

Application Type Renewal  
 Facility Type Municipal  
 Major / Minor Minor

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0208825  
 APS ID 1128196  
 Authorization ID 1511000

**Applicant and Facility Information**

Applicant Name	<u>Austin Borough</u>	Facility Name	<u>Austin Borough STP</u>
Applicant Address	<u>PO Box 297</u> <u>Austin, PA 16720-0297</u>	Facility Address	<u>122 Costello Road</u> <u>Austin, PA 16720-1905</u>
Applicant Contact	<u>Rhonda Crosby</u>	Facility Contact	<u>Kurt Louge</u>
Applicant Phone	<u>(814) 647-8613</u>	Facility Phone	<u>(814) 647-8613</u>
Client ID	<u>63394</u>	Site ID	<u>246192</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Portage Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Potter</u>
Date Application Received	<u>December 30, 2024</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>January 28, 2025</u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal of an existing NPDES permit for the discharge of treated sewage.</u>		

**Public Participation**

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
X		 Derek S. Garner / Project Manager	March 5, 2026
X		 Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	March 6, 2026

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.08</u>
Latitude	<u>41° 37' 8.56"</u>	Longitude	<u>-78° 4' 50.22"</u>
Quad Name	<u>Wharton</u>	Quad Code	<u>0621</u>
Wastewater Description:	<u>Sewage Effluent</u>		
Receiving Waters	<u>Freeman Run</u>	Stream Code	<u>24301</u>
NHD Com ID	<u>61424784</u>	RMI	<u>2.37</u>
Drainage Area (mi <sup>2</sup> )	<u>25.1</u>	Yield (cfs/mi <sup>2</sup> )	<u>0.043</u>
Q <sub>7-10</sub> Flow (cfs)	<u>1.08 <sup>(1)</sup></u>	Q <sub>7-10</sub> Basis	<u>Streamgage No. 01543700</u>
Elevation (ft)	<u>1,284</u>	Slope (ft/ft)	<u>0.008</u>
Watershed No.	<u>8-A</u>	Chapter 93 Class.	<u>HQ-CWF</u>
Existing Use	<u>n/a</u>	Existing Use Qualifier	<u>n/a</u>
Exceptions to Use	<u>n/a</u>	Exceptions to Criteria	<u>n/a</u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>n/a</u>		
Source(s) of Impairment	<u>n/a</u>		
TMDL Status	<u>n/a</u>	Name	<u>n/a</u>
Nearest Downstream Public Water Supply Intake	<u>PA American Water at Milton, PA</u>		
PWS Waters	<u>West Branch Susquehanna River</u>	Flow at Intake (cfs)	<u>6,670</u>
PWS RMI	<u>10.6</u>	Distance from Outfall (mi)	<u>140</u>

<sup>(1)</sup> The 7Q10 has been adjusted from 1.56 cfs to 1.08 cfs. The previous review used USGS Streamgage No. 3007800 Allegheny River at Port Allegany, PA. During this review it was observed that there are two stream gages located within the same watershed and directly downstream of Outfall 001 that would most likely provide more representative flow data. The closest gage, No. 01543600 Freeman Run at Costello, PA, was not used because the record of data only exists from 1944 to 1957. Flow data from 69+ years ago may not be fully representative of flows today. The next closest gage, and the one that was ultimately used, is No. 01453700 First Fork Sinnemahoning Creek at Wharton, PA. This is a relatively new gage, with flow data only going back eight years (2018-2025). While it is generally preferred to use at least ten years' of data to calculate a 7Q10, eight years should still provide a representative flow and should be more accurate than a stream gage on a larger river in a separate watershed.

**Treatment Facility Summary**

The Austin Borough Sewage Treatment Plant receives 100% of its flows from the Austin Borough, an approximate population of 600. Construction and continued operation of the existing treatment plant was/is covered under WQM Permit No. 5394402, issued September 23, 1994. It is an extended aeration treatment plant with an average annual flow and hydraulic capacity of 0.08 MGD and an organic capacity of 153 lb/day. Treatment generally consists of:

- One (1) influent screen
- Six (6) aeration basins
- Two (2) clarifiers
- One (1) ultraviolet disinfection system

Sludge is wasted to one of two aerobic digesters and applied to two (2) drying beds. The dried sludge is hauled to the McKean County Landfill by Casella Waste Systems, Inc.

