

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California



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February 28, 2018

Lahonton Regional Water Quality Control Board
14440 Civic Drive, Suite 200
Victorville, CA 92392

Attention: Patricia Z. Kouyoumdjian, Executive Officer

Subject: Annual Facility Monitoring Report for 2017
Board Order No. R6V-2013-0038, NPDES Permit No. CA0102822

This report is submitted in accordance with Monitoring and Reporting Program Section X.D.4 as required by Order No. R6V-2013-0038, adopted July 17, 2013 for the Victor Valley Wastewater Reclamation Authority's (VWRA) Regional Wastewater Treatment Plant's (WWTP) discharge to the Mojave River.

This annual report includes the following information, as required by the MRP:

Required by MRP Section X.D.4	Report Section Title	Description	Page
Tabular and graphical summaries of the monitoring data collected during 2017	VWRA Monitoring Data Summary	Table	3
	WWTP Flow Data	Influent and effluent flow data and graphs	7
Plant influent and effluent data and time plots of related receiving water data	WWTP Water Quality Monitoring Data	Influent and effluent water quality data and graphs, and receiving water graphs	12
		Annual sampling results	66
	Mojave River Receiving Water Monitoring Data	Receiving water quality data and graph	73
Names and grades of certified operators	Names and Grades of Certified Operators	Table	74
Summary of compliance status and any implementation schedules	Summary of Compliance Status in 2017	Compliance with toxicity requirements and effluent limits	75
	Certification	Signature and date	78

Other data collected during 2017 are presented in the following reports.

The results of 2017 groundwater monitoring can be found in the *2017 Annual Groundwater Monitoring Results, VVWRA Percolation Pond and Biosolids Waste Units* (submitted January 30, 2017).

The results of 2017 percolation pond monitoring can be found in the *Percolation Pond Annual Report for 2017 – Effluent, Pond and Biosolids* (submitted January 30, 2017).

The results of 2017 biosolids monitoring can be found in the *2017 Biosolids Annual Report* (submitted to the EPA February 20, 2018 and with this report).

The recycled water and reuse information for 2017 will be reported in the *2017 Annual Recycled Water Report* (due April 1).

A summary of the total annual volumes is shown in the table below.

Parameter	Units	Annual Volume
Influent Flow	MG	3,879.1
	Acre-feet	11,904.6
Effluent Flow to River	MG	2,579.3
	Acre-feet	7,915.6
Effluent Flow to Percolation Ponds	MG	1,401.4
	Acre-feet	4,300.7
Effluent Flow to Recycling	MG	54.8
	Acre-feet	168.1
Septage received	Gallons	7,068,152
Anaerobically Digested Material received	Gallons	5,932,695
Fats, Oils & Grease received	Gallons	741,243

VVWRA Monitoring Data Summary

This section includes a summary and presentation of all the influent, effluent, biosolids, and upstream and downstream receiving water data collected at VVWRA's WWTP in 2017, with permit limits.

Summary of 2017 Monitoring Data

Constituent	Location	Units	Count	% Detect	Mean ^[a]	Range	Permit Limit			
							AMEL	AWEL	MDEL	
Flow rate	INF-001	MGD	365	100%	10.63	7.84-15.59	-			
	EFF-001		365	100%	7.07	0-14.0	14 annual average			
	To Perc Ponds		365	100%	3.84	0-14.42	-			
Monthly total flow	INF-001	MG	12	100%	323.26	296.3-339.8	-			
	EFF-001		12	100%	214.94	169.4-289.2	-			
	Perc Ponds		12	100%	116.78	52.4-164.3	-			
	Recycled		12	100%	4.57	0.9-10.9	-			
	Septage received		12	100%	0.59	0.47-0.75	-			
	ADM ^[b] received		12	100%	0.49	0.41-0.54	-			
	FOG ^[b] received		12	100%	0.062	0.041-0.088	-			
Biochemical Oxygen Demand (BOD)	INF-001	mg/L	203	100%	402.7	180-920	-			
	EFF-001		198	79%	3.4	2.5-18	10	15	30	
	EFF-001		lb/day	198	79%	228	28.8-1349	1170	1750	3500
	EFF-001		% removal	144	-	99.1	97.5-99.8	85% minimum		
Total Suspended Solids (TSS)	INF-001	mg/L	204	100%	427	210-900	-			
	EFF-001		198	56%	1.9	2-4	10	15	30	
	EFF-001		lb/day	198	56%	124.1	57.6-429.6	1170	1750	3500
	EFF-001		% removal	185		99.5	98.3-99.8	85% minimum		
pH	INF-001	SU, daily min	365	100%	6.9	5.8-7.4	-			
	INF-001	SU, daily max	365	100%	7.6	6.8-8.4	-			
	EFF-001	SU, daily min	339	100%	6.9	6.5-7.4	6.5-8.5			
	EFF-001	SU, daily max	339	100%	7.2	6.7-8.2	6.5-8.5			

Constituent	Location	Units	Count	% Detect	Mean ^[a]	Range	Permit Limit		
							AMEL	AWEL	MDEL
Temperature	EFF-001	Degrees C	339	100%	25.11	19-30.5	-		
Electrical Conductivity	INF-001	µmhos/cm	361	100%	829	402-1441	-		
	EFF-001	µmhos/cm	335	100%	578	286-1165	-		
Fecal Coliform	EFF-001	MPN/100 mL	335	2%	ID	2-4	20 30-day log mean	40 in >10% of 30 days	
Total Coliform	EFF-001	MPN/100 mL	335	7%	ID	2-4	23 no more than once in 30 days	2.2 7-day median	240
Turbidity	EFF-001	NTU	348	98%	0.50	0.1-1.097	2, 5, 10		
Ammonia, Total (as N)	INF-001	mg/L	25	100%	30.6	23-40	-		
	EFF-001		26	73%	0.13	0.1-0.37	0.54		1.6
	EFF-001	lb/day	26	73%	8.33	4.94-22.6	63		187
Nitrate, Total (as N)	INF-001	mg/L	25	28%	0.070	0.055-0.1	-		
	EFF-001		26	100%	5.45	1.4-9.1	-		
	EFF-001	lb/day	26	100%	374	70.7-977	-		
Nitrite, Total (as N)	INF-001	mg/L	25	8%	ID	0.042-2.9	-		
	EFF-001		26	92%	0.12	0.042-0.3	-		
	EFF-001	lb/day	26	92%	7.52	2.97-17.18	-		
Total Kjeldahl Nitrogen (TKN) (as N)	INF-001	mg/L	25	100%	54.4	32-88	-		
	EFF-001		26	100%	1.35	0.96-2.1	-		
	EFF-001	lb/day	26	100%	90.4	46.5-160	-		
Nitrogen, Total (as N)	EFF-001	mg/L	26	92%	6.87	3.442-10.26	10.3		12.3
	EFF-001	lb/day	26	92%	464	243-1102	1203		1436
Dissolved Oxygen	EFF-001	mg/L	38	100%	7.06	6.36-7.78	>6.5 avg (after 9/5/17)	5.0 min	4.0 min
Total Dissolved Solids (TDS)	EFF-001	mg/L	50	100%	330	270-370	460		580
	EFF-001	lb/day	50	100%	21781	12,056-34,645	53,710		67,721
Bis (2-Ethylhexyl)	EFF-001	µg/L	12	0%	ND	<2.3 - <3	1.8		3.6
	EFF-001	lb/day	12	0%	ND	<0.11 - <0.26	0.21		0.42

Constituent	Location	Units	Count	% Detect	Mean ^[a]	Range	Permit Limit		
							AMEL	AWEL	MDEL
Phthalate									
Copper, Total Recoverable	EFF-001	µg/L	12	8%	ID	2.8-3.1	-		
	EFF-001	lb/day	12	8%	ID	0.14-0.11	-		
Cyanide, Total (as CN)	EFF-001	µg/L	12	0%	ND	<4 - <5	3.6		9.6
	EFF-001	lb/day	12	0%	ND	<0.18-<0.44	0.42		1.1
Sodium, Total	EFF-001	mg/L	12	100%	76.2	71-84	-		
	EFF-001	lb/day	12	100%	4764	2685-7410	-		
Boron, Total Recoverable	EFF-001	mg/L	4	100%	0.21	0.2-0.22	-		
	EFF-001	lb/day	4	100%	12.4	7.52-19.4	-		
Chloride, Total	EFF-001	mg/L	4	100%	60.8	54-64	-		
	EFF-001	lb/day	4	100%	3552	1933-5469	-		
Fluoride, Total	EFF-001	mg/L	4	100%	ID	0.4-0.43	-		
	EFF-001	lb/day	4	100%	23.5	14.3-35.3	-		
Methylene Blue Active Substances (MBAS)	EFF-001	mg/L	4	100%	0.11	0.07-0.12	-		
	EFF-001	lb/day	4	100%	6.27	2.51-9.70	-		
Oil and Grease	EFF-001	mg/L	4	100%	1.55	0.9-2.9	-		
	EFF-001	lb/day	4	100%	85.9	39.4-155	-		
Phenols, Total	EFF-001	mg/L	4	25%	ID	1.1-20	-		
	EFF-001	lb/day	4	25%	ID	0.059-0.72	-		
Sulfate, Total (as SO4)	EFF-001	mg/L	4	100%	35.5	31-39	-		
	EFF-001	lb/day	4	100%	2093	1110-3352	-		
Hardness, Total (as CaCO3)	EFF-001	mg/L	4	100%	73.0	68-78	-		
Acute Toxicity	EFF-001	% survival	4	100%	99.5	98-100	90% minimum for three consecutive samples		70% minimum
Chronic Toxicity	EFF-001	TUc	1	100%	1.0	1.0	None		

Constituent	Location	Units	Count	% Detect	Mean ^[a]	Range	Permit Limit		
							AMEL	AWEL	MDEL
Chlorine, Total Residual	RSW-001	mg/L	4	100%	0.094	0.073-0.14	-		
	RSW-002		4	75%	0.071	0.1-0.081	-		
Dissolved Oxygen	RSW-001	mg/L	4	100%	6.28	4.33-8.55	-		
	RSW-002		4	100%	5.37	4.43-5.81	-		
Hardness, Total (as CaCO ₃)	RSW-001	mg/L	4	100%	200	180-230	-		
	RSW-002		4	100%	99.3	92-120	-		
Ammonia, Total (as N)	RSW-001	mg/L	4	0%	ND	<0.048-<0.1	-		
	RSW-002		4	0%	ND	<0.048-<0.1	-		
Nitrate, Total (as N)	RSW-001	mg/L	4	25%	ID	0.2-0.073	-		
	RSW-002		4	100%	2.70	1.1-4.1	-		
Nitrite, Total (as N)	RSW-001	mg/L	4	0%	ND	<0.048-<0.1	-		
	RSW-002		4	0%	ND	<0.048-<0.1	-		
Total Kjeldahl Nitrogen (TKN) (as N)	RSW-001	mg/L	4	100%	0.47	0.17-0.97	-		
	RSW-002		4	100%	0.44	0.064-0.71	-		
pH	RSW-001	SU	4	100%	7.52	7.28-7.8	-		
	RSW-002		4	100%	7.47	7.36-7.6	-		
Temperature	RSW-001	Degrees C	4	100%	16.4	11.2-22.6	-		
	RSW-002		4	100%	18.2	14.1-22.7	-		
Total Coliform	RSW-001	MPN/100 mL	4	100%	920	280-1600	-		
	RSW-002		4	100%	1325	500-1600	-		
Total Dissolved Solids (TDS)	RSW-001	mg/L	4	100%	425	390-450	-		
	RSW-002		4	100%	373	350-390	-		
Turbidity	RSW-001	NTU	4	100%	1.65	1.2-2	-		
	RSW-002		4	100%	0.73	0.1-1	-		

[a] ND: Not Detected; ID: Insufficient detected data were available to calculate the average using the Regression on Order Statistics method.

[b] ADM: Anaerobically Digested Material; FOG: Fats Oils Grease.

WWTP FLOW DATA

2017 INF-001 Flow, MGD

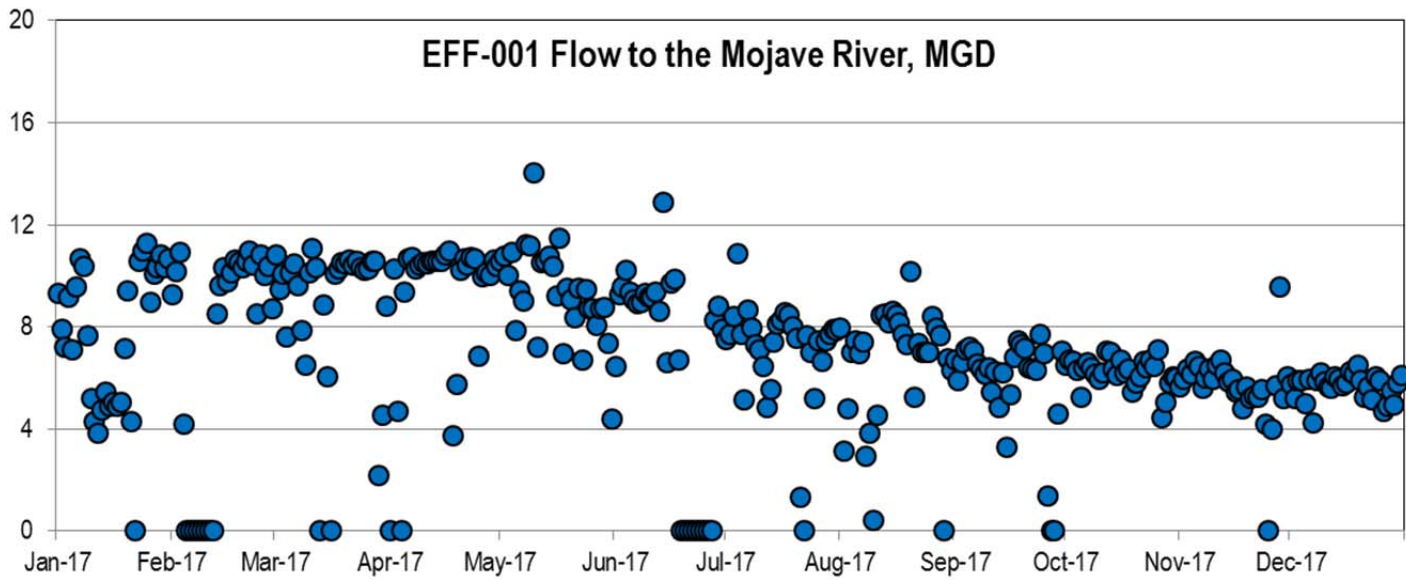
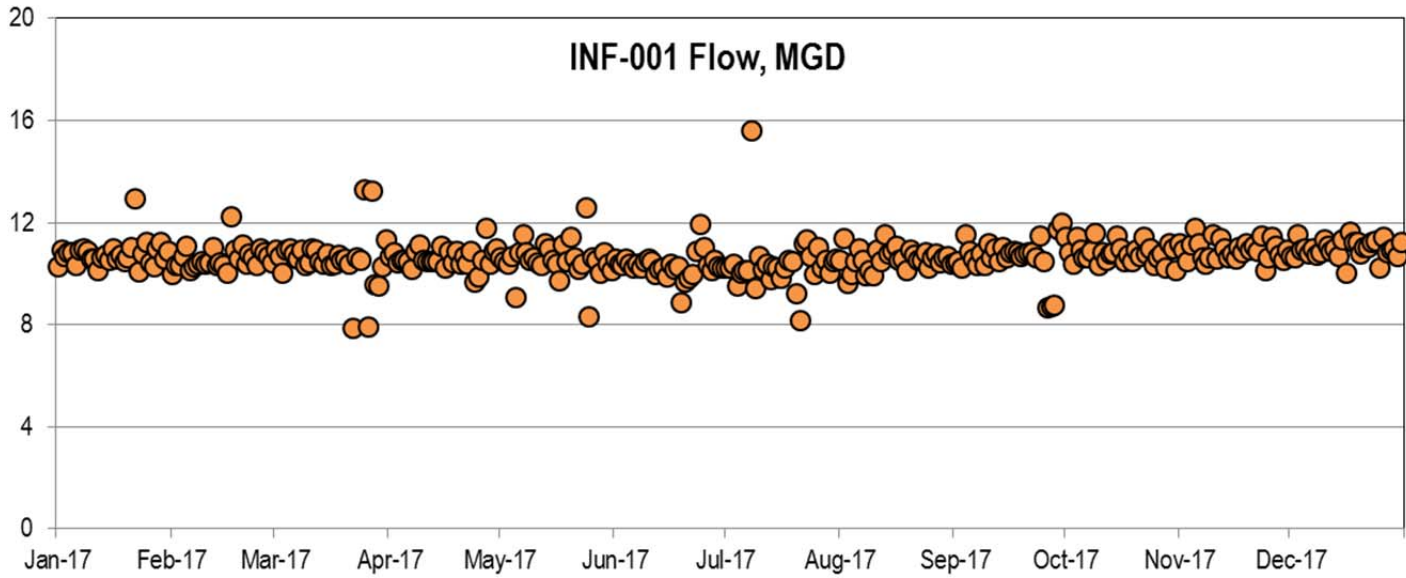
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	10.26	9.94	10.93	10.67	10.62	10.58	10.23	10.52	10.44	11.4	11.16	10.65
2	10.9	10.34	10.65	10.84	10.48	10.37	10.2	11.39	10.46	10.81	10.92	10.6
3	10.69	10.33	10	10.43	10.37	10.32	10.35	9.61	10.2	10.38	10.48	11.51
4	10.84	10.67	10.9	10.52	10.66	10.58	9.49	9.97	11.53	11.44	11.14	10.93
5	10.8	11.07	10.99	10.53	9.06	10.37	10.03	10.46	10.88	10.91	11.76	10.97
6	10.3	10.13	10.79	10.47	10.84	10.21	10.12	10.95	10.56	10.61	11.15	10.79
7	10.92	10.26	10.56	10.16	11.51	10.38	10.1	10.5	10.32	10.6	10.62	10.96
8	10.96	10.39	10.9	10.86	10.82	10.2	15.59	9.93	10.78	10.85	10.36	10.72
9	10.88	10.45	10.32	11.14	10.54	10.48	9.41	10.13	10.34	11.58	10.64	10.83
10	10.59	10.37	10.44	10.54	10.61	10.56	10.65	9.93	11.16	10.32	11.52	11.33
11	10.56	10.43	10.95	10.48	10.44	10.47	10.18	10.92	10.6	10.81	10.57	11.06
12	10.09	11.02	10.91	10.47	10.3	9.96	10.38	10.49	10.96	10.5	11.36	10.87
13	10.61	10.31	10.47	10.47	11.15	10.16	9.77	11.52	10.46	10.77	10.99	10.95
14	10.7	10.44	10.35	10.49	10.99	10.22	10.29	10.76	11.02	10.82	10.64	10.66
15	10.54	10.34	10.76	11.08	10.53	9.84	10.2	10.85	10.6	11.45	10.79	11.34
16	10.96	10.03	10.33	10.24	10.38	10.35	9.81	11.05	10.81	10.99	10.56	10.01
17	10.59	12.23	10.37	10.89	9.69	10.16	10.24	10.5	10.87	10.46	11.01	11.61
18	10.71	10.93	10.73	10.4	11.12	10.28	10.5	10.58	10.84	10.74	10.82	11.23
19	10.46	10.55	10.5	10.85	10.45	8.87	10.46	10.11	10.69	10.48	11.15	11.2
20	10.6	11.1	10.58	10.39	11.43	9.68	9.2	10.94	10.77	10.9	10.91	10.78
21	11.02	10.36	10.36	10.66	10.61	9.82	8.16	10.73	10.83	10.69	11.08	11.02
22	12.94	10.77	7.84	10.39	10.19	9.96	11.15	10.5	10.81	11.43	10.89	11
23	10.04	10.61	10.64	10.87	10.37	10.86	11.3	10.52	10.64	10.77	11.47	11.21
24	10.79	10.33	10.52	9.67	12.57	11.91	10.69	10.83	11.46	10.98	10.09	11.28
25	11.21	10.97	13.27	9.86	8.28	11.03	9.95	10.24	10.49	10.34	10.63	10.21
26	10.44	10.83	7.91	10.54	10.61	10.34	11.04	10.6	8.67	10.64	11.44	11.44
27	10.28	10.67	13.25	11.76	10.54	10.11	10.22	10.76	8.69	10.79	11.05	10.84
28	10.95	10.42	9.58	10.38	10.03	10.52	10.53	10.44	8.78	10.23	10.72	10.92
29	11.24		9.5	10.87	10.84	10.27	10.02	10.64	11.71	11.19	10.54	10.99
30	10.57		10.26	10.95	10.38	10.2	10.49	10.65	11.96	10.96	10.9	10.65
31	10.85		11.32		10.13		10.59	10.37		10.13		11.23

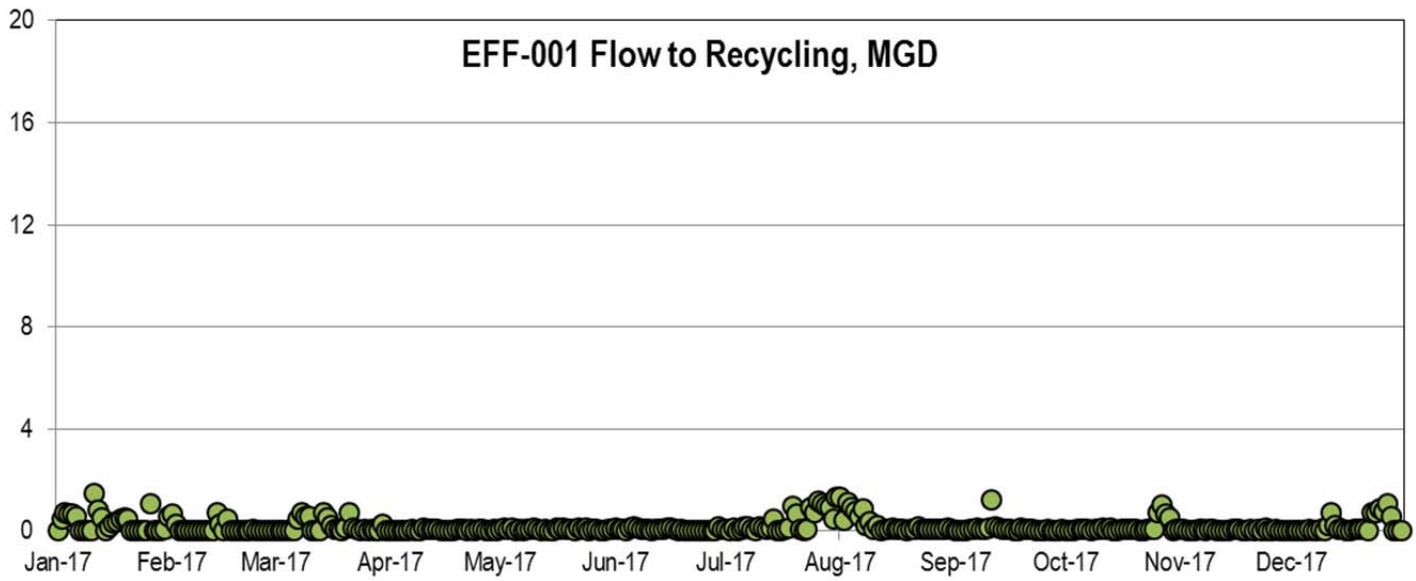
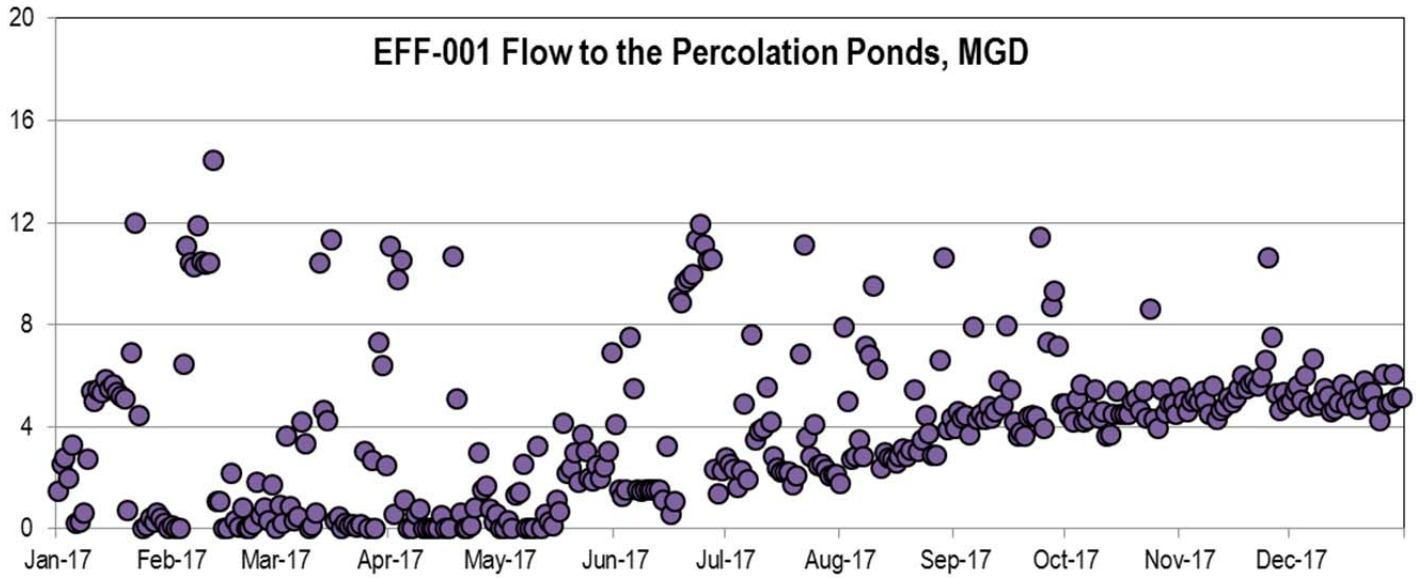
2017 EFF-001 Flow, MGD

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	9.29	9.24	10.83	0	10.57	6.44	7.51	7.95	6.72	6.51	5.63	5.72
2	7.91	10.14	9.48	10.29	10.78	9.25	7.68	3.13	5.88	6.68	5.93	5.2
3	7.2	10.92	10.04	4.66	10.02	9.58	8.4	4.79	6.6	6.67	6.32	5.9
4	9.14	4.19	7.61	0	10.91	10.21	10.87	7	7.08	6.31	6.15	5.87
5	7.11	0	10.09	9.36	7.87	9.35	7.7	7.43	7.18	5.25	6.62	4.98
6	9.54	0	10.45	10.66	9.4	9.04	5.15	6.95	7.04	6.41	6.43	5.92
7	10.66	0	9.61	10.72	9	8.93	8.65	7.42	6.52	6.59	5.61	4.24
8	10.37	0	7.87	10.26	11.22	8.94	7.94	2.9	6.35	6.4	6.01	5.89
9	7.65	0	6.47	10.4	11.18	9.3	7.32	3.83	6.13	6.12	6.34	6.21
10	5.19	0	10.11	10.53	14.03	9.17	7.09	0.41	6.38	5.93	5.94	5.84
11	4.29	0	11.05	10.48	7.2	9.14	6.43	4.52	5.42	6.21	6.47	5.65
12	3.84	0	10.32	10.57	10.54	9.34	4.81	8.48	6.25	7.06	6.72	5.57
13	4.75	8.52	0.03	10.57	10.56	8.63	5.53	8.52	4.85	7	6.18	6.06
14	5.42	9.62	8.88	10.58	10.76	12.87	7.38	8.13	6.18	6.35	5.83	5.95
15	4.87	10.31	6.05	10.56	10.39	6.57	8.08	8.59	3.27	6.08	5.95	5.68
16	5.04	9.78	0	10.8	9.23	9.73	8.26	8.46	5.36	6.7	5.42	5.79
17	4.86	10.09	10.04	10.96	11.49	9.84	8.55	8.14	6.8	6.18	5.52	6.23
18	5.06	10.61	10.25	3.74	6.93	6.7	8.48	7.7	7.45	6.36	4.8	6.15
19	7.13	10.52	10.53	5.76	9.49	0	8	7.3	7.3	5.45	5.65	6.48
20	9.41	10.31	10.46	10.23	9.07	0	7.54	10.17	7.16	5.78	5.18	5.88
21	4.26	10.59	10.61	10.68	8.36	0	1.3	5.25	6.41	6.02	5.3	5.23
22	0	10.95	10.4	10.4	9.51	0	0	7.36	6.33	6.62	5.26	5.66
23	10.56	10.42	10.56	10.74	6.68	0	7.66	7.02	6.28	6.41	5.53	5.16
24	10.97	8.5	10.32	10.68	9.47	0	7	7.02	7.7	6.69	4.19	6.06
25	11.26	10.83	10.22	6.87	8.71	0	5.19	7.01	6.95	6.45	0	5.9
26	8.98	10.02	10.29	9.94	8.69	0	7.43	8.39	1.38	7.12	3.96	4.69
27	10.04	10.39	10.57	10.1	8.06	0	6.66	7.97	0	4.41	5.71	4.89
28	10.33	8.7	10.55	9.99	8.69	8.23	7.46	7.67	0	5.06	9.54	5.49
29	10.84		2.19	10.61	8.74	8.79	7.71	0	4.58	5.81	5.18	4.94
30	10.32		4.52	10.35	7.33	7.88	7.88	6.73	7.04	6.05	6.02	5.81
31	10.67		8.82		4.36		7.85	6.28		5.99		6.11

2017 Flow to Percolation Ponds, MGD

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.48	0.08	0.01	11.08	0.02	4.09	2.78	1.78	3.95	4.88	5.52	5.00
2	2.53	0.01	0.90	0.54	0.00	1.53	2.52	7.89	4.58	4.40	4.97	5.41
3	2.78	0.00	0.23	9.76	0.32	1.25	2.30	4.98	4.33	4.19	4.60	5.61
4	1.97	6.46	3.61	10.52	0.00	1.54	1.62	2.73	4.45	5.09	4.97	5.04
5	3.28	11.07	0.88	1.13	1.30	7.50	2.29	2.83	3.67	5.64	5.14	6.00
6	0.22	10.41	0.33	0.00	1.41	5.51	4.90	3.46	7.91	4.17	5.00	4.76
7	0.25	10.26	0.48	0.00	2.52	1.49	1.90	2.82	4.30	4.27	5.39	6.66
8	0.59	11.87	4.16	0.58	0.00	1.49	7.61	7.16	4.46	4.62	4.97	4.81
9	2.73	10.45	3.30	0.74	0.00	1.51	3.49	6.80	4.28	5.45	4.47	5.03
10	5.41	10.37	0.00	0.00	0.00	1.50	3.82	9.53	4.78	4.36	5.57	5.49
11	5.00	10.43	0.12	0.00	3.21	1.53	3.93	6.25	4.33	4.56	4.26	5.21
12	5.45	14.42	0.59	0.00	0.00	1.52	5.56	2.37	4.60	3.62	4.63	4.61
13	5.35	1.07	10.44	0.00	0.57	1.51	4.19	2.98	5.80	3.67	4.80	4.70
14	5.86	1.06	4.63	0.00	0.27	1.12	2.80	2.78	4.82	4.48	5.14	4.93
15	5.50	0.03	4.21	0.52	0.12	3.22	2.35	2.71	7.98	5.37	4.92	5.64
16	5.63	0.00	11.33	0.00	1.11	0.57	2.23	2.56	5.43	4.47	5.12	4.84
17	5.35	2.15	0.31	0.00	0.69	1.08	2.24	2.85	4.19	4.51	5.48	5.38
18	5.20	0.32	0.46	10.68	4.14	9.05	2.22	3.10	3.61	4.46	6.01	5.05
19	5.11	0.03	0.00	5.07	2.17	8.87	1.71	2.80	3.80	5.00	5.51	4.70
20	0.72	0.79	0.18	0.62	2.36	9.68	2.06	3.05	3.60	5.09	5.71	5.07
21	6.87	0.00	0.09	0.00	2.99	9.82	6.86	5.45	4.40	4.65	5.78	5.77
22	11.95	0.01	0.16	0.00	1.82	9.96	11.15	3.03	4.44	5.41	5.60	5.34
23	4.45	0.17	0.06	0.11	3.66	11.31	3.58	3.46	4.37	4.34	5.93	5.33
24	0.01	1.82	0.18	0.81	3.04	11.91	2.83	4.45	11.44	8.61	6.61	4.77
25	0.09	0.51	3.03	2.96	1.95	11.14	4.08	3.71	3.95	4.26	10.63	4.25
26	0.40	0.79	0.00	1.49	1.89	10.53	2.47	2.86	7.29	3.91	7.48	6.04
27	0.24	0.30	2.66	1.66	2.45	10.54	2.54	2.85	8.69	5.42	5.30	4.90
28	0.62	1.73	0.00	0.76	1.99	2.30	2.30	6.57	9.32	4.51	4.62	4.92
29	0.40		7.31	0.24	2.43	1.35	2.05	10.64	7.16	4.88	5.34	6.03
30	0.23		6.40	0.58	3.04	2.28	2.13	3.87	4.86	4.89	4.87	5.14
31	0.02		2.50		6.92		2.11	4.35		4.48		5.12





