pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0043885**
Facility Type	**Municipal**	APS ID	**820028**
Major / Minor	**Major**	Authorization ID	**988603**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Greater Pottsville Area Sewer Authority**	Facility Name	**Greater Pottsville Area Sewer Authority Main STP**
Applicant Address	401 N Centre Street Pottsville, PA 17901-1745	Facility Address	Main Plant Pottsville, PA 17901
Applicant Contact	Timothy R. Yingling - gpasa@comcast.net	Facility Contact	Timothy R. Yingling - gpasa@comcast.net
Applicant Phone	(570) 622-0513	Facility Phone	(570) 622-0513
Client ID	87466	Site ID	256601
Ch 94 Load Status	Existing Hydraulic Overload	Municipality	Pottsville City
Connection Status	Legally Modified Connection Prohibition	County	Schuylkill
Date Application Received	July 3, 2013	EPA Waived?	No
Date Application Accepted	July 3, 2013	If No, Reason	Major Facility, Pretreatment
Purpose of Application	Renewal of NPDES Permit.		

Summary of Review

The applicant is requesting renewal of an NPDES permit to discharge up to 8.2 MGD of treated sewage into the Schuylkill River a (CWF) Cold Water Fishes receiving stream in water shed 3-A through outfall 001. Per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than the designated use. The discharge is not expected to affect public water supplies.

The effluent limits for CBOD5, TSS, pH, and Fecal Coliform are technology-based requirements. The Dissolved Oxygen, Ammonia, TDS, TRC limits are water quality based.

New DRBC parameter requirements added as per Docket 2002-041 CP-3 are:

The requirements in EFFLUENT TABLE A-2 are not listed in the NPDES Permit but are Commission basin-wide parameters that must be met as a condition of this docket approval.

EFFLUENT TABLE A-2: DRBC Parameters Not Included in NPDES Permit

OUTFALL 001 (Discharging to the Schuylkill River)		
PARAMETER	**LIMIT**	**MONITORING**
Total Dissolved Solids*	1,000 mg/l *	Quarterly
$CBOD_5$ (at 20° C)	Monitor & Report Influent and Percent Removal	Monthly, paired with $CBOD_5$ effluent monitoring sample

Approve	Deny	Signatures	Date
X		Bernard Feist (signed) Bernard Feist, P.E. / Environmental Engineer	November 8, 2021
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager	11-16-21

Summary of Review

As well as Influent TSS monitoring per DEP's updated policy for POTW's .

Upper Schuylkill River TMDL

The Schuylkill River is affected by pollution from AMD. This pollution has caused high levels of metals in the Schuylkill River. Major sources of AMD occur at twelve (12) known abandoned deep mine discharges. There are active mining operations in the watershed that are considered remining permits. The twelve (12) major discharges in the watershed are all caused by abandoned mines and are treated as non-point sources. The distinction between non-point and point sources in this case is determined on the basis of whether or not there is a responsible party for the discharge.

Various methods to eliminate or treat pollutant sources and to provide a reasonable assurance that the proposed TMDLs can be met exist in Pennsylvania. These methods include PADEP's primary efforts to improve water quality through reclamation of abandoned mine lands (for abandoned mining) and through the National Pollution Discharge Elimination System (NPDES) permit program (**for active mining**).

Funding sources available that are currently being used for projects designed to achieve TMDL reductions include the Environmental Protection Agency (EPA) 319 grant program and Pennsylvania's Growing Greener Program (for watershed restoration and protection in mine-drainage impacted watersheds and abandoned mine reclamation).

The following TMDL table shows the applicable water-quality criteria for selected AMD parameters subject to water Quality modelling.

Table 3. Applicable Water Quality Criteria

Parameter	*Criterion Value (mg/l)*	*Total Recoverable/Dissolved*
Aluminum (Al)	0.75	Total Recoverable
Iron (Fe)	1.50	30-day average; Total
Manganese (Mn)	1.00	Total Recoverable
pH *	6.0-9.0	N/A

Since the AMD TMDL did not consider sewage dischargers, there are no WLAs to apply. Since there are industrial users, monitoring for iron, manganese and aluminum will allow future assessment of loadings without limits.

In general, DEP establish limits in the draft permit where the effluent concentration exceeds 50% of the WQBEL. For non-conservative pollutants, establish monitoring requirements where the effluent concentration determined is between 25% - 50% of the WQBEL. For conservative pollutants, establish monitoring requirements where the effluent concentration determined is between 10% - 50% of the WQBEL.

Industrial Pretreatment standards are monitored by the EPA for this facility.

Schuylkill River PCB TMDL

This is a southern region problem - The Schuylkill River, from Felix Dam in Berks County to Fairmount Dam in Philadelphia was listed in 1996 and 1998 under section 303(d) of the Clean Water Act as impaired because excessive levels of PCB and chlordane were found in fish tissue, resulting in fish consumption advisories.

Stormwater Outfalls

Outfalls 002 through 008 are on-site stormwater only outfalls and are subject to the Stormwater General Permit's Appendix J. Bi-yearly monitoring parameters of TSS, Oil & Grease plus pH are required for this Permit. The permittee is authorized to discharge non-polluting stormwater from its site through the following outfalls:

Summary of Review

Outfall No.	Latitude	Longitude	Description
002	40º 40' 25"	-76º 11' 12"	To Schuylkill River -CWF
003	40º 40' 27"	-76º 11' 13"	To Schuylkill River -CWF
004	40º 40' 30"	-76º 11' 15"	To Schuylkill River -CWF
005	40º 40' 32"	-76º 11' 16"	To Schuylkill River -CWF
006	40º 40' 34"	-76º 11' 17"	To Schuylkill River -CWF
007	40º 40' 38"	-76º 11' 20"	To Schuylkill River -CWF
008	40º 40' 40"	-76º 11' 21"	To Schuylkill River -CWF

