

MONTECITO SANITARY DISTRICT



2017 ANNUAL SUMMARY REPORT

NPDES No. CA0047899

Order No. R3-2012-0016



Montecito Sanitary District

1042 Monte Cristo Lane
Santa Barbara, CA 93108

A Public Service Agency

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January 30, 2018

California Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

SUBJECT: NPDES Permit No. CA 0047899
Order No. R3-2012-0016
Annual Summary Report 2017

Staff of the Regional Board:

In accordance with the requirements of the general provisions of the District's NPDES Permit No. CA0047899, we are transmitting the District's Annual Report for 2017. The monitoring data compiled throughout the year is presented in both tabular and graphic form.

The report includes the names and job titles of District personnel, the Governing Board of Directors and an organizational chart.

Throughout the 2017 calendar year the following treatment operators were employed by the District:

- Daniel Jacquez, Chief Plant Operator, III-28608, exp. date 06/30/18
- Chad Steinlicht, Operator, III-10297, exp. date 12/31/17 (*resigned May 5, 2017*)
- Marco Felix, Operator, V-41171, exp. 11/20/20
- Marc Ciarlo, Operator, V-41067, exp. date 10/20/20
- Michael Arce, Operator In Training – OIT-I, exp. Date 06/20/20 (*hired June 2, 2018*)

District staff continues to perform the majority of required analytical tests on-site in the District Laboratory. The laboratory manager holds certification as a Grade 4 Laboratory Analyst while all operators maintain Grade 1 Laboratory Analyst certifications through CWEA. (Note: as of January 2018, one operator holds a Grade 2 certification.)

Required annual samples were collected on May 3 – 8, 2017. Analyses were performed by Fruit Growers Laboratory, Inc. and their subcontractors. All results were within acceptable limits.

On November 4, 2017 Aquatic Bioassay Consulting Laboratories, Inc. (ABC) completed the annual inspection of the District's ocean outfall pipeline. The exterior of the outfall pipeline was inspected and videotaped. The full inspection report is being submitted to the Water Board via CIWQS with the Annual Summary Report. The outfall pipeline was found to be in good condition.

The District's Wastewater Treatment Plant Operations and Maintenance Manual was last reviewed in November 2017 and it was deemed that no updates were necessary.

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Comments regarding the District's Collection System Maintenance and Renovation Program, as required by the NPDES permit, are included in this report on pages 23 through 25. Also included on pages 26 through 29 is a brief summary of the history of the District, our accomplishments in recent years and goals for the future. Please feel free to contact me if you have any questions or desire additional information.

Sincerely,

A handwritten signature in blue ink that reads "Diane Gabriel". The signature is fluid and cursive, with the first name "Diane" and last name "Gabriel" clearly legible.

Diane Gabriel, P.E.
General Manager/District Engineer

**Montecito Sanitary District
2017 Annual Report**

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MONTECITO SANITARY DISTRICT

January 2017 – December 2017

GOVERNING BOARD

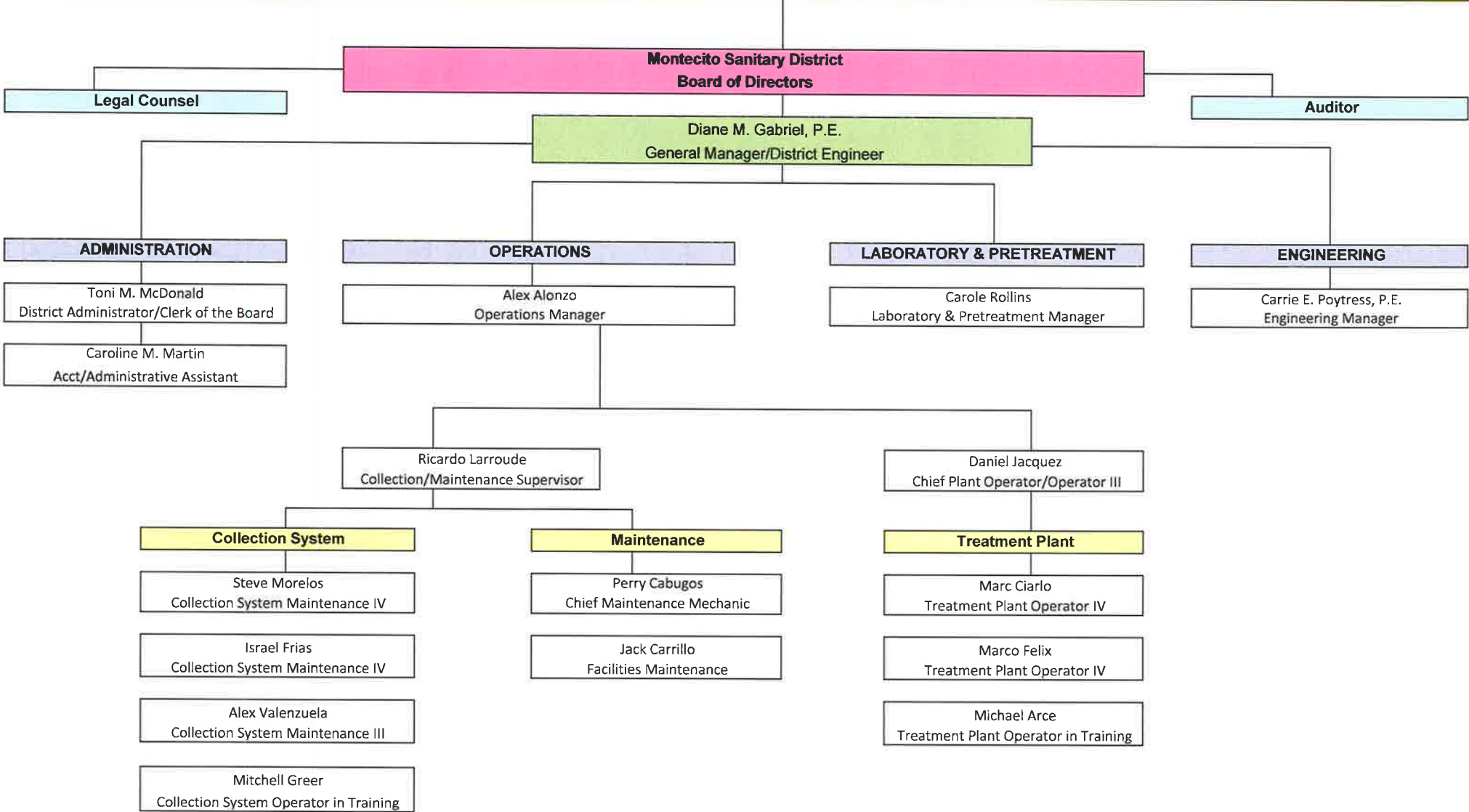
Robert Williams	President
Judith M. Ishkanian	Vice President
Tom Kern	Treasurer
Warner Owens	Secretary
Jeff Kerns	Director

January 2017 – December 2017

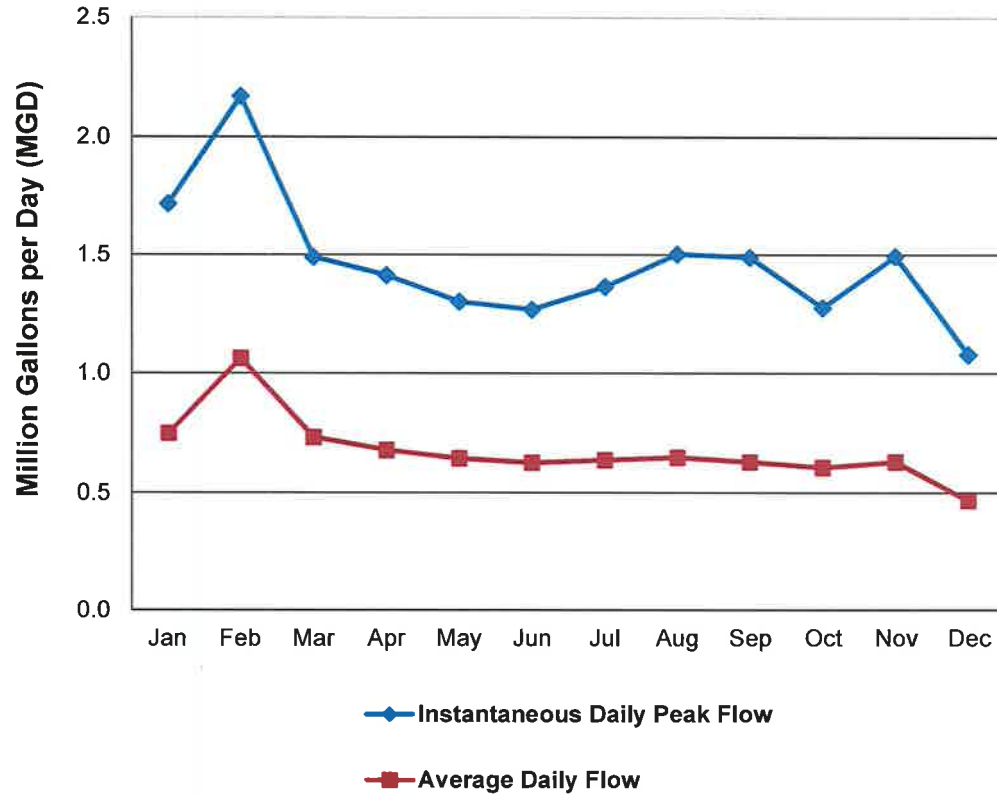
STAFF

Diane M. Gabriel, P.E.	General Manager/District Engineer
Carrie Poytress, P.E.	Engineering Manager
Toni McDonald	District Administrator
Caroline M. Martin	Accounting/Administrative Assistant
Alex Alonzo	Operations Manager
Daniel Jacquez	Chief Plant Operator - III
Chad Steinlicht	Treatment Plant Operator III (resigned 5/5/17)
Marco Felix	Treatment Plant Operator V
Marc Ciarlo	Treatment Plant Operator V
Michael Arce	Operator in Training (hired 6/2/17)
Carole Rollins	Pretreatment & Laboratory Manager
Ricardo Larroude	Collection/Maintenance Supervisor
Perry Cabugos	Chief Maintenance Mechanic
Steve Morelos	Collection System Maintenance IV
Israel Frias	Collection System Maintenance IV
Jack Carrillo	Collections System Maintenance II
Alex Valenzuela	Collection System Maintenance III
Mitchell Greer	Collection Operator in Training (hired 11/20/17)

