

| To: | Nevada Division of Environmental Protection Nevada Environmental Response Trust |
|----------|--|
| Cc: | Nevada Environmental Response Trust Stakeholders |
| From: | Jeff Lance |
| Date: | February 20, 2016 |
| Subject: | NERT – GWETS Operation Monthly Report – January 2016 |

At the request of the Nevada Environmental Response Trust (Trust), Envirogen Technologies Inc. (ETI) provides this summary of the groundwater extraction and treatment system (GWETS) operation and performance during January 2016.

Summary of GWETS Operation

Envirogen Technologies, Inc. (ETI) mechanically operated the GWETS normally in January 2016. The flow rate to the plant averaged approximately 926 gallons per minute (gpm) during January 2016. At the end of the month, the GW-11 Pond volume was 44.0 million gallons (MG), which would allow 12.8 days of available additional storage in event of an emergency plant shutdown with continued well field pumping. The water volume stored in the GW-11 Pond increased approximately 0.6 MG from the end of December. Figure 1 in this report depicts the actual and projected GW-11 pond volumes and additional storage available.

The influent perchlorate concentration to the FBR plant averaged 81 mg/L for the month, with a maximum concentration of 90 mg/L.

Analytical data indicate that the permitted effluent discharges at GWETS Outfall 001 were within the NPDES permitted numerical discharge limits (Please see Attachment A, prepared by Ramboll Environ).

Enhanced Operational Metrics

Tetra Tech testing and transfer of operations with the newly installed software and instruments to ETI was completed in December. Final project items are presented in more detail under the GWETS Upgrades and Facility Projects section below.

Tables 1 and 2 provide a summary of the current GWETS operational metrics that provide data for flow rates, perchlorate and chromium concentrations, and mass removal. Figure 2 presents historical perchlorate and chromium mass flux.



Operational Issues

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

1. GW-11 Pond

- GW-11 Pond Leak Detection System: ETI is currently evaluating options to repair the NE riser pipe to enable the pump to be set at its proper depth. ETI anticipates implementation of the repair by 25 March 2016.
- Tetra Tech has performed an initial site inspection for the installation of a stilling well in GW-11.
 The stilling well will house an electronic transducer that will transmit water level data to the control room in the D1 Bldg. Installation is scheduled for March 2016.

2. Biological Plant

- The Plant operated with no interruptions or unplanned diversions for the month of January.
- Planned Shut Down: The biological plant diverted flow for a planned maintenance operation on a combo valve in the effluent pipeline on January 05, 2016, a total of 13,807 gals was diverted to GW-11.

3. Spill

No reportable spills occurred in January 2016.

4. Maintenance

- Major maintenance that was performed or completed in the month included:
 - i. ETI replaced the pump & motor on well PC99R3.
 - ii. ETI installed new motor starter and contactors on well PC99R3.
 - iii. ETI installed new seals in P1302A effluent pump and placed the pump back on-line.
 - iv. South DAF taken off-line and drained to perform inspection and repairs.
 - v. Sand filter header repaired and put back on-line.
- Preventative Maintenance completed or being performed in the month included:
 - i. Sump pump adjacent to the DAF's replaced.
 - ii. Media Return Pump P3011 was rebuilt and is back on-line.
 - iii. Pumps P-602 and 601 rotated lead/lag.
 - iv. Performed semi- annual inspection of Vertical Turbine pumps VT 200N.
 - v. P-758B Ferric Chloride pump inspected and rotated.



- Outstanding or ongoing maintenance and repairs from the previous month are outlined below:
 - i. FBR 8 is offline and currently in the rehabilitation process and all forward flow is being sent to FBRs 5 and 6, on -going from last month.

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. AP-5 Solids Removal
 - Tetra Tech is moving forward with the design to remove the AP-5 pond solids, wash the solids to remove perchlorate salts, and relocate the perchlorate containing water to a large storage tank for eventual treatment in the GWETS. Evaluation and coordination between Tetra Tech, ETI, the Trust and NDEP on this project is ongoing. Tetra Tech is continuing to evaluate the sample results of the pond sediments. In February an investigation will be performed on the berms to determine the safety of walking on the berm due to potential presence of elevated concentrations of perchlorate.
 - ETI has resumed the pumping of the interstitial space between the liners to check the liner integrity.
- 2. Enhanced Operational Metrics
 - ETI has taken control of system and continues to make adjustments to the newly installed controls and software. The punch-list was finalized and a number of items need resolution that were discovered over the course of the upgrade that were not apparent during the design phase. As such, a list of recommendations for tasks that are outside of Tetra Techs original scope has been forwarded to the Trust for review and approval. The specified spare parts list and Operation and Maintenance Manuals have been delivered to ETI, while as-built documents for close-out are still pending.