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Combined Sewer Overflow (CSO) Outfalls

The Authority operates 22 CSO diversion structures, a reduction from over 60. The Authority's CSO overflows are controlled electronically and are metered. The diversion manholes are checked with monthly inspection reports. Their stated Nine Minimum controls are:

Exhibit 2-1. Summary of the Nine Minimum Controls

	Minimum Control	Examples of Control Measures	
1	Proper Operation and Maintenance	• Maintain/repair regulators • Maintain/repair tidegates • Remove sediment/debris • Repair pump stations • Develop inspection program • Inspect collection system	
2	Maximum Use of Collection System for Storage	• Maintain/repair tidegates • Adjust regulators • Remove small system bottlenecks • Prevent surface runoff • Remove flow obstructions • Upgrade/adjust pumping operations	
3	Review and Modify Pretreatment Requirements	Volume Control • Diversion storage • Flow restrictions • Reduced runoff • Curbs/dikes	Pollutant Control • Process modifications • Storm water treatment • Improved housekeeping • BMP Plan
4	Maximum Flow to the POTW for Treatment	• Analyze flows • Analyze unit processes • Analyze headloss • Evaluate design capacity • Modify internal piping • Use abandoned facilities • Analyze sewer system	
5	Eliminate Dry Weather Overflows	• Perform routine inspections • Remove illicit connections • Adjust/repair regulators • Repair tidegates • Clean/repair CSS • Eliminate bottlenecks	
6	Control of Solid and Floatable Materials in CSOs	• Screening – Baffles, trash racks, screens (static and mechanical), netting, catch basin modifications • Skimming – booms, skimmer boats, flow balancing • Source controls - street cleaning, anti-litter, public education, solid waste collection, recycling	
7	Pollution Prevention	• Source controls (see above) • Water conservation	
8	Public Notification	• Posting (at outfalls, use areas, public places) • TV/newspaper notification • Direct mail notification	
9	Monitoring	• Identify all CSO outfalls • Record total number of CSO events and frequency and duration of CSOs for a representative number of events • Summarize locations and designated uses of receiving waters • Summarize water quality data for receiving waters • Summarize CSO impacts/incidents	

The goals of the EPA's 1994 Combined Sewer Overflow (CSO) Control Policy
(Volume 59 of the Federal Register (FR) 18688 and 18689, April 19, 1994) are :

1. To ensure that if CSOs occur, they are only as a result of wet weather,
2. To bring all wet weather CSO discharge points into compliance with the technology-based and water quality-based requirements of the Clean Water Act (CWA) and

Summary of Review

3. To minimize water quality, aquatic biota and human health impacts from CSOs from all Publicly Owned Treatment Works (POTW) Treatment Plants (as defined in Title 40 of the Code of Federal Regulations (CFR) Part 403.3(p)).”

NPDES Compliance - EPA Publication Number: 305-K-17-001 Interim Revised Version, January 2017

EPA’s CSO Policy outlines the NMCs and the minimum elements of an LTCP. Table 12-1 lists the NMCs, while Table 12-2 lists the elements of the LTCP.

Table 12-1. Nine Minimum CSO Controls

- Proper operation and regular maintenance programs for the sewer system and the CSOs.
- Maximum use of the collection system for storage.
- Review and modification of pretreatment requirements to ensure that CSO impacts are minimized.
- Maximization of flow to the POTW for treatment.
- Prohibition of CSOs during dry weather.
- Control of solid and floatable materials in CSOs.
- Establishment of pollution prevention programs.
- Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts.
- Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

Table 12-2. Elements of the Long-Term CSO Control Plan

- Characterization, monitoring, and modeling of the Combined Sewer System
- Public Participation
- Consideration of Sensitive Areas
- Evaluation of Alternatives
- Cost/Performance Considerations
- Operational Plan
- Maximizing Treatment at the Existing POTW Treatment Plant
- Implementation Schedule
- Post-Construction Compliance Monitoring Program

https://www.epa.gov/sites/production/files/2017-03/documents/npdesinspect-chapter-12.pdf

The key elements of CSO control is to:

• Eliminate or relocate overflows that discharge to sensitive areas wherever physically possible and economically achievable, and where not possible, provide treatment necessary to meet WQS for full protection of existing and designated uses.
• Coordinate the review and appropriate revision of water quality standards and implementation procedures on CSO-impacted waters with development of long-term CSO control plans.
• Evaluate a reasonable range of alternatives for the CSO control plan that could achieve the necessary level of control/treatment, and select the controls to be implemented based on cost/performance evaluations.

Summary of Review

• Develop an implementation schedule based on the relative importance of adverse impacts on WQS and designated uses, priority projects identified in the long-term plan LTCP, and on the permittee's financial capability.
• Maximize treatment of wet weather flows at the existing POTW treatment plant.

All future PaDEP Inspections and Permits will obtain information to determine compliance in the following areas:

• CSO prevention during dry weather.
• Implementation of the nine minimum CSO controls.
• Adherence to a schedule for development, submission, and implementation of a LTCP, including any interim deliverables.
• Adherence to schedule for implementation of the CSO controls selected from the LTCP.
• Elimination or relocation of overflows from identified sensitive areas, as defined in the approved LTCP.
• Meeting narrative, performance-based, or numerical water quality-based effluent limitations.
• Monitoring program, including baseline information on frequency, duration, and impacts of CSOs.
• PADEP will incorporate E. coli limits in subsequently reissued NPDES permits and ensure that it is included in CSO post-construction compliance monitoring (PCCM) plans to verify compliance with water quality standard and designated uses.

