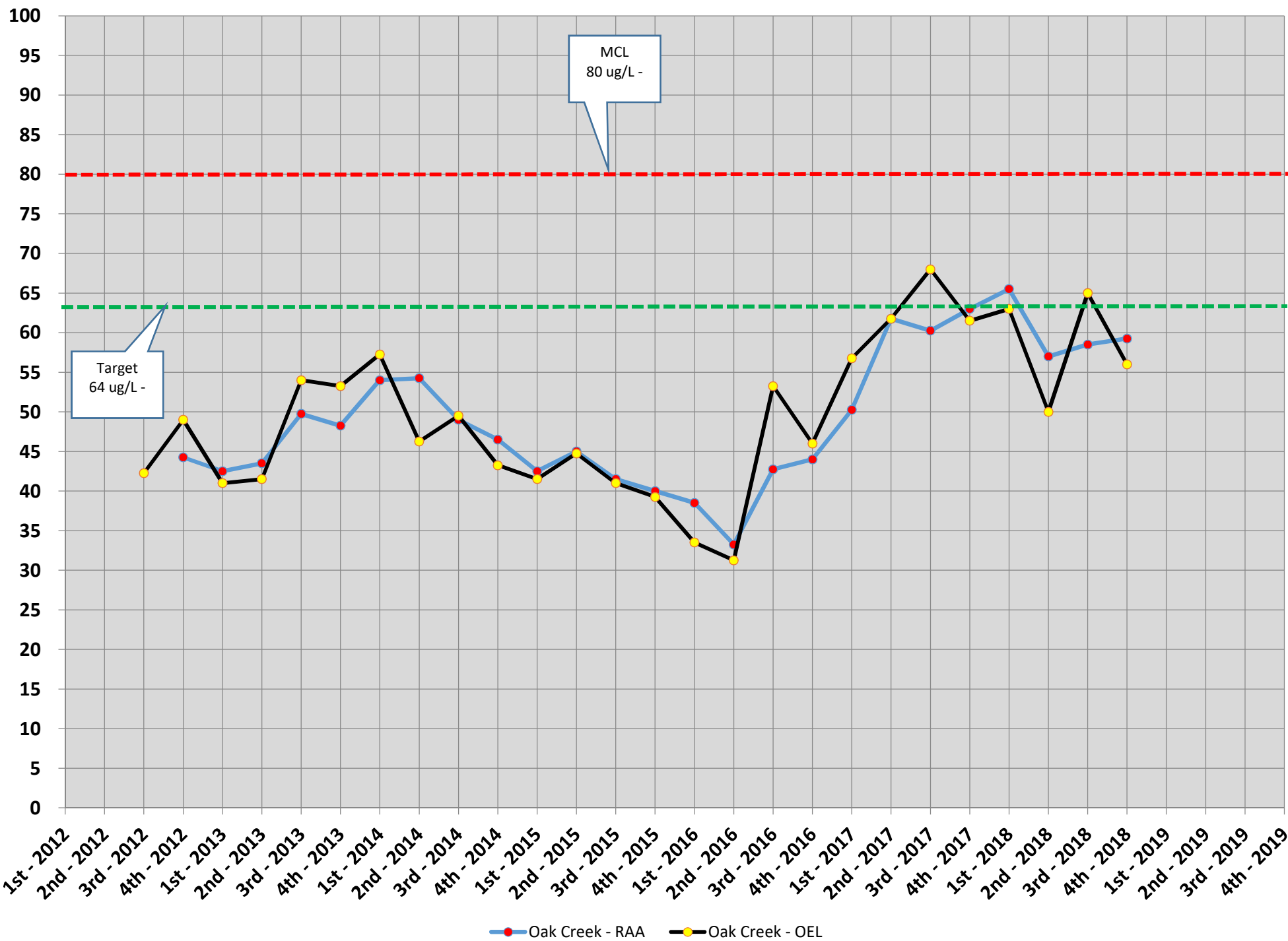
Shields - Quarterly TTHM - Running Annual Average 2012 - 2018



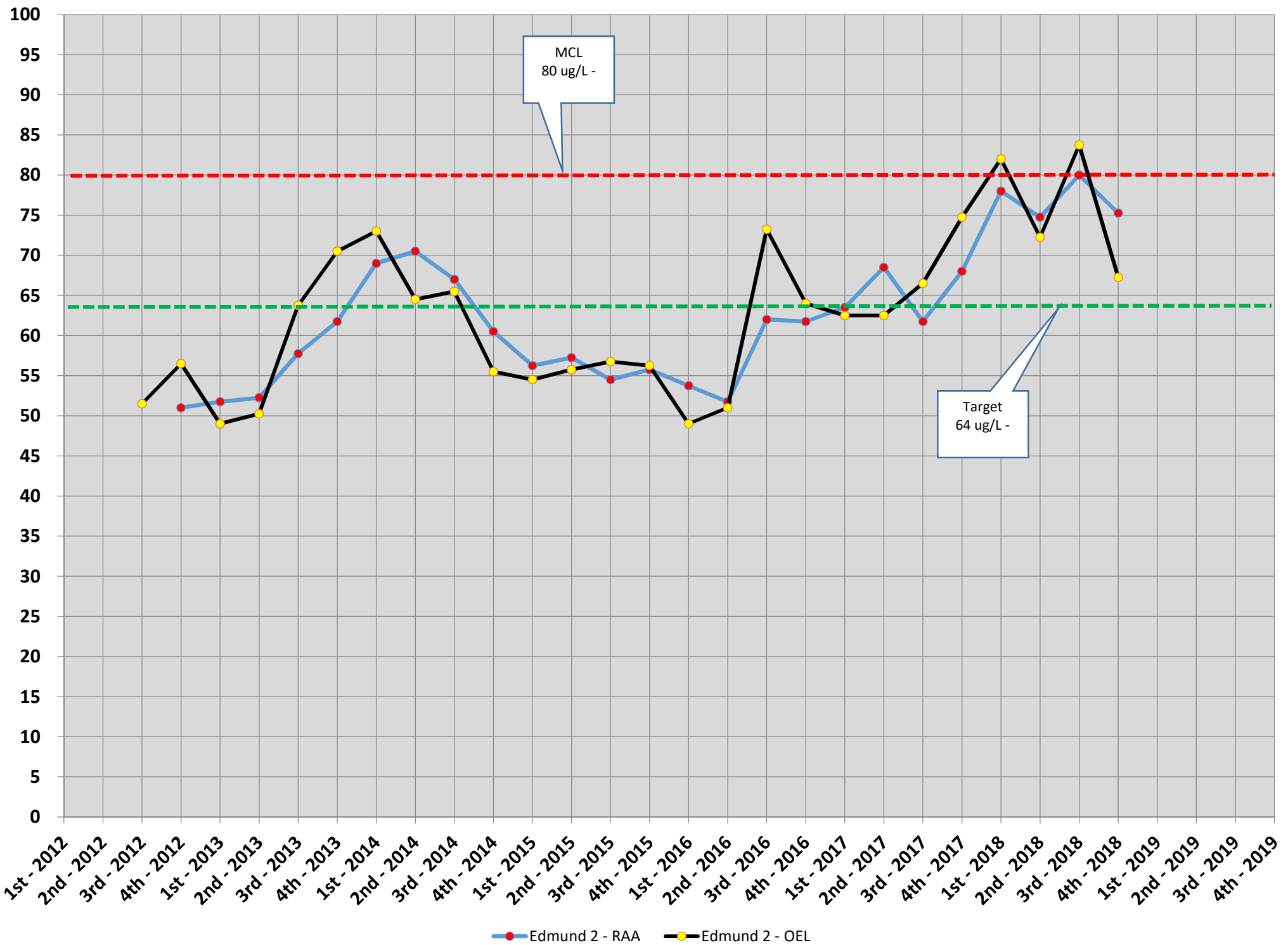
Dunsmore - Quarterly TTHM - Running Annual Average 2012 - 2018



Oak Creek - Quarterly TTHM - Running Annual Average 2012 - 2018



Edmund II - Quarterly TTHM - Running Annual Average 2012 - 2018



ADVANCED WATER MAIN FLUSHING TECHNOLOGIES

Mobile: (347) 739-4674

Jeffrey T. Favina
VP Of Field Operations

Valvetek Utility Services Inc.
Authorized Nationwide Service Contractor



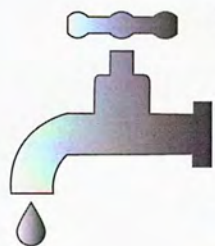
Water Conservation &
Flushing System

Office: (908) 412-7151

Fax: (908) 412-7153

Email: jfavina@valvetek.net

WWW.VALVETEK.NET



VALVETEK

UTILITY SERVICES, INC.



Maintaining America's Infrastructure

A NATIONAL SERVICE CONTRACTOR FOR:

NO-DES INC.

Neutral Output Discharge Elimination System



ABOUT

ValveTek Utility Services Inc., is a nationwide utility service contractor who maintains a strategic focus on water quality and water conservation in the water industry. As we all know, water is a natural resource that needs to be conserved and it requires a high quality of standards for human consumption. All water utilities are mandated and required by either federal, state, local or in-house standards to make sure that water quality is met and delivered to their customers in an environmentally safe and healthy manner.

NO-DES Flushing Technology

Neutral Output Discharge Elimination System

Implementing a NO-DES flushing program within your distribution system will improve water quality, eliminate NPDES issues and concerns, and conserve water and energy on a municipal level by allowing for an almost zero liquid discharge flushing operation. Utilizing this technology will retire old wasteful conventional methods of flushing water mains and allow for year-round flushing (under any inclement circumstances) which will cause an increase in profits and an increase in customer and public perception.

The NO-DES system for water main cleaning uses proven technology to offer something that water utilities have never had before. NO-DES effectively eliminates the wasting of water during infrastructure flushing maintenance. Non-revenue water-loss costs are virtually eliminated due to this new process of water quality management. Instead of water flowing out of the fire hydrant

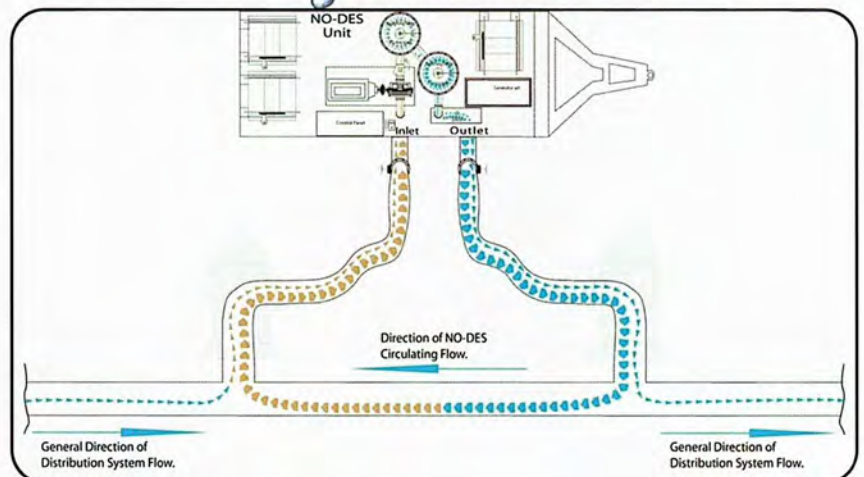
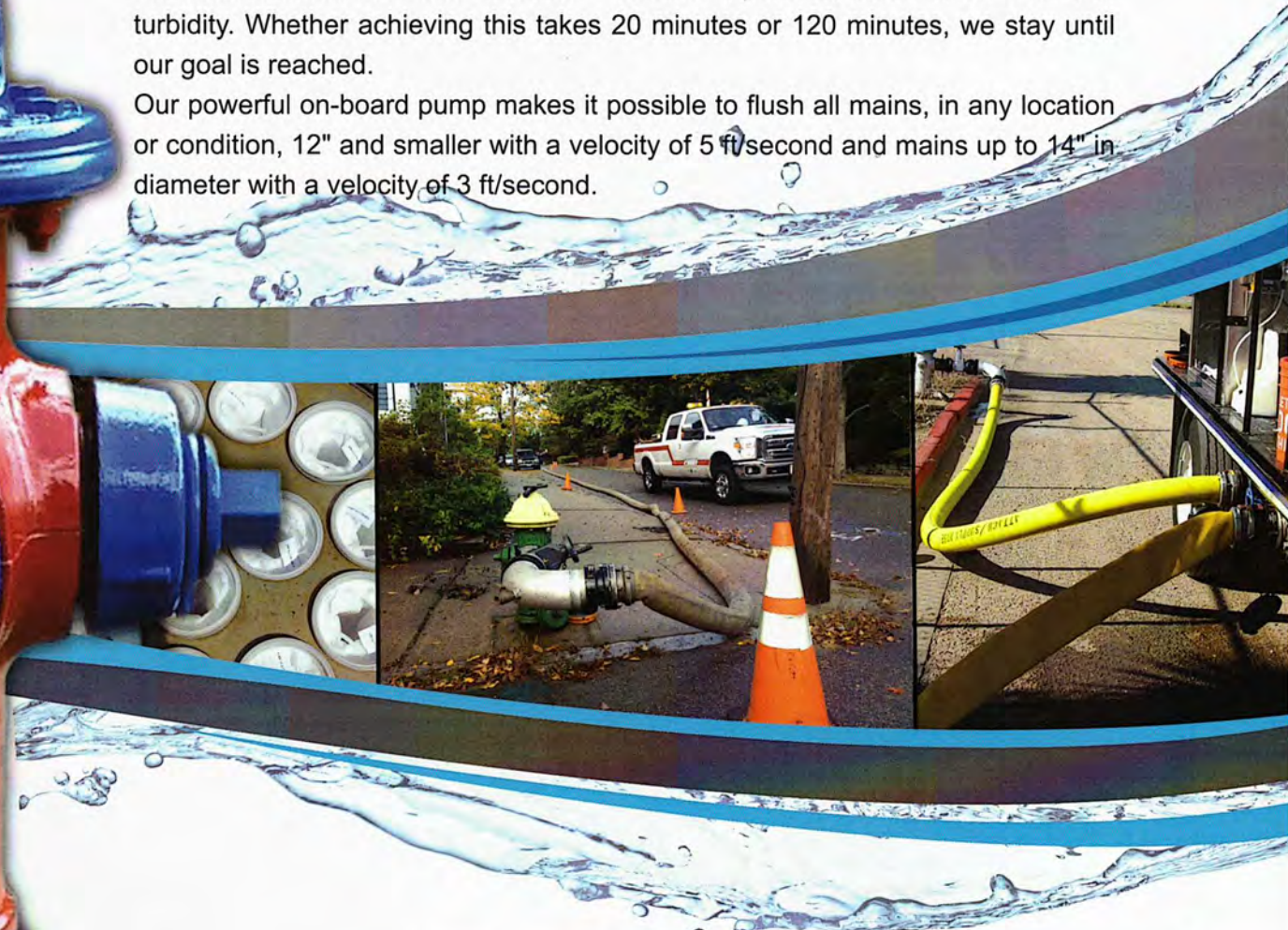