Property Owners Within the Montecito Sanitary District

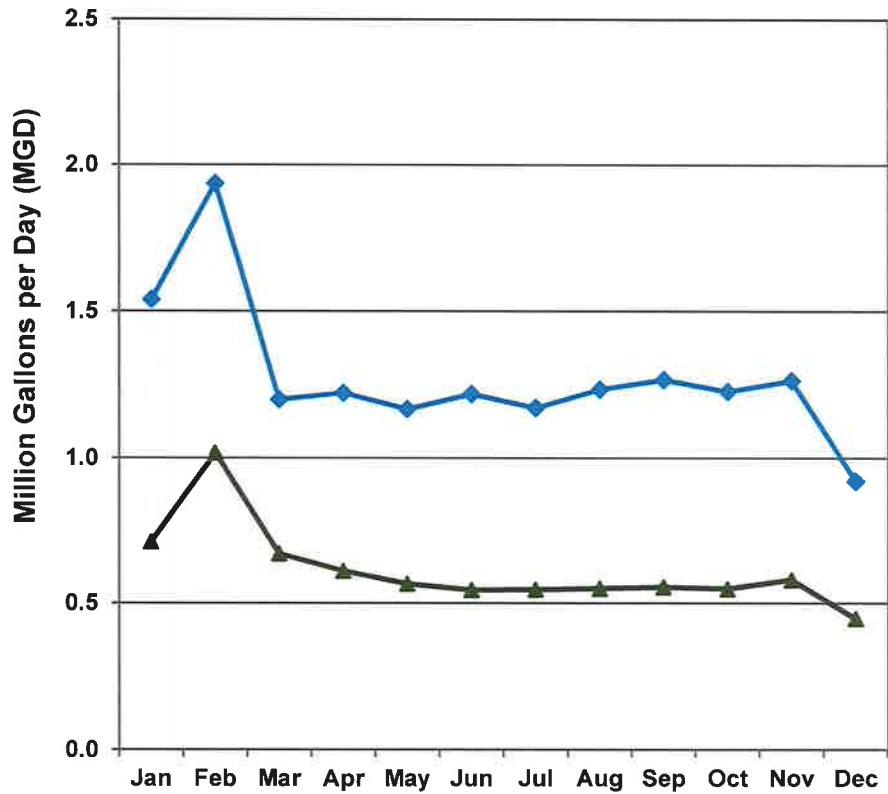


INFLUENT Daily Flow 2017



MILLION GALLONS PER DAY (MGD)		
Month	Instant. Daily Peak	Average Daily Flow
Jan	1.72	0.748
Feb	2.17	1.062
Mar	1.49	0.731
Apr	1.41	0.678
May	1.30	0.643
Jun	1.27	0.625
Jul	1.36	0.637
Aug	1.50	0.647
Sep	1.49	0.628
Oct	1.27	0.605
Nov	1.49	0.628
Dec	1.08	0.467
Avg	1.46	0.675

EFFLUENT Daily Flow 2017

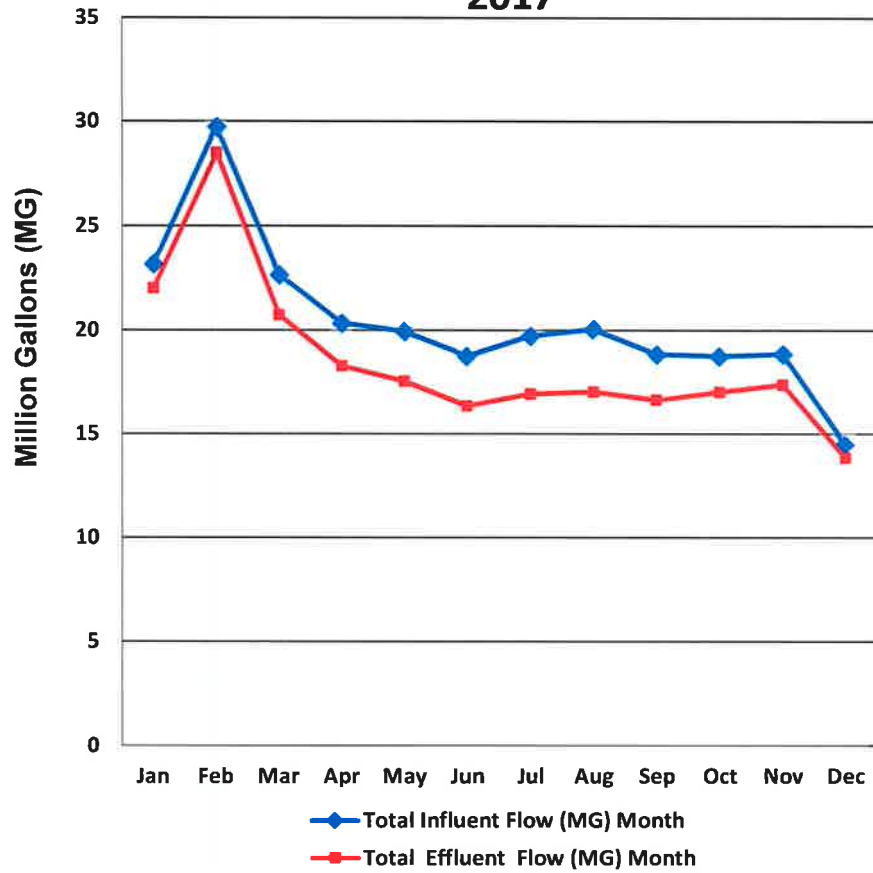


◆ Instantaneous Daily Peak Flow
■ Instant. Daily Peak
▲ Average Daily Flow

MONTH	Instant. Daily Peak	Average Daily Flow
Jan	1.54	0.710
Feb	1.93	1.017
Mar	1.20	0.669
Apr	1.22	0.609
May	1.17	0.565
Jun	1.22	0.544
Jul	1.17	0.546
Aug	1.24	0.549
Sep	1.27	0.554
Oct	1.23	0.548
Nov	1.27	0.579
Dec	0.92	0.446

AVG	1.28	0.611
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INFLUENT & EFFLUENT Monthly Flows 2017

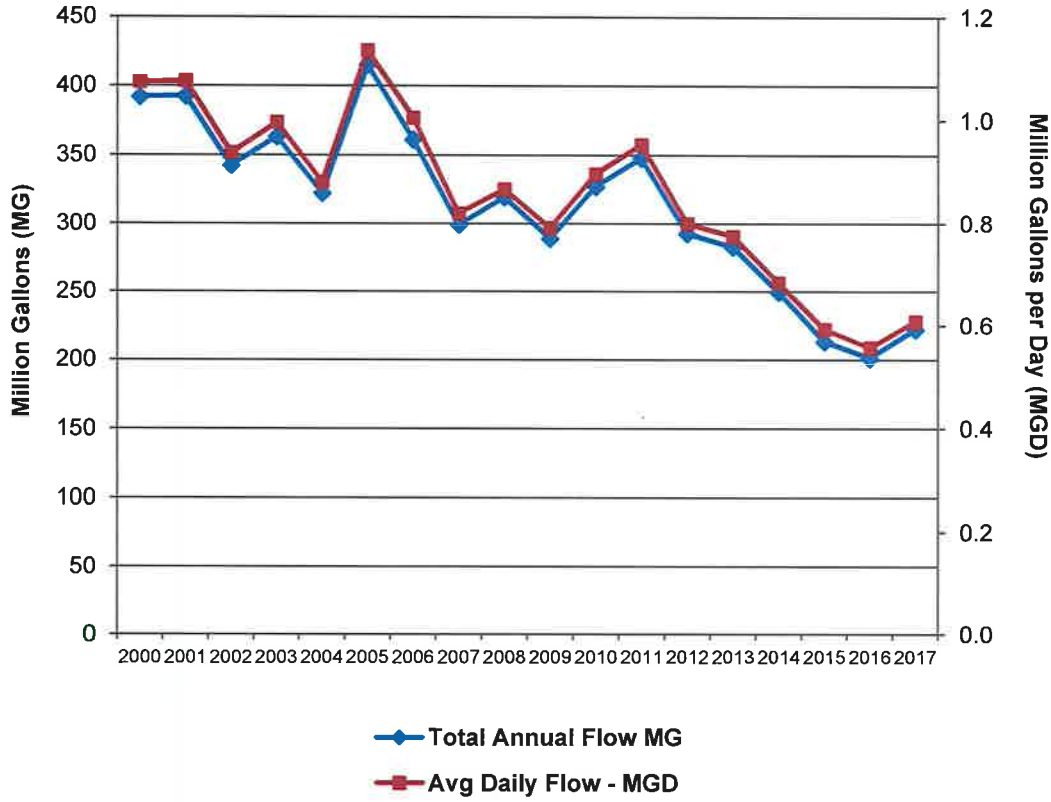


Month	Total Influent Flow (MG)	Total Effluent Flow (MG)
Jan	23.18	22.02
Feb	29.73	28.48
Mar	22.67	20.73
Apr	20.34	18.28
May	19.94	17.52
Jun	18.75	16.33
Jul	19.73	16.91
Aug	20.06	17.02
Sep	18.84	16.61
Oct	18.76	17.00
Nov	18.85	17.36
Dec	14.48	13.82

