Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0217646**
Facility Type	**Municipal**	APS ID	**1122396**
Major / Minor	**Minor**	Authorization ID	**1500806**

Applicant and Facility Information

Applicant Name	**Dunbar Borough Sanitary Authority**	Facility Name	**Dunbar Borough Sanitary Authority**
Applicant Address	93 Connellsville Street	Facility Address	247 Connellsville Street
	Dunbar, PA 15431-1542		Dunbar, PA 15431-1609
Applicant Contact	Patrick Fitzgerald	Facility Contact	Same
Applicant Phone	(724) 277-3323	Facility Phone	Same
Client ID	136311	Site ID	459385
Ch 94 Load Status	Not Overloaded	Municipality	Dunbar Borough
Connection Status	No Limitations	County	Fayette
Date Application Received	September 20, 2024	EPA Waived?	Yes
Date Application Accepted	September 26, 2024	If No, Reason	

Purpose of Application: Application for a renewal of a NPDES permit for discharge of treated sewage

Summary of Review

The applicant has applied for a renewal of NPDES Permit No. PA0217646. NPDES Permit No. PA0217646 was previously issued by the PA Department of Environmental Protection (DEP) on March 01, 2020. That permit expired on February 28, 2025.

WQM Permit No. 2699402, issued on November 23, 1999, authorized construction of the STP to treat an average design flow of 0.30 MGD. On April 10, 2013, the WQM Permit was amended and the proposed STP now have an average design flow of 0.45 MGD.

The existing treatment process consists of Manual Bar Screen, SBR Tanks, and Ultraviolet Disinfection. The sludge from SBR tanks is transferred to a sludge holding tank.

The treated effluent is discharged through Outfall 001 to the Dunbar Creek, classified as a Trout Stocking fishery, in the Youghiogheny River Basin. Dunbar Creek is located in State Watershed No 19-D.

The facility had some effluent limits violations of DO and Ammonia-Nitrogen from 2020 to 2024.

The permittee has complied with Act 14 notifications as evidenced by updated letters sent to Dunbar Borough and Fayette County.

Changes since the last permit include:

- More stringent Ammonia-Nitrogen Winter limits

Approve	Deny	Signatures	Date
X		Fahmida Amin Fahmida Amin / Environmental Engineering Specialist	December 12, 2025
X		Mahbuba Iasmin Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineering Manager	December 15, 2025

Summary of Review

Anti-Backsliding

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402(o) arises when a permittee seeks relaxation of an effluent limitation which is based upon a State treatment standard of water quality standard.

Previous limits can be used pursuant to EPA's anti-backsliding regulation 40 CFR 122.44 (l) Reissued permits. (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued. Interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62). (2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.

This facility is not seeking to revise the previously permitted effluent limits.

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.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.45
Latitude	39Âº 59' 5.37"	Longitude	-79Âº 36' 40.44"
Quad Name	South Connellsville	Quad Code	1909
Wastewater Description:	Sewage Effluent		

Receiving Waters	Dunbar Creek (TSF)	Stream Code	38164
NHD Com ID	69919139	RMI	1.79
Drainage Area	34.7	Yield (cfs/mi^2)	0.0235
Q_{7-10} Flow (cfs)	0.816	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1787	Slope (ft/ft)	
Watershed No.	19-D	Chapter 93 Class.	TSF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake	MAWC Yough Plant		
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	30
PWS RMI	45.92	Distance from Outfall (mi)	2.53

Changes Since Last Permit Issuance: More stringent winter water-quality based effluent limitations for ammonia-nitrogen.

