

Application Type Renewal
 Facility Type Municipal
 Major / Minor Major

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0021857
 APS ID 955278
 Authorization ID 1206923

Applicant and Facility Information

| | | | |
|---------------------------|--|------------------|--|
| Applicant Name | <u>Souderton Borough Montgomery County</u> | Facility Name | <u>Souderton Borough STP</u> |
| Applicant Address | <u>31 W Summit Street</u> <u>Souderton, PA 18964-1612</u> | Facility Address | <u>174 Cowpath Road</u> <u>Souderton, PA 18964-2007</u> |
| Applicant Contact | <u>Sarah Jarrett- Eaton</u> | Facility Contact | <u>Sarah Jarrett- Eaton</u> |
| Applicant Phone | <u>(215) 723-4371</u> | Facility Phone | <u>(215) 723-4371</u> |
| Client ID | <u>3685</u> | Site ID | <u>263090</u> |
| Ch 94 Load Status | <u>Not Overloaded</u> | Municipality | <u>Franconia Township</u> |
| Connection Status | <u>No Limitations</u> | County | <u>Montgomery</u> |
| Date Application Received | <u>November 8, 2017</u> | EPA Waived? | <u>No</u> |
| Date Application Accepted | <u></u> | If No, Reason | <u>Major Facility</u> |
| Purpose of Application | <u>Permit Renewal.</u> | | |

Summary of Review

This fact sheet is being prepared to provide responses to the comment letter received from the permittee on December 22, 2025 regarding the draft permit that was issued on November 6, 2025 and published in the PA Bulletin on November 29, 2025.

Public Participation

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

| Approve | Deny | Signatures | Date |
|---------|------|---|-------------------|
| √ | | Reza H. Chowdhury, P.E. / Environmental Engineer  | February 13, 2026 |
| X | | Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager | 02/17/2026 |

The Pennsylvania Department of Environmental Protection (PADEP/Department) redrafted the NPDES permit for Borough of Souderton STP (facility) on November 6, 2025 which was published in the PA Bulletin on November 29, 2025 for public comment for a comment period of 30 days. The US EPA sent an email on November 17, 2025 and stated that they have no comment on the draft permit. The Borough of Souderton (permittee) provided a comment letter via S C Engineers, Inc. (consultant) on December 22, 2025 and provided comments. The permittee's comments are addressed herein:

Comment 1:

Cyanide, Iron and Thallium requirements have been added to Part A - Effluent Limitations of the draft permit. Monthly monitoring is required in the first 3 years of the permit, while stringent water quality based effluent limitations (WQBEL) become enforceable in the 4th year of the permit. These stringent limits are included on the basis of 3 samples taken in December 2017 and 7 additional samples taken in 2023 of the Souderton WWTP effluent. The analyses done in 2023 used laboratory methods that meet the more sensitive target quantitation limits specified by PADEP. Based on these results, we have the following concerns.

The imposition of enforceable, numeric effluent limits is based on limited and sometimes conflicting data. Free Cyanide was non-detectable in all 3 effluent samples analyzed in 2017 and 1 of the 7 in 2023. Thallium was non-detectable in 1 of 3 effluent samples analyzed in 2017 and 5 of 7 in 2023, using the more sensitive laboratory methods.

Due to the limited and variable data upon which to determine the need for permit inclusion, the PADEP uses statistical methods that seem inconsistent with common sense. The analyses for Iron and Thallium are good examples:

| Method | Result (mg/l) | |
|-----------------|---------------|----------|
| | Iron | Thallium |
| Simple Average | 0.33 | 0.00006 |
| Maximum Value | 0.55 | 0.00009 |
| DEP Statistical | 1.53 | 0.00084 |

The averages calculated by PADEP would be greater than the maximum of the seven sample results by a factor of 2.8 for Iron and 9.3 for Thallium. Iron and Thallium results would each be 20% of the calculated WQBEL, based on simple averages, warranting only monitoring according to PADEP's own internal SOP.

- *There is insufficient data at this time to determine the reasonable potential for concern and the imposition of enforceable numerical limits. Monitoring requirements should be maintained for this permit term so that sufficient data can be collected to make an informed decision in the future.*

PADEP's response: The Department concurs with the Permittee's statement that they didn't follow the most sensitive method while sampling Cyanide, Iron and Thallium in 2016 and accordingly should not be considered in determining whether these parameters have a reasonable potential to exceed instream water quality criteria. The 2023 sampling data provides a dataset of less than 10 entries. The Department utilizes its Toxics Management Spreadsheet (TMS) as a tool in analyzing reasonable potential. The applicable TMS guidance recommends that if the dataset contains less than 10 data points, the maximum of the data should be the input of the TMS modeling. The Department determined that this approach would be more protective of instream water quality than the Permittee's suggested use of the latest 2023 results to calculate the simple average values once the 2016 sample results are excluded from the dataset. If the Department re-ran the TMS modeling with the highest value from latest sample results and the model recommends monitoring requirements for Total Iron and Total Thallium, and numeric limits for Total Cyanide. The model's recommended effluent limits are provided below:

Recommended WQBELs & Monitoring Requirements

No. Samples/Month: 4

| Pollutants | Mass Limits | | Concentration Limits | | | | Governing WQBEL | WQBEL Basis | Comments |
|-----------------------|---------------|---------------|----------------------|--------|--------|-------|-----------------|-------------|------------------------------------|
| | AML (lbs/day) | MDL (lbs/day) | AML | MDL | IMAX | Units | | | |
| Total Boron | Report | Report | Report | Report | Report | mg/L | 1.75 | CFC | Discharge Conc > 10% WQBEL (no RP) |
| Free Cyanide | 0.073 | 0.11 | 0.004 | 0.007 | 0.011 | mg/L | 0.004 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Dissolved Iron | Report | Report | Report | Report | Report | mg/L | 0.33 | THH | Discharge Conc > 10% WQBEL (no RP) |
| Total Iron | Report | Report | Report | Report | Report | mg/L | 1.64 | CFC | Discharge Conc > 10% WQBEL (no RP) |
| Total Thallium | Report | Report | Report | Report | Report | mg/L | 0.0003 | THH | Discharge Conc > 10% WQBEL (no RP) |
| Total Zinc | Report | Report | Report | Report | Report | mg/L | 0.19 | AFC | Discharge Conc > 10% WQBEL (no RP) |
| Chlorodibromomethane | Report | Report | Report | Report | Report | µg/L | 1.45 | CRL | Discharge Conc > 25% WQBEL (no RP) |
| Chloroform | 0.1 | 0.13 | 6.24 | 8.05 | 15.6 | µg/L | 6.24 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Dichlorobromomethane | 0.029 | 0.045 | 1.73 | 2.69 | 4.31 | µg/L | 1.73 | CRL | Discharge Conc ≥ 50% WQBEL (RP) |
| Copper Souderton WWTP | 0.57 | 0.94 | 33.9 | 56.5 | 84.8 | µg/L | 33.9 | CFC | Discharge Conc ≥ 50% WQBEL (RP) |
| | | | | | | | | | |
| | | | | | | | | | |

The Department has determined that these recommendations are appropriate, and the effluent limits table in Part A of the permit will be revised to reflect the updated model output.

Comment 2:

Copper requirements are included in Part A - Effluent Limitations of the draft permit. Weekly monitoring is required, consistent with the current NPDES permit requirements. However, Part C Condition III adds a requirement to conduct an analysis of site-specific criterion (SSC) for copper as a remedy for the alternative of using generic, statewide copper criteria to develop water quality based effluent limitations (WQBEL). The Borough certainly appreciates the PADEP goal of establishing a reasonable copper WQBEL. However, the Borough is concerned with the anticipated outcome of the methodology required for the SSC and the known stream tolerance of higher copper concentrations.

Methodology. Part C of the permit requires the use of USEPA’s newer Biotic Ligand Model (BLM), disallowing the previously approved and more established Water Effects Ratio (WER) methodology. The WER methodology typically produced site-specific water quality criteria (WQC) that were generally 3 to 5 times the default WQC. The WER and BLM are both intended to measure the same phenomenon, the site-specific binding of copper based on water chemistry. However, experience, albeit limited, indicates that the BLM produces WQC that are similar or even lower than the default WQC based on hardness alone. Lower WQC are clearly the opposite of PADEP expectation and intended use of the BLM.

Stream Tolerance of Higher Copper Concentrations. The Borough performed a stream study dated February 2004 using the WER method, which determined that copper levels 2.55 times higher than the PADEP water quality criteria would not adversely impact the stream. As mentioned in the PADEP Fact Sheet, the Borough also performed a WER stream study dated May 2015, as required by its 2013 NPDES permit, which determined that copper levels 4.83 times higher than the WQC would not adversely impact the stream. Although no explanation was/is provided, the PADEP Fact Sheet indicates that “the 2015 WER wasn’t approved by EPA” and the 2004 factor of 2.55 was the default value.

The Borough has been required by past NPDES permits to perform whole effluent toxicity (WET) testing for over a decade. These results have consistently shown that effluent discharges from the Souderton plant at current copper concentrations have no toxic effect on aquatic species.

- *The permit should contain a similar provision to the 2013 permit requiring “a study supporting a site-specific water quality criterion for copper ... using a WER and/or BLM.” However, the Borough shall conduct a WER and BLM as additional information for evaluation.*

PADEP’s Response:

The Permittee’s site-specific water quality criterion for copper was developed many years ago using the WER methodology, has been carried forward in a number of permit cycles, and, in the Department’s determination,

should be revisited. 25 Pa. Code § 93.8d(c)(3) states that “[t]he development of new or updated site-specific criteria for copper in freshwater systems shall be performed using the biotic ligand model (BLM).” Further guidance is provided by the Statement of Policy at 25 Pa. Code §16.24(c)(2), which states that “WERs should not be used for the development of site-specific criteria for copper.” The Department has determined that the option for the Permittee to develop an updated site-specific water quality criterion for copper using the BLM methodology is appropriate to remain in the permit.

