Pennsylvania Department of Environmental Protection

NORTHCENTRAL REGIONAL OFFICE
CLEAN WATER PROGRAM

| | | | |
|---|---|---|---|
| Application Type | **Renewal** | Application No. | **PA0027553** |
| Facility Type | **Sewage** | APS ID | **1070434** |
| Major / Minor | **Major** | Authorization ID | **1408896** |

# NPDES PERMIT FACT SHEET ADDENDUM

## Applicant and Facility Information

| | | | |
|---|---|---|---|
| Applicant Name | **Pine Creek Municipal Authority** | Facility Name | **PCMA WWTP** |
| Applicant Address | P.O. Box 608 | Facility Address | 429 8th Street |
| | Avis, PA 17721-0608 | | Jersey Shore, PA 17740 |
| Applicant Contact | Rod Chambers | Facility Contact | Rod Chambers |
| Applicant Phone | 570-398-7897 | Facility Phone | 570-398-7897 |
| Client ID | 5944 | Site ID | 246242 |
| SIC Code | 4952 | Municipality | Pine Creek Township |
| SIC Description | Trans. & Utilities - Sewerage Systems | County | Clinton |
| Date Published in PA Bulletin | October 25, 2025 | EPA Waived? | No |
| Comment Period End Date | November 24, 2025 | If No, Reason | Major Facility, Significant CB Discharge |
| Purpose of Application | Renewal of major NPDES permit | | |

## Internal Review and Recommendations

INTRODUCTION

The Pine Creek Municipal Authority (PCMA) has applied to renew its existing major NPDES permit authorizing the discharge of domestic wastewater from its wastewater treatment plant (WWTP) in Pine Creek Township, Clinton County.

APPLICATION

The PCMA submitted the *NPDES Application for Individual Permit to Discharge Sewage Effluent from Major Sewage Facilities* (DEP #3800-PM-BCW0009c). This application was received by the Department on August 31, 2022, and considered administratively complete on November 08, 2022.

DRAFT PERMIT

A draft permit was prepared in early October 2025 and emailed to the permittee on October 06, 2025.

PUBLIC PARTICIPATION

The draft permit was published in the PA Bulletin on October 25, 2025 (Volume 55, Number 43, Page 7398).

DRAFT PERMIT COMMENTS

No comments were received from the public. No comments were received from the Environmental Protection Agency (EPA). Department staff offered no comments.

In a letter dated November 20, 2025, Larson Design Group (LDG) submitted comments on behalf of the PCMA.

*CONTINUED on the next page.*

| Approve | Return | Deny | Signatures | Date |
|---|---|---|---|---|
| X | | | Jeffrey J. Gocek, EIT<br>Project Manager | February 04, 2026 |
| X | | | Nicholas W. Hartranft, PE<br>Environmental Engineer Manager | February 04, 2026 |
| X | | | Thomas M. Randis<br>Program Manager | February 04, 2026 |

**Internal Review and Recommendations**

The PCMA summarized comments are as follows:

1. Supplemental sample results have been submitted to remove non-detect (ND) parameters that were previously not tested at Target Quantitation Limits (TQLs) and triggered effluent limitations in the first draft.
2. Several parameters had more stringent limitations proposed in the draft permit than the current permit. Several other parameters had limitations proposed instead of the monitoring requirement in the current permit. These parameters are CBOD5, Ammonia-Nitrogen, Total Aluminum, Total Copper and Pentachlorophenol. A comparison of historical effluent values was made to the proposed limitations. LDG believes that the proposed limitation for Ammonia-Nitrogen will put the PCMA in immediate non-compliance at permit issuance. The PCMA has requested compliance time to explore the construction of an effluent pipe to the West Branch Susquehanna River so that additional dilution will result in less stringent Water Quality-based effluent limitations in future permits.
3. Pentachlorophenol had the most theoretical exceedances, and the proposed effluent limitations are less than the TQL.
4. A 59-month compliance schedule was requested.

COMMENT RESOLUTION

1. The analysis with the Toxics Management Spreadsheet (TMS) using the sample results obtained with TQLs during the comment period resulted in the removal of 36 parameters from the draft permit.
2. The Department cannot issue a permit that will result in immediate non-compliance.
3. Pentachlorophenol no longer has an effluent limitation.
4. The permit now contains the requested 59-month compliance schedule.

TOXICS MANAGEMENT SPREADSHEET

The newly submitted sample results were entered into the TMS. 35 parameters have been removed based on this data. The revised model recommendations are as follows. A new limitation for Bromoform has been established.

| | Mass Limits | | Concentration | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Pollutant | AML (lbs/day) | MDL (lb/day) | AML | MDL | IMAX | Units | Governing WQBEL | WQBEL Basis | Comment |
| Total Aluminum | 10.0 | 10.1 | 750 | 759 | 759 | µg/L | 750 | AFC | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Antimony | 0.076 | 0.12 | 5.67 | 8.84 | 14.2 | µg/L | 5.67 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Arsenic | 0.14 | 0.21 | 10.1 | 15.8 | 25.3 | µg/L | 10.1 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Boron | 21.6 | 33.7 | 1,619 | 2,527 | 4,048 | µg/L | 1,619 | CFC | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Cadmium | 0.006 | 0.01 | 0.47 | 0.73 | 1.16 | µg/L | 0.47 | CFC | Discharge Conc ≥ 50% WQBEL (RP) |
| Hexavalent Chromium | Report | Report | Report | Report | Report | µg/L | 10.5 | CFC | Discharge Conc ≥ 10% WQBEL (No RP) |
| Total Cobalt | Report | Report | Report | Report | Report | µg/L | 19.2 | CFC | Discharge Conc ≥ 10% WQBEL (No RP) |
| Total Copper | 0.23 | 0.36 | 0.017 | 0.027 | 0.044 | mg/L | 0.017 | CFC | Discharge Conc ≥ 50% WQBEL (RP) |
| Free Cyanide | 0.054 | 0.084 | 4.05 | 6.32 | 10.1 | µg/L | 4.05 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Dissolved Iron | Report | Report | Report | Report | Report | µg/L | 304 | THH | Discharge Conc ≥ 10% WQBEL (No RP) |
| Total Iron | Report | Report | Report | Report | Report | µg/L | 1,518 | CFC | Discharge Conc ≥ 10% WQBEL (No RP) |
| Total Lead | 0.11 | 0.17 | 8.02 | 12.5 | 20.0 | µg/L | 8.02 | CFC | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Manganese | Report | Report | Report | Report | Report | µg/L | 1,012 | THH | Discharge Conc ≥ 10% WQBEL (No RP) |
| Total Mercury | 0.0007 | 0.001 | 0.00005 | 0.00008 | 0.0001 | mg/L | 0.00005 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Nickel | Report | Report | Report | Report | Report | µg/L | 96.8 | CFC | Discharge Conc ≥ 10% WQBEL (No RP) |
| Total Selenium | 0.067 | 0.11 | 5.05 | 7.88 | 12.6 | µg/L | 5.05 | CFC | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Silver | Report | Report | Report | Report | Report | µg/L | 13.0 | AFC | Discharge Conc ≥ 10% WQBEL (No RP) |
| Total Thallium | 0.003 | 0.005 | 0.24 | 0.38 | 0.61 | µg/L | 0.24 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Zinc | 2.93 | 2.97 | 0.22 | 0.22 | 0.22 | mg/L | 0.22 | AFC | Discharge Conc ≥ 50% WQBEL (RP) |
| Bromoform | 0.11 | 0.17 | 7.98 | 12.5 | 20.0 | µg/L | 7.98 | CRL | Discharge Conc ≥ 50% WQBEL (RP) |

See Attachment 01 for the full model output.

SECOND DRAFT PERMIT

To incorporate comments, changes and a compliance schedule, a second draft permit is required.

*CONTINUED on the next page.*

**Internal Review and Recommendations**

COMPLIANCE SCHEDULE

The second draft permit will contain a compliance schedule of 59 months. The new limits for CBOD5, Ammonia-Nitrogen, Total Aluminum and Total Copper will become effective in the 60th month of the permit term. For the purposes of the Department's permitting software, the compliance date is tentatively scheduled for May 01, 2031 and may be adjusted at permit issuance, if necessary, to occur in the 60th month. The existing limitations for CBOD5, Total Aluminum and Total Copper (2018 NPDES Permit) will be the interim limitations, while the Ammonia-Nitrogen will be reported on the monthly DMR for compliance purposes. Ammonia-Nitrogen is already monitored as part of the Chesapeake Bay Nutrient Requirements.

