
To: Nevada Division of Environmental Protection
Nevada Environmental Response Trust

Cc: Nevada Environmental Response Trust Stakeholders

From: Ryan Sullivan, Vice President Service and O&M

Date: September 20, 2017

Subject: NERT – GWETS Operation Monthly Report – August 2017

At the request of the Nevada Environmental Response Trust (Trust), Envirogen Technologies, Inc. (ETI) is providing this summary of the groundwater extraction and treatment system (GWETS) operation and performance during August 2017.

Summary of GWETS Operation

Envirogen Technologies, Inc. (ETI) mechanically operated the GWETS and ion exchange (IX) system normally in August 2017. Flow from PC-119, PC-120, PC-121, and PC-133 was routed to the IX system, bypassing all flow meters associated with the FBR plant. The flow rate to the IX system averaged approximately 283 gallons per minute (gpm). The flow rate to the FBR plant averaged approximately 1,072 gpm during August 2017. At the end of the month, the GW-11 Pond volume was at 34.8 million gallons (MG), which would allow 19.2 days of available additional storage in the event of an emergency FBR plant shutdown with continued well field pumping. The water volume stored in the GW-11 Pond decreased approximately 0.1 MG from the end of July 2017. Figure 1 in this report depicts the actual GW-11 pond volumes and additional storage available.

The influent perchlorate concentration to the IX system averaged 1.9 mg/L for the month. The influent perchlorate concentration to the FBR plant averaged 124 mg/L for the month, with a maximum concentration of 250 mg/L. The increased concentration is due to the addition of AP-5 material blended into the FBR plant influent from July 17, 2017 to August 3, 2017 and beginning again on August 31, 2017. In comparison, the influent perchlorate concentration for the month of July 2017 averaged 118 mg/l, with a maximum concentration of 200 mg/l.

Enhanced Operational Metrics

Tables 1 and 2 provide a summary of the current GWETS operational metrics data for flow rates, perchlorate and chromium concentrations, and mass removal. These tables also include data associated with the AP-5 decant liquids. Figure 2 graphically presents historical perchlorate and chromium mass flux information. Attachment A provides a summary of the NPDES permit analytes with numerical discharge limits.

Operational Issues

All routine plant repairs conducted by ETI were performed in accordance with the NERT Perchlorate Treatment System Operations Manual. The following is a list of operational issues and major repairs and/or equipment replaced during this reporting period.

1. GW-11

ETI continued to withdraw water from the GW-11 pond while combining this flow with Lift Station flow in the TK-101 tanks for equalization purposes. The average flow rate for August from the GW-11 pond was approximately 14 gpm. During the reporting period ETI has primarily added water to GW-11 to counter the effects of evaporation. The Trust plans to re-evaluate the use of GW-11 as an equalization pond following completion of the Algae Treatment Pilot Test.

2. Biological Plant

Treatment of AP-5 water through the FBR Biological plant was suspended on Aug 3rd, 2017 due to high Ammonia testing results. Treatment of AP-5 water resumed on August 31st at 8:30am at a flow rate of 0.5 gpm.

There was one planned diversion into GW-11 for the month of August and three unplanned effluent diversions. Below is a description of the events that occurred:

Unplanned Diversions:

- Effluent Diversion to GW-11 on August 4th at 9:00 pm to August 6th at 8:00 am due to high effluent ammonia. Total amount diverted during this time was 2,251,428 gallons.
- Effluent Diversion to GW-11 on August 7th at 12:00 pm to 1:30 pm due to initial maintenance on the Effluent “pig launcher” piping. Total amount diverted during this time was 95,136 gallons.
- Effluent Diversion to GW-11 on August 15th at 8:30 am to 9:22 am due to completing maintenance on the Effluent “pig launcher” piping. Total amount diverted during this time was 48,273 gallons. All maintenance successfully completed. Please see section 4 for more information.

Planned Diversions

- FBR operation was temporarily suspended on August 23rd due to multiple planned maintenance events including a full electrical shutdown (due to Tronox scheduled maintenance), Lift Station 2 maintenance, and Lift Station 3 maintenance. The FBR plant was put in recycle mode at 7:47 am. Electrical shutdown of all onsite facilities occurred from 8:00 am to 9:05 am. Lift Station 2 was shutdown at 8:25 am and Lift Station 3 was shut down at 9:14 am. SWF flow was diverted through the IX unit during the maintenance period. All Lift Stations resumed full flow at 4:03 pm. Plant effluent was diverted to GW-11 at 7:49 pm due to out of compliance lab results. Adjustments were made to the FBR process and flow was returned to the wash at 9:50 am on August 24th following appropriate internal lab results. Approximately 849,740 gallons were diverted during this time. All maintenance successfully completed. Please see section 4 for more information.