Comment 3:

Trihalomethane (THM) requirements have been added to the Part A - Effluent Limitations of the draft permit. Part A of the draft permit requires weekly monitoring during the first 3 years of the renewed permit. Enforceable effluent limits would become effective for the subsequent 2 years of the permit.

Allowing only 36 months for the planning, design and construction of the necessary treatment facilities is unreasonable. It could take a year or two of monitoring to determine whether the THM limits could be achieved. At that time, it would only allow as little as a year to implement alternative treatment technology such as ultraviolet disinfection.

If the need for alternative ultraviolet disinfection is determined, the Borough would have to consider alternatives, including abandonment of its plant and discharge to a larger regional plant. Additionally, under current conditions, delivery of equipment alone can take a year or more.

- *The requirement to implement THM removal should be extended to the issuance of the next permit renewal.*

PADEP’s Response: The Department is willing to allow up to 59 months to comply with the final WQBELs. The Part C.IV.C will be revised to reflect this change.

Comment 4:

Nitrogen monitoring has been added to the Part A - Effluent Limitations of the draft permit. PA Title 25, Section 92a.61 is cited as the regulatory basis for Total Nitrogen requirement. However, Section 92a.61 does not provide any specific basis for monitoring nitrogen compounds. The PADEP is apparently relying on paragraph 92a.61(b) that states that “the Department may impose reasonable monitoring requirements on any discharge ... that may affect ... surface waters.” The PADEP Fact Sheet does not cite any reason to believe that nitrogen is or could be negatively impacting the stream.

- *In the absence of any regulatory or technical basis, these monitoring requirements should be deleted from the permit.*

PADEP’s Response: The Department included a best professional judgment limitation for Total Nitrogen in the draft permit in accordance with the Department’s standard operating procedure entitled “Establishing Effluent Limitations for Individual Sewage Permits,” which recommends that “[i]n general, sewage discharges with design flows > 2,000 GPD will include monitoring, at a minimum, for Total Nitrogen in new and reissued permits, with a monitoring frequency equivalent to conventional pollutants.” In the exercise of its discretion, the Department will reduce the sampling/reporting requirements from 1/month to 1/quarter.

Comment 5:

Aluminum, Arsenic, Boron, Dissolved Iron and Zinc monitoring has been added to the Part A - Effluent Limitations of the draft permit. Part A of the draft permit requires quarterly monitoring during the term of the renewed permit. The sampling data for these pollutants submitted as part of the permit application were below the calculated WQBEL.

| Metal | Result (%WQBEL) | |
|-----------------|-----------------|------------|
| | Simple Avg. | Max. Value |
| Aluminum | 1% | 1% |
| Arsenic | 5% | 7% |
| Boron | 8% | 10% |
| Iron, Dissolved | 18% | 26% |
| Zinc | 21% | 28% |

In fact, Aluminum and Arsenic were both non-detectable in 4 of the 7 effluent samples analyzed in 2023 using the more sensitive laboratory methods.

However, according to the PADEP Fact Sheet, the monitoring requirements were included based on (a) the statistical method used by PADEP, as discussed previously in comment 1, and (b) an arbitrary internal PADEP standard operating procedure (SOP). The SOP proposes a monitoring requirement when the concentrations exceed 10% of the WQBEL. We believe this criterion is overly conservative and is not an enforceable rule or regulation, having not gone through the public notice requirements or adoption procedures.

In the absence of any regulatory basis or demonstrated impact on the receiving stream, these monitoring requirements should be deleted from the permit.

PADEP’s Response:

Same as the Department’s response for comment 1, the TMS model was utilized with the highest concentration of remaining dataset, excluding the 2016 results. The TMS model suggests no reasonable potential for Total Aluminum and Total Arsenic to exceed instream water quality criteria, but the model recommends monitoring requirements for Boron, Dissolved Iron, and Zinc. . The Department has determined that these recommendations are appropriate, and the Part A will be revised to reflect these changes.

Comment 6:

PFAS monitoring, including 4 compounds, has been added to the Part A - Effluent Limitations of the draft permit. The reason cited in the PADEP Fact Sheet is (a) another internal SOP and (b) the catch-all PA Title 25, Section 92a.61. Although there is a provision that “the permittee may discontinue monitoring ... if the results in 4 consecutive monitoring periods indicate non-detect results,” that is highly unlikely to occur.

We have expressed our concern earlier about the legality of internal SOPs and the specificity of Section 92a.61. In this case, there may be some benefit to determining the extent of PFAS entering the wastewater system, even though the Borough would have no real means of controlling or reducing the PFAS content.

PADEP’s Response:

The Department acknowledges the comment. The Department evaluated the regulation at 25 Pa. Code § 92a.61 and the recommendations in the Department’s standard operating procedure entitled “Establishing Effluent Limitations for Individual Sewage Permits,” and determined that the PFAS monitoring in the permit, with the footnoted provision that monitoring may be discontinued if non-detect values are reported for four consecutive monitoring periods, remains appropriate .

Comment 7:

WQBEL Studies/Reports have been added as requirements in Part C, Condition IV of the draft permit. Condition IV.C requires, among other items, a Toxics Reduction Evaluation (TRE) and a WQBEL Compliance Report for 3 inorganics (Iron, Thallium and Free Cyanide) and 2 THMs. We have several concerns with these requirements.

As described in comment 1, numeric limits for Iron and Thallium should not be included in the permit. Accordingly, these requirements should not apply to these two metals.

There is no specific verbiage that requires a TRE, but the tabulation in Condition IV.C.1 refers to a TRE. TRE are intended to identify the external source(s) of pollutants and means to reduce those pollutants. In this case, the pollutants are known to be generated internally within the WWTP. The TRE would verify what PADEP and Borough already know:

- a. Iron is coming from the use of ferrous sulfate at the WWTP for phosphorus removal and
- b. Trihalomethanes are a byproduct of chlorine disinfection at the WWTP.

The TRE would serve no purpose for these pollutants.

The WQBEL Compliance Report can come to two basic conclusions: (1) the WQBEL can be achieved or (2) achieving the WQBEL is “infeasible.” However, there is no definition of or basis for determining what is “infeasible.”

➤ *Part C, Condition IV should be revised to address the preceding points.*

PADEP’s Response:

The Part C.IV will be revised to reflect the above changes and to remove reference to TRE.

The revised TMS modeling is attached herein.

Proposed Effluent Limitations and Monitoring Requirements

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

Outfall 001, Effective Period: Permit Effective Date through End of Interim Period 1 (36 months from Permit Effective Date).

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---------------------|-------------------------------------|---------------|-----------------------|-----------------|---------------|------------------|--|----------------------|
| | Mass Units (lbs/day) ⁽¹⁾ | | Concentrations (mg/L) | | | | Minimum ⁽²⁾ Measurement Frequency | Required Sample Type |
| | Average Monthly | Daily Maximum | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| Free Cyanide (ug/L) | Report | Report | XXX | Report | Report | XXX | 1/month | Grab |

Compliance Sampling Location: At Outfall 001

Other Comments: None

Proposed Effluent Limitations and Monitoring Requirements

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

Outfall 001, Effective Period: End of Interim Period 1 (Beginning of 37th month from Permit Effective Date) through Permit Expiration Date.

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---------------------|-------------------------------------|---------------|-----------------------|---------------|---------|------------------|--|----------------------|
| | Mass Units (lbs/day) ⁽¹⁾ | | Concentrations (mg/L) | | | | Minimum ⁽²⁾ Measurement Frequency | Required Sample Type |
| | Average Monthly | Daily Maximum | Average Monthly | Daily Maximum | Maximum | Instant. Maximum | | |
| Free Cyanide (ug/L) | 0.073 | 0.13 | 4.0 | 8.0 | XXX | 11.0 | 1/month | Grab |

Compliance Sampling Location: At Outfall 001

Other Comments: None

Proposed Effluent Limitations and Monitoring Requirements

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

Outfall 001, Effective Period: Permit Effective Date through End of Interim Period 2 (59 months from Permit Effective Date).

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|------------------------------|-------------------------------------|-------------------|-----------------------|--------------------|---------|---------------------|--|----------------------------|
| | Mass Units (lbs/day) ⁽¹⁾ | | Concentrations (mg/L) | | | | Minimum ⁽²⁾ Measurement Frequency | Required Sample Type |
| | Average Monthly | Average Weekly | Minimum | Average Monthly | Maximum | Instant. Maximum | | |
| Dichlorobromo-methane (ug/L) | XXX | XXX | XXX | Report | XXX | Report | 1/month | Grab |
| Chloroform (ug/L) | XXX | XXX | XXX | Report | XXX | Report | 1/month | Grab |

Compliance Sampling Location: At Outfall 001

Other Comments: None

Proposed Effluent Limitations and Monitoring Requirements

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

Outfall 001, Effective Period: End of Interim Period 2 (Beginning of 60th month from Permit Effective Date) through Permit Expiration Date.