Total Annual Flows	245.3	222.1
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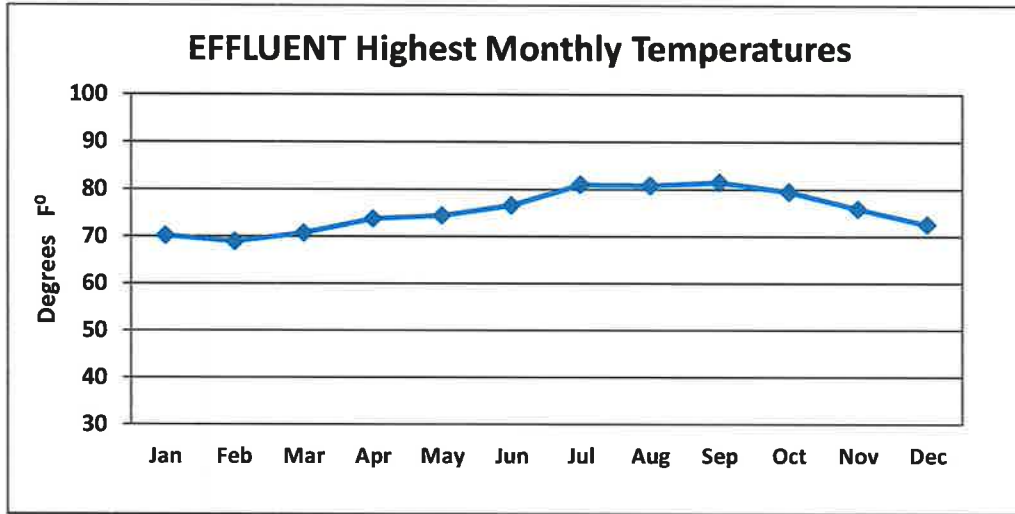
Note: Influent and Effluent flow differences are due to process recycled flows and process cleaning or maintenance which drains water back to the influent flow.

**Historical Total and Average Daily Effluent Flows
2000 to 2017**

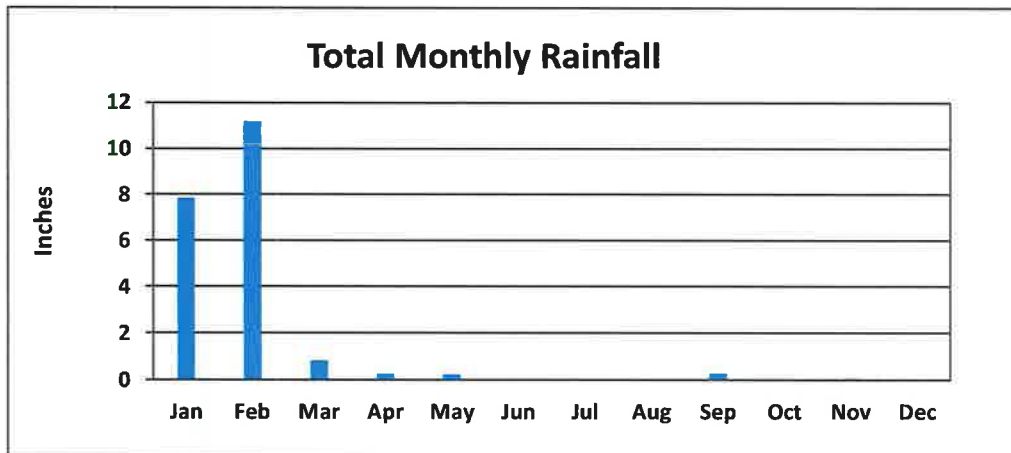


YEAR	Total Annual Flow MG	Avg Daily Flow MGD
2000	392.0	1.074
2001	392.6	1.076
2002	342.2	0.938
2003	363.4	0.996
2004	322.4	0.881
2005	415.3	1.135
2006	361.2	1.005
2007	299.2	0.820
2008	319.5	0.867
2009	289.0	0.792
2010	327.4	0.897
2011	348.0	0.954
2012	292.9	0.800
2013	282.7	0.775
2014	249.6	0.684
2015	213.4	0.593
2016	201.2	0.557
2017	222.1	0.608

2017



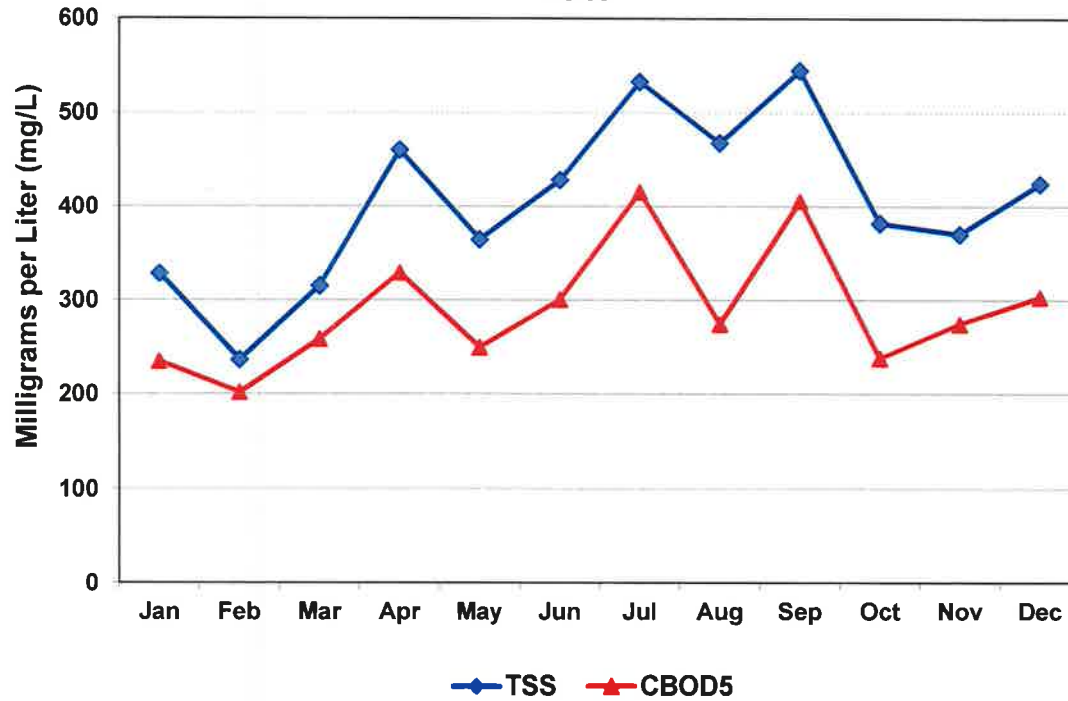
Month	High Temp. °F
Jan	70.2
Feb	68.9
Mar	70.7
Apr	73.8
May	74.5
Jun	76.6
Jul	81.0
Aug	80.8
Sep	81.5
Oct	79.5
Nov	75.9
Dec	72.5



Month	Rainfall Inches
Jan	7.84
Feb	11.17
Mar	0.82
Apr	0.29
May	0.24
Jun	0.00
Jul	0.00
Aug	0.00
Sep	0.29
Oct	0.00
Nov	0.05
Dec	0.00

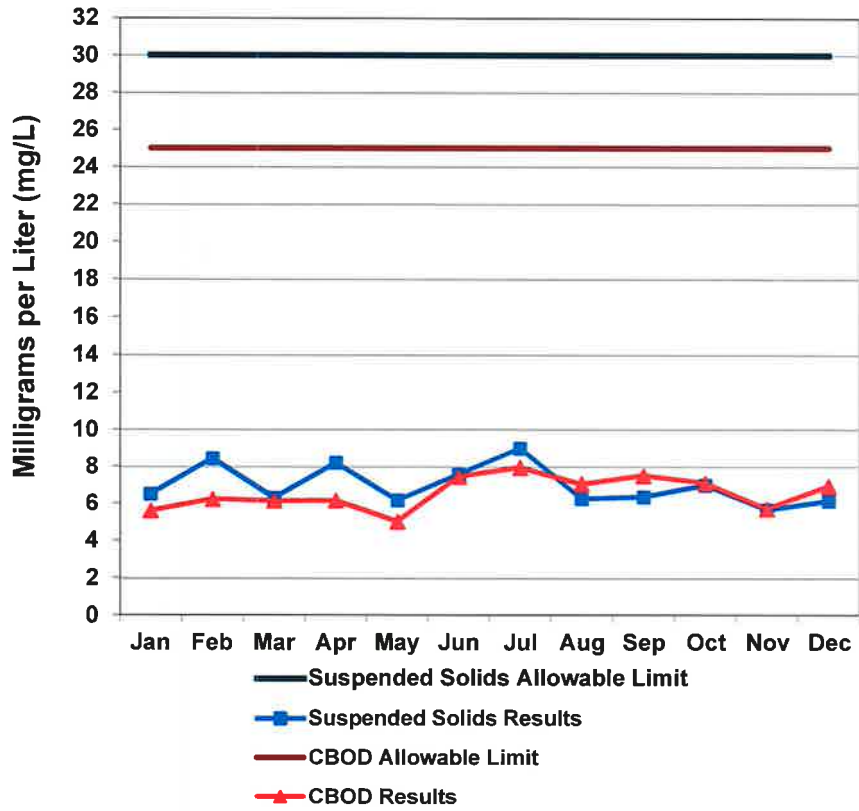
TOTAL	20.70
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INFLUENT Suspended Solids & Carbonaceous Biochemical Oxygen Demand 2017