Disinfected effluent is ultimately discharged via Outfall 001 to Freeman Run.

**Compliance History**

The facility was most recently inspected by DEP on September 2, 2025. The inspection report notes that no staff were present at the time of the inspection and that the facility was left entirely open and accessible. All units were online at the time of the inspection. Vegetation was present in multiple treatment units, the UV intensity meter was blinking "0", and the alarm system appeared to be turned off. The inspection report recommends securing the facility when no one is present and removing the vegetation from the treatment units.

There have been 53 effluent violations during the existing permit's term, with a vast majority related to ammonia-n and fecal coliform. A summary of the violations is attached.

There are numerous open violations associated with the Borough and the Safe Drinking Water program:

Inspection ID	Violation ID	Violation Date	Violation Code	Violation
3652391	8166761	11/30/2023	110.301	Reporting for all water withdrawals and usage
3870952	8208420	11/20/2024	110.301	Reporting for all water withdrawals and usage
4103214	8257610	12/3/2025	110.301	Reporting for all water withdrawals and usage
3645901	8165396	11/16/2023	C3E	Failure to implement a filter bed evaluation program
3645901	8165397	11/16/2023	C3F	Failure to test alarm and shutdown capabilities or respond to alarm and shutdown equipment failures
3645901	8165398	11/16/2023	C2B	Failure to follow approved methods for sampling and analysis
3645901	8165399	11/16/2023	B6D	Chronic failure to calibrate turbidimeters used for compliance monitoring
3645901	8165400	11/16/2023	C4A	Failure to operate and maintain the water system
3645901	8165401	11/16/2023	B6G	Failure to maintain an appropriately certified operator
3645901	8165402	11/16/2023	B6A	Other violations deemed to be significant deficiencies
3645901	8165403	11/16/2023	C1A	Failure to meet design and construction standards
3645901	8165404	11/16/2023	C2A	Failure to conduct performance monitoring

Per a September 22, 2025 letter from DEP the 2024 calendar year Annual Wasteload Management (Chapter 94) Report indicates there is no hydraulic or organic overload, nor is there a projected overload within the next five years.

**Existing Effluent Limitations and Monitoring Requirements**

The existing effluent limitations and monitoring requirements are as follows:

**Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Instantaneous Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	4.0	XXX	XXX	XXX	1/day	Grab
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5)	17	27	XXX	25.0	40.0	50	2/month	8-Hr Composite
Total Suspended Solids	20	30	XXX	30.0	45.0	60	2/month	8-Hr Composite
Total Suspended Solids Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Ultraviolet light intensity (mW/cm <sup>2</sup> )	XXX	XXX	Report	XXX	XXX	XXX	1/day	Metered
Ammonia-Nitrogen Nov 1 - Apr 30	8.0	12	XXX	12.0	18.0	24	2/month	8-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	5.3	8.0	XXX	8.0	12.0	16	2/month	8-Hr Composite

Compliance Sampling Location: Outfall 001

**Development of Effluent Limitations**

Outfall No. 001 Design Flow (MGD) 0.08  
 Latitude 41° 37' 8.40" Longitude -78° 4' 50.40"  
 Wastewater Description: Sewage Effluent

**Technology-Based Limitations**

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
CBOD <sub>5</sub>	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)

**Water Quality-Based Limitations**

The following limitations were determined through water quality modeling (input/output files attached):

Parameter	Average Monthly	Daily Maximum	Minimum
CBOD <sub>5</sub>	25	---	---
Ammonia-N	8.0	16.0	---
Dissolved Oxygen	---	---	4.0

As indicated by the results above, the existing requirements for CBOD<sub>5</sub>, ammonia-n, and dissolved oxygen are protective of Freeman Run. DEP proposes that the existing limits remain in the permit as follows:

Parameter	Average Monthly	Weekly Average	Instant. Maximum
CBOD <sub>5</sub>	25	40	50
Ammonia Nov 1 - Apr 30	12.0	18.0	24
Ammonia May 1 - Oct 31	8.0	12.0	16

DEP generally assigns a seasonal multiplier of three to water quality-based effluent limits for ammonia-n based on reduced biological treatment efficiencies and higher in-stream dilution available during cold water months. However, this discharge has historically been assigned a multiplier of 1.5. Since there is no new information (e.g., industrial contributions, effluent characterization, changes in watershed, etc.) that would result in a need to change the ammonia-n limits, DEP recommends the existing seasonal limits remain.