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

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

| Discharge Parameter | Mass Limits (lb/day) | | Concentrations (mg/L unless noted) | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Monthly Average | Weekly Average | Minimum | Monthly Average | Weekly Average | IMAX | Minimum Measurement Frequency | Required Sample Type |
| Flow (MGD) | Report | Report Daily Max | XXX | XXX | XXX | XXX | Continuous | Meter |
| pH | XXX | XXX | 6.0 Instant Min | XXX | XXX | 9.0 | 1/Day | Grab |
| Fecal Coliform (No./100mL) 05/01-09/30 | XXX | XXX | XXX | 200 Geo Mean | XXX | 1,000 | 2/Week | Grab |
| Fecal Coliform (No./100mL) 10/01-04/30 | XXX | XXX | XXX | 2,000 Geo Mean | XXX | 10,000 | 2/Week | Grab |
| BOD5 Raw Sewage Influent | Report | Report Daily Max | XXX | Report | XXX | XXX | 1/Week | 24 Hour Comp |
| Total Suspended Solids Raw Sewage Influent | Report | Report Daily Max | XXX | Report | XXX | XXX | 1/Week | 24 Hour Comp |
| CBOD5 INTERIM | 330 | 530 | XXX | 25 | 40 | 50 | 2/Week | 24 Hour Comp |
| CBOD5 FIINAL | 225 | 245 | XXX | 17 | 18.5 | 34 | 2/Week | 24 Hour Comp |
| Total Suspended Solids | 400 | 600 | XXX | 30 | 45 | 60 | 2/Week | 24 Hour Comp |
| UV Light Transmittance (%) | XXX | XXX | Report Instant Min | XXX | XXX | XXX | 1/Day | Grab |
| Dissolved Oxygen | XXX | XXX | 4.0 Instant Min | XXX | XXX | XXX | 1/Day | Grab |
| Ammonia-N INTERIM | Report | Report | XXX | Report | Report | XXX | 2/Week | 24 Hour Comp |
| Ammonia-N 06/01-10/31 FINAL | 18 | 37 | XXX | 1.4 | 2.8 | 3.5 | 2/Week | 24 Hour Comp |
| Ammonia-N 11/01-05/31 FINAL | 56 | 112 | XXX | 4.2 | 8.4 | 10.5 | 2/Week | 24 Hour Comp |
| PFOA (ng/L) | Report Ann Avg | Report Daily Max | XXX | Report Ann Avg | Report Daily Max | XXX | 1/Year | Grab |
| PFOS (ng/L) | Report Ann Avg | Report Daily Max | XXX | Report Ann Avg | Report Daily Max | XXX | 1/Year | Grab |
| HFPO-DA (ng/L) | Report Ann Avg | Report Daily Max | XXX | Report Ann Avg | Report Daily Max | XXX | 1/Year | Grab |
| PFBS (ng/L) | Report Ann Avg | Report Daily Max | XXX | Report Ann Avg | Report Daily Max | XXX | 1/Year | Grab |
| E. Coli (No./100mL) | XXX | XXX | XXX | XXX | XXX | Report | 1/Year | Grab |
| Total Aluminum INTERIM | 21.70 | 43.36 Daily Max | XXX | 2.0 | 4.0 Daily Max | XXX | 1/Week | 24 Hour Comp |
| Total Aluminum FINAL | 10.0 | 10.1 Daily Max | XXX | 0.75 | 0.759 Daily Max | 0.759 | 1/Week | 24 Hour Comp |
| Total Iron | 32.55 | 65.00 Daily Max | XXX | 3.0 | 6.0 Daily Max | 7.5 | 1/Week | 24 Hour Comp |
| Total Manganese | 21.70 | 43.36 Daily Max | XXX | 2.0 | 4.0 Daily Max | 5.0 | 1/Week | 24 Hour Comp |
| Total Antimony (µg/L) | 0.076 | 0.12 Daily Max | XXX | 5.67 | 8.84 Daily Max | 14.2 | 1/Week | 24 Hour Comp |

**Internal Review and Recommendations**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Total Arsenic (µg/L) | 0.14 | 0.21 Daily Max | XXX | 10.1 | 15.8 Daily Max | 25.3 | 1/Week | 24 Hour Comp |
| Total Boron (µg/L) | 21.6 | 33.7 Daily Max | XXX | 1.61 | 2.52 Daily Max | 4.04 | 1/Week | 24 Hour Comp |
| Total Cadmium (µg/L) | 0.006 | 0.01 Daily Max | XXX | 0.47 | 0.73 Daily Max | 1.16 | 1/Week | 24 Hour Comp |
| Hexavalent Chromium (µg/L) | Report | Report Daily Max | XXX | Report | Report Daily Max | XXX | 1/Week | 24 Hour Comp |
| Total Cobalt (µg/L) | Report | Report Daily Max | XXX | Report | Report Daily Max | XXX | 1/Week | 24 Hour Comp |
| Total Copper (µg/L) INTERIM | 0.68 | 1.03 Daily Max | XXX | 51.69 | 77.53 Daily Max | 103.38 | 1/Week | 24 Hour Comp |
| Total Copper (µg/L) FINAL | 0.23 | 0.36 Daily Max | XXX | 17.0 | 27.0 Daily Max | 44.0 | 1/Week | 24 Hour Comp |
| Free Cyanide (µg/L) | 0.054 | 0.084 Daily Max | XXX | 4.05 | 6.32 Daily Max | 10.1 | 1/Week | 24 Hour Comp |
| Dissolved Iron (µg/L) | Report | Report Daily Max | XXX | Report | Report Daily Max | XXX | 1/Week | 24 Hour Comp |
| Total Lead (µg/L) | 0.11 | 0.17 Daily Max | XXX | 8.02 | 12.5 Daily Max | 20.0 | 1/Week | 24 Hour Comp |
| Total Mercury (µg/L) | 0.0007 | 0.001 Daily Max | XXX | 0.05 | 0.08 Daily Max | 0.10 | 1/Week | 24 Hour Comp |
| Total Nickel (µg/L) | Report | Report Daily Max | XXX | Report | Report Daily Max | XXX | 1/Week | 24 Hour Comp |
| Total Selenium (µg/L) | 0.067 | 0.11 Daily Max | XXX | 5.05 | 7.88 Daily Max | 12.6 | 1/Week | 24 Hour Comp |
| Total Silver (µg/L) | Report | Report Daily Max | XXX | Report | Report Daily Max | XXX | 1/Week | 24 Hour Comp |
| Total Thallium (µg/L) | 0.003 | 0.005 Daily Max | XXX | 0.24 | 0.38 Daily Max | 0.61 | 1/Week | 24 Hour Comp |
| Total Zinc | 2.93 | 2.97 Daily Max | XXX | 0.22 | 0.22 Daily Max | 0.22 | 1/Week | 24 Hour Comp |
| Bromoform (µg/L) | 0.11 | 0.17 Daily Max | XXX | 7.98 | 12.5 Daily Max | 20.0 | 1/Week | 24 Hour Comp |

| Discharge Parameter | Mass Load (lb) | | Concentrations (mg/L) | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|
| | Monthly | Annual | Minimum | Monthly Average | Maximum | Minimum Measurement Frequency | Required Sample Type |
| Ammonia-N | Report | Report | XXX | Report | XXX | 2/Week | 24 Hour Comp |
| Kjeldahl-N | Report | XXX | XXX | Report | XXX | 1/Week | 24 Hour Comp |
| Nitrate-Nitrite as N | Report | XXX | XXX | Report | XXX | 1/Week | 24 Hour Comp |
| Total Nitrogen | Report | Report | XXX | Report | XXX | 1/Month | Calculation |
| Total Phosphorus | Report | Report | XXX | Report | XXX | 1/Week | 24 Hour Comp |
| Net Total Nitrogen | Report | 23,744 | XXX | XXX | XXX | 1/Month | Calculation |
| Net Total Phosphorus | Report | 3,166 | XXX | XXX | XXX | 1/Month | Calculation |

*END of Fact Sheet.*

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2025

# Discharge Information

Instructions | Discharge | Stream

Facility: Pine Creek Municipal Authority NPDES Permit No.: PA0027553 Outfall No.: 001