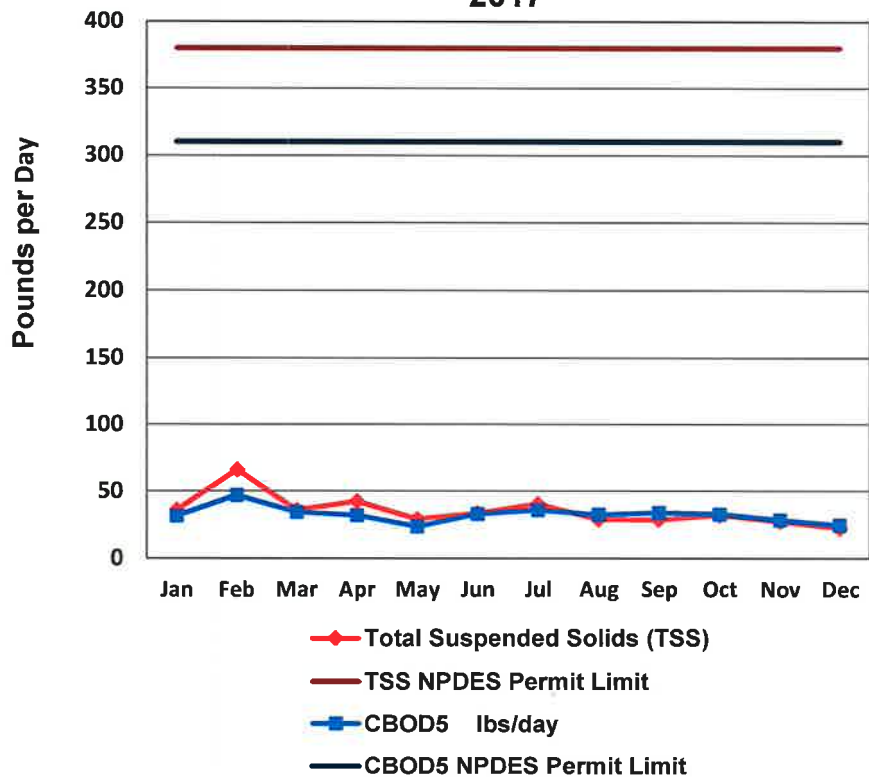
Month	TSS	CBOD ₅
	mg/L	mg/L
Jan	329	235
Feb	237	202
Mar	316	259
Apr	461	329
May	365	250
Jun	429	301
Jul	534	416
Aug	469	274
Sep	546	406
Oct	383	238
Nov	371	275
Dec	425	303
AVG	405	291

EFFLUENT Total Suspended Solids & Carbonaceous Biochemical Oxygen Demand 2017



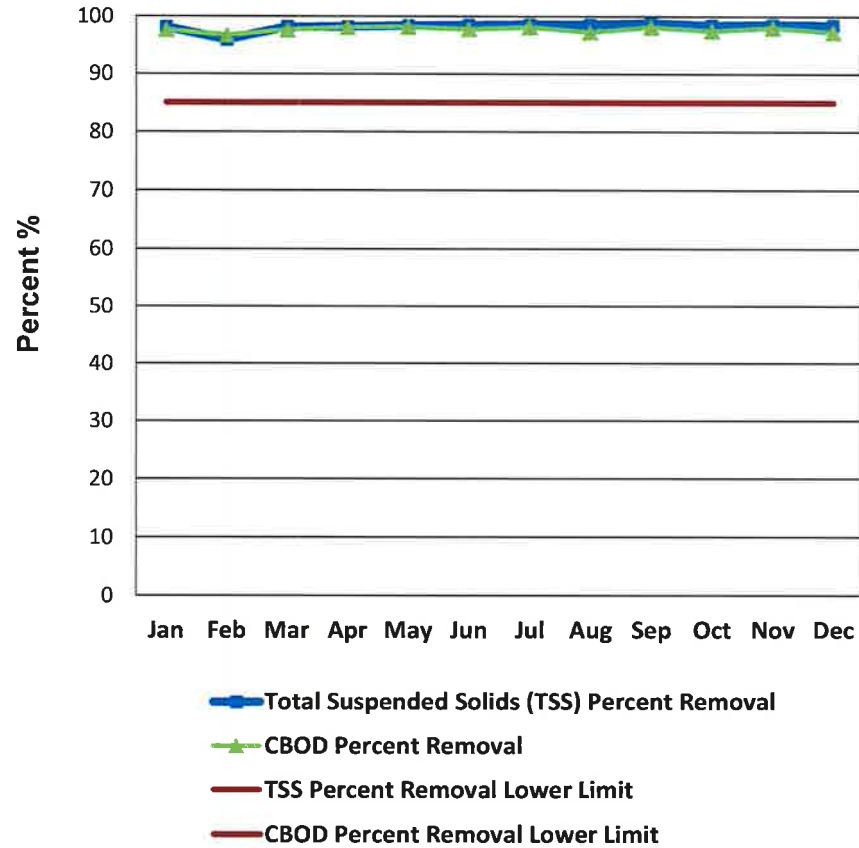
	TSS		CBOD ₅	
	Permit Limit	Results	Permit Limit	Results
	mg/L	mg/L	mg/L	mg/L
Jan	30	6.5	25	5.6
Feb		8.4		6.2
Mar		6.3		6.1
Apr		8.2		6.2
May		6.2		5.0
Jun		7.6		7.5
Jul		9.0		7.9
Aug		6.2		7.0
Sep		6.4		7.5
Oct		7.0		7.1
Nov		5.6		5.7
Dec		6.1		6.9
AVG		7.0		6.6

**EFFLUENT
Total Suspended Solids &
Carbonaceous Biochemical Oxygen Demand
(CBOD₅)
2017**



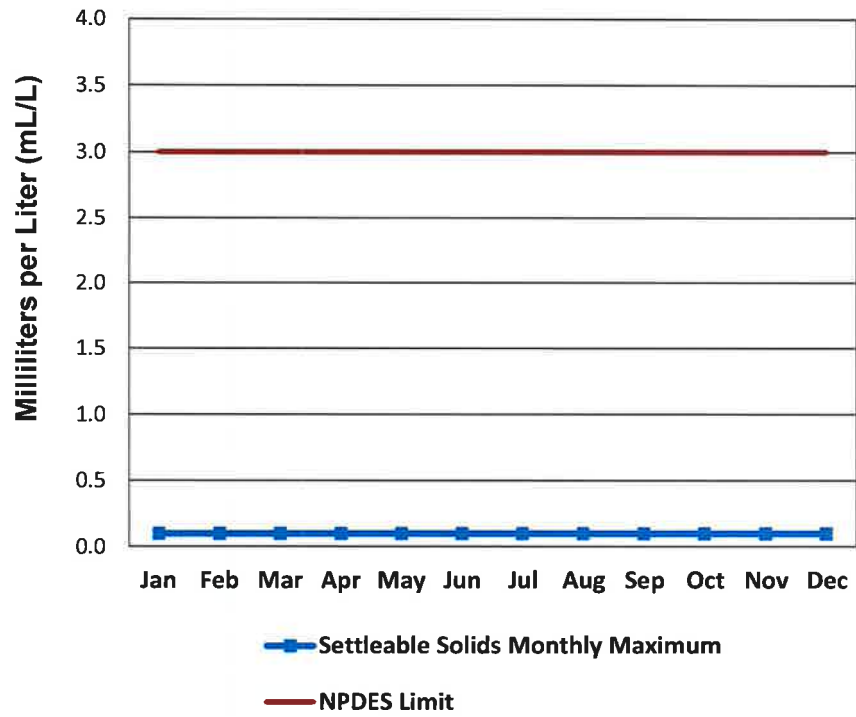
Month	TSS lbs/day	TSS NPDES Permit Upper Limit	CBOD ₅ lbs/day	CBOD ₅ NPDES Permit Upper Limit
Jan	36	380	32	310
Feb	66		47	
Mar	36		34	
Apr	42		32	
May	29		24	
Jun	33		33	
Jul	40		36	
Aug	29		33	
Sep	29		34	
Oct	32		33	
Nov	27		28	
Dec	22		25	
AVG	35		33	

EFFLUENT Total Suspended Solids & CBOD₅ Percent Removal 2017



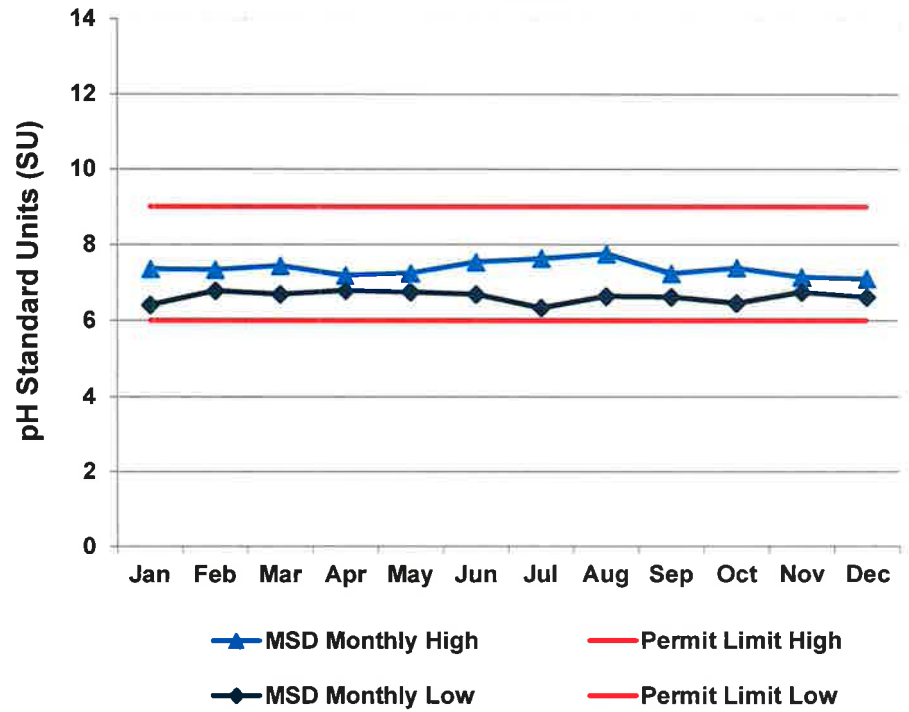
Month	NPDES PERMIT LOWER LIMIT %	TSS Average Percent Removal %	NPDES PERMIT LOWER LIMIT %	CBOD ₅ Average Percent Removal %
Jan	85	98	85	98
Feb		96		97
Mar		98		98
Apr		98		98
May		98		98
Jun		98		98
Jul		99		98
Aug		99		97
Sep		99		98
Oct		98		98
Nov		99		98
Dec		98		97
AVG		98		98