FLUSHING

Distribution System Flushing

Each NO-DES unit comes equipped with two large filtering vessels that contain 12 filter chambers each. Each chamber is loaded with a filter bag rated for Absolute 1.0 Micron. With these 24 filter bags in place, the NO-DES patented system can now flush, capture, and contain all biofilm, sand, sediments, debris, and contaminants that may reside in your system. Before any flush sequence is concluded, ValveTek ensures the water has been filtered and polished clean below 1 NTU of turbidity. Whether achieving this takes 20 minutes or 120 minutes, we stay until our goal is reached.

Our powerful on-board pump makes it possible to flush all mains, in any location or condition, 12" and smaller with a velocity of 5 ft/second and mains up to 14" in diameter with a velocity of 3 ft/second.



LEADING BY EXAMPLE

IN WATER CONSERVATION



HOW THE NO-DES SYSTEM WORKS

The NO-DES Method is Simple

- 1 EASY SET UP**
 A NO-DES truck and trailer with an onboard filtering system pulls up between two fire hydrants in a neighborhood where residents are starting to experience "dirty" water.
- 2 CONNECT**
 Employees run a 5 inch large diameter hose from one hydrant to the filtering systems inlet point. They then run a duplicate hose to the second fire hydrant from the outlet point.
- 3 CREATE "LOOP"**
 Both fire hydrants are opened, filling the hoses and filters. This creates a temporary above ground loop in the water distribution system.
- 4 CIRCULATE**
 A large pump on the NO-DES unit then circulates water through the loop at the desired flushing velocity, typically 3-5 feet per second, "stirring up" all the contaminants inside the water main.
- 5 FILTER & PURIFY**
 Essentially all contaminants and biofilms are removed as the water passes through the NO-DES extremely fine 24-chamber filtration process. If needed, a small amount of chlorine can be added to boost residual during the process.
- 6 SHUT DOWN**
 When the entire section of water main in the targeted flush zone has been filtered clean and all turbidity meters read below 1 (NTU) the system is then shut down, hydrants are closed, and hoses removed.

Additional uses for NO-DES Technology:

- Dead-end flushing
- System residual issues
- Elimination of nitrification
- Trunk-line transfer
- Elevated tank and reservoir clean-outs
- Elimination of water age
- Allows year-round flushing
- Drought-resilient flushing
- Sediment removal
- Resolves odor and discoloration problems
- Retention of water supply
- Removes iron manganese
- Removes biofilm
- Removes rust
- Elimination of NPDES issues and fines
- Preparing systems for transitioning from groundwater to surface water as well as desalination



CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item No. 2
November 2, 2018

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

ACTION ITEM:

Advanced Metering Infrastructure (AMI) Consulting Services, Project E-998 - Consideration and motion to authorize the General Manager to enter into an agreement with UtiliWorks Consulting, LLC to provide consulting services for implementation of the District's AMI program at a cost of \$39,660 and establish a contingency amount of \$3,966 (10% of contract) to cover the cost of additional work.

BACKGROUND:

- Board of Directors – Presentation in February 2018 (See attached presentation)
 - o Phase 1 – Smart Meters – Meter replacement (began in 2012)
 - o Phase 2 – Communications & Data Collection – wireless communications infrastructure
 - o Phase 3 – Data Management System – Water use info and data; customer outreach
 - o Estimated Construction Cost – \$2.53M
 - o Completion date – Estimate July 2020
- Engineering Committee – Presentation in August 2018 by Brett Foreman from WaterSMART on Preparing for AMI

DISCUSSION:

There has been discussion at previous Board meetings about the status of CVWD's AMI program, the process of working towards the next step of installation and implementation of the program, and an estimation of costs to complete the project along with possible available grant funding for the project.

Status – Water Meter Replacement:

CVWD crews have replaced over 5,500 ¾-inch water meters and 515 1-inch water meters over the last 6-years with AMI-ready meters. There are about 1,500 ¾-inch water meters and 350 1-inch water meters remaining to be replaced. The program has been put on hold until January 2019 while CVWD crews are redirected toward the installation of the new ammonia injection system as part of the chloramine conversion project.

Currently, the water meter replacement program has focused on replacing the District's 7,000 residential meters (1-inch and smaller). Larger meters (1½-inch to 4-inch meters) will be replaced after the residential meters are complete.

Project Management and Consulting Services:

Staff met with Kody Salem from UtiliWorks, Inc. about assisting the District with moving the AMI program forward. UtiliWorks is a consulting firm that has worked on a number of AMI projects throughout Southern California with developing a baseline business case for AMI (go/no-go based on a cost-benefit analysis) and then managing the project in terms of identifying vendors and implementing and installing AMI. UtiliWorks has assisted utility agencies of all sizes including the Cities of Buena Park, Palo Alto, Roseville, Long Beach, and Riverside, Azusa Light & Water, and Glendale Water & Power with tasks as such as business case assessment, preparing request for proposals, and implementation of a full-scale AMI program.

Staff requested a proposal from UtiliWorks for consulting services that includes the attached scope of work which was based on the work completed by staff and the work needed to complete the project:

On November 6, 2018, UtiliWorks provided the attached proposal. The proposal outlines their understanding of the scope and their approach. The services include reviewing CVWD's information, making recommendations for the communications network and the data management system, providing recommendations for implementation of the program over the next 2-3 years, and presenting a business case for implementation of CVWD's AMI program. UtiliWorks indicated in the proposal that the business case portion of the project's scope will be complete by March 2019. The intent is to coincide with staff preparation of the FY 19/20 water budget and potential incorporation of AMI-related expenses into the budget.

Grant Funding:

The work performed by UtiliWorks can also be leveraged by staff and John Robinson Consulting (JRC) to pursue grant funding related to AMI. Information generated could be submitted as part of a grant funding application to the U.S. Bureau of Reclamation (USBR) and its WaterSMART grant program. USBR grant funding ranges from \$300,000 and \$1,000,000 with a 50/50 cost-sharing feature. Grant applications for the next round of funding should be available in March 2019.

RECOMMENDATION:

Staff recommends awarding a contract to UtiliWorks for a cost of \$39,660 and establishing a contingency amount of \$3,966 (10% of contract). \$50,000 was allocated in the FY 18/19 Capital Outlay Budget for the AMI program (see below).

ENVIRONMENTAL REVIEW:

N/A

FUNDING AVAILABILITY:

There are sufficient funds available in the following FY 18/19 Capital Outlay account for this project:

Account Description	Amount
FY 18/19 Water Capital Outlay	\$40,000
FY 18/19 Wastewater Capital Outlay	\$10,000
Total - FY 18/19 Capital Outlay	\$50,000
UtiliWorks Consulting - Proposal	(\$39,660)
10% Contingency	(\$3,966)
Total – Consulting Services	(\$43,626)
Amount Remaining in FY 18/19 Capital Outlay	\$6,374

Prepared by:



David S. Gould, P.E.
District Engineer

Submitted by:



Nem Ochoa
General Manager

Attachments:

1. AMI Presentation – dated 2/27/18
2. CVWD – Scope of work
3. UtiliWorks Consulting – Proposal dated 11/6/18



STATUS OF CVWD'S AUTOMATED METER INFRASTRUCTURE (AMI) PROGRAM

Crescenta Valley Water District
February 27, 2018



AMI – Benefits & Goals

Benefits to CVWD

- ◉ Real-time billing information on a monthly basis instead of every 2 months.
- ◉ Smoother cash flow by moving from bimonthly to monthly billing periods.
- ◉ Monitoring status of Smart Meter to know when meter stops working and end of battery life.
- ◉ Provide data for future consideration of water budget-based rates and billing
- ◉ Reduce unaccountable water loss & ability to monitor tampering or theft
- ◉ Provides up-to-date water use information to customer service
- ◉ Determine high-flow areas, optimal locations for pipeline replacement & reduced power costs from pumping
- ◉ Ability to remotely turn off meters or restrict water flow
- ◉ Re-assign Meter Reader position to a Utility Worker position

AMI – Benefits & Goals

Benefits to CVWD's Customers

- ◉ **Better communication with customers regarding leaks, high water consumption, and water meter replacement**
- ◉ **Encourages water conservation by providing customer real-time usage information**
- ◉ **Reduce billing disputes to increase customer satisfaction and decrease staff time**
- ◉ **Accessibility to important information or available from CVWD**
- ◉ **Provide recommendations to encourage water conservation and improve household water efficiency**
- ◉ **Provide Alerts (Text, email, or voice) on water consumption or an emergency event**
- ◉ **Improve CVWD's Public Outreach**

AMI – Costs & Concerns

CVWD – Costs & Issues

- ◉ Significant initial costs – prelim. estimate - \$2.5M to \$3.2M
- ◉ On-going or annual fees - \$80,000/yr; plus manual meter reading until system fully integrated
- ◉ AMI implementation schedule - 24 to 30 months
- ◉ Public Outreach – communicating AMI program to customers
- ◉ How will the program be managed? – with staff or consultant
- ◉ Pilot program or Phased approach
- ◉ Which service provider or vendor for equipment and software

Customer Concerns

- ◉ Loss of privacy
- ◉ Resistance to electronic devices (Opt Out Program)
- ◉ Not associating customer benefit with impact to rates

AMI – Summary of Benefits & Costs

Over 10 years:

- \$3.7 million of cumulative costs (quantifiable)
- \$4.5 million of cumulative benefits (quantifiable)
- \$960,000 of estimated intangible benefits

