pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0085669**
Facility Type	**Municipal**	APS ID	**921**
Major / Minor	**Minor**	Authorization ID	**1400078**

Applicant and Facility Information

Applicant Name	**Centerport Borough Municipal Authority - Berks County**	Facility Name	**Centerport STP**
Applicant Address	PO Box 248, 110 Callowhill Street Centerport, PA 19516-0248	Facility Address	Main Street Centerport, PA 19516
Applicant Contact	Rebecca Hummel, Authority Chair	Facility Contact	Deb Balsavage, Miller Environmental Inc.
Applicant Phone	(610) 926-5959 g0ldm00n0@yahoo.com centerportboro@comcast.net	Facility Phone	(484) 507-4401 dbalsavage@miller-env.com
Client ID	92767	Site ID	461423
Ch 94 Load Status	Not Overloaded	Municipality	Centerport Borough (collection system) & Centre Twp. (treatment plant & outfall)
Connection Status	No Exceptions Allowed	County	Berks
Date Application Received	June 20, 2022	EPA Waived?	Yes
Date Application Accepted	July 1, 2022	If No, Reason	
Purpose of Application	NPDES Renewal.		

Summary of Review

The existing permit was issued December 22, 2017. It was administratively extended past its expiration date of December 31, 2022. A renewal application was submitted using DEP's electronic upload system, OnBase (Reference ID #60595) on June 20, 2022. The renewal permit application indicated no modification or addition to the existing treatment plant. A phone conversation with Deb Balsavage at Miller Environmental on January 25, 2024, confirmed that there are no changes to the information in the 2022 permit application.

The collection system includes Centerport Borough and the surrounding areas in Centre Township. The Treatment Plant (TP) is located in Centre Township. An inter-municipal agreement between Centerport Borough and Centre Township exists. Construction of the TP was completed in 1999.

The facility's 2022 Chapter 94 Municipal Wasteload Report stated (1) that there are no existing industrial connections and no "proposed industrial waste pre-treatment facilities" and (2) "Commercial connections to the collection system include restaurants, hotels, service stations, retail stores, and other businesses, which discharge domestic waste streams."

While the facility has experienced hydraulic overloads and organic overloads in the past, their 2023 Chapter 94 Municipal Wasteload Annual Report does not project hydraulic or organic overloads for the next five years. (See the attached, submitted August 15, 2023, via DEP's OnBase electronic upload system.)

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Approve	Deny	Signatures	Date
x		*Bonnie Boylan* Bonnie Boylan / Environmental Engineering Specialist	January 25, 2024
x		*Maria D. Bebenek for* Daniel W. Martin, P.E. / Environmental Engineer Manager	February 1, 2024
x		*Maria D. Bebenek* Maria D. Bebenek, P.E. / Environmental Program Manager	February 1, 2024

Summary of Review

Design Flow:

The existing permit's effluent limits were based on a design flow of 0.06 MGD. The facility's summarized electronic Discharge Monitoring Report (DMR) data between January 1, 2021 and November 30, 2023 are **attached**. The data do not indicate a need to increase the design flow. The same design flow of 0.06 MGD will be used as a basis for the effluent limits in this renewal permit.

However, because the 90th percentile of the Daily Maximum flows reported on monthly DMRs reviewed was 0.15 MGD and because 16 months out of the 35 monthly DMRs reviewed included Daily Maximum flows greater than the TP's Hydraulic Design Capacity, a requirement has been included in the Part C Conditions that a High Flow Management Plan be prepared.

Combined Sewer Outfalls (CSOs):
Not applicable.

Hauled-in Wastes:
None in the past three years or anticipated in the next five years (per permit application)

Sludge use and disposal description and location(s):
hauled to Lehigh County Authority Wastewater Pretreatment Plant

Unresolved Violations:

There may be an unresolved violation from a DEP inspection that occurred on September 5, 2023. The inspector is on military leave and documentation was not recorded yet in DEP databases as it normally would have been. After discussion with the Operations Supervisor, it was determined that the draft permit could still be issued. Any violation is expected to be resolved before the time of the final permit's issuance.

Delaware River Basin Commission:
The facility discharges to a stream within the Delaware River watershed and is thus subject to the Delaware River Basin Commission (DRBC)'s requirements. A copy of the draft permit and Fact Sheet will therefore be sent to the DRBC for their review in accordance with State regulations and an interagency agreement. Any comments from DRBC will be considered.

The most recent DRBC docket D-2018-006 CP-1 was approved for this facility on June 12, 2019 and expires December 31, 2027. According to the docket, the TP "will continue to serve the corporate boundaries of Centerport Borough; as well as, both the Blue Ribbon Farms Subdivision and the Gresh 2 Subdivision in Centre Township."

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)	0.06
Latitude	40º 28' 47.84"	Longitude	-76º 0' 2.09"
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Irish Creek (WWF)	Stream Code	2153
NHD Com ID	25962020	RMI	2.8
Drainage Area	18.8 sq.mi.	Yield (cfs/mi^2)	0.03
Q_{7-10} Flow (cfs)	0.55	Q_{7-10} Basis	USGS Pa Stream Stats online tool
Elevation (ft)	310 approx. (using eMapPA)	Slope (ft/ft)	
Watershed No.	3-B	Chapter 93 Class.	WWF, MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired - Aquatic Life (assessment ID #3278)		
Cause(s) of Impairment	Siltation		
Source(s) of Impairment	Agriculture, Erosion From Derelict Land (Barren Land)		
TMDL Status	Previously proposed but not finalized	Name	Irish Creek
Background/Ambient Data – not available		Data Source - none	
Nearest Downstream Public Water Supply Intake		Pottstown Borough Water Authority*	
PWS Waters	Schuylkill River	Flow at Intake (cfs)	
PWS RMI	57	Distance from Outfall (mi)	Approx. 36 miles

Qs:Qd = 6:1

Secondary Receiving Waters: Irish Creek flows into Schuylkill River at RMI 89.9 (WWF)

No upstream or downstream gages on Irish Creek. And no DEP WQN monitoring stations.

Downstream dischargers: 0.5 RMI on Irish Crk=CentreTwp Dauberville STP, PA0086771, Qd=0.08 MGD (2.3 miles away)

Upstream dischargers: 3.9 RMI on Irish Crk = Irish Creek Vlg, PA0052400, elev 320' (1.1 miles away)
Qd= 0.009 MGD; CBOD limits= 25; NH3 limits = 20 yr-round.

DEP Ongoing Redesignations list: not listed
DEP Completed Stream Redesignation list: not listed
DEP Existing Use list: not listed

Changes Since Last Permit Issuance:

Last FS (2017) used 0.7 cfs as Q7-10 per StreamStats online, D.A. of 18 sq.mi., LFY of 0.040 cfs/sq.mi., and
Did not include other dischargers in WQM 7.0 model.

Treatment Facility Summary				
Treatment Facility Name: Centerport Borough - STP				
WQM Permit No.	**Issuance Date**			
0697401	June 10, 1997			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary	Activated Sludge	Hypochlorite	0.06
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.06	120*	Not Overloaded	Aerobic Digestion	Other WWTP

***according to 2022 Chapter 94 Spreadsheet and attached WQM permit's Internal Review and Recommendations (IRR). No WQM permit amendments were recorded in DEP database or included in File Room paper and microfiche records. The 2017 NPDES permit, showing 125.1 lbs/day as the organic capacity, has been corrected in this renewal NPDES permit.**

Chapter 94 Report: the TP is a 60,000 gpd extended aeration facility with an influent submersible pump station and equalization tank. The collection system consists of 10,240 linear feet of 8" gravity sewer mains and appurtenances. It does not contain pump stations.

According to the WQM's 1997 Internal Review and Recommendations (and WQM permit application):

Bar Screen
Comminutor
Flow Equalization Tank
2 Submersible Pumps, 85 gpm each
Diffused Aeration
2 Settling Tanks
Chlorine contact tank
Tablet Chlorinator ----since replaced with liquid hypochlorite feed

DEP Inspector's Report from 5/8/2018 Site Inspection:

Use composite samplers at influent and effluent. Effluent samples collected at Post aeration.

EXISTING PERMIT LIMITS, OUTFALL 001:

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.64	1/day	Grab
CBOD5	12.5	XXX	XXX	25.0	XXX	50	2/month	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TSS Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TSS	15	XXX	XXX	30.0	XXX	60	2/month	8-Hr Composite
Total Dissolved Solids	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	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
Total Nitrogen	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite
Ammonia Nov 1 - Apr 30	10	XXX	XXX	20.0	XXX	40	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	7.8	XXX	XXX	15.5	XXX	31	2/month	8-Hr Composite
Total Phosphorus	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite

Compliance History

DMR Data for Outfall 001 (from December 1, 2022 to November 30, 2023)

Parameter	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22
Flow (MGD) Average Monthly	0.018	0.015	0.025	0.019	0.028	0.019	0.022	0.020	0.026	0.018	0.036	0.039
Flow (MGD) Daily Maximum	0.040	0.020	0.069	0.049	0.151	0.025	0.084	0.082	0.101	0.026	0.096	0.159
pH (S.U.) Minimum	6.4	6.5	6.4	6.3	6.8	6.4	6.4	6.2	6.4	6.4	6.9	6.6
pH (S.U.) Instantaneous Maximum	7.6	7.4	8.0	7.7	8.0	7.5	7.5	7.7	7.7	7.6	7.6	7.5
DO (mg/L) Minimum	7.4	6.1	5.2	5.4	5.3	6.0	5.8	6.3	5.1	6.6	5.8	5.1
TRC (mg/L) Average Monthly	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.1
TRC (mg/L) Instantaneous Maximum	0.70	0.79	0.75	0.86	0.64	0.84	0.46	0.77	1.05	1.22	0.34	0.32
CBOD5 (lbs/day) Average Monthly	0.7	< 0.4	0.4	< 1.9	< 0.5	< 0.5	< 0.4	0.4	< 0.4	< 0.4	< 1.1	1.4
CBOD5 (mg/L) Average Monthly	5.2	< 2.6	2.9	< 7.0	< 3.0	< 2.6	< 2.5	2.8	< 2.4	< 2.3	< 2.5	5.6
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	61	41	20	64	35	60	48	41	51	60	82	65
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	81	42	20	101	45	60	57	52	60	72	119	87
BOD5 (mg/L) Raw Sewage Influent Average Monthly	439	271	190	305	202	299	283	266	305	350	205	255
TSS (lbs/day) Average Monthly	< 0.6	< 0.6	< 0.5	< 1	< 1	< 1.0	< 1	< 1	< 1	< 1	< 2	< 1
TSS (lbs/day) Raw Sewage Influent Average Monthly	46	28	16	47	34	38	38	26	52	34	68	44