Other Comments: None

Treatment Facility Summary

Treatment Facility Name: Dunbar Borough Sanitary Authority STP

WQM Permit No.	Issuance Date
2699402	April 10, 2013
2699402	November 23, 1999

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary With Ammonia Reduction	Sequencing Batch Reactor	Ultraviolet	0.45

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
1.125	750	Not Overloaded	Dewatered Sludge hauled to Landfill	Combination of methods

Changes Since Last Permit Issuance: None

Other Comments:

Operations Compliance Check Summary Report

Facility: DUNBAR BORO SANI AUTH STP
NPDES Permit No.: PA0217646
Compliance Review Period: 5/1/20-5/13/25
Inspection Summary:

INSPECTED DATE	INSP TYPE	AGENCY	INSPECTION RESULT DESC	INSPECTION COMMENT
06/16/2022	Compliance Evaluation	PA Dept of Environmental Protection	Violation(s) Noted	
03/18/2021	Compliance Evaluation	PA Dept of Environmental Protection	Violation(s) Noted	
03/18/2021	Administrative/File Review	PA Dept of Environmental Protection	No Violations Noted	The plant was not hydraulically or organically overloaded in 2019 or 2020.
03/17/2021	Administrative/File Review	PA Dept of Environmental Protection	No Violations Noted	The administrative review from 1/1/2019 to 3/17/21 revealed 13 effluent violations for DO and Ammonia. The violations have been noted on the 3.18.21 CEI report.

Violation Summary:

VIOLATION DATE	VIOLATION TYPE	VIOLATION TYPE DESC	RESOLVED DATE	VIOLATION COMMENT
06/16/2022	92A.44	NPDES - Violation of effluent limits in Part A of permit	01/26/2024	4/30/21 DO 5.7 < 6, 5/31/21 Ammonia 7.2 > 3, 10/31/21 DO 5.9 < 6, 11/30/21 DO 5.9 < 6, 12/31/21 DO 5.9 < 6, 1/31/22 DO 5.8 < 6, 2/28/22 Ammonia 11.3 > 9
03/18/2021	92A.44	NPDES - Violation of effluent limits in Part A of permit	07/19/2022	The cause of the effluent noncompliance and the steps being taken to prevent recurrence of the violation/s, along with a correction schedule should be included in your report.
03/18/2021	92A.41(A)10B	NPDES - Failure to utilize approved analytical methods	07/19/2022	Place NIST thermometer in the effluent sampler.
03/18/2021	92A.41(A)9	NPDES - Failure to provide access to permittee's facility or records	01/22/2024	eDMRs, chain of custody forms, etc. not available on-site. They are stored electronically, but need to be brought to every inspection.
03/18/2021	CSL611	CSL - Failure to comply with terms and conditions of a WQM permit	01/22/2024	Emergency generator not exercised under load.

03/18/2021	302.1201	Operator Certification - Operator failed to comply with the Act or Chapter 302 regulations	01/22/2024	General work plan needs to be created by the borough following DEP guidelines.
03/18/2021	302.1201	Operator Certification - Operator failed to comply with the Act or Chapter 302 regulations	01/22/2024	A system specific management plan needs to be created by the borough following DEP guidelines. This was noted on the last inspection.

Open Violations by Client ID:

No open violations for Client ID 136311

Enforcement Summary:

ENF TYPE	ENF TYPE DESC	EXECUTED DATE	VIOLATIONS	ENF FINALSTATUS	ENF CLOSED DATE
NOV	Notice of Violation	07/05/2022	92A.44	Administrative Close Out	05/13/2025
NOV	Notice of Violation	03/22/2021	302.1201; 92A.41(A)10B; 92A.41(A)9; 92A.44; CSL611	Administrative Close Out	05/13/2025

Effluent Violation Summary:

MON PD	PARAMETER	REPORTED VALUE	PERMIT LIMIT	UNIT	STAT_BASE_CODE
Oct-24	Ammonia-Nitrogen	7.1	3	mg/L	Average Monthly
Sep-24	Ammonia-Nitrogen	5.7	3	mg/L	Average Monthly
Sep-24	Fecal Coliform	> 23	200	No./100 ml	Geometric Mean
Sep-24	Fecal Coliform	> 2420	1000	No./100 ml	Instantaneous Maximum
Jun-24	Ammonia-Nitrogen	< 11.4	3	mg/L	Average Monthly
Jun-24	Ammonia-Nitrogen	15.8	11.3	lbs/day	Average Monthly
May-24	Ammonia-Nitrogen	11.4	3	mg/L	Average Monthly
May-24	Ammonia-Nitrogen	17	11.3	lbs/day	Average Monthly
Oct-23	Ammonia-Nitrogen	21.2	3	mg/L	Average Monthly
Jun-23	Ammonia-Nitrogen	< 5.3	3	mg/L	Average Monthly
Jun-23	Fecal Coliform	1628	1000	No./100 ml	Instantaneous Maximum
May-23	Ammonia-Nitrogen	16.4	3	mg/L	Average Monthly
May-23	Ammonia-Nitrogen	21.2	11.3	lbs/day	Average Monthly
May-23	Carbonaceous Biochemical Oxygen Demand (CBOD5)	24.1	22.5	mg/L	Weekly Average
Mar-23	Ammonia-Nitrogen	< 52.2	33.8	lbs/day	Average Monthly
Oct-22	Ammonia-Nitrogen	< 3.8	3	mg/L	Average Monthly
Aug-22	Ammonia-Nitrogen	< 6.0	3	mg/L	Average Monthly
Jul-22	Ammonia-Nitrogen	10.5	3	mg/L	Average Monthly

Jun-22	Ammonia-Nitrogen	< 4.1	3	mg/L	Average Monthly
Feb-22	Ammonia-Nitrogen	11.3	9	mg/L	Average Monthly
Jan-22	Dissolved Oxygen	5.8	6	mg/L	Daily Minimum
Dec-21	Dissolved Oxygen	5.9	6	mg/L	Daily Minimum
Nov-21	Dissolved Oxygen	5.9	6	mg/L	Daily Minimum
Oct-21	Dissolved Oxygen	5.9	6	mg/L	Daily Minimum
May-21	Ammonia-Nitrogen	7.2	3	mg/L	Average Monthly
Apr-21	Dissolved Oxygen	5.7	6	mg/L	Daily Minimum
Sep-20	Dissolved Oxygen	5.9	6	mg/L	Daily Minimum
Aug-20	Ammonia-Nitrogen	< 8.6	3	mg/L	Average Monthly
Jun-20	Ammonia-Nitrogen	< 3.2	3	mg/L	Average Monthly
Jun-20	Dissolved Oxygen	5.6	6	mg/L	Daily Minimum
May-20	Dissolved Oxygen	5.7	6	mg/L	Daily Minimum

Other violations:

There were four monitoring periods in 2023 during which sample collection was reported in eDMR to be less frequent than required.

MON PD	PARAMETER
Oct-23	Dissolved Oxygen
Oct-23	pH
Oct-23	Ultraviolet light transmittance
Sep-23	Dissolved Oxygen
Sep-23	pH
Sep-23	Ultraviolet light transmittance
May-23	Dissolved Oxygen
May-23	pH
May-23	Ultraviolet light transmittance
Mar-23	Dissolved Oxygen
Mar-23	pH
Mar-23	Ultraviolet light transmittance

Compliance Status: Dunbar Borough Sanitary Authority has no open violations or pending enforcement at this time. The assigned WQS has been notified of the exceedances that have occurred since the 2022 Compliance Evaluation Inspection (CEI). It is anticipated that an NOV will be issued at the time of the next CEI.