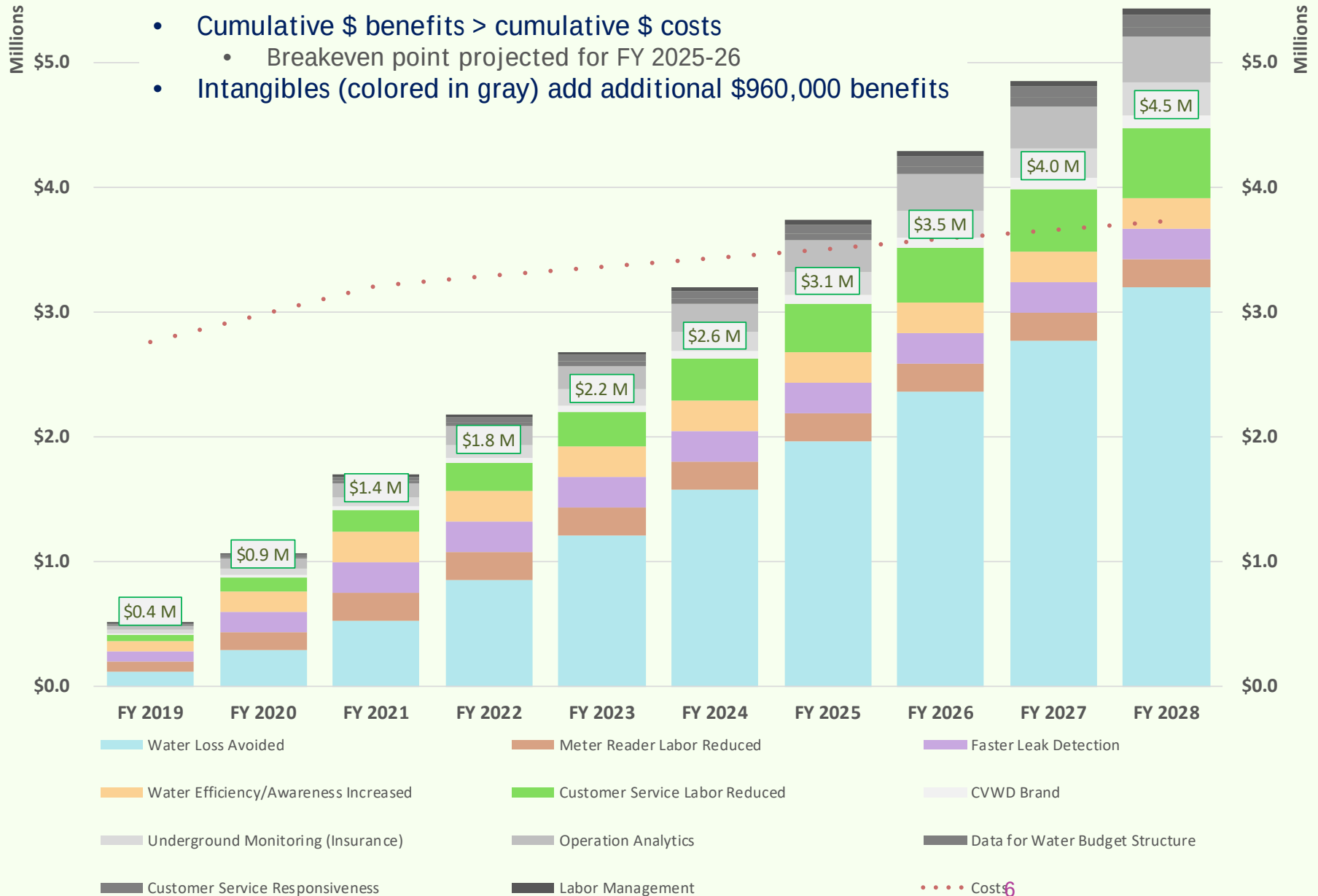
Costs

Benefits

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Costs (Quantifiable)										
Primary Infrastructure	\$2,528,900									
Installation of System	\$154,667	\$154,667	\$154,667							
Variable Costs	\$73,720	\$73,720	\$73,720	\$73,720	\$73,720	\$73,720	\$73,720	\$73,720	\$73,720	\$73,720
Subtotal Costs (Quantifiable):	\$2,757,287	\$228,387	\$228,387	\$73,720	\$73,720	\$73,720	\$73,720	\$73,720	\$73,720	\$73,720
Benefits (Quantifiable)										
Water Loss Avoided	\$123,153	\$166,961	\$241,033	\$326,399	\$353,748	\$367,898	\$382,614	\$397,919	\$413,835	\$430,389
Meter Reader Labor Reduced	\$74,880	\$74,880	\$74,880							
Faster Leak Detection	\$81,500	\$81,500	\$81,500							
Water Efficiency/Awareness Increase	\$81,500	\$81,500	\$81,500							
Customer Service Labor Reduced	\$55,536	\$55,536	\$55,536	\$55,536	\$55,536	\$55,536	\$55,536	\$55,536	\$55,536	\$55,536
Subtotal Benefits (Quantifiable):	\$416,569	\$460,377	\$534,449	\$381,935	\$409,284	\$423,434	\$438,150	\$453,455	\$469,371	\$485,925
Intangibles										
CVWD Brand	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Underground Monitoring (Insurance)	\$26,563	\$26,563	\$26,563	\$26,563	\$26,563	\$26,563	\$26,563	\$26,563	\$26,563	\$26,563
Operation Analytics	\$37,000	\$37,000	\$37,000	\$37,000	\$37,000	\$37,000	\$37,000	\$37,000	\$37,000	\$37,000
Data for Water Budget Structure	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500
Customer Service Responsiveness	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Labor Management	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Subtotal Intangibles:	\$96,063	\$96,063	\$96,063	\$96,063	\$96,063	\$96,063	\$96,063	\$96,063	\$96,063	\$96,063

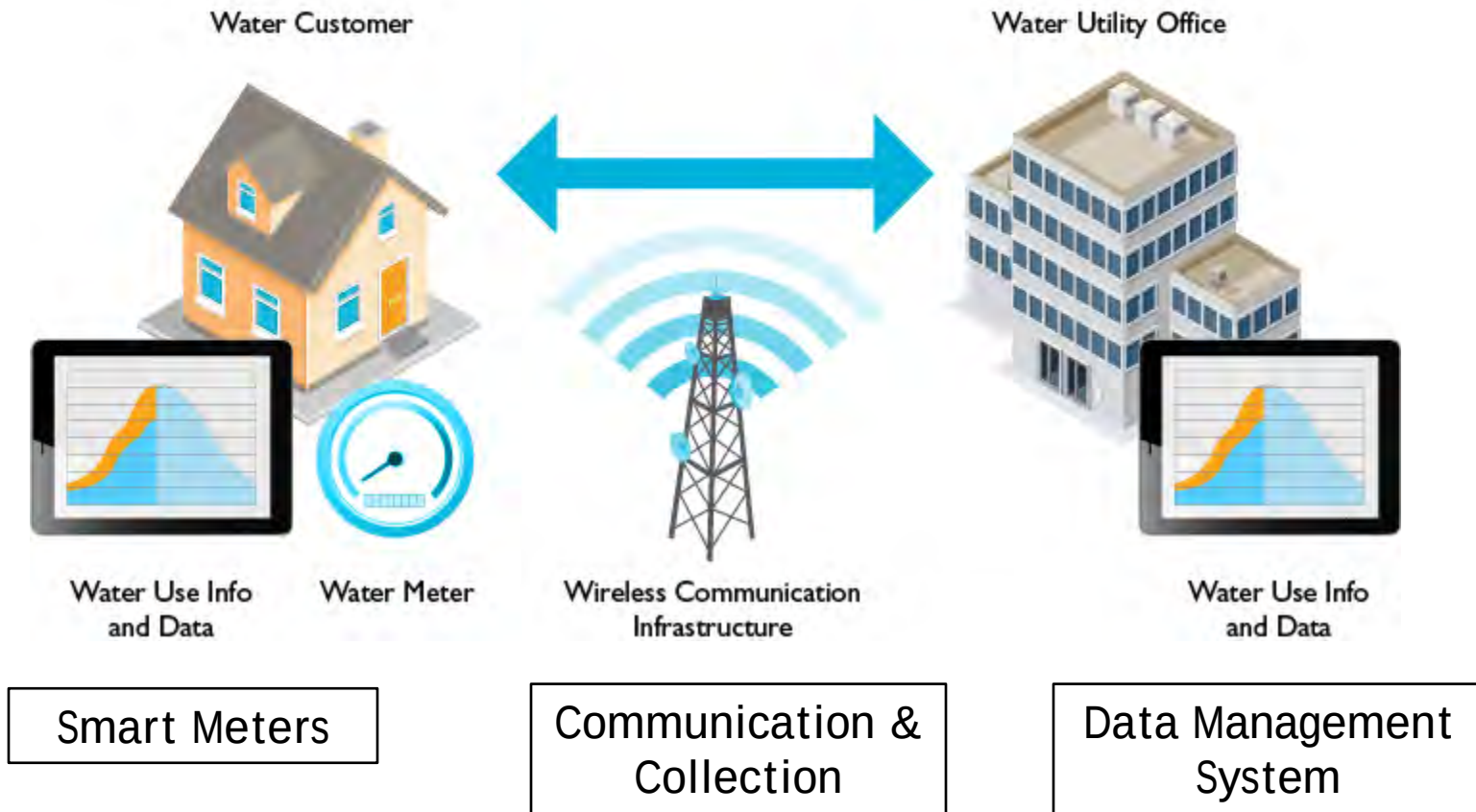
AMI – Breakeven Analysis

- Cumulative \$ benefits > cumulative \$ costs
 - Breakeven point projected for FY 2025-26
- Intangibles (colored in gray) add additional \$960,000 benefits



AMI – Components

Automated Meter Infrastructure and Smart Water Metering



AMI – Preliminary Cost Estimate

Crescenta Valley Water District

Preliminary Cost Estimate For Implementation of AMI Program

Task	Annual Fee	Preliminary Total
Smart Meters - Total		\$1,038,600
Radio Transceivers - Total		\$1,026,300
Meter Lids - Total		\$711,300
Fixed Area Network - Total	\$60,000	\$416,000
Data Management System - Total	\$20,000	\$48,000
AMI - Total	\$80,000	\$3,240,200
FY 18/19 Budget		\$1,620,100
FY 19/20 Budget		\$1,620,100
AMI - Total without Meter Lids		\$2,528,900
FY 18/19 Budget without Meter Lids		\$1,264,450
FY 19/20 Budget without Meter Lids		\$1,264,450

AMI – GO LIVE!

- ◉ **AMI – GO LIVE!**

- When AMI System installed & tested
- CVWD staff trained on system
- Complete Public Outreach Program

- ◉ **Timeline – Completed by January 2020**

- ◉ **Smart Meters – Oct 2019**

- Install ¾" & 1" meters – 2,205 total meters; Avg. 25 meters/week
- Install 1-½" to 4" meters – 250 meters; Avg. 4 meters/week
- Install radio transceivers – 7,640 transceivers (CVWD or Contractor)

- ◉ **Fixed Area Network – Nov 2019**

- Scope of Work & Choose Vendor
- Install Remote Collection devices (CVWD or Vendor)
- Programing & integration
- Testing & Training

- ◉ **Data Management System – Dec. 2019**

- Scope of Work & Choose Vendor
- Programing & integration
- Upgrade Billing System
- Testing & Training

- ◉ **Public Outreach – Aug. 2019**

- Public Meetings & Input
- AMI & Opt-out Policy – Board
- Communication – Customers

AMI – Recommendation

◉ Smart Meters

- Accelerate Water Meter Replacement Program
- Radio transceivers
 - ◉ Meet with Vendors
 - ◉ Determine type of units

◉ AMI Communications

- Meet with Vendors
- Development Scope of Work

◉ AMI Data Management System

- Meet with Vendors
- Development Scope of Work

◉ Phase Project or Pilot Study

- Phase in AMI – data collection as system installed

◉ Public Outreach

- Prepare and implement public outreach program
- Prepare AMI opt-out policy

◉ AMI Funding

- Discussion during FY 18/19 Budget process
- Use MTBE reserves or General Water Fund for next 2-years - \$2.5M to \$3.2M

AMI – Program

BACK-UP INFORMATION

Crescenta Valley Water District

Automated Meter Infrastructure Program

Scope of Work

Task 1: Review and Status of CVWD's Automated Meter Infrastructure Program

1. Review data and information completed by CVWD
2. Research and provide recommendations for the following:
 - a. Radio transceivers for:
 - i. Sensus iPerl - ¾" and 1" meters
 - ii. Sensus OMNI 1.55 – 1-1/2" meters
 - iii. Master Meters - Octave O2-2.5 – 2" meters
 - iv. Master Meter - Octave O3.5 -3" meters
 - v. Master Meter - Octave O4.5 - 4" meters
 - b. Water meter box lids for radio transceivers – Concrete and Metal
 - c. Communication Networks from meter box to storing data on "Cloud" including:
 - i. Review Propagation Study
 - ii. Data Collection Units and/or repeaters
 - iii. Programming meter
 - iv. Integration into Cloud
 - v. Methods to retrieve information
 - d. Meter Data Management System to generate billing, water usage analysis, customer reports and alerts including
 - i. Determine information needed for CVWD such as leak detection, high or low water use, and emergencies
 - ii. Review Companies that provide these services
 - iii. Provide recommendation

Task 2 – Prepare and present Business case for implementation of CVWD's AMI program including

1. Preliminary Cost Estimate including
 - a. Purchase of equipment and materials
 - b. Labor by outside company
 - c. Purchase of software and annual subscription costs
2. Payback period or Return on Investment
3. Presentation at Engineering Committee Meeting and Board meeting
4. Project Schedule for implementation by June 2021 (or sooner)

Task 3 – Implementation of AMI Program

1. Research and provide recommendation for the following
 - a. Pilot Study
 - b. Phasing project over 2 or 3 year period

Task 4 – Project Schedule – Study to be completed by end of February 2019.

Task 5 – Proposed fee.



CRESCENTA VALLEY
WATER DISTRICT

DRAFT

UtiLiWorks Consulting, LLC Proposal

Advanced Metering Infrastructure Strategic
Planning and Roadmap Development



Deliver to:

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

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

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UtiLiWorks™

Strategic Utility Consulting

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TRANSMITTAL LETTER



To: David S. Gould, District Engineer
Crescenta Valley Water District

From: Kody Salem, Principal
UtiliWorks Consulting, LLC

RE: Advanced Metering Infrastructure Strategic Planning and Roadmap Development

UtiliWorks Consulting, LLC (UtiliWorks) appreciates the opportunity to submit this proposal to Crescenta Valley Water District (CVWD, District) to provide AMI advisory services related to business case validation, readiness assessment, and strategic planning. UtiliWorks offers professional services to assist utilities in the evaluation, design, procurement, and implementation of AMI and Smart Metering Solutions. This is the exclusive focus of our company. In that regard, we are interested in this opportunity as we believe that we are uniquely positioned to guide the District regarding its AMI implementation initiative.