TSS (lbs/day) Raw Sewage Influent Daily Maximum	61	29	18	74	40	41	42	33	70	41	94	65
TSS (mg/L) Average Monthly	< 4.0	< 4.0	< 4.0	< 5.0	< 4.0	< 4.0	< 4.0	< 4.3	< 4.0	< 4	< 4.0	< 4.0
TSS (mg/L) Raw Sewage Influent Average Monthly	334	188	149	224	182	190	225	171	309	203	176	165
Total Dissolved Solids (lbs/day) Average Quarterly			70			147			363			507
Total Dissolved Solids (mg/L) Average Quarterly			337			766			663			867
Fecal Coliform (No./100 ml) Geometric Mean	< 1	< 3	3	< 1	2	< 1	< 2	163	16	< 1	6	262
Fecal Coliform (No./100 ml) Instantaneous Maximum	1	10	7	< 1	3	< 1	6	5300	88	2	7	1900
Total Nitrogen (lbs/day) Average Quarterly			2.2			7.6			22.6			36.7
Total Nitrogen (mg/L) Average Quarterly			10.7			39.8			39.5			62.7
Ammonia (lbs/day) Average Monthly	< 0.1	< 0.02	< 0.01	< 0.1	< 0.06	< 0.02	< 0.02	< 0.03	< 0.02	< 0.04	< 0.04	< 0.03
Ammonia (mg/L) Average Monthly	< 1.1	< 0.1	< 0.1	< 0.5	< 0.4	< 0.1	< 0.1	< 0.2	< 0.1	< 0.2	< 0.1	< 0.1
Total Phosphorus (lbs/day) Average Quarterly			0.28			1.02			2.48			4.64
Total Phosphorus (mg/L) Average Quarterly			1.36			5.31			4.33			7.93

Compliance History

Facility Maintenance CENTERPORT BORO - STP 491509

Summary

Primary Facility ID	Primary Facility Other ID	Primary Facility Name	
491509	PA0085669	CENTERPORT BORO - STP	
Primary Facility Status	**Primary Facility Type**	**Primary Facility Kind**	**Primary Facility Fee Category**
ACTIV - Active	WPCF - Water Pollution Control Facility	SP - Sewage Publicly Owned (Muni)	Minor Sewage Facility >=0.05 and <1 MGD

General | Addresses | Documents | Upload File | Monitoring Reports | Non-Compliance | Sampling Points | Permit History

NC ID	Event Start Date	Event End Date	Parameter	Limit Type	Reported Value		Permit Limit	Unit	Sampling Point	Sampling Frequency	Sampling Type	Cause of NC	Corrective Action	External Comments	Internal Comments
116026	06/01/2020	06/30/2020	Fecal Coliform	Instantaneous Maximum	2300	>	1000	No./100 ml	Final Effluent (001)	2/month	Grab	Unknown	See attached comments	TRC was 0.43 mg/L when fecal sample was collected, which should have been adequate for a compliant result. All processes appeared normal.	View/Edit

No Permit Limit Exceedances or other Non-Compliance since June 30, 2020 in DEP WMS database.

DEP Inspections:

September 5, 2023 – one of the two influent pumps was offline at time of inspection. Inspectors recommended that permittee provide notification to DEP Clean Water Operations when they take an influent pump offline for an extended period. Noted that the treatment system is old. Inspector collected effluent sample for analysis, but may need to be re-sampled.

October 14, 2020 - Administrative Review (site visits were suspended during Covid pandemic) – No Violations noted. Recent effluent violations were discussed: DO and Fecal Coliform, and one month of permit exceedances for Ammonia.

May 8, 2018 - No violations. Clarifier has popping sludge and duck weed on the surface and the effluent trough contains sludge and algae. At the time of inspection there was no sodium hypochlorite dripping. Department sample results collected during inspection returned a result of 4200 cfu/100mL although the holding time was exceeded. (Facility's IMAX limit for Fecal Coliform is 1000 cfu/100 mL.) No apparent issues noted at outfall. Ultrasonic effluent meter with totalizer recorder. No stand-by power

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.06
Latitude 40º 28' 48" **Longitude** -76º 0' 2"
Wastewater Description: Sewage Effluent

Technology-Based Effluent Limitations (TBELs)

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

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation	DRBC Requirement
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)	
	40**	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)	
$CBOD_5$	85% removal*	Average Monthly		92a.47(a)(3)	
BOD_5	85% removal*	-			18 CFR Part 410
Total Suspended Solids (TSS)	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)	18 CFR Part 410
	45**	Average Weekly	133.102(b)(2)	92a.47(a)(2)	18 CFR Part 410
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)	18 CFR Part 410
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)	18 CFR Part 410
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 (TRC)	0.5	Average Monthly	-	92a.47(a)(8) & 92a.48(b)	
Ammonia (NH_3-N)	20	Average Monthly			18 CFR Part 410
Total Dissolved Solids (TDS)	1000***	Average Monthly			18 CFR Part 410

*Narrative limits are imposed in NPDES permits in Part A following the limits tables. The narrative limits include: "The monthly average percent removal of BOD_5 or $CBOD_5$ and TSS must be at least 85% for WWTP facilities on a concentration basis…." (Because all Chapter 94 Municipal Wasteload Annual reporting for sewage is in terms of BOD_5, the influent monitoring has continued to be required as BOD_5, as requested by DEP's regional office Sewage Planning staff. Because DEP's WQM 7.0 model uses $CBOD_5$, most NPDES permits for sewage treatment plants (STPs) include effluent limits in terms of $CBOD_5$ rather than as BOD_5.)

**applied to sewage facilities for which monitoring frequency is at least once per week. Not applicable for this permit.

***Or a concentration established by the Commission which is compatible with designated water uses and stream quality objectives and recognizes the need for reserve capacity to serve future dischargers (i.e. limit based on a TDS Determination submitted to DRBC proving that the discharge will not cause the TDS in the receiving water to exceed the lesser of 500 mg/l or 133% of background).

The existing permit only required quarterly monitoring for TDS and not a limit. The TBEL of 1000 mg/l as a monthly average has been included in the renewal permit. The eDMR data from January 1, 2021 through December 31, 2023 indicate an average TDS concentration of 753 mg/l. The 90th percentile of the quarterly average concentrations reported was 865 mg/l.

There was one quarter in which the concentration was reported as greater than 1000 mg/l, the TBEL. No compliance schedule has been proposed consistent with DEP's Standard Operating Procedure (SOP) 'New and Reissuance Sewage Individual NPDES Permit Applications' which recommends as follows:

> *IV.G.2. For WQBELs and other TBELs in which the permittee has demonstrated its ability to comply by meeting the proposed limit at least 75% of the time considering existing performance data, no compliance schedule should be established in the draft permit.*

Best Professional Judgment (BPJ) Limitations

Dissolved Oxygen (DO)

A minimum effluent limit of 5.0 mg/L for DO is derived from state water quality criteria found in 25 Pa. Code §93.7(a). The existing permit included a minimum effluent limit for DO of 5.0 mg/l and no change is recommended.

Water Quality-Based Effluent Limitations (WQBELs)

$CBOD_5$, Ammonia (NH_3-N), and Dissolved Oxygen (DO)

DEP uses a model, WQM 7.0, to determine appropriate permit requirements for $CBOD_5$, NH_3-N and DO. The model results will show calculated WQBELs if they are more stringent or will default to the TBELs if the TBELs are protective enough of the receiving waterway. For more explanation of the WQM 7.0 model, see Technical Reference Guide 'WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen', document #386-2000-016. The NH3 calculations used in the model are based on the DEP's 'Implementation Guidance of Section 93.7 Ammonia Criteria', document #391-2000-013.

The model input values and output values are **attached**. DEP's eMapPA was the source of the River Mile Indices (RMI's) and elevations that were used in the model while USGS Pa Stream Stats online tool was the source of the the Drainage Areas and stream design low-flows ($Q_{7\text{-}10}$) used in the model. Some model inputs were default values because background data was not available at this location and no site-specific data was forwarded with the application.

The model results for $CBOD_5$ and DO are the same as the existing permit limits: the model defaulted to the TBELs.

The NH_3 criterion, an equation, changed in the 2020 amendments to the Pa Water Quality Standards, Pa Code Chapter 93. The model incorporates the new NH_3 criterion. Also, the $Q_{7\text{-}10}$ used as a model input was smaller than what was used for the previous permit (See page 3 of the Fact Sheet.) The model calculated NH_3 WQBELs of 11.5 mg/l as a monthly average and 23 mg/l as a maximum. These limits are more stringent than the existing permit. As was done in the previous permit (and many other NPDES permits), the cool weather NH_3 limits were allowed to be less stringent, recognizing that NH_3 is less toxic in colder water. However, the cool weather NH_3 limits (November through April) were capped at 20 mg/l, the monthly average TBEL. The cool weather NH_3 limits are therefore the same as included in the existing permit.

The facility's eDMRs from January 1, 2021 through November 30, 2023 indicate that they can meet the more stringent NH_3 limits without the need for a compliance schedule. The maximum monthly average during that period, including warm months and cool months, was <2.6 mg/l and <0.6 lbs/day, well under the proposed new limits of 11.5 mg/l and 5.8 lbs/day.

Total Residual Chlorine (TRC)

DEP's TRC model was used to calculate WQBELs. (See **attached** results.) The calculations used in the model are based on DEP's 'Implementation Guidance Total Residual Chlorine (TRC) Regulation', document #386-2000-011. As with the WQM 7.0 model, the model will default to TBELs if the TBELs are deemed protective enough of the receiving water. The

model defaulted to the TBELs in this case: 0.5 mg/l and 1.64 mg/l as an Instantaneous Maximum (IMAX). These are the same TRC limits as in the existing permit.

Toxics

There are no industrial contributors nor were there any sample results in the application for toxic parameters.

Irish Creek - Impaired Stream

In August 2012, DEP developed a Total Maximum Daily Load (TMDL) for the Irish Creek Watershed as a result of the creek's impairment assessment for siltation. (See **attached**.) The TMDL proposed holding Total Suspended Solids (TSS) loading from existing point sources at existing authorized levels and reducing sediment loading in other categories. For this facility, the authorized loads for TSS were 15.01 lb/day and 5479.38 lbs/year (based on a TSS concentration of 30 mg/l and a design flow of 0.06 MGD). No other parameters were included in the proposed TMDL. The proposed TMDL was never finalized and is now out-of-date. DEP's SOP 'Establishing Effluent Limitations for Individual Sewage Permits' also instructs:

> At a minimum, loadings of pollutants associated with the impairment must be "frozen" at existing levels such that no increase in loading of pollutants associated with the impairment may be authorized.

The existing permit limits of 30 mg/l as a monthly average, 60 mg/l as a maximum, and 15 lbs/day as a monthly average have been continued in the renewal permit.