Completed by: Amanda Illar **Completed date:** 5/14/25

Compliance History

DMR Data for Outfall 001 (from August 1, 2024 to July 31, 2025)

Parameter	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24
Flow (MGD) Average Monthly	0.156	0.242	0.288	0.3208	0.151	0.359	0.165	0.186	0.155	0.110	0.106	0.125
Flow (MGD) Daily Maximum	0.283	0.446	0.539	1.0050	0.227	0.997	0.263	0.511	0.428	0.143	0.140	0.223
pH (S.U.) Instantaneous Minimum	6.8	6.9	6.9	6.8	6.7	6.8	6.7	6.7	6.7	6.7	6.7	6.7
pH (S.U.) Instantaneous Maximum	7.1	7.0	7.0	7.0	7.0	7.1	7.0	7.0	7.0	7.0	7.0	7.0
DO (mg/L) Daily Minimum	6.1	6.3	6.2	6.3	6.4	6.4	6.4	6.5	6.5	6.4	6.4	6.4
CBOD5 (lbs/day) Average Monthly	< 3.1	< 6.6	< 5.9	13.9	< 3.8	< 7.3	< 5.4	< 7.8	< 3.1	< 7.9	< 4.1	< 2.0
CBOD5 (lbs/day) Weekly Average	5.2	11.4	12.1	39.6	6.3	13.5	11.3	25.7	5.7	14.1	7.1	2.4
CBOD5 (mg/L) Average Monthly	< 3	< 3	< 2	4	< 3	< 3	< 5	< 4	< 2	< 8	< 5	< 2
CBOD5 (mg/L) Weekly Average	4.3	8.0	3.4	8.2	4.9	5.7	10.0	9.6	3.0	14.6	8.7	2.8
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	146.6	210.5	205.9	321.1	195.9	252.1	171.1	168.9	158.6	127.1	98.0	107.7
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	259.8	368.6	282.4	671.2	336.9	406.9	188.8	226.3	290.1	204.8	157.3	179.5
BOD5 (mg/L) Raw Sewage Influent Average Monthly	125.0	101.2	87.1	122.4	111	118.5	145.3	121.0	119.1	133.8	116.4	129.4
TSS (lbs/day) Average Monthly	< 6.0	< 12.2	< 12.3	< 20.5	< 7.6	< 11.0	< 7.4	< 15.0	< 9.1	< 7.1	< 4.1	< 4.3
TSS (lbs/day) Raw Sewage Influent Average Monthly	88.3	154.0	245.6	158.4	152.2	224.3	181.6	97.4	112.1	93.1	64.2	135.3

TSS (lbs/day) Raw Sewage Influent Daily Maximum	133.0	267.0	394.3	182.7	237.8	371.6	309.8	152.7	221.8	124.1	109.1	183.7
TSS (lbs/day) Weekly Average	6.5	23.8	< 17.8	43.5	9.9	13.0	11.3	45.4	22.8	11.4	< 4.5	< 5.1
TSS (mg/L) Average Monthly	< 5	< 6	< 5	< 8	< 6	< 5	< 6	< 8	< 6	< 7	< 5	< 5
TSS (mg/L) Raw Sewage Influent Average Monthly	74	75	105	76	111	107	159	67	82	100	76	173
TSS (mg/L) Weekly Average	5	8	< 5	11	8	5	10	17	8	11	< 5	< 5
Fecal Coliform (No./100 ml) Geometric Mean	< 1	< 2	< 9	< 3	< 9	< 6	< 1	< 3	< 2	< 5	> 23	< 8
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 5	5	2420	5	20	15	< 1	5	5	5	> 2420	98
UV Transmittance (%) Daily Minimum	65	65	65	65	65	65	65	65	65	65	65	65
Total Nitrogen (mg/L) Daily Maximum								8.23				
Ammonia (lbs/day) Average Monthly	< 1.1	< 2.5	< 3.5	< 4.2	< 0.2	< 1.3	3.4	< 1.6	0.4	< 7.1	< 4.6	0.3
Ammonia (mg/L) Average Monthly	< 0.8	< 1.7	1.1	< 0.9	0.3	< 0.7	3.1	6.9	0.3	7.1	5.7	0.6
Total Phosphorus (mg/L) Daily Maximum								5.4				

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.45
Latitude 39º 59' 5.37" **Longitude** -79º 36' 40.44"
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
$CBOD_5$	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)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Water Quality-Based Limitations (WQBELs)

Pursuant to EPA's approval of Pennsylvania's 2017 Triennial Review of Water Quality Standards and corresponding regulatory changes published in the Pennsylvania Bulletin on July 11, 2020, new water quality criteria for ammonia-nitrogen apply to waters of the commonwealth. Therefore, WQBELs for Outfall 001 are being re-evaluated even though there have been no changes to the treatment plant.