WWTP WATER QUALITY MONITORING DATA

2017 INF-001 Biological Oxygen Demand (BOD) Concentration, mg/L

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	380			410	320		360	350		370		
2	380			660	380					370		
3	410			360		390	330		230	380		290
4		360	580	360		420	390		290		440	360
5		380	600			420	330	340	330		370	390
6		410	530		250	380		380	360		390	350
7	600	330	550		420			270		400	330	
8	480			380	400		380	550		420		
9	400			360	430		370		400	390		
10	460			530		350	410		380	370		350
11		480	360	350		460	260		310		390	490
12		450	490			400		430	610		360	380
13			410		360	330		470			420	380
14	650	420	430		460			370		400	410	
15	540	300		440	410		390	240		340		
16	330			410	410		420		460	340		
17	360			540		490	290		350	500		370
18			360	460		460	370		370		380	410
19		370	470			390		350	370		400	380
20		350	370		450	300		380			510	330
21	330	430	260		420			290		390	470	
22	350	480		410	920		370	330		360		
23	360			500	410		330		460	350		
24	340			460		490	410		320	410		
25		460	620	340		320	360		270			490
26		360	570			370		430	390			490
27		480	290			340		330				470
28	500	390	400		400			480		400		450
29	400			390	400		400	440		470		
30	440			410	520		380		440	260		
31	410				370		180			400		

2017 EFF-001 Biological Oxygen Demand (BOD) Concentration, mg/L

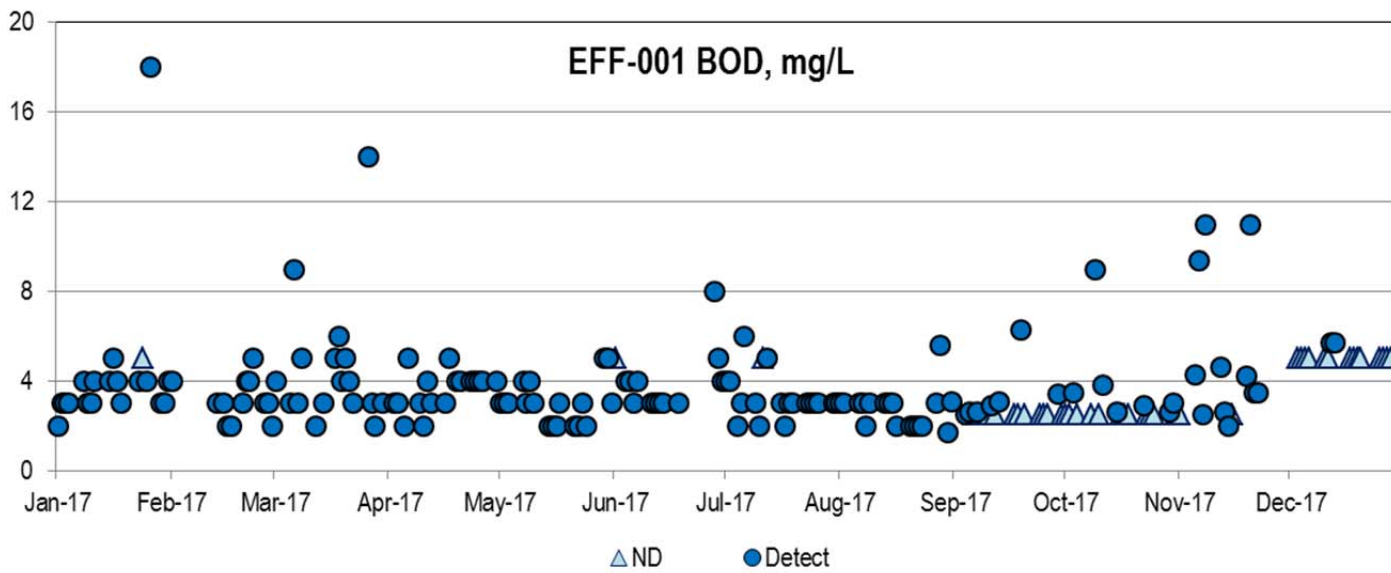
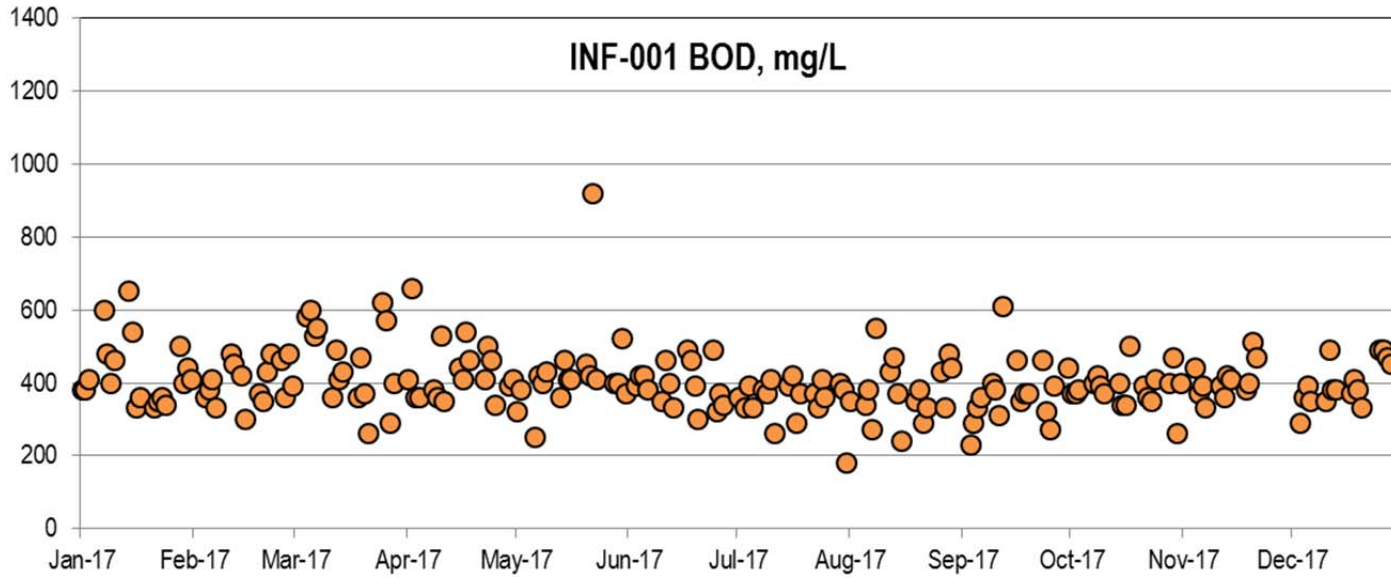
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.0	4.0	4.0		3.0	<5	4.0	3.0		<2.5	<2.5	
2	3.0			3.0	3.0		4.0	3.0		<2.5		
3	3.0			3.0	3.0					3.5		<5
4	3.0					4.0	2.0		2.5	<2.5		<5
5			3.0	2.0		4.0	3.0		2.6		4.3	<5
6			9.0	5.0		3.0	6.0	3.0	<2.5		9.4	<5
7			3.0		4.0	4.0		3.0	2.6		2.5	
8	4.0		5.0		3.0			2.0		<2.5	11.0	
9	3.0			3.0	4.0		3.0	3.0		9.0		
10	3.0			2.0	3.0		2.0		<2.5	<2.5		<5
11	4.0			4.0		3.0	<5		2.9	3.8		<5
12			2.0	3.0		3.0	5.0		<2.5		4.6	5.7
13		3.0				3.0		3.0	3.1		2.6	5.7
14			3.0		2.0	3.0		3.0			2.0	
15	4.0	3.0			2.0			3.0		2.6	<2.5	
16	5.0	2.0		3.0	2.0		3.0	2.0		<2.5		
17	4.0	2.0	5.0	5.0	3.0		2.0		<2.5	<2.5		<5
18	3.0		6.0			3.0	3.0		<2.5	<2.5		<5
19			4.0	4.0			3.0		6.3		4.2	<5
20		3.0	5.0	4.0				2.0	<2.5		11.0	<5
21		4.0	4.0		2.0			2.0			3.5	
22		4.0	3.0		2.0			2.0		2.9	3.5	
23	4.0	5.0		4.0	3.0		3.0	2.0		<2.5		
24	<5			4.0	2.0		3.0		<2.5	<2.5		
25	4.0			4.0			3.0		<2.5	<2.5		<5
26	18.0	3.0	14.0	4.0			3.0		<2.5			<5
27		3.0	3.0					3.0				<5
28		2.0	2.0			8.0		5.6				<5
29	3.0				5.0	5.0			3.4	2.6		
30	3.0		3.0	4.0	5.0	4.0	3.0	1.7	<2.5	3.0		
31	4.0				3.0		3.0	3.1		<2.5		

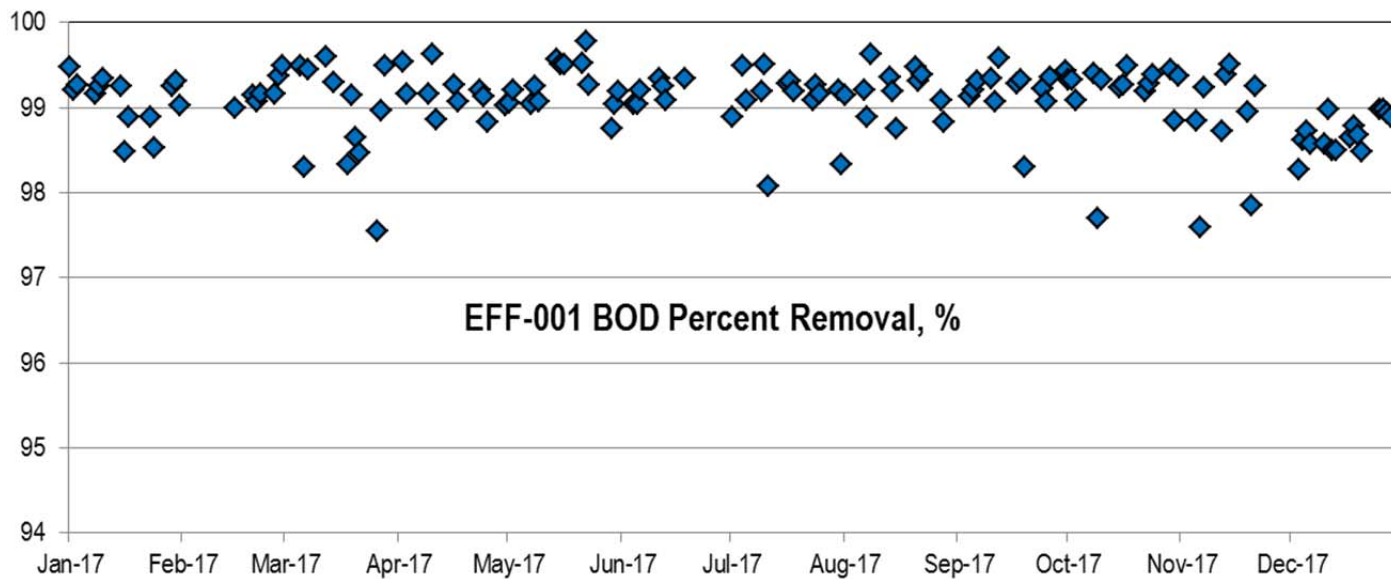
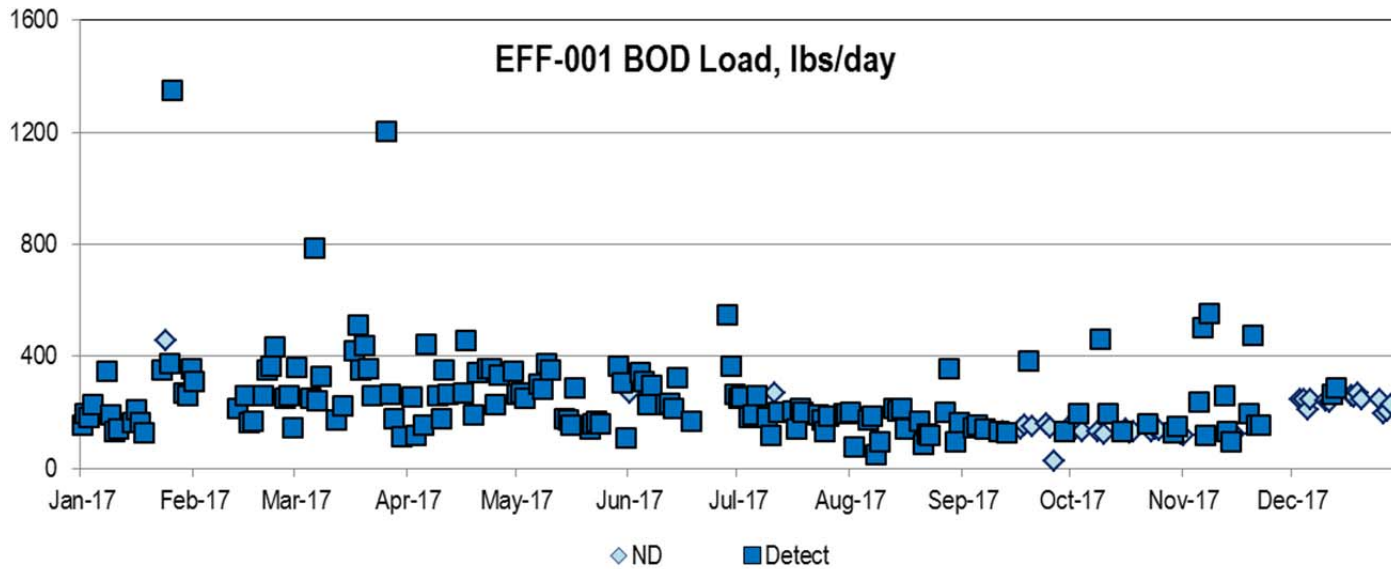
2017 EFF-001 Biological Oxygen Demand (BOD) Load, lbs/day

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	155	308	362		265	<269	251	199		<136	<117	
2	198			258	270		256	78		<139		
3	180			117	251					195		<246
4	229					341	181		148	<132		<245
5			253	156		312	193		156		238	<208
6			785	445		226	258	174	<147		504	<247
7			241		300	298		186	141		117	
8	346		328		281			48		<134	552	
9	192			260	373		183	96		460		
10	130			176	351		118		<133	<124		<244
11	143			350		229	<268		131	197		<236
12			172	265		234	201		<130		258	265
13		213				216		213	125		134	288
14			222		180	322		204			97	
15	163	258			173			215		132	<124	
16	210	163		270	154		207	141		<140		
17	162	168	419	457	288		143		<142	<129		<260
18	127		513			168	212		<155	<133		<257
19			352	192			200		384		198	<270
20		258	436	341				170	<149		476	<245
21		354	354		140			88			155	
22		366	260		159			123		160	154	
23	353	435		359	167		192	117		<134		
24	<458			357	158		175		<161	<140		
25	376			229			130		<145	<135		<246
26	1349	251	1202	332			186		<29			<196
27		260	265					200				<204
28		145	176			549		358				<229
29	271				365	367			130	126		
30	258		113	345	306	263	197	95	<147	151		
31	356				109		197	162		<125		

2017 EFF-001 Biological Oxygen Demand (BOD) Percent Removal, %

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	99.5				99.1		98.9	99.1		99.3		
2	99.2			99.5	99.2					99.3		
3	99.3			99.2						99.1		98.3
4						99.0	99.5		99.1			98.6
5			99.5			99.0	99.1		99.2		98.8	98.7
6			98.3			99.2		99.2	99.3		97.6	98.6
7			99.5		99.0			98.9			99.2	
8	99.2				99.3			99.6		99.4		
9	99.3			99.2	99.1		99.2			97.7		
10	99.3			99.6			99.5		99.3	99.3		98.6
11				98.9		99.3	98.1		99.1			99.0
12			99.6			99.3			99.6		98.7	98.5
13						99.1		99.4			99.4	98.5
14			99.3		99.6			99.2			99.5	
15	99.3	99.0			99.5			98.8		99.2		
16	98.5			99.3	99.5		99.3			99.3		
17	98.9			99.1			99.3		99.3	99.5		98.6
18			98.3			99.3	99.2		99.3			98.8
19			99.1						98.3		99.0	98.7
20		99.1	98.6					99.5			97.8	98.5
21		99.1	98.5		99.5			99.3			99.3	
22		99.2			99.8			99.4		99.2		
23	98.9			99.2	99.3		99.1			99.3		
24	98.5			99.1			99.3		99.2	99.4		
25				98.8			99.2		99.1			99.0
26		99.2	97.5						99.4			99.0
27		99.4	99.0					99.1				98.9
28		99.5	99.5					98.8				98.9
29	99.3				98.8					99.4		
30	99.3			99.0	99.0		99.2		99.4	98.8		
31	99.0				99.2		98.3			99.4		





2017 INF-001 Total Suspended Solids, mg/L

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	850	530	400		360	350		420		350	350	
2	340			400	390		320	340		430		
3	390			320	370					320		400
4	480			430		400	410		320	340		500
5		560	440	530		450	420		410		760	480
6		520	470			560	380	320	430		340	380
7		550	570		400	360		400	310		310	
8	550	360	610		610			230		560	330	
9	500			410	380		390	520		280		
10	400			400	350		250		370	720		630
11	480			480		370	350		460	240		720
12		500	530	440		340	230		320		340	760
13		740	440			310		370	340		490	760
14			420		400	350		380			430	
15	540	640	490		490			300		320	490	
16	420	680		430	490		430	290		410		
17	480			460	380		420		370	340		470
18	440			370		450	420		470	380		440
19			440	440		410	430		390		320	510
20		460	500			450		250	350		750	510
21		420	400		430	310		310			420	
22	300	590	210		350			350		340	380	
23	500	540		370	900		320	300		350		
24	430			460	450		340		300	380		
25	400			460		370	310		420	390		420
26		390	510	420		330	400		350			420
27		440	460			370		320	210			510
28		470	320			470		420				480
29	490		460		520			360		360		
30	480			380	400		350	300		400		
31	850				290		390			400		

2017 EFF-001 Total Suspended Solids (TSS) Concentration, mg/L

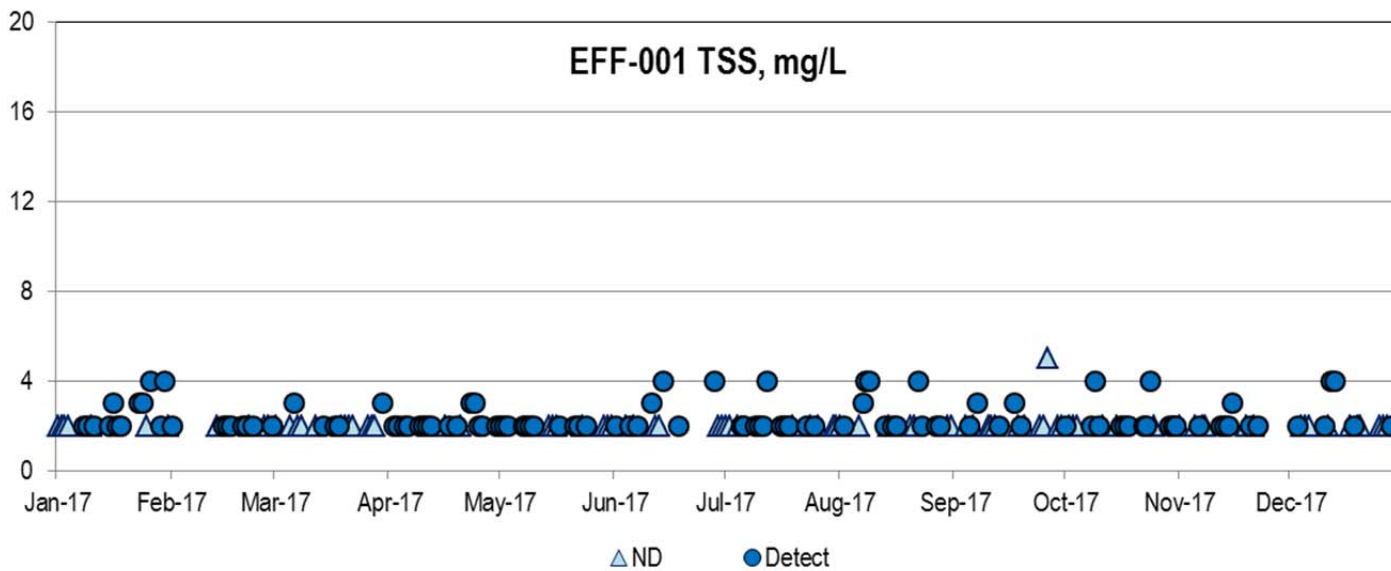
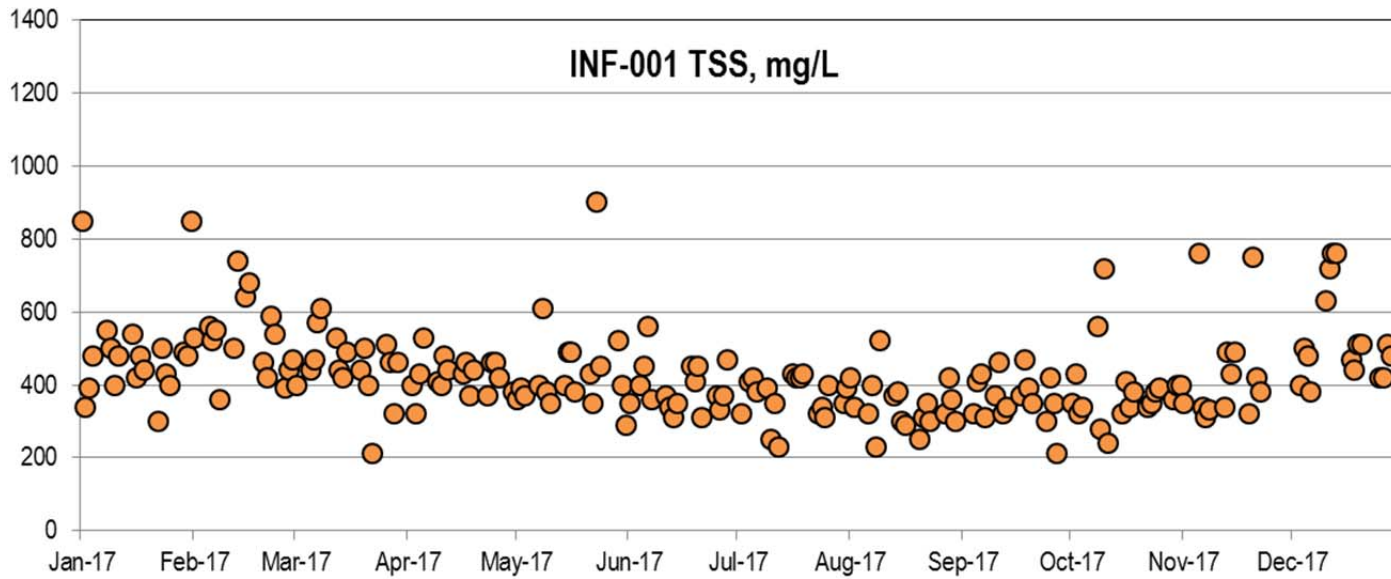
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	<2	2	<2		2	2	<2	<2		2	<2	
2	<2			2	2		<2	2		<2		
3	<2			2	2					<2		2
4	<2					<2	<2		<2	<2		<2
5			<2	2		2	2		2		<2	<2
6			3	2		<2	2	<2	<2		2	<2
7			<2		2	2		3	3		<2	
8	2		<2		2			4		2	<2	
9	2			2	2		2	4		4		
10	<2			2	2		2		<2	2		2
11	2			2		3	2		<2	<2		<2
12			<2	2		<2	4		<2		2	4
13		<2				<2		2	2		2	4
14			2		<2	4		<2			2	
15	2	2			<2			2		<2	3	
16	3	2		<2	<2		2	2		2		
17	2	2	2	2	2		2		3	2		<2
18	2		2			2	2		<2	2		2
19			<2	2			<2		2		<2	<2
20		2	<2	<2				<2	<2		2	<2
21		2	<2		2			<2			<2	
22		<2	<2		2			4		2	2	
23	3	2		3	<2		2	2		2		
24	3			3	2		<2		<2	4		
25	<2			2			2		<2	<2		<2
26	4	<2	<2	2			<2		<5			<2
27		<2	<2					2				<2
28		2	<2			4		2				2
29	2				<2	<2			<2	2		
30	4		3	2	<2	<2	<2	<2	<2	2		
31	<2				<2		<2	<2		2		

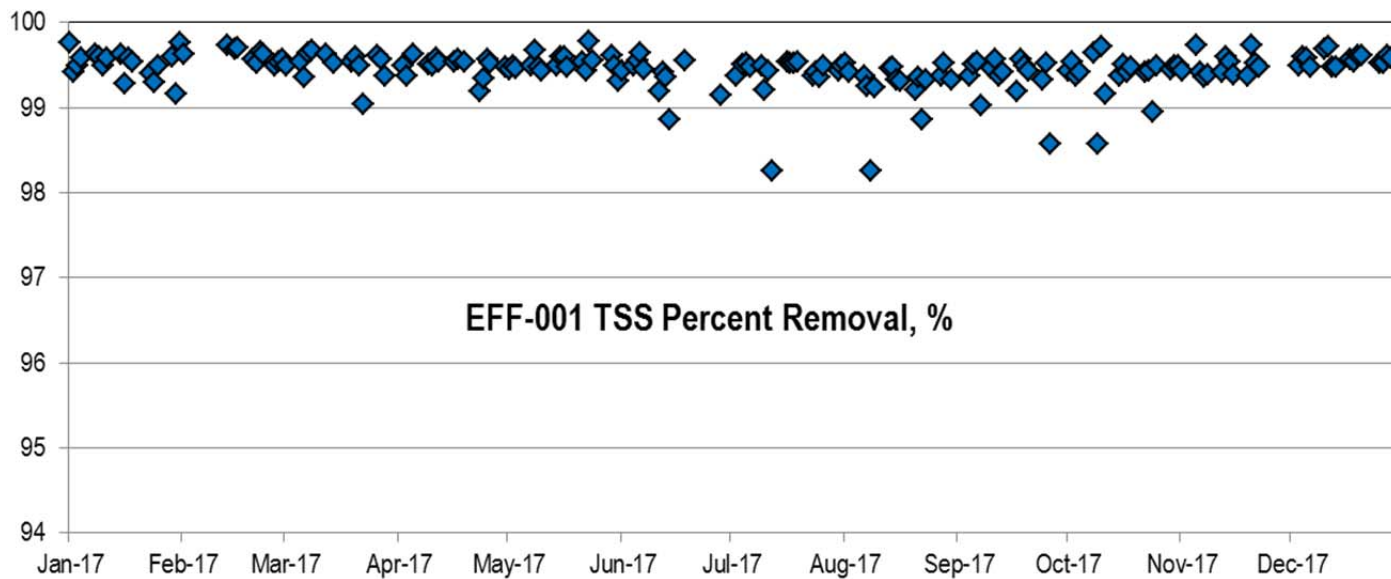
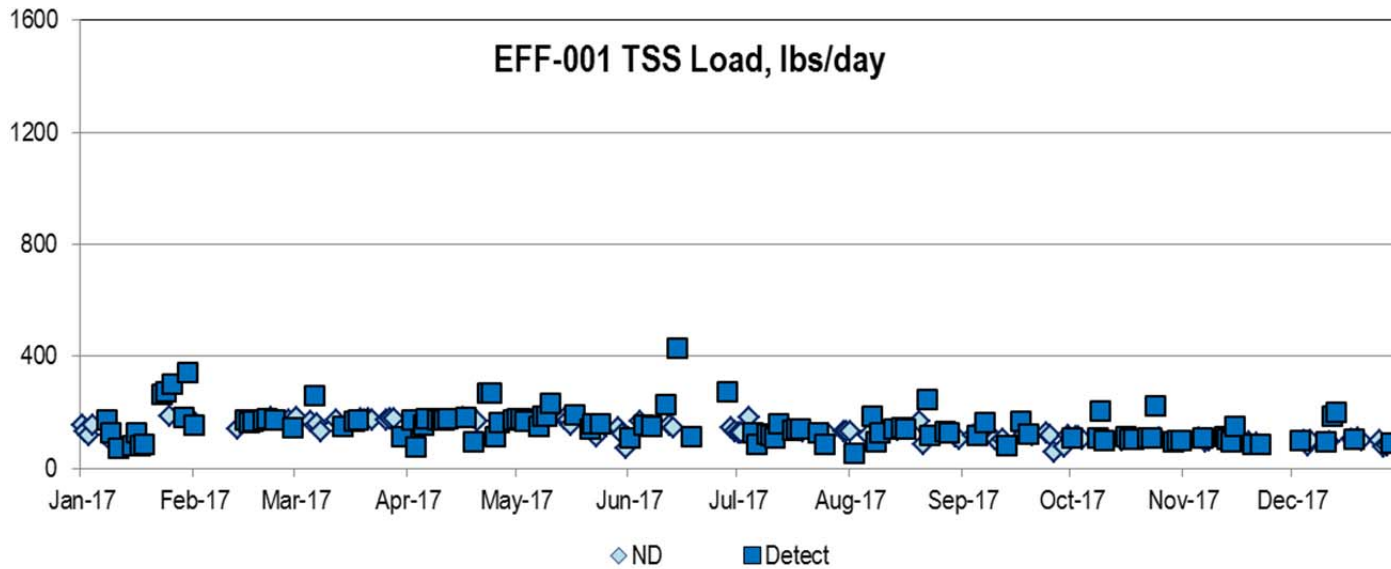
2017 EFF-001 Total Suspended Solids (TSS) Load, lbs/day

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	<155.1	154.2	<180.8		176.4	107.5	<125.3	<132.7		108.7	<94.0	
2	<132.0			171.7	179.9		<128.2	52.2		<111.5		
3	<120.2			77.8	167.2					<111.3		98.5
4	<152.6					<170.4	<181.4		<118.2	<105.3		<98.0
5			<168.4	156.2		156.1	128.5		119.8		<110.5	<83.1
6			261.6	177.9		<150.9	86.0	<116.0	<117.5		107.3	<98.8
7			<160.4		150.2	149.0		185.8	163.2		<93.6	
8	173.1		<131.4		187.3			96.8		106.8	<100.3	
9	127.7			173.6	186.6		122.2	127.9		204.3		
10	<86.6			175.8	234.2		118.3		<106.5	99.0		97.5
11	71.6			174.9		228.8	107.3		<90.5	<103.6		<94.3
12			<172.2	176.4		<155.9	160.6		<104.3		112.2	185.9
13		<142.2				<144.0		142.2	81.0		103.1	202.3
14			148.2		<179.6	429.6		<135.7			97.3	
15	81.3	172.1			<173.4			143.4		<101.5	149.0	
16	126.2	163.2		<180.3	<154.1		137.9	141.2		111.8		
17	81.1	168.4	167.6	182.9	191.8		142.7		170.2	103.1		<104.0
18	84.5		171.1			111.8	141.5		<124.3	106.2		102.6
19			<175.8	96.1			<133.5		121.8		<94.3	<108.2
20		172.1	<174.6	<170.7				<169.7	<119.5		86.5	<98.1
21		176.8	<177.1		139.5			<87.6			<88.5	
22		<182.8	<173.6		158.7			245.7		110.5	87.8	
23	264.4	173.9		268.9	<111.5		127.9	117.2		107.0		
24	274.6			267.4	158.1		<116.8		<128.5	223.3		
25	<187.9			114.7			86.6		<116.0	<107.7		<98.5
26	299.8	<167.2	<171.7	165.9			<124.0		<57.6			<78.3
27		<173.4	<176.4					133.0				<81.6
28		145.2	<176.1			274.7		128.0				91.6
29	180.9				<145.9	<146.7			<76.4	97.0		
30	344.5		113.2	172.7	<122.3	<131.5	<131.5	<112.3	<117.5	101.0		
31	<178.1				<72.8		<131.0	<104.8		100.0		

