Georgia Power

Plant Bowen

Monthly Dewatering Results[1]

September 2021

Prepared by: TETRA TECH

Parameter	Units	Effluent Concentration			Permit Limits		
		Daily Min[2]	Daily Avg[2]	Daily Max[2]	Daily Min	Daily Avg	Daily Max
Flow	MGD	0.00	0.53	0.82	***	***	***
pH	SU	6.5	***	8.2	6.0	***	9.0
Total Suspended Solids	mg/L	ND[3]	5.9	24.0	ND	30.0	100.0
Oil and Grease	mg/L	ND	ND	ND	ND	15.0	20.0

Parameter	Units	Effluent Concentration					Daily Average
		Week 1	Week 2	Week 3	Week 4	Week 5	
		9/3/2021	9/8/2021	9/14/2021	9/20/2021	9/27/2021	
Turbidity[4]	NTU	3.1	3.1	4.5	2.5	4.6	3.6
Total Residual Chlorine[4]	mg/L	ND	ND	ND	ND	ND	ND
Total Dissolved Solids	mg/L	1680	2330	2460	1410	2050	1986
Ammonia	mg/L	ND	ND	ND	ND	ND	ND
Total Kjeldahl Nitrogen	mg/L	0.55	0.86	1.70	ND	0.84	0.79
Nitrate-Nitrite	mg/L	ND	ND	ND	0.13	ND	0.03
Organic Nitrogen	mg/L	0.51	0.83	1.70	ND	0.84	0.78
Phosphorus	mg/L	ND	ND	ND	ND	ND	ND
Ortho-Phosphorus	mg/L	ND	ND	ND	ND	ND	ND
Biological Oxygen Demand	mg/L	ND	ND	ND	ND	ND	ND
Hardness	mg/L	986	1340	1320	1200	1270	1223

Parameter	Units	Effluent Concentration[5]					Calculated Receiving Water Concentration[5]						Water Quality Criteria[6]	
		Week 1	Week 2	Week 3	Week 4	Week 5	Week 1	Week 2	Week 3	Week 4	Week 5	Average	Acute[7]	Chronic[7]
		9/3/2021	9/8/2021	9/14/2021	9/20/2021	9/27/2021	9/3/2021	9/8/2021	9/14/2021	9/20/2021	9/27/2021			
Antimony[9]	µg/L	ND	ND	ND	ND	ND	***	***	***	***	***	***	***	640
Arsenic	µg/L	ND	ND	ND	ND	ND	***	***	***	***	***	***	340	150
Cadmium	µg/L	ND	ND	ND	ND	ND	***	***	***	***	***	***	0.94	0.43
Chromium[8]	µg/L	ND	ND	ND	ND	ND	***	***	***	***	***	***	16	11
Copper	µg/L	ND	ND	ND	ND	ND	***	***	***	***	***	***	7	5
Lead	µg/L	ND	ND	ND	ND	ND	***	***	***	***	***	***	30	1.2
Nickel	µg/L	ND	ND	ND	ND	ND	***	***	***	***	***	***	260	29
Selenium[9]	µg/L	5.5	6.7	9.5	15.9	6.2	0.0283	0.0345	0.0489	0.0818	0.0319	0.0451	***	5
Thallium[9]	µg/L	ND	ND	ND	ND	ND	***	***	***	***	***	***	***	0.47
Zinc	µg/L	ND	ND	ND	ND	ND	***	***	***	***	***	***	65	65
Mercury	ng/L	1.4	3.8	4.9	5.2	3.7	0.0072	0.0193	0.0250	0.0266	0.0189	0.0194	1400	12

1 Tetra Tech verifies the correct laboratory analysis methods were used, any applicable permit limits have been met and other results are protective of Georgia EPD's water quality standards.
2 Daily Min and Daily Max are the lowest and highest values for any day in the month. Daily Avg is the arithmetic average of all daily values during the entire month.
3 ND = Not Detected (below the lab's reporting limit).
4 Turbidity and total residual chlorine are monitored continuously. The value reported is the weekly maximum and the daily average is the average of the weekly maximum values reported.
5 Calculated Receiving Water Concentration shows the effluent concentration at the discharge once it has fully mixed in the receiving waterbody. This value is calculated as a dissolved concentration for an appropriate comparison to the numeric water quality criteria, which are also in the dissolved form. Consistent with Georgia EPD, non-detectable effluent concentrations are not translated into Calculated Receiving Water Concentrations.
6 Numeric Water Quality Criteria is the maximum concentration of a parameter (calculated at a default hardness of 50 mg/L as calcium carbonate) established for the receiving waterbody that will be protective of the designated use per Georgia EPD's rules and regulations. Calculated Receiving Water Concentrations less than these criteria are protective of the waterbody.
7 Acute (short-term) water quality criterion to be compared with the weekly calculated receiving water concentration; Chronic (long-term) water quality criterion to be compared with the average calculated receiving water concentration.
8 Numeric water quality criterion shown is for Hexavalent Chromium.
9 The numeric water quality criteria shown are the chronic (long-term) water quality criteria for antimony, selenium, and thallium since these parameters do not have an acute (short-term) water quality criterion.

*** = Not Applicable

mg/L = milligrams per liter = parts per million; µg/L = micrograms per liter = parts per billion; ng/L = nanograms per liter = parts per trillion; SU = Standard Units; MGD = Million Gallons Day

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Monthly Instream Results[1]

September 2021

Parameter[3]	Units	Etowah River[2]			
		9/3/2021	*9/3/2021*	*9/8/2021*	*9/8/2021*
		Upstream	**Downstream**	**Upstream**	**Downstream**
pH	SU	6.5	6.4	6.8	6.8
TSS	mg/L	22.0	ND[4]	ND	5.5
O&G	mg/L	ND	ND	ND	ND
TRC	mg/L	***	***	***	***
Turbidity	NTU	10.4	9.9	11.3	11.7
TDS	mg/L	54	64	67	51
BOD	mg/L	ND	ND	ND	ND
Antimony	µg/L	ND	ND	ND	ND
Arsenic	µg/L	ND	ND	ND	ND
Cadmium	µg/L	ND	ND	ND	ND
Chromium	µg/L	ND	ND	ND	ND
Copper	µg/L	ND	ND	ND	ND
Lead	µg/L	ND	ND	ND	ND
Mercury	ng/L	1.2	1.2	1.9	1.8
Nickel	µg/L	ND	ND	ND	ND
Selenium	µg/L	ND	ND	ND	ND
Thallium	µg/L	ND	ND	ND	ND
Zinc	µg/L	ND	ND	ND	ND
Ammonia	mg/L	ND	ND	ND	ND
TKN	mg/L	0.79	ND	ND	ND
Nitrate-Nitrite	mg/L	0.33	0.31	0.47	0.45
Organic Nitrogen	mg/L	0.71	ND	ND	ND
Phosphorus	mg/L	ND	ND	ND	ND
Ortho-phosphorus	mg/L	ND	ND	0.06	ND
Hardness	mg/L	32	31	40	41

1 Tetra Tech verifies the correct laboratory analysis methods were used.

2 Etowah River measured 1000ft upstream and 1000ft downstream of the Final Plant Discharge (Outfall 001)

3 Metals results are total recoverable.

4 ND = Non-detect

*** = Not Applicable

mg/L = milligrams per liter = parts per million; µg/L = micrograms per liter = parts per billion; ng/L = nanograms per liter = parts per trillion; SU = Standard Units; MGD = Million Gallons Day