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:	February 20, 2021
Subject:	NERT – GWETS Operation Monthly Report – January 2021

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 January 2021.

Summary of GWETS Operation

Envirogen Technologies, Inc. (ETI) mechanically operated the GWETS and ion exchange (IX) system normally in January 2021. 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 182 gallons per minute (gpm). The flow rate to the FBR plant averaged approximately 1,047 gpm during January 2021. At the end of the month, the GW-11 Pond volume was at 34.4 million gallons (MG), which would allow 19.5 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 did not change from the end of December 2020. 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 0.33 mg/L for the month. The influent perchlorate concentration to the FBR plant averaged 54 mg/L for the month, with a maximum concentration of 68 mg/L. In comparison, the influent perchlorate concentration to the FBRs for the month of December 2020 averaged 59 mg/L, with a maximum concentration of 76 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. 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

There were no operational issues with GW-11 in the month of January.

2. Biological Plant

There were influent / effluent diversions during the reporting period generally associated with GW-11 pond level maintenance as well as extraction well short-term shutdown events. Below is a description of the events that occurred:

Diversion Events / Well Shutdowns

- Well Shutdown of ART-2 occurred on January 2, 2021 from 9:03am to January 4, 2021 10:15am due to maintenance efforts on the motor/electrical system. The motor was replaced and the well was brought back online.
- Effluent diversion to GW-11 occurred on January 2, 2021 from 11:29pm to January 3, 2021 5:00am due to low GW-11 pond level. Approximately 343,000 gallons of water were diverted to GW-11.
- Effluent diversion to GW-11 occurred on January 10, 2021 from 12:16am to January 10, 2021 5:24am due to low GW-11 pond level. Approximately 336,000 gallons of water were diverted to GW-11.
- Well Field Shutdown of the Seep Well Field (SWF) occurred on January 12, 2021 from 9:54am to 10:50am due to maintenance activities on the discharge piping for the North Turbine pump at Lift Station 1. The piping was replaced and the well field was brought back online.
- Well Field Shutdown of Interceptor Well Field (IWF) occurred on January 13, 2021 from 11:27am to 2:45pm due to maintenance activities on the piping at the GWTP effluent flow meter and influent valve. Maintenance was conducted and the well field was brought back online.
- Effluent diversion to GW-11 occurred on January 15, 2021 from 11:32pm to January 16, 2021 5:20am due to low GW-11 pond level. Approximately 309,000 gallons of water were diverted to GW-11.
- Influent diversion to GW-11 occurred on January 28, 2021 from 8:59am to January 28, 2021 10:03am due to calibration efforts on the final Effluent flow meter. Approximately 68,000 gallons of water were diverted to GW-11.

3. Spills

There were no reportable spills in the month of January.

4. Maintenance

- Major maintenance performed by ETI in the reporting month included:

  I. Moved the casing so the transducer could be relocated in the well on PC-133.

II. Adjusted the piping to stop the leak on the discharge of the north turbine at LS1.
III. Replaced the 1.5 hp motor and pigtail on extraction well ART-2A.
IV. Replaced the transducer on extraction wells ART-2A and ART-3.
V. Replaced the GWTP press pump, air filter, and regulator.
VI. Replaced the suction valve body of the 3" IPEX ball valve at the GWTP influent pipe.
VII. Replaced the GWTP Effluent flowmeter flanges.
VIII. Flushed the piping and rebuilt the pump on media return #1 due to failed trunnions.
IX. Replaced the slam valve actuator on FBR 3 along with the new air supply piping.
X. Replaced the feed valve positioner on FBR 3.
XI. Replaced the Effluent flowmeter on tank T-621 and installed a new permanent power supply.
XII. Installed a new sight glass to visually check the level on tank T-621.