PaDEP's Annual CSO Status Report (Chapter 94 Report)

The Annual CSO Status Report is part of the permittee's annual Chapter 94 Municipal Wasteload Management Report. In this annual report, the permittee includes
1. The summary of the frequency, duration and volume of the CSO events from the past year,
2. The operational status of the CSO outfalls,
3. Identification of any known in-stream water quality impacts,
4. A summary of all actions taken to implement NMCs and the LTCP and effectiveness of those actions,
5. A progress report and evaluation of the NMC implementation,
6. Rain gauge data for each event and
7. Documentation of annual inspections and maintenance.

Long Term Control Plan

The required Long-Term Control Plan (LTCP) is a document by which the permittee evaluates the existing CSS infrastructure and the hydraulic relationship between the CSS, wet weather, overflows and treatment capacity. Cost effective alternatives for reducing or eliminating overflows are evaluated and a plan forward to eventually meet water quality standards is selected. An implementation schedule is then developed to achieve that goal. The three LTCP options are demonstrative, presumptive and total separation.

Presently the permittee shall comply with a minimum of one of the following under design conditions:

• A planned control program that has been demonstrated to be adequate to meet the water quality-based requirements of the CWA ("demonstration approach"), or

• A minimum level of treatment that is presumed to meet the water quality-based requirements of the CWA, unless data indicate otherwise ("presumption approach"):

a. Eliminate or capture for treatment, or storage and subsequent treatment, at least 85% of the system-wide combined sewage volume collected in the combined sewer system during precipitation events under design conditions; or
b. Discharge no more than an average of [4, 5, or 6] overflow events per year; or
c. Eliminate or remove no less than the mass of the pollutants identified as causing water quality impairment, for the volumes that would be eliminated or captured for treatment under the 85% capture by volume approach.

The intent of this Permit cycle is to renew all Long Term Control Plans with stated design choices with minimum monitoring requirements to prove water quality compliance and a defined timeline for the submission of a Post-construction compliance monitoring (PCCM) plan.

• A minimum of E. coli monitoring must be included in Post-construction compliance monitoring (PCCM) plans to verify compliance with water quality standard and designated uses.

Summary of Review

Wasted sludge will continue to be hauled off-site by a licensed hauler for disposal at a state approved facility.

The WMS Report query “Water Management System Inspections” was run. On 09/16/2020 a Routine/Partial Inspection was done with No Violations noted.

The WMS “Open Violations by Client Report" was run and there are No Open Violations.

The Existing Permit expired on 12/31/2013 and the renewal was submitted 07/03/2013.

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

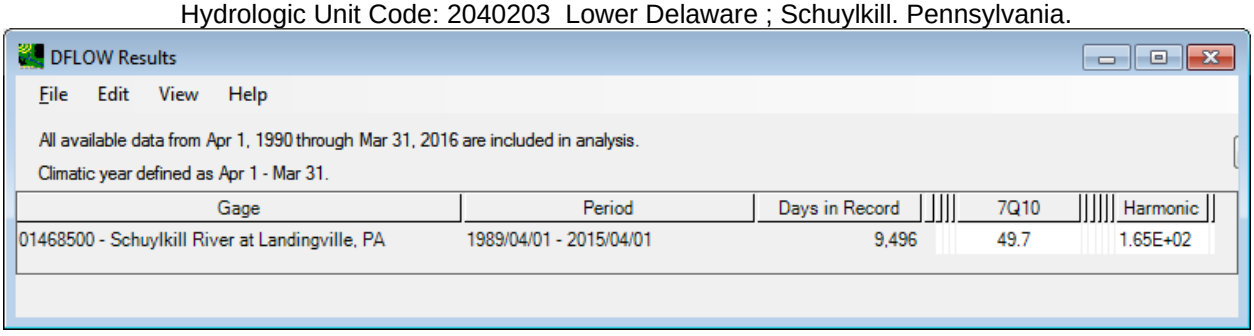
Outfall No.	001	Design Flow (MGD)	8.2
Latitude	40º 40' 30.78"	Longitude	-76º 11' 14.00"
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		

Receiving Waters	Schuylkill River	Stream Code	00833
NHD Com ID	133228594	RMI	122.9
Drainage Area	61 mi^2	Yield (cfs/mi^2)	0.374
Q_{7-10} Flow (cfs)	22.8	Q_{7-10} Basis	Dflow Gage 01468500
Elevation (ft)	597.5	Slope (ft/ft)	
Watershed No.	3-A	Chapter 93 Class.	CWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Metals, Other Habitat Alterations, PCB, Siltation, Water/Flow Variability		
Source(s) of Impairment	Abandoned Mine Drainage, Channelization, Road Runoff, Source Unknown, Urban Runoff/Storm Sewers		
TMDL Status	Final, Final	Name	Schuylkill River PCB TMDL, Upper Schuylkill River

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

Nearest Downstream Public Water Supply Intake: Pottstown Water Authority
Distance from Outfall (mi): 65

Hydrologic Unit Code: 2040203 Lower Delaware ; Schuylkill. Pennsylvania.