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|------------------------------|-------------------------------------|-------------------|-----------------------|--------------------|---------|---------------------|--|----------------------------|
| | Mass Units (lbs/day) ⁽¹⁾ | | Concentrations (mg/L) | | | | Minimum ⁽²⁾ Measurement Frequency | Required Sample Type |
| | Average Monthly | Average Weekly | Minimum | Average Monthly | Maximum | Instant. Maximum | | |
| Dichlorobromo-methane (ug/L) | XXX | XXX | XXX | 1.73 | XXX | 4.31 | 1/month | Grab |
| Chloroform (ug/L) | XXX | XXX | XXX | 6.24 | XXX | 15.6 | 1/month | Grab |

Compliance Sampling Location: At Outfall 001

Other Comments: None

Proposed Effluent Limitations and Monitoring Requirements

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

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

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|------------------------------|-------------------------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|--|----------------------------|
| | Mass Units (lbs/day) ⁽¹⁾ | | Concentrations (mg/L) | | | | Minimum ⁽²⁾ Measurement Frequency | Required Sample Type |
| | Average Monthly | Weekly Average | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| Flow (MGD) | Report | Report Daily Max | XXX | XXX | XXX | XXX | Continuous | Recorded |
| pH (S.U.) | XXX | XXX | 6.0 Inst Min | XXX | XXX | 9.0 | 1/day | Grab |
| DO | XXX | XXX | 6.0 Inst Min | XXX | XXX | XXX | 1/day | Grab |
| TRC | XXX | XXX | XXX | 0.012 | XXX | 0.038 | 1/day | Grab |
| CBOD5 Raw Sewage Influent | Report | Report | XXX | Report | Report Wkly Avg | XXX | 2/week | 24-Hr Composite |
| CBOD5 Nov 1 - Apr 30 | 417 | 667 | XXX | 25 | 40 Wkly Avg | 50 | 2/week | 24-Hr Composite |
| CBOD5 May 1 - Oct 31 | 250 | 375 | XXX | 15.0 | 23.0 Wkly Avg | 30 | 2/week | 24-Hr Composite |
| BOD5 Raw Sewage Influent | Report | XXX | XXX | Report | 45 XXX Wkly Avg | XXX | 1/month | 24-Hr Composite |
| TSS | 500 | 750 | XXX | 30 | 60 Wkly Avg | 60 | 2/week | 24-Hr Composite |
| TSS Raw Sewage Influent | Report | Report | XXX | Report | Report Wkly Avg | XXX | 2/week | 24-Hr Composite |
| Total Dissolved Solids | Report Avg Qrtly | XXX | XXX | Report Avg Qrtly | XXX | XXX | 1/quarter | 24-Hr Composite |
| Fecal Coliform (No./100 ml) | XXX | XXX | XXX | 200 Geo Mean | XXX | 1000 | 2/week | Grab |
| E. Coli (No./100 ml) | XXX | XXX | XXX | XXX | XXX | Report | 1/month | Grab |
| Total Nitrogen | Report | XXX | XXX | Report | XXX | XXX | 1/quarter | Calculation |

Outfall001 , Continued (from Permit Effective Date through Permit Expiration Date)

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|--|-------------------------------------|---------------------|-----------------------|---------------------|------------------|---------------------|--|----------------------------|
| | Mass Units (lbs/day) ⁽¹⁾ | | Concentrations (mg/L) | | | | Minimum ⁽²⁾ Measurement Frequency | Required Sample Type |
| | Average Monthly | Weekly Average | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| Ammonia Nov 1 - Apr 30 | 60.0 | XXX | XXX | 3.6 | XXX | 7.2 | 2/week | 24-Hr Composite |
| Ammonia May 1 - Oct 31 | 30.0 | XXX | XXX | 1.8 | XXX | 3.6 | 2/week | 24-Hr Composite |
| Total Phosphorus Nov 1 - Mar 31 | 33.0 | XXX | XXX | 2.0 | XXX | 4 | 2/week | 24-Hr Composite |
| Total Phosphorus Apr 1 - Oct 31 | 16.5 | XXX | XXX | 1.0 | XXX | 2 | 2/week | 24-Hr Composite |
| Total Boron (ug/L) | Report Avg Qrtly | Report Daily Max | XXX | Report Daily Max | Report | XXX | 1/quarter | 24-Hr Composite |
| Total Copper | XXX | XXX | XXX | Report | Report | XXX | 1/week | 24-Hr Composite |
| Dissolved Iron (ug/L) | Report Avg Qrtly | Report Daily Max | XXX | Report Avg Qrtly | Report | XXX | 1/quarter | 24-Hr Composite |
| Total Iron | XXX | XXX | XXX | XXX | Report | XXX | 1/quarter | 24-Hr Composite |
| Total Thallium | XXX | XXX | XXX | XXX | Report | XXX | 1/quarter | 24-Hr Composite |
| Total Zinc (ug/L) | Report Avg Qrtly | Report Daily Max | XXX | Report Avg Qrtly | Report | XXX | 1/quarter | 24-Hr Composite |
| Chlorodibromo-methane (ug/L) | Report Avg Qrtly | Report Daily Max | XXX | Report Avg Qrtly | Report | XXX | 1/quarter | 24-Hr Composite |
| PFOA (ug/L) | XXX | XXX | XXX | XXX | XXX | Report | 1/year | Grab |
| PFOS (ug/L) | XXX | XXX | XXX | XXX | XXX | Report | 1/year | Grab |
| PFBS (ug/L) | XXX | XXX | XXX | XXX | XXX | Report | 1/year | Grab |
| HFPO-DA (ug/L) | XXX | XXX | XXX | XXX | XXX | Report | 1/year | Grab |
| Chronic WET - Ceriodaphnia Survival (TUc) | XXX | XXX | XXX | XXX | Report | XXX | See Permit | 24-Hr Composite |
| Chronic WET - Ceriodaphnia Reproduction (TUc) | XXX | XXX | XXX | XXX | Report | XXX | See Permit | 24-Hr Composite |
| Chronic WET - Pimephales Survival (TUc) | XXX | XXX | XXX | XXX | Report | XXX | See Permit | 24-Hr Composite |

Outfall 001 , Continued (from Permit Effective Date through Permit Expiration Date)

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|--|-------------------------------------|-------------------|-----------------------|--------------------|------------------|---------------------|--|----------------------------|
| | Mass Units (lbs/day) ⁽¹⁾ | | Concentrations (mg/L) | | | | Minimum ⁽²⁾ Measurement Frequency | Required Sample Type |
| | Average Monthly | Weekly Average | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| Chronic WET - Pimephales Growth (TUc) | XXX | XXX | XXX | XXX | Report | XXX | See Permit | 24-Hr Composite |

Compliance Sampling Location: At Outfall 001

Other Comments: None

Proposed Effluent Limitations and Monitoring Requirements

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

Outfall 002, Effective Period: Permit Effective Date through Permit Expiration Date.

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|-----------------------------|-------------------------------------|----------------|-----------------------|----------------|---------|------------------|--|----------------------|
| | Mass Units (lbs/day) ⁽¹⁾ | | Concentrations (mg/L) | | | | Minimum ⁽²⁾ Measurement Frequency | Required Sample Type |
| | Average Monthly | Average Weekly | Minimum | Annual Average | Maximum | Instant. Maximum | | |
| pH (S.U.) | XXX | XXX | XXX | Report | XXX | XXX | 1/year | Grab |
| CBOD5 | XXX | XXX | XXX | Report | XXX | XXX | 1/year | Grab |
| COD | XXX | XXX | XXX | Report | XXX | XXX | 1/year | Grab |
| TSS | XXX | XXX | XXX | Report | XXX | XXX | 1/year | Grab |
| Oil and Grease | XXX | XXX | XXX | Report | XXX | XXX | 1/year | Grab |
| Fecal Coliform (No./100 ml) | XXX | XXX | XXX | Report | XXX | XXX | 1/year | Grab |
| TKN | XXX | XXX | XXX | Report | XXX | XXX | 1/year | Grab |
| Total Phosphorus | XXX | XXX | XXX | Report | XXX | XXX | 1/year | Grab |
| Dissolved Iron | XXX | XXX | XXX | Report | XXX | XXX | 1/year | Grab |

Compliance Sampling Location: At Outfall 002

Other Comments: None



Chowdhury, Reza

From: Fulton, Jennifer <Fulton.Jennifer@epa.gov>
Sent: Monday, November 17, 2025 4:05 PM
To: Chowdhury, Reza
Cc: Furjanic, Sean; Hawley, Harmonie; Patel, Pravin; Yachera, Kelly; Hales, Dana; Moncavage, Carissa
Subject: [External] Borough of Souderton WWTP (PA0021857)

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Hello Reza,

According to our Memorandum of Agreement, the Environmental Protection Agency (EPA) Region III has received the draft National Pollutant Discharge Elimination System (NPDES) permit for:

Borough of Souderton WWTP
NPDES Number: PA0021857
EPA Received: November 10, 2025
30-day response due date: December 10, 2025

This is a major permit that discharges an Unnamed Tributary of Skippack Creek. It is affected by the Skippack Creek Watershed TMDL. EPA has exercised its discretion and elected not to review this draft permit; therefore, we will not be providing any comments.

If there are any questions, concerns, or changes proposed to the draft permit and/or fact sheet, please coordinate with Kelly Yachera on my staff via telephone at 215-814-5743 or via electronic mail at yachera.kelly@epa.gov.