**Best Professional Judgment (BPJ) Limitations**

DEP recommends that the minimum dissolved oxygen limit of 5 mg/l and influent monitoring for BOD<sub>5</sub> and TSS remain in the permit to continue to characterize the wastewater.

DEP recommends UV monitoring remains in the permit to document disinfection is occurring.

DEP recommends quarterly E. Coli reporting per the 2017 Triennial Review of Water Quality Standards, published in the PA Bulletin on July 11, 2020.

**Chesapeake Bay Requirements**

Pennsylvania's Phase 3 Watershed Implementation Plan (WIP) Wastewater Supplement (Revised, April 2, 2025) identifies the Austin Borough STP as a Phase 5 facility. Phase 5 facilities are required to report total nitrogen (TN) and total phosphorus (TP) on an annual basis unless the facility has already completed at least two years of nutrient monitoring. The permittee completed annual sampling from 2016 through 2019 and the results have been summarized in the previous review. No nutrient monitoring is required at this time.

**Anti-Backsliding**

No limits or monitoring requirements have been made less stringent. Anti-backsliding should not impact this review.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the “NPDES Permit Writer’s Manual” (386-0400-001), SOPs and/or BPJ.

**Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Instantaneous Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	4.0	XXX	XXX	XXX	1/day	Grab
CBOD5	17	27	XXX	25.0	40.0	50	2/month	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TSS	20	30	XXX	30.0	45.0	60	2/month	8-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
UV Intensity (mW/cm <sup>2</sup> )	XXX	XXX	Report	XXX	XXX	XXX	1/day	Metered
Ammonia Nov 1 - Apr 30	8.0	12	XXX	12.0	18.0	24	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	5.3	8.0	XXX	8.0	12.0	16	2/month	8-Hr Composite

Compliance Sampling Location: Outfall 001

## RESULTS

---

Period of Record (Years): 2018-2025  
Number of Years Used: 8  
Mean Annual Flow (cfs): 299.63  
Harmonic Mean Flow (cfs): 73.20  
Low-flow Yield (cfs/mi<sup>2</sup>): 0.0430  
1Q10 / 7Q10 Ratio: 0.9468  
30Q10 / 7Q10 Ratio: 1.2840

Low-Flow Frequency Analysis (Log-Pearson Type III)						
Statistic	1Q10	7Q10	7Q2	30Q10	30Q2	90Q10
Count	8	8	8	8	8	8
Log Mean	1.308843761	1.382213486	1.382213486	1.539210626	1.539210626	1.775622363
Log Std Dev	0.340699778	0.384156792	0.384156792	0.450291771	0.450291771	0.478285745
Log Skewness	-0.076989619	0.078459045	0.078459045	0.636248343	0.636248343	0.722483695
Return Period	10	10	2	10	2	10
Z-score	-1.28155	-1.28155	0	-1.28155	0	-1.28155
K-factor	-1.289484822	-1.272833204	-0.013074272	-1.193432407	-0.104853448	-1.1786081
FINAL RESULT (cfs)	7.40	7.82	23.83	10.04	31.05	16.29