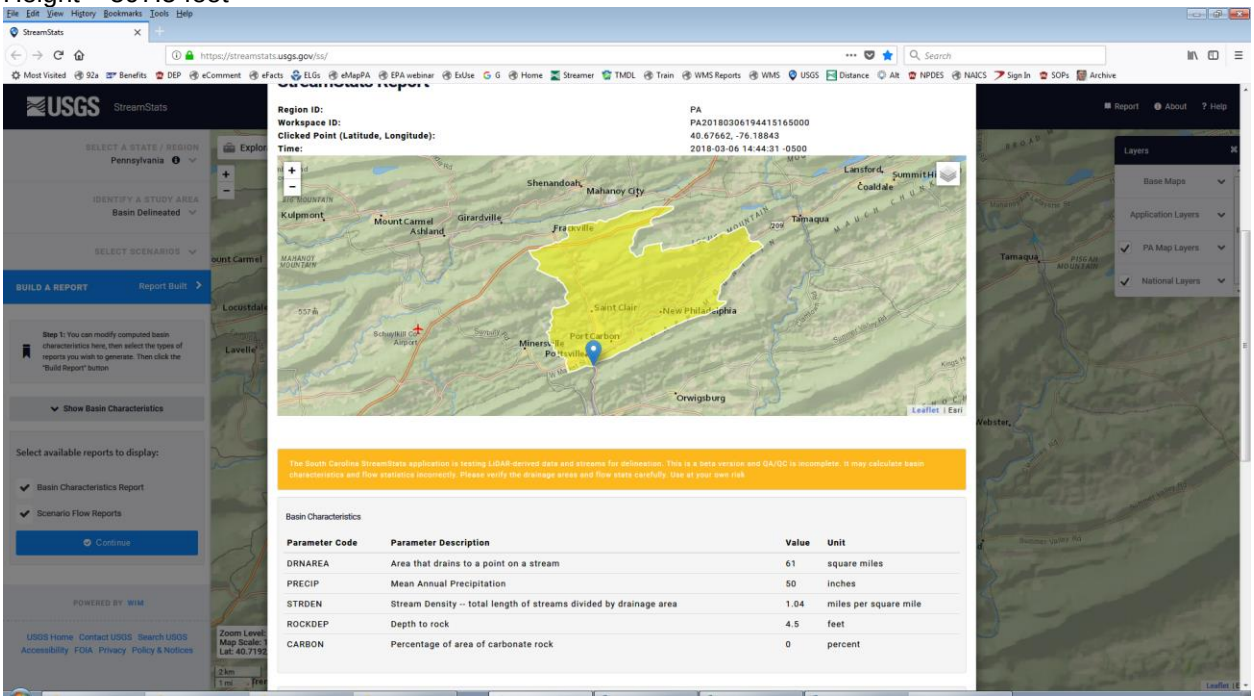


USGS Station ID: 1468500
Site Name: Schuylkill River at Landingville, PA
Altitude of Gauge: 470.64
Drainage Area: 133
Q_{7-10} LowFlowYield (cfs/mi^2)= LFY = 49.7/133 = 0.374

Outfall 001 at RMI 122.9 (Latitude, Longitude): 40.67662, -76.18843

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	61	square miles

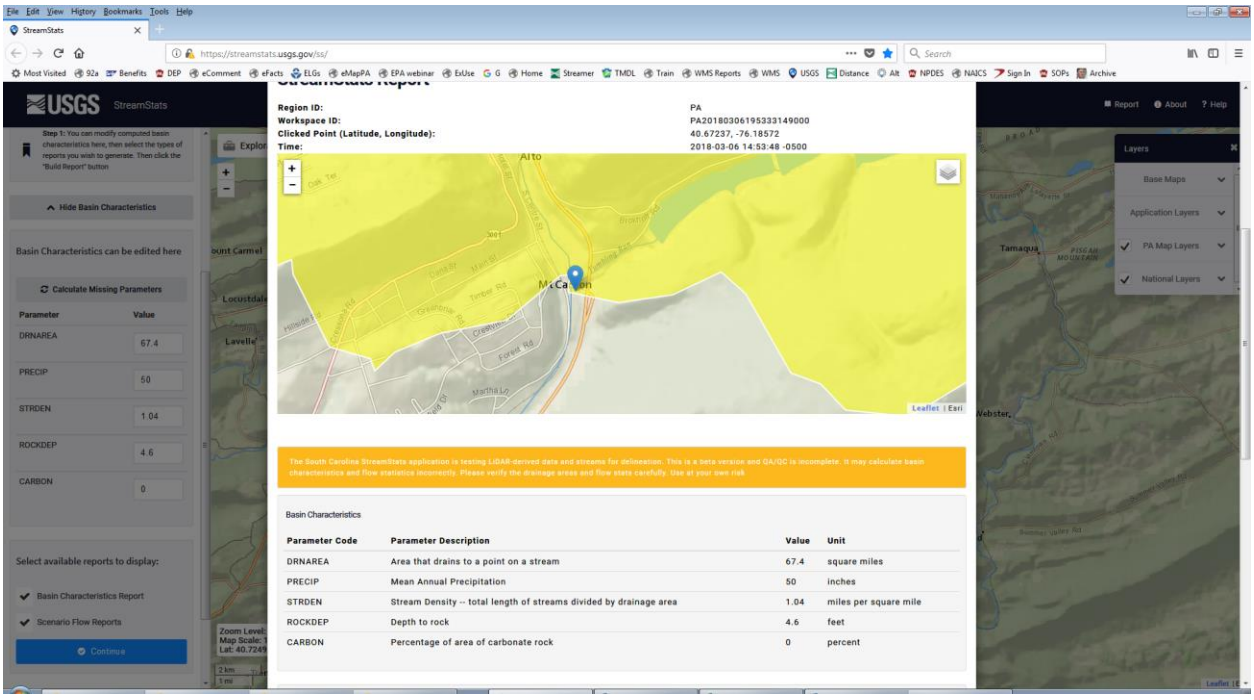
Dflow LFY = 0.374 Q7-10 Flow (cfs) = 0.374 * 61 = 22.8 cfs stream flow
Height = 597.5 feet



RMI 122.4 at Trib Tumbling Run confluence (Latitude, Longitude): 40.67237, -76.18572

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	67.4	square miles

Height = 580.8 feet



Treatment Facility Summary				
Treatment Facility Name: Pottsville Main STP				
WQM Permit No.	**Issuance Date**			
5404402	05/07/2004			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary	Activated Sludge	Hypochlorite	8.2
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
8.2	14,635	Existing Hydraulic Overload	Belt Filtration	Landfill

Greater Pottsville NPDES PA0043885 is based on a design flow of 8.2 MGD and an Organic Capacity of 14,635 lb BOD_5/day. The Authority's wastewater treatment plant utilizes the secondary treatment activated sludge process. The WWTP facilities consist of a mechanical bar screen, a channel course grinder, a vortex grit removal unit, two primary clarifiers, four aeration tanks, four final clarifiers, and two chlorine contact tanks. Sludge handling operation facilities include two anaerobic digester units, a sludge thickening tank, a sludge storage tank, a gravity belt thickener, and a belt filter press.