Equipment Availability Tracking

ETI operators continue to update the equipment tracking form on a weekly basis at a minimum, 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).

GWETS Security

During weekly calls, ETI notifies Tetra Tech of any issues with GWETS security. There were no GWETS security issues reported during the month of January.



Tables Operational Metrics

| Nevada Environme | Nevada Environmental Response Trust Groundwater Extraction and Treatment System Monthly Stakeholder Metrics | | | | | | | | | |
|-----------------------------------|---|---------------------------------|---------------------------------|------------------------------------|--|--|--|--|--|--|
| Location ID | Average Flow Rate (gpm) | Perchlorate (mg/L) ² | Chromium TR (mg/L) ² | Chromium(VI) (mg/L) ^{2,5} | | | | | | |
| SWF Total Extraction ³ | 529 ¹ | 13 | 0.001 | Future Metric | | | | | | |
| AWF Total Extraction ³ | 254¹ | 124 | 0.33 | Future Metric | | | | | | |
| IWF Total Extraction ³ | 59 ¹ | 780 | 9.02 | Future Metric | | | | | | |
| GWTP Effluent⁴ | 56 | 786 | 0.77 | ND | | | | | | |
| GW-11 Influent | 859 | 110 | 0.10 | 0.062 | | | | | | |
| GW-11 Effluent/ FBR Influent⁴ | 926 | 85 | 0.03 | ND | | | | | | |

Notes:

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

- 1: Sum of daily average flow for individual wells.
- 2: All concentrations reported are monthly flow weighted averages.
- 3: Perchlorate and chromium TR sampled monthly, values reported from TestAmerica.
- 4: Perchlorate, chromium TR and chromium (VI) sampled weekly, values reported from TestAmerica.
- 5: Hexavalent chromium will be analyzed and reported monthly beginning in 2016.

| Nevada Environmen | Nevada Environmental Response Trust Groundwater Extraction and Treatment System Monthly Stakeholder Metrics | | | | | | | | | | | |
|-----------------------------|---|--------------------------------------|--|--|--|--|--|--|--|--|--|--|
| Location ID | Perchlorate (lbs/month) ¹ | Chromium TR (lbs/month) ¹ | | | | | | | | | | |
| SWF Total Extraction | 2,633 | 0.2 | | | | | | | | | | |
| AWF Total Extraction | 11,778 | 31 | | | | | | | | | | |
| IWF Total Extraction | 17,136 | 198 | | | | | | | | | | |
| GWTP Effluent | 16,419 | 16 | | | | | | | | | | |
| GW-11 Influent | 35,225 | 32 | | | | | | | | | | |
| GW-11 Effluent/FBR Influent | 27,159 | 10 | | | | | | | | | | |

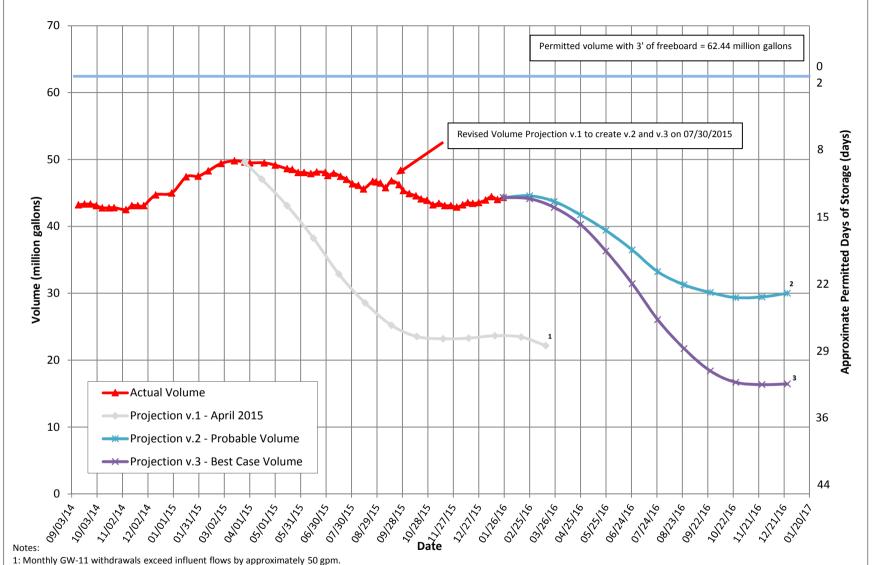
Notes:

TR = Total Recoverable.