2017 EFF-001 Total Suspended Solids (TSS) Percent Removal, %

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	99.8	99.6	99.5		99.4	99.4		99.5		99.4	99.4	
2	99.4			99.5	99.5		99.4	99.4		99.5		
3	99.5			99.4	99.5					99.4		99.5
4	99.6					99.5	99.5		99.4	99.4		99.6
5			99.5	99.6		99.6	99.5		99.5		99.7	99.6
6			99.4			99.6	99.5	99.4	99.5		99.4	99.5
7			99.6		99.5	99.4		99.3	99.0		99.4	
8	99.6		99.7		99.7			98.3		99.6	99.4	
9	99.6			99.5	99.5		99.5	99.2		98.6		
10	99.5			99.5	99.4		99.2		99.5	99.7		99.7
11	99.6			99.6		99.2	99.4		99.6	99.2		99.7
12			99.6	99.5		99.4	98.3		99.4		99.4	99.5
13		99.7				99.4		99.5	99.4		99.6	99.5
14			99.5		99.5	98.9		99.5			99.5	
15	99.6	99.7			99.6			99.3		99.4	99.4	
16	99.3	99.7		99.5	99.6		99.5	99.3		99.5		
17	99.6			99.6	99.5		99.5		99.2	99.4		99.6
18	99.5					99.6	99.5		99.6	99.5		99.5
19			99.5	99.5			99.5		99.5		99.4	99.6
20		99.6	99.6					99.2	99.4		99.7	99.6
21		99.5	99.5		99.5			99.4			99.5	
22		99.7	99.0		99.4			98.9		99.4	99.5	
23	99.4	99.6		99.2	99.8		99.4	99.3		99.4		
24	99.3			99.3	99.6		99.4		99.3	98.9		
25	99.5			99.6			99.4		99.5	99.5		99.5
26		99.5	99.6	99.5			99.5		98.6			99.5
27		99.5	99.6					99.4				99.6
28		99.6	99.4			99.1		99.5				99.6
29	99.6				99.6					99.4		
30	99.2			99.5	99.5		99.4	99.3		99.5		
31	99.8				99.3		99.5			99.5		





2017 INF-001 pH Daily Minimum, SU

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	6.87	6.72	7.21	7.15	7.07	6.95	6.93	6.94	6.95	7.17	6.97	6.95
2	6.82	6.75	7.15	7.08	7.1	6.89	6.9	6.97	7.05	7.02	6.96	6.97
3	6.91	6.76	7.23	7.09	7.08	6.94	6.78	6.98	6.93	6.95	6.96	6.9
4	6.73	6.74	7.08	7.1	7.05	6.85	6.83	7.05	6.91	7.15	6.94	6.91
5	6.64	6.72	7.17	7.1	7.03	6.92	6.91	6.83	6.92	7.12	6.9	6.97
6	6.75	6.71	7.16	7.1	6.61	6.93	6.96	6.77	6.97	7.13	6.91	6.93
7	6.69	6.76	6.84	6.52	6.5	6.76	6.92	6.97	6.84	7.14	6.91	6.93
8	6.71	6.78	6.65	5.76	6.99	6.82	6.96	6.98	6.52	7.09	6.98	7.04
9	6.7	7.04	6.91	6.11	6.54	7	6.91	6.98	6.97	7.09	6.96	6.97
10	6.86	7.07	6.92	6.65	6.52	6.99	6.96	6.97	6.85	7.09	6.99	6.95
11	6.88	7.18	6.94	6.32	6.6	6.96	6.92	6.74	6.91	7.09	6.94	6.98
12	6.9	7.1	6.84	7.2	6.88	6.98	6.94	6.62	7.01	7.15	6.91	6.99
13	6.9	7.14	6.84	7.05	7.1	6.92	6.94	6.54	7	7.03	6.97	6.83
14	6.84	7.14	6.84	7.12	6.81	6.91	6.8	6.69	6.98	7.05	6.83	7.1
15	6.82	7.1	6.83	7.11	6.96	6.89	6.74	6.73	7.02	7.09	6.86	7.17
16	6.83	7.16	7.01	7.07	7.18	6.94	6.9	6.72	6.77	7.22	7	7.112
17	6.84	7.06	7.02	7.06	7.23	6.93	6.88	6.58	6.89	7.09	6.96	7.18
18	6.89	7.13	7.03	6.6	6.85	6.94	6.92	6.66	6.9	7.09	6.94	7.12
19	6.84	7.13	6.88	6.6	7.44	6.9	6.92	6.93	6.93	7.08	6.94	7.12
20	7.03	7.13	6.81	7.03	7.44	6.85	6.99	6.98	6.9	7.14	6.9	7.16
21	7.06	7.14	6.84	7.06	7.4	6.89	7.01	6.9	6.65	7.06	6.86	7.1
22	6.96	6.94	6.9	6.98	7.41	6.86	6.95	6.91	6.62	7.03	6.88	7.2
23	6.62	7.2	6.98	6.63	7.4	6.79	6.94	6.92	6.49	7.04	6.64	7.04
24	7.05	7.18	6.86	6.85	7.36	6.82	7.02	6.93	7.08	7.03	6.68	7.01
25	7.07	7.18	6.93	6.61	7.44	6.75	7.03	6.88	7.09	6.94	6.95	7.09
26	7.09	7.14	6.93	7.05	7.34	6.86	7.01	7.26	7.11	6.92	6.94	7.02
27	7.06	7.01	6.91	6.95	7.42	6.92	7.04	6.85	6.97	6.93	6.95	7.11
28	7.02	7.15	6.91	6.14	7.38	6.92	6.75	6.95	7.1	6.84	6.98	7.03
29	6.97		6.64	6.98	6.91	6.92	7.01	6.65	7.17	6.82	7.03	6.62
30	7.02		6.93	6.94	6.86	6.96	6.97	6.79	7.05	6.84	6.93	6.47
31	7.03		7.17		6.97		6.98	6.91		6.86		7.05

2017 INF-001 pH Daily Maximum, SU

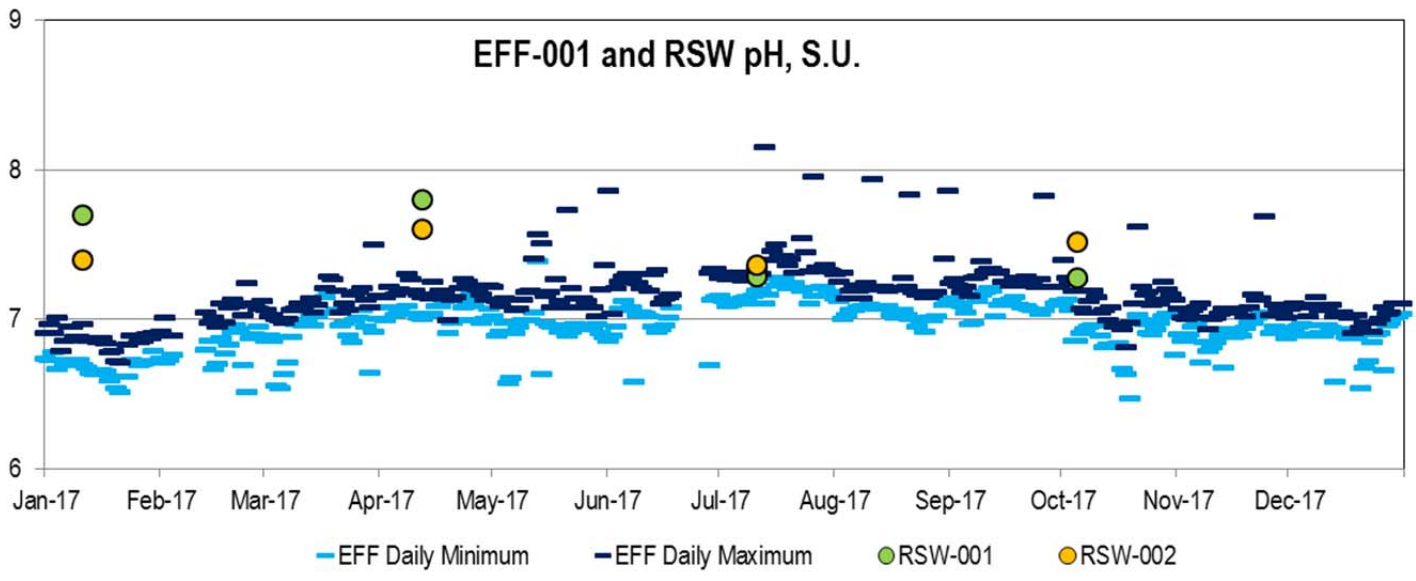
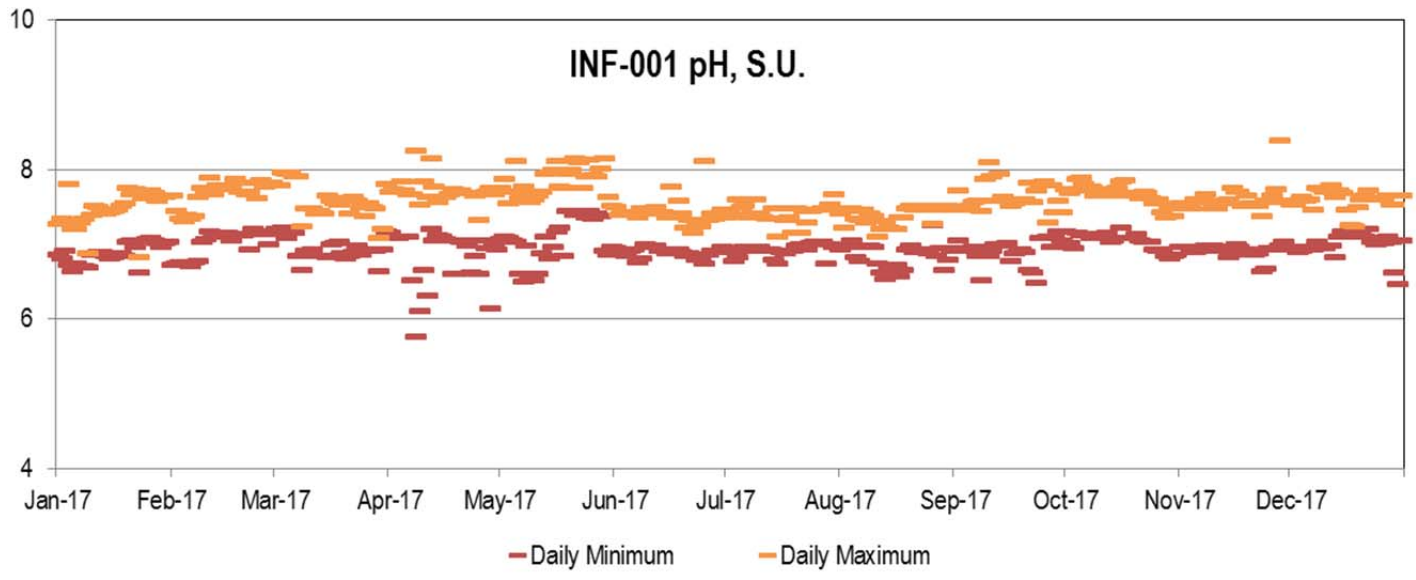
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	7.28	7.65	7.8	7.7	7.75	7.5	7.37	7.41	7.47	7.74	7.55	7.54
2	7.35	7.44	7.8	7.74	7.87	7.39	7.41	7.22	7.73	7.69	7.49	7.54
3	7.321	7.34	7.96	7.71	7.55	7.43	7.38	7.44	7.48	7.74	7.53	7.58
4	7.81	7.31	7.94	7.84	7.7	7.43	7.6	7.48	7.47	7.87	7.48	7.63
5	7.21	7.39	7.97	7.72	8.12	7.43	7.5	7.34	7.51	7.9	7.61	7.59
6	7.2	7.34	7.91	7.68	7.62	7.4	7.52	7.33	7.56	7.81	7.6	7.61
7	7.29	7.38	7.91	7.67	7.78	7.37	7.37	7.46	7.58	7.73	7.61	7.46
8	7.34	7.64	7.25	8.26	7.69	7.49	7.42	7.3	7.44	7.78	7.68	7.76
9	6.88	7.75	7.49	7.53	7.57	7.42	7.61	7.42	7.88	7.65	7.57	7.74
10	7.4	7.73	7.49	7.84	7.6	7.43	7.42	7.38	8.1	7.74	7.49	7.71
11	7.51	7.9	7.48	7.64	7.66	7.49	7.36	7.11	7.91	7.74	7.49	7.72
12	7.5	7.68	7.41	8.15	7.7	7.5	7.34	7.2	7.58	7.66	7.55	7.79
13	7.45	7.79	7.44	7.78	7.95	7.42	7.35	7.31	7.95	7.7	7.58	7.64
14	7.42	7.75	7.41	7.56	7.97	7.43	7.49	7.23	7.63	7.67	7.61	7.73
15	7.43	7.78	7.65	7.64	8	7.37	7.1	7.2	7.61	7.76	7.76	7.69
16	7.45	7.74	7.58	7.63	8.12	7.77	7.48	7.2	7.52	7.85	7.71	7.46
17	7.46	7.8	7.55	7.67	7.77	7.4	7.32	7.36	7.55	7.86	7.7	7.26
18	7.52	7.87	7.54	7.74	7.75	7.59	7.36	7.36	7.58	7.65	7.51	7.25
19	7.55	7.71	7.59	7.69	7.94	7.41	7.16	7.48	7.57	7.69	7.65	7.5
20	7.76	7.71	7.62	7.72	8	7.22	7.48	7.51	7.6	7.66	7.55	7.61
21	7.68	7.67	7.41	7.69	8.15	7.32	7.16	7.47	7.82	7.62	7.51	7.65
22	7.74	7.7	7.63	7.69	8.1	7.16	7.44	7.51	7.57	7.71	7.52	7.72
23	6.83	7.83	7.58	7.69	7.76	7.24	7.3	7.48	7.73	7.69	7.38	7.62
24	7.62	7.62	7.5	7.65	7.92	7.25	7.44	7.52	7.81	7.62	7.59	7.6
25	7.66	7.86	7.38	7.33	8.13	8.12	7.47	7.47	7.84	7.55	7.57	7.6
26	7.72	7.77	7.55	7.67	7.93	7.32	7.46	7.27	7.29	7.61	7.65	7.62
27	7.69	7.81	7.5	7.7	7.92	7.41	7.48	7.46	7.79	7.43	7.74	7.65
28	7.58	7.82	7.49	7.76	8.01	7.35	7.48	7.48	7.43	7.37	8.39	7.54
29	7.66		7.08	7.68	8.15	7.39	7.54	7.51	7.59	7.48	7.58	7.53
30	7.63		7.2	7.74	7.64	7.46	7.67	7.51	7.43	7.38	7.57	7.65
31	7.65		7.81		7.52		7.49	7.48		7.54		7.66

2017 EFF-001 pH Daily Minimum, SU

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	6.74	6.74	6.86		7.02	6.86	7.16	7.14	7.12	7.1	6.9	6.9
2	6.73	6.71	6.89	6.99	6.89	6.89	7.12	7.12	7.14	7.13	6.86	6.94
3	6.78	6.73	6.86	7.08	6.92	6.95	7.09	7	7.11	7.06	6.88	6.95
4	6.67	6.76	6.56		6.98	7.07	7.1	7.03	7.09	6.86	6.9	6.97
5	6.73		6.54	7.03	6.57	7.12	7.11	7.06	7.05	6.86	6.95	6.9
6	6.69		6.63	7.05	6.61	7.06	7.13	7.06	6.97	6.91	6.98	6.89
7	6.7		6.71	7.04	6.91	7.08	7.14	7.08	6.98	6.93	6.71	6.96
8	6.72		6.88	7.09	6.95	6.58	7.15	7.09	7.12	6.95	6.85	6.96
9	6.7		6.97	7.04	6.99	7.03	7.11	7.09	7.17	6.96	6.79	6.91
10	6.73		6.97	7.04	6.99	7.05	7.16	7.1	7.18	6.96	6.81	6.89
11	6.69		6.96	7.01	6.99	7.04	7.19	7.09	7.21	6.89	6.85	6.96
12	6.68		6.99	7	7.05	7.02	7.2	7.07	7.19	6.81	6.89	6.94
13	6.64	6.8	7.04	7.04	7.39	6.95	7.11	7.07	7.02	6.83	6.68	6.58
14	6.63	6.86	6.96	7.03	6.63	6.92	7.17	7.09	7.1	6.83	6.93	6.92
15	6.66	6.67	7.02	7.04	6.98	6.93	7.28	7.09	7.12	6.82	6.91	6.93
16	6.66	6.7		7.09	6.96	6.96	7.23	7.03	7.11	6.84	6.88	6.88
17	6.65	6.87	7.15	7.09	6.95	7.01	7.27	7.01	7.13	6.67	6.91	6.87
18	6.59	6.77	7.19	7.12	6.96	7.08	7.28	7.06	7.15	6.63	6.89	6.87
19	6.62	6.83	7.05	6.91	6.92		7.21	7.06	7.1	6.47	6.94	6.88
20	6.54	6.92	7.06	6.98	6.96		7.21	7.03	7.08	6.98	6.98	6.54
21	6.51	6.96	6.96	6.99	6.89		7.24	7	7.09	7.03	6.98	6.68
22		6.93	6.98	6.99	6.92			7	7.07	6.99	7.01	6.72
23	6.62	6.69	6.89	7.08	6.97		7.19	6.95	7.06	6.97	7.05	6.85
24	6.73	6.51	6.85	7.12	6.95		7.21	6.99	7.06	6.91	7.04	6.9
25	6.71	6.87	6.99	7.17	6.94		7.11	6.92	7.04	6.9		6.91
26	6.69	6.9	7.01	7.09	6.95		7.16	7.01	7.06	6.93	6.91	6.66
27	6.7	6.95	7.06	6.99	6.95		7.21	6.99		6.98	6.95	6.96
28	6.71	6.89	6.95	6.98	6.93	6.69	7.22	7.02		7.02	6.94	6.98
29	6.72		6.64	7	6.97	7.13	7.21		7.11	7.04	6.94	7.01
30	6.79		6.92	7.07	6.91	7.15	7.18	7.1	7.12	7.04	6.87	7.02
31	6.72		7		6.88		7.18	7.12		6.76		7.04

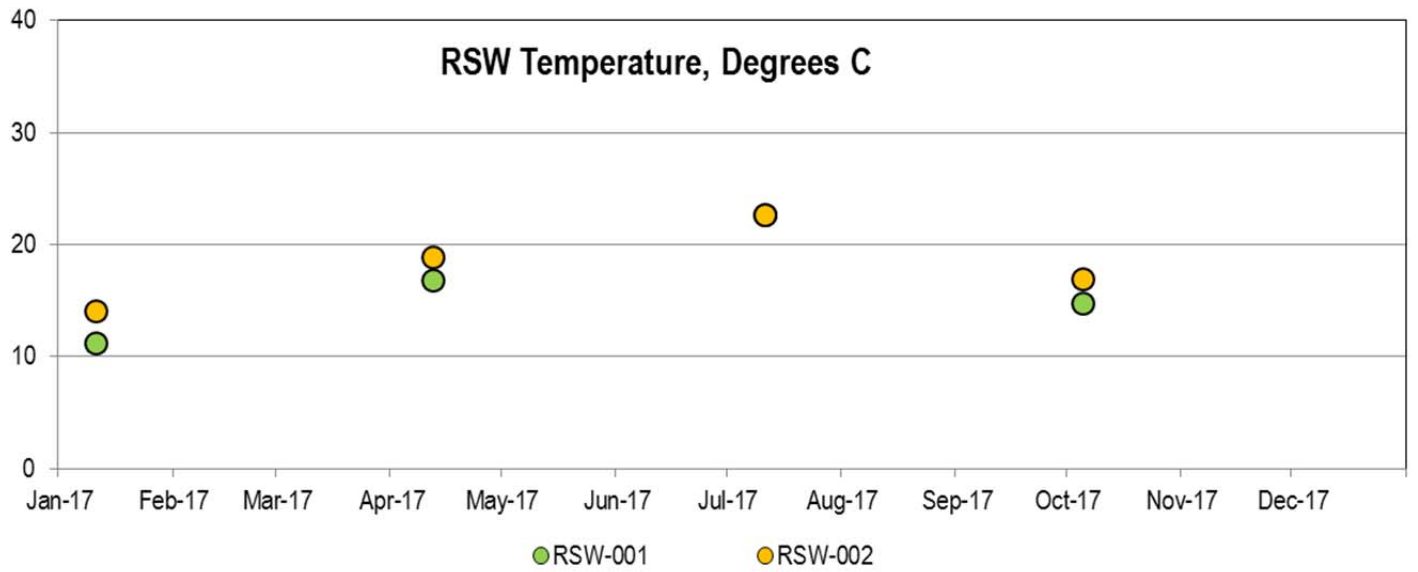
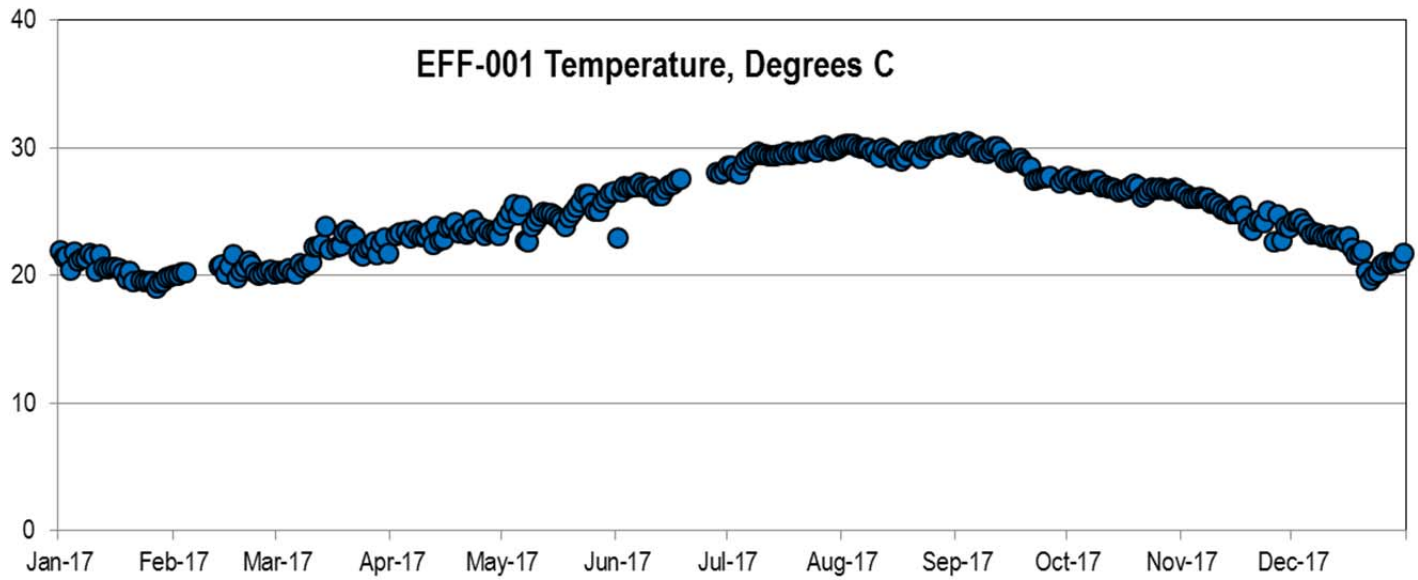
2017 EFF-001 pH Daily Maximum, SU

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	6.91	6.92	7.06		7.22	7.86	7.28	7.3	7.24	7.4	7.07	7.07
2	6.97	7.01	7.02	7.15	7.12	7.04	7.3	7.25	7.27	7.28	7.01	7.11
3	6.91	6.89	7.03	7.22	7.09	7.21	7.27	7.31	7.23	7.24	7	7.08
4	7.01	6.89	7		7.14	7.25	7.28	7.14	7.18	7.19	7.05	7.08
5	6.79		6.99	7.17	7.13	7.29	7.31	7.19	7.22	7.27	7.06	7.09
6	6.86		6.98	7.2	7.13	7.3	7.3	7.23	7.16	7.07	7.08	7.02
7	6.95		7	7.18	7.06	7.28	7.26	7.19	7.28	7.05	7.11	7.1
8	6.95		7.06	7.3	7.07	7.3	7.3	7.14	7.29	7.12	7.01	7.15
9	6.88		7.07	7.27	7.13	7.24	7.28	7.24	7.39	7.19	6.93	7.06
10	6.88		7.11	7.19	7.18	7.21	7.31	7.21	7.32	7.15	7	7.07
11	6.97		7.09	7.17	7.19	7.3	7.34	7.94	7.34	7.05	7.01	7.09
12	6.86		7.1	7.15	7.41	7.19	7.3	7.2	7.34	7.06	7.04	7.1
13	6.87	7.05	7.14	7.15	7.57	7.3	8.15	7.22	7.31	6.99	7.07	7.02
14	6.87	6.98	7.05	7.14	7.51	7.33	7.4	7.22	7.32	7.08	7.05	7.04
15	6.85	7.01	7.1	7.25	7.16	7.11	7.46	7.19	7.25	6.95	7.06	7.05
16	6.87	6.95		7.17	7.18	7.14	7.5	7.2	7.25	6.97	7.05	7.03
17	6.84	7.11	7.21	7.19	7.08	7.15	7.42	7.2	7.23	6.93	7.06	7.01
18	6.78	6.98	7.29	7.18	7.27	7.17	7.42	7.21	7.28	6.81	7.07	6.91
19	6.79	7.08	7.27	6.99	7.12		7.36	7.28	7.27	6.98	7.02	7.03
20	6.72	7.13	7.19	7.13	7.08		7.41	7.22	7.23	7.11	7.08	6.94
21	6.71	7.09	7.05	7.15	7.73		7.31	7.84	7.29	7.62	7.17	6.98
22		7.1	7.11	7.21	7.21			7.18	7.24	7.22	7.13	6.92
23	6.83	7.03	7.06	7.27	7.14		7.54	7.17	7.23	7.17	7.14	6.92
24	6.89	7.24	7.17	7.25	7.08		7.45	7.18	7.22	7.18	7.69	6.98
25	6.89	7.11	7.17	7.23	7.14		7.32	7.15	7.27	7.1		7
26	6.85	7.1	7.18	7.22	7.12		7.96	7.15	7.83	7.13	7.03	7.08
27	6.86	7.07	7.21	7.2	7.08		7.35	7.17		7.11	7.1	7.04
28	6.9	7.12	7.13	7.17	7.08	7.31	7.35	7.18		7.25	7.06	7.05
29	6.87		7.08	7.13	7.02	7.34	7.36		7.22	7.2	7.05	7.11
30	6.91		7.5	7.23	7.2	7.34	7.33	7.41	7.22	7.17	7.01	7.11
31	6.91		7.16		7.36		7.32	7.86		7.13		7.11



2017 EFF-001 Temperature, Degrees C

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	21.9	20	20.3		24	22.9	28.6	30.2	30.2	27.8	26.5	24.3
2	21.4	20	20.2	23.1	24.5	26.6	28.6	30.3	30.1	27.5	26.4	24.3
3	21.5	20.2	20.3	23.3	25	27	28.1	30.3	30.3	27.6	26.1	24.5
4	20.4	20.2	20.5		25.6	26.9	28	30.3	30.5	27.2	26.1	24.1
5	21.8		20.2	23.4	24.8	27	28.7	30.1	30.3	27.4	26.1	23.6
6	21.1		20.1	22.9	25.5	27	29.1	30	30.2	27.4	26.2	23.2
7	21.3		20.9	23.5	22.7	27.3	29.3	30	29.7	27.4	26.1	23.3
8	21.3		20.6	23.1	22.6	27	29.5	30	29.8	27.5	26.1	23.2
9	21.7		20.8	23	23.9	26.9	29.7	29.7	29.6	27.5	25.7	23
10	21.5		21	23	24.3	27	29.5	29.8	29.8	27	25.7	23
11	20.3		22.2	23.4	24.7	26.7	29.5	29.3	30.1	27.1	25.5	23.1
12	21.6		22.2	22.4	25	26.3	29.4	30	30.1	26.9	25.2	22.8
13	20.6	20.7	22.4	23.8	24.9	26.3	29.4	29.8	29.8	26.9	25.1	22.8
14	20.5	20.8	23.8	22.7	24.9	26.8	29.4	29.6	29.1	26.8	24.9	22.9
15	20.6	20.1	22	22.8	24.7	27.1	29.5	29.2	28.9	26.6	24.9	22.6
16	20.6	20.7		23.7	24.5	27.2	29.5	29.2	29	26.7	25.4	23
17	20.5	21.6	22.2	23.9	24.3	27.5	29.7	29	29.1	26.8	25.5	22.1
18	20.2	19.8	22.3	24.2	23.8	27.6	29.5	29.3	29.2	27	24.7	21.6
19	19.7	20.3	23.3	23.3	24.6		29.6	29.8	28.9	27.2	23.7	21.6
20	20.3	20.6	23.5	23.6	25		29.7	29.7	28.6	27	23.5	21.9
21	19.5	21.1	23.1	23.2	25.4		29.6	29.5	28.5	26.2	24.3	20.3
22		20.8	23	23.4	25.8			29.2	27.5	26.4	24.4	19.6
23	19.6	20.2	21.7	24.4	26.4		29.8	29.9	27.6	26.7	24.2	20
24	19.5	20	21.5	23.6	26.4		29.8	29.8	27.7	26.9	25.1	20.2
25	19.5	20.1	22.1	23.7	25.7		29.7	30.1	27.7	26.8		20.8
26	19.5	20.3	22.2	23.1	25.1		30.1	30.1	27.8	26.9	22.6	21
27	19	20.4	22.6	23.5	25.1		30.2	30		26.8	24.8	20.9
28	19.4	20.1	21.6	23.3	25.8	28.1	29.9	30.2		26.7	22.7	21
29	19.5		22.5	23.3	26.1	28	29.8		27.3	26.8	23.9	21
30	19.8		22.9	23.1	26.5	28.2	29.9	30.3	27.6	26.9	23.7	21.1
31	19.9		21.7		26.6		30	30.4		26.8		21.7

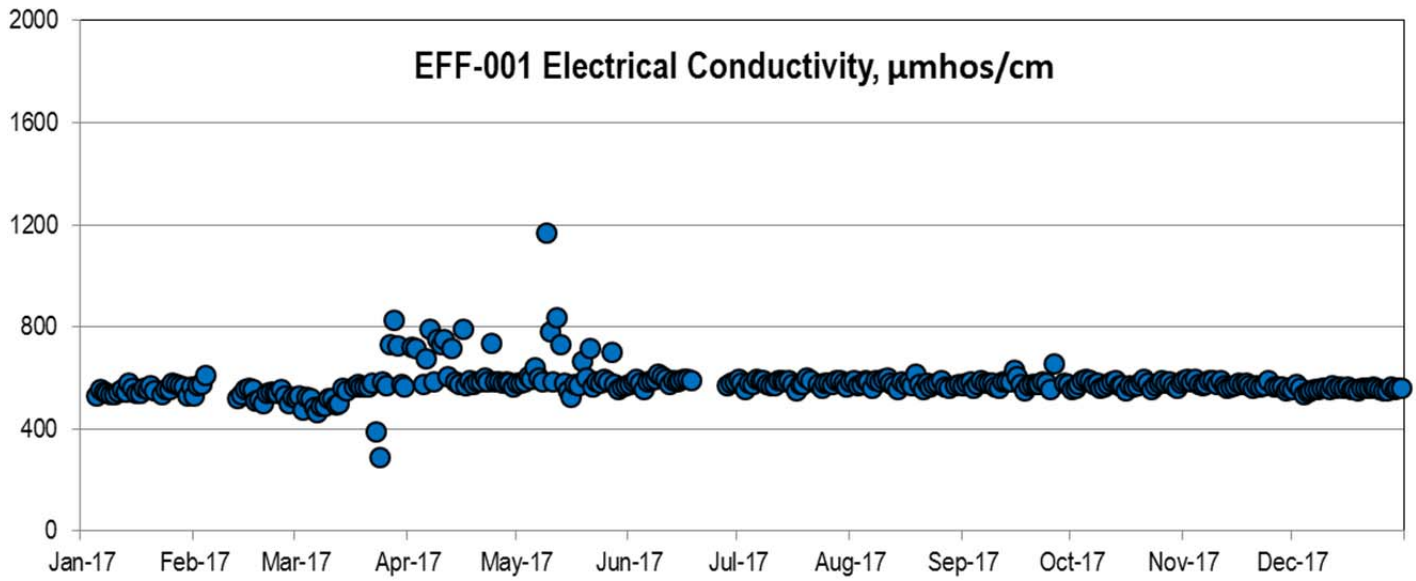
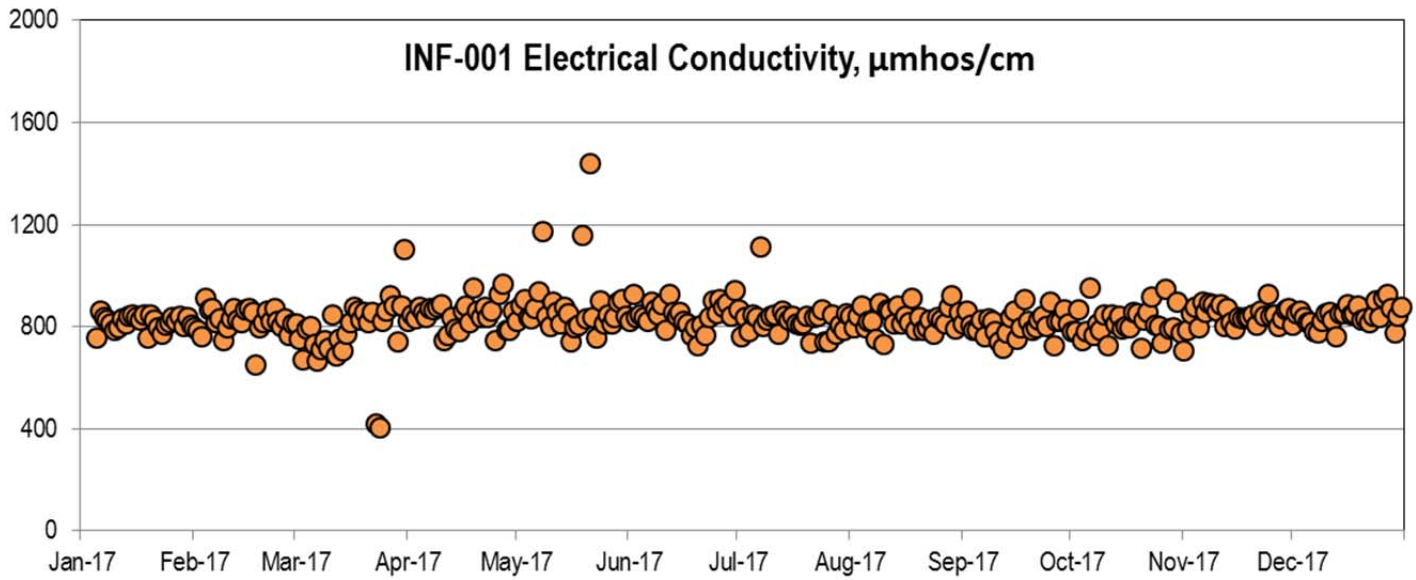