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

| Discharge Characteristics | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Design Flow (MGD)* | Hardness (mg/l)* | pH (SU)* | Partial Mix Factors (PMFs) | | | | Complete Mix Times (min) | |
| | | | AFC | CFC | THH | CRL | $Q_{7-10}$ | $Q_h$ |
| 1.6 | 206 | 7.74 | | | | | | |

| | Discharge Pollutant | Units | Max Discharge Conc | | 0 if left blank: Trib Conc | 0 if left blank: Stream Conc | 0.5 if left blank: Daily CV | 0.5 if left blank: Hourly CV | 0 if left blank: Stream CV | 0 if left blank: Fate Coeff | 0 if left blank: FOS | 1 if left blank: Criteria Mod | 1 if left blank: Chem Transl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Group 1 | Total Dissolved Solids (PWS) | mg/L | | 767 | | | | | | | | | |
| | Chloride (PWS) | mg/L | | 344 | | | | | | | | | |
| | Bromide | mg/L | | 16.8 | | | | | | | | | |
| | Sulfate (PWS) | mg/L | | 40.1 | | | | | | | | | |
| | Fluoride (PWS) | mg/L | | | | | | | | | | | |
| Group 2 | Total Aluminum | µg/L | | 603 | | | | | | | | | |
| | Total Antimony | µg/L | < | 20 | | | | | | | | | |
| | Total Arsenic | µg/L | < | 20 | | | | | | | | | |
| | Total Barium | µg/L | | 38.7 | | | | | | | | | |
| | Total Beryllium | µg/L | < | 1 | | | | | | | | | |
| | Total Boron | µg/L | | 882 | | | | | | | | | |
| | Total Cadmium | µg/L | < | 3 | | | | | | | | | |
| | Total Chromium (III) | µg/L | < | 10 | | | | | | | | | |
| | Hexavalent Chromium | µg/L | < | 2 | | | | | | | | | |
| | Total Cobalt | µg/L | | 2.1 | | | | | | | | | |
| | Total Copper | mg/L | | 51.8 | | | | | | | | | |
| | Free Cyanide | µg/L | | 23 | | | | | | | | | |
| | Total Cyanide | µg/L | | 23 | | | | | | | | | |
| | Dissolved Iron | µg/L | | 57.2 | | | | | | | | | |
| | Total Iron | µg/L | | 324 | | | | | | | | | |
| | Total Lead | µg/L | < | 10 | | | | | | | | | |
| | Total Manganese | µg/L | | 438 | | | | | | | | | |
| | Total Mercury | mg/L | < | 0.2 | | | | | | | | | |
| | Total Nickel | µg/L | | 19.5 | | | | | | | | | |
| | Total Phenols (Phenolics) (PWS) | µg/L | | 58 | | | | | | | | | |
| | Total Selenium | µg/L | < | 20 | | | | | | | | | |
| | Total Silver | µg/L | < | 6 | | | | | | | | | |
| | Total Thallium | µg/L | < | 10 | | | | | | | | | |
| | Total Zinc | mg/L | | 142 | | | | | | | | | |
| | Total Molybdenum | µg/L | < | 20 | | | | | | | | | |
| | Acrolein | µg/L | < | 1.95 | | | | | | | | | |
| | Acrylamide | µg/L | < | | | | | | | | | | |
| | Acrylonitrile | µg/L | < | 0.51 | | | | | | | | | |
| | Benzene | µg/L | < | 0.43 | | | | | | | | | |
| | Bromoform | µg/L | | 15.5 | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Group 3 | Carbon Tetrachloride | µg/L | < | 0.5 | | | | | | | | | |
| | Chlorobenzene | µg/L | | 0.21 | | | | | | | | | |
| | Chlorodibromomethane | µg/L | < | 0.39 | | | | | | | | | |
| | Chloroethane | µg/L | < | 0.42 | | | | | | | | | |
| | 2-Chloroethyl Vinyl Ether | µg/L | < | 4 | | | | | | | | | |
| | Chloroform | µg/L | | 0.72 | | | | | | | | | |
| | Dichlorobromomethane | µg/L | < | 0.32 | | | | | | | | | |
| | 1,1-Dichloroethane | µg/L | < | 0.42 | | | | | | | | | |
| | 1,2-Dichloroethane | µg/L | < | 0.39 | | | | | | | | | |
| | 1,1-Dichloroethylene | µg/L | < | 0.33 | | | | | | | | | |
| | 1,2-Dichloropropane | µg/L | < | 0.42 | | | | | | | | | |
| | 1,3-Dichloropropylene | µg/L | < | 0.33 | | | | | | | | | |
| | 1,4-Dioxane | µg/L | < | 7.5 | | | | | | | | | |
| | Ethylbenzene | µg/L | < | 0.27 | | | | | | | | | |
| | Methyl Bromide | µg/L | < | 0.46 | | | | | | | | | |
| | Methyl Chloride | µg/L | < | 0.36 | | | | | | | | | |
| | Methylene Chloride | µg/L | < | 0.45 | | | | | | | | | |
| | 1,1,2,2-Tetrachloroethane | µg/L | < | 0.36 | | | | | | | | | |
| | Tetrachloroethylene | µg/L | < | 0.39 | | | | | | | | | |
| | Toluene | µg/L | < | 0.33 | | | | | | | | | |
| | 1,2-trans-Dichloroethylene | µg/L | < | 0.39 | | | | | | | | | |
| | 1,1,1-Trichloroethane | µg/L | < | 0.38 | | | | | | | | | |
| | 1,1,2-Trichloroethane | µg/L | < | 0.24 | | | | | | | | | |
| | Trichloroethylene | µg/L | < | 0.46 | | | | | | | | | |
| | Vinyl Chloride | µg/L | < | 0.46 | | | | | | | | | |
| Group 4 | 2-Chlorophenol | µg/L | | 0.19 | | | | | | | | | |
| | 2,4-Dichlorophenol | µg/L | < | 0.25 | | | | | | | | | |
| | 2,4-Dimethylphenol | µg/L | < | 0.26 | | | | | | | | | |
| | 4,6-Dinitro-o-Cresol | µg/L | < | 0.9 | | | | | | | | | |
| | 2,4-Dinitrophenol | µg/L | < | 0.86 | | | | | | | | | |
| | 2-Nitrophenol | µg/L | < | 0.25 | | | | | | | | | |
| | 4-Nitrophenol | µg/L | < | 0.19 | | | | | | | | | |
| | p-Chloro-m-Cresol | µg/L | < | 0.4 | | | | | | | | | |
| | Pentachlorophenol | µg/L | < | 0.97 | | | | | | | | | |
| | Phenol | µg/L | < | 0.25 | | | | | | | | | |
| | 2,4,6-Trichlorophenol | µg/L | < | 0.24 | | | | | | | | | |
| Group 5 | Acenaphthene | µg/L | < | 0.26 | | | | | | | | | |
| | Acenaphthylene | µg/L | < | 0.22 | | | | | | | | | |
| | Anthracene | µg/L | < | 0.13 | | | | | | | | | |
| | Benzidine | µg/L | < | 0.35 | | | | | | | | | |
| | Benzo(a)Anthracene | µg/L | < | 0.21 | | | | | | | | | |
| | Benzo(a)Pyrene | µg/L | < | 0.29 | | | | | | | | | |
| | 3,4-Benzofluoranthene | µg/L | < | 0.31 | | | | | | | | | |
| | Benzo(ghi)Perylene | µg/L | < | 0.32 | | | | | | | | | |
| | Benzo(k)Fluoranthene | µg/L | < | 0.4 | | | | | | | | | |
| | Bis(2-Chloroethoxy)Methane | µg/L | < | 0.15 | | | | | | | | | |
| | Bis(2-Chloroethyl)Ether | µg/L | < | 0.25 | | | | | | | | | |
| | Bis(2-Chloroisopropyl)Ether | µg/L | < | 0.34 | | | | | | | | | |
| | Bis(2-Ethylhexyl)Phthalate | µg/L | < | 0.64 | | | | | | | | | |
| | 4-Bromophenyl Phenyl Ether | µg/L | < | 0.19 | | | | | | | | | |
| | Butyl Benzyl Phthalate | µg/L | < | 0.38 | | | | | | | | | |
| | 2-Chloronaphthalene | µg/L | < | 0.28 | | | | | | | | | |
| | 4-Chlorophenyl Phenyl Ether | µg/L | < | 0.29 | | | | | | | | | |
| | Chrysene | µg/L | < | 0.45 | | | | | | | | | |
| | Dibenzo(a,h)Anthrancene | µg/L | < | 0.28 | | | | | | | | | |
| | 1,2-Dichlorobenzene | µg/L | < | 0.32 | | | | | | | | | |
| | 1,3-Dichlorobenzene | µg/L | | 0.2 | | | | | | | | | |
| | 1,4-Dichlorobenzene | µg/L | | 0.2 | | | | | | | | | |
| | 3,3-Dichlorobenzidine | µg/L | < | 0.13 | | | | | | | | | |
| | Diethyl Phthalate | µg/L | < | 0.27 | | | | | | | | | |
| | Dimethyl Phthalate | µg/L | < | 0.23 | | | | | | | | | |
| | Di-n-Butyl Phthalate | µg/L | < | 0.29 | | | | | | | | | |
| | 2,4-Dinitrotoluene | µg/L | < | 0.77 | | | | | | | | | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2,6-Dinitrotoluene | µg/L | < | 0.32 | | | | | | | | | | |
| | Di-n-Octyl Phthalate | µg/L | < | 0.28 | | | | | | | | | | |
| | 1,2-Diphenylhydrazine | µg/L | < | 0.2 | | | | | | | | | | |
| | Fluoranthene | µg/L | < | 0.35 | | | | | | | | | | |
| | Fluorene | µg/L | < | 0.25 | | | | | | | | | | |
| | Hexachlorobenzene | µg/L | < | 0.25 | | | | | | | | | | |
| | Hexachlorobutadiene | µg/L | < | 0.27 | | | | | | | | | | |
| | Hexachlorocyclopentadiene | µg/L | < | 0.22 | | | | | | | | | | |
| | Hexachloroethane | µg/L | < | 0.26 | | | | | | | | | | |
| | Indeno(1,2,3-cd)Pyrene | µg/L | < | 0.25 | | | | | | | | | | |
| | Isophorone | µg/L | < | 0.23 | | | | | | | | | | |
| | Naphthalene | µg/L | < | 0.25 | | | | | | | | | | |
| | Nitrobenzene | µg/L | < | 0.26 | | | | | | | | | | |
| | n-Nitrosodimethylamine | µg/L | < | 0.4 | | | | | | | | | | |
| | n-Nitrosodi-n-Propylamine | µg/L | < | 0.31 | | | | | | | | | | |
| | n-Nitrosodiphenylamine | µg/L | < | 0.27 | | | | | | | | | | |
| | Phenanthrene | µg/L | < | 0.21 | | | | | | | | | | |
| | Pyrene | µg/L | < | 0.16 | | | | | | | | | | |
| | 1,2,4-Trichlorobenzene | µg/L | < | 0.17 | | | | | | | | | | |
| Group 6 | Aldrin | µg/L | < | | | | | | | | | | | |
| | alpha-BHC | µg/L | < | | | | | | | | | | | |
| | beta-BHC | µg/L | < | | | | | | | | | | | |
| | gamma-BHC | µg/L | < | | | | | | | | | | | |
| | delta BHC | µg/L | < | | | | | | | | | | | |
| | Chlordane | µg/L | < | | | | | | | | | | | |
| | 4,4-DDT | µg/L | < | | | | | | | | | | | |
| | 4,4-DDE | µg/L | < | | | | | | | | | | | |
| | 4,4-DDD | µg/L | < | | | | | | | | | | | |
| | Dieldrin | µg/L | < | | | | | | | | | | | |
| | alpha-Endosulfan | µg/L | < | | | | | | | | | | | |
| | beta-Endosulfan | µg/L | < | | | | | | | | | | | |
| | Endosulfan Sulfate | µg/L | < | | | | | | | | | | | |
| | Endrin | µg/L | < | | | | | | | | | | | |
| | Endrin Aldehyde | µg/L | < | | | | | | | | | | | |
| | Heptachlor | µg/L | < | | | | | | | | | | | |
| | Heptachlor Epoxide | µg/L | < | | | | | | | | | | | |
| | PCB-1016 | µg/L | < | | | | | | | | | | | |
| | PCB-1221 | µg/L | < | | | | | | | | | | | |
| | PCB-1232 | µg/L | < | | | | | | | | | | | |
| | PCB-1242 | µg/L | < | | | | | | | | | | | |
| | PCB-1248 | µg/L | < | | | | | | | | | | | |
| | PCB-1254 | µg/L | < | | | | | | | | | | | |
| | PCB-1260 | µg/L | < | | | | | | | | | | | |
| | PCBs, Total | µg/L | < | | | | | | | | | | | |
| | Toxaphene | µg/L | < | | | | | | | | | | | |
| | 2,3,7,8-TCDD | ng/L | < | | | | | | | | | | | |
| Group 7 | Gross Alpha | pCi/L | | | | | | | | | | | | |
| | Total Beta | pCi/L | < | | | | | | | | | | | |
| | Radium 226/228 | pCi/L | < | | | | | | | | | | | |
| | Total Strontium | µg/L | < | | | | | | | | | | | |
| | Total Uranium | µg/L | < | | | | | | | | | | | |
| | Osmotic Pressure | mOs/kg | | | | | | | | | | | | |
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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2025