The Authority operates 22 CSO diversion structures down from over 60. Portions of the City of Pottsville remain under a sewer connection prohibition as of the Department's November 18, 2015 approval Letter. This system will continue to connect to the Authorities' collection system that was Permitted by WQM # 5404402 issued 05/07/2004.

Municipalities Served	Flow Contribution (%)	Type of Sewer System	
		Separate (%)	Combined (%)
City of Pottsville	76.3	40	60
Borough of Port Carbon	11.5	45	55
Borough of Palo Alto	6.2	0	100
Borough of Mechanicsville	2.6	100	0
Norwegian Township	2.3	99	1
Borough of Mount Carbon	0.6	100	0
North Manheim Township	0.3	100	0
East Norwegian Township	0.2	100	0

The Authority's CSO overflows are controlled electronically and metered plus the diversion manholes are checked with monthly inspection reports.

8. Location ☑	Map or sketch of the CSS. *Attach Schedule 2--MAP.*												
	Old Number:		1B-06	11C	17C	31D	37C	39-03	41C	50C	53B	84C	103B
9. CSO Information	a Permitted CSO number	9a	11	12	13	14	15	16	17	18	19	20	21
	b Description of location	9b	509 West Bacon St. Palo Alto (Walco Steel)	109 West Bacon St. Palo Alto (Fire Hall)	71 East Bacon St. Palo Alto (Playground)	5 Tuscarora St. Palo Alto	65 Coal St. Port Carbon	196 Pine St. Port Carbon	82 Rose Ave. Port Carbon	9 Commerce St. Port Carbon	1 East Washington St. Port Carbon	399 6th and Lillian St. Port Carbon	213 Mauch Chunk St. Pottsville
	c Latitude/Longitude	9c	40° 41' 01" 76° 11' 06"	40° 41' 09" 76° 10' 06"	40° 41' 15" 76° 10' 23"	40° 41' 34" 76° 09' 43"	40° 41' 42" 76° 09' 57"	40° 41' 43" 76° 10' 00"	40° 41' 41" 76° 10' 08"	40° 41' 38" 76° 10' 15"	40° 41' 40" 76° 09' 51"	40° 42' 10" 76° 09' 59"	40° 40' 52" 76° 11' 28"
	d Receiving water	9d	Schuylkill River	Schuylkill River	Schuylkill River	Schuylkill River	Mill Creek	Mill Creek	Mill Creek	Mill Creek	Schuylkill River	Mill Creek	Schuylkill River
10. CSS Information	a Sub-sewershed area (acres)	10a	78.1	52.8	153.8	149.2	39.0	27.5	17.2	18.4	8.1	78.1	20.7
	b Principal land use	10b	Dense Mixed-Use/Forested	Dense Mixed-Use/Forested	Dense Mixed-Use/Forested	Dense Mixed-Use/Forested	Dense Residential	Dense Residential	Dense Residential	Light Residential	Dense Residential	Light Residential	Dense Mixed-Use
11. Pipe, Capacity and Flow Information	a Type of CSO hydraulioc control	11a	Drop-down Slot, covered by Bar Screen, see Dwg. SW 28	Drop-down Slot, covered by Bar Screen, see Dwg. SW 29	Drop-down Slot, covered by Bar Screen, see Dwg. SW 30	Drop-down Slot, covered by Bar Screen, see Dwg. SW 31	Drop-down Slot, covered by Bar Screen, see Dwg. SW 32	Drop-down Slot, covered by Bar Screen, see Dwg. SW 33	Drop-down Slot, covered by Bar Screen, see Dwg. SW 34	Drop-down Slot, covered by Bar Screen, see Dwg. SW 35	Drop-down Slot, cov ered by Bar Screen, see Dwg. SW 36	Drop-down Slot, cov ered by Bar Screen, see Dwg. SW 37	Drop-down Slot, cov ered by Bar Screen, see Dwg. SW 38
	b CSO hydraulic control capacity (MGD)	11b	0.091	0.111	0.150	0.027	0.095	0.040	0.154	0.102	0.066	0.040	0.027
	c Name of interceptor or downstream pipe	11c	MH IB-05	MH 11D	MH 17B	MH 58-05	MH 39-02A	MH 39-02	MH 41B	MH 31P-15	MH 53C	MH 83A	MH 103A
	Old Number:		107C	114B	207B	210C	212E	215C	220A	226E	241B	294B	556
9. CSO Information	a Permitted CSO number	9a	22	23	24	25	26	27	28	29	30	31	32
	b Description of location	9b	399 South Jackson St. Pottsville	698 Mauch Chunk St. Pottsville	106 East Howard Ave. Pottsville	321 East Norwegian St. Pottsville	101 East Market St. Pottsville	205 North Second St. Pottsville	179 East Race St. Pottsville	50 Harrison St. Pottsville	652 North Centre St. Pottsville	449 East Railroad St. Pottsville	2199 West End Ave. Pottsville
	c Latitude/Longitude	9c	40° 41' 02" 76° 11' 21"	40° 41' 08" 76° 11' 06"	40° 41' 02" 76° 11' 37"	40° 41' 10" 76° 11' 35"	40° 41' 10" 76° 11' 44"	40° 41' 12" 76° 11' 53"	40° 41' 16" 76° 11' 48"	40° 41' 24" 76° 11' 53"	40° 41' 34" 76° 11' 56"	40° 41' 46" 76° 11' 28"	40° 40' 46" 76° 13' 36"
	d Receiving water	9d	Schuylkill River	Schuylkill River	Norwegian Creek	Norwegian Creek	Norwegian Creek	Norwegian Creek	Norwegian Creek	Norwegian Creek	Norwegian Creek	Norwegian Creek	West Branch Schuylkill
10. CSS Information	a Sub-sewershed area (acres)	10a	17.2	96.4	31.0	36.7	190.5	103.3	8.0	11.5	222.7	79.2	172.2
	b Principal land use	10b	Dense Residential	Light Residential	Medium Mixed-Use	Dense Mixed-Use	Medium Residential	Dense Residential	Dense Residential	Dense Residential	Light Mixed-Use	Light Residential	Medium Residential
11. Pipe, Capacity and Flow Information	a Type of CSO hydraulioc control	11a	Drop-down Slot, cov ered by Bar Screen, see Dwg. SW 39	Drop-down Slot, covered by Bar Screen; see Dwg. SW-40	Drop-down Slot, covered by Bar Screen; see Dwg. SW-41	Drop-down Slot, coverd by Bar Screen; see Dwg. SW-42	Drop-down Slot, covered by Bar Screen, see Dwg. SW 43	Drop-down Slot, cov ered by Bar Screen, see Dwg. SW 44	Drop-down Slot, cov ered by Bar Screen, see Dwg. SW 45	Drop-down Slot, cov ered by Bar Screen, see Dwg. SW 46	Drop-down Slot, cov ered by Bar Screen, see Dwg. SW 47	Drop-down Slot, cov ered by Bar Screen, see Dwg. SW 48	Drop-down Slot, cov ered by Bar Screen, see Dwg. SW 49
	b CSO hydraulic control capacity (MGD)	11b	0.099	0.0.033	0.135	0.116	2.900	0.469	0.242	0.229	0.521	0.014	1.250
	c Name of interceptor or downstream pipe	11c	MH 105-09	MH 114C	DMH 207A	MH 210A-2	MH 212F	MH 213-06	MH 220	MH 226A	MH 241C	MH 294C	MH 555