The facility's eDMRs from January 1, 2021 through November 30, 2023 show an average monthly TSS concentration of < 4.4 mgl and an average monthly TSS load of <1.0 lbs/day.

Because the TMDL was never finalized, the annual load 'limit' of 5479 lbs/year is not included in the NPDES permit and no Supplemental DMR for TMDL Annual Load is required.

Additional Considerations

Flow Monitoring:

The requirement to monitor the volume of effluent will remain in the draft permit per 40 CFR § 122.44(i)(1)(ii).

Influent BOD & TSS Monitoring:

The existing influent monitoring reporting requirement for TSS and BOD_5 will be maintained in the draft permit. This requirement has been consistently assigned to all municipal wastewater treatment facilities and is necessary to verify the 85% removal permit requirement as well as to ensure process control.

Total Nitrogen and Total Phosphorus Monitoring:

Nutrient levels in rivers and streams are a concern. A monitoring requirement for Total Nitrogen and Total Phosphorus has been included, as was done in the existing permit and consistent with DEP's SOP Establishing Effluent Limitations for Individual Sewage Permits. The statutory basis for this requirement is found at Chapter 92a.61. Because this requirement is to gather data and not to demonstrate compliance with a limit and because the receiving water and downstream receiving water have not been found to be impaired for nutrients, a frequency of once per quarter has been included.

The facility's eDMR data from January 1, 2021 through November 30, 2023 showed a quarterly average Total Nitrogen mass load of 10.0 lbs/day and a quarterly average Total Nitrogen concentration of 37.9 mg/l. The same eDMRs showed

a quarterly average Total Phosphorus mass load of 1.22 lbs/day and a quarterly average Total Phosphorus concentration of 4.78 mg/l.

Mass Loading Limitations:

All effluent mass loading limits have been based on the formula: design flow x concentration limit x conversion factor of 8.34.

Monitoring Frequency and Sample Type:

Monitoring frequencies have been carried forward from the existing permit consistent with DEP's SOP 'New and Reissuance Sewage Individual NPDES Permit Applications', except for E. Coli. and TDS. For E. Coli, the monitoring frequency of once per quarter is consistent with DEP's SOP 'Establishing Effluent Limitations for Individual Sewage Permits'. For TDS, the TBEL is a monthly average so the statistical base code (SBC) needs to be at least monthly. Because the other parameters have a sampling frequency of twice per month, as recommended in DEP's 'Technical Guidance for the Development and Specification of Effluent Limitations', document #386-0400-001, the SBC of twice per month was included in the permit for TDS also.

The sample types, consistent with guidance document #386-0400-001, have been carried forward from the existing permit except that '8-hour composite' was changed to '24-hour composite': automatic sampling equipment can handle 24-hour composite sampling for influent and effluent.

Rounding of Limits:

Limits were expressed with the number of decimal points recommended in DEP's guidance document #386-04000-001 unless the DEP WMS software introduced since the date of the guidance document required differently.

TDS Baseline:

In order to implement the regulations at Chapter 95.10 relevant to imposing TDS limits if increased loads trigger this requirement in the future, a TDS Baseline needs to be documented. The increase of TDS loads is measured against "maximum daily discharge loads of TDS…that were authorized by the Department prior to August 21, 2010" [Pa Code § 95.10(a)(1)]. The 2007 NPDES permit did not require TDS monitoring but the 2012 application provided 3 sample results for TDS, averaging 761 mg/l and with a maximum concentration of 801 mg/l. The TDS baseline load, as of August 21, 2010, was thus estimated as follows:
801 mg/l x 0.06 MGD x 8.34 conversion factor = 401 lbs/day.

The eDMR data between January 1, 2020 and November 30, 2023 indicated an average TDS concentration of 753 mg/l. The average annual design flow nor the TDS concentration have increased since August 2010.

Anti-Backsliding:

No permit limitations have been made less stringent.

Antidegradation Requirements:

All effluent limitations and monitoring requirements have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

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, BPJ, and water quality as needed. Instantaneous Maximum (IMAX) limits are generally 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	Daily Maximum	Instant. Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.64	1/day	Grab
CBOD5	12.5	XXX	XXX	25.0	XXX	50	2/month	24-Hr Composite
BOD5 Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/month	24-Hr Composite
TSS	15.0	XXX	XXX	30.0	XXX	60	2/month	24-Hr Composite
TSS Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Total Dissolved Solids	Report	XXX	XXX	1000.0	XXX	XXX	2/month	24-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
Ammonia Nov 1 - Apr 30	10.0	XXX	XXX	20.0	XXX	40	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	5.8	XXX	XXX	11.5	XXX	23	2/month	24-Hr Composite

Outfall 001 , Continued (from 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	Daily Maximum	Instant. Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Nitrogen	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Total Phosphorus	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite

Compliance Sampling Location: at Outfall 001

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (see Attachment)
☐	Toxics Management Spreadsheet (see Attachment)
☒	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☒	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☒	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☒	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☒	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☒	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☒	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☒	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
☒	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: Establishing Effluent Limitations for Individual Sewage Permits, BCW-PMT-033, Version 1.9, Revised March 24, 2021.
☒	SOP: New and Reissuance Sewage Individual NPDES Permit Applications, BCW-PMT-002, Version 2.0, Revised, February 3, 2022.
☒	Other: DRBC docket D-2018-006 CP-1, approved June 12, 2019.

PERMIT	MONITORIN	MONITORING	OUTFAL	PARAMET	UNITS	1_VALUE	1_LIMIT	1_SBC	2_VALUE	2_LIMIT	2_SBC
PA0085669	1/1/2021	1/31/2021	1	Flow	MGD	0.028	Monitor	Average Mo	0.069	Monitor	Daily Max
PA0085669	2/1/2021	2/28/2021	1	Flow	MGD	0.038	Monitor	Average Mo	0.151	Monitor	Daily Max
PA0085669	3/1/2021	3/31/2021	1	Flow	MGD	0.062	Monitor	Average Mo	0.219	Monitor	Daily Max
PA0085669	4/1/2021	4/30/2021	1	Flow	MGD	0.025	Monitor	Average Mo	0.065	Monitor	Daily Max
PA0085669	5/1/2021	5/31/2021	1	Flow	MGD	0.02	Monitor	Average Mo	0.031	Monitor	Daily Max
PA0085669	6/1/2021	6/30/2021	1	Flow	MGD	0.02	Monitor	Average Mo	0.03	Monitor	Daily Max
PA0085669	7/1/2021	7/31/2021	1	Flow	MGD	0.019	Monitor	Average Mo	0.031	Monitor	Daily Max
PA0085669	8/1/2021	8/31/2021	1	Flow	MGD	0.019	Monitor	Average Mo	0.028	Monitor	Daily Max
PA0085669	9/1/2021	9/30/2021	1	Flow	MGD	0.04	Monitor	Average Mo	0.234	Monitor	Daily Max
PA0085669	10/1/2021	10/31/2021	1	Flow	MGD	0.02	Monitor	Average Mo	0.05	Monitor	Daily Max
PA0085669	11/1/2021	11/30/2021	1	Flow	MGD	0.019	Monitor	Average Mo	0.04	Monitor	Daily Max
PA0085669	12/1/2021	12/31/2021	1	Flow	MGD	0.016	Monitor	Average Mo	0.026	Monitor	Daily Max
PA0085669	1/1/2022	1/31/2022	1	Flow	MGD	0.018	Monitor	Average Mo	0.031	Monitor	Daily Max
PA0085669	2/1/2022	2/28/2022	1	Flow	MGD	0.028	Monitor	Average Mo	0.145	Monitor	Daily Max
PA0085669	3/1/2022	3/31/2022	1	Flow	MGD	0.018	Monitor	Average Mo	0.029	Monitor	Daily Max
PA0085669	4/1/2022	4/30/2022	1	Flow	MGD	0.041	Monitor	Average Mo	0.147	Monitor	Daily Max
PA0085669	5/1/2022	5/31/2022	1	Flow	MGD	0.028	Monitor	Average Mo	0.142	Monitor	Daily Max
PA0085669	6/1/2022	6/30/2022	1	Flow	MGD	0.017	Monitor	Average Mo	0.022	Monitor	Daily Max
PA0085669	7/1/2022	7/31/2022	1	Flow	MGD	0.017	Monitor	Average Mo	0.023	Monitor	Daily Max
PA0085669	8/1/2022	8/31/2022	1	Flow	MGD	0.02	Monitor	Average Mo	0.027	Monitor	Daily Max
PA0085669	9/1/2022	9/30/2022	1	Flow	MGD	0.017	Monitor	Average Mo	0.027	Monitor	Daily Max
PA0085669	10/1/2022	10/31/2022	1	Flow	MGD	0.02	Monitor	Average Mo	0.07	Monitor	Daily Max
PA0085669	11/1/2022	11/30/2022	1	Flow	MGD	0.021	Monitor	Average Mo	0.042	Monitor	Daily Max
PA0085669	12/1/2022	12/31/2022	1	Flow	MGD	0.039	Monitor	Average Mo	0.159	Monitor	Daily Max
PA0085669	1/1/2023	1/31/2023	1	Flow	MGD	0.036	Monitor	Average Mo	0.096	Monitor	Daily Max
PA0085669	2/1/2023	2/28/2023	1	Flow	MGD	0.018	Monitor	Average Mo	0.026	Monitor	Daily Max
PA0085669	3/1/2023	3/31/2023	1	Flow	MGD	0.026	Monitor	Average Mo	0.101	Monitor	Daily Max
PA0085669	4/1/2023	4/30/2023	1	Flow	MGD	0.02	Monitor	Average Mo	0.082	Monitor	Daily Max
PA0085669	5/1/2023	5/31/2023	1	Flow	MGD	0.022	Monitor	Average Mo	0.084	Monitor	Daily Max
PA0085669	6/1/2023	6/30/2023	1	Flow	MGD	0.019	Monitor	Average Mo	0.025	Monitor	Daily Max
PA0085669	7/1/2023	7/31/2023	1	Flow	MGD	0.028	Monitor	Average Mo	0.151	Monitor	Daily Max
PA0085669	8/1/2023	8/31/2023	1	Flow	MGD	0.019	Monitor	Average Mo	0.049	Monitor	Daily Max
PA0085669	9/1/2023	9/30/2023	1	Flow	MGD	0.025	Monitor	Average Mo	0.069	Monitor	Daily Max
PA0085669	10/1/2023	10/31/2023	1	Flow	MGD	0.015	Monitor	Average Mo	0.02	Monitor	Daily Max
PA0085669	11/1/2023	11/30/2023	1	Flow	MGD	0.018	Monitor	Average Mo	0.04	Monitor	Daily Max
						0.024	AVG		0.074	AVG	
						0.062	MAX		0.234	MAX	
						0.039	90th percentile		0.151	90th percentile	