Thank you,

Jen Fulton

Jennifer Fulton
 Chief, Clean Water Branch
 EPA Region 3
 Phone: 304-234-0248
 Email: fulton.jennifer@epa.gov

| Approve | Deny | Signatures | Date |
|---------|------|--|-------------------|
| √ | | Reza H. Chowdhury, P.E. / Environmental Engineer  | February 13, 2026 |
| X | | <i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager | 02/17/2026 |

TMS



Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions Discharge Stream

Facility: Borough of Souderton WWTP NPDES Permit No.: PA0021857 Outfall No.: 001

Evaluation Type: Major Sewage / Industrial Waste Wastewater Description: Treated Sewage

| Discharge Characteristics | | | | | | | | |
|---------------------------|------------------|----------|----------------------------|-----|-----|-----|--------------------------|----------------|
| Design Flow (MGD)* | Hardness (mg/l)* | pH (SU)* | Partial Mix Factors (PMFs) | | | | Complete Mix Times (min) | |
| | | | AFC | CFC | THH | CRL | Q ₇₋₁₀ | Q _h |
| 2 | 164 | 7.2 | | | | | | |

| Discharge Pollutant | Units | Max Discharge Conc | 0 if left blank | | 0.5 if left blank | | 0 if left blank | | 1 if left blank | | |
|---------------------|---------------------------------|--------------------|-----------------|-------------|-------------------|-----------|-----------------|------------|-----------------|--------------|-------------|
| | | | Trib Conc | Stream Conc | Daily CV | Hourly CV | Stream CV | Fate Coeff | FOS | Criteria Mod | Chem Transl |
| Group 1 | Total Dissolved Solids (PWS) | mg/L | | | | | | | | | |
| | Chloride (PWS) | mg/L | | | | | | | | | |
| | Bromide | mg/L | | | | | | | | | |
| | Sulfate (PWS) | mg/L | | | | | | | | | |
| | Fluoride (PWS) | mg/L | | | | | | | | | |
| Group 2 | Total Aluminum | mg/L | 0.01 | | | | | | | | |
| | Total Antimony | µg/L | 0.5 | | | | | | | | |
| | Total Arsenic | mg/L | 0.0008 | | | | | | | | |
| | Total Barium | µg/L | 47 | | | | | | | | |
| | Total Beryllium | µg/L | < 0.05 | | | | | | | | |
| | Total Boron | mg/L | 0.18 | | | | | | | | |
| | Total Cadmium | µg/L | < 0.08 | | | | | | | | |
| | Total Chromium (III) | µg/L | | | | | | | | | |
| | Hexavalent Chromium | µg/L | < 0.1 | | | | | | | | |
| | Total Cobalt | µg/L | 0.6 | | | | | | | | |
| | Total Copper | mg/L | | | | | | | | | |
| | Free Cyanide | mg/L | < 0.0087 | | | | | | | | |
| | Total Cyanide | µg/L | 2 | | | | | | | | |
| | Dissolved Iron | mg/L | 0.085 | | | | | | | | |
| | Total Iron | mg/L | 0.551 | | | | | | | | |
| | Total Lead | µg/L | 0.4 | | | | | | | | |
| | Total Manganese | µg/L | 26 | | | | | | | | |
| | Total Mercury | µg/L | < 0.2 | | | | | | | | |
| | Total Nickel | µg/L | 4 | | | | | | | | |
| | Total Phenols (Phenolics) (PWS) | µg/L | < 5 | | | | | | | | |
| | Total Selenium | µg/L | < 0.5 | | | | | | | | |
| | Total Silver | µg/L | < 0.05 | | | | | | | | |
| | Total Thallium | mg/L | 0.00009 | | | | | | | | |
| Total Zinc | mg/L | 0.053 | | | | | | | | | |
| Total Molybdenum | µg/L | 4 | | | | | | | | | |
| Acrolein | µg/L | < 1 | | | | | | | | | |
| Acrylamide | µg/L | < | | | | | | | | | |
| Acrylonitrile | µg/L | < 0.5 | | | | | | | | | |
| Benzene | µg/L | < 0.5 | | | | | | | | | |
| Bromoform | µg/L | < 0.5 | | | | | | | | | |

NPDES Permit Fact Sheet
Souderton Borough STP

NPDES Permit No. PA0021857

Receiving Surface Water Name: Skippack Creek

No. Reaches to Model: 1

- Statewide Criteria
- Great Lakes Criteria
- ORSANCO Criteria

| Location | Stream Code* | RMI* | Elevation (ft)* | DA (mi ²)* | Slope (ft/ft) | PWS Withdrawal (MGD) | Apply Fish Criteria* |
|--------------------|--------------|-------|-----------------|------------------------|---------------|----------------------|----------------------|
| Point of Discharge | 001024 | 13.88 | 265.75 | 2.91 | | | Yes |
| End of Reach 1 | 001024 | 13.18 | 237.18 | 4.57 | | | Yes |

Q₇₋₁₀

| Location | RMI | LFY (cfs/mi ²)* | Flow (cfs) | | W/D Ratio | Width (ft) | Depth (ft) | Velocity (fps) | Travel Time (days) | Tributary | | Stream | | Analysis | |
|--------------------|-------|-----------------------------|------------|-----------|-----------|------------|------------|----------------|--------------------|-----------|----|-----------|-----|----------|----|
| | | | Stream | Tributary | | | | | | Hardness | pH | Hardness* | pH* | Hardness | pH |
| Point of Discharge | 13.88 | 0.1 | | | | | | | | | | 209 | 7 | | |
| End of Reach 1 | 13.18 | 0.1 | | | | | | | | | | 209 | 7 | | |

Q_n

| Location | RMI | LFY (cfs/mi ²) | Flow (cfs) | | W/D Ratio | Width (ft) | Depth (ft) | Velocity (fps) | Travel Time (days) | Tributary | | Stream | | Analysis | |
|--------------------|-------|----------------------------|------------|-----------|-----------|------------|------------|----------------|--------------------|-----------|----|----------|----|----------|----|
| | | | Stream | Tributary | | | | | | Hardness | pH | Hardness | pH | Hardness | pH |
| Point of Discharge | 13.88 | | | | | | | | | | | | | | |
| End of Reach 1 | 13.18 | | | | | | | | | | | | | | |

AFC CCT (min): 0.068 PMF: 1 Analysis Hardness (mg/l): 167.87 Analysis pH: 7.18

| 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 Aluminum | 0 | 0 | | 0 | 750 | 750 | 821 | |
| Total Antimony | 0 | 0 | | 0 | 1,100 | 1,100 | 1,203 | |
| Total Arsenic | 0 | 0 | | 0 | 340 | 340 | 372 | Chem Translator of 1 applied |
| Total Barium | 0 | 0 | | 0 | 21,000 | 21,000 | 22,975 | |
| Total Boron | 0 | 0 | | 0 | 8,100 | 8,100 | 8,862 | |
| Total Cadmium | 0 | 0 | | 0 | 3,331 | 3.61 | 3.95 | Chem Translator of 0.922 applied |
| Hexavalent Chromium | 0 | 0 | | 0 | 16 | 16.3 | 17.8 | Chem Translator of 0.982 applied |
| Total Cobalt | 0 | 0 | | 0 | 95 | 95.0 | 104 | |
| Free Cyanide | 0 | 0 | | 0 | 22 | 22.0 | 24.1 | |
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Lead | 0 | 0 | | 0 | 112.964 | 158 | 173 | Chem Translator of 0.716 applied |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | 1.400 | 1.85 | 1.8 | Chem Translator of 0.85 applied |
| Total Nickel | 0 | 0 | | 0 | 725.753 | 727 | 796 | Chem Translator of 0.998 applied |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Selenium | 0 | 0 | | 0 | N/A | N/A | N/A | Chem Translator of 0.922 applied |
| Total Silver | 0 | 0 | | 0 | 7.841 | 9.22 | 10.1 | Chem Translator of 0.85 applied |
| Total Thallium | 0 | 0 | | 0 | 65 | 65.0 | 71.1 | |
| Total Zinc | 0 | 0 | | 0 | 181.749 | 186 | 203 | Chem Translator of 0.978 applied |
| Acrolein | 0 | 0 | | 0 | 3 | 3.0 | 3.28 | |
| Acrylonitrile | 0 | 0 | | 0 | 650 | 650 | 711 | |
| Benzene | 0 | 0 | | 0 | 640 | 640 | 700 | |
| Bromoform | 0 | 0 | | 0 | 1,800 | 1,800 | 1,969 | |
| Carbon Tetrachloride | 0 | 0 | | 0 | 2,800 | 2,800 | 3,063 | |
| Chlorobenzene | 0 | 0 | | 0 | 1,200 | 1,200 | 1,313 | |