WQM 7.0 Water Quality Modeling

DEP's WQM 7.0 version 1.1 model is a Microsoft Access Program used for sewage dischargers to determine whether TBELs are sufficient to meet in-stream water quality criteria for ammonia-nitrogen, carbonaceous biochemical oxygen demand (CBOD5), and dissolved oxygen (DO). To accomplish this, the model simultaneously simulates mixing and degradation of ammonia-nitrogen and mixing and consumption of DO through CBOD5 and ammonia-nitrogen degradation. WQM 7.0 determines the highest pollutant loadings that the stream can assimilate while still meeting water quality criteria under design conditions.

The model is a two-step process. The discharge is first modeled for the summer period (May through October) because warm temperatures are more likely to result in critical loading conditions. Reduced DO levels likely also play a role in ammonia toxicity and solubility of DO decreases at increased water temperature. If summer modeling determines that WQBELs are appropriate for the summer period, then modeling is completed for the winter period (November through April). This is in accordance with DEP's Implementation Guidance of Section 93.7 Ammonia Criteria [Do. No. 391-2000-013] (Ammonia Guidance).

River Mile Index (RMI) was measured in eMAP PA as the distance from the facility's outfall to Dunbar Creek. Elevation was read by applying a topo map in eMAP PA. Discharge point and downstream drainage areas as well as Q_{7-10} were generated by USGS Stream Stats. USGS Stream Stats output files are included in Attachment 1. In the absence of site-specific data, discharge temperature, stream temperature, and stream pH were assumed to be 20, 25, and 7 in accordance with the Ammonia Guidance. Stream width to depth was assumed to be 10 in accordance with DEP's Technical Reference Guide (TRG) WQM 7.0 for Windows Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen Version 1 [Doc. No. 391-2000-007]. The previous effluent limitations for ammonia-nitrogen, dissolved oxygen, and CBOD5 were used as the discharge concentrations.

WQM 7.0 modeling inputs are documented in the table below:

Discharge Characteristics		Basin/Stream Characteristics	
Parameter	**Value**	**Parameter**	**Value**
River Mile Index (RMI)	1.79	Drainage Area	34.7
Discharge Flow (MGD)	0.45	Q_{7-10} (cfs)	0.816
Discharge Temp (°C)	20	Low-flow yield (cfs/mi^2)	0.0235
Summer Ammonia-Nitrogen (mg/L)	3	Elevation (ft)	1787
Winter Ammonia-Nitrogen (mg/L)	6.62	Stream Width/Depth	10
Summer $CBOD_5$ (mg/L)	15	Stream Temp (°C)	25
Winter CBOD	25	Stream pH (s.u.)	7

The discharge was modeled using WQM 7.0 to evaluate the ammonia-nitrogen, $CBOD_5$, and DO parameters. The modeling confirmed that water quality-based effluent limits are necessary for ammonia-nitrogen, $CBOD_5$, and DO. In accordance with DEP's SOP for *Establishing Effluent Limitations for Individual Sewage Permits* [SOP No. BCW-PMT-033 revised March 24, 2021, Version 1.9], winter ammonia-nitrogen limits are assessed by comparing winter WQM 7.0 output value with one calculated by multiplying the summer limit by a multiplier of three. The more restrictive limit is then imposed. For this facility, the more restrictive limit comes from the summer model. WQM 7.0 output files are included in Attachments 2 and 3.