# Stream / Surface Water Information

**Pine Creek Municipal Authority, NPDES Permit No. PA0027553, Outfall 001**

Instructions | Discharge | Stream

Receiving Surface Water Name: **Queens Run** No. Reaches to Model: **1**

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

| Location | Stream Code* | RMI* | Elevation (ft)* | DA (mi²)* | Slope (ft/ft) | PWS Withdrawal (MGD) | Apply Fish Criteria* |
|---|---|---|---|---|---|---|---|
| Point of Discharge | 022350 | 2.6 | 536 | 1.45 | | | Yes |
| End of Reach 1 | 022350 | 0.1 | 531 | 1.52 | | | Yes |

$Q_{7\text{-}10}$

| Location | RMI | LFY (cfs/mi²)* | 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 | 2.6 | 0.1 | 0.03 | | | | | | | | | 100 | 7 | | |
| End of Reach 1 | 0.1 | 0.1 | | | | | | | | | | | | | |

$Q_h$

| Location | RMI | LFY (cfs/mi²) | 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 | 2.6 | | | | | | | | | | | | | | |
| End of Reach 1 | 0.1 | | | | | | | | | | | | | | |

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2025

# Model Results

**Pine Creek Municipal Authority, NPDES Permit No. PA0027553, Outfall 001**

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

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 0.004 PMF: 1 Analysis Hardness (mg/l): 204.73 Analysis pH: 7.72