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

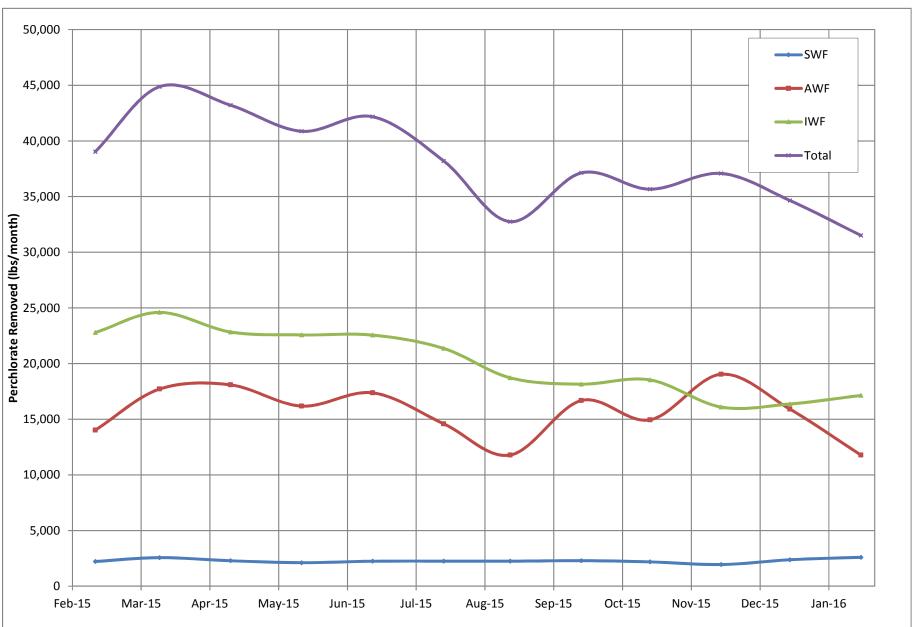


Figures Operational Metrics



- 2: Monthly GW-11 withdrawals exceed influent flows by approximately 20 gpm with seasonally changing influent additions each month (ie.- higher GAC backwash volume in summer).
- 3: Monthly GW-11 withdrawals exceed influent flows by approximately 50 gpm with an assumed 2.8 million gallons of influent additions each month.
- 4: Monthly evaporation was calculated using Shevenell, 1996. Statewide Potential Evapotranspiration Maps for Nevada. Nevada Bureau of Mines and Geology Report 48. University of Nevada Reno.
- 5: Average monthly rainfall was estimated from rain gage 4774 data on TIMET property.

Figure 2 - Historical Perchlorate Mass Flux



Note: 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.



Attachment A

NPDES Tracking Sheet (Prepared by ENVIRON)

WORKING TRACKING SPREADSHEET

DRAFT - NOT TO BE SUBMITTED TO AGENCY

| Continuous | Daily samples, composited weekly |
|--|---|
| Flow Rate | Perchlorate |
| 30-Day Avg. Daily Maximum (MGD) (MGD) | 30-Day Avg. 30-Day Avg. (ug/L) (lbs/day) |
| 1.45 1.75 | 18 0.22 |

| | Weekly samples | | | | | | | | | | | |
|-----------------------|------------------------|----------------------|-----------------------|--------------------------|-----------------------|--------------------------|--------------------------|--------------------------|--|--|--|--|
| рН | Hexavalent Chromium | Total Chromium | - | ended Solids SSS) | Tota | l Iron | Total Ammonia as N | Total Phosphorus as P | | | | |
| 30-Day Avg. (S.U.) | Daily Max. (mg/L) | Daily Max. (mg/L) | 30-Day Avg. (mg/L) | 30-Day Avg. (lbs/day) | 30-Day Avg. (mg/L) | 30-Day Avg. (lbs/day) | 30-Day Avg. (lbs/day) | 30-Day Avg. (lbs/day) | | | | |
| 6.5 to 9.0 | 0.01 | 0.1 | 135 | 1,634 | 10 | 121.03 | 40 | 20 | | | | |
| | | | | | | | | | | | | |