PUBLIC PARTICIPATION

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 8.2
Latitude 40º 40' 40.00" **Longitude** -76º 11' 21.00"
Wastewater Description: Sewage Effluent

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" (362-0400-001), SOPs and/or BPJ.

Technology-Based Limitations

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

Parameter	Minimum	Average Monthly	Average Weekly	IMAX	Basis
Flow (MGD)	XXX	Report	Report Max Daily	XXX	§§ 92a.27, 92a.61
CBOD5 (mg/L)	XXX	25	40	50	§ 92a.47
TSS (mg/L)	XXX	30	45	60	§ 92a.47
TRC (mg/L)	XXX	0.5	XXX	1.6	§§ 92a.47-48
NH3-N (mg/L)	XXX	25	XXX	50	BPJ
D.O. (mg/L)	4	XXX	XXX	XXX	BPJ
pH (SU)	6	XXX	XXX	9	§ 92a.47, § 95.2
Total N (mg/L)	XXX	Report	XXX	XXX	§ 92a.61
Total P (mg/L)	XXX	Report	XXX	XXX	§ 92a.61
Fecal Coliform (No./100 ml) (May-Sept)	XXX	200 Geo Mean	XXX	1,000	§ 92a.47
Fecal Coliform (No./100 ml) (Oct-April)	XXX	2,000 Geo Mean	XXX	10,000	§ 92a.47
E. Coli (No./100 ml)*	XXX	XXX	XXX	Report	§ 92a.61

*Sewage discharges now require monitoring and reporting for E. Coli. A monitoring frequency of 1/month for design flows >= 1 MGD, 1/quarter for design flows >= 0.05 and < 1 MGD, 1/year for design flows of 0.002 – 0.05 MGD will be utilized.

Water Quality-Based Limitations

A "Reasonable Potential Analysis" determined the following parameters were candidates for limitations and the following limitations were determined through water quality modeling (output files attached) and continue unchanged:

Parameter	Limit (mg/l)	SBC	Model
TRC	0.32	Average Monthly	TRC Evaluation
NH_3-N	6.0	Average Monthly	WQM 7.0

Toxics Screening Analysis revealed these toxics of interest:

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable
Total Aluminum	1,021	µg/L	Discharge Conc ≤ 10% WQBEL
Total Antimony	15.7	µg/L	Discharge Conc ≤ 10% WQBEL
Total Arsenic	28.0	µg/L	Discharge Conc ≤ 10% WQBEL
Total Barium	6,716	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	4,478	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	0.76	µg/L	Discharge Conc ≤ 10% WQBEL
Total Chromium (III)	241	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	22.2	µg/L	Discharge Conc < TQL
Total Cobalt	53.2	µg/L	Discharge Conc ≤ 10% WQBEL
Total Copper	19.1	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	840	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	4,198	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	8.9	µg/L	Discharge Conc ≤ 10% WQBEL
Total Manganese	2,798	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	0.14	µg/L	Discharge Conc < TQL
Total Nickel	145	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	Discharge Conc < TQL
Total Selenium	14.0	µg/L	Discharge Conc ≤ 10% WQBEL
Total Silver	5.15	µg/L	Discharge Conc ≤ 10% WQBEL
Total Thallium	0.67	µg/L	Discharge Conc ≤ 10% WQBEL
Total Zinc	163	µg/L	Discharge Conc ≤ 10% WQBEL
Total Molybdenum	N/A	N/A	No WQS
Acrolein	4.08	µg/L	Discharge Conc < TQL
Acrylamide	0.7	µg/L	Discharge Conc < TQL

TMS PA0043885.pdf

TMS produced No additional limit recommendations.