EFFLUENT Settleable Solids Monthly Maximum 2017



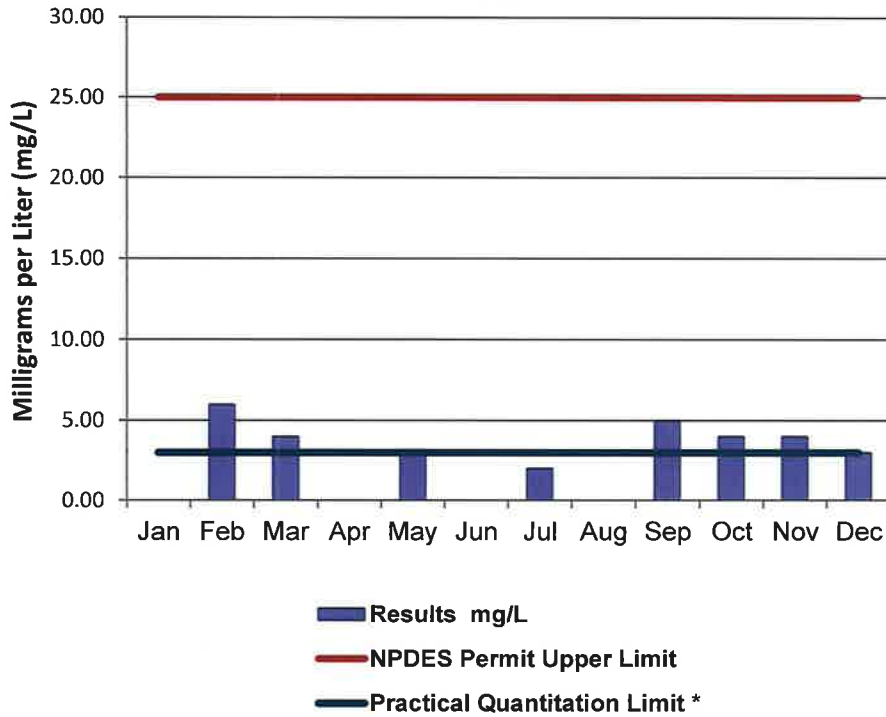
Month	NPDES Permit Limit mL/L	Monthly Maximum mL/L
Settleable Solids		
Jan	3.0	0.1
Feb		<0.1
Mar		<0.1
Apr		<0.1
May		<0.1
Jun		<0.1
Jul		<0.1
Aug		0.1
Sep		<0.1
Oct		0.1
Nov		<0.1
Dec		<0.1

EFFLUENT pH 2017



Month	MSD Monthly Low	NPDES Low Limit	MSD Monthly High	NPDES High Limit
Jan	6.41	6.0	7.36	9.0
Feb	6.78		7.35	
Mar	6.69		7.45	
Apr	6.79		7.19	
May	6.75		7.25	
Jun	6.69		7.55	
Jul	6.33		7.64	
Aug	6.64		7.76	
Sep	6.62		7.24	
Oct	6.46		7.39	
Nov	6.75		7.15	
Dec	6.62		7.10	
Avg	6.63		7.37	

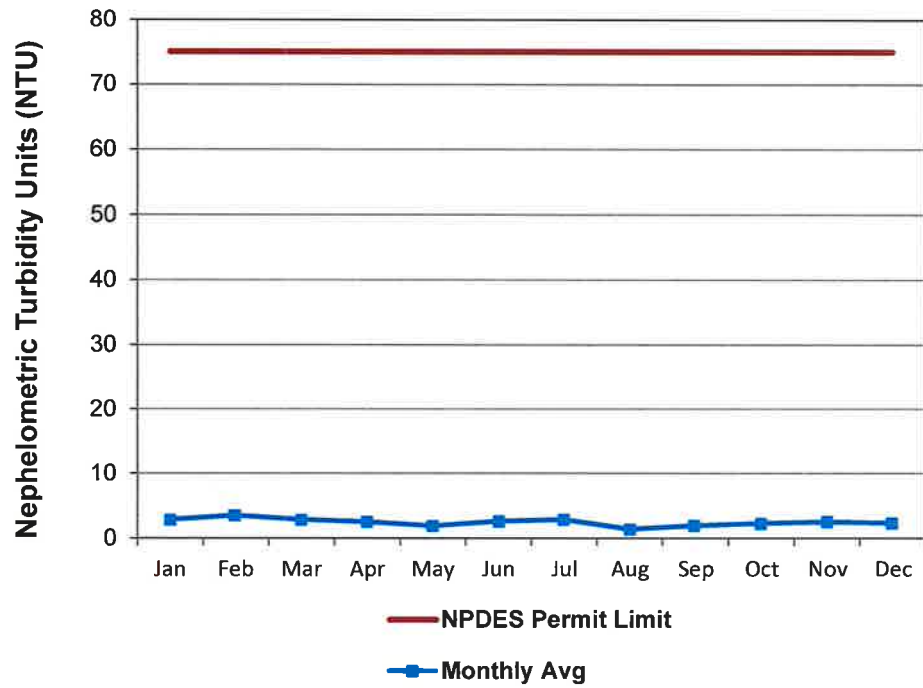
**EFFLUENT
Oil & Grease
2017**



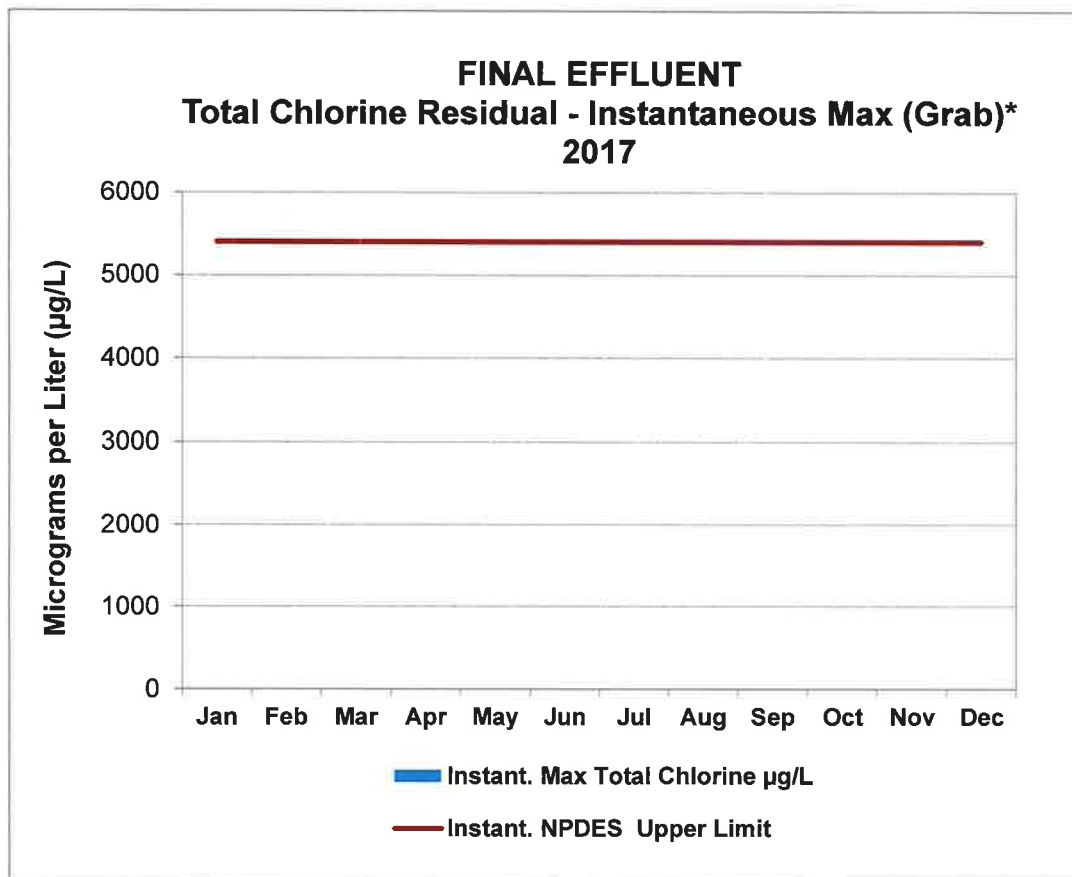
Oil & Grease		
Month	NPDES Limit	Results mg/L
Jan	25	ND
Feb		6
Mar		4
Apr		ND
May		3
Jun		ND
Jul		2
Aug		ND
Sep		5
Oct		4
Nov		4
Dec		3

*Note: PQL is the concentration below which data cannot be reported with accuracy.