| | | | | | | | |
|-----------------------------|---|---|--|---|--------|--------|--------|
| Chlorodibromomethane | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2-Chloroethyl Vinyl Ether | 0 | 0 | | 0 | 18,000 | 18,000 | 19,893 |
| Chloroform | 0 | 0 | | 0 | 1,900 | 1,900 | 2,079 |
| Dichlorobromomethane | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,2-Dichloroethane | 0 | 0 | | 0 | 15,000 | 15,000 | 16,411 |
| 1,1-Dichloroethylene | 0 | 0 | | 0 | 7,500 | 7,500 | 8,205 |
| 1,2-Dichloropropane | 0 | 0 | | 0 | 11,000 | 11,000 | 12,035 |
| 1,3-Dichloropropylene | 0 | 0 | | 0 | 310 | 310 | 339 |
| Ethylbenzene | 0 | 0 | | 0 | 2,900 | 2,900 | 3,173 |
| Methylene Chloride | 0 | 0 | | 0 | 12,000 | 12,000 | 13,129 |
| 1,1,2,2-Tetrachloroethane | 0 | 0 | | 0 | 1,000 | 1,000 | 1,094 |
| Tetrachloroethylene | 0 | 0 | | 0 | 700 | 700 | 766 |
| Toluene | 0 | 0 | | 0 | 1,700 | 1,700 | 1,860 |
| 1,1,1-Trichloroethane | 0 | 0 | | 0 | 3,000 | 3,000 | 3,282 |
| 1,1,2-Trichloroethane | 0 | 0 | | 0 | 3,400 | 3,400 | 3,720 |
| Trichloroethylene | 0 | 0 | | 0 | 2,300 | 2,300 | 2,518 |
| Vinyl Chloride | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2-Chlorophenol | 0 | 0 | | 0 | 560 | 560 | 613 |
| 2,4-Dichlorophenol | 0 | 0 | | 0 | 1,700 | 1,700 | 1,860 |
| 2,4-Dimethylphenol | 0 | 0 | | 0 | 660 | 660 | 722 |
| 2,4-Dinitrophenol | 0 | 0 | | 0 | 660 | 660 | 722 |
| 2-Nitrophenol | 0 | 0 | | 0 | 8,000 | 8,000 | 8,752 |
| 4-Nitrophenol | 0 | 0 | | 0 | 2,300 | 2,300 | 2,518 |
| Pentachlorophenol | 0 | 0 | | 0 | 10.439 | 10.4 | 11.4 |
| Phenol | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2,4,6-Trichlorophenol | 0 | 0 | | 0 | 460 | 460 | 503 |
| Acenaphthene | 0 | 0 | | 0 | 83 | 83.0 | 90.8 |
| Anthracene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Benzdine | 0 | 0 | | 0 | 300 | 300 | 328 |
| Benzo(a)Anthracene | 0 | 0 | | 0 | 0.5 | 0.5 | 0.55 |
| Benzo(a)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A |
| 3,4-Benzofluoranthene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Benzo(k)Fluoranthene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Bis(2-Chloroethyl)Ether | 0 | 0 | | 0 | 30,000 | 30,000 | 32,822 |
| Bis(2-Chloroisopropyl)Ether | 0 | 0 | | 0 | N/A | N/A | N/A |
| Bis(2-Ethylhexyl)Phthalate | 0 | 0 | | 0 | 4,500 | 4,500 | 4,923 |
| 4-Bromophenyl Phenyl Ether | 0 | 0 | | 0 | 270 | 270 | 295 |
| Butyl Benzyl Phthalate | 0 | 0 | | 0 | 140 | 140 | 153 |
| 2-Chloronaphthalene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Chrysene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Dibenzo(a,h)Anthracene | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,2-Dichlorobenzene | 0 | 0 | | 0 | 820 | 820 | 897 |
| 1,3-Dichlorobenzene | 0 | 0 | | 0 | 350 | 350 | 383 |
| 1,4-Dichlorobenzene | 0 | 0 | | 0 | 730 | 730 | 799 |
| 3,3-Dichlorobenzidine | 0 | 0 | | 0 | N/A | N/A | N/A |
| Diethyl Phthalate | 0 | 0 | | 0 | 4,000 | 4,000 | 4,378 |
| Dimethyl Phthalate | 0 | 0 | | 0 | 2,500 | 2,500 | 2,735 |
| Di-n-Butyl Phthalate | 0 | 0 | | 0 | 110 | 110 | 120 |

| | | | | | | | | |
|---------------------------|---|---|--|---|--------|--------|--------|--|
| 2,4-Dinitrotoluene | 0 | 0 | | 0 | 1,600 | 1,600 | 1,750 | |
| 2,6-Dinitrotoluene | 0 | 0 | | 0 | 990 | 990 | 1,083 | |
| 1,2-Diphenylhydrazine | 0 | 0 | | 0 | 15 | 15.0 | 16.4 | |
| Fluoranthene | 0 | 0 | | 0 | 200 | 200 | 219 | |
| Fluorene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Hexachlorobenzene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Hexachlorobutadiene | 0 | 0 | | 0 | 10 | 10.0 | 10.9 | |
| Hexachlorocyclopentadiene | 0 | 0 | | 0 | 5 | 5.0 | 5.47 | |
| Hexachloroethane | 0 | 0 | | 0 | 60 | 60.0 | 65.6 | |
| Indeno(1,2,3-cd)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Isophorone | 0 | 0 | | 0 | 10,000 | 10,000 | 10,941 | |
| Naphthalene | 0 | 0 | | 0 | 140 | 140 | 153 | |
| Nitrobenzene | 0 | 0 | | 0 | 4,000 | 4,000 | 4,376 | |
| n-Nitrosodimethylamine | 0 | 0 | | 0 | 17,000 | 17,000 | 18,599 | |
| n-Nitrosodi-n-Propylamine | 0 | 0 | | 0 | N/A | N/A | N/A | |
| n-Nitrosodiphenylamine | 0 | 0 | | 0 | 300 | 300 | 328 | |
| Phenanthrene | 0 | 0 | | 0 | 5 | 5.0 | 5.47 | |
| Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 1,2,4-Trichlorobenzene | 0 | 0 | | 0 | 130 | 130 | 142 | |
| Copper Souderton WWTP | 0 | 0 | | 0 | 48 | 48.0 | 52.5 | |

CFC CCT (min): PMF: Analysis Hardness (mg/l): Analysis pH:

| 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 Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | 220 | 220 | 241 | |
| Total Arsenic | 0 | 0 | | 0 | 150 | 150 | 164 | Chem Translator of 1 applied |
| Total Barium | 0 | 0 | | 0 | 4,100 | 4,100 | 4,486 | |
| Total Boron | 0 | 0 | | 0 | 1,600 | 1,600 | 1,750 | |
| Total Cadmium | 0 | 0 | | 0 | 0.352 | 0.4 | 0.43 | Chem Translator of 0.887 applied |
| Hexavalent Chromium | 0 | 0 | | 0 | 10 | 10.4 | 11.4 | Chem Translator of 0.962 applied |
| Total Cobalt | 0 | 0 | | 0 | 19 | 19.0 | 20.8 | |
| Free Cyanide | 0 | 0 | | 0 | 5.2 | 5.2 | 5.69 | |
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Iron | 0 | 0 | | 0 | 1,500 | 1,500 | 1,641 | WQC = 30 day average; PMF = 1 |
| Total Lead | 0 | 0 | | 0 | 4.402 | 6.15 | 6.73 | Chem Translator of 0.716 applied |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | 0.770 | 0.91 | 0.99 | Chem Translator of 0.85 applied |
| Total Nickel | 0 | 0 | | 0 | 80.609 | 80.9 | 88.5 | Chem Translator of 0.997 applied |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Selenium | 0 | 0 | | 0 | 4.600 | 4.99 | 5.46 | Chem Translator of 0.922 applied |
| Total Silver | 0 | 0 | | 0 | N/A | N/A | N/A | Chem Translator of 1 applied |
| Total Thallium | 0 | 0 | | 0 | 13 | 13.0 | 14.2 | |
| Total Zinc | 0 | 0 | | 0 | 183.236 | 186 | 203 | Chem Translator of 0.986 applied |
| Acrolein | 0 | 0 | | 0 | 3 | 3.0 | 3.28 | |

| | | | | | | | |
|-----------------------------|---|---|--|---|-------|-------|-------|
| Acrylonitrile | 0 | 0 | | 0 | 130 | 130 | 142 |
| Benzene | 0 | 0 | | 0 | 130 | 130 | 142 |
| Bromoform | 0 | 0 | | 0 | 370 | 370 | 405 |
| Carbon Tetrachloride | 0 | 0 | | 0 | 560 | 560 | 613 |
| Chlorobenzene | 0 | 0 | | 0 | 240 | 240 | 263 |
| Chlorodibromomethane | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2-Chloroethyl Vinyl Ether | 0 | 0 | | 0 | 3,500 | 3,500 | 3,829 |
| Chloroform | 0 | 0 | | 0 | 390 | 390 | 427 |
| Dichlorobromomethane | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,2-Dichloroethane | 0 | 0 | | 0 | 3,100 | 3,100 | 3,392 |
| 1,1-Dichloroethylene | 0 | 0 | | 0 | 1,500 | 1,500 | 1,641 |
| 1,2-Dichloropropane | 0 | 0 | | 0 | 2,200 | 2,200 | 2,407 |
| 1,3-Dichloropropylene | 0 | 0 | | 0 | 61 | 61.0 | 66.7 |
| Ethylbenzene | 0 | 0 | | 0 | 580 | 580 | 635 |
| Methylene Chloride | 0 | 0 | | 0 | 2,400 | 2,400 | 2,626 |
| 1,1,2,2-Tetrachloroethane | 0 | 0 | | 0 | 210 | 210 | 230 |
| Tetrachloroethylene | 0 | 0 | | 0 | 140 | 140 | 153 |
| Toluene | 0 | 0 | | 0 | 330 | 330 | 361 |
| 1,1,1-Trichloroethane | 0 | 0 | | 0 | 610 | 610 | 667 |
| 1,1,2-Trichloroethane | 0 | 0 | | 0 | 680 | 680 | 744 |
| Trichloroethylene | 0 | 0 | | 0 | 450 | 450 | 492 |
| Vinyl Chloride | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2-Chlorophenol | 0 | 0 | | 0 | 110 | 110 | 120 |
| 2,4-Dichlorophenol | 0 | 0 | | 0 | 340 | 340 | 372 |
| 2,4-Dimethylphenol | 0 | 0 | | 0 | 130 | 130 | 142 |
| 2,4-Dinitrophenol | 0 | 0 | | 0 | 130 | 130 | 142 |
| 2-Nitrophenol | 0 | 0 | | 0 | 1,600 | 1,600 | 1,750 |
| 4-Nitrophenol | 0 | 0 | | 0 | 470 | 470 | 514 |
| Pentachlorophenol | 0 | 0 | | 0 | 8,009 | 8.01 | 8.76 |
| Phenol | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2,4,6-Trichlorophenol | 0 | 0 | | 0 | 91 | 91.0 | 99.6 |
| Acenaphthene | 0 | 0 | | 0 | 17 | 17.0 | 18.6 |
| Anthracene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Benzidine | 0 | 0 | | 0 | 59 | 59.0 | 64.5 |
| Benzo(a)Anthracene | 0 | 0 | | 0 | 0.1 | 0.1 | 0.11 |
| Benzo(a)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A |
| 3,4-Benzofluoranthene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Benzo(k)Fluoranthene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Bis(2-Chloroethyl)Ether | 0 | 0 | | 0 | 6,000 | 6,000 | 6,564 |
| Bis(2-Chloroisopropyl)Ether | 0 | 0 | | 0 | N/A | N/A | N/A |
| Bis(2-Ethylhexyl)Phthalate | 0 | 0 | | 0 | 910 | 910 | 996 |
| 4-Bromophenyl Phenyl Ether | 0 | 0 | | 0 | 54 | 54.0 | 59.1 |
| Butyl Benzyl Phthalate | 0 | 0 | | 0 | 35 | 35.0 | 38.3 |
| 2-Chloronaphthalene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Chrysene | 0 | 0 | | 0 | N/A | N/A | N/A |