Read aloud

nsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreadsh
Sewage Treatment Plar

Reporting Year: 2022

Facility Name: Centerport Borough Authority WWTP

Permit No.: PA0085669

Persons/EDU: 2.6

Existing Hydraulic Design Capacity: 0.06 MGD
Upgrade Planned in Next 5 Years? NO **Year:**
Future Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: 120 lbs BOD5/day
Upgrade Planned in Next 5 Years? NO **Year:**
Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2018	2019	2020	2021	2022
January	0.07	0.067	0.05096	0.02761	0.01838
February	0.0114	0.057	0.04697	0.03817	0.02804
March	0.071	0.072	0.03976	0.06153	0.01847
April	0.062	0.055	0.03629	0.02503	0.04069
May	0.091	0.08	0.03327	0.01966	0.02812
June	0.067	0.079	0.02734	0.01977	0.01708
July	0.053	0.07	0.02928	0.019	0.0174
August	0.039	0.05	0.05651	0.01938	0.02036
September	0.041	0.041	0.02342	0.04017	0.01699
October	0.027	0.053	0.0231	0.01936	0.01994
November	0.026	0.057	0.02662	0.01896	0.02105
December	0.024	0.053	0.04108	0.01639	0.039
Annual Avg	0.0485	0.061	0.036217	0.027085	0.02379
Max 3-Mo Avg	0.0747	0.076	0.053654	0.042438	0.02909
Max : Avg Ratio	1.54	1.25	1.48	1.57	1.22
Existing EDUs	183.0	184.0	188.0	188.0	188.0
Flow/EDU (GPD)	265.0	331.5	192.6	144.1	126.5
Flow/Capita (GPD)	101.9	127.5	74.1	55.4	48.7
Exist. Overload?	YES	YES	NO	NO	NO

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2018	2019	2020	2021	2022
January	25	47	48	58	86
February	32	34	55	135	50
March	26	35	29	46	57
April	45	43	38	89	52
May	41	43	27	54	48
June	25	62	38	52	38
July	29	23	37	35	36
August	27	21	30	45	47
September	18	25	36	51	35
October	21	26	48	36	116
November	60	24	45	47	42
December	17	68	32	101	65
Annual Avg	31	38	39	62	56
Max Mo Avg	60	68	55	135	116
Max : Avg Ratio	1.97	1.81	1.43	2.16	2.07
Existing EDUs	183	184	188	188	188
Load/EDU	0.167	0.204	0.205	0.332	0.298
Load/Capita	0.064	0.079	0.079	0.128	0.115
Exist. Overload?	NO	NO	NO	YES	NO

Projected Flows for Next Five Years (MGD)

	2023	2024	2025	2026	2027
New EDUs	1.0	1.0	1.0	1.0	1.0
New EDU Flow	0.0002	0.0002	0.0002	0.0002	0.0002
Proj. Annual Avg	0.03952	0.03972	0.03992	0.04012	0.04032
Proj. Max 3-Mo Avg	0.05578	0.05606	0.05634	0.05662	0.05691
Proj. Overload?	NO	NO	NO	NO	NO

Projected BOD5 Loads for Next Five Years (lbs/day)

	2023	2024	2025	2026	2027
New EDUs	1	1	1	1	1
New EDU Load	0.241	0.241	0.241	0.241	0.241
Proj. Annual Avg	45	45	46	46	46
Proj. Max Avg	85	86	86	87	87
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2018	2019	2020	2021	2022
January	4.26	4.28	3.26	1.95	2.65
February	5.8	3.5	3.08	5.49	3.8
March	2.58	4.46	4.21	4.7	3.96
April	4.49	3.85	5.47	2.38	4.48
May	5.9	8.59	3.61	4.11	5.02
June	5.93	7.63	4.05	3.73	5.08
July	6.35	8.26	6.23	4.53	3.16
August	13.6	5.83	8.94	6.45	1.77
September	7.33	1.61	4.04	8.02	5.48
October	3.74	8.27	3.63	4.0	4.24
November	8.85	2.28	4.05	2.11	3.47
December	5.52	3.89	3.58	1.21	4.69

PA.GOV OFFICIAL APP | Josh Shapiro, Governor | Jessica Shirley, Interim Acting Secretary | DEP Hom

Total Maximum Daily Loads and Alternative Restoration Strategies

Return to Main Page

Select by Watershed: Irish Creek [Go]

Search by County: [Go]

Search by Cause: [Go]

Search by Category: [Go]

Search by Status: [Go]

Search by HUC: [Go]

Keyword Search: [Go]

Irish Creek		
Information	**Status**	**Links**
County: Berks **Category:** NONPOINT SOURCE **Cause:** SILTATION **HUC:** 2040203	Proposed Proposed Date: 6/19/2012 Meeting Date: Public Participation Begin Date: 6/23/2012 Public Participation End Date: 7/23/2012	**TMDL:** Irish Creek **Public Notice:** Public Notice **Other:** Word Format Proposed Final

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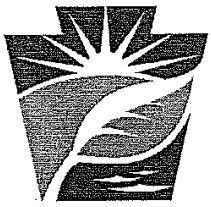
Pennsylvania Department of Environmental Protection

Rachel Carson Building | 400 Market Street | Harrisburg, PA 17101

Irish Creek Watershed TMDL

Berks County, Pennsylvania

Prepared by:



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

August 2012

Table 8. TMDL Values for the Irish Creek Watershed				
Pollutant	Loading Rate in Reference Mill Creek (lb/ac-yr)	Total Area in Irish Creek Watershed (ac)	Target TMDL Value (lb/yr)	Target TMDL Value (lb/day)
Sediment	470.9	16,076.6	7,571,042*	20,743

* takes into account rounding in previous calculations

The target TMDL value was then used as the basis for load allocations and reductions in the Irish Creek Watershed, using the following two equations:

1. TMDL = WLA + LA + MOS
2. LA = ALA + LNR

where:

TMDL = Total Maximum Daily Load
WLA = Waste Load Allocation (Point Sources)
LA = Load Allocation (Nonpoint Sources)
MOS = Margin of Safety
ALA = Adjusted Load Allocation
LNR = Loads Not Reduced

Waste Load Allocation

The waste load allocation (WLA) portion of the TMDL equation is the total loading of a pollutant that is assigned to point sources. There are six permitted discharges in the Irish Creek Watershed totaling 73,139.5 lbs/year of total suspended solids (TOS). There is also a bulk reserve allocation of 1.0% of the TMDL, 75,710.4, added to the WLA to account for the dynamic nature of permit activity. The names, NPDES permit numbers, and loading rates are listed below:

Table 9. Waste Load Allocations for the Irish Creek Watershed			
Name	**NPDES Permit #**	**WLA (lb/yr)**	**WLA(lb/day)**
Irish Creek MHP	PA 0052400	821.91	2.25
Jordan Crossing	PA 0087581	1,461.17	4.00
Kingsgate STP	PA 0086525	1,095.88	3.00
Dauberville STP	PA 0086771	7,305.84	20.02
Hillcrest STP	PA 0246654	2,283.08	6.26
✳ Centerport STP	PA 0085669	5,479.38	15.01
Centre Twp. (MS4)	PAG 133667	38,861.00	106.47
Bulk Reserve		75,710.4	207.43
Total		**133,018**	**364.44**

Additionally, there is one municipality designated as a small Municipal Separate Storm Sewer System (MS4) permittee. The urbanized area within Centre Township lies in the bottom of the watershed and comprises almost exactly 1% of the total watershed area – 163 of 16,077 acres (see

StreamStats Output Report-Irish Crk at IrishCrkVlg STP					
State/Region ID	PA				
Workspace ID	PA20240116160429545000				
Latitude	40.48136				
Longitude	-76.01503				
Time	1/16/2024				
Basin Characteristics					
Parameter Code	Parameter Descripti	Value	Unit		
CARBON	Percentage of area c	0.5	percent		
DRNAREA	Area that drains to a	13.8	square miles		
PRECIP	Mean Annual Precip	46	inches		
ROCKDEP	Depth to rock	3	feet		
STRDEN	Stream Density -- to	1.49	miles per square mile		
Low-Flow Statistics Parar	100.0 Percent Low Flow Region 2				
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	13.8	square mi	4.93	1280
PRECIP	Mean Annual Precip	46	inches	35	50.4
STRDEN	Stream Density	1.49	miles per	0.51	3.1
ROCKDEP	Depth to Rock	3	feet	3.32	5.65
CARBON	Percent Carbonate	0.5	percent	0	99
Low-Flow Statistics Flow	100.0 Percent Low Flow Region 2				
Statistic	Value	Unit			
7 Day 2 Year Low Flow	1.25	ft^3/s			
30 Day 2 Year Low Flow	1.95	ft^3/s			
7 Day 10 Year Low Flow	0.361	ft^3/s			
30 Day 10 Year Low Flow	0.612	ft^3/s			
90 Day 10 Year Low Flow	1.21	ft^3/s			
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USGS Software Disclaimer: This software has been approved for release by the U.S. Geological					
USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive pu					
Application Version: 4.19.3					
StreamStats Services Version: 1.2.22					

(Upstream of Centerport Boro STP)