3. Spills

There were three non-reportable spills in the month of August.

- On Monday August 7, 2017 at approximately 3:10 pm, Envirogen informed the Trust that the effluent line was leaking. The maintenance crew found the steel cover for a valve box, located approximately 0.5 miles downgradient of the GWETS facility, leaning against the bollard that is there to protect the valve box. It appears someone removed the steel cover and forcefully damaged the air release valve breaking it into two parts taking the top portion of the valve. The isolation valve on the pipe line that is installed below the air release valve was not damaged so ETI was able to isolate the air release valve and resume flow to the wash. . ETI replaced the valve, verified the cover was not damaged, and replaced the cover. It's impossible to accurately estimate how much water escaped since most of its stayed on the bare soil east of the roadway. However, rough estimate is at least 500 gallons of treated effluent. ETI is exploring options to increase security of the effluent pipe line covers. An on-line police report was filed with the City of Henderson (Report # T17002052)
- On Saturday August 5th, 2017 a small spill occurred as a result of FBR A's secondary feed pump automatically turning on while the primary pump was operating. This resulted in an overtopping of FBR A fluidization. Given the high winds at the time of the overtopping, approximately 65 gallons of treated effluent escaped outside of containment. The cause of the pumping rate change was an error in the PLC logic. The logic was corrected and the FBR returned to normal service. No water reached any waters of the state. ETI also verified the PLC logic for the feed pumps associated with the other 5 FBRs.
- On Monday August 28th, 2017 a small spill occurred as a result of a failed gasket on the ART-7 piping inside the Lift Station 3 area. This failure resulted in a released of approximately 8 gallons of influent water within the lift station. The gasket was replaced and the well was returned to normal service. Based on ETI's experience with this type of gasket and the manufacturers recommended replacement recommendations this failure occurred well in advance of its expected lifecycle. No water reached any waters of the state.

4. Maintenance

- Major maintenance performed by ETI in the month included:
 - I. A new spool and wafer check valve was installed at the discharge of pumps P-3018 and P-3016.
 - II. The caustic pump was replaced with a new *Watson Marlow* pump.
 - III. Replaced a damaged combo valve with a new *Val-matic* combo valve.
 - IV. A new "Y" pipe fitting was installed at the EQ area for the pig launcher.
 - V. A new recycle line was installed for the filtrate tank to improve solids removal from the filtrate tank.
 - VI. A new submersible sump pump was installed at the EQ area sump pit and the level control sensor was adjusted.
 - VII. The actuator for the slam valve to FBR 5 was replaced. The old unit was taken to *Motion Industries* for repairs.
 - VIII. A new spool piece and flow tube were installed at Lift Station 2. The swing check valves were also removed and cleaned at Lift Station 3. The static mixer in the plant was removed and cleaned at the polymer injection point.

- IX. A “stay in place” ladder was installed to better access the sludge box on the D-501 tank.
- X. The seals around the sand filter header were retightened and a new set was ordered.
- XI. A larger pump was installed at the IX booster pump skid.
- XII. A new control positioner was installed at the Level Control Valve for Separator 2.

- Preventative Maintenance completed or being performed by ETI in the month included:
 - I. The oil was changed on the turbine pumps at Lift Station 2 and the unit was greased. Following maintenance, temperature and vibration tests were completed.
 - II. All motors around the plant were greased.
 - III. All ORP meters were tested and calibrated.
 - IV. Accumulated pond solid debris was removed from the EQ area sump pits ensuring smooth operation of the submersible pumps.
 - V. The mechanical components of the DAF vessels were inspected.
 - VI. Subcontractor Air Center completed service on the air compressors.
 - VII. The bag filters were changed on the IX unit.
 - VIII. The seal water lines for the recycle pumps were cleaned.
 - IX. Additional media return pumps, bed height control pumps, and sludge pumps were assembled in the maintenance shop and are ready to use as spares.

