Application No.: OH0024911
Ohio EPA Permit No.: 4PD00004*PD

National Pollutant Discharge Elimination System (NPDES) Permit Program

PUBLIC NOTICE

NPDES Permit to Discharge to State Waters

Ohio Environmental Protection Agency
Permits Section
50 West Town St., Suite 700
P. O. Box 1049
Columbus, Ohio 43216-1049
(614) 644-2001

Public Notice No.:	172051
Date of Issue of Public Notice:	Jan-17-2023
Name and Address of Applicant:	Mayor and Council, City of Delaware, 225 Cherry Street, Delaware, OH, 43015
Name and Address of Facility Where Discharge Occurs:	Upper Olentangy Water Reclamation Center, 225 Cherry Street, Delaware, OH, 43015, Delaware County
Outfall Flow and Location List:	001 40N 17' 15'' 83W 03' 30''
Receiving Stream:	Olentangy River
Nature of Business:	Public Utilities consists of five divisions that are responsible for the operations and maintenance of the City's utilities. Sanitary sewer collection - O&M for the conveyance of sewage to the wastewater plant and pump stations. Storm water - O&M of the storm water system and the MS4 program. Wastewater treatment - O&M of the plant for the treatment of domestic and industrial wastewater prior to discharge to the Olentangy river. Water Distribution and Water Treatment Plant - O&M of the water plant for the supply of potable water and fire protection
Key parameters to be limited in the permit are as follows:	Dissolved Oxygen, Total Suspended Solids, Oil and Grease-Hexane Extr Method, Ammonia Nitrogen (NH3), Total Inorganic Nitrogen, Total Phosphorus, E. coli, Maximum pH, Minimum pH, CBOD 5 day,

On the basis of preliminary staff review and application of standards and regulations, the director of the Ohio Environmental Protection Agency will issue a permit for the discharge subject to certain effluent conditions and special conditions. The draft permit will be issued as a final action unless the director revises the draft after consideration of the record of a public meeting or written comments, or upon disapproval by the administrator of the U.S. Environmental Protection Agency. Any person may submit written comments on the draft permit and administrative record and may request a public hearing. A request for public hearing shall be in writing and shall state the nature of the issues to be raised. In appropriate cases, including cases where there is significant public interest, the director may hold a public hearing on a draft permit or permits prior to final issuance of the permit or permits. Following final action

by the director, any aggrieved party has the right to appeal to the Environmental Review Appeals Commission.

Interested persons are invited to submit written comments upon the discharge permit. Comments should be submitted in person or by mail no later than 30 days after the date of this public notice. Comments should be delivered or mailed to both of the following locations: 1) Ohio Environmental Protection Agency, Lazarus Government Center, Division of Surface Water, Permits Processing Unit, 50 West Town St., Suite 700, P.O. Box 1049, Columbus, Ohio 43216-1049 and 2) Ohio Environmental Protection Agency, Central District Office PO Box 1049 Columbus, OH 43216-1049.

The Ohio EPA permit number and public notice numbers should appear next to the above address on the envelope and on each page of any submitted comments. All comments received no later than 30 days after the date of this public notice will be considered.

Proposed Water Quality Based Effluent Limitations: This draft permit contains water quality based effluent limitation(s) (WQBELs). In accordance with Ohio Revised Code Section 6111.03(J)(3), the Director establishes WQBELs after considering, to the extent consistent with the Federal Water Pollution Control Act, evidence relating to the technical feasibility and economic reasonableness of removing the polluting properties from those wastes and to evidence relating to conditions calculated to result from that action and their relation to benefits to the people of the state and to accomplishment of the purposes of this chapter. This determination was made based on data and information available at the time the permit was drafted, which included the contents of the of the timely submitted National Pollutant Discharge Elimination System (NDPES) permit renewal application, along with any and all pertinent information available to the Director.

This public notice hereby allows the permittee to provide to the Director for consideration during this public comment period, additional site-specific pertinent and factual information with respect to the technical feasibility and economic reasonableness for achieving compliance with WQBEL(s). This information shall be submitted to the addresses listed above.