- Preventative Maintenance completed or being performed by ETI in the reporting month included:

XIII. Adjusted the weirs on the airlifts at the Sand Filter.
XIV. Cleaned the GWTP Effluent flowmeter.
XV. Cleared the airlifts on the sand filter.
XVI. Replaced the packing on the North turbine pump at Lift Station 1.
XVII. Removed solids from the GWTP sludge tank.
XVIII. Marked the pipeline for contractors performing work in the area.
XIX. Tested temporary hoses that will be used on the spare air receiving tank.
XX. Tested and measured the volume of the dry polymer system.
XXI. Flushed pH and ORP probes.
XXII. Tightened the electrical connections on the Lift Station 1 turbine pumps in the MCC.

GWETS Upgrades and Facility Projects

Unit 4 Chromium Water Treatment Plant – Envirogen received comments regarding the deliverable documents that were submitted to the Trust in July 2019 for this project. The revised documents dealing with the Controls Specification, Process Drawings, and Mechanical Details were re-submitted to the Trust in September 2020. Envirogen is awaiting further direction from the Trust regarding this matter. The Trust has advised Envirogen that this project is on hold pending finalization and approval of the forthcoming Unit 4 Source Area In-Situ Bioremediation Work Plan.

GWETS Extension–The signed Work Authorization for engineering and fabrication of the GWETS Extension was returned to the Trust on January 28, 2020. Orders were placed for the major equipment for the GWETS Extension in 2020, and several deliveries have been made with the balance of equipment delayed due to COVID-19 and expected to be received by February 2021. Envirogen is currently awaiting Trust comment on the O&M Work Authorization proposal for the GWETS Extension.

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 I Groundwater Extraction and Treatment System I Monthly Stakeholder Metrics				
Location ID	**Average Flow Rate (gpm)**	**Perchlorate (mg/L)[4 5]**	**Chromium (TR) (mg/L)[4 5]**	**Chromium(VI) (mg/L)[4 5]**
SWF Total Extraction[1]	746 [3]	6.6	0.0030	0.0014
AWF Total Extraction[1]	465 [3]	69	0.13	0.13
IWF Total Extraction[1]	61 [3]	473	6.5	6.5
AP Area Total Extraction[1]	7.0 [3]	684	0.16	0.15
GWTP Effluent[2]	62	478	0.51	ND
GW-11 Influent[1]	0.3	53	0.06	0.033
FBR Influent[2]	1,047	54	0.039	0.035

Notes:

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

1: Perchlorate and chromium TR sampled monthly, values reported from Eurofins TestAmerica.

2: Perchlorate, chromium TR, and chromium (VI) sampled weekly, values reported from Eurofins TestAmerica.

3: Sum of daily average flow for individual wells.

4: All concentrations reported are monthly flow weighted averages.

5: ND analytical values are treated as zero values in the flow weighted average calculations.

Nevada Environmental Response Trust I Groundwater Extraction and Treatment System I Monthly Stakeholder Metrics			
Location ID	**Perchlorate (lbs/month)[1]**	**Chromium (TR) (lbs/month)[1]**	**Chromium (VI) (lbs/month)[1]**
SWF Total Extraction	1,848	0.82	0.39
AWF Total Extraction	12,035	23	23
IWF Total Extraction	10,773	148	149
AP Area Total Extraction	1,776	0.42	0.40
GWTP Effluent	11,041	12	ND
GW-11 Influent	6	0.01	0.004
FBR Influent[1]	21,182	15	13.7

Notes:

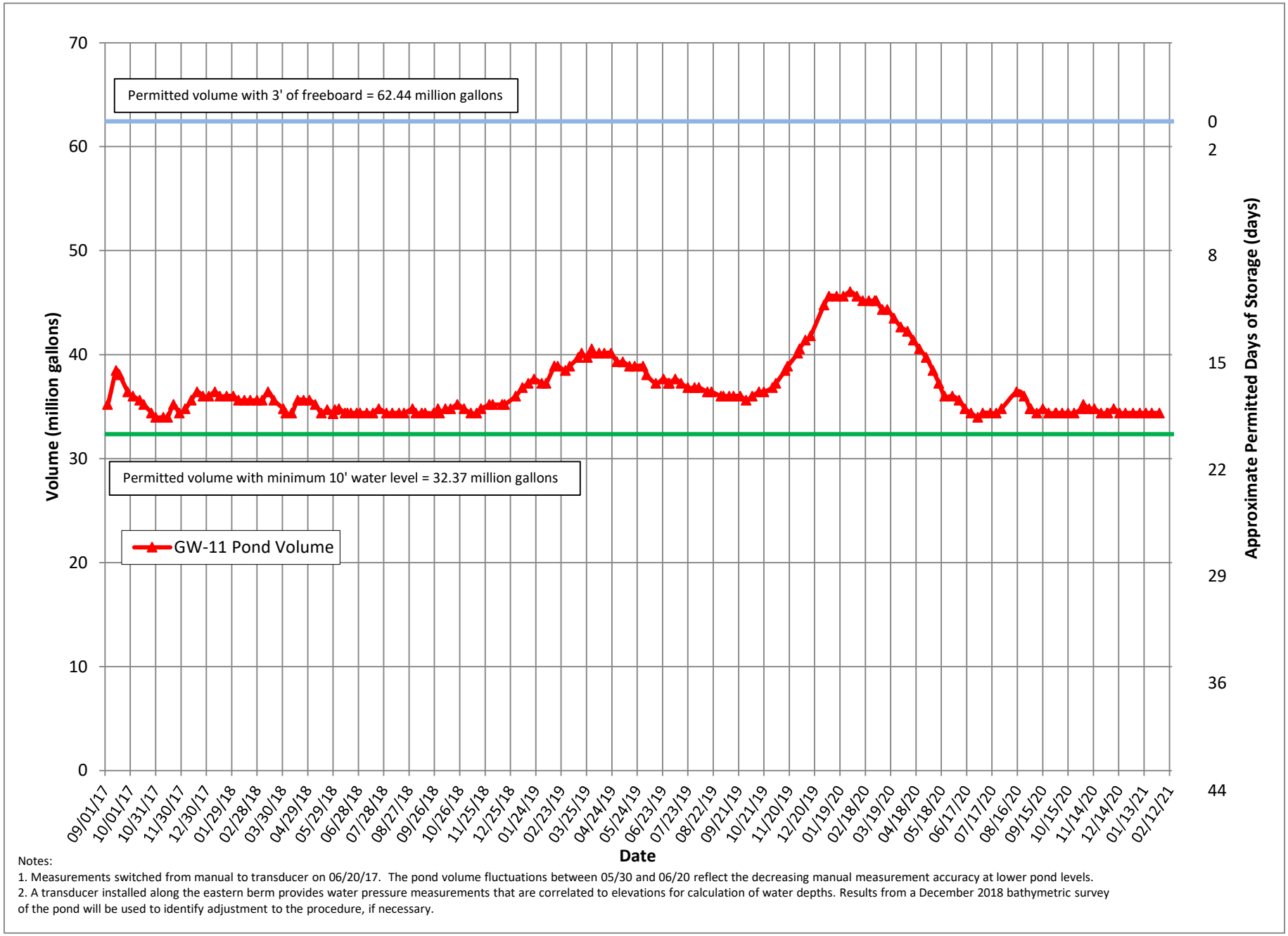
TR = Total Recoverable; NA = Not Analyzed.