GWETS Upgrades and Facility Projects

The following is a summary of the initiatives in-progress during the reporting period at the direction of the Trust:

1. **Spill containment enhancements** - The work on spill containment enhancements was complete in Aug.
2. **Ammonia Pretreatment** - The Trust is currently evaluating applicable treatment technologies to reduce ammonia concentrations in the AP material currently being washed in the AP Tanks. Pretreatment is necessary to maintain an acceptable feed rate of this material into the FBRs.

Equipment Availability Tracking

ETI operators continue to update the equipment tracking form on a weekly basis or whenever there is a change in the status of key equipment. During regular site visits, Tetra Tech field personnel verify the entries on the form, including both the operating status and confirmation of the inventory of required shelf spares. The equipment tracking form is included as Attachment B.

GWETS Staffing

ETI continues with 24-hour staffing of the GWETS at the direction of the Trust and continues to follow the security procedures in the Standard Operating Procedures (SOP)

Tables

Operational Metrics

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Monthly Stakeholder Metrics				
Location ID	Average Flow Rate (gpm)	Perchlorate (mg/L) ^{5 6}	Chromium (TR) (mg/L) ^{5 6}	Chromium(VI) (mg/L) ^{5 6}
SWF Total Extraction ²	776 ¹	9.2	0.00040	0.00062
AWF Total Extraction ²	456 ¹	81	0.18	0.16
IWF Total Extraction ²	64 ¹	675	7.9	7.4
AP Area Total Extraction ³	7.4 ¹	769	NA	0.033
GWTP Effluent ⁴	77	696	0.34	ND
GW-11 Influent ²	0.2	92	0.13	0.024
FBR Influent ^{4 7}	1,072	124	0.053	0.030
T-205 Effluent (AP-5 Wash Water) ^{7 8}	0.6	35,162	NA	NA

Notes:

TR = Total Recoverable; NA = Not Analyzed; ND = Not detectable above laboratory method detection limit (Chromium (VI) = 0.25 ug/L).

- 1: Sum of daily average flow for individual wells.
- 2: Perchlorate and chromium TR sampled monthly, values reported from TestAmerica.
- 3: Perchlorate, chromium TR and chromium (VI) sampled twice weekly, values reported from TestAmerica.
- 4: Perchlorate, chromium TR and chromium (VI) sampled weekly, values reported from TestAmerica.
- 5: All concentrations reported are monthly flow weighted averages.
- 6: ND analytical values are treated as zero values in the flow weighted average calculations.
- 7: AP-5 Wash Water perchlorate data is also included in the GW-11 Effluent/ FBR Influent totals.
- 8: Flow weighted average concentration based on internal process control samples analyzed by ETI.

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Monthly Stakeholder Metrics			
Location ID	Perchlorate (lbs/month) ¹	Chromium (TR) (lbs/month) ¹	Chromium (VI) (lbs/month) ¹
SWF Total Extraction	2,650	0.11	0.18
AWF Total Extraction	13,811	30	28
IWF Total Extraction	16,040	187	176
AP Area Total Extraction	2,109	NA	0.09
GWTP Effluent	19,874	9.8	0.00
GW-11 Influent	6.6	0.01	0.00
FBR Influent ²	49,528	21	12
T-205 Effluent (AP-5 Wash Water) ^{2 3}	7,710	NA	NA

Notes:

TR = Total Recoverable; NA = Not Analyzed.