2017 INF-001 Electrical Conductivity, μ mhos/cm

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1		796	812	822	819	822	866	839	808	778	707	804
2		785	752	846	880	924	761	793	861	781	787	853
3		760	669	831	905	835	834	842	806	866	853	863
4		911	791	876	837	847	778	882	786	746	877	833
5	754	865	801	855	828	837	844	796	783	780	796	816
6	860	869	732	837	873	818	836	818	825	952	897	813
7	835	814	667	869	938	896	1112	820	760	767	857	778
8	825	832	710	868	1174	868	802	748	830	811	892	773
9	810	743	747	874	841	846	827	891	822	785	888	820
10	786	796	715	887	802	886	840	728	779	848	860	849
11	794	829	847	746	896	784	847	864	738	725	885	858
12	831	869	683	763	858	926	768	859	714	848	801	826
13	808	827	752	833	809	854	859	811	774	810	870	758
14	842	814	703	791	875	838	838	882	833	843	817	850
15	844	867	771	780	850	858	825	812	862	790	790	849
16	833	870	817	860	738	820	842	842	751	802	837	885
17	826	855	876	882	796	809	810	814	794	797	829	846
18	845	650	861	817	803	764	804	909	907	855	837	853
19	755	795	825	950	1158	794	812	787	822	849	837	879
20	847	816	857	860	831	723	843	833	785	717	844	824
21	823	863	814	837	1441	806	735	783	797	826	806	830
22	795	819	858	875	837	766	837	795	823	856	863	815
23	772	870	418	833	757	834	841	827	842	915	838	839
24	804	821	402	860	899	901	866	769	798	807	926	900
25	817	798	820	743	811	849	742	835	894	800	839	834
26	833	829	862	927	845	905	738	824	727	734	844	909
27	821	764	922	967	809	874	847	812	821	944	800	927
28	838	808	880	785	837	890	768	877	820	789	829	872
29	802		742	785	896	843	804	920	868	794	866	776
30	834		883	860	907	939	784	789	811	894	869	841
31	803		1101		843		851	855		774		875

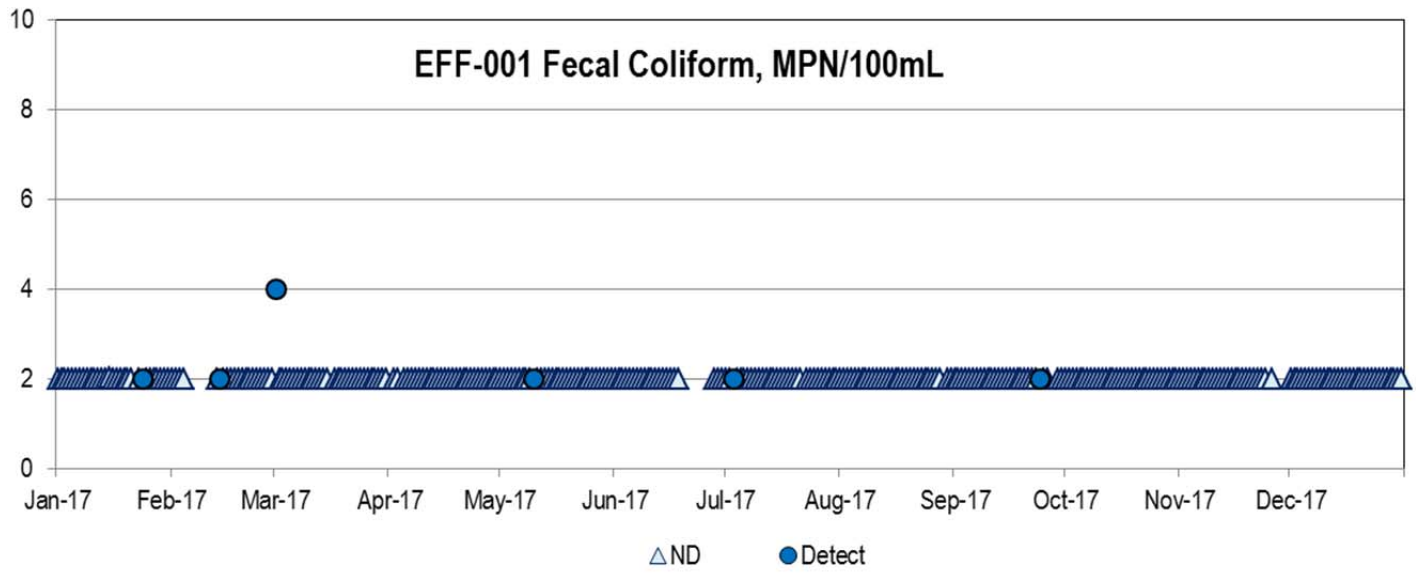
2017 EFF-001 Electrical Conductivity, $\mu\text{mhos/cm}$

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1		531	518		578	573	592	583	570	556	587	555
2		569	530	718	578	585	581	590	578	560	592	574
3		574	475	717	586	595	555	571	582	575	584	559
4		607	524		603	578	578	574	557	591	592	532
5	527		517	575	593	554	575	590	572	594	575	546
6	556		483	675	638	583	593	584	587	587	568	550
7	545		465	790	601	588	587	561	581	576	575	554
8	537		488	583	584	596	588	590	578	581	587	554
9	534		491	749	1165	612	576	582	578	557	587	561
10	536		519	730	782	603	570	593	566	566	572	558
11	546		519	748	584	593	569	598	557	572	588	552
12	553		495	606	837	572	590	579	584	586	571	568
13	545	521	501	714	729	591	591	568	584	590	557	561
14	580	536	560	585	579	583	583	556	586	569	565	566
15	560	555	551	576	549	588	589	583	627	567	569	557
16	539	561		792	525	592	576	573	603	547	580	565
17	538	556	562	567	575	595	548	584	575	567	576	554
18	559	509	572	588	569	591	574	569	551	566	580	553
19	555	516	564	572	666		574	614	569	571	568	549
20	568	500	565	586	601		598	573	575	582	559	561
21	551	540	564	582	717		590	556	576	596	569	561
22		542	579	598	562			577	573	577	566	559
23	536	545	389	583	585		574	564	583	554	567	564
24	556	540	286	737	580		558	572	579	567	591	559
25	556	553	583	584	596		580	579	555	578		555
26	580	527	570	585	583		578	588	653	589	563	548
27	572	500	729	581	700		574	565		581	562	551
28	570	523	823	583	573	571	587	557		582	564	565
29	562		727	579	554	581	589		579	571	549	552
30	531		574	565	564	585	579	567	576	557	557	560
31	566		564		567		565	572		579		558



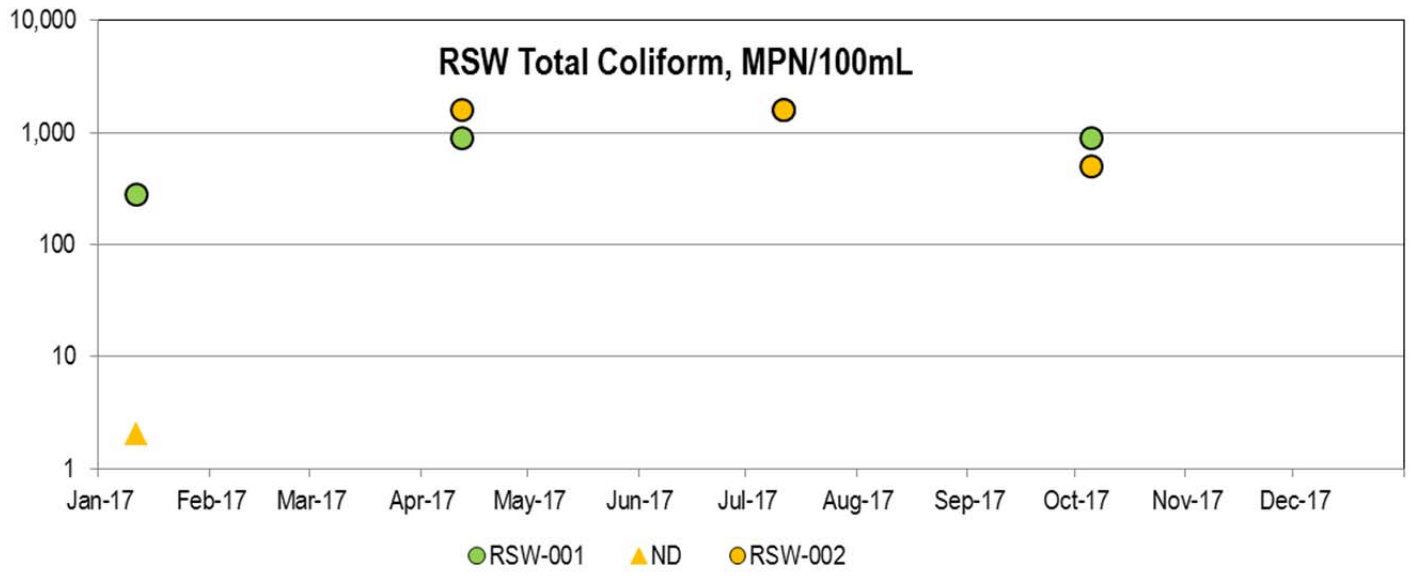
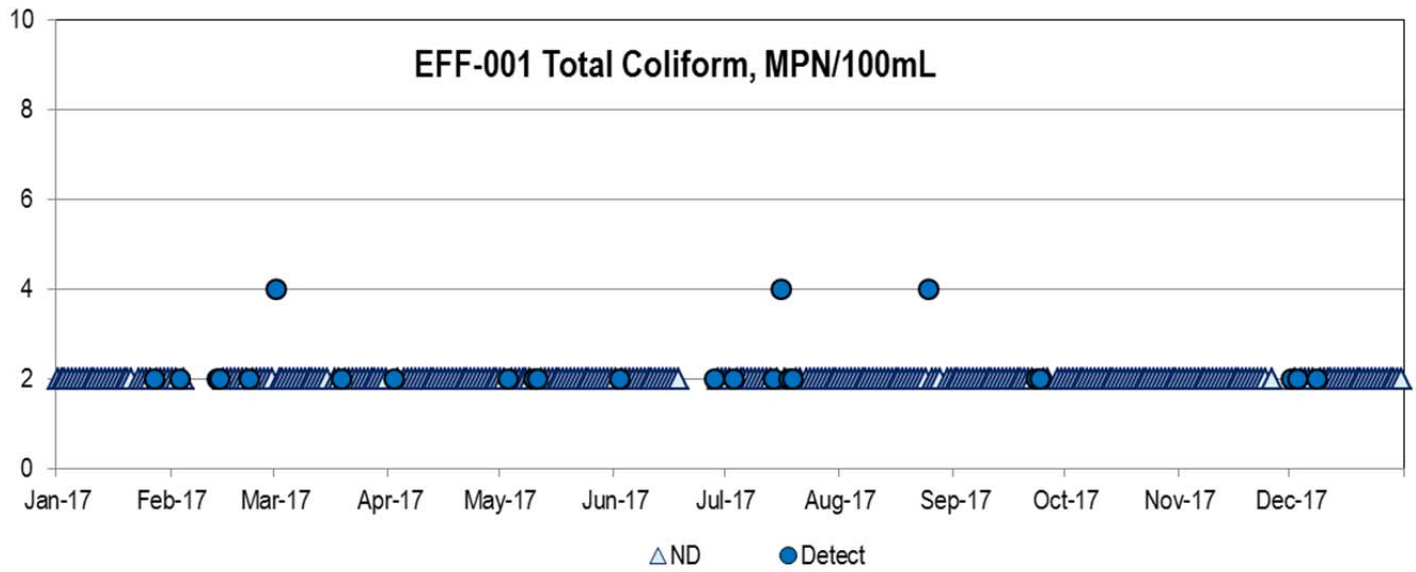
2017 EFF-001 Fecal Coliform, MPN/100mL

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	<2	<2	4		<2	<2	<2	<2	<2	<2	<2	<2
2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
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4	<2	<2	<2		<2	<2	<2	<2	<2	<2	<2	<2
5	<2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
6	<2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
7	<2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
8	<2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9	<2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
10	<2		<2	<2	2	<2	<2	<2	<2	<2	<2	<2
11	<2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
12	<2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
13	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
14	<2	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
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17	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
18	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
19	<2	<2	<2	<2	<2		<2	<2	<2	<2	<2	<2
20	<2	<2	<2	<2	<2		<2	<2	<2	<2	<2	<2
21	<2	<2	<2	<2	<2		<2	<2	<2	<2	<2	<2
22		<2	<2	<2	<2			<2	<2	<2	<2	<2
23	<2	<2	<2	<2	<2		<2	<2	<2	<2	<2	<2
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30	<2		<2	<2	<2	<2	<2	<2	<2	<2		<2
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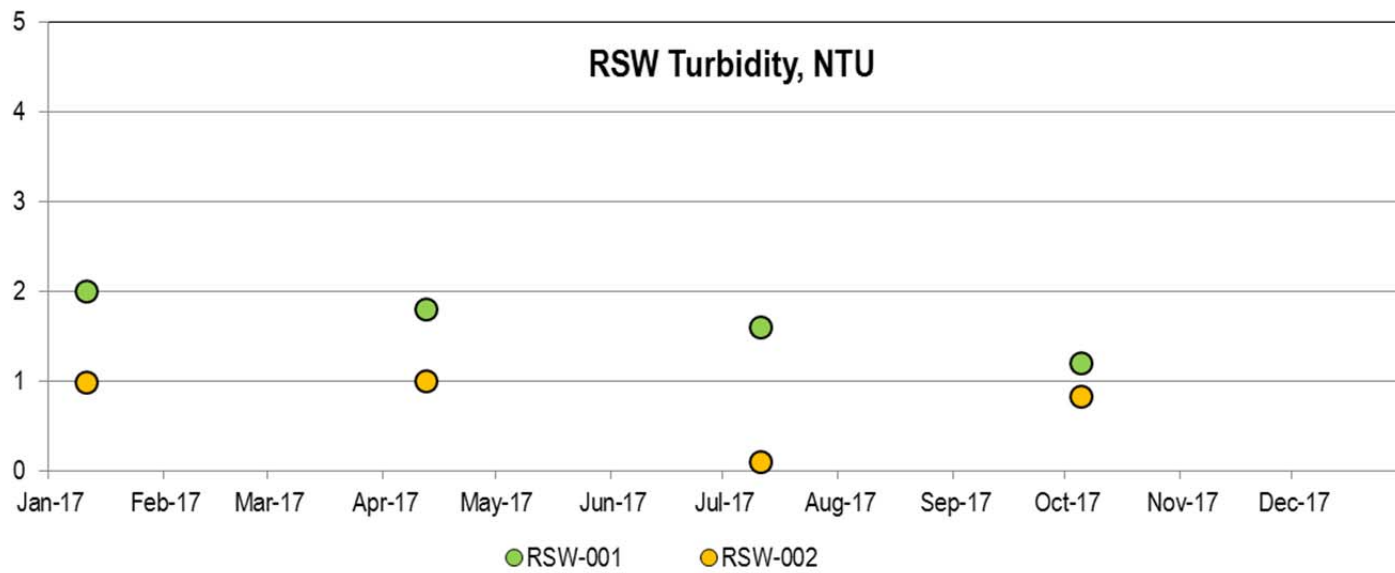
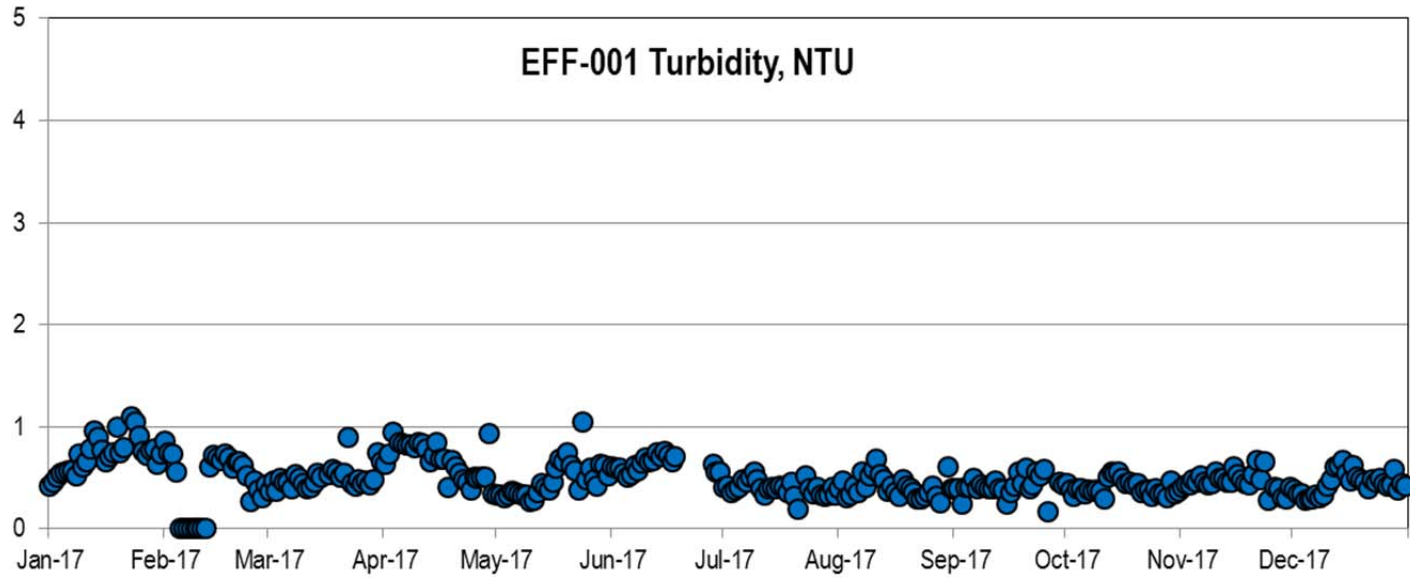
2017 EFF-001 Total Coliform, MPN/100mL

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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2	<2	<2	<2	2	<2	2	<2	<2	<2	<2	<2	<2
3	<2	2	<2	<2	2	<2	2	<2	<2	<2	<2	2
4	<2	<2	<2		<2	<2	<2	<2	<2	<2	<2	<2
5	<2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
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9	<2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
10	<2		<2	<2	2	<2	<2	<2	<2	<2	<2	<2
11	<2		<2	<2	2	<2	<2	<2	<2	<2	<2	<2
12	<2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
13	<2	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
14	<2	2	<2	<2	<2	<2	2	<2	<2	<2	<2	<2
15	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
16	<2	<2		<2	<2	<2	4	<2	<2	<2	<2	<2
17	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
18	<2	<2	<2	<2	<2	<2	2	<2	<2	<2	<2	<2
19	<2	<2	2	<2	<2		2	<2	<2	<2	<2	<2
20	<2	<2	<2	<2	<2		<2	<2	<2	<2	<2	<2
21	<2	<2	<2	<2	<2		<2	<2	<2	<2	<2	<2
22		2	<2	<2	<2			<2	<2	<2	<2	<2
23	<2	<2	<2	<2	<2		<2	<2	2	<2	<2	<2
24	<2	<2	<2	<2	<2		<2	<2	2	<2	<2	<2
25	<2	<2	<2	<2	<2		<2	4	<2	<2		<2
26	<2	<2	<2	<2	<2		<2	<2	<2	<2	<2	<2
27	2	<2	<2	<2	<2		<2	<2		<2		<2
28	<2	<2	<2	<2	<2	2	<2	<2		<2		<2
29	<2		<2	<2	<2	<2	<2		<2	<2		<2
30	<2		<2	<2	<2	<2	<2	<2	<2	<2		<2
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2017 EFF-001 Turbidity, NTU

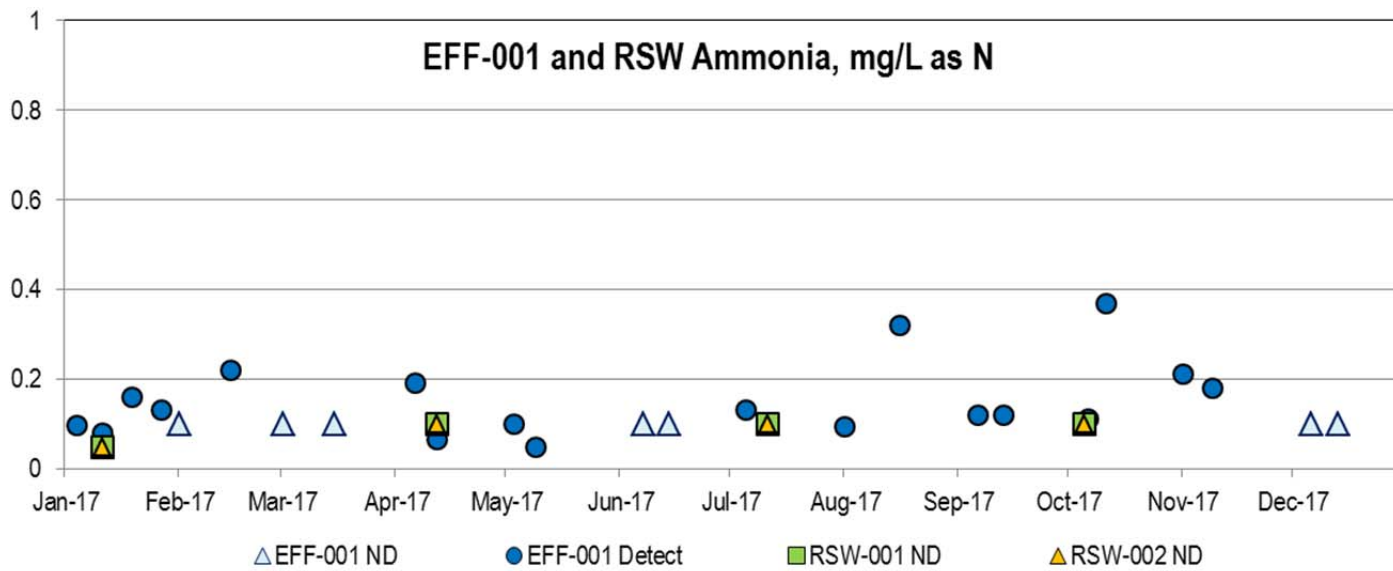
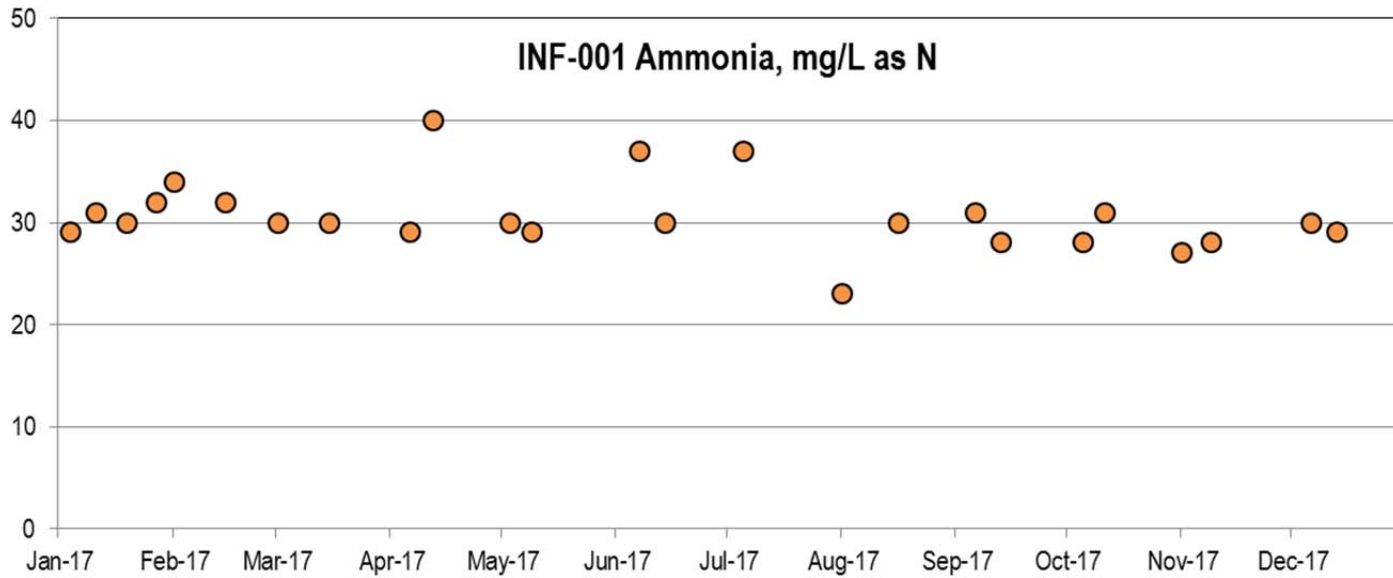
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.421	0.859	0.37	0.635	0.334	0.608	0.408	0.388	0.386	0.44	0.4	0.383
2	0.46	0.745	0.463	0.736	0.327	0.587	0.412	0.463	0.388	0.38	0.428	0.336
3	0.5	0.737	0.362	0.95	0.307	0.59	0.349	0.304	0.238	0.32	0.431	0.335
4	0.54	0.559	0.492		0.325	0.545	0.374	0.329	0.401	0.395	0.481	0.282
5	0.55	0	0.46	0.843	0.366	0.5	0.4	0.418	0.403	0.39	0.456	0.297
6	0.57	0	0.45	0.834	0.36	0.53	0.478	0.36	0.494	0.342	0.52	0.29
7	0.566	0	0.395	0.821	0.336	0.612	0.46	0.559	0.386	0.381	0.45	0.326
8	0.514	0	0.53	0.82	0.325	0.565	0.5	0.409	0.433	0.372	0.424	0.3
9	0.73	0	0.491	0.8	0.329	0.642	0.55	0.52	0.401	0.381	0.44	0.326
10	0.6	0	0.441	0.85	0.27	0.692	0.477	0.5818	0.394	0.37	0.559	0.416
11	0.65	0	0.392	0.827	0.278	0.661	0.391	0.68	0.387	0.29	0.489	0.483
12	0.78	0	0.41	0.787	0.349	0.662	0.327	0.53	0.47	0.51	0.492	0.602
13	0.962	0.611	0.45	0.66	0.438	0.749	0.389	0.48	0.386	0.56	0.45	0.618
14	0.894	0.72	0.545	0.715	0.41	0.708	0.4	0.366	0.38	0.546	0.451	0.67
15	0.764	0.692	0.5	0.839	0.38	0.755	0.397	0.417	0.238	0.555	0.6	0.54
16	0.654	0.662		0.686	0.46	0.717	0.42	0.36	0.355	0.49	0.53	0.461
17	0.711	0.728	0.534	0.68	0.59	0.66	0.41	0.314	0.416	0.447	0.48	0.616
18	0.742	0.698	0.578	0.4	0.683	0.71	0.36	0.48	0.551	0.453	0.437	0.499
19	1	0.588	0.55	0.67	0.65		0.45	0.412	0.441	0.43	0.431	0.48
20	0.749	0.654	0.51	0.61	0.746		0.319	0.397	0.588	0.44	0.53	0.46
21	0.791	0.656	0.545	0.547	0.621		0.188	0.351	0.391	0.348	0.662	0.39
22		0.618	0.89	0.478	0.565			0.29	0.424	0.38	0.48	0.48
23	1.097	0.52	0.445	0.46	0.38		0.515	0.286	0.549	0.377	0.65	0.459
24	1.051	0.261	0.419	0.38	1.05		0.387	0.32	0.52	0.32	0.28	0.495
25	0.904	0.467	0.479	0.5	0.484		0.337	0.35	0.58	0.39		0.446
26	0.751	0.381	0.442	0.49	0.588		0.41	0.413	0.16	0.34	0.409	0.422
27	0.719	0.307	0.463	0.503	0.48		0.329	0.317		0.346	0.388	0.427
28	0.771	0.431	0.433	0.505	0.42	0.626	0.322	0.251		0.305	0.305	0.58
29	0.787		0.476	0.929	0.631	0.551	0.33		0.459	0.469	0.29	0.38
30	0.634		0.738	0.34	0.624	0.56	0.4	0.608	0.43	0.346	0.41	0.442
31	0.735		0.655		0.514		0.331	0.386		0.37		0.412