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

Figures

Operational Metrics

Figure 1 - GW-11 Pond Volume Through 01/31/2021

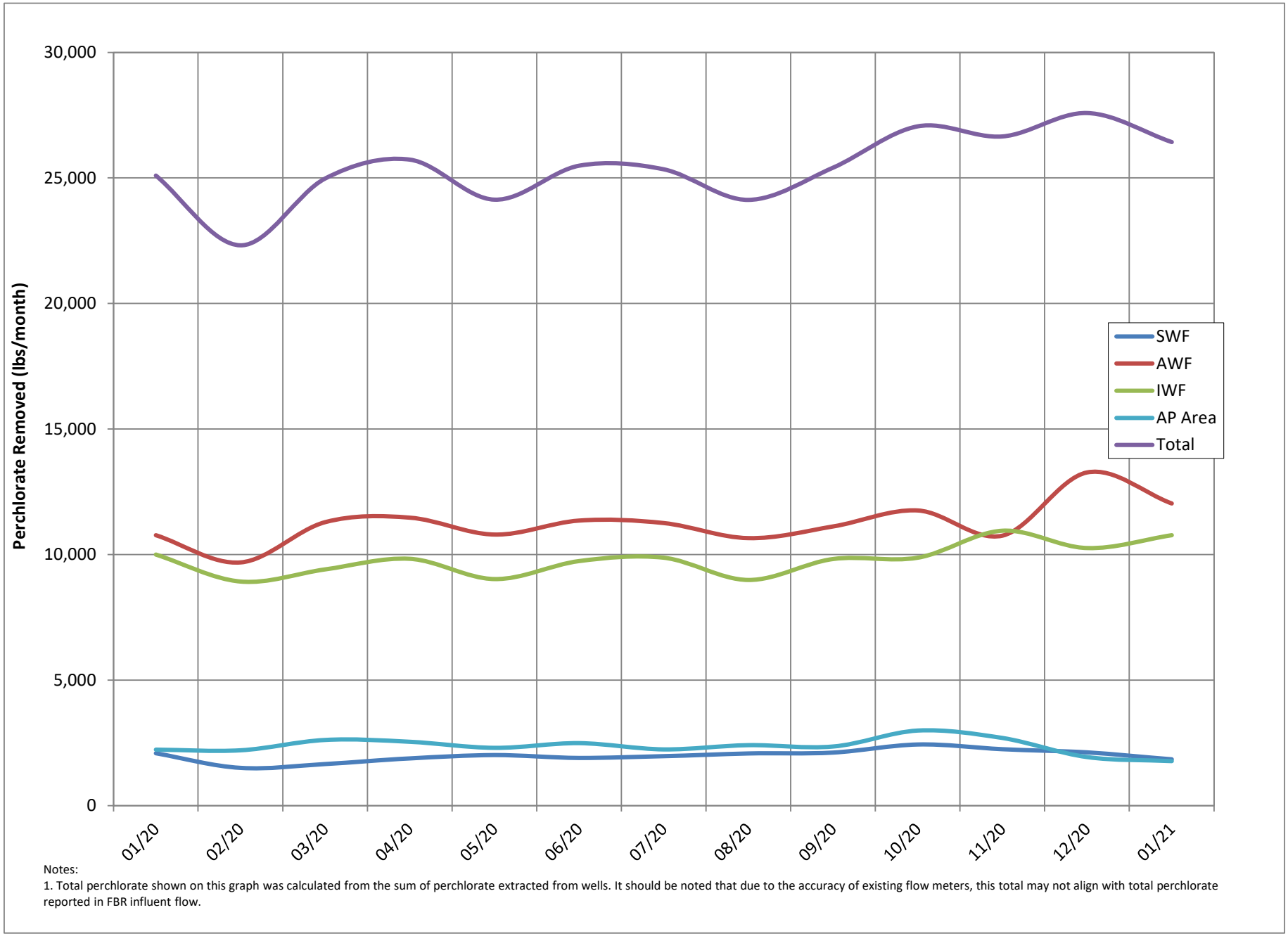


Notes:

1. 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.
2. A transducer installed along the eastern berm provides water pressure measurements that are correlated to elevations for calculation of water depths. Results from a December 2018 bathymetric survey of the pond will be used to identify adjustment to the procedure, if necessary.

Figure Updated: 2/4/2021

Figure 2 - Historical Perchlorate Mass Removed From Environment



Notes:
1. Total perchlorate shown on this graph was calculated from the sum of perchlorate extracted from wells. It should be noted that due to the accuracy of existing flow meters, this total may not align with total perchlorate reported in FBR influent flow.