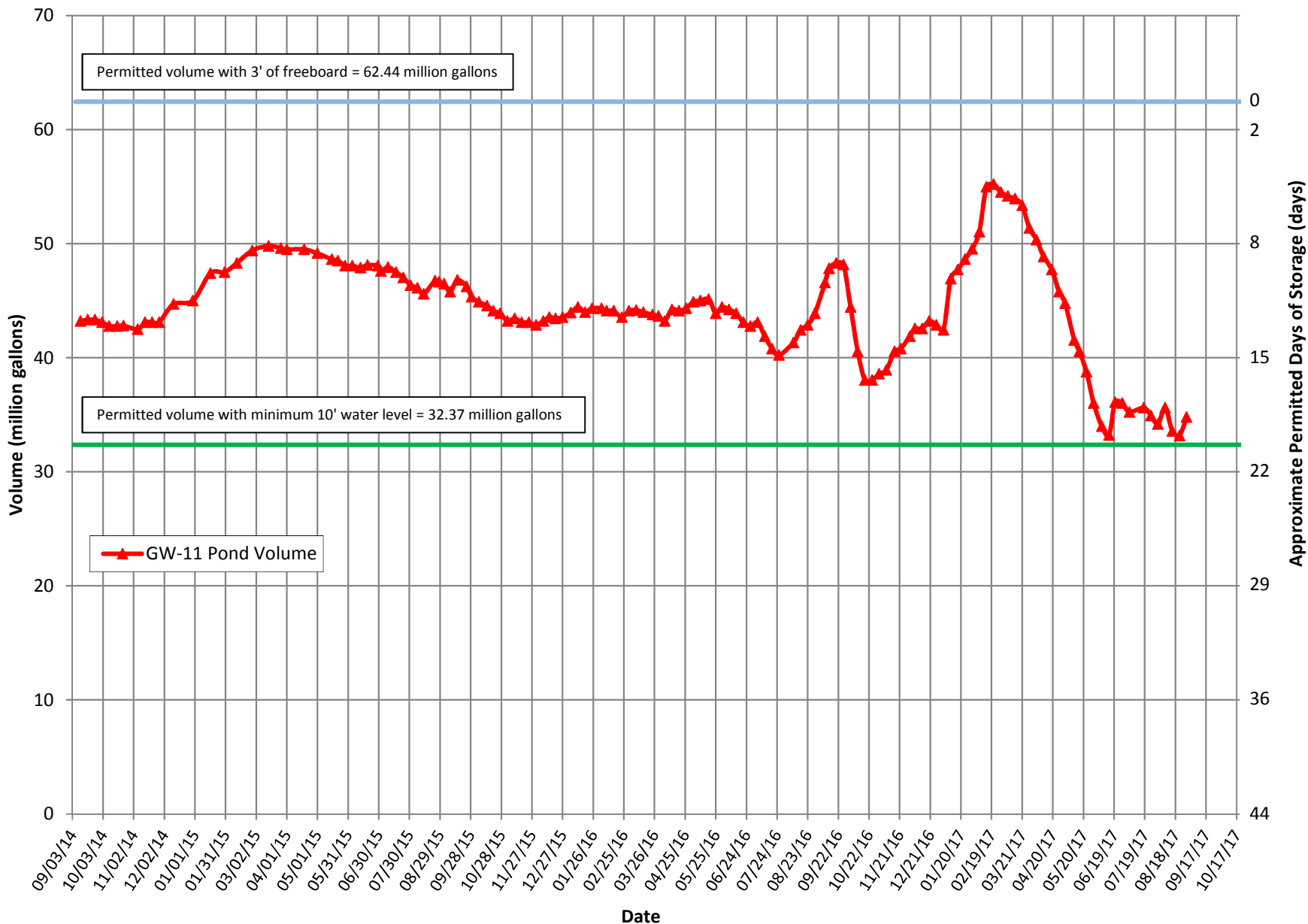
1: Total mass extracted is calculated from flow weighted average concentration and average flow (see Table 1).

2: AP-5 Wash Water perchlorate data is also included in the GW-11 Effluent/ FBR Influent totals.

3: Flow weighted average concentration based on internal process control samples analyzed by ETI.