| | | | | | | | |
|---------------------------|---|---|--|---|-------|-------|-------|
| Dibenzo(a,h)Anthracene | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,2-Dichlorobenzene | 0 | 0 | | 0 | 180 | 180 | 175 |
| 1,3-Dichlorobenzene | 0 | 0 | | 0 | 89 | 89.0 | 75.5 |
| 1,4-Dichlorobenzene | 0 | 0 | | 0 | 150 | 150 | 164 |
| 3,3-Dichlorobenzidine | 0 | 0 | | 0 | N/A | N/A | N/A |
| Diethyl Phthalate | 0 | 0 | | 0 | 800 | 800 | 875 |
| Dimethyl Phthalate | 0 | 0 | | 0 | 500 | 500 | 547 |
| Di-n-Butyl Phthalate | 0 | 0 | | 0 | 21 | 21.0 | 23.0 |
| 2,4-Dinitrotoluene | 0 | 0 | | 0 | 320 | 320 | 350 |
| 2,6-Dinitrotoluene | 0 | 0 | | 0 | 200 | 200 | 219 |
| 1,2-Diphenylhydrazine | 0 | 0 | | 0 | 3 | 3.0 | 3.28 |
| Fluoranthene | 0 | 0 | | 0 | 40 | 40.0 | 43.8 |
| Fluorene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Hexachlorobenzene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Hexachlorobutadiene | 0 | 0 | | 0 | 2 | 2.0 | 2.19 |
| Hexachlorocyclopentadiene | 0 | 0 | | 0 | 1 | 1.0 | 1.09 |
| Hexachloroethane | 0 | 0 | | 0 | 12 | 12.0 | 13.1 |
| Indeno(1,2,3-cd)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Isophorone | 0 | 0 | | 0 | 2,100 | 2,100 | 2,298 |
| Naphthalene | 0 | 0 | | 0 | 43 | 43.0 | 47.0 |
| Nitrobenzene | 0 | 0 | | 0 | 810 | 810 | 886 |
| n-Nitrosodimethylamine | 0 | 0 | | 0 | 3,400 | 3,400 | 3,720 |
| n-Nitrosodi-n-Propylamine | 0 | 0 | | 0 | N/A | N/A | N/A |
| n-Nitrosodiphenylamine | 0 | 0 | | 0 | 59 | 59.0 | 64.5 |
| Phenanthrene | 0 | 0 | | 0 | 1 | 1.0 | 1.09 |
| Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,2,4-Trichlorobenzene | 0 | 0 | | 0 | 26 | 26.0 | 28.4 |
| Copper Souderton WWTP | 0 | 0 | | 0 | 31 | 31.0 | 33.9 |

THH CCT (min): PMF: Analysis Hardness (mg/l): Analysis pH:

| 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 Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | 5.6 | 5.6 | 6.13 | |
| Total Arsenic | 0 | 0 | | 0 | 10 | 10.0 | 10.9 | |
| Total Barium | 0 | 0 | | 0 | 2,400 | 2,400 | 2,626 | |
| Total Boron | 0 | 0 | | 0 | 3,100 | 3,100 | 3,392 | |
| Total Cadmium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Hexavalent Chromium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Cobalt | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Free Cyanide | 0 | 0 | | 0 | 4 | 4.0 | 4.38 | |
| Dissolved Iron | 0 | 0 | | 0 | 300 | 300 | 328 | |
| Total Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Lead | 0 | 0 | | 0 | N/A | N/A | N/A | |

| | | | | | | | |
|---------------------------------|---|---|--|---|--------|--------|--------|
| Total Manganese | 0 | 0 | | 0 | 1,000 | 1,000 | 1,094 |
| Total Mercury | 0 | 0 | | 0 | 0.050 | 0.05 | 0.055 |
| Total Nickel | 0 | 0 | | 0 | 610 | 610 | 667 |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | 5 | 5.0 | N/A |
| Total Selenium | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Silver | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Thallium | 0 | 0 | | 0 | 0.24 | 0.24 | 0.26 |
| Total Zinc | 0 | 0 | | 0 | N/A | N/A | N/A |
| Acrolein | 0 | 0 | | 0 | 3 | 3.0 | 3.28 |
| Acrylonitrile | 0 | 0 | | 0 | N/A | N/A | N/A |
| Benzene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Bromoform | 0 | 0 | | 0 | N/A | N/A | N/A |
| Carbon Tetrachloride | 0 | 0 | | 0 | N/A | N/A | N/A |
| Chlorobenzene | 0 | 0 | | 0 | 100 | 100.0 | 109 |
| Chlorodibromomethane | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2-Chloroethyl Vinyl Ether | 0 | 0 | | 0 | N/A | N/A | N/A |
| Chloroform | 0 | 0 | | 0 | 5.7 | 5.7 | 6.24 |
| Dichlorobromomethane | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,2-Dichloroethane | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,1-Dichloroethylene | 0 | 0 | | 0 | 33 | 33.0 | 36.1 |
| 1,2-Dichloropropane | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,3-Dichloropropylene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Ethylbenzene | 0 | 0 | | 0 | 68 | 68.0 | 74.4 |
| Methylene Chloride | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,1,2,2-Tetrachloroethane | 0 | 0 | | 0 | N/A | N/A | N/A |
| Tetrachloroethylene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Toluene | 0 | 0 | | 0 | 57 | 57.0 | 62.4 |
| 1,1,1-Trichloroethane | 0 | 0 | | 0 | 10,000 | 10,000 | 10,941 |
| 1,1,2-Trichloroethane | 0 | 0 | | 0 | N/A | N/A | N/A |
| Trichloroethylene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Vinyl Chloride | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2-Chlorophenol | 0 | 0 | | 0 | 30 | 30.0 | 32.8 |
| 2,4-Dichlorophenol | 0 | 0 | | 0 | 10 | 10.0 | 10.9 |
| 2,4-Dimethylphenol | 0 | 0 | | 0 | 100 | 100.0 | 109 |
| 2,4-Dinitrophenol | 0 | 0 | | 0 | 10 | 10.0 | 10.9 |
| 2-Nitrophenol | 0 | 0 | | 0 | N/A | N/A | N/A |
| 4-Nitrophenol | 0 | 0 | | 0 | N/A | N/A | N/A |
| Pentachlorophenol | 0 | 0 | | 0 | N/A | N/A | N/A |
| Phenol | 0 | 0 | | 0 | 4,000 | 4,000 | 4,376 |
| 2,4,6-Trichlorophenol | 0 | 0 | | 0 | N/A | N/A | N/A |
| Acenaphthene | 0 | 0 | | 0 | 70 | 70.0 | 76.6 |
| Anthracene | 0 | 0 | | 0 | 300 | 300 | 328 |
| Benzidine | 0 | 0 | | 0 | N/A | N/A | N/A |
| Benzo(a)Anthracene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Benzo(a)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A |