| Pollutants | Stream Conc (µg/L) | Stream CV | Trib Conc (µg/L) | Fate Coef | WQC (µg/L) | WQ Obj (µg/L) | WLA (µg/L) | Comments |
|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Chloride (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Sulfate (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Aluminum | 0 | 0 | | 0 | 750 | 750 | 759 | |
| Total Antimony | 0 | 0 | | 0 | 1,100 | 1,100 | 1,113 | |
| Total Arsenic | 0 | 0 | | 0 | 340 | 340 | 344 | Chem Translator of 1 applied |
| Total Barium | 0 | 0 | | 0 | 21,000 | 21,000 | 21,255 | |
| Total Boron | 0 | 0 | | 0 | 8,100 | 8,100 | 8,198 | |
| Total Cadmium | 0 | 0 | | 0 | 4.040 | 4.42 | 4.47 | Chem Translator of 0.914 applied |
| Total Chromium (III) | 0 | 0 | | 0 | 1024.598 | 3,242 | 3,282 | Chem Translator of 0.316 applied |
| Hexavalent Chromium | 0 | 0 | | 0 | 16 | 16.3 | 16.5 | Chem Translator of 0.982 applied |
| Total Cobalt | 0 | 0 | | 0 | 95 | 95.0 | 96.2 | |
| Total Copper | 0 | 0 | | 0 | 26.398 | 27.5 | 27.8 | Chem Translator of 0.96 applied |
| Free Cyanide | 0 | 0 | | 0 | 22 | 22.0 | 22.3 | |
| 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 | 139.562 | 203 | 206 | Chem Translator of 0.687 applied |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | 1.400 | 1.65 | 1.67 | Chem Translator of 0.85 applied |
| Total Nickel | 0 | 0 | | 0 | 858.470 | 860 | 871 | 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 | 11.032 | 13.0 | 13.1 | Chem Translator of 0.85 applied |
| Total Thallium | 0 | 0 | | 0 | 65 | 65.0 | 65.8 | |
| Total Zinc | 0 | 0 | | 0 | 215.041 | 220 | 223 | Chem Translator of 0.978 applied |
| Acrolein | 0 | 0 | | 0 | 3 | 3.0 | 3.04 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Acrylonitrile | 0 | 0 | | 0 | 650 | 650 | 658 | |
| Benzene | 0 | 0 | | 0 | 640 | 640 | 648 | |
| Bromoform | 0 | 0 | | 0 | 1,800 | 1,800 | 1,822 | |
| Carbon Tetrachloride | 0 | 0 | | 0 | 2,800 | 2,800 | 2,834 | |
| Chlorobenzene | 0 | 0 | | 0 | 1,200 | 1,200 | 1,215 | |
| Chlorodibromomethane | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 2-Chloroethyl Vinyl Ether | 0 | 0 | | 0 | 18,000 | 18,000 | 18,218 | |
| Chloroform | 0 | 0 | | 0 | 1,900 | 1,900 | 1,923 | |
| Dichlorobromomethane | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 1,2-Dichloroethane | 0 | 0 | | 0 | 15,000 | 15,000 | 15,182 | |
| 1,1-Dichloroethylene | 0 | 0 | | 0 | 7,500 | 7,500 | 7,591 | |
| 1,2-Dichloropropane | 0 | 0 | | 0 | 11,000 | 11,000 | 11,133 | |
| 1,3-Dichloropropylene | 0 | 0 | | 0 | 310 | 310 | 314 | |
| Ethylbenzene | 0 | 0 | | 0 | 2,900 | 2,900 | 2,935 | |
| Methyl Bromide | 0 | 0 | | 0 | 550 | 550 | 557 | |
| Methyl Chloride | 0 | 0 | | 0 | 28,000 | 28,000 | 28,339 | |
| Methylene Chloride | 0 | 0 | | 0 | 12,000 | 12,000 | 12,145 | |
| 1,1,2,2-Tetrachloroethane | 0 | 0 | | 0 | 1,000 | 1,000 | 1,012 | |
| Tetrachloroethylene | 0 | 0 | | 0 | 700 | 700 | 708 | |
| Toluene | 0 | 0 | | 0 | 1,700 | 1,700 | 1,721 | |
| 1,2-trans-Dichloroethylene | 0 | 0 | | 0 | 6,800 | 6,800 | 6,882 | |
| 1,1,1-Trichloroethane | 0 | 0 | | 0 | 3,000 | 3,000 | 3,036 | |
| 1,1,2-Trichloroethane | 0 | 0 | | 0 | 3,400 | 3,400 | 3,441 | |
| Trichloroethylene | 0 | 0 | | 0 | 2,300 | 2,300 | 2,328 | |
| Vinyl Chloride | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 2-Chlorophenol | 0 | 0 | | 0 | 560 | 560 | 567 | |
| 2,4-Dichlorophenol | 0 | 0 | | 0 | 1,700 | 1,700 | 1,721 | |
| 2,4-Dimethylphenol | 0 | 0 | | 0 | 660 | 660 | 668 | |
| 4,6-Dinitro-o-Cresol | 0 | 0 | | 0 | 80 | 80.0 | 81.0 | |
| 2,4-Dinitrophenol | 0 | 0 | | 0 | 660 | 660 | 668 | |
| 2-Nitrophenol | 0 | 0 | | 0 | 8,000 | 8,000 | 8,097 | |
| 4-Nitrophenol | 0 | 0 | | 0 | 2,300 | 2,300 | 2,328 | |
| p-Chloro-m-Cresol | 0 | 0 | | 0 | 160 | 160 | 162 | |
| Pentachlorophenol | 0 | 0 | | 0 | 17.936 | 17.9 | 18.2 | |
| Phenol | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 2,4,6-Trichlorophenol | 0 | 0 | | 0 | 460 | 460 | 466 | |
| Acenaphthene | 0 | 0 | | 0 | 83 | 83.0 | 84.0 | |
| Anthracene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Benzidine | 0 | 0 | | 0 | 300 | 300 | 304 | |
| Benzo(a)Anthracene | 0 | 0 | | 0 | 0.5 | 0.5 | 0.51 | |
| 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 | 30,364 | |
| Bis(2-Chloroisopropyl)Ether | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Bis(2-Ethylhexyl)Phthalate | 0 | 0 | | 0 | 4,500 | 4,500 | 4,555 | |
| 4-Bromophenyl Phenyl Ether | 0 | 0 | | 0 | 270 | 270 | 273 | |
| Butyl Benzyl Phthalate | 0 | 0 | | 0 | 140 | 140 | 142 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2-Chloronaphthalene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Chrysene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Dibenzo(a,h)Anthrancene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 1,2-Dichlorobenzene | 0 | 0 | | 0 | 820 | 820 | 830 | |
| 1,3-Dichlorobenzene | 0 | 0 | | 0 | 350 | 350 | 354 | |
| 1,4-Dichlorobenzene | 0 | 0 | | 0 | 730 | 730 | 739 | |
| 3,3-Dichlorobenzidine | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Diethyl Phthalate | 0 | 0 | | 0 | 4,000 | 4,000 | 4,048 | |
| Dimethyl Phthalate | 0 | 0 | | 0 | 2,500 | 2,500 | 2,530 | |
| Di-n-Butyl Phthalate | 0 | 0 | | 0 | 110 | 110 | 111 | |
| 2,4-Dinitrotoluene | 0 | 0 | | 0 | 1,600 | 1,600 | 1,619 | |
| 2,6-Dinitrotoluene | 0 | 0 | | 0 | 990 | 990 | 1,002 | |
| 1,2-Diphenylhydrazine | 0 | 0 | | 0 | 15 | 15.0 | 15.2 | |
| Fluoranthene | 0 | 0 | | 0 | 200 | 200 | 202 | |
| 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 | 10.1 | |
| Hexachlorocyclopentadiene | 0 | 0 | | 0 | 5 | 5.0 | 5.06 | |
| Hexachloroethane | 0 | 0 | | 0 | 60 | 60.0 | 60.7 | |
| Indeno(1,2,3-cd)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Isophorone | 0 | 0 | | 0 | 10,000 | 10,000 | 10,121 | |
| Naphthalene | 0 | 0 | | 0 | 140 | 140 | 142 | |
| Nitrobenzene | 0 | 0 | | 0 | 4,000 | 4,000 | 4,048 | |
| n-Nitrosodimethylamine | 0 | 0 | | 0 | 17,000 | 17,000 | 17,206 | |
| n-Nitrosodi-n-Propylamine | 0 | 0 | | 0 | N/A | N/A | N/A | |
| n-Nitrosodiphenylamine | 0 | 0 | | 0 | 300 | 300 | 304 | |
| Phenanthrene | 0 | 0 | | 0 | 5 | 5.0 | 5.06 | |
| Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 1,2,4-Trichlorobenzene | 0 | 0 | | 0 | 130 | 130 | 132 | |

☑ ***CFC*** CCT (min): 0.004 PMF: 1 Analysis Hardness (mg/l): 204.73 Analysis pH: 7.72