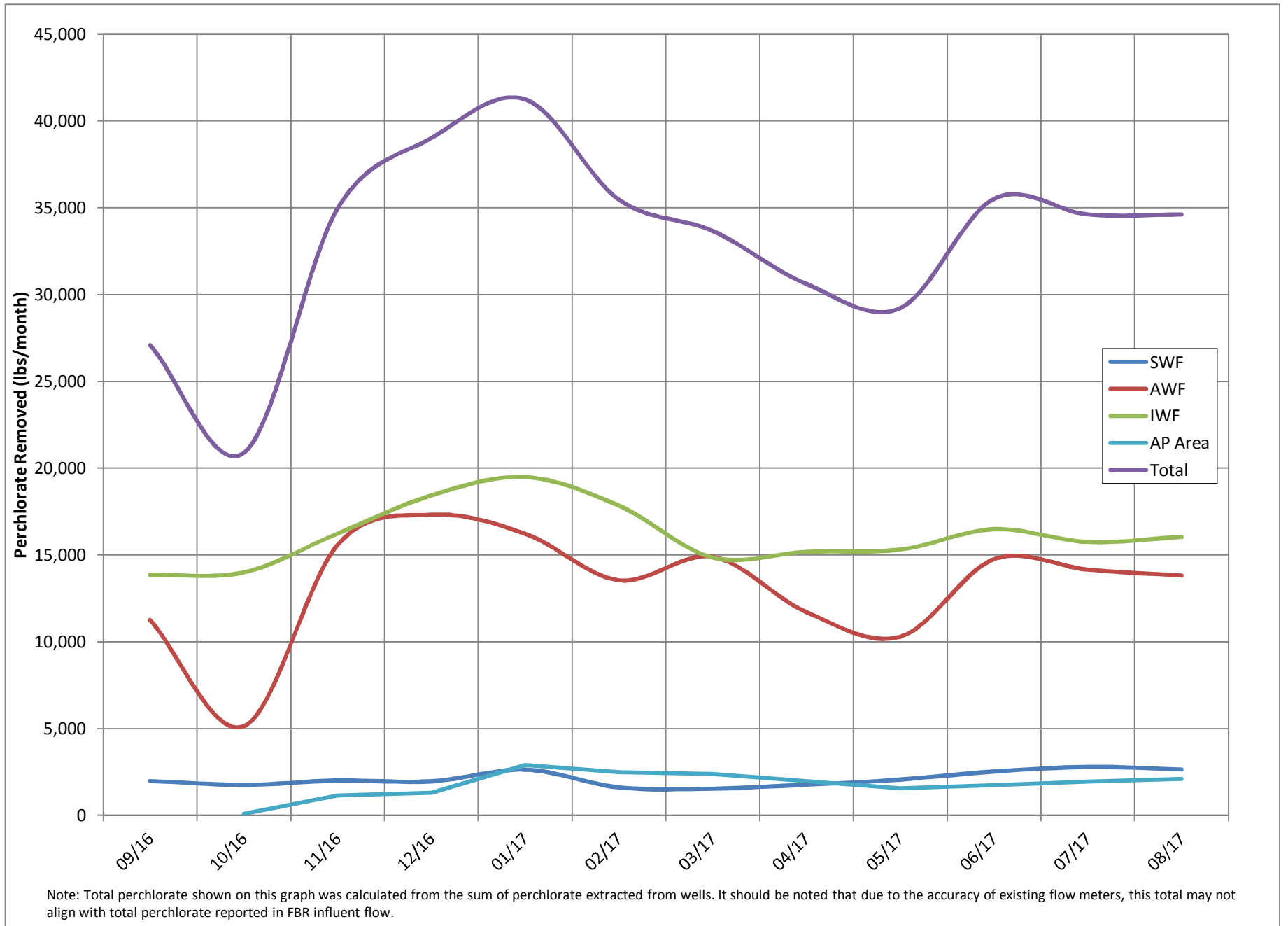
Figures

Operational Metrics



Note: Measurements switched from manual to transducer on 06/20/17. The pond volume fluctuations between 05/30 and 06/20 reflect the decreasing manual measurement accuracy at lower pond levels.

Figure 2 - Historical Perchlorate Mass Flux



Attachment A

NPDES Tracking Sheet (Prepared by ENVIRON)

Attachment B

Equipment Tracking Form

Sub-System	P&ID	Description	Status ¹	Checked	Criticality ²	Notes
Main Plant Equipment						
1 Seep Wells and Lift Station 1						
1.01		Seep Well Field, 9 wells	Running			
1.02		Lift Station 1 Lift Pump A	Running			
1.03		Lift Station 1 Lift Pump B	Standby			
1.04		Area in and around Lift Station 1	Running		3	The other larger pump was installed on the IX pump skid to be able to achieve a higher flow rate and pressure.
2 Athens Road Wells and Lift Station 3						
2.01		Athens Road Well Field, 9 wells	Running		2	ART-3A was lowered to try to achieve a higher flow rate. The same was done to PC-150.
2.02		Lift Station 3 Lift Pump A	Standby			
2.03		Lift Station 3 Lift Pump B	Running			
2.04		Area in and around Lift Station 3	Running		2	Both swing checks were removed and cleaned to create a better seal.
3 Lift Station 2 and Transmission Pipelines						
3.01		Influent Pipeline	In operation		1	A new spool piece was installed at the LS at the discharge of the piping to accommodate a new flowmeter that was installed at the same time.
3.02		Effluent Pipeline	Running			
3.03		Lift Station 2 Lift Pump A	Running			
3.04		Lift Station 2 Lift Pump B	Standby			
3.05		Area in and around Lift Station 2	Running			
4 Interceptor Wells and Cr Treatment Plant						
4.01		IWF Well Field, 30 wells	Running			
4.02		Ferrous Sulfate Feed System	Running			
4.03		Polymer Feed System	Running			
4.04		Clarifier	In operation			
4.05		Filter Press	Running			
4.06		GWTP Effluent Tank	In operation			
4.07		Interceptor Booster Pump A	Running			
4.08		Interceptor Booster Pump B	Standby			
4.09		Area In And Around GWTP	Running			
5 Equalization Area and GW-11 Pond						
5.01	PID10A	Pond GW-11	In operation			
5.02	PID10A	Pond Water Pump - P101A	Running			
5.03	PID10A	Pond Water Pump - P101B	Standby			