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
03F	833	SCHUYLKILL RIVER

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)
122.900	Pottsville	PA0043885	8.200	CBOD5	25		
				NH3-N	5.9	11.8	
				Dissolved Oxygen			3

TRC EVALUATION			Enter Facility Name in E3	
Input appropriate values in B4:B8 and E4:E7			Greater Pottsville Area	
22.8	= Q stream (cfs)		0.5	= CV Daily
8.2	= Q discharge (MGD)		0.5	= CV Hourly
4	= no. samples		1	= AFC_Partial Mix Factor
0.3	= Chlorine Demand of Strea		1	= CFC_Partial Mix Factor
0	= Chlorine Demand of Disch		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 =	0.592	1.3.2.iii	WLA cfc =	0.570
PENTOXSD TRC	5.1a	LTAMULT afc =	0.373	5.1c	LTAMULT cfc =	0.581
PENTOXSD TRC	5.1b	LTA_afc=	0.221	5.1d	LTA_cfc =	0.331

Source		Effluent Limit Calculations		
PENTOXSD TRC	5.1f	AML MULT =	1.720	
PENTOXSD TRC	5.1g	AVG MON LIMIT (mg/l) =	0.380	AFC
		INST MAX LIMIT (mg/l) =	0.889	

Whole Effluent Toxicity (WET)

For Outfall 001, ☐ **Acute** ☒ **Chronic** WET Testing was completed:

July 3, 2013 is the date the application was received with the previous instructions of 4 WET tests for renewal. Today's standards require yearly passing Wet tests (see proposed draft permit for details.)

☒ For the permit renewal application (4 tests).
☐ Quarterly throughout the permit term.
☐ Quarterly throughout the permit term and a TIE/TRE was conducted.
☐ Other:

The Target Instream Waste Concentration (TIWC) used for analysis of the results was: 39.

Summary of Four Most Recent Test Results

DEP's Regional Biologist reviewed the Wet Tests for 8/12, 11/12, 1/13, and 4/13 and reported that All Chronic Wet Tests for both species passed except for the Ceriodaphnia growth test on 1/13. The NOEC was 25% which is below the TIWc OF 39%. 1/13 was resubmitted 2/13 with passing results. The applicant submitted :

	Ceriodaphnia Results				Pimephales Results			
Test Date	Survival NOEC	Reproduction NOEC	LC50	Pass/Fail	Survival NOEC	Growth NOEC	LC50	Pass/Fail
8/7-14/12	100%	100%	100%	PASS	100%	100%	100%	PASS
11/1-8/12	100%	100%	100%	PASS	100%	100%	100%	PASS
1/29/13-2/5/13	100%	100%	100%	PASS	100%	100%	100%	PASS
4/2-9/13	100%	100%	100%	PASS	100%	100%	100%	PASS

The new permit will be upgraded to PaDEP's policy of yearly WET Testing, requiring quarterly monitoring upon any failure. If there is a failure the permit conditions provide guidance on the WET testing and limits. For the Northeast our Program Biologist reviews all WET Test submissions and the Program Water Quality Specialist's uploads them in the eDMR system.

TST Data Analysis

(NOTE – In lieu of recording information below, the application manager may attach the DEP WET Analysis Spreadsheet).

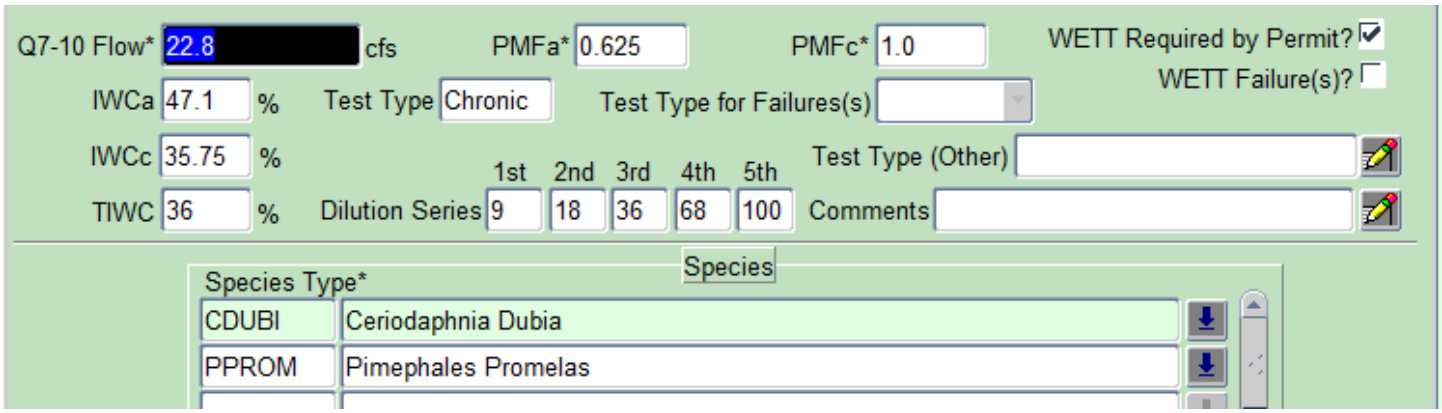
	***Ceriodaphnia* Results (Pass/Fail)**		***Pimephales* Results (Pass/Fail)**	
Test Date	**Survival**	**Reproduction**	**Survival**	**Growth**
8/12	Pass	Pass	Pass	Pass
11/12	Pass	Pass	Pass	Pass
1-then 2/13	Fail/ then Pass	Pass	Pass	Pass
4/13	Pass	Pass	Pass	Pass

***** *A "passing" result is that in which the replicate data for the TIWC is not statistically significant from the control condition. This is exhibited when the calculated t value ("T-Test Result") is greater than the critical t value. A "failing" result is exhibited when the calculated t value ("T-Test Result") is less than the critical t value.*

Is there reasonable potential for an excursion above water quality standards based on the results of these tests? (*NOTE – In general, reasonable potential is determined anytime there is at least one test failure in the previous four tests).*

☐ **YES** ☒ **NO**

Comments: In accordance with 40 CFR 122.44(d)(1)(iv), when the permitting authority determines that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the numeric criterion for WET, the permit must contain effluent limits for WET. New Permit conditions of Yearly Testing must confirm lack of limits.