| Weekly sam | ples, collected | separately | Quarterly | y sample |
|-----------------------|----------------------|-----------------------|--------------------------|----------|
| E | 3OD₅ (inhibited | Mang | anese | |
| 30-Day Avg. (mg/L) | Daily Max. (mg/L) | 30-Day Avg. (mg/L) | 30-Day Avg. (lbs/day) | |
| 25 | 40 | 254 | 5 | 60.52 |

| December 2015 | 1.32 | 1.43 | 1.3 | 0.014 | 6.94 | 0.00013 | 0.011 | 16 | 170 | 2.2 | 24 | 3.7 | 0.6 | 8 | 20 | 92 |
|-------------------------------|------|------|-----|-------|------|---------|-------|----|-----|-----|----|-----|------|-----|-----|----|
| January 2016 | 1.28 | 1.39 | 1.3 | 0.013 | 6.89 | 0.00013 | 0.022 | 24 | 250 | 4.5 | 47 | 9 | 0.25 | 5.8 | 6.5 | 61 |
| February 2016 (month to date) | 1.27 | 1.35 | NA | NA | 6.94 | 0.00013 | 0.015 | 35 | 380 | 4.5 | 49 | 2 | 0.64 | NA | NA | NA |

| Daily Grab | Composite | | | Una dalari | Camarda Bata | 6.11 | | | | Des Astan | | Us a false. | | | U /-l | | | De a falance | Camarla Bata | mg/L | Una dalari | | 11/- |
|---------------|-------------|-----------|------|------------|--------------|------|---------------|--------|------|-----------|------|-------------|------------|------|---------|-------------|-------|--------------|--------------|--------|------------|------|---------|
| Sample Dates | Sample Date | | ug/L | lbs/day | Sample Date | 5.0. | mg/L | mg/L | mg/L | lbs/day | mg/L | lbs/day | | mg/L | lbs/day | | mg/L | lbs/day | Sample Date | IIIg/L | lbs/day | mg/L | lbs/day |
| 11/29 - 12/5 | 12/5/2015 | ND (<2.5) | 1.3 | 0.014 | 11/30/2015 | 7.00 | ND (<0.00025) | 0.014 | 21 | 239 | 4.4 | 50 | ND (<0.10) | 0.05 | 0.57 | ND (<0.025) | 0.013 | 0.14 | 12/2/2015 | 7.7 | 88 | | |
| 12/6 - 12/12 | 12/12/2015 | ND (<2.5) | 1.3 | 0.012 | 12/7/2015 | 6.85 | ND (<0.00025) | 0.0082 | 19 | 190 | 3.5 | 35 | | 0.23 | 2.3 | ND (<0.025) | 0.013 | 0.12 | 12/9/2015 | 4.2 | 42 | | |
| 12/13 - 12/19 | 12/19/2015 | ND (<2.5) | 1.3 | 0.015 | 12/14/2015 | 6.86 | ND (<0.00025) | 0.0075 | 18 | 211 | 1.8 | 21 | | 0.81 | 9.5 | | 0.11 | 1.3 | 12/16/2015 | 1.8 | 21 | | |
| 12/20 - 12/26 | 12/26/2015 | ND (<2.5) | 1.3 | 0.014 | 12/21/2014 | 7.10 | ND (<0.00025) | 0.0090 | 19 | 208 | 3.1 | 34 | | 0.14 | 1.5 | | 0.036 | 0.39 | 12/23/2015 | 7.4 | 81 | | |
| 12/27 - 1/2 | 1/2/2016 | ND (<2.5) | 1.3 | 0.014 | 12/29/2015 | 6.94 | ND (<0.00025) | 0.011 | 6.6 | 75 | 0.51 | 5.8 | | 0.14 | 1.6 | | 0.060 | 0.68 | 12/30/2015 | 20 | 227 | | |
| 1/3 - 1/9 | 1/9/2016 | ND (<2.5) | 1.3 | 0.013 | 1/4/2016 | 6.92 | ND (<0.00025) | 0.0070 | 18 | 193 | 3.9 | 42 | | 0.32 | 3.4 | | 0.028 | 0.30 | 1/6/2016 | 5.7 | 61 | | |
| 1/10 - 1/16 | 1/16/2016 | ND (<2.5) | 1.3 | 0.013 | 1/11/2016 | 7.02 | ND (<0.00025) | 0.022 | 25 | 260 | 5.0 | 52 | | 1.8 | 19 | ND (<0.025) | 0.013 | 0.13 | 1/13/2016 | 6.5 | 68 | | |
| 1/17 - 1/23 | 1/23/2016 | ND (<2.5) | 1.3 | 0.013 | 1/19/2016 | 6.62 | ND (<0.00025) | 0.016 | 30 | 311 | 5.1 | 53 | | 0.96 | 10 | ND (<0.025) | 0.013 | 0.13 | 1/20/2016 | 6.0 | 62 | | |
| 1/24 - 1/30 | 1/30/2016 | ND (<2.5) | 1.3 | 0.013 | 1/25/2016 | 7.01 | ND (<0.00025) | 0.014 | 23 | 255 | 3.8 | 42 | | 0.19 | 2.1 | | 0.040 | 0.44 | 1/27/2016 | 4.8 | 53 | | |
| 1/31 - 2/6 | 2/6/2016 | NA | NA | NA | 2/1/2016 | 6.94 | ND (<0.00025) | 0.015 | 35 | 381 | 4.50 | 49 | | 0.18 | 2.0 | | 0.059 | 0.64 | 2/3/2016 | NA | NA | | • |
| 2/7-2/13 | 2/13/2016 | NA | NA | NA | 2/8/2016 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | MA | NA | NA | 2/10/2016 | NA | NA | | |