Status Codes

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Criticality Codes

1 = Critical - Cannot continue with operation until repairs made
 2 = Important - Can still operate safely and in compliance with permits, but risks are increased
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 4 = Low - Minor repairs that in no way alter the performance of the plant

Sub-System	P&ID	Description	Status ¹	Checked	Criticality ²	Notes
5.04	PID10A	Equalization Tanks	In operation			
5.05	PID10A	Area in and Around EQ	In operation		1	The new "Y" at the pig launcher was installed. This piece was reinforced with a fiberglass wrap. A new submersible pump was installed in the sump pit and the level sensor was adjusted to work in auto.
5.06	PID10A	Raw Water Feed Pump - P102A				
5.07	PID10A	Raw Water Feed Pump - P102B				
5.08	PID10A	F-101 Filters	Running			
5.09	PID10B	Carbon Absorber - LGAC 201A	Running			
5.10	PID10B	Carbon Absorber - LGAC 201B	Running			
5.11	PID10B	Carbon Absorber - LGAC 201C	Running			
6		First Stage FBRs A, 1 & 2				
6.01	PID14	FBR A				
6.02	PID14	Separator Tank - 1401				
6.03	PID14	Media Return Pump - P 1401				
6.04	PID14	P1401A				
6.05	PID01A	P1401B				
6.06	PID01A	FBR 1	Running			
6.07	PID02A	FBR 2	Running			
6.08	PID01A	First Stage Separator Tank - T2011	Running			
6.09	PID01A	Media Return Pump - P2011	Running			
6.10	PID01A	First Stage FBR Pump - P1011	Standby			
6.11	PID01A	First Stage FBR Pump - P1012	Running			
6.12	PID01A	First Stage FRB Pump - P101A	Running			
6.13	PID07A	FBR A pH Feed Pump - P71A	Off			
6.14	PID07A	FBR 1 pH Feed Pump - P711	Off			
6.15	PID07A	FBR 2 pH Feed Pump - P712	Off			
6.16	PID07A	FBR A Nutrient (Urea) Feed Pump - P72A	Off			
6.17	PID07A	FBR 1 Nutrient (Urea) Feed Pump - P721	Off			
6.18	PID07A	FBR 2 Nutrient (Urea) Feed Pump - P722	Off			
6.19	PID15	FBR A Nutrient (Phos Acid) Feed Pump - P1520A	Running			
6.20	PID15	FBR 1 Nutrient (Phos Acid) Feed Pump - P1521	Running			
6.21	PID15	FBR 2 Nutrient (Phos Acid) Feed Pump - P1522	Running			
6.22	PID07B	FBR A Electron Donor Assembly Pump - P73A	Running			
6.23	PID07B	FBR 1 Electron Donor Assembly Pump - P731	Running			
6.24	PID07B	FBR 2 Electron Donor Assembly Pump - P732	Running			
7		First Stage FBRs 3 & 4				