(TIWC) to be used for future analysis of the results is: 36

The 2012 and 2013 PDF Wet Attachments are in the appendix Fact Sheet

Compliance History

DMR Data for Outfall 001 (from May 1, 2020 to April 30, 2021)

Parameter	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20
Flow (MGD) Average Monthly	4.95	6.89	4.96	4.79	5.28	3.97	3.34	3.58	4.09	3.56	5.52	5.61
Flow (MGD) Daily Maximum	10.46	11.78	13.30	8.76	16.67	9.39	10.67	7.13	9.67	6.56	12.41	13.87
pH (S.U.) Daily Minimum	6.2	6.4	5.9	6.5	6.4	6.7	6.6	6.4	6.8	6.5	6.6	6.6
pH (S.U.) Daily Maximum	7.0	7.1	7.2	7.1	7.3	7.4	7.6	7.4	7.4	7.4	7.4	7.6
DO (mg/L) Daily Minimum	6.0	7.4	7.3	6.5	7.2	5.9	5.8	6.0	5.3	5.7	6.0	5.9
TRC (mg/L) Average Monthly	0.03	0.04	0.04	0.05	0.05	0.04	0.05	0.04	< 0.05	0.04	< 0.05	0.06
TRC (mg/L) Instantaneous Maximum	0.07	0.08	0.07	0.08	0.41	0.12	0.30	0.09	0.61	0.45	0.15	0.44
CBOD5 (lbs/day) Average Monthly	< 252	< 418	< 253	< 231	< 221	< 214	< 174	< 185	< 200	< 173	< 275	< 245
CBOD5 (lbs/day) Weekly Average	< 352	< 612	< 666	< 307	< 333	< 329	< 253	< 308	< 276	< 188	< 366	< 343
CBOD5 (mg/L) Average Monthly	< 6.0	< 6.6	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0
CBOD5 (mg/L) Weekly Average	< 6.0	< 8.9	< 6.0	< 6.0	< 6.0	< 6.0	< 6.2	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0
TSS (lbs/day) Average Monthly	< 277	< 425	< 346	< 249	< 268	< 286	< 376	< 288	< 212	< 147	< 383	< 318
TSS (lbs/day) Weekly Average	349	642	1597	362	400	< 1096	< 1179	< 607	< 300	< 167	657	< 440
TSS (mg/L) Average Monthly	< 6.9	< 6.6	< 7.0	< 6.4	< 7.2	< 6.9	< 7.6	< 7.6	< 6.1	< 5.1	< 7.9	< 7.7
TSS (mg/L) Weekly Average	< 8.5	< 8.5	14.4	7.1	11.8	< 15.5	< 16.0	< 13.4	< 7.0	< 5.3	10.7	9.4
Fecal Coliform (No./100 ml) Geometric Mean	< 1.4	< 2.2	< 2.3	< 1.9	< 1.8	< 3.3	< 2.1	< 2.3	< 3.2	< 2.5	< 3.4	< 6.8
Ammonia (lbs/day) Average Monthly	< 8.4	< 18.2	< 18.3	< 8.5	< 8.6	< 12.8	< 9.7	< 6.8	< 7.1	< 6.5	< 12.9	< 10.2
Ammonia (mg/L) Average Monthly	< 0.2	< 0.3	< 0.4	< 0.2	< 0.2	< 0.3	< 0.3	< 0.2	< 0.2	< 0.2	< 0.3	< 0.3
Total Copper (lbs/day) Average Monthly	0.3403	0.31744	0.39374	0.31465	0.2988	0.22903	0.2494	0.4465	0.37989	0.2091	0.4211	0.34361
Total Copper (lbs/day) Daily Maximum	0.42258	0.39514	0.68981	0.36566	0.4287	0.24222	0.3659	1.0564	0.63228	0.2805	0.54830	0.37039
Total Copper (mg/L) Average Monthly	0.0089	0.00607	0.00915	0.00813	0.0078	0.00773	0.0092	0.0118	0.00948	0.0077	0.0105	0.00890
Total Copper (mg/L) Daily Maximum	0.01121	0.00691	0.01070	0.00949	0.0108	0.00897	0.0107	0.0197	0.01050	0.0101	0.01120	0.01050
Total Lead (lbs/day) Average Monthly	< 0.040	< 0.054	< 0.056	< 0.039	< 0.039	< 0.030	< 0.027	< 0.063	< 0.042	< 0.027	< 0.042	< 0.041
Total Lead (lbs/day) Daily Maximum	< 0.051	< 0.077	0.12056	< 0.046	< 0.051	< 0.033	< 0.034	0.19574	< 0.081	< 0.028	0.04914	< 0.056
Total Lead (mg/L) Average Monthly	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001
Total Lead (mg/L) Daily Maximum	< 0.001	< 0.001	0.00187	< 0.001	0.00102	< 0.001	< 0.001	0.00365	< 0.001	< 0.001	0.00123	0.00109