We understand that the District has conducted an initial business case assessment to determine AMI feasibility for its customers. We applaud the District's initiative to increase efficiencies and provide excellence in utility operation and customer service. We are confident that the District's AMI initiative is an excellent fit for our services and the long-range solutions that must be developed. We would like to highlight the key areas we believe differentiate us from other firms. Evidence supporting these points has been provided throughout this proposal. These key differentiators are:

1. Industry Recognition: Our staff have worked on many AMI engagements on behalf of utility clients over the past 13 years, and we are very familiar with utility operations across all functional areas. By utilizing a strategic approach which includes public outreach and benefits verification, we have been able to assist our clients in receiving industry accolades. These include:
 - a. Orangeburg Department of Public Utilities (DPU), SC (*"Best Smart Infrastructure Project of the Year"*, CS Week 2015)
 - b. Albuquerque Bernalillo County Water Utility Authority, NM (*"Best Smart Infrastructure Project"*, CS Week 2013)
 - c. Ruston, LA (*"Smart Grid Project of the Year"*, Utility Automation and Engineering T&D Magazine, 2010)
 - d. San Marcos, TX (*"Best Smart Infrastructure/Grid Project"*, CS Week 2010 and *"AMI Project of the Year"*, DistribuTECH 2009)Many of our clients have been featured in both international trade journals and local newspapers based on the success of their automated metering projects. We are very proud of our clients' accomplishments and will always seek to gain them the recognition they deserve.

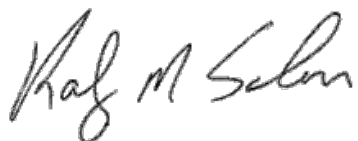
2. Agile and Adaptable Consulting Firm that Specializes in this Market Space. We are a smaller, highly-focused company with subject matter experts who have deep roots in the AMI market. Being a smaller consulting firm focused on AMI, we typically have a lower cost compared to large multi-national engineering firms. We will provide the District and its members full access to our senior staff and executives. We have excellent client references from utilities who desire a more agile organization with a tailored delivery strategy. Our team is known for our "hands on" experience with technology, vendors, and owners in both pilot and full deployment environments.

You will see evidence of our work with virtually all the leading vendors in this space. Our references are the best way to confirm this.

3. A Tailored Solution for Your Unique Environment. In performing our initial engagement with the District, we plan to utilize a comprehensive approach in developing a detailed implementation plan and analyze how an AMI implementation can positively impact each department, not solely focusing on the meter-to-cash functions. As part of our regular engagements, UtiliWorks helps our clients determine which technology applications make sense for their unique environment. This includes budgeting, planning, selection of the appropriate technology, and providing implementation support and oversight. Working in conjunction with utility personnel, our team can create an optimum solution for the District because we do not associate our recommendations with a particular technology, and *we have no vendor affiliations*. This allows us to independently guide utilities towards a “best-fit” solution without outside influence. Although independent, our executives at our firm have strong working relationships and direct access to top level personnel at AMI vendor organizations. This helps to expedite resolution of any issues that may arise during a project. Our team also has a robust pricing database which further assists in developing estimates and negotiating the most favorable terms possible for our utility clients.

We believe that we are an excellent fit for the work requested by the District for AMI procurement and contract management, and we are confident that our team will connect with Crescenta Valley Water District in a cost-effective way that will yield great results.

Respectfully submitted,



Kody Salem
Principal
UtiliWorks Consulting, LLC
ksalem@utiliworks.com

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Baton Rouge, LA 70808
P (615) 375-6396
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Section 1 - Firm Profile

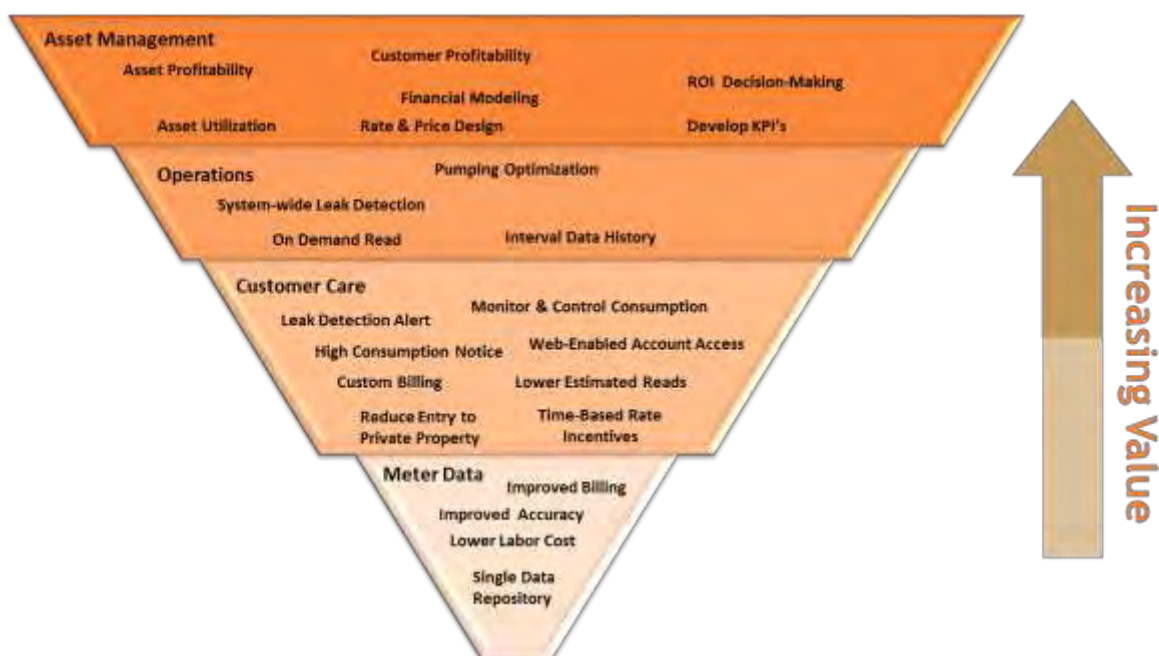
UtiliWorks is a privately held company. Since our founding in 2005, we have had over 80 clients (both past and present) focused on AMI/Smart Metering technology. As our client base continues to grow, so has our consulting team. Please see below for the UtiliWorks Consulting profile.

UtiliWorks Consulting, LLC Profile		
Contact Information	2351 Energy Drive Suite 1010 Baton Rouge, Louisiana 70808 Website: www.utiliworks.com	Contact: Dale Pennington Phone: (631) 807-4063 Fax: (225) 612-6404 Email: dpennington@utiliworks.com
Business Focus, Attributes	· Utility focused professional services firm · Utility technology design and deployment · Project management and implementation support	
Company Information	Founded: 2005 Limited Liability Company	FEIN: 20-5167904 DUNS: 825164713
Services	· Assessment & Business Case Development · Procurement & Vendor Contract Negotiations · Smart Grid/AMI Program Management · Deployment Strategy & Field Services · Systems Integration Planning & Oversight · Business Process & Change Management · Customer Communications · Benefits Verification · Utility Data Optimization · Staff Augmentation	
Company Mission	Together with our clients, UtiliWorks advances business and technology solutions, which strategically enhance utility operations. We focus on the delivery of your technology system and the requisite business process changes that will drive performance throughout your organization.	
Location	· Corporate Office in Baton Rouge, Louisiana · Associate offices in Arizona, British Columbia, California, Florida, Illinois, Indiana, Kansas, Minnesota, Nevada, New York, Ohio, Tennessee, Washington, and Texas	
Banking	Chase Bank 451 Florida St., 7 th Floor, Suite 726, Baton Rouge Louisiana 70801 Attn: Michelle Boudreaux Phone: (225) 332-7718	
Insurance and Bonding	Juban Insurance Group 4319 Bluebonnet Boulevard, Baton Rouge Louisiana 70809 Attn: Dave Peek Phone: (225) 291-0405	
Legal	Graves-Carley, LLP 2137 Quail Run, # B, Baton Rouge, Louisiana 70808 Attn: Allen Graves Phone: (225) 757-7676 Fax: (225) 757-1771	

Section 2 - Scope of Work

2.1 Project Understanding and Approach

It is UtiliWorks' understanding that CVWD has already taken steps to improve its operational capabilities by replacing a large number of its old and/or outdated meters. UtiliWorks stands by the idea that AMI is a transformational technology, affecting all aspects of a utility's operations and customer service. As a result, the valuation of benefits of an AMI program reach far beyond just simple meter reading or meter equipment upgrades. Many utilities that implement AMI do not fully realize the value of this investment as a result of underutilization of the data available to them. Beyond simple meter reading, AMI can improve customer service, operations and engineering, and asset management. UtiliWorks' team of Subject Matter Experts (SMEs) can help CVWD identify and quantify the benefits of an AMI system prior to implementation, in order to position the District to actualize the total value of its investment.



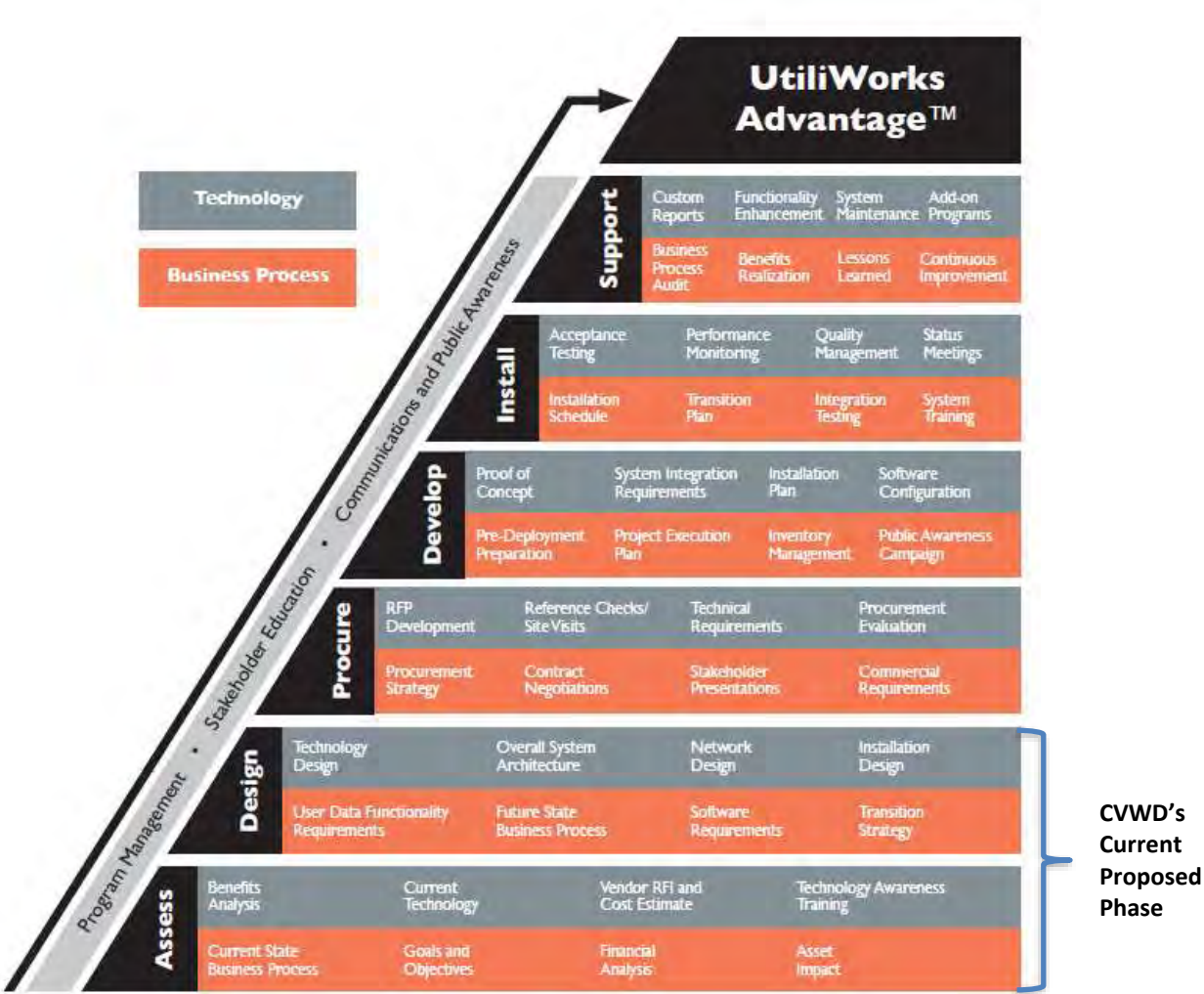
In addition to considering CVWD's unique business considerations, we are well-positioned to review and take stock of CVWD's preparedness for implementing AMI. By analyzing the current state of operations at CVWD, UtiliWorks can make precise recommendations for a number of technological and logistical factors associated with AMI system design and procurement. UtiliWorks is prepared to make recommendations on:

- Radio transceivers for the existing metering population;
- Water meter box lids for radio transceivers, including both concrete and metal;
- Communications networks, including aspects of both network architecture and business model (e.g., utility-owned and utility-operations, network-as-a-service, etc.); and,
- Meter Data Management System, including capabilities to meet data and analytics needs, and an assessment of current billing systems to properly interface with such a future system.

We believe our team has more true deployment experience (versus theoretical understanding) than any other consulting firms in this sector. We understand that CVWD is interested in a phased approach, moving forward with an AMI system. We are aligned in that we believe an AMI system should first prove its operational capabilities—that data can be reliably delivered throughout a system, and that all system alarms, events, and capabilities are functional, so as not to interfere

with critical meter-to-cash processes. For this reason, UtiliWorks suggests developing an implementation plan using our tried-and-true “Proof of Concept” (POC) approach. The POC approach involves both an “Alpha” and a “Beta” phase. These phases are defined around first proving that all system alarms, events, and capabilities are functional in a controlled environment (typically a test bench) - Alpha, then deploying a predetermined number of test meters into the general field population for billing - Beta.