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Sub-System	P&ID	Description	Status ¹	Checked	Criticality ²	Notes
7.01	PID01B	FBR 3	Running			
7.02	PID01B	FBR 4	Running			
7.03	PID02B	First Stage Separator Tank - T2012	Running		2	Installed a new level control positioner that controls the level in the separator.
7.04	PID01B	Media Return Pump - P2012	Running			
7.05	PID01B	First Stage FBR Pump - P1013	Running			
7.06	PID01B	First Stage FRB Pump - P1014	Running			
7.07	PID01B	First Stage FBR Pump - P102A	Running			
7.08	PID07A	FBR 3 pH Feed Pump - P713	Running			
7.09	PID07A	FBR 4 pH Feed Pump - P714	Running			
7.10	PID07A	FBR 3 Nutrient (Urea) Feed Pump - P723				
7.11	PID07A	FBR 4 Nutrient (Urea) Feed Pump - P 724	Off			
7.12	PID15	FBR 3 Nutrient (Phos Acid) Feed Pump - P1523	Running			
7.13	PID15	FBR 4 Nutrient (Phos Acid) Feed Pump - P1524	Running			
7.14	PID07B	FBR 3 Electron Donor Assembly Pump - P733	Running			
7.15	PID07B	FBR 4 Electron Donor Assembly Pump - P734	Running			
8		Second Stage FBRs 5 & 6				
8.01	PID03A	FBR 5	Running		2	The FBR was taken offline to replace the actuator that controls the slam valves at the base of the tank.
8.02	PID03A	FBR 6	Running			
8.03	PID03C	Second Stage Separator Tank - T3011	Running			
8.04	PID03A	Media Return Pump - P3011	Running			
8.05	PID03A	Second Stage FBR Pump - P3015	Running			
8.06	PID03A	Second Stage FBR Pump - P3016	Standby		3	The butterfly check valve was replaced with a wafer check valve.
8.07	PID03A	Second Stage FBR Pump - P301A	Running			
8.08	PID07A	FBR 5 pH Feed Pump - P715	Off			
8.09	PID07A	FBR 6 pH Feed Pump - P716	Off			
8.1	PID07A	FBR 5 Nutrient (Urea) Feed Pump - P725	Off			
8.11	PID07A	FBR 6 Nutrient (Urea) Feed Pump - P726	Off			
8.12	PID07B	FBR 5 Electron Donor Assembly Pump - P735	Running			
8.13	PID07B	FBR 6 Electron Donor Assembly Pump - P736	Running			
9		Second Stage FBRs 7 & 8				
9.01	PID03B	FBR 7	Running			
9.02	PID03B	FBR 8	Running			
9.03	PID03D	Second Stage Separator Tank - T3012	Running			
9.04	PID03B	Media Return Pump - P3012	Running			

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Sub-System	P&ID	Description	Status ¹	Checked	Criticality ²	Notes
9.05	PID03B	Second Stage FBR Pump - P3017	Running			
9.06	PID03B	Second Stage FBR Pump - P3018	Running		3	The butterfly check valve was replaced with a wafer check valve.
9.07	PID03B	Second Stage FBR Pump - P302A	Running			
9.08	PID07A	FBR 7 pH Feed Pump - P717	Off			
9.09	PID07A	FBR 8 pH Feed Pump - P718	Off			
9.10	PID07A	FBR 7 Nutrient (Urea) Feed Pump - P727	Off			
9.11	PID07A	FBR 8 Nutrient (Urea) Feed Pump - P728	Off			
9.12	PID07B	FBR 7 Electron Donor Assembly Pump - P737	Running			
9.13	PID07B	FBR 8 Electron Donor Assembly Pump - P738	Running			
10		Aeration and DAF System				
10.01	PID04	Aeration Tank	In operation			
10.02	PID04	Aeration Blower - B401	Running			
10.03	PID04	Bio filter	In operation			
10.04	PID04	Nutrient Solution	Running			
10.05	PID04	Bio filter Sump				
10.06	PID04	Nutrient Pump - P401	Running			
10.07	PID04	Bio filter Sump Pump - P402A	Standby			
10.09	PID04	Bio filter Blower	Running			
10.10	PID05	DAF Pressure Tanks	In operation			
10.11	PID05	DAF Vessel - D501	Running			
10.12	PID05	DAF Pressure Pump - P501	Running			
10.13	PID05	DAF Float Pump - P502	Running			
10.14	PID05	DAF Vessel - D551	Running		4	Assembled the ladder to better access the sludge boxes.
10.15	PID05	DAF Pressure Pump - P551	Running			
10.16	PID05	DAF Float Pump - P552	Running			
10.17	PID05	Screw Conveyer Drive	Standby			
10.18	PID05	Skimmer Drive	Running			
11		Pumping System (Old Effluent)				
11.01	PID06	Effluent Tank 601	In operation			
11.02	PID06	Effluent Pump - P601	Running			
11.03	PID06	Effluent Pump - P602	Standby			
12		Sand Filter System				
12.01	PID17	Sand Filter				
12.02	PID17	Filter Reject Tank	In operation		3	Solids were removed from the reject tank.
12.03	PID17	Filter Reject Pump - P1701A	Standby			