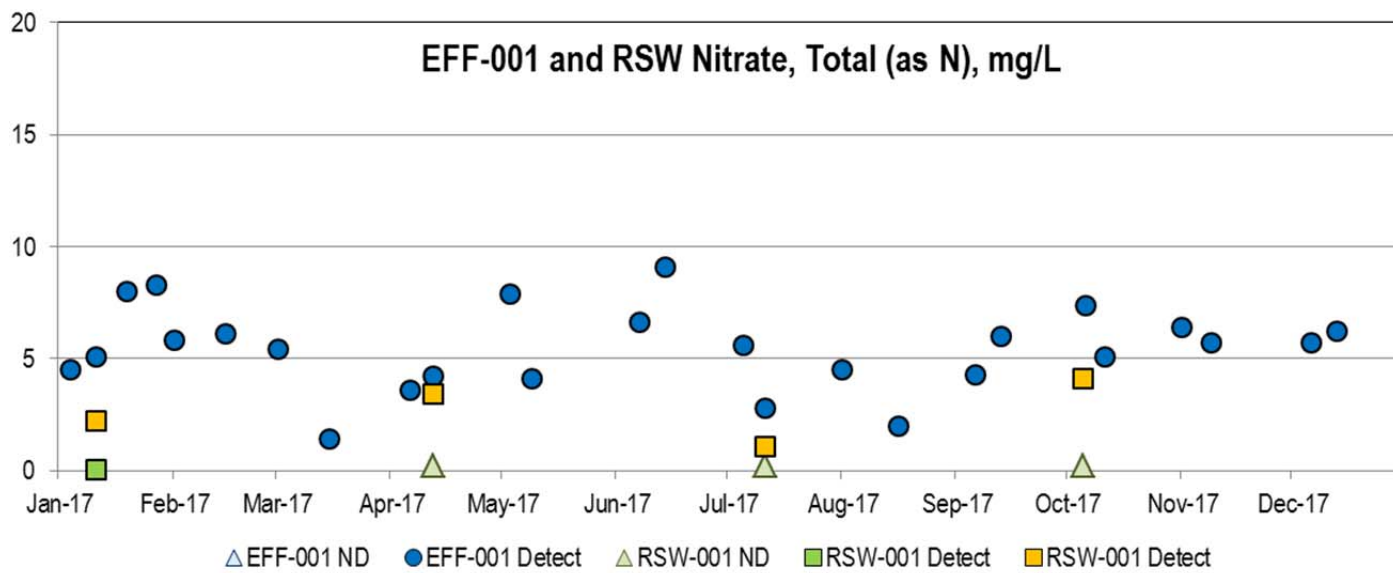
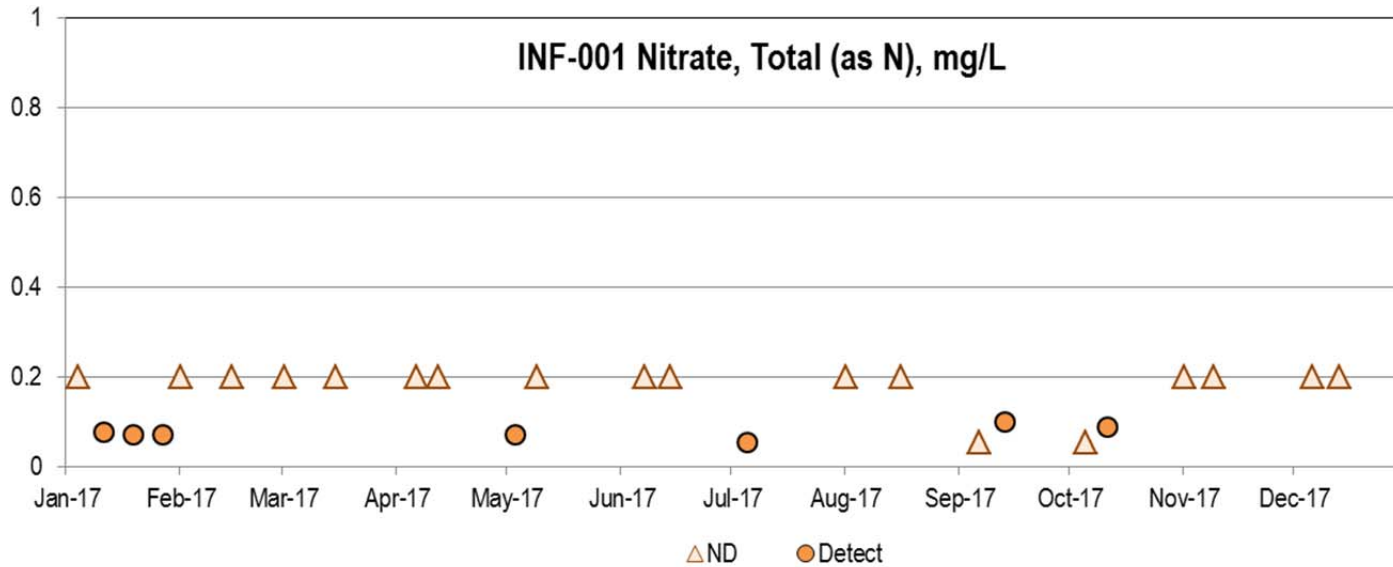


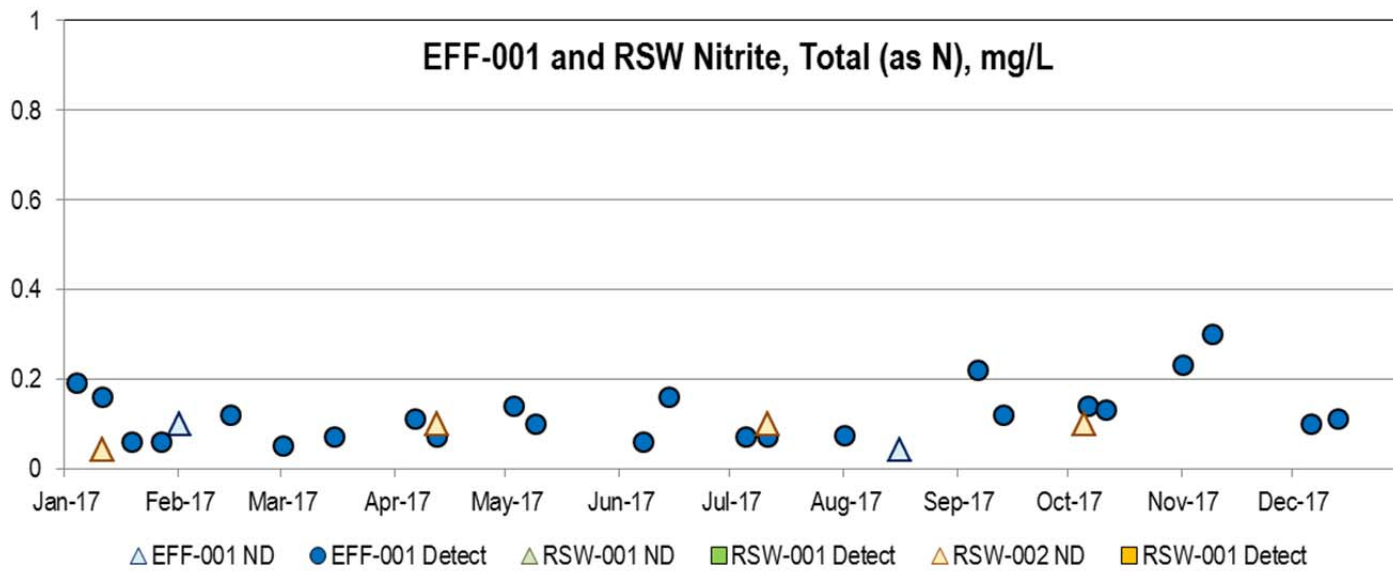
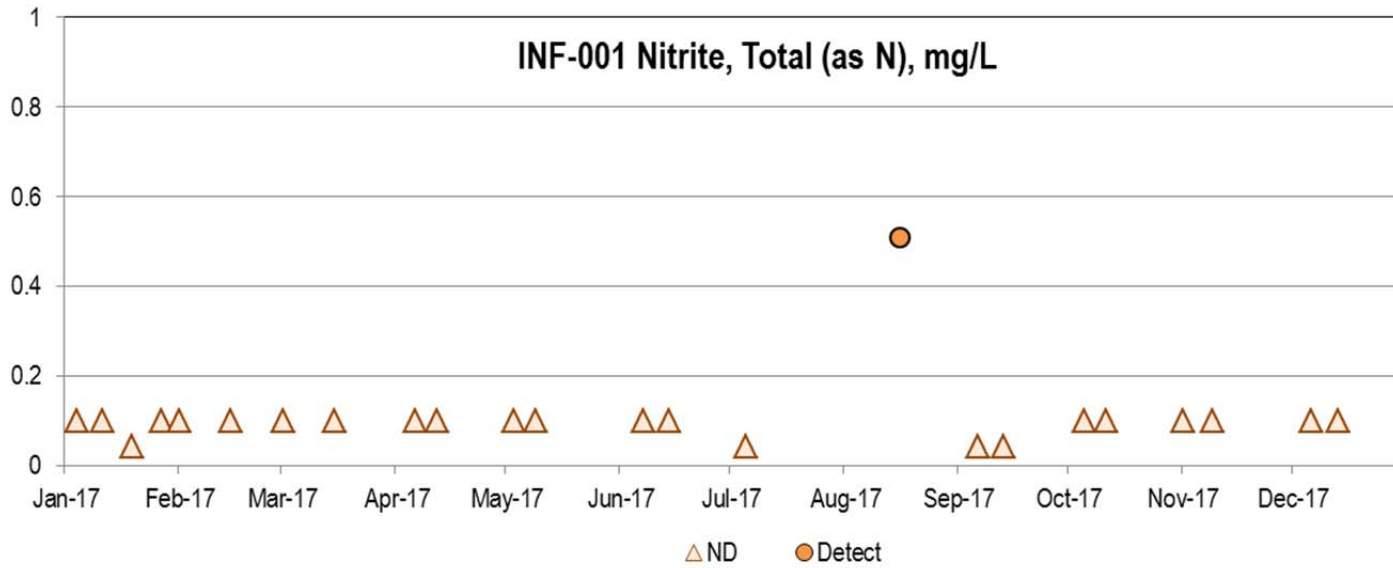
2017 Weekly Monitoring Influent and Effluent Concentrations, mg/L

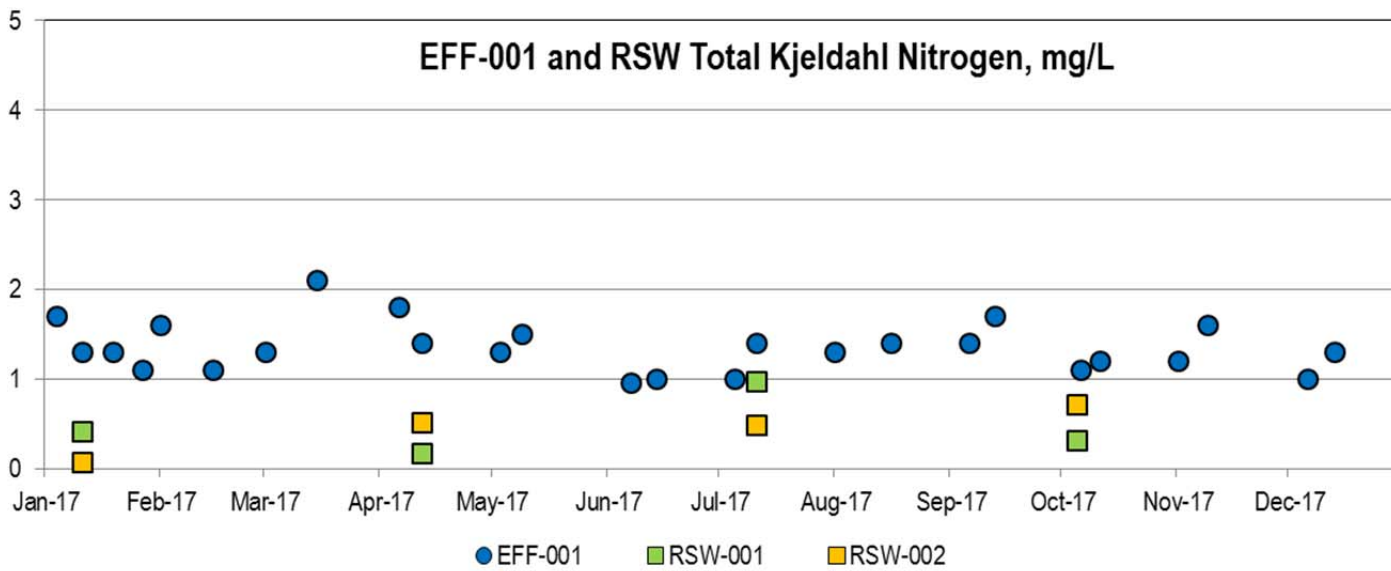
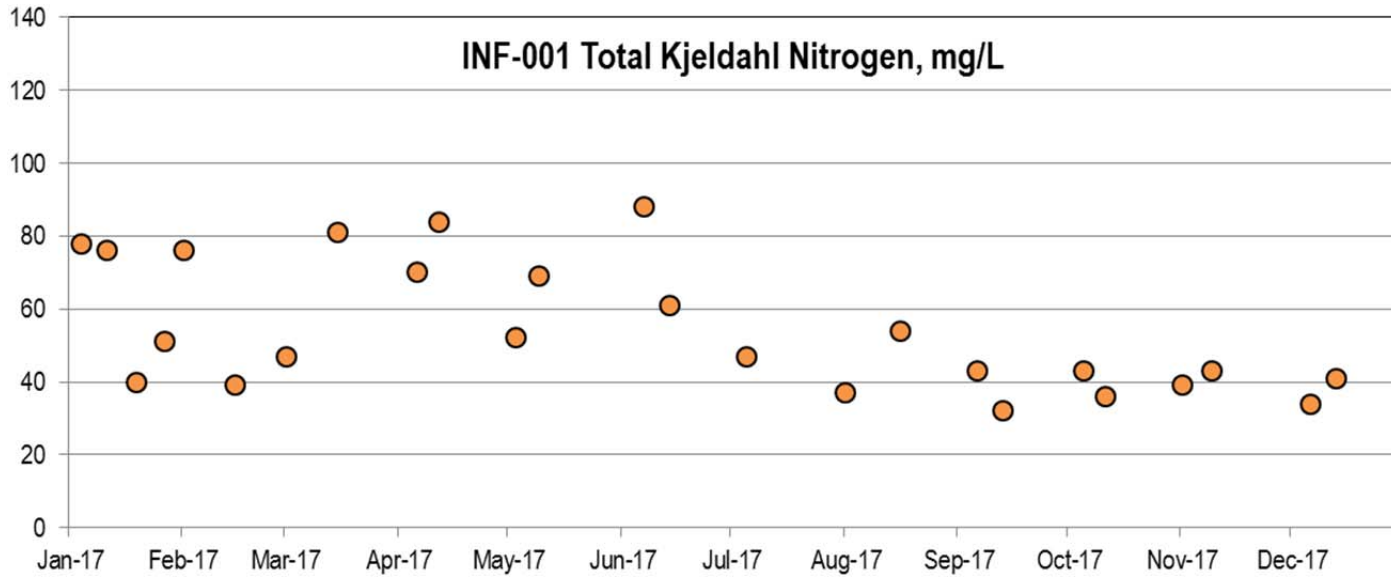
Date	INF-001				EFF-001						Date	TDS
	NH3-N	NO3-N	NO2-N	TKN	NH3-N	NO3-N	NO2-N	TKN	TN	DO		
1/4/17	29	<0.2	<0.1	78	0.096	4.5	0.19	1.7	6.39	7.51	1/2/17	320
1/11/17	31	0.077	<0.1	76	0.08	5.1	0.16	1.3	6.56	7.66	1/9/17	330
1/19/17	30	0.07	<0.042	40	0.16	8	0.06	1.3	9.36	7.52	1/16/17	330
1/27/17	32	0.07	<0.1	51	0.13	8.3	0.06	1.1	9.46	7.78	1/23/17	310
1/31/17										7.42	1/30/17	350
2/1/17	34	<0.2	<0.1	76	<0.1	5.8	<0.1	1.6	<7.5	7.24	2/13/17	320
2/15/17	32	<0.2	<0.1	39	0.22	6.1	0.12	1.1	7.32	7.07	2/20/17	340
3/1/17	30	<0.2	<0.1	47	<0.1	5.4	0.05	1.3	6.75	7.4	2/27/17	340
3/15/17	30	<0.2	<0.1	81	<0.1	1.4	0.07	2.1	3.57	7.32	3/6/17	330
4/6/17	29	<0.2	<0.1	70	0.19	3.6	0.11	1.8	5.51	6.5	3/14/17	330
4/12/17	40	<0.2	<0.1	84	0.064	4.2	0.07	1.4	5.67	7.5	3/20/17	320
5/3/17	30	0.07	<0.1	52	0.1	7.9	0.14	1.3	9.34	7.05	3/27/17	330
5/9/17	29	<0.2	<0.1	69	0.048	4.1	0.1	1.5	5.7	6.99	4/3/17	310
6/7/17	37	<0.2	<0.1	88	<0.1	6.6	0.06	0.96	7.62	6.77	4/10/17	330
6/14/17	30	<0.2	<0.1	61	<0.1	9.1	0.16	1.0	10.26	7.25	4/17/17	360
7/5/17	37	0.055	<0.042	47	0.13	5.6	0.072	1.0	6.672	6.97	4/24/17	340
7/11/17					0.1	2.8	0.072	1.4	4.272	6.87	5/1/17	320
8/1/17	23	<0.2	2.9	37	0.094	4.5	0.074	1.3	5.874	6.92	5/8/17	370
8/16/17	30	<0.2	0.51	54	0.32	2	<0.042	1.4	<3.442		5/15/17	320
8/28/17										6.4	5/22/17	340
9/6/17	31	<0.055	<0.042	43	0.12	4.3	0.22	1.4	5.92	6.91	5/29/17	330
9/11/17										6.85	6/5/17	330
9/13/17	28	0.1	<0.042	32	0.12	6.0	0.12	1.7	7.82	6.8	6/12/17	320
9/17/17										6.79	7/1/17	360
10/3/17										6.68	7/6/17	360
10/5/17	28	<0.055	<0.1	43							7/10/17	330
10/6/17					0.11	7.4	0.14	1.1	8.64		7/17/17	310

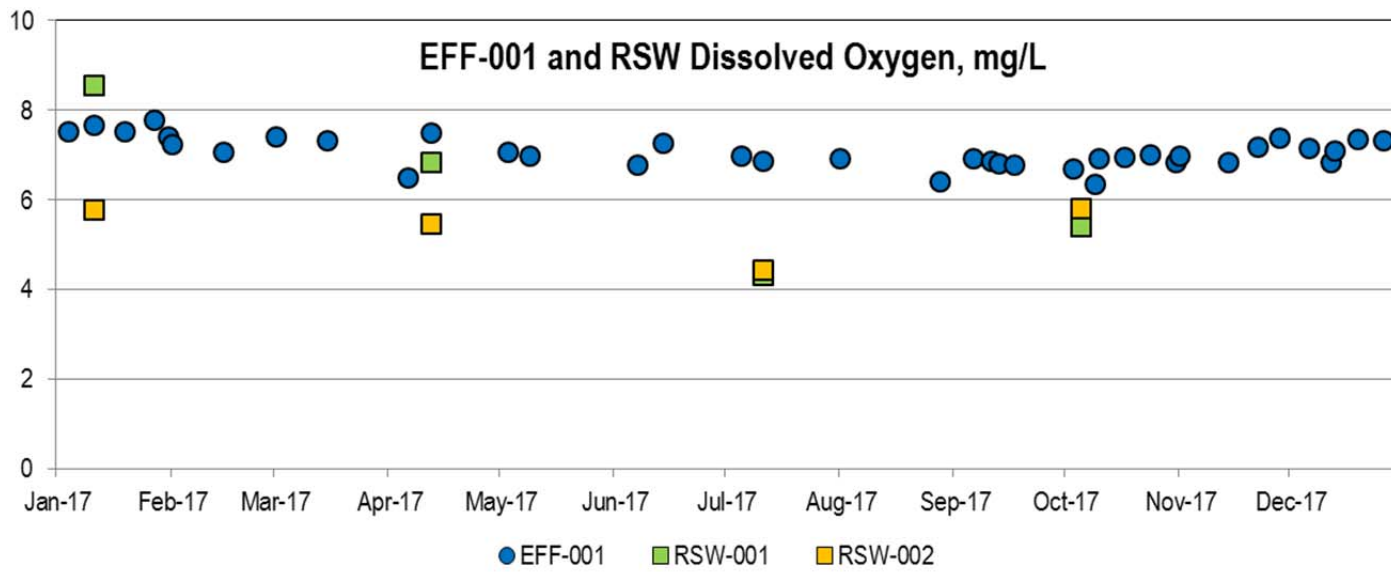
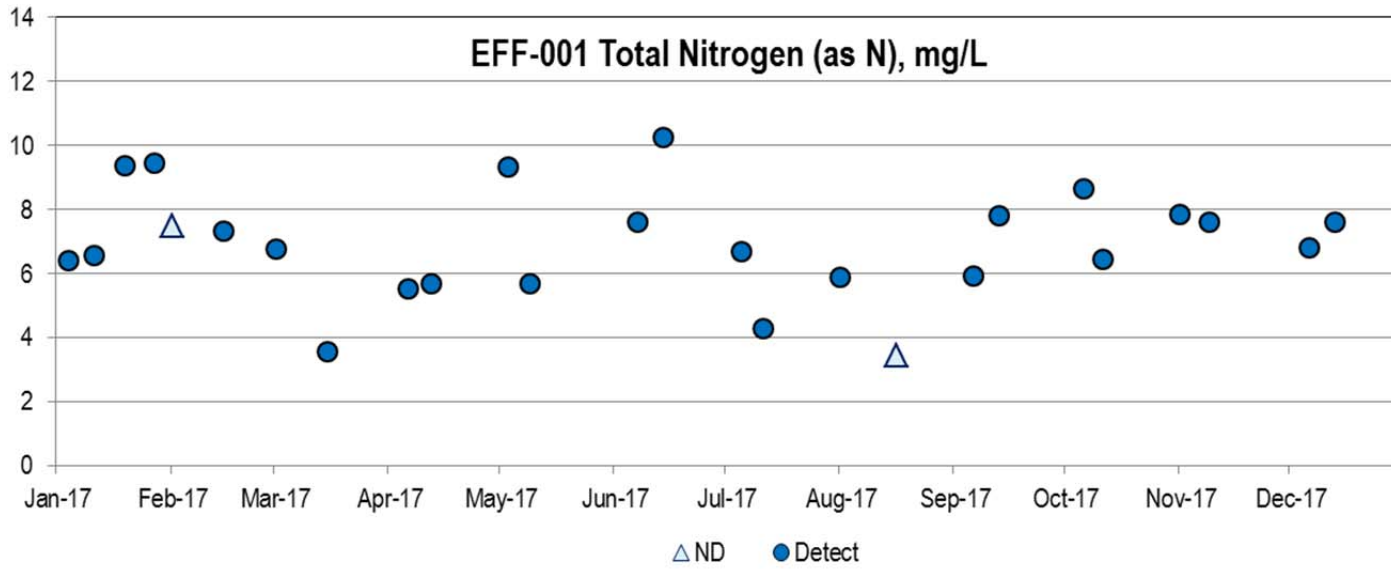
Date	INF-001				EFF-001						Date	TDS
	NH3-N	NO3-N	NO2-N	TKN	NH3-N	NO3-N	NO2-N	TKN	TN	DO		
10/9/17										6.36	7/24/17	340
10/10/17										6.91	7/31/17	330
10/11/17	31	0.088	<0.1	36	0.37	5.1	0.13	1.2	6.43		8/7/17	340
10/17/17										6.95	8/14/17	330
10/24/17										7.02	8/21/17	330
10/31/17										6.84	8/28/17	340
11/1/17	27	<0.2	<0.1	39	0.21	6.4	0.23	1.2	7.83	6.97	9/4/17	310
11/9/17	28	<0.2	<0.1	43	0.18	5.7	0.3	1.6	7.6		9/11/17	330
11/14/17										6.84	9/18/17	320
11/22/17										7.19	9/25/17	310
11/28/17										7.37	10/2/17	300
12/6/17	30	<0.2	<0.1	34	<0.1	5.7	0.1	1.0	6.8	7.14	10/9/17	330
12/12/17										6.84	10/16/17	340
12/13/17	29	<0.2	<0.1	41	<0.1	6.2	0.11	1.3	7.61	7.1	10/23/17	330
12/19/17										7.35	10/30/17	340
12/26/17										7.33	11/6/17	270
											11/13/17	330
											11/20/17	350
											12/4/17	320
											12/11/17	330
											12/18/17	330
											12/20/17	340
											12/25/17	330

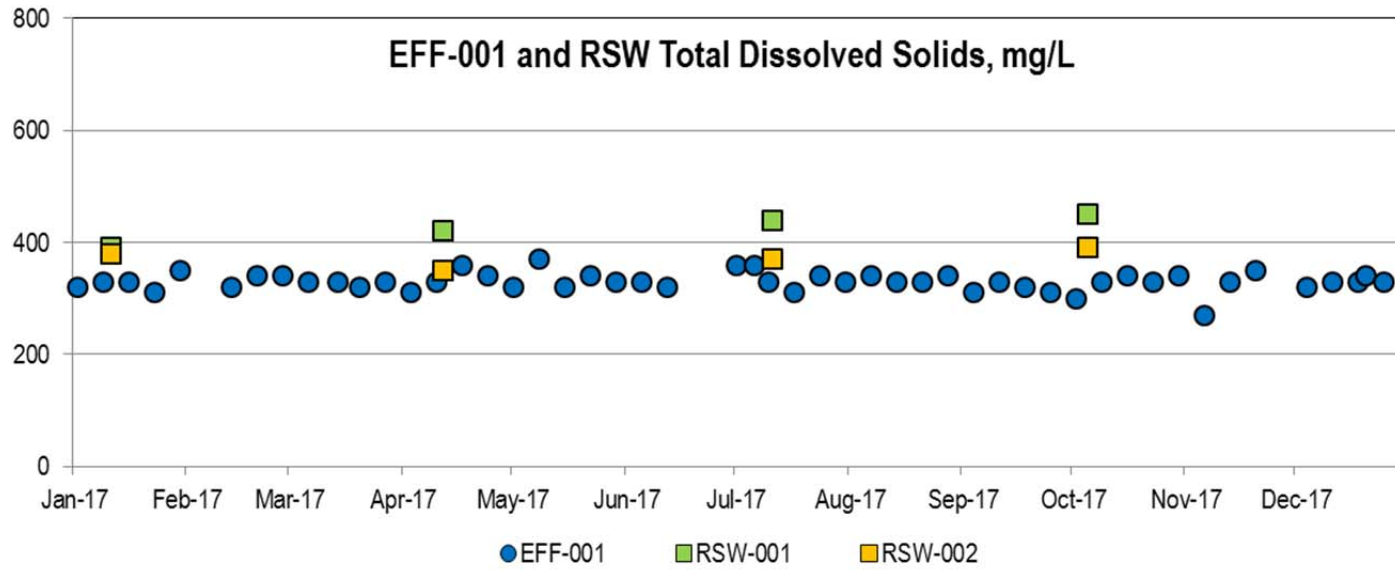








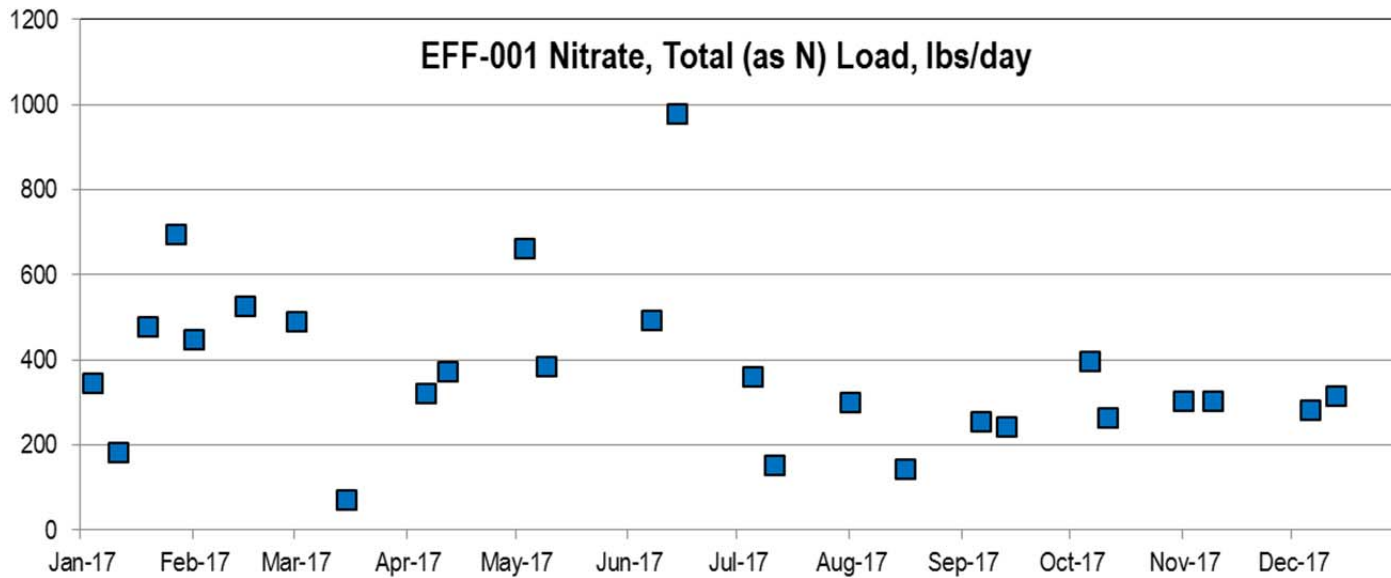
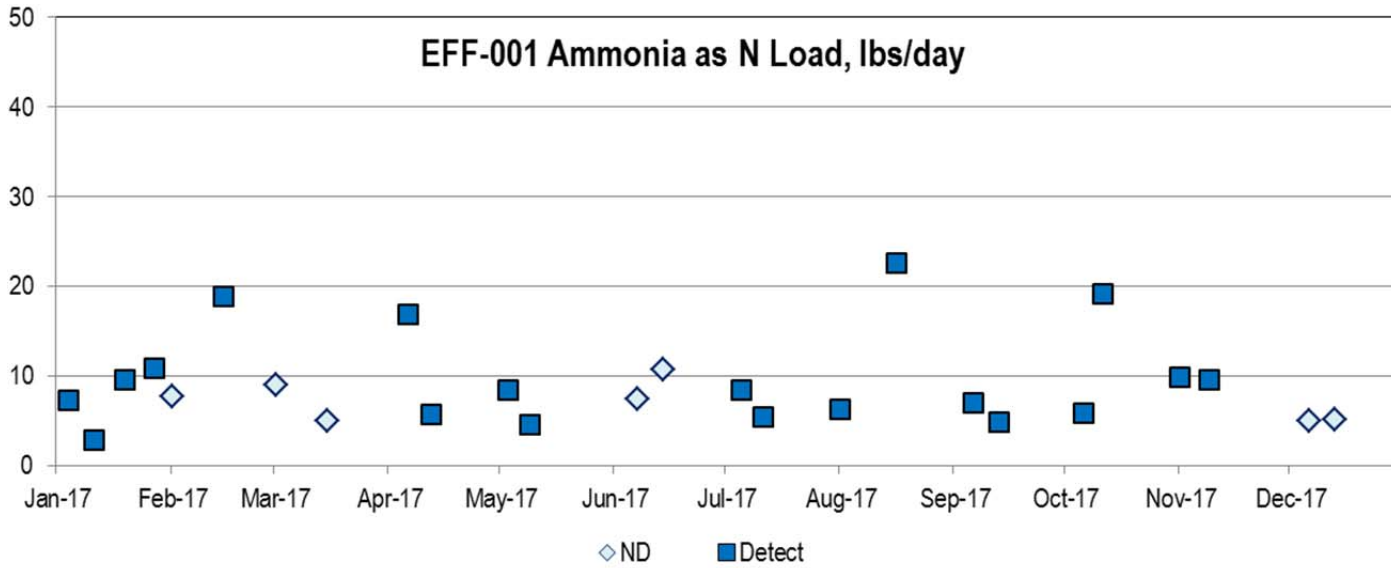


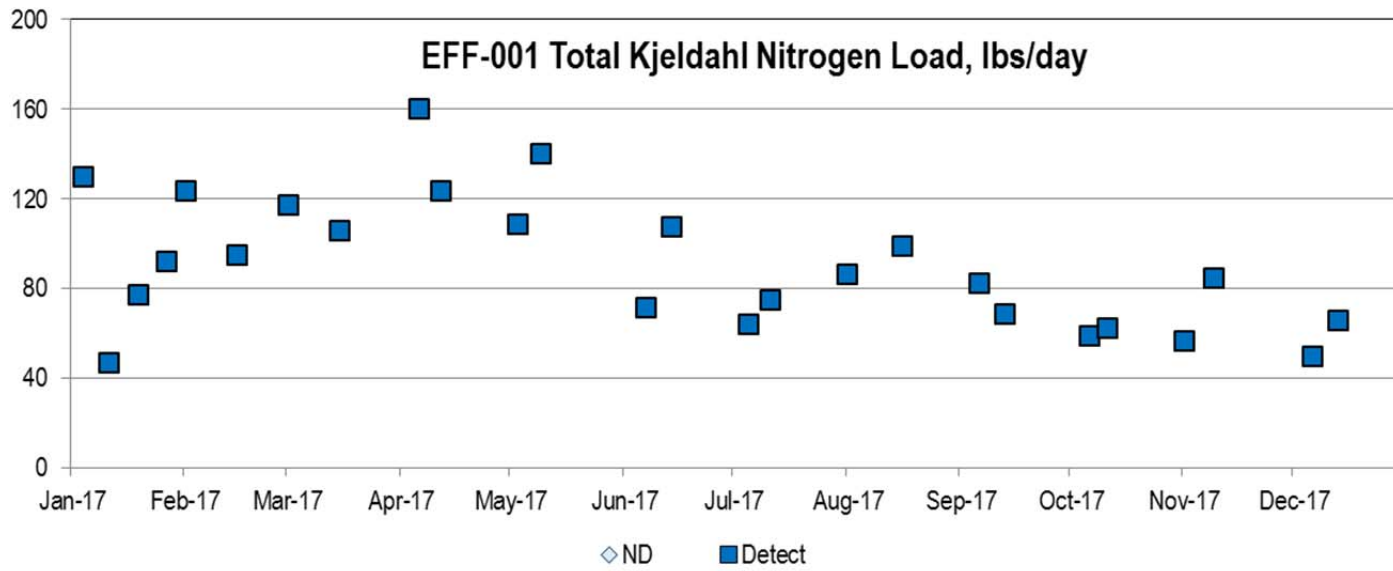
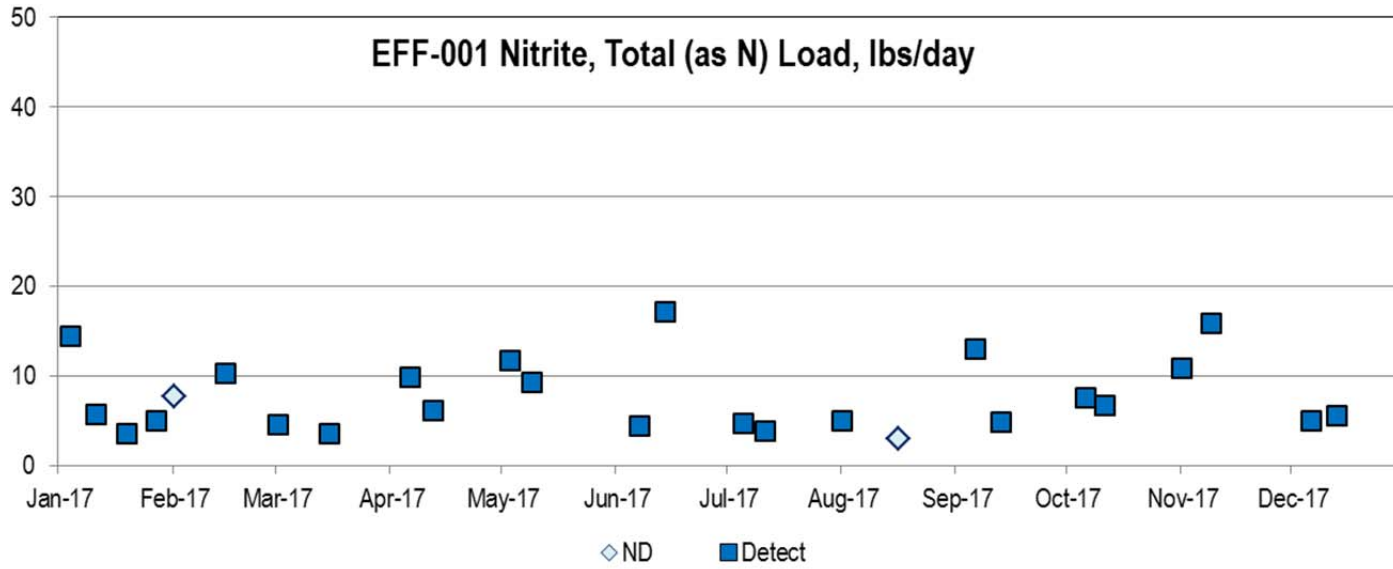