Figure Updated: 2/19/2021

Attachment A

NPDES Tracking Sheet (Prepared by Ramboll)

	Treated Effluent at Outfall 001																		
	Continuous		Daily Samples, composited weekly		Weekly Grab Samples											Weekly, collected separately			Quarterly
	Flow Rate		Perchlorate		pH		Hexavalent Chromium	Total Chromium	Manganese	Total Iron	Total Inorganic Nitrogen (TIN)	Total Suspended Solids (TSS)		Total Ammonia as N	Total Phosphorus as P	BOD_5 (inhibited)			Total Dissolved Solids (TDS)
	30-Day Avg. (MGD)	Daily Maximum (MGD)	30-Day Avg. (µg/L)	30-Day Avg. (lbs/day)	Daily Min. (S.U.)	Daily Max. (S.U.)	Daily Max. (µg/L)	Daily Max. (µg/L)	Daily Max. (µg/L)	Daily Max. (µg/L)	Daily Max. (mg/L)	Daily Average (mg/L)	30-Day Avg. (lbs/day)	30-Day Avg. (lbs/day)	30-Day Avg. (lbs/day)	30-Day Avg. (mg/L)	Daily Max. (mg/L)	30-Day Avg. (lbs/day)	Daily Max. (mg/L)
	2.52	**2.88**	**18**	**0.38**	**6.5**	**9.0**	**10**	**100**	**5,000**	**10,000**	**20**	**135**	**2,839**	**20***	**10***	**25**	**40**	**525**	**8,000**
January 2021	1.80	1.90	0.57	0.009	6.6	6.8	ND (<0.25)	12	100	1,300	1.0	19	290	4	7	ND (<5.0)	ND (<5.0)	38	
Feburary 2021 (month to date)	1.83	1.84	NA	NA	6.7	6.7	ND (<0.25)	5.3	49	880	1.1	13	200	15	6.6	NA	NA	NA	

Daily Grab Sample Dates	Composite Sample Date	Perchlorate	µg/L	lbs/day	Sample Date	pH S.U.	Hexavalent Chromium µg/L	Total Chromium µg/L	Manganese µg/L	Total Iron µg/L	TIN mg/L	TSS mg/L	TSS lbs/day	Ammonia	Ammonia mg/L	Ammonia lbs/day	Phosphorus	Phosphorus mg/L	Phosphorus lbs/day	Sample Date	BOD	BOD mg/L	BOD lbs/day	TDS Sample Date	TDS mg/L
1/3 - 1/9	1/9/2021	ND (<0.31)	0.16	0.0023	1/4/2021	6.6	ND (<0.25)	2.2	100	650	0.16	24	367	--	0.064	1.0	--	0.38	5.8	1/6/2021	ND (<5.0)	2.5	38		
1/10 - 1/16	1/16/2021	ND (<0.31)	0.16	0.0023	1/12/2021	6.7	ND (<0.25)	2.9	82	720	0.32	21	319	--	0.14	2.1	--	0.36	5.5	1/13/2021	ND (<5.0)	2.5	38		
1/17 - 1/23	1/23/2021	1.8	1.8	0.027	1/18/2021	6.8	ND (<0.25)	3.6	83	1,300	1.0	18	278	--	0.87	13	--	0.68	10	1/20/2021	ND (<5.0)	2.5	38		
1/24 - 1/30	1/30/2021	ND (<0.31)	0.16	0.0023	1/25/2021	6.6	ND (<0.25)	12	64	940	0.21	14	215	--	0.095	1.5	--	0.39	6.0	1/27/2021	ND (<5.0)	2.5	39		
1/31 - 2/6	2/6/2021	NA	NA	NA	2/1/2021	6.7	ND (<0.25)	5.3	49	880	1.1	13	198	--	0.99	15	--	0.43	6.6	2/3/2021		NA	NA		
					2/9/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2/10/2021		NA	NA		

Note: All analytical responsibilities are performed by TestAmerica Laboratories, Inc. (TestAmerica) in Irvine, California, unless otherwise indicated.

[+] An additional chromium sample was collected this week as part of the Quarterly sampling event.