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

IA - 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)

-- = Analyte detected; see column adjacent to right

Last Updated: February 12, 2016



Attachment B Equipment Tracking Form



Report Date: Jan 27 2016

| Sub- System | P&ID | Description | Status ¹ | Chec ked | Critic ality 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 | Standby | | | |
| 1.03 | | Lift Station 1 Lift Pump B | Running | | | |
| 1.04 | | Area in and around Lift Station 1 | Running | | | |
| 2 | | Athens Road Wells and Lift Station | | | | |
| 2.01 | | Athens Road Well Field, 9 wells | Running | | | |
| 2.02 | | Lift Station 3 Lift Pump A | Running | | | |
| 2.03 | | Lift Station 3 Lift Pump B | Standby | | | |
| 2.04 | | Area in and around Lift Station 3 | Running | | | |
| 3 | | Lift Station 2 and Transmission Piplines | | | | |
| 3.01 | | Influent Pipline | 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 | | 3 | Testing the float switches in the well. Discovered wrong wiring in the panel. |
| 4 | | Interceptor Wells and Cr Treatment Plant | | | | |
| 4.01 | | IWF Well Field, 30 wells | Running | | 2 | Replaced pigtail connecting power to the motor |
| 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 | Standby | | | |
| 4.08 | | Interceptor Booster Pump B | Running | | 3 | Replaced the discharge hose and installed cam lock fitting |
| 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 | Maintenance | 3 | Mechanical seal leaking. New one on order. |
| 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 | Running | | |
| 5.07 | PID10A | Raw Water Feed Pump - P102B | Standby | | |
| 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 | Running | | |
| 6.02 | PID14 | Separator Tank - 1401 | Running | | |
| 6.03 | PID14 | Media Return Pump - P 1401 | Running | | |
| 6.04 | PID14 | P1401A | Standby | | |
| 6.05 | PID01A | P1401B | Running | | |
| 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 line and replaced belt |
| 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 | | | |
|----------------------|------------------|--|------------|---|---|
| 7.01 | PID01B | FBR 3 | Off | | |
| 7.02 | PID01B | FBR 4 | Off | | |
| 7.03 | PID02B | First Stage Separator Tank - T2012 | Off | | |
| 7.04 | PID01B | Media Return Pump - P2012 | Off | | |
| 7.05 | PID01B | First Stage FBR Pump - P1013 | Off | | |
| 7.06 | PID01B | First Stage FRB Pump - P1014 | Off | | |
| 7.07 | PID01B | First Stage FBR Pump - P102A | Off | | |
| 7.08 | PID07A | FBR 3 pH Feed Pump - P713 | Off | | |
| 7.09 | PID07A | FBR 4 pH Feed Pump - P714 | Off | | |
| 7.10 | PID07A | FBR 3 Nutrient (Urea) Feed Pump - P723 | Off | | |
| 7.11 | PID07A | FBR 4 Nutrient (Urea) Feed Pump - P 724 | Off | | |
| 7.12 | PID15 | FBR 3 Nutrient (Phos Acid) Feed Pump - P1523 | Off | | |
| 7.13 | PID15 | FBR 4 Nutrient (Phos Acid) Feed Pump - P1524 | Off | | |
| 7.14 | PID07B | FBR 3 Electron Donor Assembly Pump - P733 | Off | | |
| 7.15 | PID07B | FBR 4 Electron Donor Assembly Pump - P734 | Off | | |
| 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 | 3 | Cam is wearing out on the shaft. Pump is still operating, scheduled for repair |
| 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 | Off | | |
| 0.00 | DIDOOD | FBR 8 | Off | 4 | Continuing to remove |
| 9.02 | PID03B | FBN 0 | | | carbon from FBR. |
| 9.02 9.03 9.04 | PID03B PID03B | Second Stage Separator Tank - T3012 Media Return Pump - P3012 | Off Off | | carbon from FBR. |