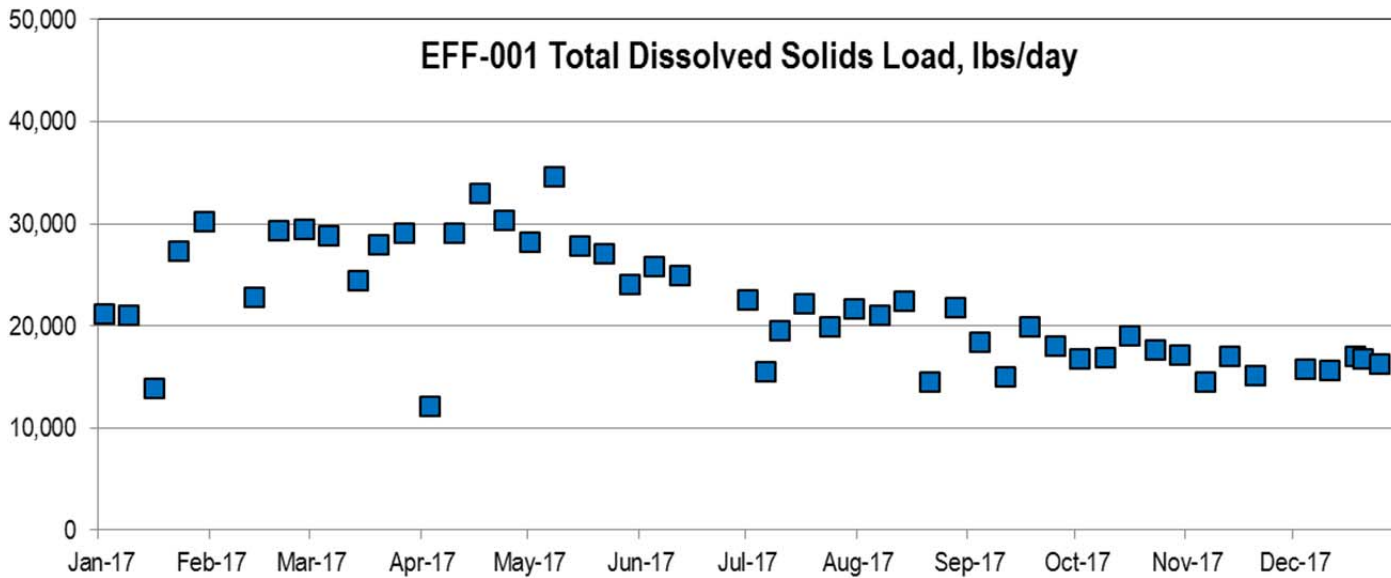
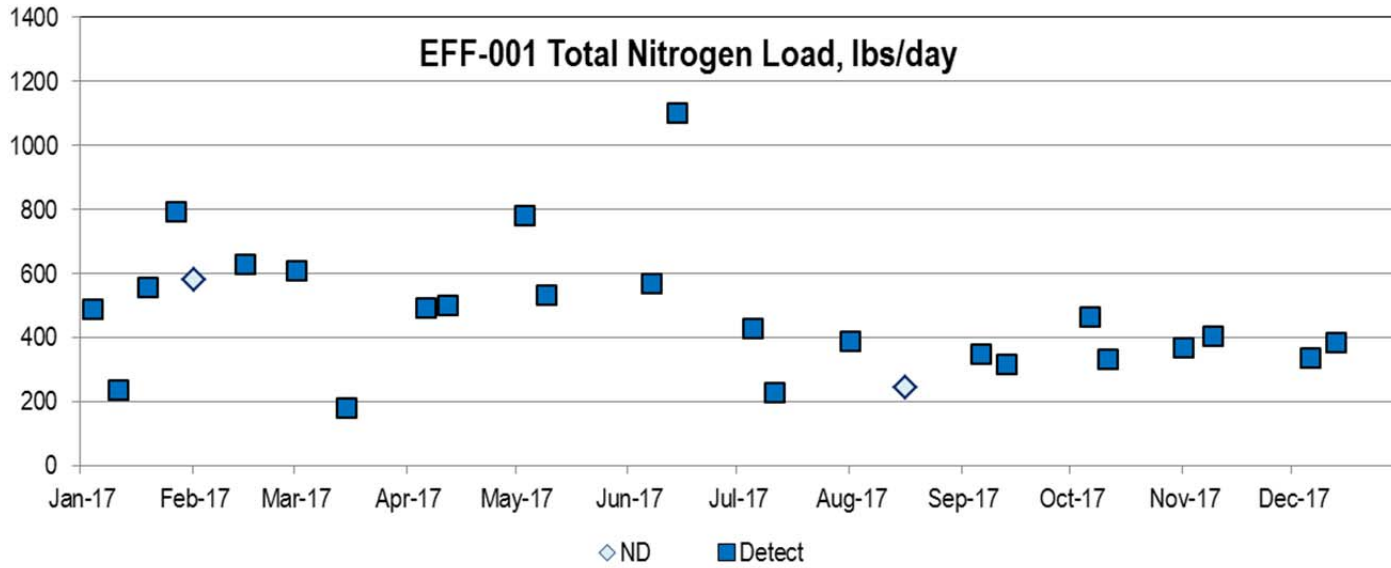
2017 Weekly Monitoring Effluent Loads, lbs/day

Date	NH3-N	NO3-N	NO2-N	TKN	TN	Date	TDS
1/4/17	7.3	343	14.5	129.7	487.4	1/2/17	21,124
1/11/17	2.9	183	5.7	46.5	234.9	1/9/17	21,068
1/19/17	9.5	476	3.6	77.4	556.9	1/16/17	13,880
1/27/17	10.9	695	5.0	92.2	792.6	1/23/17	27,320
1/31/17						1/30/17	30,144
2/1/17	<7.7	447	<7.7	123.4	<578.3	2/13/17	22,753
2/15/17	18.9	525	10.3	94.6	629.8	2/20/17	29,254
3/1/17	<9.0	488	4.5	117.5	610.1	2/27/17	29,481
3/15/17	<5.0	71	3.5	106.0	180.2	3/6/17	28,779
4/6/17	16.9	320	9.8	160.1	490.2	3/14/17	24,455
4/12/17	5.6	370	6.2	123.5	500.2	3/20/17	27,934
5/3/17	8.4	661	11.7	108.7	781.0	3/27/17	29,110
5/9/17	4.5	383	9.3	140.0	531.8	4/3/17	12,056
6/7/17	<7.5	492	4.5	71.5	567.9	4/10/17	28,999
6/14/17	<10.7	977	17.2	107.4	1102.0	4/17/17	32,928
7/5/17	8.4	360	4.6	64.3	428.7	4/24/17	30,304
7/11/17	5.4	150	3.9	75.1	229.2	5/1/17	28,227
8/1/17	6.2	299	4.9	86.2	389.7	5/8/17	34,645
8/16/17	22.6	141	<3.0	98.8	<243.0	5/15/17	27,747
8/28/17						5/22/17	26,984
9/6/17	7.1	253	12.9	82.3	347.8	5/29/17	24,070
9/11/17						6/5/17	25,750
9/13/17	4.9	243	4.9	68.8	316.5	6/12/17	24,943
9/17/17						7/1/17	22,563
10/3/17						7/6/17	15,472
10/5/17						7/10/17	19,526
10/6/17	5.9	396	7.5	58.8	462.2	7/17/17	22,119
10/9/17						7/24/17	19,862

Date	NH3-N	NO3-N	NO2-N	TKN	TN	Date	TDS
10/10/17						7/31/17	21,619
10/11/17	19.2	264	6.7	62.2	333.2	8/7/17	21,054
10/17/17						8/14/17	22,390
10/24/17						8/21/17	14,458
10/31/17						8/28/17	21,763
11/1/17	9.9	301	10.8	56.4	367.9	9/4/17	18,316
11/9/17	9.5	302	15.9	84.7	402.1	9/11/17	14,927
11/14/17						9/18/17	19,895
11/22/17						9/25/17	17,980
11/28/17						10/2/17	16,724
12/6/17	<4.9	282	4.9	49.4	336.0	10/9/17	16,854
12/12/17						10/16/17	19,011
12/13/17	<5.1	314	5.6	65.7	384.9	10/23/17	17,653
12/19/17						10/30/17	17,166
12/26/17						11/6/17	14,488
						11/13/17	17,020
						11/20/17	15,130
						12/4/17	15,676
						12/11/17	15,560
						12/18/17	16,937
						12/20/17	16,684
						12/25/17	16,249





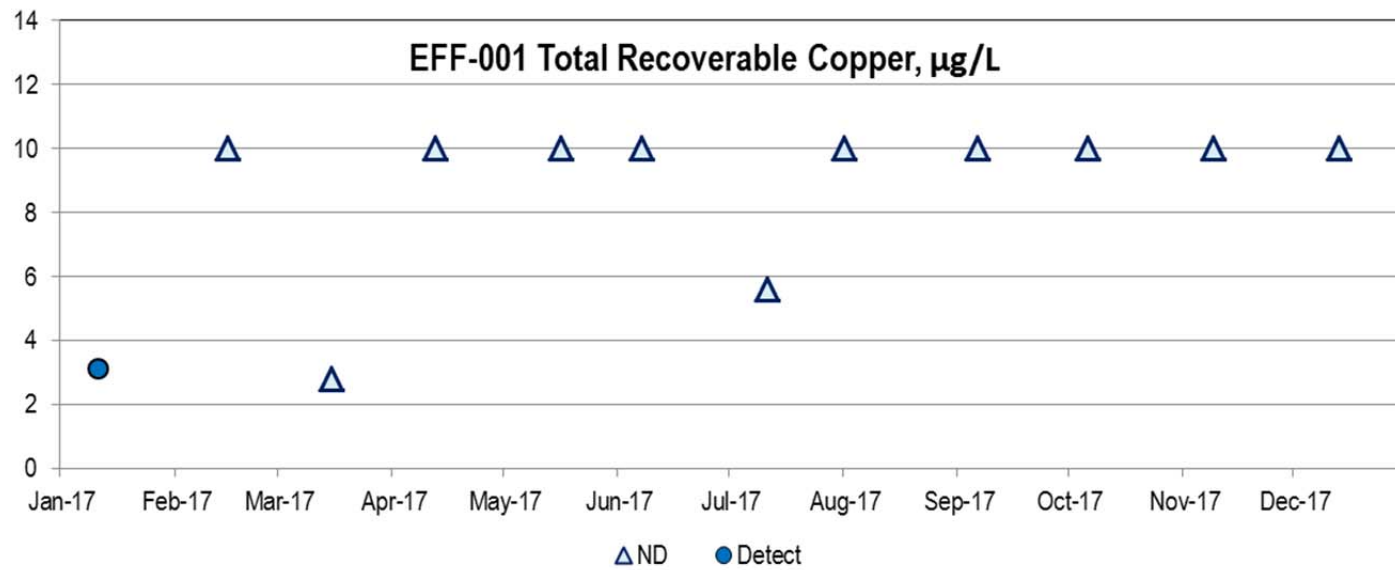
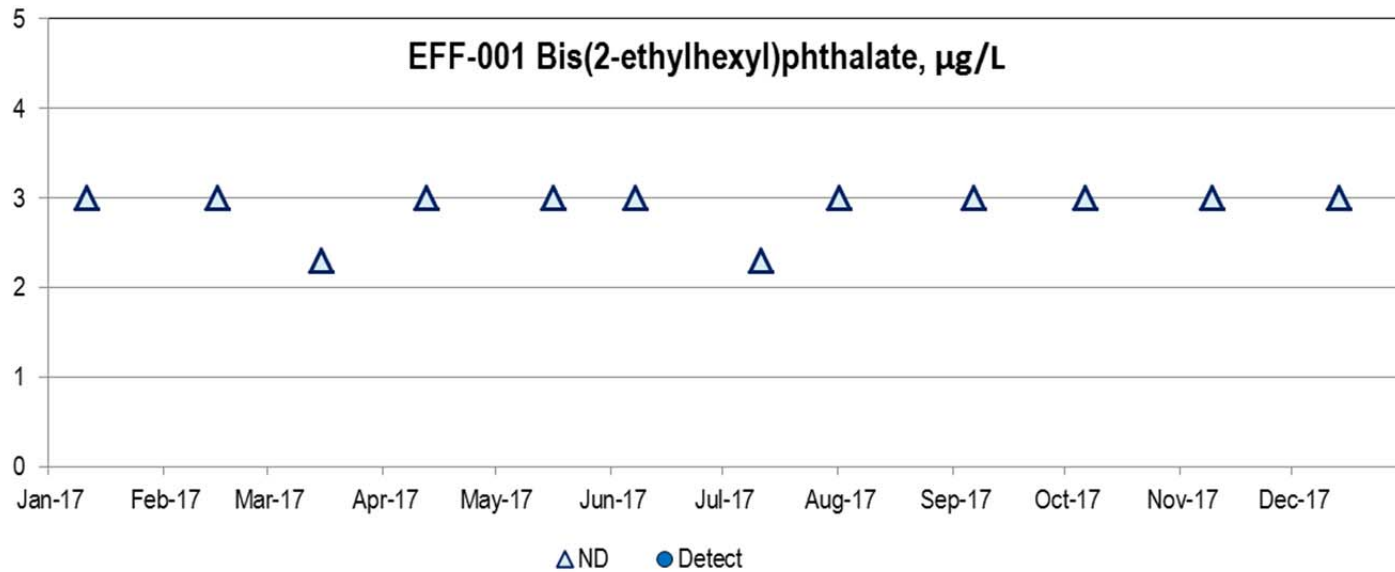


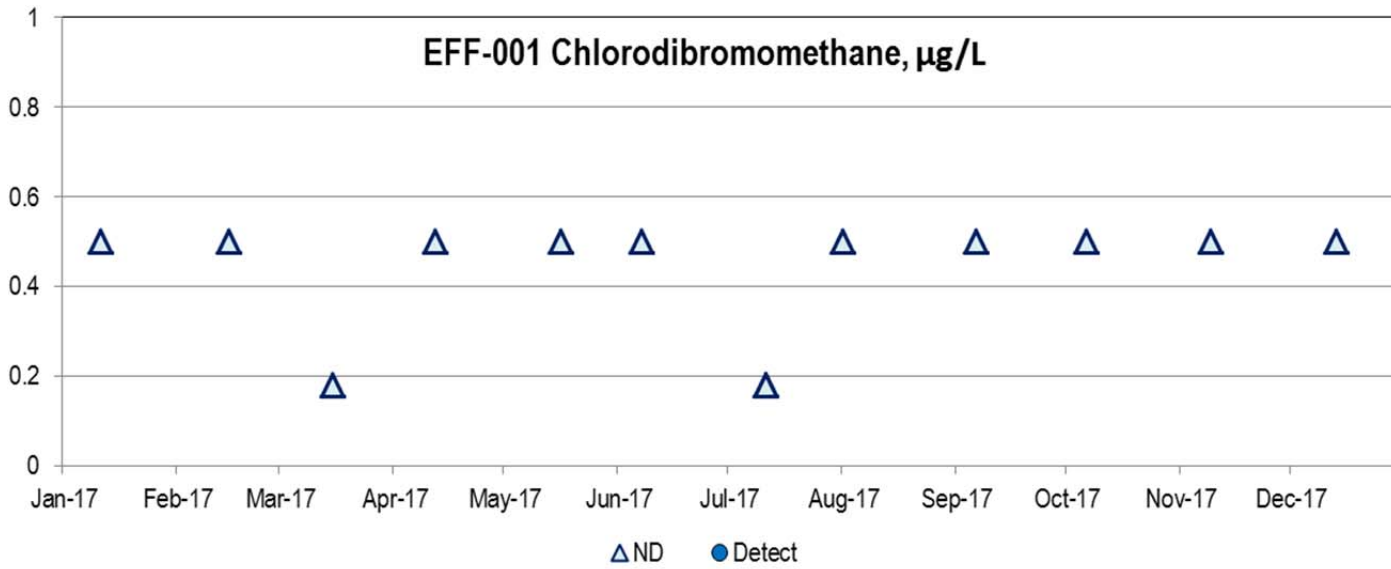
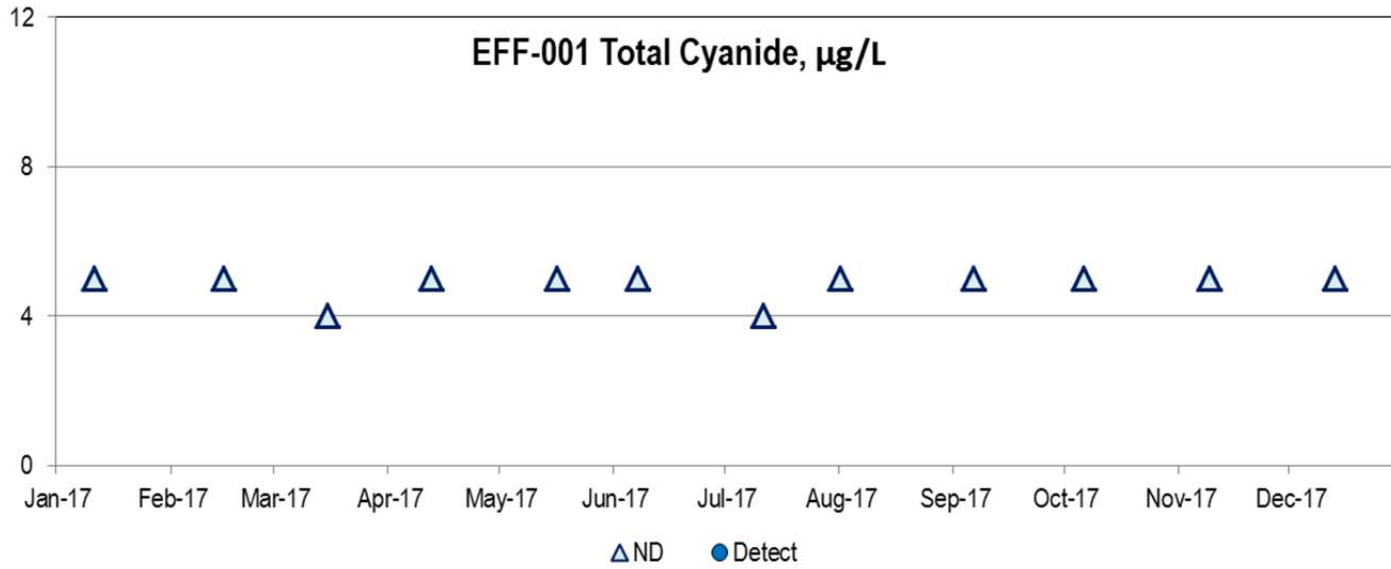
2017 Monthly Monitoring Effluent Concentrations

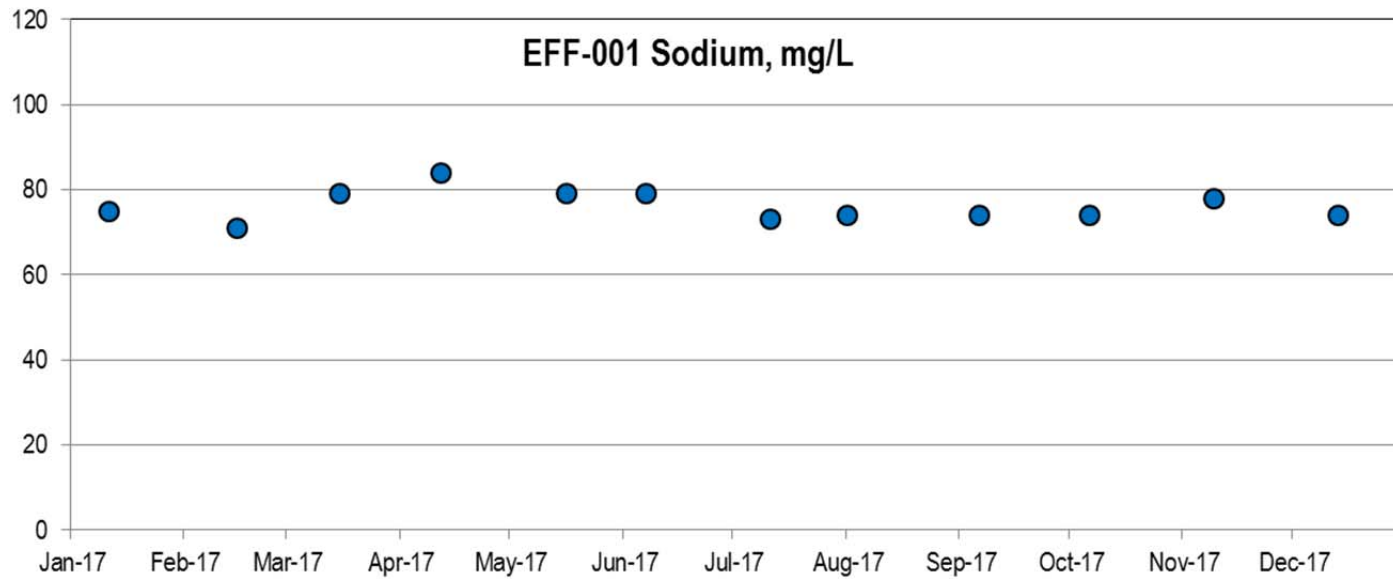
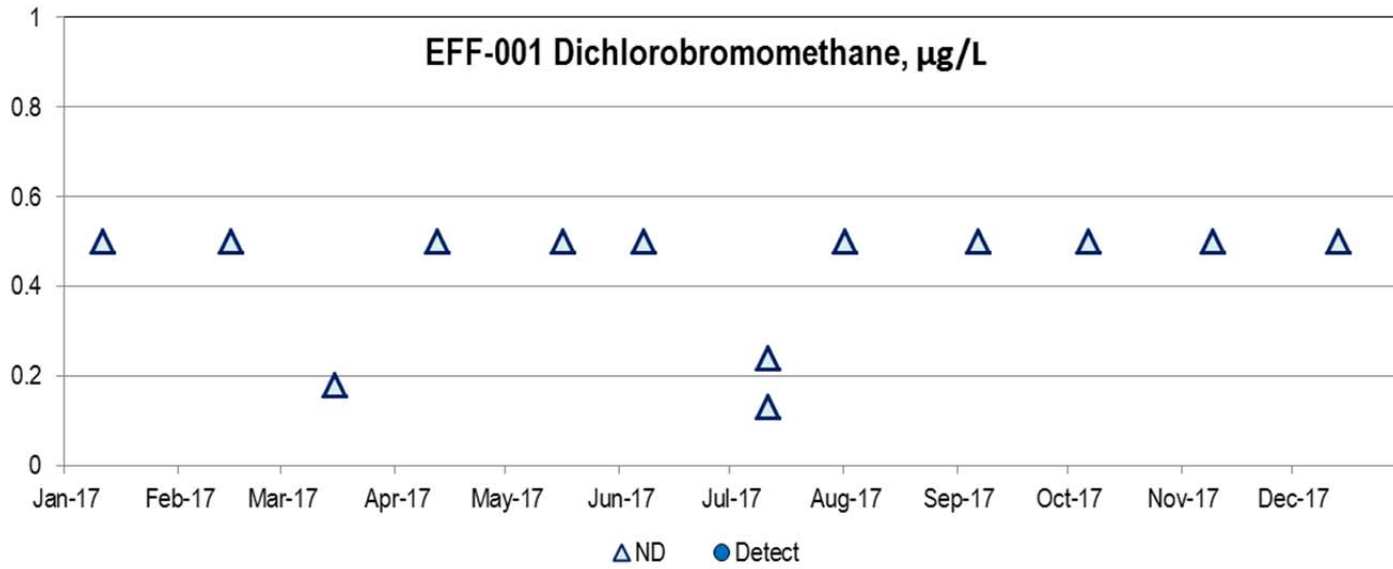
Date	Bis (2-Ethylhexyl) Phthalate, µg/L	Copper, Total Recoverable, µg/L	Cyanide, Total, µg/L	Chlorodibromomethane, µg/L	Dichlorobromomethane, µg/L	Sodium, Total, mg/L
1/11/17	<3	3.1	<5	<0.5	<0.5	75
2/15/17	<3	<10	<5	<0.5	<0.5	71
3/15/17	<2.3	<2.8	<4	<0.18	<0.18	79
4/12/17	<3	<10	<5	<0.5	<0.5	84
5/16/17	<3	<10	<5	<0.5	<0.5	79
6/7/17	<3	<10	<5	<0.5	<0.5	79
7/11/17	<2.3	<5.6	<4	<0.18	<0.13	73
8/1/17	<3	<10	<5	<0.5	<0.5	74
9/6/17	<3	<10	<5	<0.5	<0.5	74
10/6/17	<3	<10	<5	<0.5	<0.5	74
11/9/17	<3	<10	<5	<0.5	<0.5	78
12/13/17	<3	<10	<5	<0.5	<0.5	74

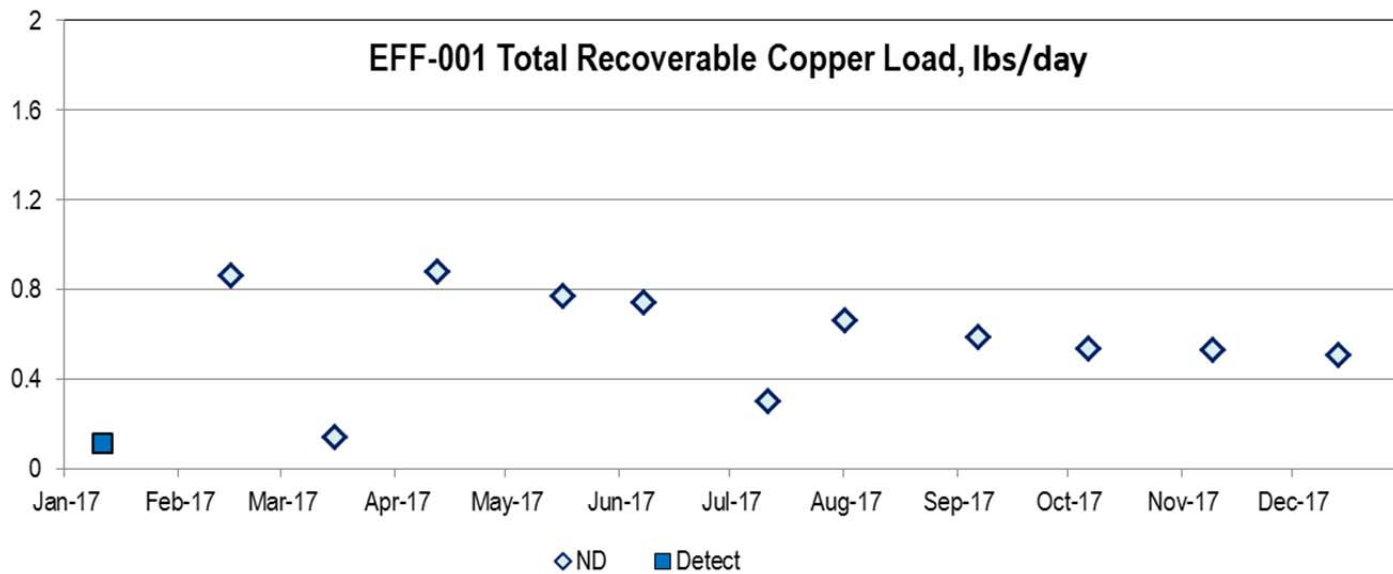
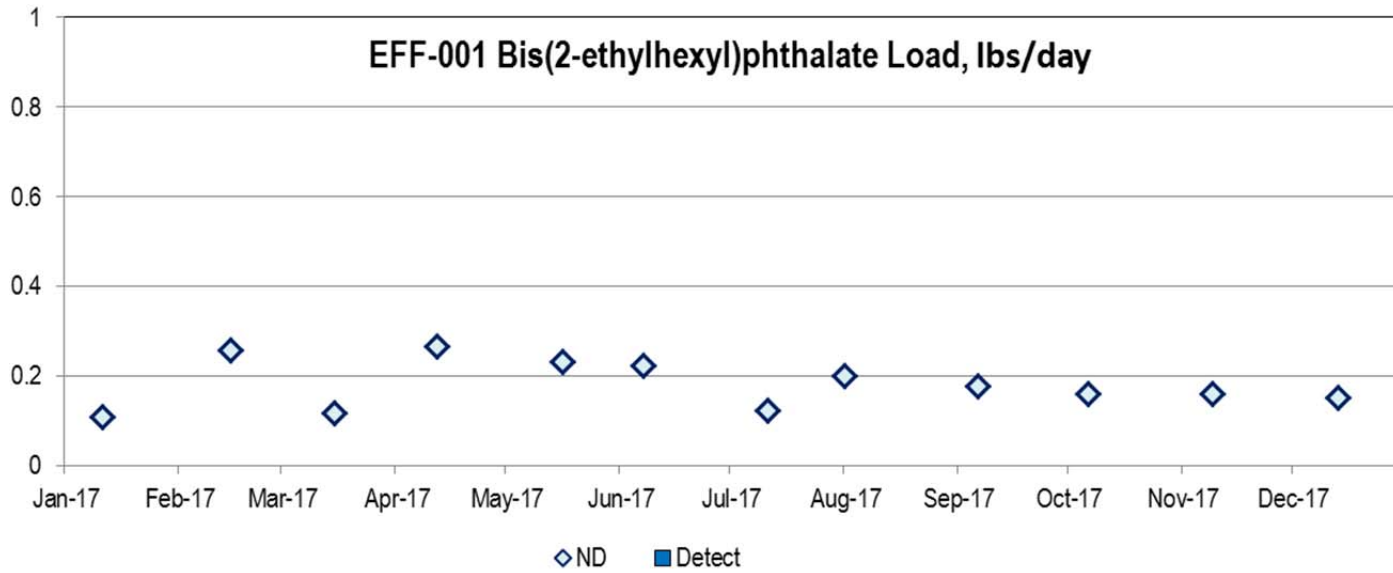
2017 Monthly Monitoring Effluent Loads, lbs/day