### Low-Flow (Q<sub>7-10</sub>) Calculation

Facility: **Austin Borough Sewage Treatment Plant**

NPDES Permit No. **PA0208825**

#### Gage Information

Drainage Area: **182** mi<sup>2</sup>

Q<sub>7-10</sub>: **7.82** cfs

LFY: **0.043** cfsm

#### Outfall Information

Drainage Area: **25.1** mi<sup>2</sup>

Q<sub>7-10</sub>: **1.08** cfs

#### Downstream Locations

RMI: **1.73**

Drainage Area: **26.5** mi<sup>2</sup>

Q<sub>7-10</sub>: **1.139** cfs

RMI: **\_\_\_\_\_**

Drainage Area: **\_\_\_\_\_** mi<sup>2</sup>

Q<sub>7-10</sub>: **\_\_\_\_\_** cfs

RMI: **\_\_\_\_\_**

Drainage Area: **\_\_\_\_\_** mi<sup>2</sup>

Q<sub>7-10</sub>: **\_\_\_\_\_** cfs

RMI: **\_\_\_\_\_**

Drainage Area: **\_\_\_\_\_** mi<sup>2</sup>

Q<sub>7-10</sub>: **\_\_\_\_\_** cfs

RMI: **\_\_\_\_\_**

Drainage Area: **\_\_\_\_\_** mi<sup>2</sup>

Q<sub>7-10</sub>: **\_\_\_\_\_** cfs

RMI: **\_\_\_\_\_**

Drainage Area: **\_\_\_\_\_** mi<sup>2</sup>

Q<sub>7-10</sub>: **\_\_\_\_\_** cfs

RMI: **\_\_\_\_\_**

Drainage Area: **\_\_\_\_\_** mi<sup>2</sup>

Q<sub>7-10</sub>: **\_\_\_\_\_** cfs

RMI: **\_\_\_\_\_**

Drainage Area: **\_\_\_\_\_** mi<sup>2</sup>

Q<sub>7-10</sub>: **\_\_\_\_\_** cfs

## Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
08A	24301	FREEMAN RUN	<b>2.370</b>	1284.00	25.10	0.00000	0.00	<input checked="" type="checkbox"/>

### Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	Tributary Temp	pH	Stream Temp	pH
	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)	(°C)		(°C)	
<b>Q7-10</b>	0.043	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
<b>Q1-10</b>		0.00	0.00	0.000	0.000							
<b>Q30-10</b>		0.00	0.00	0.000	0.000							

### Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Austin Boro STP	PA0208825	0.0800	0.0800	0.0800	0.000	25.00	7.00

### Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	4.00	8.24	0.00	0.00
NH3-N	8.00	0.00	0.00	0.70

## Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
08A	24301	FREEMAN RUN	<b>1.730</b>	1257.00	26.50	0.00000	0.00	<input checked="" type="checkbox"/>

### Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
	<b>Q7-10</b>	0.043	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00
<b>Q1-10</b>		0.00	0.00	0.000	0.000							
<b>Q30-10</b>		0.00	0.00	0.000	0.000							

### Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

### Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

## WQM 7.0 Hydrodynamic Outputs

<u>SWP Basin</u>		<u>Stream Code</u>				<u>Stream Name</u>						
08A		24301				FREEMAN RUN						
RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
<b>Q7-10 Flow</b>												
2.370	1.08	0.00	1.08	.1238	0.00799	.55	18.35	33.37	0.12	0.328	20.51	7.00
<b>Q1-10 Flow</b>												
2.370	1.02	0.00	1.02	.1238	0.00799	NA	NA	NA	0.12	0.337	20.54	7.00
<b>Q30-10 Flow</b>												
2.370	1.22	0.00	1.22	.1238	0.00799	NA	NA	NA	0.13	0.309	20.46	7.00

## WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	<input checked="" type="checkbox"/>
WLA Method	EMPR	Use Inputted W/D Ratio	<input type="checkbox"/>
Q1-10/Q7-10 Ratio	0.9468	Use Inputted Reach Travel Times	<input type="checkbox"/>
Q30-10/Q7-10 Ratio	1.1284	Temperature Adjust Kr	<input checked="" type="checkbox"/>
D.O. Saturation	90.00%	Use Balanced Technology	<input checked="" type="checkbox"/>
D.O. Goal	6		

## WQM 7.0 Wasteload Allocations

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>
08A	24301	FREEMAN RUN

### NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
2.370	Austin Boro STP	16.03	16	16.03	16	0	0

### NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
2.370	Austin Boro STP	1.83	8	1.83	8	0	0

### Dissolved Oxygen Allocations

RMI	Discharge Name	<u>CBOD5</u>		<u>NH3-N</u>		<u>Dissolved Oxygen</u>		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
2.37	Austin Boro STP	25	25	8	8	4	4	0	0