| Pollutants | Stream Conc (µg/L) | Stream CV | Trib Conc (µg/L) | Fate Coef | WQC (µg/L) | WQ Obj (µg/L) | WLA (µg/L) | Comments |
|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Chloride (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Sulfate (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | 220 | 220 | 223 | |
| Total Arsenic | 0 | 0 | | 0 | 150 | 150 | 152 | Chem Translator of 1 applied |
| Total Barium | 0 | 0 | | 0 | 4,100 | 4,100 | 4,150 | |
| Total Boron | 0 | 0 | | 0 | 1,600 | 1,600 | 1,619 | |
| Total Cadmium | 0 | 0 | | 0 | 0.405 | 0.46 | 0.47 | Chem Translator of 0.879 applied |
| Total Chromium (III) | 0 | 0 | | 0 | 133.279 | 155 | 157 | Chem Translator of 0.86 applied |
| Hexavalent Chromium | 0 | 0 | | 0 | 10 | 10.4 | 10.5 | Chem Translator of 0.962 applied |
| Total Cobalt | 0 | 0 | | 0 | 19 | 19.0 | 19.2 | |
| Total Copper | 0 | 0 | | 0 | 16.520 | 17.2 | 17.4 | Chem Translator of 0.96 applied |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Free Cyanide | 0 | 0 | | 0 | 5.2 | 5.2 | 5.26 | |
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Iron | 0 | 0 | | 0 | 1,500 | 1,500 | 1,518 | WQC = 30 day average; PMF = 1 |
| Total Lead | 0 | 0 | | 0 | 5.439 | 7.92 | 8.02 | Chem Translator of 0.687 applied |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | 0.770 | 0.91 | 0.92 | Chem Translator of 0.85 applied |
| Total Nickel | 0 | 0 | | 0 | 95.350 | 95.6 | 96.8 | 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 | 5.05 | 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 | 13.2 | |
| Total Zinc | 0 | 0 | | 0 | 216.800 | 220 | 223 | Chem Translator of 0.986 applied |
| Acrolein | 0 | 0 | | 0 | 3 | 3.0 | 3.04 | |
| Acrylonitrile | 0 | 0 | | 0 | 130 | 130 | 132 | |
| Benzene | 0 | 0 | | 0 | 130 | 130 | 132 | |
| Bromoform | 0 | 0 | | 0 | 370 | 370 | 374 | |
| Carbon Tetrachloride | 0 | 0 | | 0 | 560 | 560 | 567 | |
| Chlorobenzene | 0 | 0 | | 0 | 240 | 240 | 243 | |
| Chlorodibromomethane | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 2-Chloroethyl Vinyl Ether | 0 | 0 | | 0 | 3,500 | 3,500 | 3,542 | |
| Chloroform | 0 | 0 | | 0 | 390 | 390 | 395 | |
| Dichlorobromomethane | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 1,2-Dichloroethane | 0 | 0 | | 0 | 3,100 | 3,100 | 3,138 | |
| 1,1-Dichloroethylene | 0 | 0 | | 0 | 1,500 | 1,500 | 1,518 | |
| 1,2-Dichloropropane | 0 | 0 | | 0 | 2,200 | 2,200 | 2,227 | |
| 1,3-Dichloropropylene | 0 | 0 | | 0 | 61 | 61.0 | 61.7 | |
| Ethylbenzene | 0 | 0 | | 0 | 580 | 580 | 587 | |
| Methyl Bromide | 0 | 0 | | 0 | 110 | 110 | 111 | |
| Methyl Chloride | 0 | 0 | | 0 | 5,500 | 5,500 | 5,567 | |
| Methylene Chloride | 0 | 0 | | 0 | 2,400 | 2,400 | 2,429 | |
| 1,1,2,2-Tetrachloroethane | 0 | 0 | | 0 | 210 | 210 | 213 | |
| Tetrachloroethylene | 0 | 0 | | 0 | 140 | 140 | 142 | |
| Toluene | 0 | 0 | | 0 | 330 | 330 | 334 | |
| 1,2-trans-Dichloroethylene | 0 | 0 | | 0 | 1,400 | 1,400 | 1,417 | |
| 1,1,1-Trichloroethane | 0 | 0 | | 0 | 610 | 610 | 617 | |
| 1,1,2-Trichloroethane | 0 | 0 | | 0 | 680 | 680 | 688 | |
| Trichloroethylene | 0 | 0 | | 0 | 450 | 450 | 455 | |
| Vinyl Chloride | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 2-Chlorophenol | 0 | 0 | | 0 | 110 | 110 | 111 | |
| 2,4-Dichlorophenol | 0 | 0 | | 0 | 340 | 340 | 344 | |
| 2,4-Dimethylphenol | 0 | 0 | | 0 | 130 | 130 | 132 | |
| 4,6-Dinitro-o-Cresol | 0 | 0 | | 0 | 16 | 16.0 | 16.2 | |
| 2,4-Dinitrophenol | 0 | 0 | | 0 | 130 | 130 | 132 | |
| 2-Nitrophenol | 0 | 0 | | 0 | 1,600 | 1,600 | 1,619 | |
| 4-Nitrophenol | 0 | 0 | | 0 | 470 | 470 | 476 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| p-Chloro-m-Cresol | 0 | 0 | | 0 | 500 | 500 | 506 | |
| Pentachlorophenol | 0 | 0 | | 0 | 13.761 | 13.8 | 13.9 | |
| Phenol | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 2,4,6-Trichlorophenol | 0 | 0 | | 0 | 91 | 91.0 | 92.1 | |
| Acenaphthene | 0 | 0 | | 0 | 17 | 17.0 | 17.2 | |
| Anthracene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Benzidine | 0 | 0 | | 0 | 59 | 59.0 | 59.7 | |
| Benzo(a)Anthracene | 0 | 0 | | 0 | 0.1 | 0.1 | 0.1 | |
| 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 | 6,073 | |
| Bis(2-Chloroisopropyl)Ether | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Bis(2-Ethylhexyl)Phthalate | 0 | 0 | | 0 | 910 | 910 | 921 | |
| 4-Bromophenyl Phenyl Ether | 0 | 0 | | 0 | 54 | 54.0 | 54.7 | |
| Butyl Benzyl Phthalate | 0 | 0 | | 0 | 35 | 35.0 | 35.4 | |
| 2-Chloronaphthalene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Chrysene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Dibenzo(a,h)Anthrancene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 1,2-Dichlorobenzene | 0 | 0 | | 0 | 160 | 160 | 162 | |
| 1,3-Dichlorobenzene | 0 | 0 | | 0 | 69 | 69.0 | 69.8 | |
| 1,4-Dichlorobenzene | 0 | 0 | | 0 | 150 | 150 | 152 | |
| 3,3-Dichlorobenzidine | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Diethyl Phthalate | 0 | 0 | | 0 | 800 | 800 | 810 | |
| Dimethyl Phthalate | 0 | 0 | | 0 | 500 | 500 | 506 | |
| Di-n-Butyl Phthalate | 0 | 0 | | 0 | 21 | 21.0 | 21.3 | |
| 2,4-Dinitrotoluene | 0 | 0 | | 0 | 320 | 320 | 324 | |
| 2,6-Dinitrotoluene | 0 | 0 | | 0 | 200 | 200 | 202 | |
| 1,2-Diphenylhydrazine | 0 | 0 | | 0 | 3 | 3.0 | 3.04 | |
| Fluoranthene | 0 | 0 | | 0 | 40 | 40.0 | 40.5 | |
| 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 | 2.02 | |
| Hexachlorocyclopentadiene | 0 | 0 | | 0 | 1 | 1.0 | 1.01 | |
| Hexachloroethane | 0 | 0 | | 0 | 12 | 12.0 | 12.1 | |
| Indeno(1,2,3-cd)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Isophorone | 0 | 0 | | 0 | 2,100 | 2,100 | 2,125 | |
| Naphthalene | 0 | 0 | | 0 | 43 | 43.0 | 43.5 | |
| Nitrobenzene | 0 | 0 | | 0 | 810 | 810 | 820 | |
| n-Nitrosodimethylamine | 0 | 0 | | 0 | 3,400 | 3,400 | 3,441 | |
| n-Nitrosodi-n-Propylamine | 0 | 0 | | 0 | N/A | N/A | N/A | |
| n-Nitrosodiphenylamine | 0 | 0 | | 0 | 59 | 59.0 | 59.7 | |
| Phenanthrene | 0 | 0 | | 0 | 1 | 1.0 | 1.01 | |
| Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 1,2,4-Trichlorobenzene | 0 | 0 | | 0 | 26 | 26.0 | 26.3 | |

☑ ***THH*** CCT (min): 0.004 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

| Pollutants | Stream Conc (µg/L) | Stream CV | Trib Conc (µg/L) | Fate Coef | WQC (µg/L) | WQ Obj (µg/L) | WLA (µg/L) | Comments |
|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (PWS) | 0 | 0 | | 0 | 500,000 | 500,000 | N/A | |
| Chloride (PWS) | 0 | 0 | | 0 | 250,000 | 250,000 | N/A | |
| Sulfate (PWS) | 0 | 0 | | 0 | 250,000 | 250,000 | N/A | |
| Total Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | 5.6 | 5.6 | 5.67 | |
| Total Arsenic | 0 | 0 | | 0 | 10 | 10.0 | 10.1 | |
| Total Barium | 0 | 0 | | 0 | 2,400 | 2,400 | 2,429 | |
| Total Boron | 0 | 0 | | 0 | 3,100 | 3,100 | 3,138 | |
| Total Cadmium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Chromium (III) | 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 | |
| Total Copper | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Free Cyanide | 0 | 0 | | 0 | 4 | 4.0 | 4.05 | |
| Dissolved Iron | 0 | 0 | | 0 | 300 | 300 | 304 | |
| 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 | 1,012 | |
| Total Mercury | 0 | 0 | | 0 | 0.050 | 0.05 | 0.051 | |
| Total Nickel | 0 | 0 | | 0 | 610 | 610 | 617 | |
| 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 | 0.24 | |
| Total Zinc | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Acrolein | 0 | 0 | | 0 | 3 | 3.0 | 3.04 | |
| 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 | 101 | |
| 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 | 5.77 | |
| 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 | 33.4 | |
| 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 | 68.8 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Methyl Bromide | 0 | 0 | | 0 | 100 | 100.0 | 101 | |
| Methyl Chloride | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 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 | 57.7 | |
| 1,2-trans-Dichloroethylene | 0 | 0 | | 0 | 100 | 100.0 | 101 | |
| 1,1,1-Trichloroethane | 0 | 0 | | 0 | 10,000 | 10,000 | 10,121 | |
| 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 | 30.4 | |
| 2,4-Dichlorophenol | 0 | 0 | | 0 | 10 | 10.0 | 10.1 | |
| 2,4-Dimethylphenol | 0 | 0 | | 0 | 100 | 100.0 | 101 | |
| 4,6-Dinitro-o-Cresol | 0 | 0 | | 0 | 2 | 2.0 | 2.02 | |
| 2,4-Dinitrophenol | 0 | 0 | | 0 | 10 | 10.0 | 10.1 | |
| 2-Nitrophenol | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 4-Nitrophenol | 0 | 0 | | 0 | N/A | N/A | N/A | |
| p-Chloro-m-Cresol | 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 | 4,048 | |
| 2,4,6-Trichlorophenol | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Acenaphthene | 0 | 0 | | 0 | 70 | 70.0 | 70.8 | |
| Anthracene | 0 | 0 | | 0 | 300 | 300 | 304 | |
| 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 | 202 | |
| 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 | 0.1 | |
| 2-Chloronaphthalene | 0 | 0 | | 0 | 800 | 800 | 810 | |
| Chrysene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Dibenzo(a,h)Anthrancene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 1,2-Dichlorobenzene | 0 | 0 | | 0 | 1,000 | 1,000 | 1,012 | |
| 1,3-Dichlorobenzene | 0 | 0 | | 0 | 7 | 7.0 | 7.08 | |
| 1,4-Dichlorobenzene | 0 | 0 | | 0 | 300 | 300 | 304 | |
| 3,3-Dichlorobenzidine | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Diethyl Phthalate | 0 | 0 | | 0 | 600 | 600 | 607 | |
| Dimethyl Phthalate | 0 | 0 | | 0 | 2,000 | 2,000 | 2,024 | |
| Di-n-Butyl Phthalate | 0 | 0 | | 0 | 20 | 20.0 | 20.2 | |
| 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 | 20.2 | |
| Fluorene | 0 | 0 | | 0 | 50 | 50.0 | 50.6 | |
| 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 | 4.05 | |
| 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 | 34.4 | |
| Naphthalene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Nitrobenzene | 0 | 0 | | 0 | 10 | 10.0 | 10.1 | |
| 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 | 20.2 | |
| 1,2,4-Trichlorobenzene | 0 | 0 | | 0 | 0.07 | 0.07 | 0.071 | |