| 9.05 | PID03B | Second Stage FBR Pump - P3017 | Off | | |
|-------|--------|--|--------------|---|---|
| 9.06 | PID03B | Second Stage FBR Pump - P3018 | Off | | |
| 9.07 | PID03B | Second Stage FBR Pump - P302A | Off | | |
| 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 | Off | | |
| 9.13 | PID07B | FBR 8 Electron Donor Assembly Pump - P738 | Off | | |
| 10 | | Aeration and DAF System | | | |
| 10.01 | PID04 | Aeration Tank | In operation | | |
| 10.02 | PID04 | Aeration Blower - B401 | Running | | |
| 10.03 | PID04 | Biofilter | In operation | | |
| 10.04 | PID04 | Nutrient Solution | Running | | |
| 10.05 | PID04 | Biofilter Sump | Running | | |
| 10.06 | PID04 | Nutrient Pump - P401 | Running | | |
| 10.07 | PID04 | Biofilter Sump Pump - P402A | Standby | | |
| 10.09 | PID04 | Biofilter Blower | Running | | |
| 10.10 | PID05 | DAF Pressure Tanks | In operation | | |
| 10.11 | PID05 | DAF Vessel - D501 | Running | 2 | DAF down for repairs on the vessel. Contractors are scheduled for this week. |
| 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 | 3 | New casing gasket on order. |
| 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 | Standby | | |
| 11.03 | PID06 | Effluent Pump - P602 | Running | | |
| 12 | | Sand Filter System | | | |
| 12.01 | PID17 | Sand Filter | Maintenance | 2 | Header cap failed supplying to the air lifts. Sand filter is down. Repair plan is in process to repair. |



| 12.02 | PID17 | Filter Reject Tank | Out of service | | |
|-------|--------|--|----------------|------|---|
| 12.03 | PID17 | Filter Reject Pump - P1701A | Standby | | |
| 12.04 | PID17 | Filter Reject Pump - P1701B | Standby | | |
| 13 | | Effluent Tank and Pumping | | | |
| 13.01 | PID10C | UV Effluent Tank | Running | | |
| 13.02 | PID10C | Effluent Booster Pump - P1302A | Running | 2 | Installed new motor and pump that was rebuilt. |
| 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 | Running | | |
| 14.07 | PID09 | West Press | Standby | | |
| 14.08 | PID09 | East Press | Running | 4 | Calling J-press to perform repairs on components of the press system. Press is still operational. |
| 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 | _ | |
| 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 | | |
|-------|-------|---|--------------|---|--|
| | | 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 | 3 | installed manual bleed valve until new switch is received. |
| 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 | | |
| | | Miscellanous Systems | | | |
| 33 | | Operations Office/Network | In operation | | |
| 34 | | Laboratory Analyzers | In operation | | |
| 35 | | Security Systems | In operation | | |
| | | Shelf Spares | | | |
| | | Media Return Pump Rebuid 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 | 4 | New pump and motor on order to replace the ones used for PC -99R3 |
| | | Athens Road Well Pump (1 each, same as Seep so total of 2) | In stock | | |

¹Status Codes

Equipment

Running

¹Criticality Codes

1 = Critical

Cannot continue with operation until

repairs made

2 =

Can still operate safely and in compliance with permits, but risks are Important

increased

Unit is in operation



Standby

Duplicate or installed spare, not

currently operating

Maintenance Out for repairs or maintenance 3 = Moderate Work needs to be performed, but plant can still operate with redundancy that is

in place

- Tasks performed to either improve the existing equipment (i.e., testing new

options)

- Minor repairs that in no way alter the performance of the plant

4 = Low

Off

Not currently needed, but available

Tanks, Pipelines, Ponds

In operation

Out of service

Spares

In stock