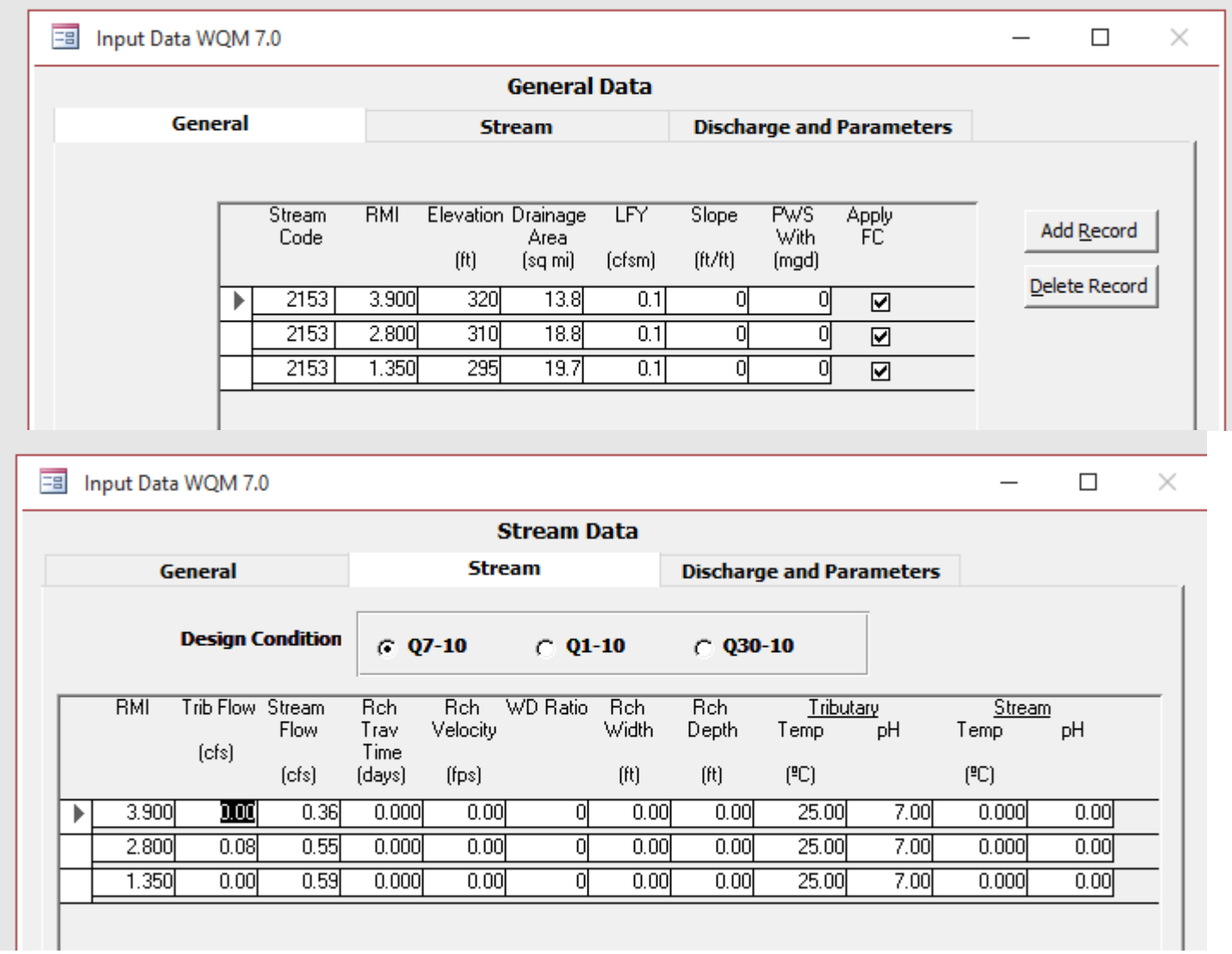
StreamStats Output Report-Plum Crk entering Irish Crk					
State/Region ID	PA				
Workspace ID	PA20240116161608400000				
Latitude	40.48472				
Longitude	-76.0078				
Low-Flow Statistics Para	100.0 Percent Low Flow Region 2				
Parameter Code	Paramete	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage A	3.47	square mi	4.93	1280
PRECIP	Mean Ann	47	inches	35	50.4
STRDEN	Stream De	1.46	miles per	0.51	3.1
ROCKDEP	Depth to F	3	feet	3.32	5.65
CARBON	Percent C	2.71	percent	0	99
Low-Flow Statistics Flov	100.0 Percent Low Flow Region 2				
Statistic	Value	Unit			
7 Day 2 Year Low Flow	0.312	ft^3/s			
30 Day 2 Year Low Flow	0.493	ft^3/s			
7 Day 10 Year Low Flow	0.0837	ft^3/s			
30 Day 10 Year Low Flow	0.144	ft^3/s			
90 Day 10 Year Low Flow	0.29	ft^3/s			
USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related ma					
USGS Software Disclaimer: This software has been approved for release by the U.					
USGS Product Names Disclaimer: Any use of trade, firm, or product names is for d					
Application Version: 4.19.3					
StreamStats Services Version: 1.2.22					
NSS Services Version: 2.2.1					

(Upstream of Centerport Boro STP)

StreamStats Output Report-Centerport STP					
State/Region ID	PA				
Workspace ID	PA20240116152330667000				
Latitude	40.47991				
Longitude	-76.00001				
Time	1/16/2024				
Basin Characteristics					
Parameter Code	Parameter Des	Value	Unit		
CARBON	Percentage of a	1.72	percent		
DRNAREA	Area that drain	18.8	square miles		
PRECIP	Mean Annual P	47	inches		
ROCKDEP	Depth to rock	3	feet		
STRDEN	Stream Density	1.55	miles per square mile		
Low-Flow Statistics Para	100.0 Percent Low Flow Region 2				
Parameter Code	Parameter Nan	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	18.8	square mi	4.93	1280
PRECIP	Mean Annual P	47	inches	35	50.4
STRDEN	Stream Density	1.55	miles per	0.51	3.1
ROCKDEP	Depth to Rock	3	feet	3.32	5.65
CARBON	Percent Carbon	1.72	percent	0	99
Low-Flow Statistics Flow	100.0 Percent Low Flow Region 2				
Statistic	Value	Unit			
7 Day 2 Year Low Flow	1.88	ft^3/s			
30 Day 2 Year Low Flow	2.89	ft^3/s			
7 Day 10 Year Low Flow	0.552	ft^3/s			
30 Day 10 Year Low Flow	0.926	ft^3/s			
90 Day 10 Year Low Flow	1.78	ft^3/s			
USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related mater					
USGS Software Disclaimer: This software has been approved for release by the U.S. G					
USGS Product Names Disclaimer: Any use of trade, firm, or product names is for desc					
Application Version: 4.19.3					
StreamStats Services Version: 1.2.22					

StreamStats Output Report-downstrm2-Centerport						
State/Region ID	PA					
Workspace ID	PA20240116154217651000					
Latitude	40.46713					
Longitude	-75.9884					
Time	1/16/2024					
Basin Characteristics						
Parameter Code	Parameter Descrip	Value	Unit			
CARBON	Percentage of area	2.49	percent			
DRNAREA	Area that drains to	19.7	square miles			
PRECIP	Mean Annual Prec	47	inches			
ROCKDEP	Depth to rock	3	feet			
STRDEN	Stream Density --	1.55	miles per square mile			
Low-Flow Statistics Parameters	100.0 Percent Low Flow Region 2					
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit	
DRNAREA	Drainage Area	19.7	square mi	4.93	1280	
PRECIP	Mean Annual Prec	47	inches	35	50.4	
STRDEN	Stream Density	1.55	miles per	0.51	3.1	
ROCKDEP	Depth to Rock	3	feet	3.32	5.65	
CARBON	Percent Carbonate	2.49	percent	0	99	
Low-Flow Statistics Flow Report	100.0 Percent Low Flow Region 2					
Statistic	Value	Unit				
7 Day 2 Year Low Flow	2	ft^3/s				
30 Day 2 Year Low Flow	3.07	ft^3/s				
7 Day 10 Year Low Flow	0.59	ft^3/s				
30 Day 10 Year Low Flow	0.988	ft^3/s				
90 Day 10 Year Low Flow	1.89	ft^3/s				
USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are consi						
USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Su						
USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purpc						
Application Version: 4.19.3						
StreamStats Services Version: 1.2.22						

Downstream of Centerport Boro STP



Input Data WQM 7.0

General Data

General | Stream | Discharge and Parameters

Stream Code	RMI	Elevation (ft)	Drainage Area (sq mi)	LFY (cfsm)	Slope (ft/ft)	PWS With (mgd)	Apply FC
2153	3.900	320	13.8	0.1	0	0	☑
2153	2.800	310	18.8	0.1	0	0	☑
2153	1.350	295	19.7	0.1	0	0	☑

Add Record

Delete Record

Input Data WQM 7.0

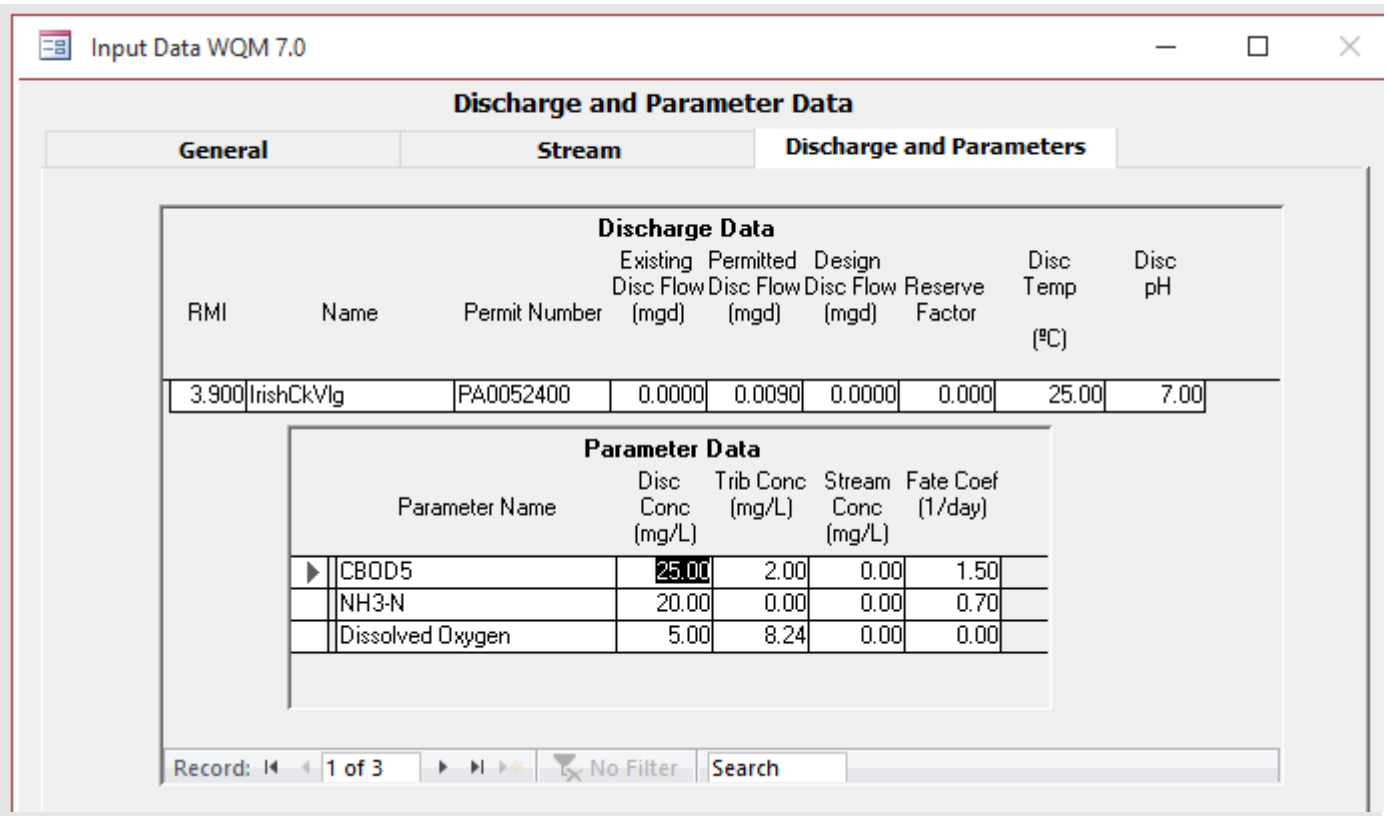
Stream Data

General | Stream | Discharge and Parameters

Design Condition ◉ Q7-10 ○ Q1-10 ○ Q30-10

RMI	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (ºC)	Tributary pH	Stream Temp (ºC)	Stream pH
3.900	0.00	0.36	0.000	0.00	0	0.00	0.00	25.00	7.00	0.000	0.00
2.800	0.08	0.55	0.000	0.00	0	0.00	0.00	25.00	7.00	0.000	0.00
1.350	0.00	0.59	0.000	0.00	0	0.00	0.00	25.00	7.00	0.000	0.00