| | | | | | | | | |
|-----------------------------|---|---|--|---|-------|-------|-------|--|
| 3,4-Benzofluoranthene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Benzo(k)Fluoranthene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Bis(2-Chloroethyl)Ether | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Bis(2-Chloroisopropyl)Ether | 0 | 0 | | 0 | 200 | 200 | 219 | |
| Bis(2-Ethylhexyl)Phthalate | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 4-Bromophenyl Phenyl Ether | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Butyl Benzyl Phthalate | 0 | 0 | | 0 | 0.1 | 0.1 | 0.11 | |
| 2-Chloronaphthalene | 0 | 0 | | 0 | 800 | 800 | 875 | |
| Chrysene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Dibenzo(a,h)Anthracene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 1,2-Dichlorobenzene | 0 | 0 | | 0 | 1,000 | 1,000 | 1,094 | |
| 1,3-Dichlorobenzene | 0 | 0 | | 0 | 7 | 7.0 | 7.66 | |
| 1,4-Dichlorobenzene | 0 | 0 | | 0 | 300 | 300 | 328 | |
| 3,3-Dichlorobenzidine | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Diethyl Phthalate | 0 | 0 | | 0 | 600 | 600 | 656 | |
| Dimethyl Phthalate | 0 | 0 | | 0 | 2,000 | 2,000 | 2,188 | |
| Di-n-Butyl Phthalate | 0 | 0 | | 0 | 20 | 20.0 | 21.9 | |
| 2,4-Dinitrotoluene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 2,6-Dinitrotoluene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 1,2-Diphenylhydrazine | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Fluoranthene | 0 | 0 | | 0 | 20 | 20.0 | 21.9 | |
| Fluorene | 0 | 0 | | 0 | 50 | 50.0 | 54.7 | |
| Hexachlorobenzene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Hexachlorobutadiene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Hexachlorocyclopentadiene | 0 | 0 | | 0 | 4 | 4.0 | 4.38 | |
| Hexachloroethane | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Indeno(1,2,3-cd)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Isophorone | 0 | 0 | | 0 | 34 | 34.0 | 37.2 | |
| Naphthalene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Nitrobenzene | 0 | 0 | | 0 | 10 | 10.0 | 10.9 | |
| n-Nitrosodimethylamine | 0 | 0 | | 0 | N/A | N/A | N/A | |
| n-Nitrosodi-n-Propylamine | 0 | 0 | | 0 | N/A | N/A | N/A | |
| n-Nitrosodiphenylamine | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Phenanthrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Pyrene | 0 | 0 | | 0 | 20 | 20.0 | 21.9 | |
| 1,2,4-Trichlorobenzene | 0 | 0 | | 0 | 0.07 | 0.07 | 0.077 | |
| Copper Souderton WWTP | 0 | 0 | | 0 | N/A | N/A | N/A | |

CRL CCT (min): 1.331 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 Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Arsenic | 0 | 0 | | 0 | N/A | N/A | N/A | |

| | | | | | | | |
|---------------------------------|---|---|--|---|------|------|-------|
| Total Barium | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Boron | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Cadmium | 0 | 0 | | 0 | N/A | N/A | N/A |
| Hexavalent Chromium | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Cobalt | 0 | 0 | | 0 | N/A | N/A | N/A |
| Free Cyanide | 0 | 0 | | 0 | N/A | N/A | N/A |
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Iron | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Lead | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Mercury | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Nickel | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Selenium | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Silver | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Thallium | 0 | 0 | | 0 | N/A | N/A | N/A |
| Total Zinc | 0 | 0 | | 0 | N/A | N/A | N/A |
| Acrolein | 0 | 0 | | 0 | N/A | N/A | N/A |
| Acrylonitrile | 0 | 0 | | 0 | 0.06 | 0.06 | 0.11 |
| Benzene | 0 | 0 | | 0 | 0.58 | 0.58 | 1.05 |
| Bromoform | 0 | 0 | | 0 | 7 | 7.0 | 12.7 |
| Carbon Tetrachloride | 0 | 0 | | 0 | 0.4 | 0.4 | 0.73 |
| Chlorobenzene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Chlorodibromomethane | 0 | 0 | | 0 | 0.8 | 0.8 | 1.45 |
| 2-Chloroethyl Vinyl Ether | 0 | 0 | | 0 | N/A | N/A | N/A |
| Chloroform | 0 | 0 | | 0 | N/A | N/A | N/A |
| Dichlorobromomethane | 0 | 0 | | 0 | 0.95 | 0.95 | 1.73 |
| 1,2-Dichloroethane | 0 | 0 | | 0 | 9.9 | 9.9 | 18.0 |
| 1,1-Dichloroethylene | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,2-Dichloropropane | 0 | 0 | | 0 | 0.9 | 0.9 | 1.63 |
| 1,3-Dichloropropylene | 0 | 0 | | 0 | 0.27 | 0.27 | 0.49 |
| Ethylbenzene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Methylene Chloride | 0 | 0 | | 0 | 20 | 20.0 | 36.3 |
| 1,1,2,2-Tetrachloroethane | 0 | 0 | | 0 | 0.2 | 0.2 | 0.36 |
| Tetrachloroethylene | 0 | 0 | | 0 | 10 | 10.0 | 18.2 |
| Toluene | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,1,1-Trichloroethane | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,1,2-Trichloroethane | 0 | 0 | | 0 | 0.55 | 0.55 | 1. |
| Trichloroethylene | 0 | 0 | | 0 | 0.6 | 0.6 | 1.09 |
| Vinyl Chloride | 0 | 0 | | 0 | 0.02 | 0.02 | 0.036 |
| 2-Chlorophenol | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2,4-Dichlorophenol | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2,4-Dimethylphenol | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2,4-Dinitrophenol | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2-Nitrophenol | 0 | 0 | | 0 | N/A | N/A | N/A |

| | | | | | | | |
|-----------------------------|---|---|--|---|---------|---------|--------|
| 4-Nitrophenol | 0 | 0 | | 0 | N/A | N/A | N/A |
| Pentachlorophenol | 0 | 0 | | 0 | 0.030 | 0.03 | 0.054 |
| Phenol | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2,4,6-Trichlorophenol | 0 | 0 | | 0 | 1.5 | 1.5 | 2.72 |
| Acenaphthene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Anthracene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Benzidine | 0 | 0 | | 0 | 0.0001 | 0.0001 | 0.0002 |
| Benzo(a)Anthracene | 0 | 0 | | 0 | 0.001 | 0.001 | 0.002 |
| Benzo(a)Pyrene | 0 | 0 | | 0 | 0.0001 | 0.0001 | 0.0002 |
| 3,4-Benzofluoranthene | 0 | 0 | | 0 | 0.001 | 0.001 | 0.002 |
| Benzo(k)Fluoranthene | 0 | 0 | | 0 | 0.01 | 0.01 | 0.018 |
| Bis(2-Chloroethyl)Ether | 0 | 0 | | 0 | 0.03 | 0.03 | 0.054 |
| Bis(2-Chloroisopropyl)Ether | 0 | 0 | | 0 | N/A | N/A | N/A |
| Bis(2-Ethylhexyl)Phthalate | 0 | 0 | | 0 | 0.32 | 0.32 | 0.58 |
| 4-Bromophenyl Phenyl Ether | 0 | 0 | | 0 | N/A | N/A | N/A |
| Butyl Benzyl Phthalate | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2-Chloronaphthalene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Chrysene | 0 | 0 | | 0 | 0.12 | 0.12 | 0.22 |
| Dibenzo(a,h)Anthracene | 0 | 0 | | 0 | 0.0001 | 0.0001 | 0.0002 |
| 1,2-Dichlorobenzene | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,3-Dichlorobenzene | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,4-Dichlorobenzene | 0 | 0 | | 0 | N/A | N/A | N/A |
| 3,3-Dichlorobenzidine | 0 | 0 | | 0 | 0.05 | 0.05 | 0.091 |
| Diethyl Phthalate | 0 | 0 | | 0 | N/A | N/A | N/A |
| Dimethyl Phthalate | 0 | 0 | | 0 | N/A | N/A | N/A |
| Di-n-Butyl Phthalate | 0 | 0 | | 0 | N/A | N/A | N/A |
| 2,4-Dinitrotoluene | 0 | 0 | | 0 | 0.05 | 0.05 | 0.091 |
| 2,6-Dinitrotoluene | 0 | 0 | | 0 | 0.05 | 0.05 | 0.091 |
| 1,2-Diphenylhydrazine | 0 | 0 | | 0 | 0.03 | 0.03 | 0.054 |
| Fluoranthene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Fluorene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Hexachlorobenzene | 0 | 0 | | 0 | 0.00008 | 0.00008 | 0.0001 |
| Hexachlorobutadiene | 0 | 0 | | 0 | 0.01 | 0.01 | 0.018 |
| Hexachlorocyclopentadiene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Hexachloroethane | 0 | 0 | | 0 | 0.1 | 0.1 | 0.18 |
| Indeno(1,2,3-cd)Pyrene | 0 | 0 | | 0 | 0.001 | 0.001 | 0.002 |
| Isophorone | 0 | 0 | | 0 | N/A | N/A | N/A |
| Naphthalene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Nitrobenzene | 0 | 0 | | 0 | N/A | N/A | N/A |
| n-Nitrosodimethylamine | 0 | 0 | | 0 | 0.0007 | 0.0007 | 0.001 |
| n-Nitrosodi-n-Propylamine | 0 | 0 | | 0 | 0.005 | 0.005 | 0.009 |
| n-Nitrosodiphenylamine | 0 | 0 | | 0 | 3.3 | 3.3 | 5.99 |
| Phenanthrene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A |
| 1,2,4-Trichlorobenzene | 0 | 0 | | 0 | N/A | N/A | N/A |

| | | | | | | | |
|-----------------------|---|---|--|---|-----|-----|-----|
| Copper Souderton WWTP | 0 | 0 | | 0 | N/A | N/A | N/A |
|-----------------------|---|---|--|---|-----|-----|-----|