To support the District in its AMI initiatives and to facilitate the activities described herein, we propose our UtiliWorks Advantage™ methodology. This process model focuses on delivery of utility data and business work flow changes that will drive performance throughout the client organization. The services requested by CVWD fit squarely into our service model, with a clear path of progression.



2.2 Scope of Work

Task 1 – Review and Status of CVWD’s Automated Meter Infrastructure Program

Task 1 provides the assessment and analysis necessary for CVWD to plan and implement an AMI program. The assessment aids in the identification of the underlying business reasons that are motivating the effort and reveals critical success factors and risks to consider. The fundamentals include education workshops, identification of project objectives, and understanding the current state of operations. In addition, UtiliWorks will advise on which technologies are best suited for the Utility’s unique environment and identify the associated business process and operational changes that must occur to realize the maximum benefits of an AMI deployment. Technology recommendations will include:

- Radio transceivers for the existing meter population,
- Water box lids for radio transceivers,
- Communication networks, and
- Meter data management/analytics systems.

Specific tasks and deliverables associated with Task 1 are outlined below.

Task 1.1 – Project Kickoff and Mobilization

Prior to launching the project, UtiliWorks will work with the CVWD Project Manager (PM) to compile the internal project team org chart which will facilitate effective communications and schedule working sessions. UtiliWorks will hold a remote kick off meeting with the stakeholders and project team members to review the project scope, timeline, communications plan and housekeeping items. UtiliWorks will work with the CVWD PM to develop the kickoff meeting agenda and identify attendees.

During mobilization, UtiliWorks will initiate our discovery effort to review data and information provided by CVWD. The team will compile the necessary data and information to assess the current state of utility operations and develop initial analysis and recommendations. UtiliWorks will subsequently schedule the necessary on-site workshop to review the responses received with CVWD personnel.

Deliverables: Kick off Meeting / Initial Current State Discovery documents

Task 1.2 – Technology Review, Research and Recommendations

As part of the on-site technology review, UtiliWorks will cover the end-end process of how AMI data is transmitted from meter box to storing data in the “Cloud.” We discuss the relative advantages/disadvantages of AMI/MDMS platforms as they relate to CVWD and delve into the critical success factors in order to identify how CVWD can avoid common pitfalls. UtiliWorks will provide you with a technology review and market vendor overview, with a focus on vendors that are a “fit” for CVWD. The technology review will be an interactive discussion designed to provoke thought and prompt questions and bring CVWD’s team knowledge up to a level suitable for making decisions going forward with an AMI initiative.

Deliverables: On-site Technology Review and Agenda, Slide deck including vendor product overview

Task 1.3 – Current State of Operations

UtiliWorks will work with the CVWD PM to identify the SMEs and schedule the necessary on-site workshops to review the discovery responses received with each respective utility department. The

output of this task will serve as inputs to UtiliWorks' findings and recommendations specific to CVWD. As applicable, UtiliWorks expects to meet with the following departments at a minimum:

- Billing / Customer Service
- Meter Reading / Meter Shop / Field Services
- Finance / Rate Analysis
- Engineering
- Water Operations
- Conservation
- Information Technology (IT) / Communications

Deliverables: Completed Current State Discovery

Task 1.4 – AMI Recommendations Report

All of UtiliWorks findings in Task 1 will be documented in a comprehensive written report. This report will be the primary vehicle for communicating UtiliWorks recommendations to CVWD.

UtiliWorks will schedule two working sessions with CVWD upon delivery of the Draft AMI Assessment Report to review the results and recommendations. UtiliWorks expects CVWD to provide feedback/questions/comments on the Draft Report, which will then be incorporated into the Final Report. Additionally, UtiliWorks will prepare and conduct an onsite presentation to CVWD's Executive Management and Stakeholders summarizing the effort, results and recommendations.

Deliverables: AMI Recommendations Memorandum

Task 2 – Prepare and Present Business Case for Implementation of CVWD's AMI Program

To augment the technology assessment, UtiliWorks will provide a quantification of the expected costs and potential benefits of implementing AMI technology. UtiliWorks will deliver the initial data requests that will feed the assumptions of a comprehensive cost-benefit model. UtiliWorks will review the model, and the underlying assumptions, with CVWD and incorporate them into the model. The generated results will provide the overall project economics, including: Net Present Value (NPV); Return on Investment (ROI); Internal Rate of Return (IRR); payback period; and, estimated cost.

A benefits analysis will identify and quantify the value propositions that can be realized with the successful deployment of an AMI system. The hard, quantitative benefits include areas of potential operational savings, revenue enhancement, and recovery of product losses. The cost estimate will reflect both capital and ongoing operation & maintenance costs. We will also utilize cost data we have compiled in our comprehensive database that includes current pricing for AMI and supporting technology, as well as information and data gathered via UtiliWorks industry experience.

To finalize the assumptions that will feed the model, UtiliWorks will hold remote working sessions and send additional data requests, as required. UtiliWorks will present and review the results with CVWD prior to the drafting of a comprehensive business case report. This report will represent a narrative of the financial model that can be used to understand the justification of an AMI program. Presentations on the business case and financial feasibility of the AMI program will be given at the requisite meetings.

Assumptions: The number of model scenarios is limited to three (3). Additional scenarios can be performed for an additional charge. Project lifecycle for the business case will be based on full deployment being complete on or before June 2021.

Deliverables: Financial model results, Business Case results report and recommendations, Presentation of business case results at Engineering Committee Meeting and Board Meeting

Task 3 – Implementation Planning for AMI Program

UtiliWorks will provide implementation planning to support deployment options for the CVWD AMI Project. In UtiliWorks' phased approach, the project will have two primary phases. A POC Phase and Full Deployment Phase. A pilot study will also be under consideration. Total duration for the AMI project is expected to be 2-3 years.

UtiliWorks will conduct workshops with CVWD to define and document how the POC will ultimately be designed and deployed. The plan will include, at a minimum, project activities, durations and sequencing for: equipment acquisition; required materials; testing; training; and, installation preparation.

Deliverables: AMI Implementation Plan as part of the overall report

Project Management and Services

UtiliWorks will provide structured project management to ensure that all project components are executed in a timely, organized fashion and completed to the project definition and expectations. Project Management activities include: maintaining the overall project schedule; work with all project participants to monitor progress and adjust the work plan as needed to stay on schedule; facilitate regular project progress and other meetings; create project status reports as required with input from the District; and, track project budgets. UtiliWorks will track this task order to ensure all work stays within scope and initiate change requests for approval by the District if required.

Managing project deliverable timeliness, quality, and project costs are measures of success and satisfaction. As such, UtiliWorks delivery methodology employs a quality monitoring process whereby senior management within the firm will monitor all timeliness, quality and project costs adherence to ensure success in all areas.

Deliverables: Project Charter, Microsoft Project Plan, SharePoint (shared workspace)

Proposed Schedule



Proposed Fee

UtiliWorks is proposing a fixed-price fee with monthly invoicing by percent complete per task. Extended pricing uses a blended labor rate of \$200/hour. Taxes and/or fees are not included and extra if applicable.

Task	Estimated Man-hours	Extended Price
Task 1 – Review and Status of CVWD’s Automated Meter Infrastructure Program	60	\$12,000
Task 2 – Prepare and Present Business Case for Implementation of CVWD’s AMI Program	65	\$13,000
Task 3 – Implementation Planning for AMI Program	28	\$5,600
Task 4 – Project Management and Services	15	\$3,060
Subtotal		\$33,660
Estimated Travel and Expenses (Billed at Cost)		\$6,000
Total		\$39,660

Standard 2018 labor rates are as follows:

Resource	Hourly Bill Rate
Managing Director	\$295/hour
Principal	\$260/hour
Manager	\$220/hour
Associate	\$190/hour
Analyst	\$160/hour

Section 3 - References

3.1 Past and Present Clients

Our team has worked across the United States and abroad with utilities in relation to their various AMI initiatives. The map below demonstrates the breadth of our experience and speak to our ability to provide benefits for our clients regardless of their geography or topology. Our recommendations are informed by a detailed review of your utility’s service area and unique characteristics.



Please see the following pages for a list of past and current projects within the last 5 years. The matrix that follows provides an overall nature and scope of our experience in AMI and associated technology. We have worked with multiple utilities across the United States by assisting them during the various stages of advanced metering deployment including: assessment, planning, design, procurement, and implementation. This includes clients with similar environments and requested scope of work to the District.

Utility	State	Utility Type	Meters	Assessment and Business case	Technology Procurement & Contract Negotiations	Program Management for Technology Solutions	Deployment Strategy and Field Services	Systems Integration Planning and Oversight	Business Process and Change Management	Stakeholder Outreach and Education	Benefits Verification	Utility Data Optimization	Staff Augmentation	Other
Anchorage Municipal Light and Power	AK	Electric	31,000	■	■	■	□	□	□	□	□	□	□	■
Huntsville Utilities	AL	Electric/Water/Gas	316,000	□	□	■	□	■	□	□	□	□	□	■
Arizona Public Service	AZ	Electric	1,000,000	■	□	■	□	□	□	□	□	□	□	□
Alameda County Water District	CA	Water	82,400	■	□	■	□	□	□	□	□	□	□	□
Alameda Municipal Power	CA	Electric	35,000	■	■	■	□	■	■	■	■	□	■	□
Azusa Light and Water	CA	Electric/Water	53,000	□	■	■	□	□	□	□	□	□	□	□
Burbank Water and Power	CA	Electric/Water	50,000	■	□	■	□	□	□	□	□	□	□	□
City of Buena Park	CA	Water	20,000	■	■	■	□	■	■	□	□	□	□	■
City of Oceanside	CA	Water	44,000	■	■	■	□	□	□	□	□	□	□	□
City of Palo Alto	CA	Electric/Water/Gas	72,000	■	□	■	□	□	□	□	□	□	□	■
City of Riverside	CA	Electric/Water	165,000	■	□	■	□	□	□	□	□	□	□	□
City of Roseville	CA	Electric/Water	93,000	■	□	□	□	□	□	□	□	□	□	□
City of Santa Rosa	CA	Water	53,000	□	■	■	□	□	□	■	□	□	□	□
City of Signal Hill	CA	Water	3,000	■	□	■	□	□	□	□	□	□	□	■
Electric Power Research Institute	CA	N/A	N/A	□	□	■	□	□	□	□	□	□	□	■
Glendale Water & Power	CA	Electric/Water	119,000	□	□	■	□	□	■	□	□	□	□	■
Long Beach Gas and Oil	CA	Gas	144,000	■	■	■	□	□	■	■	□	□	□	■
Long Beach Water Department	CA	Water	100,000	■	□	□	□	□	□	□	□	□	□	■
Los Angeles Department of Water and Power	CA	Electric/Water	2,060,000	■	□	■	□	□	□	□	□	□	□	□
North Marin Water District	CA	Water	20,800	■	□	■	□	□	□	□	□	□	□	□

Pasco County	FL	Water	200,000	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☒
Colonial Pipeline Company	GA	N/A	N/A	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☒
City of Highland	IL	Electric	11,200	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
City of Lawrence	KS	Water	34,000	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
City of Topeka	KS	Water	60,000	☒	☒	☒	☐	☐	☒	☐	☒	☐	☒	☒
WaterOne	KS	Water	145,000	☐	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐
Mayfield Electric & Water Systems	KY	Electric/Water	10,000	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☒
City of Minden	LA	Electric/Water	12,000	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
City of Opelousas	LA	Water	7,500	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐
City of Ruston	LA	Electric/Water	19,000	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐	☒
City of Shreveport	LA	Water	67,000	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☒
City of Springhill	LA	Water	2,500	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
City of Vivian	LA	Water	1,600	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
Cleco Corporation	LA	Electric	286,000	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☒
Plaquemines Parish Government	LA	Water	9,000	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
St. Bernard Parish Government	LA	Water	16,000	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
Sewerage and Water Board of New Orleans	LA	Water	130,000	☒	☐	☒	☐	☐	☐	☒	☐	☐	☐	☐
Town of Danvers	MA	Electric/Water	44,000	☐	☒	☒	☐	☒	☒	☐	☐	☐	☐	☒
Vineyard Energy Project	MA	N/A	N/A	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☒
City of Battle Creek	MI	Water	24,000	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
City of Jackson	MO	Water	13,000	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
City of Lee's Summit	MO	Water	30,000	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
Barbados Light & Power Company	N/A	Electric	124,000	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐
Bermuda Electric Light Company	N/A	Electric	36,000	☒	☒	☒	☐	☒	☒	☒	☐	☐	☐	☒
City of Winnipeg	N/A	Water	184,000	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☒
Grand Bahama Power Company	N/A	Electric	19,000	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
Korea Electric Power Corporation	N/A	N/A	N/A	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☒
Mexico Energy Regulatory Commission	N/A	N/A	N/A	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
Miltel Communications	N/A	N/A	N/A	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☒
Oshawa Power & Utilities Corporation	N/A	Electric	55,000	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
Charlotte Water	NC	Water	280,000	☐	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐
City of Belmont	NC	Water	5,000	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐

City of Wilson	NC	Electric/Water/Gas	71,000	■	■	■	□	■	■	□	□	□	□	■
Albuquerque Bernalillo County Water Utility Authority	NM	Water	172,000	■	■	■	□	■	■	□	□	□	□	■
Long Island Power Authority	NY	Electric	1,300,000	■	□	■	□	□	□	□	□	□	□	□
Village of Freeport	NY	Water	15,000	□	■	■	□	□	□	□	□	□	□	□
Orangeburg Department of Public Utilities	SC	Electric/Water/Gas	77,000	■	■	■	□	■	■	■	□	■	□	■
Gallatin Public Utilities	TN	Water/Gas	30,000	□	■	■	□	■	■	■	□	□	□	□
Loudon Utilities Board	TN	Electric/Water/Gas	20,000	■	■	■	□	■	■	■	□	□	□	■
Memphis Light, Gas and Water	TN	Electric/Water/Gas	998,000	□	□	■	□	□	□	□	□	□	□	■
Nashville Electric Service	TN	Electric	300,000	□	□	■	□	□	□	□	□	□	□	■
Sevier County	TN	Electric/Water	50,000	□	□	■	□	□	□	□	□	□	□	■
University of Tennessee at Knoxville	TN	N/A	N/A	□	□	■	□	□	□	□	□	□	□	■
Austin Water	TX	Water	220,000	□	□	■	□	□	□	□	□	□	□	■
Brownsville Public Utility Board	TX	Electric/Water	93,000	■	■	■	□	■	■	□	□	□	□	■
City of Arlington	TX	Water	106,000	■	□	□	□	□	□	□	□	□	□	■
City of Bryan	TX	Water	21,000	■	□	□	□	□	□	□	□	■	□	■
City of Galena Park	TX	Water	3,000	■	□	□	□	□	□	□	□	□	□	■
City of Houston	TX	Water	478,000	■	□	■	□	□	□	□	□	□	□	□
City of Killeen	TX	Water	56,000	■	□	■	□	□	□	□	□	□	□	■
City of San Marcos	TX	Electric/Water	31,000	■	■	■	□	□	□	□	□	■	□	■
City of Seguin	TX	Electric/Water	15,000	□	■	■	□	□	□	□	□	□	□	□
Fort Worth Water Department	TX	Water	242,000	■	□	■	□	■	■	■	■	□	□	□
Texarkana Water Utilities	TX	Water	26,000	□	□	■	□	□	□	□	□	□	□	□
City of Manassas	VA	Electric/Water	28,000	■	■	■	□	■	■	□	□	□	□	■
Town of Front Royal	VA	Electric	8,000	□	□	□	□	□	□	□	□	□	□	■
Chelan County Public Utility District	WA	Electric/Water	51,000	■	■	■	□	□	□	■	□	□	□	■
City of Richland	WA	Electric/Water	44,500	■	□	■	□	□	□	□	□	□	□	■

Buena Park, California, 20,000 water meters

Name of Business	Street Address	City & State	Contract Dates
City of Buena Park	6550 Beach Blvd	Buena Park, CA 90621	June 2014 - Present
Contact	Title	Telephone	Email Address
Michael Grisso	Smart Meter Manager	(714) 562-3705	mgrisso@buenapark.com

Description of Work Performed

UtiliWorks was contracted to provide consulting services in the evaluation and application study of the current smart metering technologies and present an AMR/AMI business case to the City of Buena Park. UWC further assisted with and AMR/AMI/MDM procurement, including a CIS readiness assessment. UWC led development of the City's DOI WaterSMART grant application for FY2017 and is engaged as Program Manager for the AMR/AMI deployment for approximately 20,000 water meters.

Program Cost: Est. \$6.9 Million

Project Manager: Bret Vonder Reith, Kara Truschel

Key Lead Technical Roles: Kody Salem, Joe Kelly, Dylan Kelly, Nicole Naassan

Vendor(s) selected: Neptune Technology (AMR/AMI), Equarius & Ferguson WaterWorks, WaterSMART (Customer Portal)

3.2 Client References**Santa Rosa, California, 53,000 water meters**

Name of Business	Street Address	City & State	Contract Dates
City of Santa Rosa	69 Stony Circle	Santa Rosa, CA 95401	May 2014 - Present
Contact	Title	Telephone	Email Address
Kimberly Zunino	Revenue Manager	(707) 543-3960	kzunino@srcity.org

Description of Work Performed

UtiliWorks was hired by the City of Santa Rosa to define their water AMR/AMI requirements and provide oversight on the development of their AMR/AMI RFP and procurement process. UtiliWorks was subsequently engaged to provide contract support services/negotiation with the selected vendors and is currently the Program Manager overseeing the deployment of the selected AMR/AMI and Meter Data Management System.

Program Cost: \$15 Million

Project Manager: Nicole Naassan / Bret Vonder Reith

Key Lead Technical Roles: Kody Salem, Joe Kelly, Dylan Kelly, Nicole Griffin

Vendor(s) selected: Sensus AMR/AMI, MeterSense MDMS

Oceanside, California, 44,000 water meters

Name of Business	Street Address	City & State	Contract Dates
City of Oceanside - Water Utilities	300 N. Coast Hwy	Oceanside, CA 92054	May 2017 - Present
Contact	Title	Telephone	Email Address
Rosemarie Chora	Water Utility Manager	(760) 435-5804	rchora@ci.oceanside.ca.us
Description of Work Performed		UtiliWorks was hired to elicit and document AMR/AMI feasibility and business case analysis for the City of Oceanside. This includes assisting Oceanside in their AMR/AMI procurement process selecting vendors. UtiliWorks was also contracted to assist with execution of the Proof of Concept (POC) phase and provide an assessment of the POC. Program Cost: TBD Project Manager: Bret Vonder Reith Key Lead Technical Roles: Kody Salem, Don Rankin, Joe Kelly, Dylan Kelly, Jon Mitchell Vendor(s) selected: TBD	

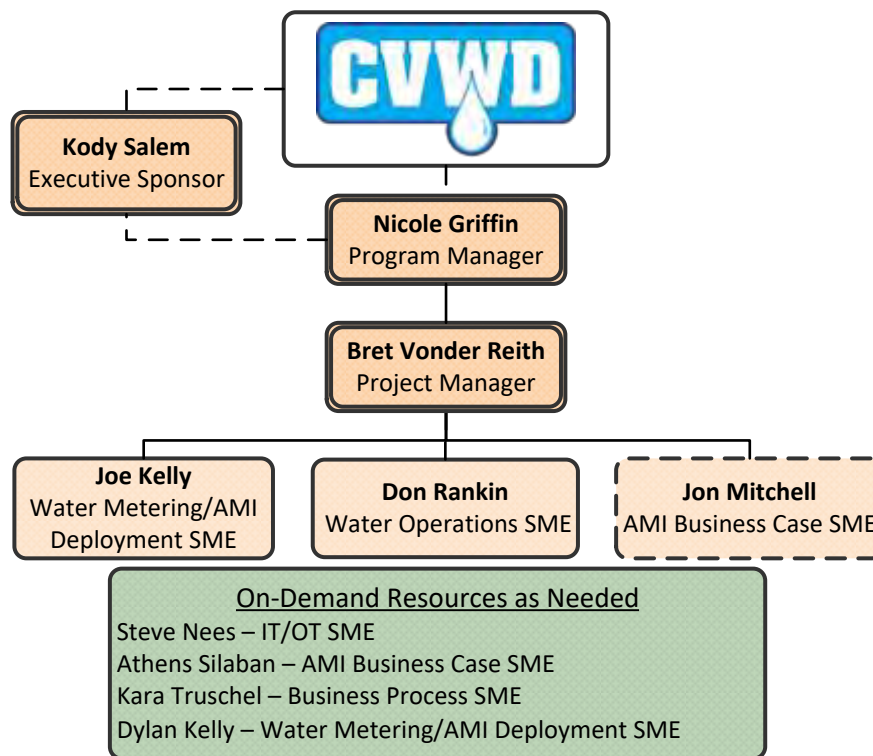
Novato, California 20,800 water meters

Name of Business	Street Address	City & State	Contract Dates
North Marin County Water the District	PO Box 146	Novato, CA 94945	March 2016-Present
Contact	Title	Telephone	Email Address
David Bentley	Auditor-Controller	(415) 761-8909	dbentley@nmwd.com
Description of Work Performed		UtiliWorks was hired to perform Advanced Metering Infrastructure Consulting & Project Management Services. UWC is conducting an Assessment, including a business case/cost analysis and AMR/AMI technology overview. Upon completion, UWC will guide North Marin Water the District (NMWD) through the design and planning for a pilot project implementation prior to full deployment. Program Cost: TBD Project Manager: Bret Vonder Reith Key Lead Technical Roles: Kody Salem, Joe Kelly, Kara Truschel, Don Rankin, Nicole Naassan Vendor(s) selected: Equarius Waterworks (Prime), Neptune (AMR/AMI), WaterSmart	

Section 4 - Proposed Project Team

4.1 Organizational Structure and Project Team

The proposed team has experience in successfully developing AMI technology and financial assessments, as well as subsequent activities including RFP development, procurement and deployment. UtiliWorks has strong client references and testimonials to support our value during all phases.



Kody Salem UtiliWorks Executive Sponsor, Principal Location: Nashville, TN	• Background in radio frequency, instrumentation, and controls technologies • More than 27 years of technical operations and management experience • Excels in understanding complex technical systems and effectively communicating their potential to positively impact engineering and operations, to both persons with technical expertise and members of the public • B.A. in Electrical Engineering Technology
Nicole Griffin Program Manager Location: Baton Rouge, LA	• Over seven (8) years with UtiliWorks • Certified Project Management Professional (PMP) • Certified Six Sigma Black Belt • Specializes in project management, stakeholder outreach and education, procurement, assessment/ feasibility studies, UtiliWorks Insight™ administration and data optimization. • Supports project activities by performing industry research, preparing documentation and orchestrating meetings for utility clients • Manages a portfolio of projects, consultants, and project managers of UtiliWorks • BS Journalism and Media Studies Rutgers University

	• BS Environmental Science
Bret Vonder Reith Project Manager Location: Encinitas, CA	• Over 25 years of project management, information systems development, and application integration experience • Over 20 years as an Information Technology data integration specialist and consultant • Certified Project Management Professional (PMP) with the Project Management Institute • BA in Economics and BA in Political Science
Joe Kelly Water Metering / AMI Deployment SME Location: Laughlin, NV	• Over 14 years of project management, installation, and consulting experience for utility customers • Over eight (8) years as an installation contractor in the AMR/AMI field for water, electric, and gas utilities • Involved in various UtiliWorks projects providing guidance on AMR/AMI deployment projects • BS in Business Administration
Don Rankin Water Operations SME Location: Topeka, KS	• A former water utility director (over 50,000 customer accounts) with 19 years leading water O&M, wastewater O&M, capital programs, and customer service operations • Experience in providing policy and plan development for water operations as well as asset management, billing systems, and data audits • Experience in developing use cases and business process re-engineering documentations for utility clients • Developing and accessing responses to request for proposal (RFP) documents and technology procurement efforts, especially in analytical reporting and business intelligence • Serving as a water subject matter expert for multiple UtiliWorks AMR/AMI projects, including City County Utilities of Winston-Salem/Forsyth (NC), Long Beach Water Department (CA), Chelan County Public Utilities District (WA), WaterOne (KS), City of Mesa (AZ), City of Palo Alto (CA), Fort Worth Water Department (TX) • BS in Electric Engineering
Jon Mitchell AMI Business Case SME Location: Baton Rouge, LA	• Mechanical engineer with a background of big data analytics • Works with clients' financial and engineering modeling, metrics, and analysis • Experienced in performing procurement support, including providing technical summaries of proposals and performing differential cost analysis • Involved with similar services at WaterOne (KS), Lawrence (KS), Long Beach (CA), Richland (WA), and others • BS in Mechanical Engineering

4.2 Resumes



Kody M. Salem

Principal



Kody Salem is a Principal with UtiliWorks based in Nashville, TN with an extensive background in radio frequency, instrumentation, and controls technologies, including more than 28 years of technical, operations, and management experience providing services and solutions to the utility market space. Kody excels in understanding complex technical systems and effectively communicating their potential to positively impact engineering and operations, to both persons with technical and non-technical backgrounds. He brings these skills to lead his team of consultants, providing the necessary guidance to deliver valuable services for their utility clients' projects and initiatives.