(WQM 7.0 uses Stream Flow and Trib flow and Drainage Areas and RMIs that were input for its analysis; it ignores the default LFY of 0.1 when flows are input)



Input Data WQM 7.0

Discharge and Parameter Data

General | Stream | Discharge and Parameters

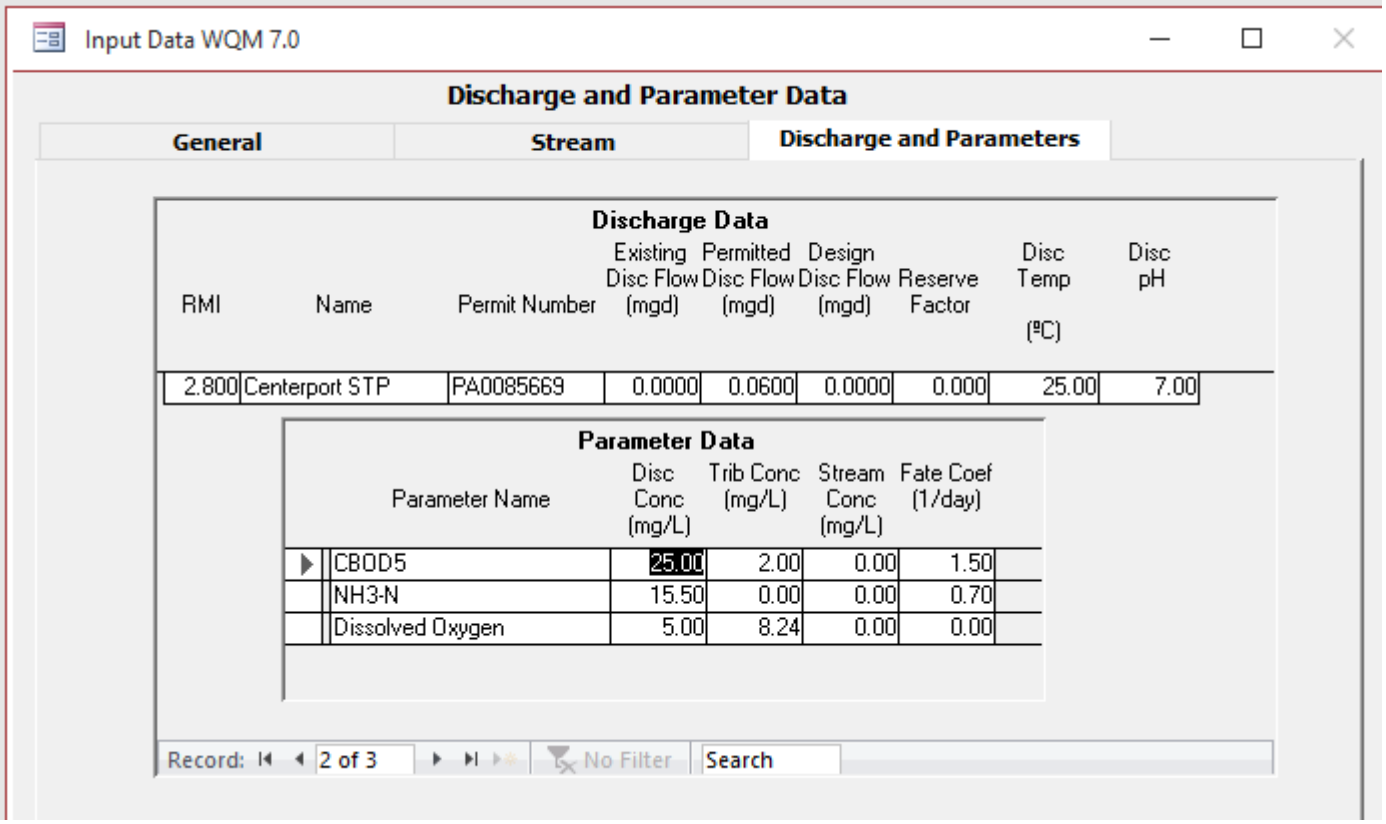
Discharge Data

RMI	Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (ºC)	Disc pH
3.900	IrishCkVlg	PA0052400	0.0000	0.0090	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/day)
CBOD5	25.00	2.00	0.00	1.50
NH3-N	20.00	0.00	0.00	0.70
Dissolved Oxygen	5.00	8.24	0.00	0.00

Record: 1 of 3 | No Filter | Search



Input Data WQM 7.0

Discharge and Parameter Data

General | Stream | Discharge and Parameters

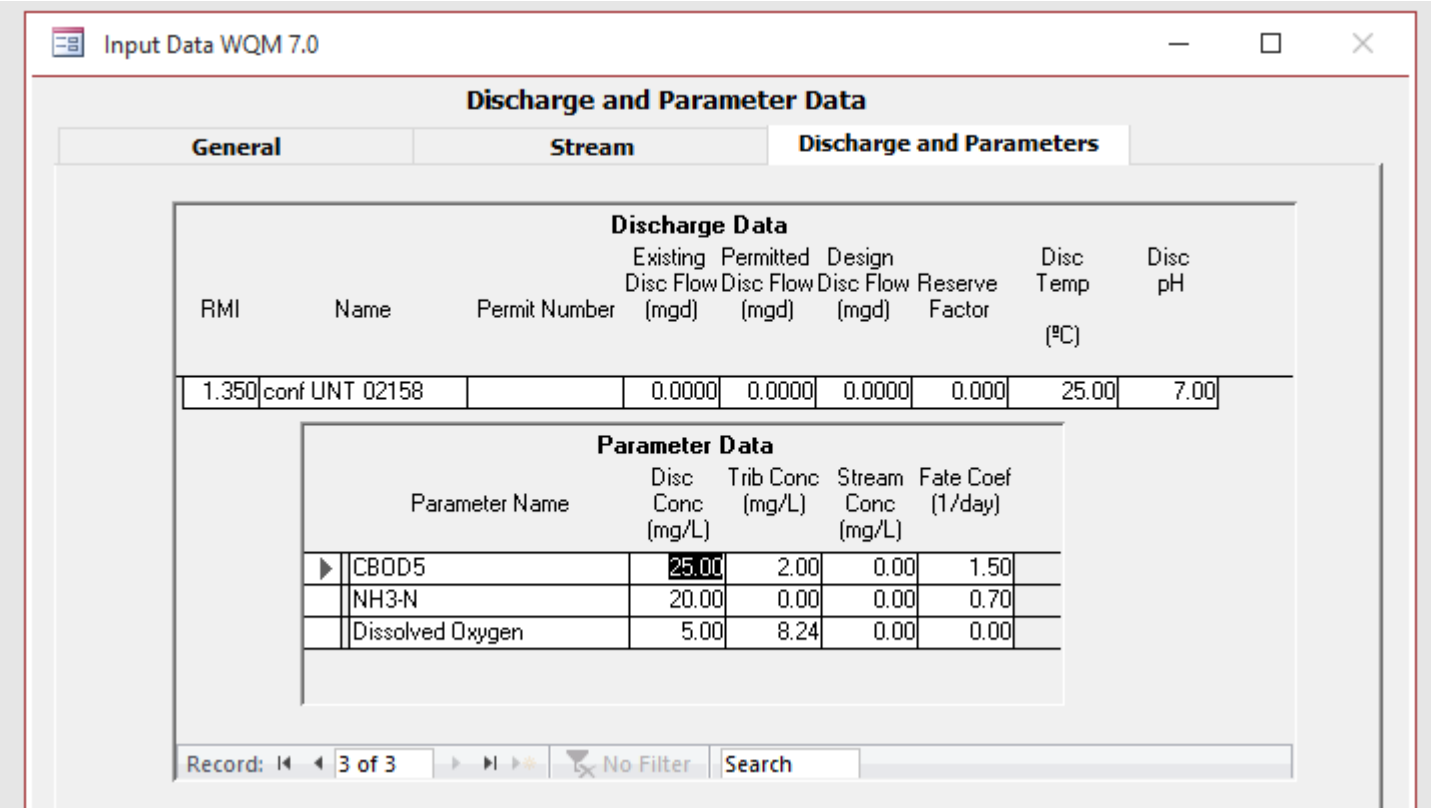
Discharge Data

RMI	Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (ºC)	Disc pH
2.800	Centerport STP	PA0085669	0.0000	0.0600	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/day)
CBOD5	25.00	2.00	0.00	1.50
NH3-N	15.50	0.00	0.00	0.70
Dissolved Oxygen	5.00	8.24	0.00	0.00

Record: 2 of 3 | No Filter | Search


Input Data WQM 7.0
Discharge and Parameter Data
General
Stream
Discharge and Parameters
Discharge Data
RMI
Name
Permit Number
Existing Disc Flow (mgd)
Permitted Disc Flow (mgd)
Design Disc Flow (mgd)
Reserve Factor
Disc Temp (ºC)
Disc pH
1.350
conf UNT 02158
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/day)
CBOD5
25.00
2.00
0.00
1.50
NH3-N
20.00
0.00
0.00
0.70
Dissolved Oxygen
5.00
8.24
0.00
0.00
Record: 3 of 3
No Filter
Search

Analysis Results WQM 7.0

Hydrodynamics | NH3-N Allocations | D.O. Allocations | D.O. Simulation | Effluent Limitations

Design Condition: (•) Q7-10 ( ) Q1-10 ( ) Q30-10

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 (ºC)	Analysis pH
3.900	0.36	0.00	0.36	.0139	0.00172	.469	12.81	27.31	0.062	1.080	25.00	7.00
2.800	0.55	0.00	0.55	.1067	0.00196	.512	15.94	31.15	0.081	1.100	25.00	7.00

Record: 1 of 2 | No Filter | Search

Analysis Results WQM 7.0

Hydrodynamics | NH3-N Allocations | D.O. Allocations | **D.O. Simulation** | Effluent Limitations