Water Quality-Based Limitations

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

Parameter	Limit (mg/l)	SBC	Model
CBOD5 (May 1 to Oct 31)	15.0	Average Monthly	WQM 7.0 Version 1.1
CBOD5 (Nov 1 to Apr 30)	25	Average Monthly	WQM 7.0 Version 1.1
Ammonia Nitrogen (May 1 to Oct 31)	3	Average Monthly	WQM 7.0 Version 1.1
Ammonia Nitrogen (Nov 1 to Apr 30)	6.62	Average Monthly	WQM 7.0 Version 1.1
Dissolved Oxygen	6.0(Minimum)	Average Monthly	WQM 7.0 Version 1.1

Comments: Due to anti-backsliding, the previously permitted Summer CBOD of 15 mg/L and Summer Ammonia Nitrogen of 3 mg/L will be re-imposed.

Additional Considerations

Monitoring frequency for the proposed effluent limits are based upon Table 6-3, Self-Monitoring Requirements for Sewage Dischargers, from the Departments Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (Document No. 386-0400-001).

For POTWs, mass loading limits will be established for CBOD5, TSS, NH3-N, and where necessary Total P and Total N. In general, average monthly mass loading limits will be established for CBOD5, TSS, NH3-N, and where necessary Total P and Total N, and average weekly mass loading limits will be established for CBOD5 and TSS (Section IV, SOP No. BCW-PMT-033, Establishing Effluent Limitations for Individual Sewage Permits).

For POTWs with design flows greater than 2,000 GPD and for non-municipal sewage facilities that service municipalities or portions thereof, the application manager will establish influent BOD5 and TSS monitoring in the permit using the same frequency and sample type as is used for other effluent parameters (Section IV.E.8, SOP No BCW-PWT-002, New and Reissuance Sewage Individual NPDES Permit Applications).

Where ultraviolet (UV) disinfection is used, TRC limits are not applicable, but the limits table(s) in Part A will generally contain, at a minimum, routine monitoring of UV transmittance (%) at the same monitoring frequency that would be used for TRC (Section I.A, Note 4, SOP No. BCW-PMT-033, Establishing Effluent Limitations for Individual Sewage Permits).

Sewage discharges will include monitoring, at a minimum, for E. Coli, in new and reissued permits, with a monitoring frequency of 1/quarter for design flows >= 0.05 and < 1 MGD per 25 Pa. Code § 92a.061 and Section I.A, Note 12, SOP No. BCW-PMT-033, Establishing Effluent Limitations for Individual Sewage Permits.

Nutrient monitoring is required to establish the nutrient load from the wastewater treatment facility and the impacts that load may have on the quality of the receiving stream(s). The discharge is to waters not impaired for nutrients. A 1/year monitoring requirement for Total N & Total P has been added to the permit per Chapter 92a.61 and Section I.A, Note 7 & 8, SOP No. BCW-PMT-033, Establishing Effluent Limitations for Individual Sewage Permits.

Mass Loading Limits

Section IV.C of DEP's SOP for Establishing Effluent Limitations for Individual Sewage Permits [SOP No. BCW-PMT-033 Version 1.9] establishes mass loading limits for POTWs at the discretion of the application manager. Mass loading limitations are imposed for POTWs in accordance with the SOP cited above and Table 5.3 of DEP's *Technical Guidance for the Development and Specification of Effluent Limitations* [Doc. No. 362-0400-001]. For the purposes of permitting limits, mass loading limits for ammonia-nitrogen summer and winter, $CBOD_5$ summer and winter, and TSS will continue to be imposed based on the following equation:

$$mass\ loading\ limit\ \left(\frac{lbs}{day}\right) = average\ annual\ flow\ (MGD) * concentration\ limit\ \left(\frac{mg}{L}\right) * 8.34\ (conversion\ factor)$$

The following mass loading limits are being imposed:

Parameter	Average Monthly (lbs/day)	Average Weekly (lbs/day)
Ammonia-Nitrogen Summer (mg/L)	11.26	N/A
Ammonia-Nitrogen Winter (mg/L)	24.84	N/A
$CBOD_5$ Summer (mg/L)	56.3	84.4
$CBOD_5$ Winter (mg/L)	93.82	140.7
TSS (mg/L)	112.6	168.9

Mass loading limits for total nitrogen and total phosphorus are not being imposed at this time because no concentration limits exist for either parameter.