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Sub-System	P&ID	Description	Status ¹	Checked	Criticality ²	Notes
12.04	PID17	Filter Reject Pump - P1701B	Running			
13		Effluent Tank and Pumping				
13.01	PID10C	UV Effluent Tank	Running			
13.02	PID10C	Effluent Booster Pump - P1302A	Running			
13.03	PID10C	Effluent Booster Pump - P1302B	Standby			
13.04	PID10C	Area Around Effluent and North D-1	Running			
14		Solids Collection and Pressing System				
14.01	PID16	Sludge Storage Tank	In operation			
14.02	PID16	Solids Storage Effluent Pump - P1601	Running			
14.03	PID16	Solids Cond. Tank	In operation			
14.04	PID09	Sludge Mixer	Running			
14.05	PID09	Filter Press Pump - P901	Running			
14.06	PID09	Filter Press Pump - P902				
14.07	PID09	West Press	Standby			
14.08	PID09	East Press	Running			
14.09	PID09	Filtrate Tank	In operation		4	Installed a recycle line on the filtrate pump to agitate the filtrate in the building.
14.10	PID09	Filtrate Tank Effluent (recycle) Pump - P903	Running			
		Chemical Systems				
15		Electron Donor System				
15.01	PID07B	Electron Donor Tank	In operation			
15.02	PID07B	Booster Pump P739A	Running			
15.03	PID07B	Booster Pump P739B	Standby			
17	PID07C	Micro Nutrient System	In operation			
18	PID07C	Hydrogen Peroxide System	In operation			
19	PID07C	De-Foam System	In operation			
20	PID15	Nutrient (Phosphoric Acid) System (Tank only - pumps included in FBRs)	In operation			
21	PID07A	Nutrient (Urea) System (Tank only - pumps included in FBRs)	In operation			
22	PID07A	pH System (Tank and effluent pH feed pump only - other pumps included in FBRs)	In operation			
23	PID07C	Ferric Chloride System	In operation			
24	PID07B	Polymer Systems - DAF	In operation			
25	PID09	Polymer System - Solids Dewatering (2 tanks, 2 centrifugal pumps, mixer, volumetric feeder)	In operation			

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Sub-System	P&ID	Description	Status ¹	Checked	Criticality ²	Notes
Utility Systems						
26		Compressed Air System				
26.01	PID08	West Compressor	Running			
26.02	PID08	East Compressor	Running			
26.03	PID08	O2 Compressor	Running			
26.04	PID08	Compressed Air Receiver Tank	In operation			
26.05	PID08	Air Dryer	Running			
26.06	PID08	Oil Removal Filter	In operation			
26.07	PID08	Particulate Filter	In operation			
27	PID16	Oxygen System	In operation			
28		GWETS Plant Controls/ Siemens Controls	In operation			
29		Well Control System/ Allen Bradley Controls	In operation			
30		MCC FBR Pad	In operation			
31		MCC in D-1	In operation			
32		MCC in EQ area	In operation			
Miscellaneous Systems						
33		Operations Office/Network	In operation			
34		Laboratory Analyzers	In operation		4	Installed a new table for the IC.
35		Security Systems	In operation			
Shelf Spares						
		Media Return Pump Rebuild Kit	In stock			New parts have been ordered.
		pH Feed Pump	In stock			
		Nutrient Feed Pump	In stock			
		Electron Donor Feed Pump	In stock			
		Phosphoric Acid Feed Pump	In stock			
		Interceptor Well Pumps (4 each)	In stock			
		Seep Well Pump (1 each, same as Athens so total of 2)	In stock			
		Athens Road Well Pump (1 each, same as Seep so total of 2)	In stock			Spares are on the shelf.

Status Codes

Running - Unit is in operation
 Standby - Spare or duplicate, not currently in operation
 Maintenance - Out of service for maintenance
 Off - Not currently needed for use, but can be placed in service

Criticality Codes

1 = Critical - Cannot continue with operation until repairs made
 2 = Important - Can still operate safely and in compliance with permits, but risks are increased
 3 = Moderate - Work needs to be performed, but plant can still operate with redundancy that is in place
 4 = Low - Minor repairs that in no way alter the performance of the plant