EFFLUENT Turbidity 2017

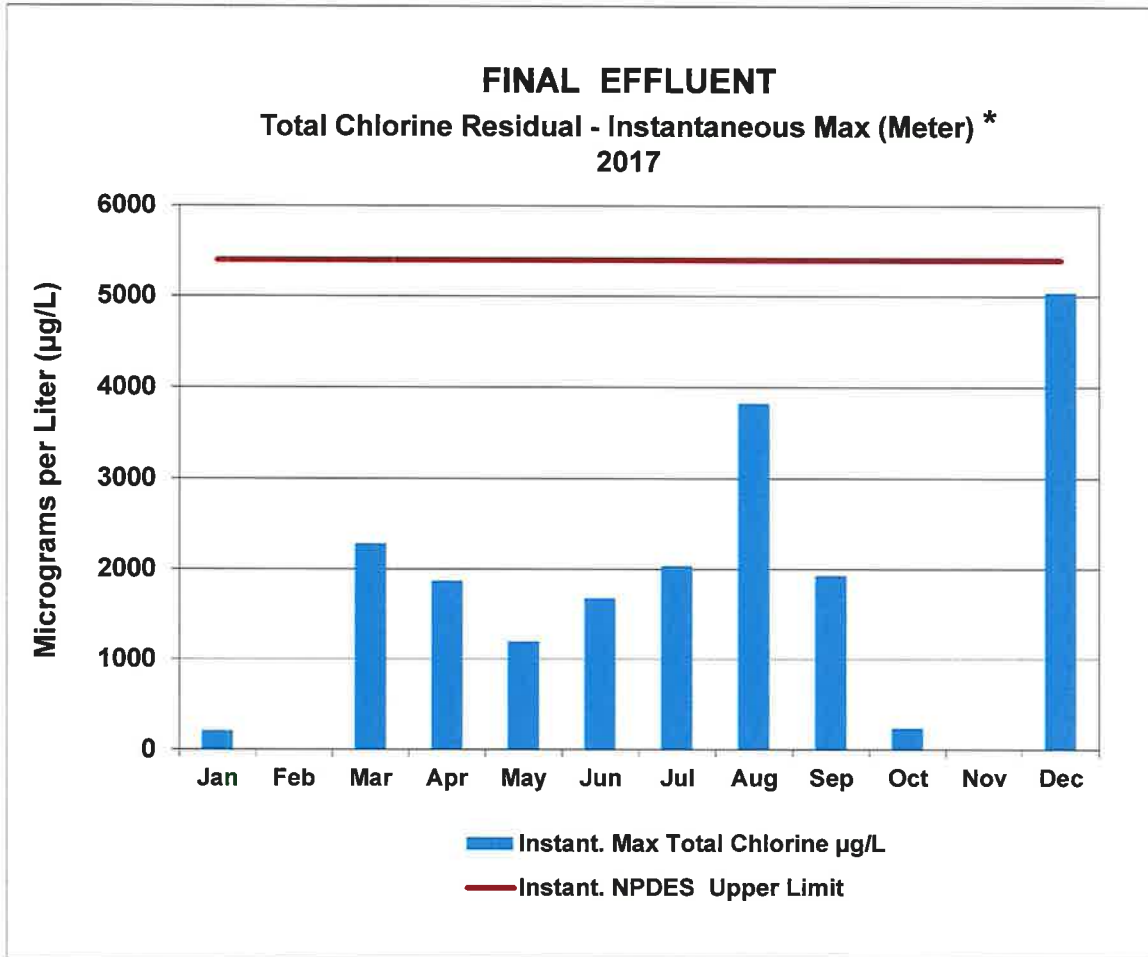


Turbidity - NTU		
Month	NPDES Limit	Monthly Avg
Jan	75	2.9
Feb		3.5
Mar		2.9
Apr		2.5
May		1.9
Jun		2.6
Jul		2.9
Aug		1.4
Sep		1.9
Oct		2.3
Nov		2.5
Dec		2.3
AVG		2.5



Month	Instant. NPDES Upper Limit	Instant. Max Total Chlorine µg/L
Jan	5400	0
Feb		0
Mar		0
Apr		0
May		0
Jun		0
Jul		0
Aug		0
Sep		0
Oct		0
Nov		0
Dec		0

* Note: "Grab" is a sample taken manually from the effluent channel.

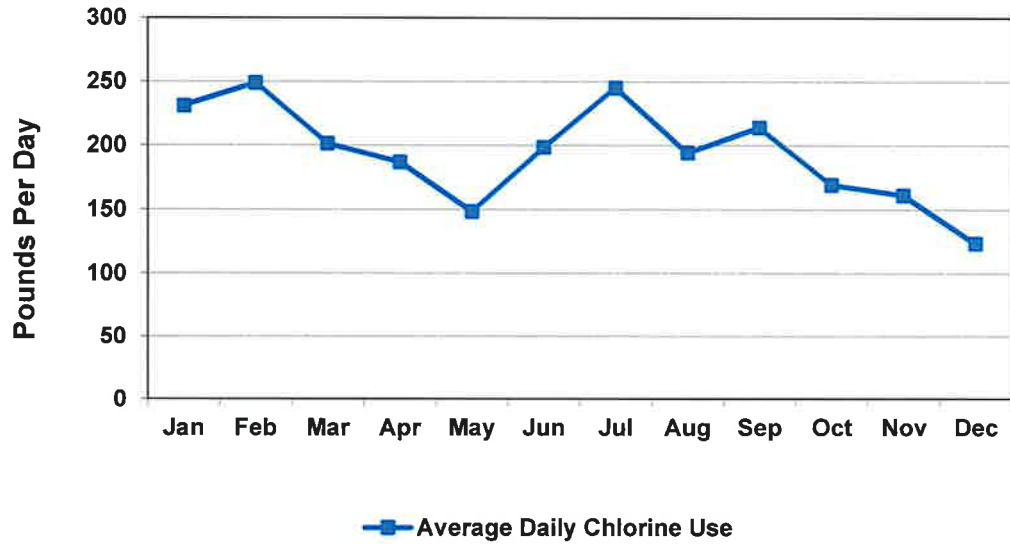


Month	NPDES Instant. Upper Limit µg/L	Instant. Max Total Chlorine µg/L
Jan	5400	210
Feb		0
Mar		2285
Apr		1870
May		1193
Jun		1670
Jul		2036
Aug		3824
Sep		1928
Oct		234
Nov		0
Dec		5039

*Note: "Meter" refers to analysis on a continuously monitored flow.

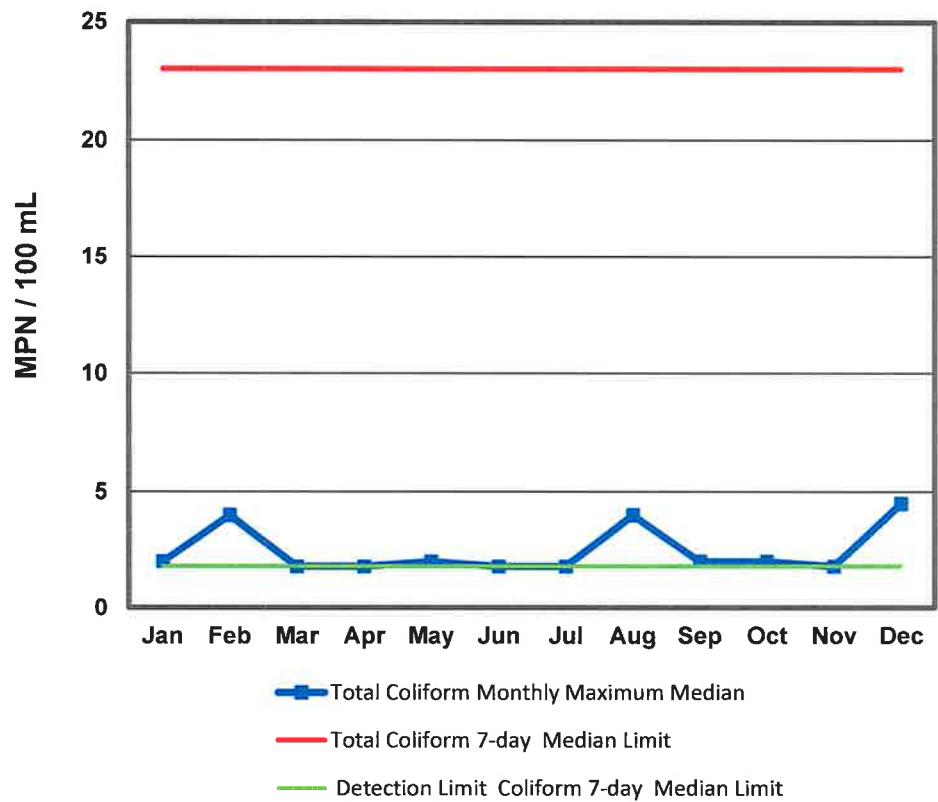
Dec: Analyzer trend anomaly associated with the Thomas Fire and Southern California Edison power interruption

**EFFLUENT
Sodium Hypochlorite (NaOCl) Used
2017**



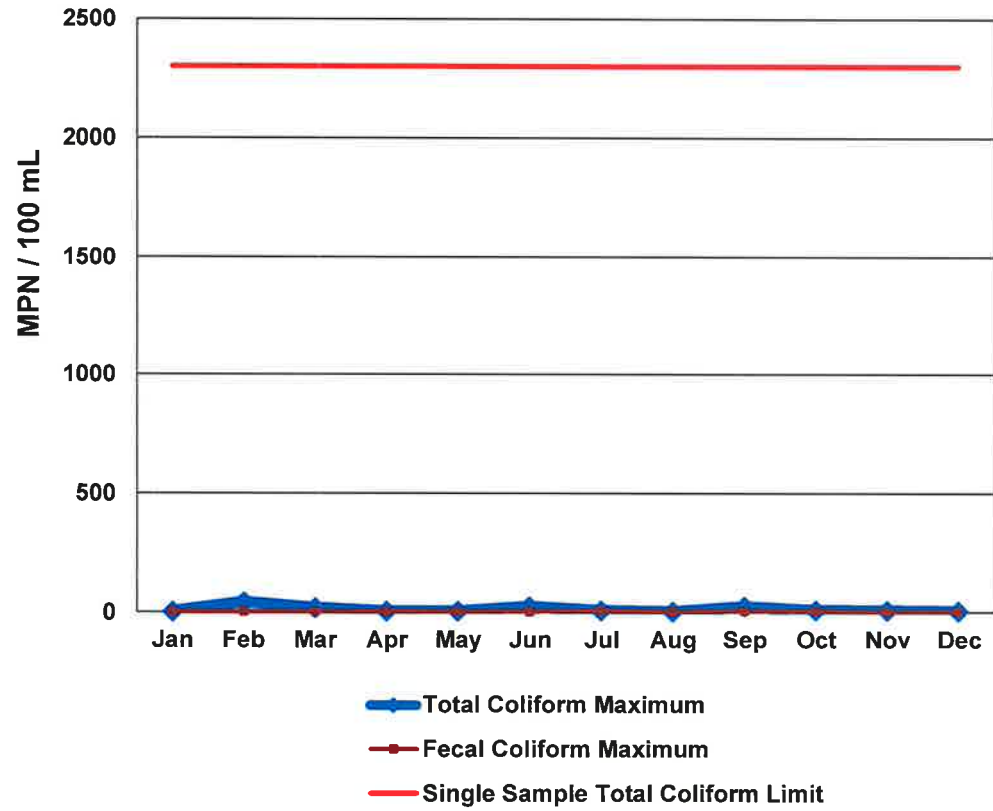
Month	NaClO Used lbs/day
Jan	231
Feb	249
Mar	201
Apr	187
May	148
Jun	198
Jul	245
Aug	194
Sep	214
Oct	169
Nov	161
Dec	124
AVG	194