Previous Experience

Director of Sales & Marketing
Edison Automation, Inc. (2003 - 2009)

Senior Project Engineer -
Consoer Townsend Envirodyne Engineers
(1999 - 2002)

Field Project Engineer
HSQ Technology (1996 - 1999)

Shift Technical Engineer -
Westinghouse Savannah River Company
(1989 -1995)

Education and Certifications

BS Electrical Engineering Technology -
Purdue University, 1989

AAS Electrical Technology
Purdue University, 1987

A' Level Wastewater Certification
State of South Carolina (on 11/27/93)

'L' Level Security Clearance
US DOE Energy (from 2/90 - 5/95)

Specializations:

- Team Management
- Deployment Planning
- Cyber Security Plans
- RF Communications
- Business Case Assessments
- AMI /Smart metering / Smart grid
- Control and SCADA Solutions
- Acceptance Testing Plans

Relevant experiences and background include:

- Provide executive guidance and support to multidisciplinary team of consultants for water, gas, and electric utility technology programs
- Provide technical subject matter expertise for various utility technology initiatives (AMI, MDM, SCADA, IVR, OMS, etc.)
- Lead vendor solution analysis for AMI/ MDM procurement efforts on behalf of our clients
- Conduct AMI vendor request for information(RFI); analyze propagation studies to support client AMI infrastructure comparison and planning efforts
- Perform education sessions for AMI/MDM and related technologies early on in clients early on in initiative stages to facilitate proper project planning, budgeting, and scheduling

Recent Client Projects

- Alameda County Water District, CA (Executive sponsor - AMI Pilot Assessment)
- Azusa, CA (Technology Procurement and Vendor Contract Negotiations)
- Brownsville Public Utilities Board TX (Project Manager AMI/MDM Pilot)
- Bermuda Electric Light Company (SME Outage Management system RFP and vendor selection)
- Brownsville Public Utility Board (Business Process Mapping)
- City of Buena Park, CA (Project Sponsor - AMI Assessment, procurement and Deployment)
- Chelan County Public Utility District (Project Sponsor - Strategic Planning)
- City of Lawrence, KS (Project Sponsor & Technology Education - AMI Assessment)
- Gallatin Public Utilities (Program Manager AMI/MDM procurement and Deployment)
- Long Beach Gas & Oil (Project Sponsor - AMI Assessment / Procurement / Deployment)
- Long Beach Water Dept. (Project Sponsor - AMI Assessment / Procurement / Deployment)
- Loudon Utilities Board (Program Manager AMI/MDM Assessment through Deployment)
- North Marin Water District, CA (AMI Assessment, Project Sponsor - AMI Pilot)
- City of Richland, WA (Project Sponsor - AMI Assessment / Procurement)
- City of Santa Rosa, CA (Procurement education and training)
- City of Topeka, KS (Project Manager (SCADA Assessment, AMI Grant IVR and CIS RFP, Data Warehouse)
- City of Wilson, NC (Project Sponsor -AMI Assessment / Procurement)



Nicole Griffin

Manager

UtiliWorks™

Mrs. Griffin is a Manager for UtiliWorks Consulting, LLC based in Baton Rouge, LA with over 8 years of direct utility experience. Nicole specializes in project management, stakeholder outreach and education, procurement, assessment/feasibility studies, UtiliWorks Insight™ administration and data optimization. She supports project activities by performing industry research, preparing documentation and orchestrating meetings for utility clients.

Education and Certifications

BS Journalism and Media Studies
Rutgers University (May 2009)

BS Environmental Science
Rutgers University (May 2009)

Certified Project Management
Professional (PMP)
The Project Management Institute
(July 2013)

Certified Six Sigma Black Belt
(January 2015)

Certified Social Media Specialist
Louisiana State University (March 2013)

Completed the Louisiana Water
Operator Certification Exam for Level 1
Distribution, Production and Treatment
Completed the Louisiana Wastewater
Operator Certification Exam for Level 1
Collection and Treatment

Relevant experiences and background include:

- Planning and executing water, gas and electric utility technology programs including but not limited to advanced meter infrastructure (AMI), meter data management systems (MDMS) and customer engagement platforms such as web portals and phone applications
- Managing project scopes, schedule, budgets and deliverables, to drive projects to completion achieving favorable outcomes
- Developing smart grid/ water/ gas assessments and associated business cases with a clear roadmap to achieve anticipated benefits
- Administering UtiliWorks Insight, UtiliWorks' analysis and assessment tool
- Drafting request for proposal documents and leading technology procurement efforts
- Creating stakeholder outreach and educational programs to increase positive engagement with utility providers
- Designing and implementing data management programs to assist utilities in fully maximizing and optimizing the use of their data

Project References

- | | |
|--|--|
| • Alameda Municipal Power (AMI/ MDM/ Portal Program Management, Procurement, Assessment) | • City of Ruston (Project Management, Outreach & Education, Grant Reporting) |
| • Fort Worth Water Department (Outreach & Education, Business Process, Assessment) | • Monroe Water Department (AMI Project Management) |
| • Bermuda Electric and Light Company (Procurement, Outreach & Education) | • Utility Consumers' Action Network (PUC Testimony) |
| • Albuquerque Bernalillo County Water Utility Authority (Project Coordination) | • City of Topeka (Grant Writing, Project Coordination) |
| • Austin Water (Meter Reading Audit) | • City of Wilson (Project Management, UtiliWorks Insight) |
| • Barbados Light & Power Company (AMI/ MDM Procurement) | • City of Winnipeg (UtiliWorks Insight, AMI Business Case) |
| • Grand Bahama Power Company (AMI/ MDM Procurement) | • Long Island Power Authority (Renewables Research) |
| • Brownsville Public Utility Board (Project Coordination) | • Long Beach Gas and Oil (Outreach & Education) |
| • Chelan County Public Utility District (Outreach & Education, UtiliWorks Insight) | • Long Beach Water (UtiliWorks Insight) |
| • City of Arlington (Grant Writing) | • Vineyard Energy Project (Grant Reporting) |
| • City of Galena Park (Grant Writing) | • Village of Freeport (AMI/ MDM RFP) |
| • City of Richland (AMI Assessment, UtiliWorks Insight) | • City of San Marcos (UtiliWorks Insight, AMI Roadmap) |
| | • North Marin Water District (Outreach & Education) |
| | • City of Santa Rosa (Outreach & Education) |



Bret Vonder Reith

Senior Associate



Mr. Vonder Reith brings over 25 years of project management, information systems development and application integration experience for a variety of industries to include Utility customers. Bret's background includes over 20 years as an Information Technology data integration specialist and consultant. Bret is a proven leader, successful at leading complex projects and achieving organizational goals and objectives. Bret is a certified Project Management Professional (PMP) with the Project Management Institute.

Education and Certifications

BA Political Science
Claremont McKenna College (May 1980)

BA Economics
Claremont McKenna College (May 1980)

Certified Project Management Professional (PMP)
The Project Management Institute (May 2014)

Certified Novell Engineer (CNE)
(April 1995)

Completed Oracle Certification:

- 8i Architecture and Administration (May 2002)
- SQL and PL/SQL (April 2002)

Relevant experiences and background include:

- Planning and executing water and electric utility AMI implementation plans including but not limited to advanced meter infrastructure (AMI), meter data management systems (MDMS) and customer engagement platforms such as web portals and phone applications
- Managing project scopes, schedule, budgets and deliverables to drive projects to completion achieving favorable outcomes
- ERP Systems Integration
- Developing water utility assessments and associated business cases with a clear roadmap to achieve anticipated benefits
- Administering UtiliWorks Insight, UtiliWorks' analysis and assessment tool
- Drafting request for proposal documents and leading technology procurement efforts
- Designing and implementing data management programs to assist utilities in fully maximizing and optimizing the use of their data

Project References

- | | |
|---|--|
| • North Marin Water District (Project Manager) | • City of Buena Park (Project Manager) |
| • City of Santa Rosa (Systems Integration SME) | • City of Oceanside (Project Manager) |
| • Chelan County Public Utility District (Business Case Analyst) | • City of Riverside (Project Manager) |



Education and Certifications

BS Business Administration
Cal Polytechnic University Pomona (May 1985)

Joe Kelly

Deployment Manager/Meter SME



Mr. Kelly provides deployment management and metering subject matter expertise for UtiliWorks. Joe has 18 years' experience in the AMI/AMR field, eight of those years as the owner of a meter installation company. In addition to deployment oversight, Joe provides expertise in metering and network communications.

Relevant experiences and background include:

- Planning and executing water, gas and electric utility technology programs
- Managing installation contractors in meter deployments, oversight of meter inventory and project schedules and contractor performance
- Provide network feasibility surveys prior to network deployment
- Assists with smart grid/ water/ gas assessments and associated business cases with a clear roadmap to achieve anticipated benefits
- Design and construction of meter test benches for use in Alpha phase deployments
- Creating scopes of work and oversight for pre-deployment meter surveys
- Augments utility staffing with AMI system administration during and after deployment

Project References

- Alameda Municipal Power (Procurement, Alpha/Beta/Full deployment oversight of L&G AMI network)
- Long Beach Gas and Oil (Full deployment oversight of Sensus AMI network)
- North Marin Water District (Procurement and metering SME for Neptune AMI network)
- Santa Rosa Water (Procurement, Meter SME, Alpha/Beta/Full Deployment oversight of Sensus AMI network)
- Loudon Utilities (Procurement, test bench construction, Alpha/Beta/Full Deployment oversight)
- City of Mesa (Procurement, Full deployment oversight)
- Sewerage and Water Board of New Orleans (Pre-deployment meter/ meter box survey oversight)
- City of Winston-Salem (Pre-deployment meter box survey)
- Buena Park Water (Procurement, Full deployment oversight)
- City of Roseville (Procurement, meter SME, Alpha/Beta/Full Deployment oversight)



Education and Certifications

BS Electrical Engineering
Kansas State University (1986)

Don Rankin

Senior Associate

Mr. Rankin is an Electrical Engineer and experienced utility manager with 19 years leading Water, Wastewater and Stormwater Utility Operation and Maintenance, Capital Programs and Customer Service Operations. He is an innovative big picture thinker with strong analytical reporting skills. He developed utility business plans for reduced costs, improved services, and sustainable asset replacement that was tied to financial capacity.

Relevant experiences and background include:

- Serving as a water subject matter expert for multiple advanced meter infrastructure (AMI) assessments
- Planning and executing technology programs related to AMI and meter data management systems (MDMS) that meet water utility goals and objectives
- Matching advanced reporting capability to meet utility goals and objectives, while preparing analytical reports for AMI related projects for water and electric utilities
- Developing and accessing responses to request for proposal (RFP) documents and technology procurement efforts especially in analytical reporting and business intelligence
- Producing utility billing system data visualization reporting tools to facilitate on-demand charts and graphs of utility customer billing information
- Creating utility billing data discovery and audit tools for utility revenue enhancement
- Successfully obtaining modest multi-year utility rate increases
- Establishing project tracking tools for complex, multi-discipline, multi-project tracking
- Developing wastewater combined sewer overflow plan that minimizes regulatory exposure
- Successfully addressing community red water issues resulting in drastic reductions of customer complaints
- Creating an asset management strategy for complete life cycle planning of water, wastewater, storm water and levee utility infrastructure
- Directing major rehabilitations of water and wastewater plants

Project References

- | | |
|---|--|
| • Winston Salem, NC (Water Business Intelligence Reporting) | • WaterOne, KS (Water RFP Development and Vendor Assessment) |
| • Long Beach Water Department, CA (Water AMI Assessment, Business Intelligence Reporting) | • Mesa, AZ (Water, Gas, Electric AMI Assessment) |
| • Long Beach Gas & Oil Department, CA (Developing cost allocation model to access charges to multiple AMI / MDMS users) | • Palo Alto Utilities Department, CA (Water, Gas, Electric AMI Assessment) |
| • Alameda County Water District, CA (AMI Assessment and Evaluation of existing AMI) | • Oceanside Water Utilities Department, CA (Water AMI Assessment) |
| • Chelan County Public Utility District, WA (Assessment Evaluation) | • New Orleans Sewerage and Water Board, LA (Water system Assessment) |
| | • Fort Worth Water Department (Business Processes Assessment) |



Jon Mitchell

Analyst



Mr. Mitchell is a UtiliWorks Analyst with an engineering and federal government service background, leveraging his skills and experience to provide UtiliWorks' clients with valuable insight. His data interpretation and analytics are particularly beneficial in UtiliWorks' audits, financial modeling, and procurement endeavors.

Relevant experiences and background include:

- Developing comprehensive financial models analyzing the cost-benefit of the deployment of AMI, MDM, and other related systems
- Creating risk registers to assist utilities in avoiding common pitfalls involved with AMI implementation
- Developing current state assessments of utility operations
- Writing technical and financial summaries and presentation materials for upper-management review
- Creating and administrating databases for pricing, field surveys of equipment and conditions, and other high-volume data
- Developing system requirements for the procurement of AMI and related technology systems
- Preparing, publishing, and administrating RFPs based on utility requirements, goals, and objectives
- Conducting financial comparisons of competing vendor proposals
- Performing analytics on meter population to assist with utility planning, and on AMI data to assist in data utilization optimization

Project References

- | | |
|---|--|
| • Long Beach Gas & Oil (Data Analysis) | • City of Oceanside (AMI Business Case) |
| • Long Beach Water Department (AMI Business Case, Procurement) | • City of Palo Alto Utilities (AMI Business Case, Risk Assessment) |
| • City of Mesa (AMI Business Case) | • Riverside Public Utilities (AMI Business Case) |
| • Sewage and Water Board of New Orleans (AMI Business Case, Field Survey) | • WaterOne (AMI/MDM Procurement) |
| | • Alameda Municipal Power (Business Process Reengineering) |

Previous Experience

United States Naval Research Laboratory, MS 2014-2015

Education and Certifications

BS, Mechanical Engineering
Louisiana State University

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Agenda Item No. 3
November 20, 2018

To: Honorable President and Members of the Board of Directors
From: Brook Yared, P.E. – Senior Engineer
Subject: **Acceptance of Water & Sewer Facilities for Tract No. 1701, Lot 100, located at 1941 Waltonia Drive and Adoption of Resolution No. 741**

ACTION ITEM:

Resolution 741, Acceptance of Water Facilities at 1941 Waltonia Ave, Project D-12-10 – Consideration and adoption of Resolution No. 741 to authorize the General Manager to accept the water facilities within the public right-of-way for Lot 100 of Tract 1701 located at 1941 Waltonia Avenue

BACKGROUND:

On April 12, 2016, Staff was approached by the owner, Mr. Vahe Saroian, for a new development at 1941 Waltonia Drive about a proposed twelve (12) unit apartment building. CVWD's Rules and Regulations state that each new residential unit will require a separate water meter. Hence, a new multi-meter manifold for the development will be required and the costs for design and installation will be the responsibility of the owner.