☑ ***CRL*** CCT (min): 0.437 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

| Pollutants | Stream Conc (µg/L) | Stream CV | Trib Conc (µg/L) | Fate Coef | WQC (µg/L) | WQ Obj (µg/L) | WLA (µg/L) | Comments |
|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Chloride (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Sulfate (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 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 | |
| Total Chromium (III) | 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 | |
| Total Copper | 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 | 0.068 | |
| Benzene | 0 | 0 | | 0 | 0.58 | 0.58 | 0.66 | |
| Bromoform | 0 | 0 | | 0 | 7 | 7.0 | 7.98 | |
| Carbon Tetrachloride | 0 | 0 | | 0 | 0.4 | 0.4 | 0.46 | |
| Chlorobenzene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Chlorodibromomethane | 0 | 0 | | 0 | 0.8 | 0.8 | 0.91 | |
| 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 | 1.08 | |
| 1,2-Dichloroethane | 0 | 0 | | 0 | 9.9 | 9.9 | 11.3 | |
| 1,1-Dichloroethylene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 1,2-Dichloropropane | 0 | 0 | | 0 | 0.9 | 0.9 | 1.03 | |
| 1,3-Dichloropropylene | 0 | 0 | | 0 | 0.27 | 0.27 | 0.31 | |
| Ethylbenzene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Methyl Bromide | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Methyl Chloride | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Methylene Chloride | 0 | 0 | | 0 | 20 | 20.0 | 22.8 | |
| 1,1,2,2-Tetrachloroethane | 0 | 0 | | 0 | 0.2 | 0.2 | 0.23 | |
| Tetrachloroethylene | 0 | 0 | | 0 | 10 | 10.0 | 11.4 | |
| Toluene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 1,2-trans-Dichloroethylene | 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 | 0.63 | |
| Trichloroethylene | 0 | 0 | | 0 | 0.6 | 0.6 | 0.68 | |
| Vinyl Chloride | 0 | 0 | | 0 | 0.02 | 0.02 | 0.023 | |
| 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 | |
| 4,6-Dinitro-o-Cresol | 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 | |
| p-Chloro-m-Cresol | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Pentachlorophenol | 0 | 0 | | 0 | 0.030 | 0.03 | 0.034 | |
| Phenol | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 2,4,6-Trichlorophenol | 0 | 0 | | 0 | 1.5 | 1.5 | 1.71 | |
| 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 | 0.0001 | |
| Benzo(a)Anthracene | 0 | 0 | | 0 | 0.001 | 0.001 | 0.001 | |
| Benzo(a)Pyrene | 0 | 0 | | 0 | 0.0001 | 0.0001 | 0.0001 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 3,4-Benzofluoranthene | 0 | 0 | | 0 | 0.001 | 0.001 | 0.001 | |
| Benzo(k)Fluoranthene | 0 | 0 | | 0 | 0.01 | 0.01 | 0.011 | |
| Bis(2-Chloroethyl)Ether | 0 | 0 | | 0 | 0.03 | 0.03 | 0.034 | |
| Bis(2-Chloroisopropyl)Ether | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Bis(2-Ethylhexyl)Phthalate | 0 | 0 | | 0 | 0.32 | 0.32 | 0.36 | |
| 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 | 0.14 | |
| Dibenzo(a,h)Anthrancene | 0 | 0 | | 0 | 0.0001 | 0.0001 | 0.0001 | |
| 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 | 0.057 | |
| 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 | 0.057 | |
| 2,6-Dinitrotoluene | 0 | 0 | | 0 | 0.05 | 0.05 | 0.057 | |
| 1,2-Diphenylhydrazine | 0 | 0 | | 0 | 0.03 | 0.03 | 0.034 | |
| 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 | 0.00009 | |
| Hexachlorobutadiene | 0 | 0 | | 0 | 0.01 | 0.01 | 0.011 | |
| Hexachlorocyclopentadiene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Hexachloroethane | 0 | 0 | | 0 | 0.1 | 0.1 | 0.11 | |
| Indeno(1,2,3-cd)Pyrene | 0 | 0 | | 0 | 0.001 | 0.001 | 0.001 | |
| 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 | 0.0008 | |
| n-Nitrosodi-n-Propylamine | 0 | 0 | | 0 | 0.005 | 0.005 | 0.006 | |
| n-Nitrosodiphenylamine | 0 | 0 | | 0 | 3.3 | 3.3 | 3.76 | |
| 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 | |

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

**No. Samples/Month:** 4

| | *Mass Limits* | | *Concentration Limits* | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Pollutants | AML (lbs/day) | MDL (lbs/day) | AML | MDL | IMAX | Units | Governing WQBEL | WQBEL Basis | Comments |
| Total Aluminum | 10.0 | 10.1 | 750 | 759 | 759 | µg/L | 750 | AFC | Discharge Conc ≥ 50% WQBEL (RP) |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Total Antimony | 0.076 | 0.12 | 5.67 | 8.84 | 14.2 | µg/L | 5.67 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Arsenic | 0.14 | 0.21 | 10.1 | 15.8 | 25.3 | µg/L | 10.1 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Boron | 21.6 | 33.7 | 1,619 | 2,527 | 4,048 | µg/L | 1,619 | CFC | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Cadmium | 0.006 | 0.01 | 0.47 | 0.73 | 1.16 | µg/L | 0.47 | CFC | Discharge Conc ≥ 50% WQBEL (RP) |
| Hexavalent Chromium | Report | Report | Report | Report | Report | µg/L | 10.5 | CFC | Discharge Conc > 10% WQBEL (no RP) |
| Total Cobalt | Report | Report | Report | Report | Report | µg/L | 19.2 | CFC | Discharge Conc > 10% WQBEL (no RP) |
| Total Copper | 0.23 | 0.36 | 0.017 | 0.027 | 0.044 | mg/L | 0.017 | CFC | Discharge Conc ≥ 50% WQBEL (RP) |
| Free Cyanide | 0.054 | 0.084 | 4.05 | 6.32 | 10.1 | µg/L | 4.05 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Dissolved Iron | Report | Report | Report | Report | Report | µg/L | 304 | THH | Discharge Conc > 10% WQBEL (no RP) |
| Total Iron | Report | Report | Report | Report | Report | µg/L | 1,518 | CFC | Discharge Conc > 10% WQBEL (no RP) |
| Total Lead | 0.11 | 0.17 | 8.02 | 12.5 | 20.0 | µg/L | 8.02 | CFC | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Manganese | Report | Report | Report | Report | Report | µg/L | 1,012 | THH | Discharge Conc > 10% WQBEL (no RP) |
| Total Mercury | 0.0007 | 0.001 | 0.00005 | 0.00008 | 0.0001 | mg/L | 0.00005 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Nickel | Report | Report | Report | Report | Report | µg/L | 96.8 | CFC | Discharge Conc > 10% WQBEL (no RP) |
| Total Selenium | 0.067 | 0.11 | 5.05 | 7.88 | 12.6 | µg/L | 5.05 | CFC | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Silver | Report | Report | Report | Report | Report | µg/L | 13.0 | AFC | Discharge Conc > 10% WQBEL (no RP) |
| Total Thallium | 0.003 | 0.005 | 0.24 | 0.38 | 0.61 | µg/L | 0.24 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Zinc | 2.93 | 2.97 | 0.22 | 0.22 | 0.22 | mg/L | 0.22 | AFC | Discharge Conc ≥ 50% WQBEL (RP) |
| Bromoform | 0.11 | 0.17 | 7.98 | 12.5 | 20.0 | µg/L | 7.98 | CRL | Discharge Conc ≥ 50% WQBEL (RP) |