EFFLUENT Total Coliform Maximum Median 2017



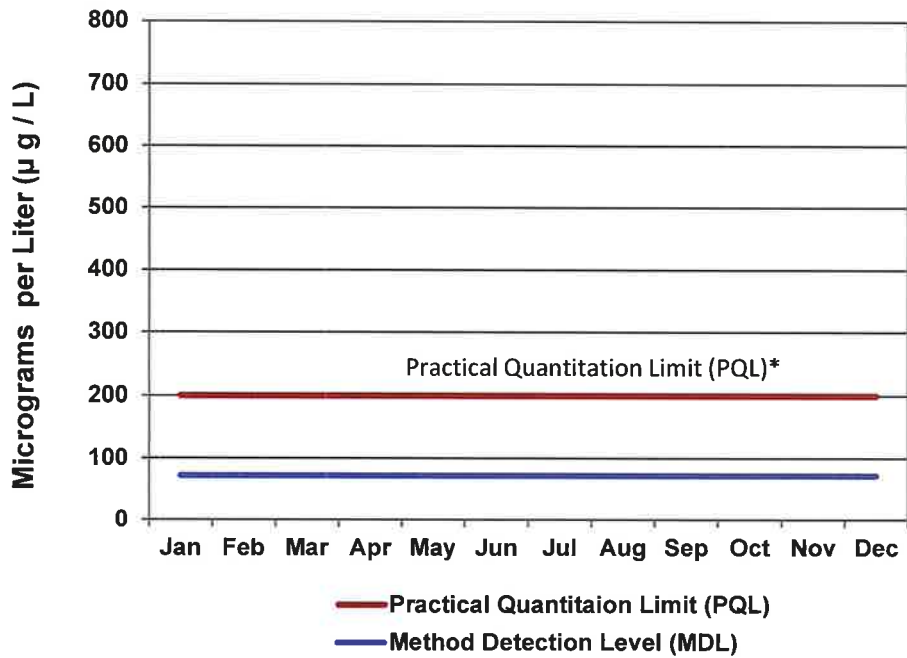
MPN/100mL			
Month	Total Coliform Monthly Maximum Median	Total Coliform 7-day Median Limit	Detection Limit
Jan	1.8	23	1.8
Feb	2.0		
Mar	2.0		
Apr	1.8		
May	2.0		
Jun	2.0		
Jul	4.5		
Aug	4.5		
Sep	2.0		
Oct	2.0		
Nov	2.0		
Dec	1.8		

**EFFLUENT Total and Fecal Coliform Monthly
Single-Sample Maximums
2017**



Month	MPN/100mL		Total Coliform Single Sample Limit
	Total Coliform Monthly Maximum	Fecal Coliform Monthly Maximum	
Jan	2.0	1.8	2300
Feb	42	1.8	
Mar	17	1.8	
Apr	4.0	2.0	
May	4.5	1.8	
Jun	23	2.0	
Jul	6.8	6.8	
Aug	2.0	1.8	
Sep	23	4.5	
Oct	7.8	4.5	
Nov	6.8	1.8	
Dec	4.5	2.0	

EFFLUENT Ammonia as Nitrogen (NH₃-N) 2017



Month	Ammonia / NH ₃ -N		
	Results	Practical Quantitation Limit (PQL)	NPDES Permit Limit
	µg/L	µg/L	µg/L
Jan	ND	200	NA
Feb	ND		
Mar	ND		
Apr	ND		
May	ND		
Jun	DNQ		
Jul	DNQ		
Aug	DNQ		
Sep	DNQ		
Oct	DNQ		
Nov	ND		
Dec	ND		

NOTE: ND = Non Detect; DNQ = Does Not Quantify

Tabular Data for 2017 Summary Report

INFLUENT							
Month	Monthly Total Flow	Avg Inst Peak	Avg Flow	Avg TSS	Avg TSS	Avg CBOD5	Avg CBOD5
	MG	MGD	MGD	mg/L	lbs/day	mg/L	lbs/day
Jan 2017	23.18	1.72	0.748	329	1,882	235	1,300
Feb 2017	29.73	2.17	1.062	237	1,773	202	1,487
Mar 2017	22.67	1.49	0.731	316	1,955	259	1,604
Apr 2017	20.34	1.41	0.678	461	2,635	329	1,885
May 2017	19.94	1.30	0.643	365	1,948	250	1,331
Jun 2017	18.75	1.27	0.625	429	2,252	301	1,579
Jul 2017	19.73	1.36	0.637	534	2,826	416	2,172
Aug 2017	20.06	1.50	0.647	469	2,524	274	1,485
Sep 2017	18.84	1.49	0.628	546	2,821	406	2,088
Oct 2017	18.76	1.27	0.605	383	2,023	238	1,249
Nov 2017	18.85	1.49	0.628	371	1,933	275	1,455
Dec 2017	14.48	1.08	0.467	425	1,770	303	1,194

FINAL EFFLUENT							
Total Rain	Total Monthly Flow	Avg Inst Peak Flow	Max Flow	Avg Flow	Avg TSS	Avg TSS	Avg Monthly TSS
inches	MD	MGD	MGD	MGD	mg/L	lbs/day	% Removal
7.84	22.02	1.54	1,327	0.710	7	36	98
11.17	28.48	1.93	3,993	1.017	8	66	96
0.82	20.73	1.20	0.761	0.669	6	36	98
0.29	18.28	1.22	0.673	0.609	8	42	98
0.24	17.52	1.17	0.611	0.565	6	29	98
0.00	16.33	1.22	0.846	0.544	8	33	98
0.00	16.91	1.17	0.616	0.546	9	40	99
0.00	17.02	1.24	0.604	0.549	6	29	99
0.29	16.61	1.27	0.849	0.554	6	29	99
0.00	17.00	1.23	0.573	0.548	7	32	98
0.05	17.36	1.27	0.669	0.579	6	27	99
0.00	13.82	0.92	0.616	0.446	6	22	98

Tabular Data for 2017 Summary Report

FINAL EFFLUENT																		
Avg CBOD5	Avg CBOD5	CBOD5	NH3-N	NH3-N	O + G	O + G	Avg Turb	pH High	pH Low	Max Final Cl2 grab	Avg Cl2 before Dechlor	Avg Cl2 Total	Max Temp	Max Total Coliform (2300 limit)	Max Total Coliform 7-day Median (23 Limit)	Max Fecal Coliform	Max Final Cl2 meter	Max Settleable solids
mg/L	lbs/day	% Removal	mg/L	lbs/day	mg/L	lbs/day	NTU	SU	SU	ug/L	mg/L	lbs/day	degree F	MPN/100 mL	MPN/100 mL	MPN/100 mL	ug/L	mL/L
6	32	98	ND	ND	ND	ND	2.9	7.36	6.41	0	33.4	231.1	70	2.0	1.8	1.8	210	<0.1
6	47	97	ND	ND	6	46	3.5	7.35	6.78	0	31.0	248.9	69	42.3	2.0	1.8	0	0.1
6	34	98	ND	ND	4	22	2.9	7.45	6.69	0	32.5	201.4	71	17.0	2.0	1.8	2,285	0.1
6	32	98	ND	ND	ND	ND	2.5	7.19	6.79	0	27.1	187.0	74	4.0	1.8	2.0	1,870	<0.1
5	24	98	ND	ND	3	16	1.9	7.25	6.75	0	20.1	148.3	74	4.5	2.0	1.8	1,193	<0.1
7	33	98	DNQ0	DNQ0.70	ND	ND	2.6	7.55	6.69	0	28.1	198.4	77	23.0	2.0	2.0	1,670	<0.1
8	36	98	DNQ0	DNQ0.76	2	7	2.9	7.64	6.33	0	38.3	245.3	81	6.8	4.5	6.8	2,036	0.1
7	33	97	DNQ0	DNQ0.57	ND	ND	1.4	7.76	6.64	0	30.7	194.1	81	2.0	4.5	1.8	3,824	<0.1
8	34	98	DNQ0	DNQ0.53	5	33	1.9	7.24	6.62	0	34.4	214.0	82	23.0	2.0	4.5	1,928	0.1
7	33	98	DNQ0	DNQ0.55	4	17	2.3	7.39	6.46	0	24.2	169.2	80	7.8	2.0	4.5	234	<0.1
6	28	98	ND	ND	4	18	2.5	7.15	6.75	0	20.9	161.1	76	6.8	2.0	1.8	0	<0.1
7	25	97	ND	ND	3	16	2.3	7.10	6.62	0	15.5	123.6	73	4.5	1.8	2.0	5,039	<0.1

MONTECITO SANITARY DISTRICT

Collection System Maintenance and Renovation Program 2017

OBJECTIVE

To continue the exceptional record of zero Sanitary Sewer Overflows (SSO's), increase system reliability and optimize service life of all collection system components through continued systematic assessment and maintenance, and plan for future facility rehabilitation and/or replacement.