Recommended WQBELs & Monitoring Requirements

No. Samples/Month: **4**

| Pollutants | Mass Limits | | Concentration Limits | | | | Governing WQBEL | WQBEL Basis | Comments |
|-----------------------|---------------|---------------|----------------------|--------|--------|-------|-----------------|-------------|------------------------------------|
| | AML (lbs/day) | MDL (lbs/day) | AML | MDL | IMAX | Units | | | |
| Total Boron | Report | Report | Report | Report | Report | mg/L | 1.75 | CFC | Discharge Conc > 10% WQBEL (no RP) |
| Free Cyanide | 0.073 | 0.11 | 0.004 | 0.007 | 0.011 | mg/L | 0.004 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Dissolved Iron | Report | Report | Report | Report | Report | mg/L | 0.33 | THH | Discharge Conc > 10% WQBEL (no RP) |
| Total Iron | Report | Report | Report | Report | Report | mg/L | 1.64 | CFC | Discharge Conc > 10% WQBEL (no RP) |
| Total Thallium | Report | Report | Report | Report | Report | mg/L | 0.0003 | THH | Discharge Conc > 10% WQBEL (no RP) |
| Total Zinc | Report | Report | Report | Report | Report | mg/L | 0.19 | AFC | Discharge Conc > 10% WQBEL (no RP) |
| Chlorodibromomethane | Report | Report | Report | Report | Report | µg/L | 1.45 | CRL | Discharge Conc > 25% WQBEL (no RP) |
| Chloroform | 0.1 | 0.13 | 6.24 | 8.05 | 15.6 | µg/L | 6.24 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Dichlorobromomethane | 0.029 | 0.045 | 1.73 | 2.69 | 4.31 | µg/L | 1.73 | CRL | Discharge Conc ≥ 50% WQBEL (RP) |
| Copper Souderton WWTP | 0.57 | 0.94 | 33.9 | 56.5 | 84.8 | µg/L | 33.9 | CFC | Discharge Conc ≥ 50% WQBEL (RP) |

Other Pollutants without Limits or Monitoring

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

| Pollutants | Governing WQBEL | Units | Comments |
|---------------------------------|-----------------|-------|----------------------------|
| Total Aluminum | 0.75 | mg/L | Discharge Conc ≤ 10% WQBEL |
| Total Antimony | 6.13 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Arsenic | 0.011 | mg/L | Discharge Conc ≤ 10% WQBEL |
| Total Barium | 2,626 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Beryllium | N/A | N/A | No WQS |
| Total Cadmium | N/A | N/A | Discharge Conc < TQL |
| Hexavalent Chromium | N/A | N/A | Discharge Conc < TQL |
| Total Cobalt | 20.8 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Cyanide | N/A | N/A | No WQS |
| Total Lead | 6.73 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Manganese | 1,094 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Mercury | 0.055 | µg/L | Discharge Conc < TQL |
| Total Nickel | 88.5 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Phenols (Phenolics) (PWS) | | µg/L | Discharge Conc < TQL |
| Total Selenium | 5.46 | µg/L | Discharge Conc < TQL |
| Total Silver | 9.22 | µg/L | Discharge Conc < TQL |
| Total Molybdenum | N/A | N/A | No WQS |

| | | | |
|-----------------------------|--------|------|----------------------------|
| Acrolein | 3.0 | µg/L | Discharge Conc < TQL |
| Acrylonitrile | 0.11 | µg/L | Discharge Conc < TQL |
| Benzene | 1.05 | µg/L | Discharge Conc < TQL |
| Bromoform | 12.7 | µg/L | Discharge Conc < TQL |
| Carbon Tetrachloride | 0.73 | µg/L | Discharge Conc < TQL |
| Chlorobenzene | 109 | µg/L | Discharge Conc ≤ 25% WQBEL |
| Chloroethane | N/A | N/A | No WQS |
| 2-Chloroethyl Vinyl Ether | 3,829 | µg/L | Discharge Conc < TQL |
| 1,1-Dichloroethane | N/A | N/A | No WQS |
| 1,2-Dichloroethane | 18.0 | µg/L | Discharge Conc < TQL |
| 1,1-Dichloroethylene | 36.1 | µg/L | Discharge Conc < TQL |
| 1,2-Dichloropropane | 1.63 | µg/L | Discharge Conc < TQL |
| 1,3-Dichloropropylene | 0.49 | µg/L | Discharge Conc < TQL |
| 1,4-Dioxane | N/A | N/A | No WQS |
| Ethylbenzene | 74.4 | µg/L | Discharge Conc ≤ 25% WQBEL |
| Methylene Chloride | 36.3 | µg/L | Discharge Conc < TQL |
| 1,1,2,2-Tetrachloroethane | 0.36 | µg/L | Discharge Conc < TQL |
| Tetrachloroethylene | 18.2 | µg/L | Discharge Conc < TQL |
| Toluene | 62.4 | µg/L | Discharge Conc ≤ 25% WQBEL |
| 1,1,1-Trichloroethane | 667 | µg/L | Discharge Conc < TQL |
| 1,1,2-Trichloroethane | 1. | µg/L | Discharge Conc < TQL |
| Trichloroethylene | 1.09 | µg/L | Discharge Conc < TQL |
| Vinyl Chloride | 0.036 | µg/L | Discharge Conc < TQL |
| 2-Chlorophenol | 32.8 | µg/L | Discharge Conc < TQL |
| 2,4-Dichlorophenol | 10.9 | µg/L | Discharge Conc < TQL |
| 2,4-Dimethylphenol | 109 | µg/L | Discharge Conc < TQL |
| 2,4-Dinitrophenol | 10.9 | µg/L | Discharge Conc < TQL |
| 2-Nitrophenol | 1,750 | µg/L | Discharge Conc < TQL |
| 4-Nitrophenol | 514 | µg/L | Discharge Conc < TQL |
| Pentachlorophenol | 0.054 | µg/L | Discharge Conc < TQL |
| Phenol | 4,376 | µg/L | Discharge Conc < TQL |
| 2,4,6-Trichlorophenol | 2.72 | µg/L | Discharge Conc < TQL |
| Acenaphthene | 18.6 | µg/L | Discharge Conc < TQL |
| Acenaphthylene | N/A | N/A | No WQS |
| Anthracene | 328 | µg/L | Discharge Conc < TQL |
| Benzidine | 0.0002 | µg/L | Discharge Conc < TQL |
| Benzo(a)Anthracene | 0.002 | µg/L | Discharge Conc < TQL |
| Benzo(a)Pyrene | 0.0002 | µg/L | Discharge Conc < TQL |
| 3,4-Benzofluoranthene | 0.002 | µg/L | Discharge Conc < TQL |
| Benzo(ghi)Perylene | N/A | N/A | No WQS |
| Benzo(k)Fluoranthene | 0.018 | µg/L | Discharge Conc < TQL |
| Bis(2-Chloroethoxy)Methane | N/A | N/A | No WQS |
| Bis(2-Chloroethyl)Ether | 0.054 | µg/L | Discharge Conc < TQL |
| Bis(2-Chloroisopropyl)Ether | 219 | µg/L | Discharge Conc < TQL |
| Bis(2-Ethylhexyl)Phthalate | 0.58 | µg/L | Discharge Conc < TQL |

| | | | |
|-----------------------------|--------|------|----------------------|
| 4-Bromophenyl Phenyl Ether | 59.1 | µg/L | Discharge Conc < TQL |
| Butyl Benzyl Phthalate | 0.11 | µg/L | Discharge Conc < TQL |
| 2-Chloronaphthalene | 875 | µg/L | Discharge Conc < TQL |
| 4-Chlorophenyl Phenyl Ether | N/A | N/A | No WQS |
| Chrysene | 0.22 | µg/L | Discharge Conc < TQL |
| Dibenzo(a,h)Anthracene | 0.0002 | µg/L | Discharge Conc < TQL |
| 1,2-Dichlorobenzene | 175 | µg/L | Discharge Conc < TQL |
| 1,3-Dichlorobenzene | 7.66 | µg/L | Discharge Conc < TQL |
| 1,4-Dichlorobenzene | 164 | µg/L | Discharge Conc < TQL |
| 3,3-Dichlorobenzidine | 0.091 | µg/L | Discharge Conc < TQL |
| Diethyl Phthalate | 656 | µg/L | Discharge Conc < TQL |
| Dimethyl Phthalate | 547 | µg/L | Discharge Conc < TQL |
| Di-n-Butyl Phthalate | 21.9 | µg/L | Discharge Conc < TQL |
| 2,4-Dinitrotoluene | 0.091 | µg/L | Discharge Conc < TQL |
| 2,6-Dinitrotoluene | 0.091 | µg/L | Discharge Conc < TQL |
| Di-n-Octyl Phthalate | N/A | N/A | No WQS |
| 1,2-Diphenylhydrazine | 0.054 | µg/L | Discharge Conc < TQL |
| Fluoranthene | 21.9 | µg/L | Discharge Conc < TQL |
| Fluorene | 54.7 | µg/L | Discharge Conc < TQL |
| Hexachlorobenzene | 0.0001 | µg/L | Discharge Conc < TQL |
| Hexachlorobutadiene | 0.018 | µg/L | Discharge Conc < TQL |
| Hexachlorocyclopentadiene | 1.09 | µg/L | Discharge Conc < TQL |
| Hexachloroethane | 0.18 | µg/L | Discharge Conc < TQL |
| Indeno(1,2,3-cd)Pyrene | 0.002 | µg/L | Discharge Conc < TQL |
| Isophorone | 37.2 | µg/L | Discharge Conc < TQL |
| Naphthalene | 47.0 | µg/L | Discharge Conc < TQL |
| Nitrobenzene | 10.9 | µg/L | Discharge Conc < TQL |
| n-Nitrosodimethylamine | 0.001 | µg/L | Discharge Conc < TQL |
| n-Nitrosodi-n-Propylamine | 0.009 | µg/L | Discharge Conc < TQL |
| n-Nitrosodiphenylamine | 5.99 | µg/L | Discharge Conc < TQL |
| Phenanthrene | 1.09 | µg/L | Discharge Conc < TQL |
| Pyrene | 21.9 | µg/L | Discharge Conc < TQL |
| 1,2,4-Trichlorobenzene | 0.077 | µg/L | Discharge Conc < TQL |