Should the applicant need additional time to review, obtain or develop site-specific pertinent and factual information with respect to the technical feasibility and economic reasonableness of achieving compliance with WQBEL(s), written notification for any additional time shall be sent no later than 30 days after the date of this public notice to the Director at the addresses listed above.

Should the applicant determine that compliance with a WQBEL is technically and/or economically unattainable, the permittee may submit an application for a variance to the applicable WQBEL in accordance with the terms and conditions set forth in Ohio Administrative Code (OAC) Rule 3745-33-07(D) no later than 30 days after the date of this public notice to the addresses listed above.

Alternately, the applicant may propose the development of site-specific water quality standard(s) pursuant to OAC Rule 3745-1-35. The permittee shall submit written notification to the Director regarding their intent to develop site-specific water quality standards for the pollutant at issue to the addresses listed above no later than 30 days after the date of this public notice.

The application, fact sheets, permit including effluent limitations, special conditions, comments received, and other documents are available for inspection and may be copied at a cost of 5 cents per page at the Ohio Environmental Protection Agency at the address shown on page one of this public notice any time between the hours of 8 a.m. and 4:30 p.m., Monday through Friday. Copies of the public notice are available at no charge at the same address.

Mailing lists are maintained for persons or groups who desire to receive public notice for all applications in the state or for certain geographical areas. Persons or groups may also request copies of fact sheets, applications, or other documents pertaining to specific applications. Persons or groups may have their names put on such a list by making a written request to the agency at the address shown above.

Ohio EPA Permit No.: 4PD00004*PD
Application No: OH0024911

DRAFT COPY
SUBJECT TO REVISION
OHIO EPA

Action Date:
Effective Date:
Expiration Date: 5 Years

Ohio Environmental Protection Agency
Authorization to Discharge Under the
National Pollutant Discharge Elimination System

In compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et. seq., hereinafter referred to as the "Act"), and the Ohio Water Pollution Control Act (Ohio Revised Code Section 6111),

City of Delaware

is authorized by the Ohio Environmental Protection Agency, hereinafter referred to as "Ohio EPA," to discharge from the Upper Olentangy Water Reclamation Center wastewater treatment works, located at 225 Cherry Street, Delaware, Ohio, Delaware County, and discharging to the Olentangy River at River Mile 25.27 in accordance with the conditions specified in Parts I, II, and III of this permit.

This permit is conditioned upon payment of applicable fees as required by Section 3745.11 of the Ohio Revised Code.

This permit and the authorization to discharge shall expire at midnight on the expiration date shown above. In order to receive authorization to discharge beyond the above date of expiration, the permittee shall submit such information and forms as are required by the Ohio EPA no later than 180 days prior to the above date of expiration.

_____
Anne M. Vogel
Director

Total Pages: 38

Part I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from the following outfall: 4PD00004001. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 001 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00010 - Water Temperature - C	-	-	-	-	-	-	-	Continuous	Maximum Indicating Thermometer	All
00300 - Dissolved Oxygen - mg/l	-	7.0	-	-	-	-	-	1/Day	Continuous	All
00530 - Total Suspended Solids - mg/l	-	-	21	14	-	795	530	3/Week	24hr Composite	Summer
00530 - Total Suspended Solids - mg/l	-	-	37	25	-	1401	946	3/Week	24hr Composite	Winter
00552 - Oil and Grease, Hexane Extr Method - mg/l	10	-	-	-	-	-	-	1/Week	Grab	All
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	1.12	0.75	-	42	28	5/Week	24hr Composite	Summer
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	4.25	2.83	-	161	108	5/Week	24hr Composite	Winter
00625 - Nitrogen Kjeldahl, Total - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00640 - Nitrogen, Inorganic, Total - mg/l	-	-	9.5	6.3	-	358	238	1 / 2 Weeks	24hr Composite	Summer
00640 - Nitrogen, Inorganic, Total - mg/l	-	-	12.2	8.1	-	460	307	1 / 2 Weeks	24hr Composite	Winter
00665 - Phosphorus, Total (P) - mg/l	-	-	1.5	1.0	-	57	38	2/Week	24hr Composite	All
00671 - Orthophosphate, Dissolved (as P) - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00981 - Selenium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All