## WQM 7.0 D.O. Simulation

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>
08A	24301	FREEMAN RUN

<u>RMI</u>	<u>Total Discharge Flow (mgd)</u>	<u>Analysis Temperature (°C)</u>	<u>Analysis pH</u>
2.370	0.080	20.514	7.000
<u>Reach Width (ft)</u>	<u>Reach Depth (ft)</u>	<u>Reach WDRatio</u>	<u>Reach Velocity (fps)</u>
18.351	0.550	33.372	0.119
<u>Reach CBOD5 (mg/L)</u>	<u>Reach Kc (1/days)</u>	<u>Reach NH3-N (mg/L)</u>	<u>Reach Kn (1/days)</u>
4.37	0.790	0.82	0.728
<u>Reach DO (mg/L)</u>	<u>Reach Kr (1/days)</u>	<u>Kr Equation</u>	<u>Reach DO Goal (mg/L)</u>
7.807	9.162	Tsivoglou	6
<u>Reach Travel Time (days)</u>	<b>Subreach Results</b>		
0.328	<u>TravTime (days)</u>	<u>CBOD5 (mg/L)</u>	<u>NH3-N (mg/L)</u>
			<u>D.O. (mg/L)</u>
	0.033	4.25	0.80
	0.066	4.14	0.78
	0.098	4.03	0.77
	0.131	3.93	0.75
	0.164	3.82	0.73
	0.197	3.72	0.71
	0.230	3.63	0.70
	0.262	3.53	0.68
	0.295	3.44	0.66
	0.328	3.35	0.65

## WQM 7.0 Effluent Limits

<u>SWP Basin</u>		<u>Stream Code</u>		<u>Stream Name</u>			
08A		24301		FREEMAN RUN			
RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
2.370	Austin Boro STP	PA0208825	0.080	CBOD5	25		
				NH3-N	8	16	
				Dissolved Oxygen			4