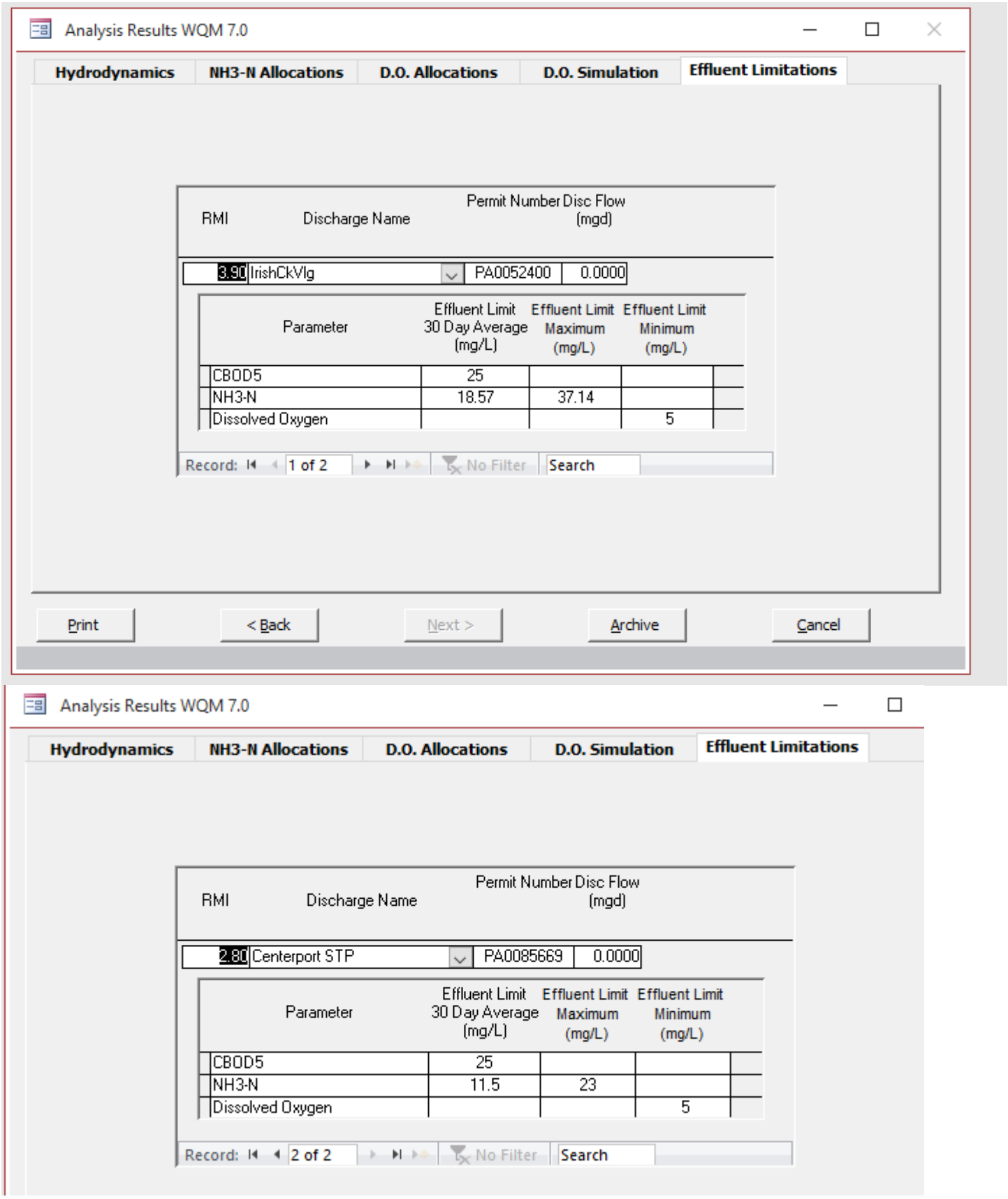
RMI	Total Discharge Flow (mgd)	Analysis Temperature (ºC)	Analysis pH
2.800	0.069	25.000	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WD Ratio**	**Reach Velocity (fps)**
15.937	0.512	31.151	0.081
Reach C-BOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
5.28	0.645	1.76	1.029
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
7.384	15.614	Owens	5

Reach Travel Time (days): 1.100

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.110	4.83	1.57	7.48
0.220	4.41	1.40	7.54
0.330	4.04	1.25	7.54
0.440	3.69	1.12	7.54
0.550	3.38	1.00	7.54
0.660	3.09	0.89	7.54
0.770	2.82	0.79	7.54
0.880	2.58	0.71	7.54
0.990	2.36	0.63	7.54
1.100	2.16	0.57	7.54

Record: 2 of 2 | No Filter | Search


Analysis Results WQM 7.0
Hydrodynamics
NH3-N Allocations
D.O. Allocations
D.O. Simulation
Effluent Limitations
RMI
Discharge Name
Permit Number
Disc Flow (mgd)
3.90
IrishCkVlg
PA0052400
0.0000
Parameter
Effluent Limit 30 Day Average (mg/L)
Effluent Limit Maximum (mg/L)
Effluent Limit Minimum (mg/L)
CBOD5
25
NH3-N
18.57
37.14
Dissolved Oxygen
5
Record: 1 of 2
No Filter
Search
Print
< Back
Next >
Archive
Cancel

Analysis Results WQM 7.0
Hydrodynamics
NH3-N Allocations
D.O. Allocations
D.O. Simulation
Effluent Limitations
RMI
Discharge Name
Permit Number
Disc Flow (mgd)
2.80
Centerport STP
PA0085669
0.0000
Parameter
Effluent Limit 30 Day Average (mg/L)
Effluent Limit Maximum (mg/L)
Effluent Limit Minimum (mg/L)
CBOD5
25
NH3-N
11.5
23
Dissolved Oxygen
5
Record: 2 of 2
No Filter
Search

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Model Results

Centerport Boro STP, NPDES Permit No. PA0085669, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All ○ Inputs ○ Results ○ Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 15 PMF: 0.981 Analysis Hardness (mg/l): 100 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***CFC*** CCT (min): 15.592 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***THH*** CCT (min): 15.592 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	500,000	500,000	N/A	

☑ ***CRL*** CCT (min): 5.656 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

Pollutants	*Mass Limits* AML (lbs/day)	MDL (lbs/day)	*Concentration Limits* AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments

DEP's Toxics Management Spreadsheet was used to confirm that the Partial Mix Factors were 1. PMF's are input values in the TRC model on next page.

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.55	= Q stream (cfs)	0.5	= CV Daily
0.06	= Q discharge (MGD)	0.5	= CV Hourly
30	= no. samples	1	= AFC_Partial Mix Factor
0.3	= Chlorine Demand of Stream	1	= CFC_Partial Mix Factor
0	= Chlorine Demand of Discharge	15	= AFC_Criteria Compliance Time (min)
0.5	= BAT/BPJ Value	720	= CFC_Criteria Compliance Time (min)
0	= % Factor of Safety (FOS)		=Decay Coefficient (K)

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 1.909	1.3.2.iii	WLA cfc = 1.854
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.711	5.1d	LTA_cfc = 1.078

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.500	BAT/BPJ
		INST MAX LIMIT (mg/l) = 1.635	

WLA afc	**(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))... ...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	**(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))... ...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	**1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)**

Pennsylvania Department of Environmental Protection

WATER MANAGEMENT PERMIT

PERMIT NO. 0697401
AMENDMENT NO. _____

A. Permittee (Name and Address)	B. Project:
Centerport Borough Municipal Authority P.O. Box 248 Centerport, PA 19516	Municipality: Centerport Borough County: Berks

C. This: ✓ Permit ___ Permit Amendment ___ Impoundment Closure

Approves: ___ The construction/operation of: ___ Modifications to the construction/operation of:

✓ Sewage Treatment Facilities	___ Industrial Waste Treatment Facilities
___ Land Application Facilities	___ Other: _____
✓ Sewers and Appurtenances	✓ Pump/Stations
___ Impoundment(s) and Liner System	___ Injection Well(s)
___ Stream Crossing(s)	___ Outfall & Headwall(s)
___ Soil Erosion & Sedimentation Control Plan	___ Groundwater Monitoring Well(s)

Brief description of permitted activity: bar screen, comminutor, flow equalization, difussed aeration, clarification, sludge recirculation, sludge holding, chlorine contact tank, and tablet chlorinator; a pump station; conveyance system.

D. This approval is subject to the following conditions:

1. All construction, operations, and procedures shall be in accordance with the application received February 6, 1997, its supporting documentation, and addenda dated March 3, 12, and May 21, 1997. Such application, its supporting documentation and/or addenda are hereby made part of this permit.

2. Special Conditions A through W are attached and made part of this permit.

E. The authority granted by the permit is subject to the following further qualifications:

1. If there is a conflict between the application or its supporting documents and/or addenda and the Standard or Special Conditions, the Standard or Special Conditions shall apply.

2. Failure to comply with the Rules and Regulations of the Department or with the terms or conditions of this permit shall void the authority given to the permittee by the issuance of the permit.

3. This permit is issued pursuant to The Clean Streams Law, Act of June 22, 1937, P.L. 1987 as amended 35 P.S. §691.1et seq. and/or the Dam Safety and Encroachments Act of November 26, 1978, P.L. 1375, as amended, 32 P.S. §693.1et seq. Issuance of the permit shall not relieve the permittee of any responsibility under any other law.

Permit Issued: JUN 10 1997 **Permit Amended:** _____	**By:** _____ **Leon M. Oberdick** **Program Manager** **Southcentral Regional Office**

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATER MANAGEMENT PROGRAM

INTERNAL REVIEW AND RECOMMENDATIONS

Name of Applicant: Centerport Borough Municipal Authority | Project Location: Centerport Borough Berks County | Permit No. 0697401 | Amendment No. ____

BRIEF DESCRIPTION OF PROJECT AND DISCUSSION

Sewage treatment facility: Bar Screen, Comminutor, Flow Equalization Tank (2 1/2 HP Submersible Pumps, 85 GPM each), Diffused Aeration, Two Settling Tanks, Chlorine Contact Tank, and Tablet Chlorinator.

Pumping Station: Two Raw Sewage Submersible, Vortex, 5 HP, 100 GPM each

Conveyance System: 10,200± L.F.

DEP Planning Approval on June 10, 1992, DEP Code No. 3-06925-001.

Erosion and Sedimentation Control Plan Approval by Berks County Conservation District March 7, 1997.

GP-04-06-97-1-3 and GP-05-06-97-1-5 by Berks County Conservation District March 7, 1997.