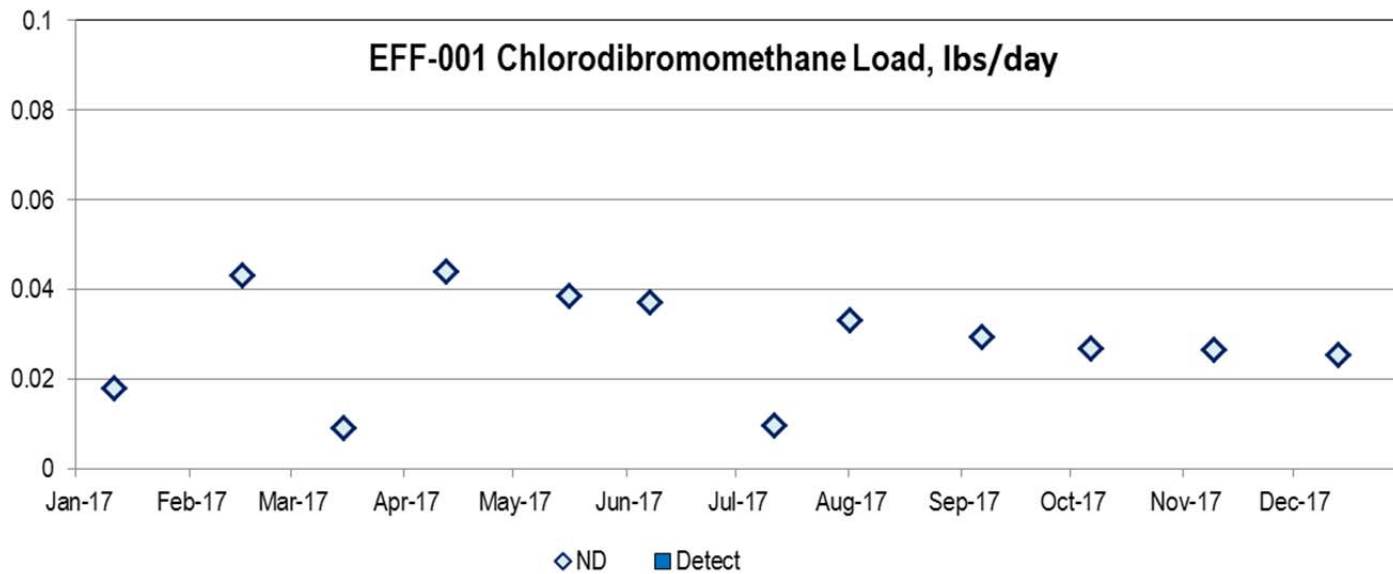
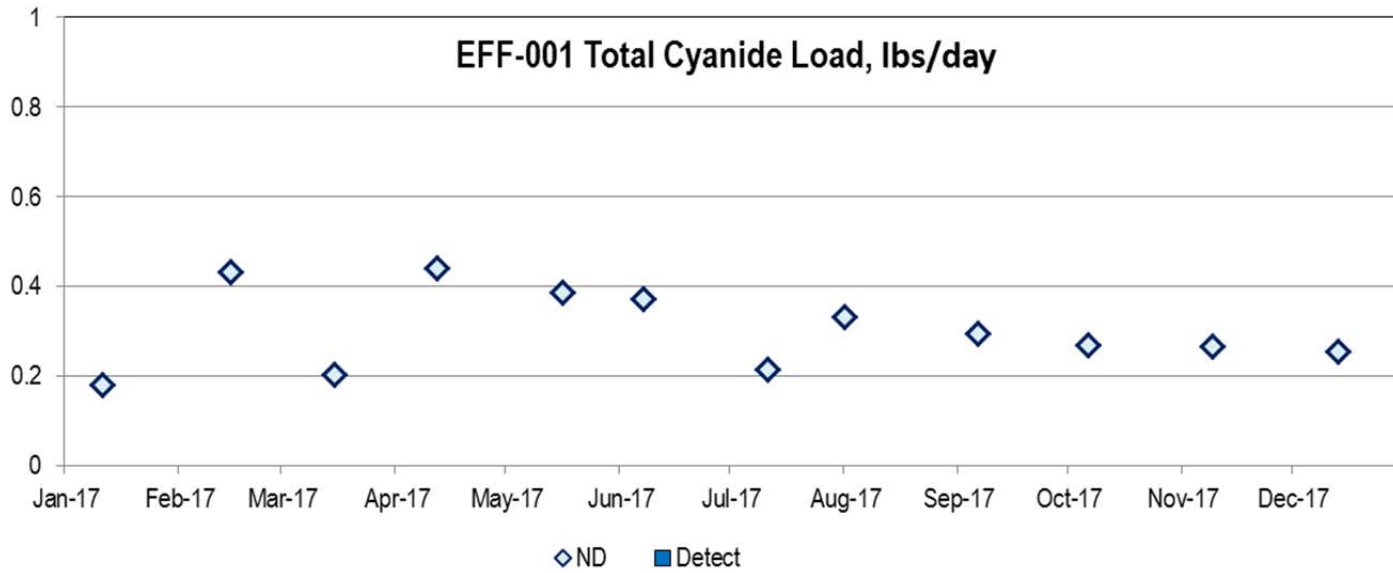
Date	Bis (2-Ethylhexyl) Phthalate	Copper, Total Recoverable	Cyanide, Total	Chlorodibromomethane	Dichlorobromomethane	Sodium, Total
1/11/17	ND	0.2	ND	ND	ND	4,784
2/15/17	ND	ND	ND	ND	ND	4,119
3/15/17	ND	ND	ND	ND	ND	5,726
4/12/17	ND	ND	ND	ND	ND	6,344
5/16/17	ND	ND	ND	ND	ND	6,151
6/7/17	ND	ND	ND	ND	ND	4,130
7/11/17	ND	ND	ND	ND	ND	4,275
8/1/17	ND	ND	ND	ND	ND	4,034
9/6/17	ND	ND	ND	ND	ND	3,553
10/6/17	ND	ND	ND	ND	ND	3,838
11/9/17	ND	ND	ND	ND	ND	3,675
12/13/17	ND	ND	ND	ND	ND	3,489

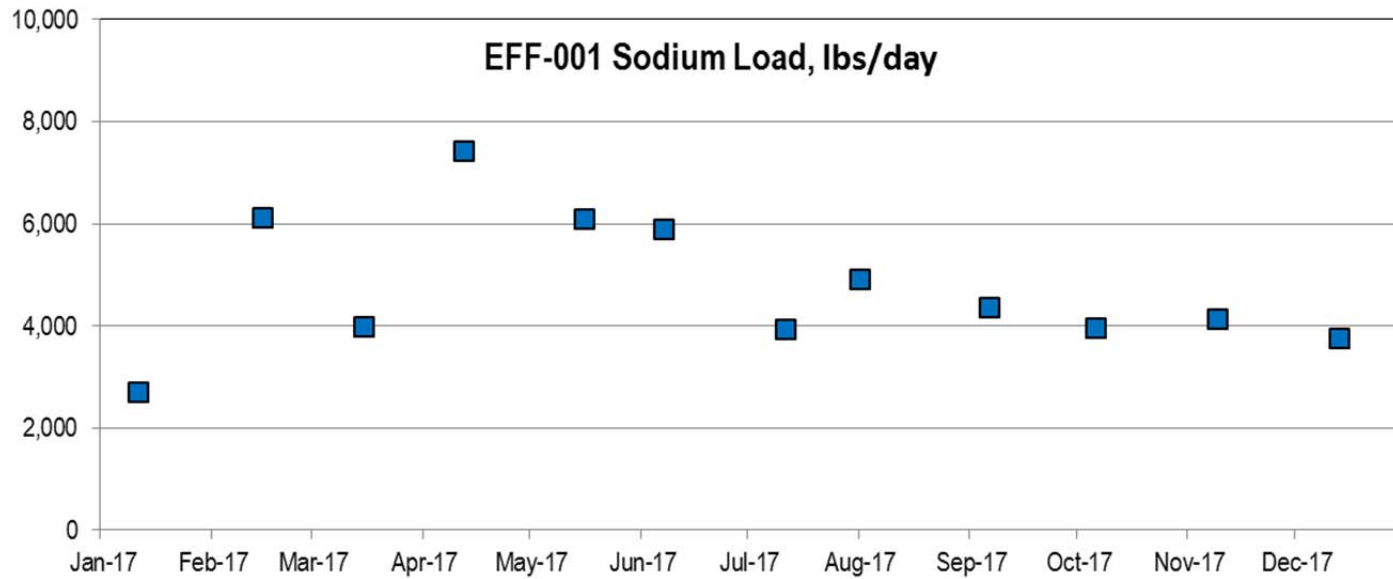
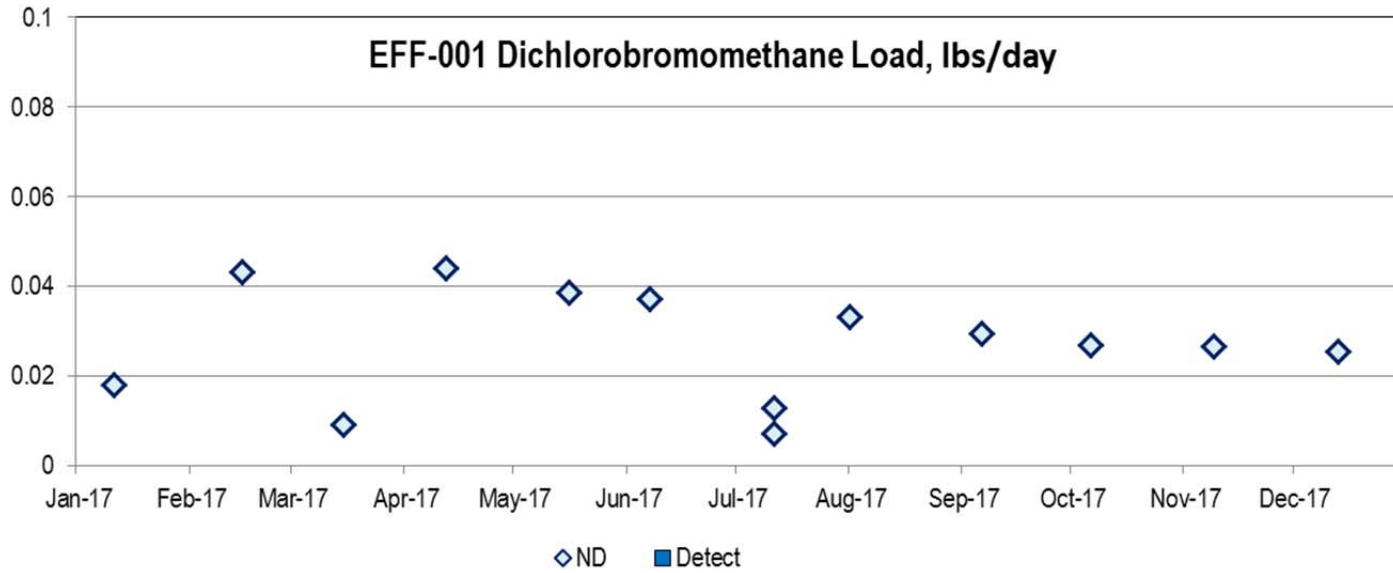






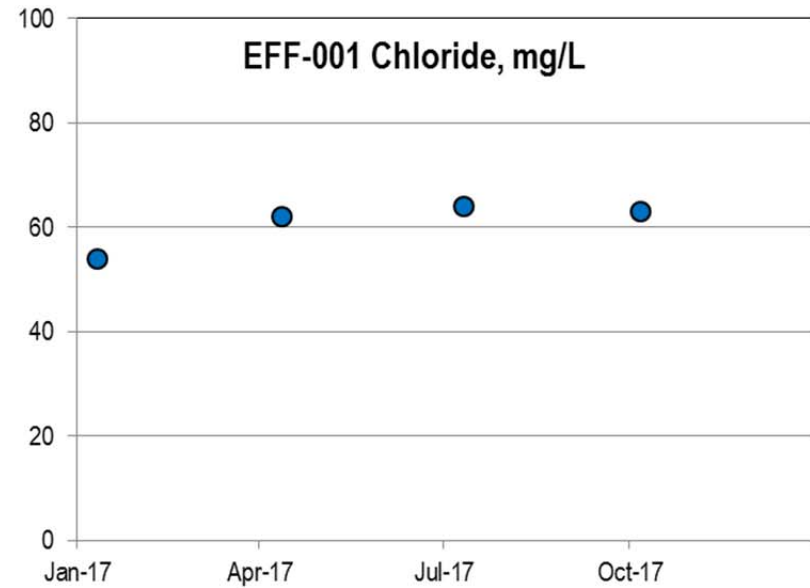
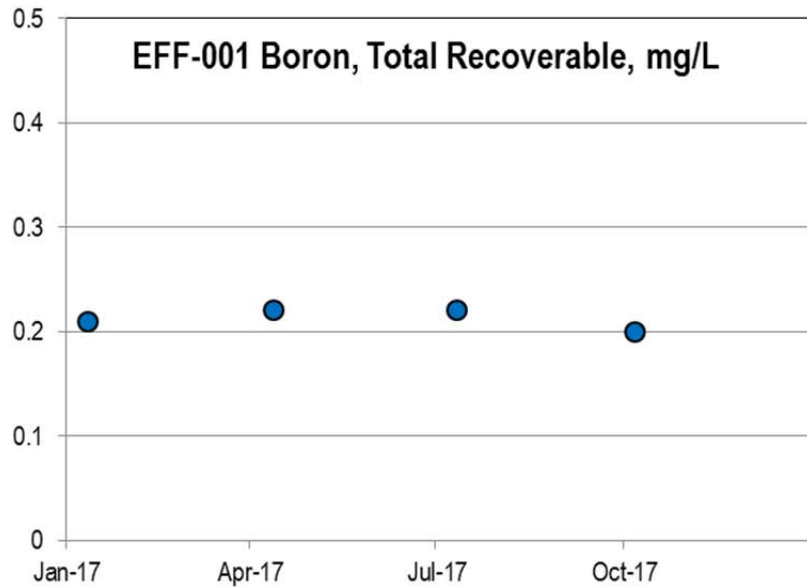


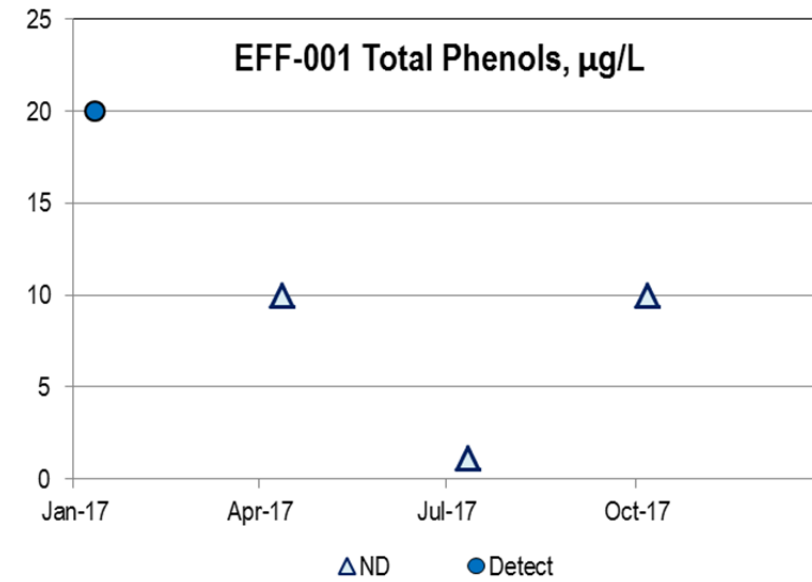
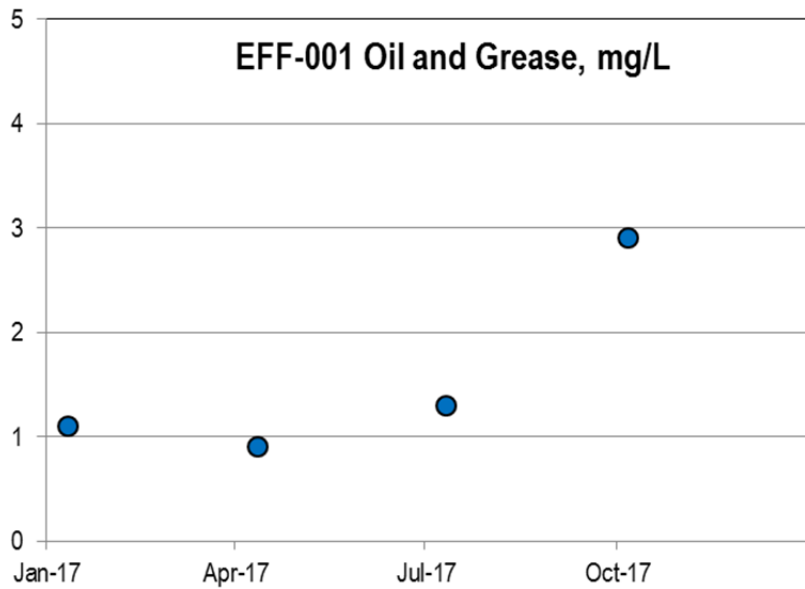
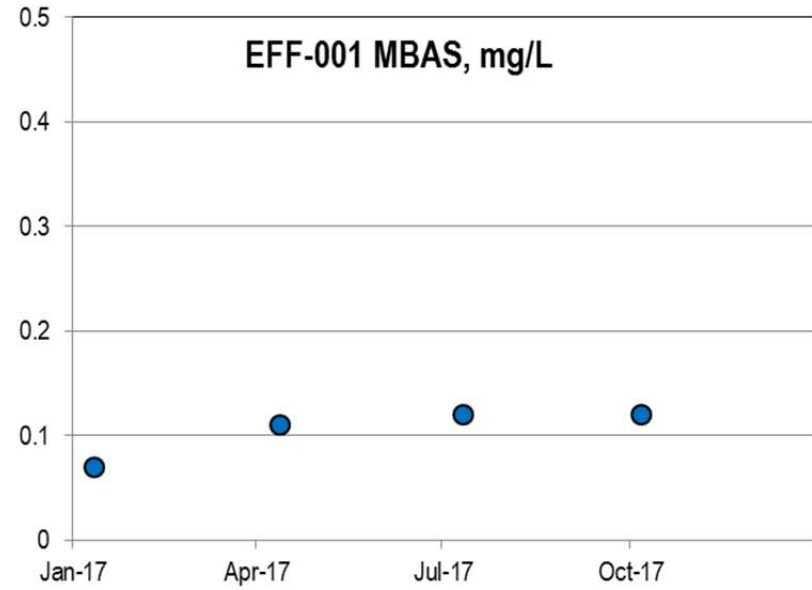
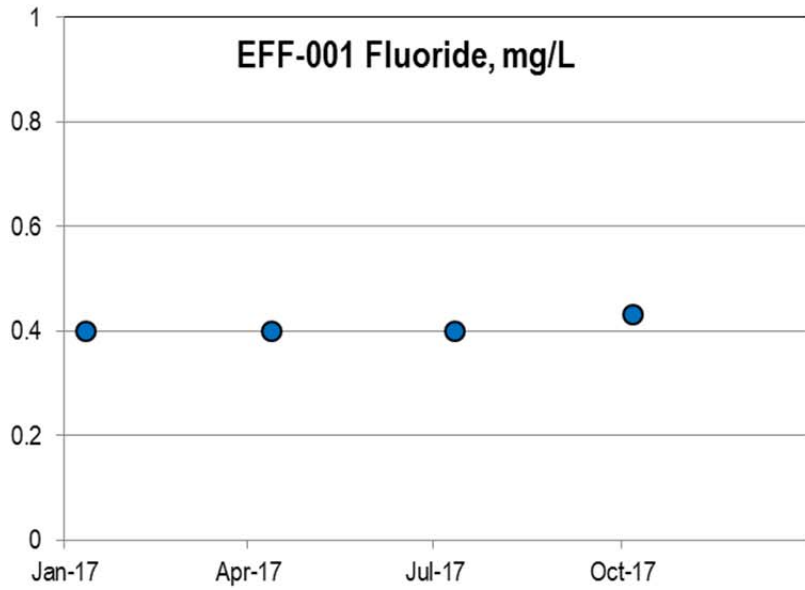


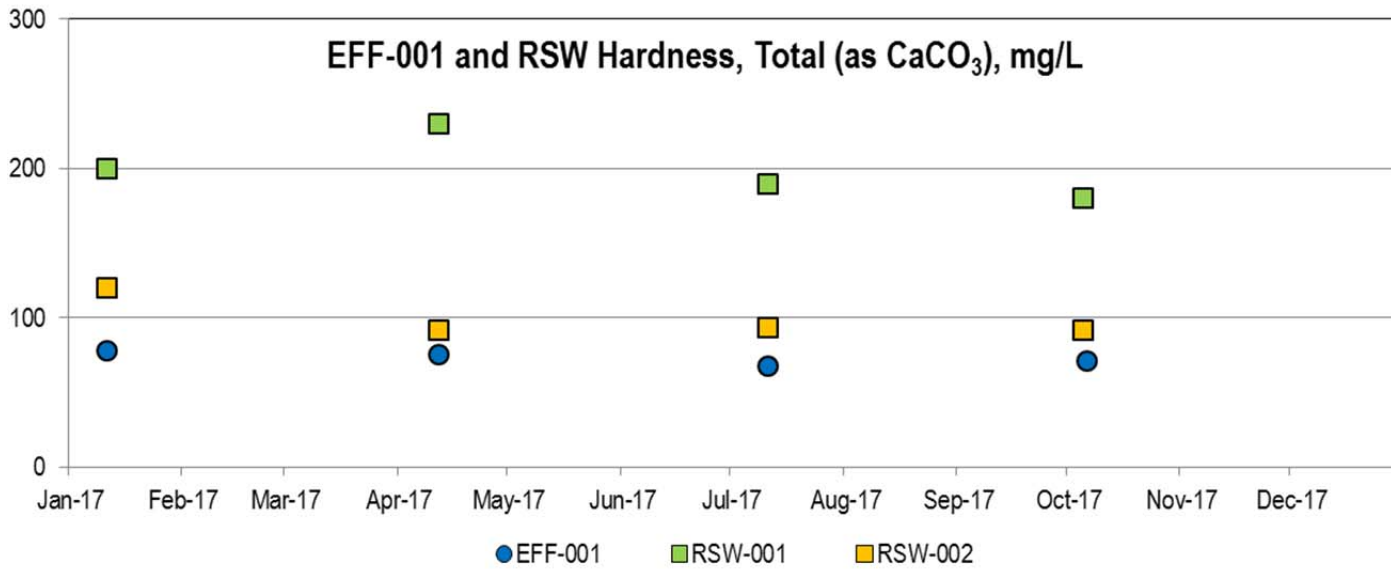
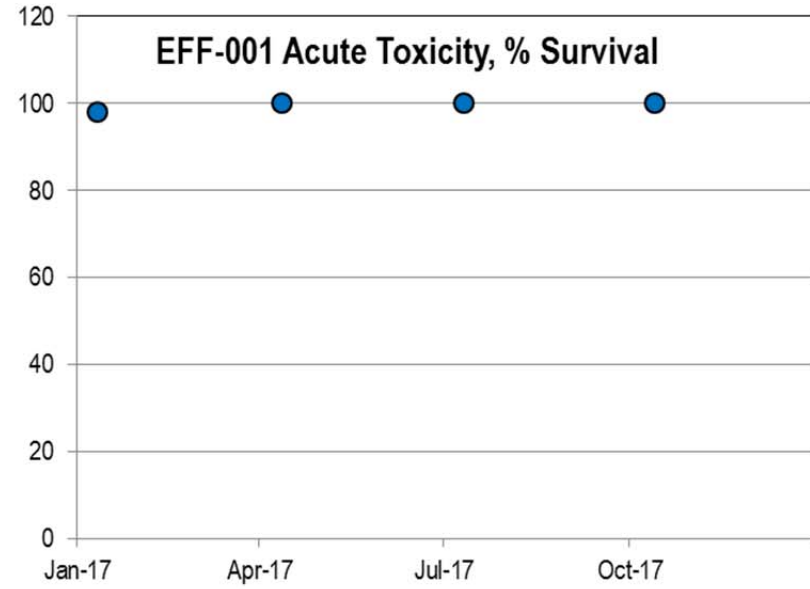
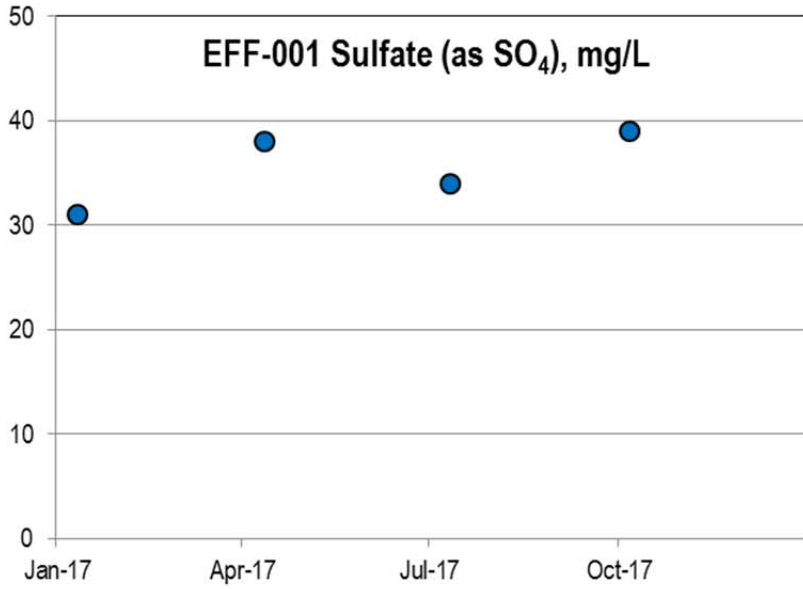


2017 Quarterly Monitoring Effluent Concentrations

Date	Boron, Total Recoverable, mg/L	Chloride, Total, mg/L	Fluoride, Total, mg/L	Methylene Blue Active Substances, mg/L	Oil and Grease, mg/L	Phenols, Total, µg/L	Sulfate, Total (as SO4), mg/L	Hardness, Total (as CaCO3), mg/L	Acute Toxicity, % survival
1/11/17	0.21	54	0.4	0.07	1.1	20	31	78	98
4/12/17	0.22	62	0.4	0.11	0.9	-10	38	75	100
7/11/17	0.22	64	0.4	0.12	1.3	-1.1	34	68	100
10/6/17	0.20	63	0.43	0.12	2.9	-10	39	71	100

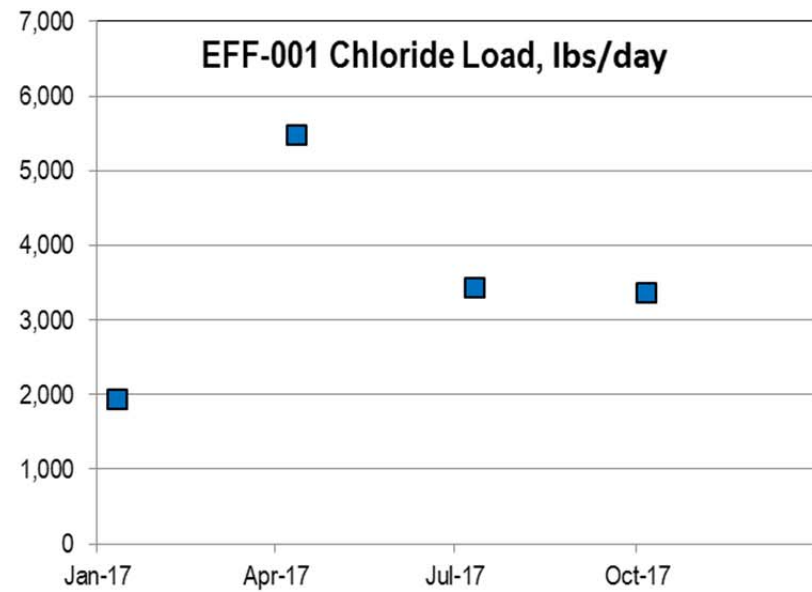
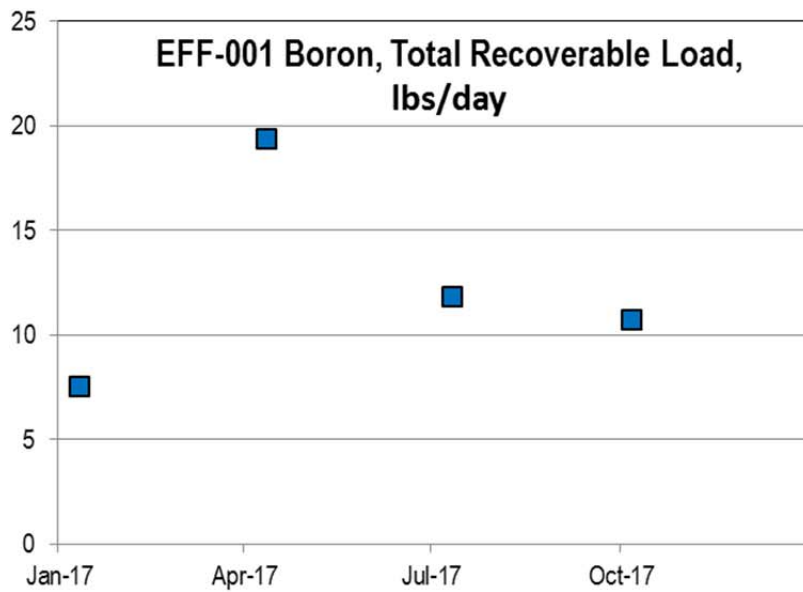


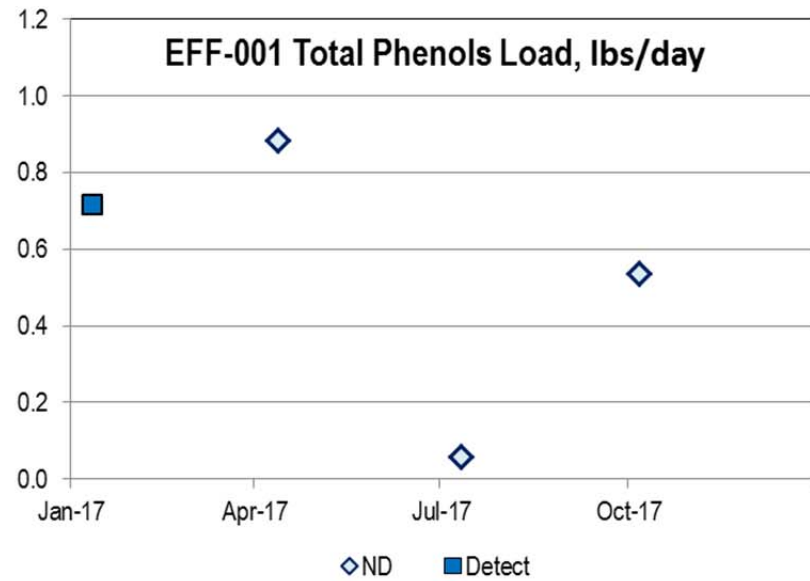
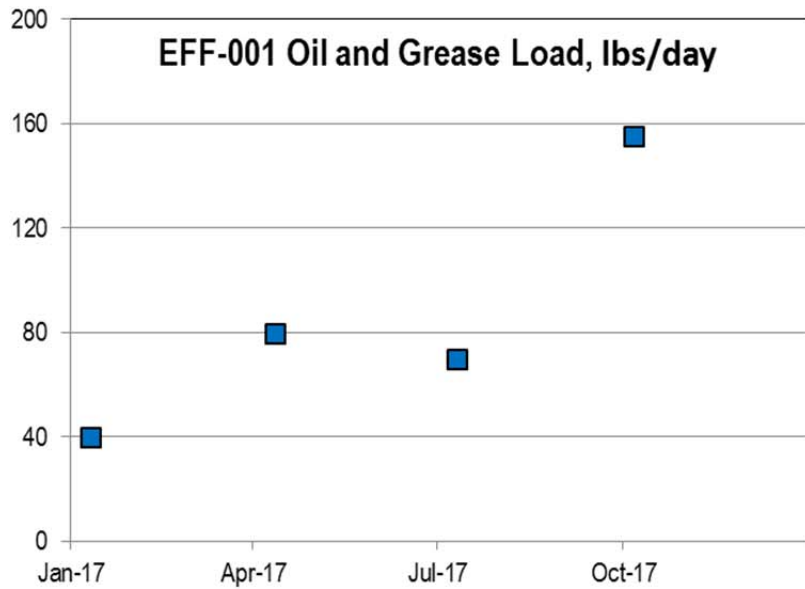
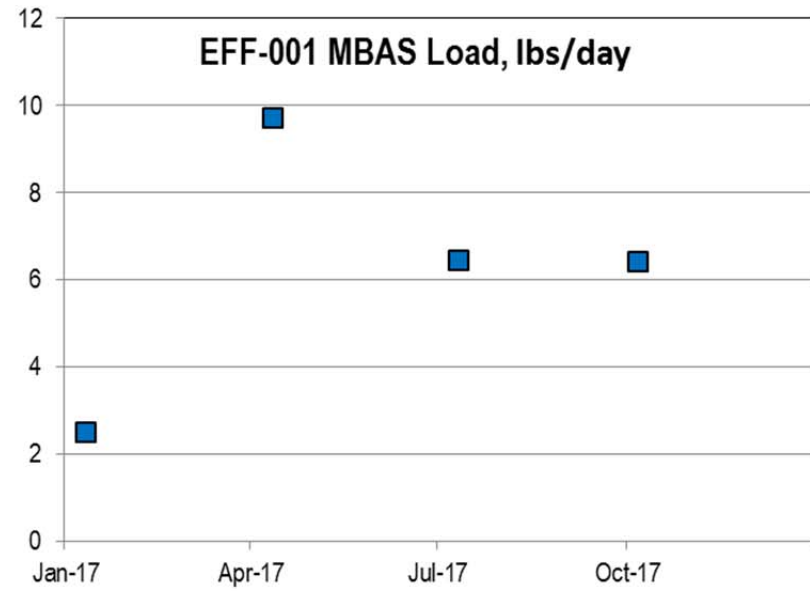
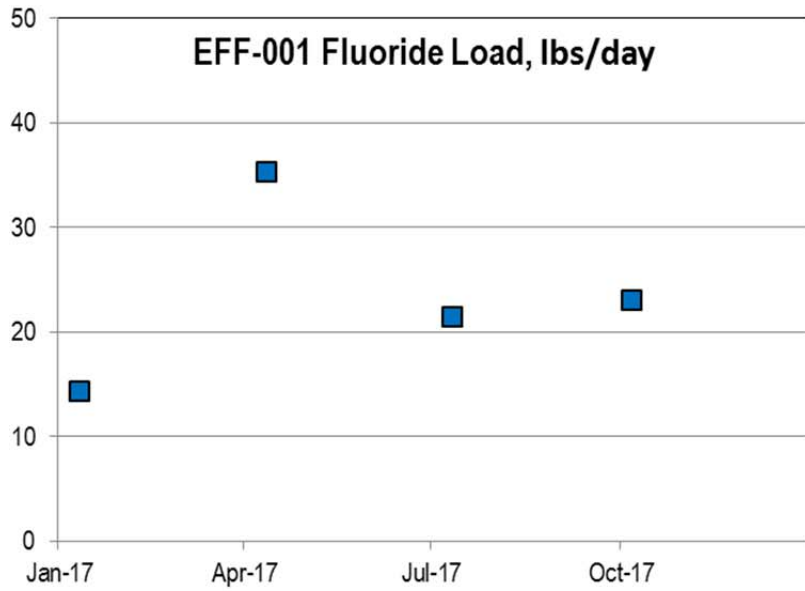