Noncompliance Date	Noncompliance Description	Parameter	Sample Value	Violation Condition	Permit Value	Units	SBC
8/26/2020	Violation of permit condition	Ammonia-Nitrogen	11	>	5.3	lbs/day	Average Monthly
8/26/2020	Violation of permit condition	Ammonia-Nitrogen	12	>	8	lbs/day	Weekly Average
8/26/2020	Violation of permit condition	Ammonia-Nitrogen	32.2	>	8	mg/L	Average Monthly
8/26/2020	Violation of permit condition	Ammonia-Nitrogen	35.8	>	12	mg/L	Weekly Average
8/26/2020	Violation of permit condition	Dissolved Oxygen	3.7	<	4	mg/L	Instantaneous Minimum
8/26/2020	Violation of permit condition	Fecal Coliform	22747	>	200	No./100 ml	Geometric Mean
8/26/2020	Violation of permit condition	Fecal Coliform	53800	>	1000	No./100 ml	Instantaneous Maximum
9/28/2020	Violation of permit condition	Fecal Coliform	2567	>	200	No./100 ml	Geometric Mean
9/28/2020	Violation of permit condition	Fecal Coliform	6300	>	1000	No./100 ml	Instantaneous Maximum
10/27/2020	Violation of permit condition	Ammonia-Nitrogen	15.5	>	8	mg/L	Average Monthly
10/27/2020	Violation of permit condition	Ammonia-Nitrogen	20.5	>	12	mg/L	Weekly Average
10/27/2020	Violation of permit condition	Fecal Coliform	6131	>	200	No./100 ml	Geometric Mean
10/27/2020	Violation of permit condition	Fecal Coliform	6488	>	1000	No./100 ml	Instantaneous Maximum
11/25/2020	Violation of permit condition	Ammonia-Nitrogen	27.3	>	8	mg/L	Average Monthly
11/25/2020	Violation of permit condition	Ammonia-Nitrogen	27.6	>	12	mg/L	Weekly Average
11/25/2020	Violation of permit condition	Ammonia-Nitrogen	8	>	5.3	lbs/day	Average Monthly
11/25/2020	Violation of permit condition	Ammonia-Nitrogen	9	>	8	lbs/day	Weekly Average
12/23/2020	Violation of permit condition	Ammonia-Nitrogen	14.2	>	12	mg/L	Average Monthly
5/25/2021	Violation of permit condition	Ammonia-Nitrogen	12.2	>	12	mg/L	Average Monthly
6/28/2021	Violation of permit condition	Fecal Coliform	< 2367	>	200	No./100 ml	Geometric Mean
6/28/2021	Violation of permit condition	Fecal Coliform	2723	>	1000	No./100 ml	Instantaneous Maximum
7/28/2021	Violation of permit condition	Ammonia-Nitrogen	28.9	>	8	mg/L	Average Monthly
7/28/2021	Violation of permit condition	Ammonia-Nitrogen	30.4	>	12	mg/L	Weekly Average
7/28/2021	Violation of permit condition	Ammonia-Nitrogen	8	>	5.3	lbs/day	Average Monthly
7/28/2021	Violation of permit condition	Fecal Coliform	< 1411	>	200	No./100 ml	Geometric Mean
7/28/2021	Violation of permit condition	Fecal Coliform	19863	>	1000	No./100 ml	Instantaneous Maximum
8/11/2021	Violation of permit condition	Ammonia-Nitrogen	10	>	8	lbs/day	Weekly Average
8/11/2021	Violation of permit condition	Ammonia-Nitrogen	19.8	>	8	mg/L	Average Monthly
8/11/2021	Violation of permit condition	Ammonia-Nitrogen	21.4	>	12	mg/L	Weekly Average
8/11/2021	Violation of permit condition	Ammonia-Nitrogen	8	>	5.3	lbs/day	Average Monthly
8/11/2021	Violation of permit condition	Fecal Coliform	1421	>	1000	No./100 ml	Instantaneous Maximum
9/21/2021	Violation of permit condition	Ammonia-Nitrogen	21.2	>	8	mg/L	Average Monthly
9/21/2021	Violation of permit condition	Ammonia-Nitrogen	23.5	>	12	mg/L	Weekly Average
9/21/2021	Violation of permit condition	Ammonia-Nitrogen	7	>	5.3	lbs/day	Average Monthly
9/21/2021	Violation of permit condition	Fecal Coliform	1553	>	1000	No./100 ml	Instantaneous Maximum
10/28/2021	Violation of permit condition	Fecal Coliform	537	>	200	No./100 ml	Geometric Mean
8/26/2022	Violation of permit condition	Fecal Coliform	< 2419.6	>	1000	No./100 ml	Instantaneous Maximum
8/26/2022	Violation of permit condition	Fecal Coliform	< 596.0	>	200	No./100 ml	Geometric Mean
9/26/2022	Violation of permit condition	Ammonia-Nitrogen	9.3	>	8	mg/L	Average Monthly
9/26/2022	Violation of permit condition	Carbonaceous Biochemical Oxygen Demand (CBOD5)	33.7	>	25	mg/L	Average Monthly
9/26/2022	Violation of permit condition	Carbonaceous Biochemical Oxygen Demand (CBOD5)	79	>	40	mg/L	Weekly Average
9/26/2022	Violation of permit condition	Fecal Coliform	< 2419.6	>	1000	No./100 ml	Instantaneous Maximum
10/28/2022	Violation of permit condition	Ammonia-Nitrogen	10	>	5.3	lbs/day	Average Monthly
10/28/2022	Violation of permit condition	Ammonia-Nitrogen	10	>	8	lbs/day	Weekly Average
10/28/2022	Violation of permit condition	Ammonia-Nitrogen	27.4	>	8	mg/L	Average Monthly
10/28/2022	Violation of permit condition	Ammonia-Nitrogen	28.7	>	12	mg/L	Weekly Average
5/30/2023	Late DMR Submission						
2/3/2024	Late DMR Submission						
12/30/2024	Late DMR Submission						
8/27/2025	Violation of permit condition	Fecal Coliform	< 1151.0	>	200	No./100 ml	Geometric Mean
8/27/2025	Violation of permit condition	Fecal Coliform	< 2419.6	>	1000	No./100 ml	Instantaneous Maximum
9/26/2025	Violation of permit condition	Fecal Coliform	2419	>	200	No./100 ml	Geometric Mean
9/26/2025	Violation of permit condition	Fecal Coliform	2419.6	>	1000	No./100 ml	Instantaneous Maximum