0.06 mgd trt capacity (hydraulic + 120#/d organic loading)

CURRENT ESTIMATE OF COMPLETION DATE OF PROJECT (Industrial Wastes Only)

Recommendation and Action

Approve -- Issue by Region	Approve -- Issue by Central Office	Refuse	Signature	Date
☐	☐	☐	REVIEWING HYDROGEOLOGIST	
☐	☐	☐	HYDROGEOLOGIST IN RESPONSIBLE CHARGE	
☒	☐	☐	Judy K. Cox JKC04 REVIEWING ENGINEER	5-30-97
☒	☐	☐	G. Roger Musselman, P.E. REGIONAL PERMITS SECTION CHIEF	5/30/97
☒	☐	☐	Leon M. Oberdick PROGRAM MANAGER	6/9/97

Special Permit Condition Nos. A through W.

3600-PM-WQ0007 5/95

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER MANAGEMENT PROGRAM

Coordination #

APPLICATION FOR WATER QUALITY MANAGEMENT PART II PERMIT -- SEWERAGE

Before completing this form, read the step-by-step instructions provided with this form.

DER USE ONLY

Application ID# (Assigned by DER) _____

Stamp Date Application Received

SECTION A. APPLICANT IDENTIFIER

Applicant Name

CENTERPORT BOROUGH MUNICIPAL AUTHORITY

SECTION B. APPROVAL OF PLANS FOR CONSTRUCTION (CHECK APPROPRIATE BLOCKS IN SPACES A, B, AND C)

A. APPROVAL OF PLANS FOR CONSTRUCTION/MODIFICATION OF:	B. APPROVAL TO OPERATE SEWERAGE FACILITIES	DATE OF APPLICATION
☒ Sewers and Appurtenances	☒	
☒ Pump Stations		
☒ Sewage Treatment Plant		
☒ Outfall and Headwall		
☒ Stream Crossing		
☐ Impoundment		
☐ Spray Irrigation		

SECTION C. SIGNATURES (ALL DISCHARGES OF WASTES ARE PURSUANT TO "THE CLEAN STREAMS LAW" AND NPDES PART I PERMIT)

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA, COUNTY OF Berks

I, KENNETH J. MECKES being duly sworn, according to law, depose and say that I ~~(am the applicant)~~ (am an officer or official of the applicant) (have the authority to make this application) and that the plans, reports and documents designated and attached here with as part of the application are true and correct to the best of my knowledge and belief.

SIGNATURE Kenneth J. Meckes DATE 9/16/96

TITLE AUTHORITY CHAIRMAN

SWORN AND SUBSCRIBED TO BEFORE ME THIS

16th DAY OF September 1996

Ruth A. Borkey
Notary Public

NOTARY SEAL

Notarial Seal
Ruth A. Borkey, Notary Public
Centre Twp., Berks County
My Commission Expires Aug. 17, 1997
Member, Pennsylvania Association of Notaries

- 1 -

DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER MANAGEMENT PROGRAM

WATER POLLUTION CONTROL
MODULE 1 - GENERAL INFORMATION -- SEWERAGE

FOR DEPARTMENT USE ONLY

CLASS OF CONSTRUCTION (Check all applicable blocks)

- ☒ NEW
- ☐ REPLACEMENT OF EXISTING UNIT(S)
- ☐ ADDITIONS AND OR
- ☐ MODIFICATIONS TO EXISTING UNIT(S)

TABLE 1 - DESIGN LOADING DATA	Existing Facilities Design	Present Operating Data	Proposed Total Facilities Design
1. EQUIVALENT POPULATION TO BE SERVED (NO. OF PERSONS - SUBMIT CALCULATIONS)	N/A	N/A	
A. DOMESTIC			600
B. INDUSTRIAL			0
C. TOTAL			600
2. DESIGN YEAR OR PERIOD FOR OPERATING DATA			2012
3. RUNOFF PERIOD (HRS)			24
4. DOMESTIC WASTE FLOW DATA			
A. PER CAPITA FLOW (GPCD)			100
B. AVERAGE DAILY FLOW (MGD)			0.048
C. INFILTRATION (MGD)			0.012
D. RUNOFF FLOW RATE (MGD)			0
E. MAXIMUM FLOW RATE (MGD)			0.060
5. INDUSTRIAL WASTE FLOW DATA			
A. AVERAGE DAILY FLOW (MGD)			0
B. MAXIMUM DAILY FLOW (MGD)			0
6. A TOTAL DESIGN AVERAGE ANNUAL FLOW			21,900,000
B. TOTAL DESIGN MAXIMUM MONTHLY FLOW			4,050,000
C. TOTAL DESIGN PEAK HOUR FLOW			5,525
D. TOTAL DESIGN PEAK INSTANTANEOUS FLOW			94gpm

TABLE 2 - FACILITIES DESIGN DATA (Specify number of units)

Units	Existing	To Be Abandoned	Proposed New Units	Units	Existing	To Be Abandoned	Proposed New Units
SCREENING DEVICES	N/A	N/A	1	15. MICROSCREEN UNIT(S)	N/A	N/A	0
GRIT CHAMBER(S)			0	16. WASTE STABILIZATION POND(S)			0
COMMINUTOR(S)			1	17. CHLORINE CONTACT TANK(S)			1
EQUALIZATION TANK(S)			1	18. DISINFECTION FACILITIES			1
PRE-AERATION TANKS			0	19. SLUDGE THICKENING TANK(S)			0
PRIMARY SETTLING TANKS			0	20. AEROBIC DIGESTION TANKS			0
TRICKLING FILTERS			0	21. ANAEROBIC DIGESTERS			0
INTERMEDIATE SETTLING TANKS			0	22. MECHANICAL SLUDGE DEWATERING			0
AERATION TANKS			1	23. SLUDGE DRYING BEDS			0
FINAL SETTLING TANKS			2	24. INCINERATOR(S)			0
MIXING AND FLOCCULATION TANKS			0	25. SEQUENCING BATCH REACTORS			0
CHEMICAL TREATMENT			0	26. AERATED LAGOONS			0
INTERMITTENT SAND FILTERS			0	27. SPRAY FIELDS			0
RAPID SAND FILTER(S)			0	28. SEEPAGE BEDS			0

- 1 -

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER MANAGEMENT PROGRAM

WATER POLLUTION CONTROL
MODULE 2

FOR DEPARTMENT USE ONLY

TABLE 1 -- SEWER SYSTEM

1. CLASS OF CONSTRUCTION ☒ NEW SYSTEM ☐ REPLACEMENT OF EXISTING SYSTEMS ☐ SANITARY ☐ COMBINED
2. INITIAL POPULATION 431 DESIGN YEAR POPULATION 600
3. DESIGN FLOW DATA

(a) Laterals and Submain Sewers	(GPCD)	1833
(b) Interceptors	(GPCD)	1833
(c) Average Daily Flow	(MGD)	0.88
(d) Infiltration/Inflow	(MGD)	0.22
(e) Industrial Waste Flow	(MGD)	0
(f) Total Average Design Flow	(MGD)	1.10
(g) Maximum Expected Flow Rate (Peak Instantaneous)	(MGD)	0.06

4. GENERAL INFORMATION:

(a) Describe measures taken to reduce I/I in the system including leakage test and reference applicable portion of the specifications.

See Section 02610 of the Project Manual for Sewer and lateral construction specifications. See Section 02651 for leakage Test specifications.

(b) Describe any overflows or bypasses within the system.

None

(c) If applicable, describe capacity of receiving sewers and pumping station and submit two copies of the executed intermunicipal agreement.

NA

TABLE 2 -- PUMP STATION (Submit separate table for each pump station)

PUMP STATION NAME: Main St. Pump Station
LOCATION (street name, etc.): Main St. (SR 4026) at Treatment Plant
TYPE (e.g. Conventional, suction lift, ejector or submersible) SUBMERSIBLE
INITIAL POPULATION TO BE SERVED: 431 FUTURE POPULATION TO BE SERVED: 600
DESIGN YEAR 2012
DESIGN INFORMATION:

		AVG (MGD)	MAX (Peak Instantaneous) (MGD)
(a) Domestic Flow Rate (based on Design population to be served)		0.06	0.0025
(b) Industrial Flow Rate		-0-	-0-
(c) Infiltration/Inflow Rate		0.012	0.012
(d) Design Flow Rate		0.06	0.0025
(e) Effective Wet Well capacity	(Gal) 122		
(f) Detention Time	(Min) 20.4		
(g) Design Average Velocity in Force Main	(Fps) 4.1		
(h) Total Dynamic (Head Pump Station + Force Main)	Static Head 23 Ft.		
	Friction Loss -0- Ft.		
	TDH 34 Ft.		

(continued)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER MANAGEMENT PROGRAM

WATER POLLUTION CONTROL
MODULE 5

FOR DEPARTMENT USE ONLY

TABLE 1 - TRICKLING FILTERS		UNIT N/A ☐ Existing ☐ Proposed	UNIT N/A ☐ Existing ☐ Proposed	UNIT N/A ☐ Existing ☐ Proposed	UNIT N/A ☐ Existing ☐ Proposed	UNIT N/A ☐ Existing ☐ Proposed
1. FILTER LOADING	A. BOD (No Recirculation (lbs./Day/1000 Cu.Ft.)					
	B. HYDRAULIC (MGD/ACRE) (DURING RUNOFF PERIOD)					
	C. RECIRCULATION (1) RATE (MGD)					
	(2) RATIO	_____ : 1	_____ : 1	_____ : 1	_____ : 1	_____ : 1
	(3) FROM (Specify)					
	(4) TO (Specify)					

2. FOR EACH UNIT DESCRIBE TYPE OF SYSTEM, FILTER MEDIA, FILTER LOADING AND THE UNDERDRAINAGE SYSTEM:

UNIT _____

UNIT _____
N/A

UNIT _____

UNIT _____

TABLE 2 - AERATION TANKS BASINS, OR LAGOONS		UNIT 1 ☐ Existing ☒ Proposed	UNIT N/A ☐ Existing ☐ Proposed	UNIT N/A ☐ Existing ☐ Proposed	UNIT N/A ☐ Existing ☐ Proposed
TYPE OF ACTIVATED SLUDGE PROCESS		Extended Aeration			
1. HYD. LOADING	A. VOLUME (Gal.)	60,060			
	B. DETENTION TIME (Hrs.) (WITHOUT RECIRCULATION)	24			
2. RETURN SLUDGE CAPACITY (%)		50			

3. METHOD OF AERATION:

DESCRIBE THE METHOD OF AERATION TO BE USED, INCLUDING: THE TYPE AND NUMBER AND LOCATION OF THE AERATION UNITS; THE QUANTITY OF AIR PROVIDED; BACK UP AERATION CAPACITY.

UNIT Hydrochek DP-75 Coarse Bubble Diffusers along one side of tank with two (2) blowers for air and mixing - one blower operation and one on stand-by.

UNIT _____

UNIT _____

UNIT _____

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