Influent Monitoring

Section IV.F.2 of DEP's SOP for *New and Reissuance Sewage Individual NPDES Permit Applications* [SOP No. BCW-PMT-002 Version 2.0] establishes influent BOD_5 and TSS for POTWs. The intent of influent BOD_5 and TSS monitoring is to verify compliance with the secondary treatment requirement of 85% removal defined in 40 CFR §133.102. No changes have been made to effluent monitoring during this permit renewal

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) (1)		Concentrations (mg/L)				Minimum (2) 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	Recorded
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	6.0 Daily Min	XXX	XXX	XXX	1/day	Grab
CBOD5 Nov 1 - Apr 30	93.8	140.7	XXX	25.0	37.5	50	1/week	8-Hr Composite
CBOD5 May 1 - Oct 31	56.3	84.4	XXX	15.0	22.5	30	1/week	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
TSS	112.6	168.9	XXX	30.0	45.0	60	1/week	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: N/A

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 End of 24th Month

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Ammonia-Nitrogen Nov 1 - Apr 30	33.8	XXX	XXX	9.0	XXX	18	1/week	8-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	11.3	XXX	XXX	3.0	XXX	9	1/week	8-Hr Composite

Compliance Sampling Location: Outfall 001

Other Comments: N/A

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: Beginning of 25th Month through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Ammonia-Nitrogen Nov 1 - Apr 30	24.84	XXX	XXX	6.62	XXX	13.24	1/week	8-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	11.26	XXX	XXX	3.0	XXX	6	1/week	8-Hr Composite

Compliance Sampling Location: Outfall 001

Other Comments: N/A

Attachment 1 – USGS StreamStats Report

StreamStats Report

Region ID: PA
Workspace ID: PA20250919173529615000
Clicked Point (Latitude, Longitude): 39.98482, -79.61126
Time: 2025-09-19 13:35:51 -0400

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	34.7	square miles
ELEV	Mean Basin Elevation	1787	feet

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	34.7	square miles	2.26	1400
ELEV	Mean Basin Elevation	1787	feet	1050	2580

Low-Flow Statistics Flow Report [Low Flow Region 4]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR*2: Pseudo R Squared (other – see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	2.23	ft^3/s	43	43
30 Day 2 Year Low Flow	3.73	ft^3/s	38	38
7 Day 10 Year Low Flow	0.816	ft^3/s	66	66
30 Day 10 Year Low Flow	1.39	ft^3/s	54	54
90 Day 10 Year Low Flow	2.61	ft^3/s	41	41

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Application Version: 4.29.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

Attachment 2 – WQM 7.0 Version 1.1 – Summer Period

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
19D	38164	DUNBAR CREEK	**1.790**	1787.00	34.70	0.00000	0.00	☑

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
Q7-10	0.023	0.45	0.00	0.000	0.000	10.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		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
Dunbar Borough	PA0217646	0.0000	0.4500	0.0000	0.000	20.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	15.00	2.00	0.00	1.50
Dissolved Oxygen	6.00	8.38	0.00	0.00
NH3-N	3.00	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
19D	38164	DUNBAR CREEK	**1.413**	1750.00	38.00	0.00000	0.00	☑

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
Q7-10	0.023	0.00	0.00	0.000	0.000	10.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		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 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	5.5		