GOALS – SHORT AND LONG TERM

Short Term:

1. Continue a systematic maintenance program based on past years data to identify lines that need to be cleaned and evaluated by Closed Circuit Television (CCTV) using the NASSCO pipe rating system.
2. Continue a systematic CCTV program based on the maintenance line segment ratings to identify intrusion of roots, grease and/or structural defects and also check on the effectiveness of the District's cleaning procedures and equipment.
3. Continue to enforce District Ordinance No. 13 - To Regulate and Reduce Fat, Oil, And Grease in the Sewer System and to Require Fat, Oil, and Grease Removal Devices.
4. Continue to enhance the District's Geographic Information System (GIS) of the collection system piping, including routine updating of the District's maintenance activities consisting of cleaning, CCTV, and manhole inspection.
5. Continue to prioritize and make repairs on collection system piping as it is found during regular CCTV'ing activities.
6. Rehabilitate pipe sections that have been identified as needing repair/replacement.
7. Continue to promote and fund a program which provides a financial incentive to property owners (offering a rebate up to \$2,000) for the rehabilitation and/or replacement of private sewer laterals. The District's FY 2017-18 funding for this program is \$100,000.
8. Continue to train staff and perform the lift station maintenance program consisting of de-ragging pumps, exercising valves, generators and setting up emergency by-pass pumps at each of the four lift stations.

Long Term:

1. Continue to investigate the inflow and infiltration issues that may still exist within the District.
2. Continue to clean and CCTV the entire collection system for the inspection and recordation of the system with the closed circuit television truck. Complete a condition assessment of the system using the NASSCO pipe rating system for each line segment.
3. Continue with the pipeline rehabilitation and relining projects.
4. Rehabilitate and replace manholes as determined necessary.

ACTIONS COMPLETED IN 2017

1. Performed closed circuit video inspection of approximately 10 miles of collection system piping.
2. Cleaned approximately 64 miles of collection system piping.
3. Promoted and provided financial incentive for the rehabilitation/replacement of private sewer laterals. In 2017, nineteen property owners participated in this program and replaced/repared their deteriorated laterals. The District issued rebates for a total of \$36,924 to property owners for these repairs.
4. Identified and rehabilitated and/or raised to grade 70 manholes and 8 cleanouts in various locations throughout the District for a total cost \$66,784.
5. The District funded and completed an 8" diameter sewer mainline extension of approximately 585 linear feet on Sierra Vista Road to serve 4 properties for a total cost of \$205,590 with 50% of the property owners agreeing to pay their proportionate share of the cost for the project.
6. Currently under construction, the District is also funding a 386 linear feet sewer main extension project on Romero Canyon Road to provide sewer service to 6 properties with 75% participation from the owners to pay their proportionate share of the \$194,400 cost for construction.

2017 SANITARY SEWER OVERFLOW (SSO) REPORT SUMMARY

PRIVATE

1. 09/20/17 – 260 Butterfly Lane; Property line clean-out to a private sewer lateral located on the southwest corner of property overflowed resulting in a spill of approximately 15 gallons. The Collections Crew notified the property owner to stop using the water and immediately call a plumber to clear the blockage, which they did and also a restoration company was called out to disinfect the area. At that time, the owner was given a written Notice to CCTV their private sewer lateral and to provide a video inspection to the District to determine if repairs are required. A video inspection was performed on October 6, 2017 and the owner was required to replace their entire sewer lateral.
2. 11/02/17 – 181 and 195 Sheffield Drive; during routine maintenance to District mainlines, the collections staff found two exposed and broken private sewer laterals on a hillside that were overflowing into a nearby dry creek bed. The property owners were immediately notified to stop using water. The District notified Santa Barbara County Environmental Health. Due to the urgency of the situation, the District immediately called a plumbing contractor in to repair the broken laterals and the field crew cleaned and disinfectated the area. District staff determined that the laterals had been broken for approximately 30 days and potable water use data from the Montecito Water District estimates a sanitary sewer spill of approximately 3,700 gallons.

DISTRICT

NONE

MONTECITO SANITARY DISTRICT

Mission, History and Future Goals

OUR MISSION

To provide the residents of Montecito with a community service to protect public health and to preserve the natural environment through collection, treatment and disposal of wastewater in the most cost effective way possible.

To meet all regulatory discharge requirements as directed by Local, State and Federal agencies.

OUR BACKGROUND

The Montecito Sanitary District (MSD) is an independent special district voted into existence in 1947 by the residents of Montecito. A few highlights of MSD's history include the following:

- 1947: The Montecito Sanitary District was voted into existence by the residents.
- 1947-1960: The community worked toward implementation of service by approving a bond issue, selecting a plant site, and establishing a District boundary.
- 1960: A \$900,000 bond issue was passed to build a 750,000 gallon per day extended aeration, secondary treatment plant, an ocean outfall and trunk sewer system.
- 1961-1969: Six assessment districts were formed to finance the installation of 70 miles of collection system pipelines.
- 1981: Voters approved a \$3.1 million revenue bond issue to incorporate new technology and expand the plant's capacity to 1.5 MGD.
- 1982-1999: During this time period a second activated sludge reactor basin was added to the treatment plant; two additional secondary clarifiers were constructed; the volume of the aerobic digester was increased; a dissolved air flotation thickener and a belt filter press were installed; a second effluent chlorine contact chamber was constructed along with a de-chlorination chamber; a 250 KW emergency generator was installed at the treatment plant. In the mid 1990's, sodium hypochlorite and sodium bisulfite liquids, replaced gaseous chlorine and sulfur dioxide for safety reasons.

MONTECITO SANITARY DISTRICT
Mission, History and Future Goals -- Continued

- 2000 - 2006: During this time period the District completed the following capital improvement projects: bulk chemical storage tanks were replaced with larger, double wall containment with earthquake restraints; six new disinfection chemical feed pumps for sodium hypochlorite and sodium bisulfite were installed, improving reliability and adding redundancy; a paperless data trend process recorder was installed; an aeration system optimization project was completed, the laboratory was upgraded; the influent pump station was replaced, increasing the station's pumping capacity from 3.5 MGD to 5.0 MGD; a SCADA control center and the construction of a new 3,600 square foot maintenance building.
- 2007 - 2008: Board of Director's approved "mission critical" capital improvement projects totaling approximately \$11 million. The District then issued Certificates of Participation (COP's) to fund the capital program. The following projects were completed in 2007 and 2008: a new SCADA server with expandability for future was put on line for the influent pump station control; the waste activated sludge pump was replaced; the aeration air header made of deteriorated ductile iron pipe was replaced with a new stainless steel pipe; a new 125 KW portable emergency generator that can be used to power a portion of the treatment plant or as a redundant back up at pump stations was purchased; the Posilipo Lift Station (Lift Station No. 4) was completely refurbished including the replacement of the existing 6" dual force mains with dual 8" lines; a new fully redundant pumping system (three new pumps) were installed along with an automatic switch over to generator power.
- 2009 - 2010: The influent channel grinders were replaced with two new units increasing flow volume from 3.5 mgd to 6.0 mgd; the secondary clarifiers (3 & 4) were refurbished and the effluent channel was refurbished. Completed the refurbishment of two motor control centers (MCC) and replacement of another (MCC); installation of a new 450 KW emergency diesel powered generator providing 100 percent of the treatment plant and associated facilities power requirements during main power outages. The total cost of these treatment plant electrical upgrades was \$540,000. The new laboratory building design and site grading was completed in the fall of 2010.
- 2011 - 2012: The new laboratory building construction was completed. Upgrades to the treatment plant SCADA monitoring system. Additional essential treatment plant equipment was added to the SCADA system. An after-hours alarm notification system was added to the SCADA system as the primary notification system with the existing auto dialer (ADA) becoming the back up. Three effluent disinfection chemical dosing pumps were replaced with new pumps.

MONTECITO SANITARY DISTRICT
Mission, History and Future Goals -- Continued

- 2012: Refurbishment of all four Secondary Clarifiers; installation of two new sodium hypochlorite chemical feed pumps and one sodium bisulfite chemical feed pump; all three Influent Pumps were retrofitted with new high chrome impellers and volutes and the Influent Variable Frequency Drive motors were replaced with new energy efficient units.
- 2013: Capital projects completed included the remodel of the former lab into an Operations Control Center; the refurbishment of the Belt Filter Press System; the replacement of the sodium hypochlorite and sodium bisulfite analyzers and the replacement of a 3,000 gallon hypochlorite tank.
- 2014: Preventative maintenance was completed on the Secondary Treatment Clarifiers No. 2 and No. 3; the Aeration Basin Blower No.1 and the Belt Press.
- 2015: The Influent grinders at the wastewater treatment plant were replaced.

The Montecito District Laboratory received accreditation by California ELAP, effective June 1, 2015. Subsequently, the District added coliform analyses by method SM9221B, E to its list of approved laboratory tests.

Completed the installation of Mission boxes at the treatment plant for the internet SCADA system to monitor flows.

- 2016: The District completed the Plant Paving and Resurfacing Project.

On November 14, 2016 the District Board of Directors approved a Purchase Order to WSG Solutions in the amount not to exceed \$300,000 for parts needed for the Aeration Basin Air Header Rehabilitation Project.

The District is nearing completion of the design specification for the replacement of the Dissolved Air Floatation Thickener (DAFT).

- 2017: The District completed the following Capital Improvement Projects:

Aeration Air Header Replacement; Cushman Contracting was hired in conjunction with District staff to remove and install new swingfusers in the Aeration Basin for a total cost of \$268,168.

Granite Construction continued to perform asphalt paving work around the wastewater treatment plant. A Notice of Completion was issued on June 12, 2017 for a total contract price of \$415,056.

The District purchased a new plant compressor for a total cost of \$26,955.

MONTECITO SANITARY DISTRICT
Mission, History and Future Goals -- Continued

Capital Improvements projects also include repairs to the air headers in Aeration Basin #1, replacement of the meter and metering pump on the sodium hypochlorite tank, and impeller replacement at Lift Station 4 pumps.

- 2018: Current/Future Capital Improvement Projects include the following:
 - Aeration Blowers and Motors
 - Dissolved Air Floatation Thickner (Daft) Replacement
 - Miscellaneous Paving & Drainage Repairs
 - Essential Services Building Design & Construction