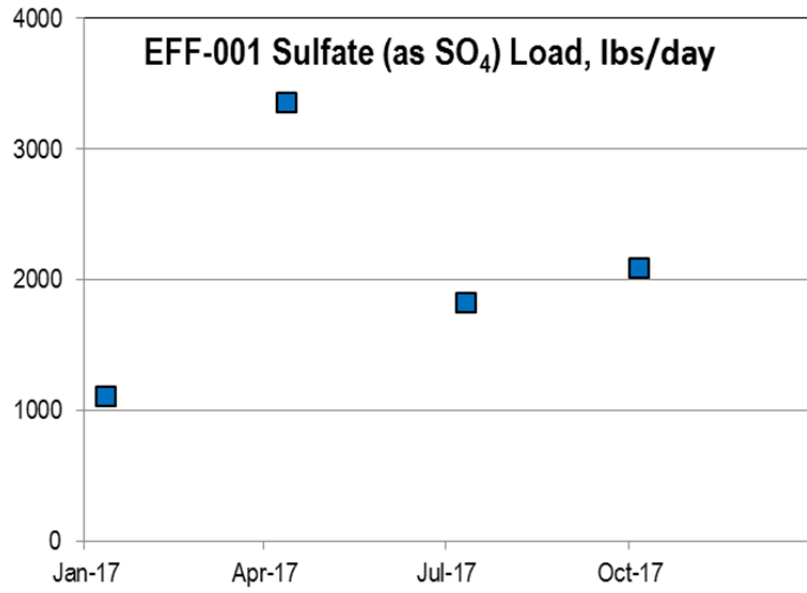


2017 Quarterly Monitoring Effluent Loads, lbs/day

Date	Boron, Total Recoverable	Chloride, Total	Fluoride, Total	Methylene Blue Active Substances	Oil and Grease	Phenols, Total	Sulfate, Total (as SO4)
1/11/17	13	3,445	26	4.47	70	1.3	1,978
4/12/17	17	4,682	30	8.31	68	ND	2,870
7/11/17	13	3,748	23	7.03	76	ND	1,991
10/6/17	10	3,268	22	6.22	150	ND	2,023







2017 Annual Monitoring Results for Priority Pollutants and Additional Constituents (sampled 7/11/17)

PTP	Constituent	Analytical Method	Units	EFF-001	RSW-001	RSW-002
1	Antimony	EPA 200.8	µg/L	<0.4	<0.81	<0.4
2	Arsenic	EPA 200.8	µg/L	1.4	<2.3	3.4
3	Beryllium	EPA 200.8	µg/L	<0.26	<0.52	<0.26
4	Cadmium	EPA 200.8	µg/L	<0.26	<0.51	<0.26
5	Total Chromium	EPA 200.8	µg/L	<1.9	<3.8	<1.9
5a	Trivalent Chromium	Calculation	µg/L	<0.4	<0.4	<0.4
5b	Hexavalent Chromium	EPA 218.6	µg/L	<0.024	<0.024	0.025
6	Copper	EPA 200.8	µg/L	<5.6	1.9	2.3
7	Lead	EPA 200.8	µg/L	0.2	<0.39	0.46
8	Mercury	EPA 200.8 ATP	µg/L	<0.055	<0.11	<0.055
9	Nickel	EPA 200.8	µg/L	1.6	1.1	1.9
10	Selenium	EPA 200.8	µg/L	<1.4	<2.7	<1.4
11	Silver	EPA 200.8	µg/L	<0.22	<0.22	<0.22
12	Thallium	EPA 200.8	µg/L	<0.2	<0.4	<0.2
13	Zinc	EPA 200.7	µg/L	44		
		EPA 200.8	µg/L		5.5	18
14	Cyanide	SM 4500CNE	µg/L	<4	<4	<4
15	Asbestos	EPA 100.2	MFL	<1	<0.2	<1
16	2,3,7,8-TCDD (scan)	EPA 625	µg/L	<0.05	<0.05	<0.05
17	Acrolein	EPA 624	µg/L	<1.1	<1.1	<1.1
18	Acrylonitrile	EPA 624	µg/L	<0.59	<0.59	<0.59
19	Benzene	EPA 624	µg/L	<0.15	<0.15	<0.15
20	Bromoform	EPA 524.2	µg/L	<0.5		
		EPA 624	µg/L	<0.5	<0.5	<0.5
21	Carbon Tetrachloride	EPA 624	µg/L	<0.2	<0.2	<0.2
22	Chlorobenzene	EPA 624	µg/L	<0.25	<0.25	<0.25
23	Dibromochloromethane	EPA 624	µg/L	<0.18	<0.18	<0.18
24	Chloroethane	EPA 624	µg/L	<0.19	<0.19	<0.19
25	2-Chloroethylvinyl Ether	EPA 624	µg/L	<1.3	<1.3	<1.3

PTP	Constituent	Analytical Method	Units	EFF-001	RSW-001	RSW-002
26	Chloroform	EPA 524.2	µg/L	<0.44		
		EPA 624	µg/L	<0.44	<0.44	<0.44
27	Bromodichloromethane	EPA 624	µg/L	<0.24	<0.24	<0.24
28	1,1-Dichloroethane	EPA 624	µg/L	<0.12	<0.12	<0.12
29	1,2-Dichloroethane	EPA 624	µg/L	<0.12	<0.12	<0.12
30	1,1-Dichloroethene	EPA 624	µg/L	<0.12	<0.12	<0.12
31	1,2-Dichloropropane	EPA 624	µg/L	<0.13	<0.13	<0.13
32	cis-1,3-Dichloropropene	EPA 624	µg/L	<0.25	<0.25	<0.25
32b	trans-1,3-Dichloropropene	EPA 624	µg/L	<0.25	<0.25	<0.25
33	Ethylbenzene	EPA 624	µg/L	<0.11	<0.11	<0.11
34	Bromomethane	EPA 624	µg/L	<0.15	<0.15	<0.15
35	Chloromethane	EPA 624	µg/L	<0.25	<0.25	<0.25
36	Methylene Chloride	EPA 624	µg/L	<0.25	<0.25	<0.25
37	1,1,2,2-Tetrachloroethane	EPA 624	µg/L	<0.16	<0.16	<0.16
38	Tetrachloroethene	EPA 624	µg/L	<0.12	<0.12	<0.12
39	Toluene	EPA 624	µg/L	0.21	0.22	0.24
40	trans-1,2-Dichloroethene	EPA 624	µg/L	<0.11	<0.11	<0.11
41	1,1,1-Trichloroethane	EPA 624	µg/L	<0.19	<0.19	<0.19
42	1,1,2-Trichloroethane	EPA 624	µg/L	<0.14	<0.14	<0.14
43	Trichloroethene	EPA 624	µg/L	<0.18	<0.18	<0.18
44	Vinyl Chloride	EPA 624	µg/L	<0.18	<0.18	<0.18
45	2-Chlorophenol	EPA 625	µg/L	<1.8	<1.8	<1.8
46	2,4-Dichlorophenol	EPA 625	µg/L	<1.8	<1.8	<1.8
47	2,4-Dimethylphenol	EPA 625	µg/L	<1.7	<1.7	<1.7
48	2-Methyl-4,6-Dinitrophenol	EPA 625	µg/L	<1.8	<1.8	<1.8
49	2,4-Dinitrophenol	EPA 625	µg/L	<1.6	<1.6	<1.6
50	2-Nitrophenol	EPA 625	µg/L	<2.1	<2.1	<2.1
51	4-Nitrophenol	EPA 625	µg/L	<1.1	<1.1	<1.1
52	4-Chloro-3-methylphenol	EPA 625	µg/L	<1.6	<1.6	<1.6
53	Pentachlorophenol	EPA 625	µg/L	<1.6	<1.6	<1.6

PTP	Constituent	Analytical Method	Units	EFF-001	RSW-001	RSW-002
54	Phenol	EPA 625	µg/L	<1.1	<1.1	<1.1
55	2,4,6-Trichlorophenol	EPA 625	µg/L	<1.9	<1.9	<1.9
56	Acenaphthene	EPA 625	µg/L	<1.9	<1.9	<1.9
		EPA 625 SIM	µg/L	<0.01		
57	Acenaphthylene	EPA 625	µg/L	<2	<2	<2
		EPA 625 SIM	µg/L	<0.02		
58	Anthracene	EPA 625	µg/L	<1.8	<1.8	<1.8
		EPA 625 SIM	µg/L	<0.01		
59	Benzidine	EPA 625	µg/L	<5.7	<5.7	<5.7
60	Benzo(a)anthracene	EPA 625	µg/L	<1.7	<1.7	<1.7
		EPA 625 SIM	µg/L	<0.01		
61	Benzo(a)pyrene	EPA 625	µg/L	<2	<2	<2
		EPA 625 SIM	µg/L	<0.02		
62	Benzo(b)fluoranthene	EPA 625	µg/L	<1.5	<1.5	<1.5
		EPA 625 SIM	µg/L	<0.02		
63	Benzo(ghi)perylene	EPA 625	µg/L	<1.9	<1.9	<1.9
		EPA 625 SIM	µg/L	<0.02		
64	Benzo(k)fluoranthene	EPA 625	µg/L	<2.2	<2.2	<2.2
		EPA 625 SIM	µg/L	<0.03		
65	Bis(2-chloroethoxy)methane	EPA 625	µg/L	<1.8	<1.8	<1.8
66	Bis(2-Chloroethyl)ether	EPA 625	µg/L	<1.8	<1.8	<1.8
67	Bis(2-chloroisopropyl)Ether	EPA 625	µg/L	<1.9	<1.9	<1.9
68	Bis(2-ethylhexyl)phthalate	EPA 625	µg/L	<2.3	<2.3	<2.3
69	4-Bromophenyl phenyl ether	EPA 625	µg/L	<1.6	<1.6	<1.6
70	Butyl benzyl phthalate	EPA 625	µg/L	<1.6	<1.6	<1.6
71	2-Chloronaphthalene	EPA 625	µg/L	<1.8	<1.8	<1.8
72	4-Chlorophenyl phenyl ether	EPA 625	µg/L	<1.8	<1.8	<1.8
73	Chrysene	EPA 625	µg/L	<1.6	<1.6	<1.6
		EPA 625 SIM	µg/L	<0.02		
74	Dibenzo(a,h)anthracene	EPA 625	µg/L	<2	<2	<2

PTP	Constituent	Analytical Method	Units	EFF-001	RSW-001	RSW-002
		EPA 625 SIM	µg/L	<0.02		
75	1,2-Dichlorobenzene	EPA 624	µg/L	<0.17	<0.17	<0.17
76	1,3-Dichlorobenzene	EPA 624	µg/L	<0.22	<0.22	<0.22
77	1,4-Dichlorobenzene	EPA 624	µg/L	<0.098	<0.098	<0.098
78	3,3'-Dichlorobenzidine	EPA 625	µg/L	<2.1	<2.1	<2.1
79	Diethyl phthalate	EPA 625	µg/L	<1.8	<1.8	<1.8
80	Dimethyl phthalate	EPA 625	µg/L	<1.7	<1.7	<1.7
81	Di-n-butylphthalate	EPA 625	µg/L	<1.9	<1.9	<1.9
82	2,4-Dinitrotoluene	EPA 625	µg/L	<1.8	<1.8	<1.8
83	2,6-Dinitrotoluene	EPA 625	µg/L	<1.9	<1.9	<1.9
84	Di-n-octylphthalate	EPA 625	µg/L	<2.6	<2.6	<2.6
85	1,2-Diphenylhydrazine	EPA 625	µg/L	<1.8	<1.8	<1.8
86	Fluoranthene	EPA 625	µg/L	<2	<2	<2
		EPA 625 SIM	µg/L	<0.02		
87	Fluorene	EPA 625	µg/L	<2	<2	<2
		EPA 625 SIM	µg/L	<0.02		
88	Hexachlorobenzene	EPA 625	µg/L	<1.6	<1.6	<1.6
89	Hexachlorobutadiene	EPA 625	µg/L	<1.8	<1.8	<1.8
90	Hexachlorocyclopentadiene	EPA 625	µg/L	<1.7	<1.7	<1.7
91	Hexachloroethane	EPA 625	µg/L	<1.6	<1.6	<1.6
92	Indeno(1,2,3-cd)pyrene	EPA 625	µg/L	<2	<2	<2
		EPA 625 SIM	µg/L	<0.03		
93	Isophorone	EPA 625	µg/L	<1.9	<1.9	<1.9
94	Naphthalene	EPA 625	µg/L	<2	<2	<2
		EPA 625 SIM	µg/L	<0.02		
95	Nitrobenzene	EPA 625	µg/L	<2	<2	<2
96	N-Nitrosodimethylamine	EPA 625	µg/L	<1.4	<1.4	<1.4
97	n-Nitrosodi-n-propylamine	EPA 625	µg/L	<1.7	<1.7	<1.7
98	N-Nitrosodiphenylamine	EPA 625	µg/L	<1.7	<1.7	<1.7
99	Phenanthrene	EPA 625	µg/L	<1.9	<1.9	<1.9

PTP	Constituent	Analytical Method	Units	EFF-001	RSW-001	RSW-002
		EPA 625 SIM	µg/L	<0.02		
100	Pyrene	EPA 625	µg/L	<1.7	<1.7	<1.7
		EPA 625 SIM	µg/L	<0.02		
101	1,2,4-Trichlorobenzene	EPA 625	µg/L	<2	<2	<2
102	Aldrin	EPA 625	µg/L	<1.6	<1.6	<1.6
103	a-BHC	EPA 625	µg/L	<2	<2	<2
104	b-BHC	EPA 625	µg/L	<2.1	<2.1	<2.1
105	γ-BHC	EPA 625	µg/L	<3.4	<3.4	<3.4
106	d-BHC	EPA 625	µg/L	<1.9	<1.9	<1.9
107	Chlordane (screen)	EPA 625	µg/L	<1.8	<1.8	<1.8
108	4,4'-DDT	EPA 625	µg/L	<2.3	<2.3	<2.3
109	4,4'-DDE	EPA 625	µg/L	<2.1	<2.1	<2.1
110	4,4'-DDD	EPA 625	µg/L	<2.3	<2.3	<2.3
111	Dieldrin	EPA 625	µg/L	<2.6	<2.6	<2.6
112	Endosulfan I	EPA 625	µg/L	<2.2	<2.2	<2.2
113	Endosulfan II	EPA 625	µg/L	<2.8	<2.8	<2.8
114	Endosulfan Sulfate	EPA 625	µg/L	<2	<2	<2
115	Endrin	EPA 625	µg/L	<2.6	<2.6	<2.6
116	Endrin aldehyde	EPA 625	µg/L	<10	<10	<10
117	Heptachlor	EPA 625	µg/L	<1.9	<1.9	<1.9
118	Heptachlor Epoxide	EPA 625	µg/L	<1.7	<1.7	<1.7
119	Aroclor 1016 (screen)	EPA 625	µg/L	<9.9	<9.9	<9.9
120	Aroclor 1221 (screen)	EPA 625	µg/L	<50	<50	<50
121	Aroclor 1232 (screen)	EPA 625	µg/L	<50	<50	<50
122	Aroclor 1242 (screen)	EPA 625	µg/L	<50	<50	<50
123	Aroclor 1248 (screen)	EPA 625	µg/L	<50	<50	<50
124	Aroclor 1254 (screen)	EPA 625	µg/L	<50	<50	<50
125	Aroclor 1260 (screen)	EPA 625	µg/L	<11	<11	<11
126	Toxaphene (screen)	EPA 625	µg/L	<18	<18	<18
	Barium	EPA 200.8	µg/L	18	68	23

PTP	Constituent	Analytical Method	Units	EFF-001	RSW-001	RSW-002
	Iron	EPA 200.7	µg/L	71	270	210
	Manganese	EPA 200.8	µg/L	13	510	56
	Molybdenum	EPA 200.8	µg/L	2.5	1.5	4.4
	Methyl tert Butyl Ether	EPA 624	µg/L	<0.6	<0.6	<0.6
	Trichlorofluoromethane	EPA 624	µg/L	<0.26	<0.26	<0.26
	Xylenes (m+p)	EPA 624	µg/L	<0.28	<0.28	<0.28
	Xylenes (ortho)	EPA 624	µg/L	<0.35	<0.35	<0.35
	Calcium	EPA 200.7	mg/L	23	58	29
	Cobalt	EPA 200.8	µg/L	<0.19	<0.38	0.27
	Dichlorodifluoromethane	EPA 624	µg/L	<0.13	<0.13	<0.13
	Magnesium	EPA 200.7	mg/L	2.8	11	4.6
	Potassium	EPA 200.7	mg/L	12	7.1	11
	Vanadium	EPA 200.8	µg/L	13	<8.1	11
	Total Silica	EPA 200.7	mg/L	19	26	22
	Sodium	EPA 200.7	mg/L	73	75	86
	Ortho Phosphate Phosphorus	SM 4500P E	mg/L	0.35	0.37	1.9
	Chloride	EPA 300.0	mg/L	64	65	71
	Fluoride	SM 4500FC	mg/L	0.4	0.7	0.6
	Sulfate	EPA 300.0	mg/L	34	34	38
	Boron	EPA 200.7	mg/L	0.22	0.19	0.24
	Ammonia-Nitrogen	SM 4500 NH3H	mg/L	0.1	<0.048	<0.048
	Nitrate as N	EPA 300.0	mg/L	2.8	<0.055	1.1
	Nitrite as N	SM 4500NO2B	mg/L	0.072	<0.042	<0.042
	Total Kjeldahl Nitrogen	EPA 351.2	mg/L	1.4	0.97	0.49

2017 Annual Chronic Toxicity Effluent Monitoring Results

Location	Sample Date	Analysis Dates	Test Species	Analytical Method ^[a]	Survival		Growth	
					NOEC	TUc	NOEC	TUc
EFF-001	7/11/17	7/12 – 19/17	<i>Pimephales promelas</i>	EPA-821/R-02-013	100.00%	1.0	100.00%	1.0
			<i>Ceriodaphnia dubia</i>	EPN-821/R-02-013	100.00%	1.0	100.00%	1.0
RSW-001	7/11/17	7/12 – 19/17	<i>Pimephales promelas</i>	EPA-821/R-02-013	100.00%	1.0	100.00%	1.0
			<i>Ceriodaphnia dubia</i>	EPN-821/R-02-013	100.00%	1.0	100.00%	1.0
RSW-002	7/11/17	7/12 – 19/17	<i>Pimephales promelas</i>	EPA-821/R-02-013	100.00%	1.0	100.00%	1.0
			<i>Ceriodaphnia dubia</i>	EPN-821/R-02-013	100.00%	1.0	100.00%	1.0

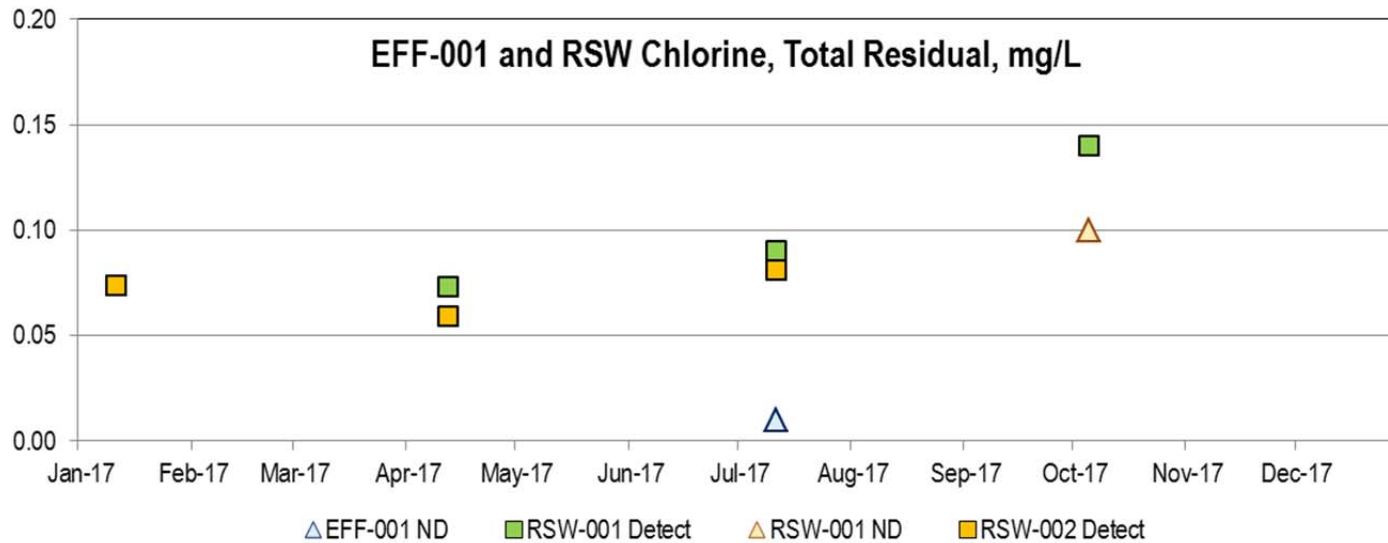
[a] Analyzed by Aquatic Bioassay Consulting Laboratories, Inc.

MOJAVE RIVER AMBIENT AND RECEIVING WATER MONITORING DATA

2017 Ambient and Receiving Water Concentrations

Date	TR Chlorine, mg/L	DO, mg/L	Hardness, mg/L	Ammonia-N, mg/L	Nitrate-N, mg/L	Nitrite-N, mg/L	TKN, mg/L	pH, SU	Temp, degrees C	Total Coliform, MPN/100mL	TDS, mg/L	Turbidity, NTU
RSW-001												
1/11/17	0.074	8.55	200	<0.048	0.073	<0.042	0.41	7.7	11.2	280	390	2
4/12/17	0.073	6.83	230	<0.1	<0.2	<0.1	0.17	7.8	16.8	900	420	1.8
7/11/17	0.09	4.33	190	<0.1	<0.2	<0.1	0.97	7.29	22.6	1600	440	1.6
10/5/17	0.14	5.41	180	<0.1	<0.2	<0.1	0.31	7.28	14.8	900	450	1.2
RSW-002												
1/11/17	0.074	5.79	120	<0.048	2.2	<0.042	0.064	7.4	14.1	0	380	0.99
4/12/17	0.059	5.46	92	<0.1	3.4	<0.1	0.51	7.6	18.9	1600	350	1
7/11/17	0.081	4.43	93	<0.1	1.1	<0.1	0.49	7.36	22.7	1600	370	0.1
10/5/17	<0.1	5.81	92	<0.1	4.1	<0.1	0.71	7.52	16.9	500	390	0.82

Receiving water graphs for these constituents are shown with the corresponding influent and effluent graphs in the WWTP Monitoring Summary. The graph of total residual chlorine concentrations is shown below.



Names and Grades of Certified Operators

The following is a list of certified operators and maintenance personnel that were employed at the WWTP during 2017.

Name	Discipline	Certification	Expiration	
Adams, Brad	Wastewater	SWRCB Grade II - 41201	6/17/18	
Bustos, Johnny	Wastewater	SWRCB Grade II - 42253	2/28/20	
Salvador, Carlos	Wastewater	SWRCB Grade III - 42254	2/14/20	
Castro, Moises	Wastewater	SWRCB Grade II - 40655	9/2/20	
Correia, Bruce	Wastewater	SWRCB Grade I - 8784	12/31/18	
Davis, Eugene	Wastewater	SWRCB Grade III - 28028	6/30/18	
Hesse, Robert	Wastewater	SWRCB Grade III - 36559	9/16/18	
Laari, Latif	Drinking Water Treatment	SWRCB Grade T2 - 40212	2/1/20	
	Water Distribution	SWRCB Grade D2 - 48044	2/1/20	
	Environmental Compliance Inspector	CWEA Grade 2 - 130821552	12/31/18	
	Collection System Maintenance	CWEA Grade 2 - 121022005	10/31/18	
Love, Ryan	Wastewater	SWRCB Grade V - 41891	6/22/18	
Lueken, Keith	Wastewater	SWRCB Grade V - 39828	12/29/18	
	Collection System Maintenance	CWEA Grade 1 - 111021006	10/31/18	
McZeal, Phayean	Wastewater	SWRCB Grade II - 41467	2/27/18	
	Water Distribution	SWRCB Grade D2 - 36432	2/1/18	
Mendoza, Miguel	Water Distribution	SWRCB Grade D2 - 36479	8/1/18	
	Wastewater	SWRCB Grade V - 28854	1/19/18	
Olds, Logan	Wastewater	SWRCB Grade V - 9443	1/31/20	
	Water Distribution	SWRCB Grade D2 - 10398	11/1/20	
	Water Treatment Plant Operator	SWRCB Grade III - 21999	11/1/20	
	Collection System Maintenance	CWEA Grade 4 - 60724020	7/31/18	
	Laboratory Analyst	CWEA Grade 1 - 99076118	7/31/18	
Regis, Kyle	Wastewater	SWRCB Grade II - 41201	6/17/18	
Schweizer, Eric	Wastewater	SWRCB Grade III- 28504	6/30/18	
Townsend, Robert	Water Distribution	SWRCB Grade D1 - 47979	11/1/19	
	Collection System Maintenance	CWEA Grade 1 - 111021003	10/31/18	
	Environmental Compliance Inspector	CWEA Grade 2 - 1308212950	9/30/18	
Tarango, Michael	Wastewater	SWRCB Grade III - 8345	6/30/20	
Maintenance	Doneff, Bradley	Plant Maintenance Technologist	CWEA Grade 1 - 1308210317	12/31/18
	Avila, Marcos	Mechanical Technologist	CWEA Grade 2 - 130762005	7/31/18
		Plant Maintenance Technologist	CWEA Grade 1 - 120751001	7/31/18
	Koncur, Michael	Plant Maintenance Technologist	CWEA Grade 2 - 110951010	9/30/18
	Marin, Mauricio	Electrical/Instrumentation	CWEA Grade 4 - 130974002	9/30/18
	Shields, Patrick	Wastewater	SWRCB Grade I - 37642	6/30/18

Summary of Compliance Status in 2017

COMPLIANCE WITH TOXICITY TESTS

Acute toxicity samples were collected four times during 2017 from the WWTP's post-UV final effluent and performed using fathead minnows (*Pimephales promelas*), as required by the NPDES permit. All but one result showed 100% survival of the test species, and the exception was 98% survival. Chronic toxicity samples were collected on July 11, 2017 in effluent and the Mojave River (upstream and downstream) and tests were performed using fathead minnows and *Ceriodaphnia dubia*. All results showed 100% No Observed Effect Concentration, or 1 TUc. Therefore, VVWRA was in compliance with NPDES requirements for toxicity.

COMPLIANCE WITH EFFLUENT LIMITS

Total Dissolved Solids 2017 Compliance Evaluation

The MRP contains the following requirement in Section X.B.6.f:

Compliance evaluation for TDS must be included in the annual report. The compliance evaluation must account for all of the average monthly concentrations for the prior calendar year to assess that the average monthly effluent limitation is not exceeded.

The maximum monthly average effluent Total Dissolved Solids (TDS) concentration in 2017 was 338 mg/L, which does not exceed the average monthly effluent limit of 460 mg/L. Monthly average effluent concentrations for 2017 are shown in the Summary of 2017 WWTP Performance and Compliance below.

Overall Treatment Summary

Average effluent removal efficiencies at the treatment facility were above 99% in 2017, as shown below.

	Average Annual Concentration, mg/L		Average Annual Removal Efficiency
	Influent	Effluent	
BOD	402.66	3.68	99.07%
TSS	427.25	2.20	99.45%
Ammonia-N	30.6	0.14	99.54%

	Influent	Effluent	
		To Mojave River	To Percolation Pond
Average Annual Flow, MGD	10.63	7.07	3.84

No effluent limits were exceeded during 2017, as shown in the Summary of 2017 Monitoring Data and the Summary of 2017 WWTP Performance and Compliance, below.

Summary of 2017 WWTP Performance and Compliance

	% Removal			EFF-001 Monthly Average					Narrative	Violations?
	TSS	BOD	NH ₃ -N	TSS, mg/L	BOD, mg/L	DO, mg/L	TDS, mg/L	Turbidity, NTU		
Limit:	85	85	-	10	10	6.5 ^[a]	460	2, 5, 10		
Jan	99.5	99.0	99.6	2.4	4.3	7.58	328	0.72	No river discharge occurred on January 22 due to UV maintenance.	No
Feb	99.6	99.2	99.5	2.0	3.2	7.16	333	0.42	No river discharge occurred during February 5-12 due to UV maintenance.	No
Mar	99.5	99.0	99.7	2.1	4.6	7.36	328	0.50		No
Apr	99.5	99.2	99.6	2.1	3.6	7.00	335	0.67		No
May	99.5	99.3	99.7	2.0	3.0	7.02	336	0.47		No
Jun	99.4	99.0	99.7	2.4	4.0	7.01	325	0.63		No
Jul	99.4	99.1	99.7	2.1	3.3	6.92	338	0.39	No river discharge occurred on July 22 due to UV maintenance.	No
Aug	99.3	99.3	99.2	2.4	2.7	6.66	335	0.41	No river discharge occurred on August 29 due to UV maintenance.	No
Sep	99.4	99.2	99.6	2.3	2.8	6.84	318	0.42	No river discharge occurred on September 27 and 28 due to maintenance work conducted on the Plant Emergency Back-up Generators.	No
Oct	99.4	99.2	99.2	2.2	3.0	6.79	328	0.40		No

	% Removal			EFF-001 Monthly Average					Narrative	Violations?
	TSS	BOD	NH ₃ -N	TSS, mg/L	BOD, mg/L	DO, mg/L	TDS, mg/L	Turbidity, NTU		
Limit:	85	85	-	10	10	6.5 ^[a]	460	2, 5, 10		
Nov	99.5	98.8	99.3	2.1	4.9	7.09	317	0.46	No river discharge occurred on November 25 due to UV maintenance.	No
Dec	99.6	98.7	99.7	2.3	5.1	7.15	330	0.44		No

[a] Final effluent limit is effective after September 5, 2017.

Certification

I certify under penalty of law that this document was prepared under direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

This concludes my report. Additional information is available upon request.

Sincerely,

A handwritten signature in blue ink, appearing to read "Logan Olds", with a stylized flourish at the end.

Logan Olds

General Manager