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☑ ***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 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 Barium | 2,429 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Beryllium | N/A | N/A | No WQS |
| Total Chromium (III) | 157 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Cyanide | N/A | N/A | No WQS |
| Total Phenols (Phenolics) (PWS) | | µg/L | PWS Not Applicable |
| Total Molybdenum | N/A | N/A | No WQS |
| Acrolein | 3.0 | µg/L | Discharge Conc < TQL |
| Acrylonitrile | 0.068 | µg/L | Discharge Conc < TQL |
| Benzene | 0.66 | µg/L | Discharge Conc < TQL |
| Carbon Tetrachloride | 0.46 | µg/L | Discharge Conc < TQL |
| Chlorobenzene | 101 | µg/L | Discharge Conc ≤ 25% WQBEL |
| Chlorodibromomethane | 0.91 | µg/L | Discharge Conc < TQL |
| Chloroethane | N/A | N/A | No WQS |
| 2-Chloroethyl Vinyl Ether | 3,542 | µg/L | Discharge Conc < TQL |
| Chloroform | 5.77 | µg/L | Discharge Conc ≤ 25% WQBEL |
| Dichlorobromomethane | 1.08 | µg/L | Discharge Conc < TQL |
| 1,1-Dichloroethane | N/A | N/A | No WQS |
| 1,2-Dichloroethane | 11.3 | µg/L | Discharge Conc < TQL |
| 1,1-Dichloroethylene | 33.4 | µg/L | Discharge Conc < TQL |
| 1,2-Dichloropropane | 1.03 | µg/L | Discharge Conc < TQL |
| 1,3-Dichloropropylene | 0.31 | µg/L | Discharge Conc < TQL |
| 1,4-Dioxane | N/A | N/A | No WQS |
| Ethylbenzene | 68.8 | µg/L | Discharge Conc < TQL |
| Methyl Bromide | 101 | µg/L | Discharge Conc < TQL |
| Methyl Chloride | 5,567 | µg/L | Discharge Conc < TQL |

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|---|---|---|---|
| Methylene Chloride | 22.8 | µg/L | Discharge Conc < TQL |
| 1,1,2,2-Tetrachloroethane | 0.23 | µg/L | Discharge Conc < TQL |
| Tetrachloroethylene | 11.4 | µg/L | Discharge Conc < TQL |
| Toluene | 57.7 | µg/L | Discharge Conc < TQL |
| 1,2-trans-Dichloroethylene | 101 | µg/L | Discharge Conc < TQL |
| 1,1,1-Trichloroethane | 617 | µg/L | Discharge Conc < TQL |
| 1,1,2-Trichloroethane | 0.63 | µg/L | Discharge Conc < TQL |
| Trichloroethylene | 0.68 | µg/L | Discharge Conc < TQL |
| Vinyl Chloride | 0.023 | µg/L | Discharge Conc < TQL |
| 2-Chlorophenol | 30.4 | µg/L | Discharge Conc ≤ 25% WQBEL |
| 2,4-Dichlorophenol | 10.1 | µg/L | Discharge Conc < TQL |
| 2,4-Dimethylphenol | 101 | µg/L | Discharge Conc < TQL |
| 4,6-Dinitro-o-Cresol | 2.02 | µg/L | Discharge Conc < TQL |
| 2,4-Dinitrophenol | 10.1 | µg/L | Discharge Conc < TQL |
| 2-Nitrophenol | 1,619 | µg/L | Discharge Conc < TQL |
| 4-Nitrophenol | 476 | µg/L | Discharge Conc < TQL |
| p-Chloro-m-Cresol | 160 | µg/L | Discharge Conc < TQL |
| Pentachlorophenol | 0.034 | µg/L | Discharge Conc < TQL |
| Phenol | 4,048 | µg/L | Discharge Conc < TQL |
| 2,4,6-Trichlorophenol | 1.71 | µg/L | Discharge Conc < TQL |
| Acenaphthene | 17.2 | µg/L | Discharge Conc < TQL |
| Acenaphthylene | N/A | N/A | No WQS |
| Anthracene | 304 | µg/L | Discharge Conc < TQL |
| Benzidine | 0.0001 | µg/L | Discharge Conc < TQL |
| Benzo(a)Anthracene | 0.001 | µg/L | Discharge Conc < TQL |
| Benzo(a)Pyrene | 0.0001 | µg/L | Discharge Conc < TQL |
| 3,4-Benzofluoranthene | 0.001 | µg/L | Discharge Conc < TQL |
| Benzo(ghi)Perylene | N/A | N/A | No WQS |
| Benzo(k)Fluoranthene | 0.011 | µg/L | Discharge Conc < TQL |
| Bis(2-Chloroethoxy)Methane | N/A | N/A | No WQS |
| Bis(2-Chloroethyl)Ether | 0.034 | µg/L | Discharge Conc < TQL |
| Bis(2-Chloroisopropyl)Ether | 202 | µg/L | Discharge Conc < TQL |
| Bis(2-Ethylhexyl)Phthalate | 0.36 | µg/L | Discharge Conc < TQL |
| 4-Bromophenyl Phenyl Ether | 54.7 | µg/L | Discharge Conc < TQL |
| Butyl Benzyl Phthalate | 0.1 | µg/L | Discharge Conc < TQL |
| 2-Chloronaphthalene | 810 | µg/L | Discharge Conc < TQL |
| 4-Chlorophenyl Phenyl Ether | N/A | N/A | No WQS |
| Chrysene | 0.14 | µg/L | Discharge Conc < TQL |
| Dibenzo(a,h)Anthrancene | 0.0001 | µg/L | Discharge Conc < TQL |
| 1,2-Dichlorobenzene | 162 | µg/L | Discharge Conc < TQL |
| 1,3-Dichlorobenzene | 7.08 | µg/L | Discharge Conc ≤ 25% WQBEL |
| 1,4-Dichlorobenzene | 152 | µg/L | Discharge Conc ≤ 25% WQBEL |
| 3,3-Dichlorobenzidine | 0.057 | µg/L | Discharge Conc < TQL |
| Diethyl Phthalate | 607 | µg/L | Discharge Conc < TQL |
| Dimethyl Phthalate | 506 | µg/L | Discharge Conc < TQL |

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|---|---|---|---|
| Di-n-Butyl Phthalate | 20.2 | µg/L | Discharge Conc < TQL |
| 2,4-Dinitrotoluene | 0.057 | µg/L | Discharge Conc < TQL |
| 2,6-Dinitrotoluene | 0.057 | µg/L | Discharge Conc < TQL |
| Di-n-Octyl Phthalate | N/A | N/A | No WQS |
| 1,2-Diphenylhydrazine | 0.034 | µg/L | Discharge Conc < TQL |
| Fluoranthene | 20.2 | µg/L | Discharge Conc < TQL |
| Fluorene | 50.6 | µg/L | Discharge Conc < TQL |
| Hexachlorobenzene | 0.00009 | µg/L | Discharge Conc < TQL |
| Hexachlorobutadiene | 0.011 | µg/L | Discharge Conc < TQL |
| Hexachlorocyclopentadiene | 1.01 | µg/L | Discharge Conc < TQL |
| Hexachloroethane | 0.11 | µg/L | Discharge Conc < TQL |
| Indeno(1,2,3-cd)Pyrene | 0.001 | µg/L | Discharge Conc < TQL |
| Isophorone | 34.4 | µg/L | Discharge Conc < TQL |
| Naphthalene | 43.5 | µg/L | Discharge Conc < TQL |
| Nitrobenzene | 10.1 | µg/L | Discharge Conc < TQL |
| n-Nitrosodimethylamine | 0.0008 | µg/L | Discharge Conc < TQL |
| n-Nitrosodi-n-Propylamine | 0.006 | µg/L | Discharge Conc < TQL |
| n-Nitrosodiphenylamine | 3.76 | µg/L | Discharge Conc < TQL |
| Phenanthrene | 1.01 | µg/L | Discharge Conc < TQL |
| Pyrene | 20.2 | µg/L | Discharge Conc < TQL |
| 1,2,4-Trichlorobenzene | 0.071 | µg/L | Discharge Conc < TQL |