DISCUSSION:

The owner entered into a developer's agreement with CVWD for the design, construction and dedication of facilities to CVWD. The Developer Agreement stipulates that the Developer transfer ownership of all newly constructed infrastructure to CVWD. CVWD then assumes responsibility for maintaining these facilities into the future. The Contractor will also submit a Bill of Sale to CVWD establishing a base value for the donated facilities for depreciation purposes.

Staff worked with the owner on the design of the multi-meter manifold and the developer hired a private contractor that was approved by CVWD to perform the work. CVWD provided the materials such as steel pipe, fittings and meters as well as inspection services for the project. The construction was completed on October 10, 2018 and the water facilities constructed for the subject project were completed to the satisfaction of the District.

RECOMMENDATION:

In accordance with CVWD's Rules and Regulations and the developer's agreement, it is the owner's responsibility to dedicate the water facilities to CVWD. The developer has completed the project and it is Staff's recommendation to adopt Resolution No. 741 to authorize the General Manager to accept the water facilities within the public right-of-way for Lot 100 of Tract 1701 located at 1941 Waltonia Avenue.

ENVIRONMENTAL REVIEW:

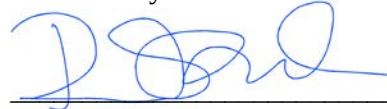
The Board had previously found this project to be exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15061 of the CEQA Guidelines.

Prepared by:



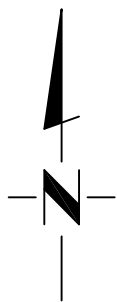
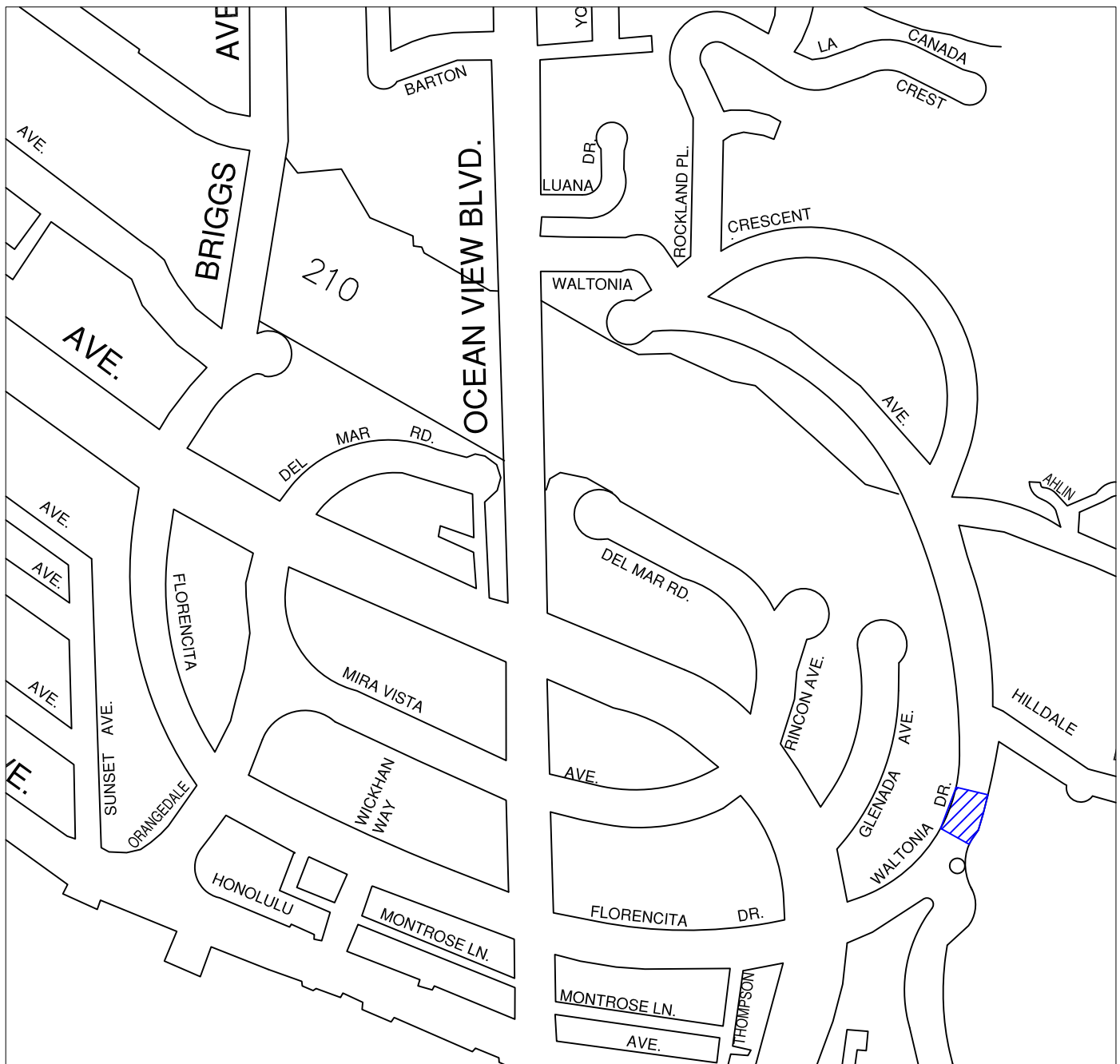
Brook Yared, P.E.
Senior Engineer

Submitted by:



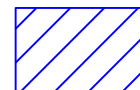
David S. Gould, P.E.
District Engineer

Attachments: 1 – Project Location Map
2 – Resolution 741
3 – Bill of Sale



NOT TO SCALE

MULTI-METER MANIFOLD INSTALLATION
LOCATION



CRESCENTA VALLEY WATER DISTRICT PROJECT LOCATION MAP

INSTALLATION OF TWELVE NEW 1-INCH WATER METERS AND ONE FIRE SERVICE AT 1941 WALTONIA DR.,
PROJECT D-12-10

RESOLUTION NO. 741
RESOLUTION OF THE BOARD OF DIRECTORS
OF THE CRESCENTA VALLEY WATER DISTRICT
ACCEPTING THE DONATION OF FACILITIES

WHEREAS, Crescenta Valley Water District (the “District”) entered into an Agreement with Vahe Saroian, (“Developer”), which provided for the construction by the Developer of certain water improvements (“Facilities”) for connection to the District’s system as part of the development for 1941 Waltonia Dr., (“Development”) within the District’s service area;

WHEREAS, the District, in order to accommodate the Developer’s construction of twelve (12) new apartment units required the construction of said water facilities;

WHEREAS, the water facilities have been completed in substantial conformance with the plans and specifications and Crescenta Valley Water District standards.

WHEREAS, the developer is required to donate them to the District;

WHEREAS, Developer has provided District with a deed, bill of sale, or other instrument of conveyance, conveying the Facilities from Developer to the District, as required by the agreement;

NOW, THEREFORE, BE IT RESOLVED that, the Board of Directors of Crescenta Valley Water District hereby accepts the donation of the Facilities for operation, maintenance, and repair by the District, subject to all rights of the District.

PASSED, APPROVED, AND ADOPTED at a Regular Meeting of the Board of Directors of Crescenta Valley Water District held on November 20, 2018, Resolution No. 741 was adopted by the following vote:

AYES: Directors

NOES: Directors

ABSTAIN: Directors

ATTEST:

President, Board of Directors
Crescenta Valley Water District

Secretary of the Board of Directors
Crescenta Valley Water District

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

I, RON MITCHELL, Secretary of the Crescenta Valley Water District, DO
HEREBY CERTIFY that the foregoing is a full, true and correct copy of Resolution
No. 741 of the Board of Directors of Crescenta Valley Water District adopted at a
Regular Meeting held on November 20, 2018, and that the same has not been amended
or repealed.

Secretary of the Board of Directors of
Crescenta Valley Water District

DATED: January 7, 2003

(S E A L)

CRESCENTA VALLEY WATER DISTRICT

BILL OF SALE

WATER SYSTEM FACILITIES

For good and valuable consideration, receipt of which is hereby acknowledged, the undersigned does hereby transfer and convey to Crescenta Valley Water District, a political sub-division of the State of California, and its successors and assigns, all right, title, and interest in and to the water main and structures constructed on Waltonia Drive. Said water main installation and construction located within Waltonia Drive for the property described below, and further warrants that the same is free and clear of any encumbrances.

Said property is described as Lot 100 of Tract 1701 (1941 Waltonia Dr.)

Executed this _____ day of _____, 20____

Owner

Vahe Saroian

CERTIFICATE OF ACCEPTANCE

As per Resolution No. 741 as set forth in the Minutes of a Meeting of the Board of Directors of the Crescenta Valley Water District held on November 20, 2018 the above Bill of Sale of Water System Facilities, dated _____, is hereby accepted by order of the Board of Directors of the Crescenta Valley Water District, a political sub-division of the State of California.

Date of Acceptance _____.

CRESCENTA VALLEY WATER DISTRICT
COST OF CONSTRUCTION STATEMENT
WATER SYSTEM FACILITIES

Developer's Name Vahe Saroian

Tract No. 1701 (Lot 100) Date Prepared 11/13/2018

	<u>Item</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Total Cost</u>
1.	Excavation and backfill (pipeline and appurtenances)		LF	_____	_____
2.	Trench Resurfacing		SF	_____	_____
3.	Install 4" CMC x CML steel water main_and appurtenances		LF	_____	_____
4.	Install Manifold		EA	_____	_____
5.	Pressure Testing		EA	_____	_____
6.	BacT Testing		EA	_____	_____

Grand Total Installation Cost* \$ _____

*Excludes fees paid directly to Crescenta Valley Water District.

Prepared by Vahe Saroian

My signature as witnessed here below atests that the above statement is true and correct to the best of my knowledge.

Date:

Authorized Representative

Official Title



CVWD Staff Trains for Emergency Response.

November 8, 2018

The Crescenta Valley Water District (CVWD), along with other members of the Public Water Agencies Group (PWAG), trained recently in California's Standardized Emergency Management System (SEMS) and Incident Command System (ICS) as well as National Incident Management System (NIMS).

Staff and board members from CVWD and employees from neighboring agencies gathered at CVWD's water treatment facility to take part in an eight-hour certification class to prepare for, respond to, and recover more effectively and efficiently to disasters.

SEMS is California's emergency response system, the structure for the response phase of emergency management. In order to respond to frequent and multiple disasters occurring anytime and anywhere in the state, it is important that emergency response agencies operate within a clear and consistent organizational structure. Public agencies are increasingly required to manage the costs of emergencies more effectively with fewer resources. Many different agencies must work together effectively to protect lives, property and the environment during disasters. SEMS facilitates priority setting, interagency cooperation, and the efficient flow of resources and information. SEMS is required by the California Emergency Services Act 2015 Edition (ESA) for managing multiagency and multijurisdictional responses to emergencies in California. State agencies are required to use SEMS and local government entities must use SEMS in order to be eligible for any reimbursement of response-related costs under the state's disaster assistance programs.

CRESCENTA VALLEY WATER DISTRICT

General Manager Report

GM Report

November 20, 2018

To: Honorable President and Members of the Board of Directors

From: Nem Ochoa, General Manager

Subject: **General Manager Report**

General Managers Report Topics:

- GM Activities

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

- Board of Directors Stipend Report

STAFFING

As of November 16th the District has gone 1,620 Days without a lost time accident.

GENERAL MANAGER ACTIVITIES

Meetings:

Management staff meetings	- November 13 th , November 19 th
FMWD meeting	- November 15 th
Thanksgiving luncheon staff event	- November 15 th
MWD meeting	- November 20 th

Submitted by:



Nem Ochoa
General Manager

Crescenta Valley Water District

Director Stipend/Reimbursement Report

November 2018

Name	Meeting Date	Meeting/ Event	Items Discussed	Meeting Compensation	Expense Reimbursement
Director Bodnar	11/02/18	Executive Committee	GM Goals & Objectives	\$ 90.00	
	11/09/18	Board Meeting		\$ 90.00	
	11/20/18	Board Meeting		\$ 90.00	
Director Claessens	11/02/18	Executive Committee	GM Goals & Objectives	\$ 90.00	
	11/09/18	Board Meeting		\$ 90.00	
	11/20/18	Policy Committee	Water theft, clothing allowance, work schedules	\$ 90.00	
	11/20/18	Board Meeting		\$ -	
Director Erickson	11/02/18	Engineering Committee	TTHM issues, well levels, AMI, CIP	\$ 90.00	
	11/09/18	Board Meeting		\$ 90.00	
	11/20/18	Board Meeting		\$ 90.00	
Director Putnam	11/02/18	Engineering Committee	TTHM issues, well levels, AMI, CIP	\$ 90.00	
	11/09/18	Board Meeting		\$ 90.00	
	11/20/18	Board Meeting		\$ 90.00	
Director Tejeda	11/09/18	Board Meeting		\$ 90.00	
	11/20/18	Policy Committee	Water theft, clothing allowance, work schedules	\$ 90.00	
	11/20/18	Board Meeting		\$ -	