NA = Not Available To Date

ND = Not Detected above laboratory reporting limit; concentration in adjacent cell to right is one-half the reporting limit (per Permit condition)

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

-- = Analyte detected; see column adjacent to right

* Total phosphorus discharge limitation of 10 lbs/day applies between March 1 and October 31; Ammonia discharge limitation of 20 lbs/day applies between April 1 and September 30; no limits apply the rest of the year.

Last Updated: February 12, 2021

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		2	Move the casing so the transducer could be relocated in the well on PC-133.
1.02		*Lift Station 1 Lift Pump A*	Running		2	The piping was adjusted to stop the leak on the discharge of the north turbine.
1.03		*Lift Station 1 Lift Pump B*	Standby			
1.04		*Area in and around Lift Station 1*	Running			
2		**Athens Road Wells and Lift Station** 3				
2.01		*Athens Road Well Field, 9 wells*	Running		2	Replaced the 1.5 hp motor and pigtail on ART-2a. The transducer was also replaced. The transducer was also replaced on ART-3.
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			
3		**Lift Station *2* and Transmission Pipelines**				
3.01		*Influent Pipeline*	In operation			
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		3	Installed shorter tubing and reduced the amount of connectors in the area.
4.04		*Clarifier*	In operation			
4.05		*Filter Press*	Running		3	Replaced the press pump and the air filter and regulator.
4.06		*GWTP Effluent Tank*	In operation			
4.07		*Interceptor Booster Pump A*	Running			
4.08		*Interceptor Booster Pump B*	Standby		2	Replaced the suction valve body of the 3" IPEX ball valve
4.09		*Area In And Around GWTP*	Running		3	The EFF flowmeter flanges were replaced during the meter PM.
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			

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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			
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		3	Flushed the piping and rebuilt the pump due to failed trunnions.
6.10	PID01A	*First Stage FBR Pump - P1011*	Standby			
6.11	PID01A	*First Stage FBR Pump - P1012*				
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*				
7.01	PID01B	*FBR 3*	Running		2	Replaced the slam valve actuator along with the new air piping
7.02	PID01B	*FBR 4*	Running			

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Sub-System	P&ID	Description	Status[1]	Checked	Criticality[2]	Notes
7.03	PID02B	*First Stage Separator Tank - T2012*	Running			
7.04	PID01B	*Media Return Pump - P2012*	Running			
7.05	PID01B	*First Stage FBR Pump - P1013*	Running		3	Replaced the feed valve positioner
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			
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			
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		3	Replaced the belt on the pump.
9.05	PID03B	*Second Stage FBR Pump - P3017*	Running			
9.06	PID03B	*Second Stage FBR Pump - P3018*	Running			
9.07	PID03B	*Second Stage FBR Pump - P302A*	Running			
9.08	PID07A	*FBR 7 pH Feed Pump - P717*	Off			

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Sub-System	P&ID	Description	Status[1]	Checked	Criticality[2]	Notes
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			
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*			4	Adjusted the weirs on the airlifts.
12.02	PID17	*Filter Reject Tank*	In operation		2	Took the system offline to remove the sands and put them back into the sand filter.
12.03	PID17	*Filter Reject Pump - P1701A*	Standby			
12.04	PID17	*Filter Reject Pump - P1701B*	Running			
13		**Effluent Tank and Pumping**				

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Sub-System	P&ID	Description	Status[1]	Checked	Criticality[2]	Notes
13.01	PID10C	*UV Effluent Tank*	Running		2	Replaced the EFF flowmeter and installed new permanent power supply. Installed a new sight glass to visually check the level
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			
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		3	Installed a new suction pipe from the tote to the feed header.
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*	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			
		Utility Systems				

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Sub-System	P&ID	Description	Status[1]	Checked	Criticality[2]	Notes
26		**Compressed Air System**				
26.01	PID08	*West Compressor*	Running		1	A new fan motor was installed on the unit.
26.02	PID08	*East Compressor*	Running			
26.03	PID08	*O2 Compressor*	Running		1	*The motor on the compressor failed. Air Center is performing the work to replace the motor.*
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			
35		*Security Systems*	In operation			
		Shelf Spares				
		Media Return Pump Rebuild Kit	In stock			
		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			

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