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
19D	38164	DUNBAR CREEK

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
Q7-10 Flow												
1.790	0.45	0.00	0.45	.6962	0.01859	.575	17.2	29.9	0.12	0.199	20.00	7.00
Q1-10 Flow												
1.790	0.29	0.00	0.29	.6962	0.01859	NA	NA	NA	0.11	0.217	20.00	7.00
Q30-10 Flow												
1.790	0.61	0.00	0.61	.6962	0.01859	NA	NA	NA	0.12	0.185	20.00	7.00

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
19D	38164	DUNBAR CREEK

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
1.790	Dunbar Borough	16.76	6	16.76	6	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
1.790	Dunbar Borough	1.89	3	1.89	3	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
1.79	Dunbar Borough	15	15	3	3	6	6	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
19D	38164	DUNBAR CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
1.790	0.450	20.000	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
17.197	0.575	29.903	0.116
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
9.90	1.363	1.82	0.700
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
6.934	20.468	Tsivoglou	5.5
Reach Travel Time (days)			
0.199			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.020	9.63	1.80	7.26
0.040	9.37	1.77	7.48
0.060	9.12	1.75	7.64
0.080	8.88	1.72	7.76
0.099	8.64	1.70	7.85
0.119	8.41	1.68	7.91
0.139	8.19	1.65	7.96
0.159	7.97	1.63	8.01
0.179	7.75	1.61	8.05
0.199	7.55	1.59	8.08

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
19D	38164	DUNBAR CREEK

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)
1.790	Dunbar Borough	PA0217646	0.000	CBOD5	15		
				NH3-N	3	6	
				Dissolved Oxygen			6

Attachment 2 – WQM 7.0 Version 1.1 – Winter Period

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
19D	38164	DUNBAR CREEK	**1.790**	1787.00	34.70	0.00000	0.00	☑

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
Q7-10	0.047	0.45	0.00	0.000	0.000	10.0	0.00	0.00	5.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		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
Dunbar Borough	PA0217646	0.0000	0.4500	0.0000	0.000	15.00	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	6.00	12.80	0.00	0.00
NH3-N	25.00	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
19D	38164	DUNBAR CREEK	**1.413**	1750.00	38.00	0.00000	0.00	☑

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
Q7-10	0.047	0.00	0.00	0.000	0.000	10.0	0.00	0.00	5.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		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 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	5.5		

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
19D	38164	DUNBAR CREEK

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
Q7-10 Flow												
1.790	0.45	0.00	0.45	.6962	0.01859	.575	17.2	29.9	0.12	0.199	11.07	7.00
Q1-10 Flow												
1.790	0.29	0.00	0.29	.6962	0.01859	NA	NA	NA	0.11	0.217	12.07	7.00
Q30-10 Flow												
1.790	0.61	0.00	0.61	.6962	0.01859	NA	NA	NA	0.12	0.185	10.32	7.00

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
19D	38164	DUNBAR CREEK

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
1.790	Dunbar Borough	24.1	34.07	24.1	34.07	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
1.790	Dunbar Borough	3.52	6.62	3.52	6.62	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
1.79	Dunbar Borough	25	25	6.62	6.62	6	6	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
19D	38164	DUNBAR CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
1.790	0.450	11.074	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
17.197	0.575	29.903	0.116
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
15.97	1.419	4.02	0.352
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
8.670	16.563	Tsivoglou	5.5
Reach Travel Time (days)			
0.199			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.020	15.67	3.99	8.83
0.040	15.38	3.96	8.96
0.060	15.10	3.94	9.06
0.080	14.82	3.91	9.14
0.099	14.54	3.88	9.20
0.119	14.27	3.85	9.25
0.139	14.01	3.83	9.30
0.159	13.75	3.80	9.34
0.179	13.49	3.77	9.37
0.199	13.24	3.75	9.41

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
19D	38164	DUNBAR CREEK

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)
1.790	Dunbar Borough	PA0217646	0.000	CBOD5	25		
				NH3-N	6.62	13.24	
				Dissolved Oxygen			6