01074 - Nickel, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01113 - Cadmium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01114 - Lead, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01118 - Chromium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01220 - Chromium, Dissolved Hexavalent - ug/l	-	-	-	-	-	-	-	1/Month	Grab	All
31648 - E. coli - #/100 ml	-	-	284	126	-	-	-	3/Week	Grab	Summer
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	Continuous	All
50092 - Mercury, Total (Low Level) - ng/l	-	-	-	-	-	-	-	1/Month	Grab	All
51173 - Cyanide, Free (Low-Level) - ug/l	-	-	-	-	-	-	-	1/Month	Grab	All
61425 - Acute Toxicity, Ceriodaphnia dubia - TUa	-	-	-	-	-	-	-	1/Year	24hr Composite	September
61426 - Chronic Toxicity, Ceriodaphnia dubia - TUc	-	-	-	-	-	-	-	1/Year	24hr Composite	September
61427 - Acute Toxicity, Pimephales promelas - TUa	-	-	-	-	-	-	-	1/Year	24hr Composite	September
61428 - Chronic Toxicity, Pimephales promelas - TUc	-	-	-	-	-	-	-	1/Year	24hr Composite	September
61941 - pH, Maximum - S.U.	9.0	-	-	-	-	-	-	1/Day	Continuous	All
61942 - pH, Minimum - S.U.	-	6.5	-	-	-	-	-	1/Day	Continuous	All
70300 - Residue, Total Filterable - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
80082 - CBOD 5 day - mg/l	-	-	15	10	-	568	379	3/Week	24hr Composite	Summer
80082 - CBOD 5 day - mg/l	-	-	27	18	-	1022	681	3/Week	24hr Composite	Winter

Notes for Station Number 4PD00004001:

* Effluent loadings based on average design flow of 10.0 MGD.

a. Cadmium, chromium, copper, lead, nickel and zinc - See Part II, Item K.

b. Dissolved hexavalent chromium - See Part II, Item L.

c. Selenium - See Part II, Items K and U.

d. Mercury - See Part II, Items L and S.

e. Orthophosphate - See Part II, Item T.

f. Free cyanide - See Part II, Item R.

g. Biomonitoring - See Part II, Item Z.

Part I, B. SSO MONITORING EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. SSO Monitoring. During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall monitor at Station Number 4PD00004300, and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS, for location of sampling.

Table - SSO Monitoring - 300 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
74062 - Overflow Occurrence - No./Month	-	-	-	-	-	-	-	1/Month	Total	All

Notes for Station Number 4PD00004300:

a. A sanitary sewer overflow is an overflow, spill, release, or diversion of wastewater from a sanitary sewer system. Although the above table indicates that the Measuring Frequency for Overflow Occurrence is 1/Month, the intent of that provision is to specify a reporting frequency for Overflow Occurrence, not a monitoring frequency. The monitoring requirement under this permit is that these overflows shall be monitored on each day when they discharge. Only sanitary sewer overflows that enter waters of the state, either directly or through a storm sewer or other conveyance, must be reported under this monitoring station.

b. For the purpose of counting occurrences, each location on the sanitary sewer system where there is an overflow, spill, release, or diversion of wastewater on a given day that enters waters of the state is counted as one occurrence. For example, if on a given day overflows occur from a manhole at one location and from a damaged pipe at another location and they both enter waters of the state, record two occurrences for that day. If overflows from both locations continue on the following day, record two occurrences for the following day. At the end of the month, total the daily occurrences and report this number on Day 1 of the DMR. If there are no overflows during the entire month, report "zero" (0).

c. All sanitary sewer overflows are prohibited.

d. See Part II, Items D and E.

Part I, B. SLUDGE LIMITATIONS AND MONITORING REQUIREMENTS

2. Sludge Monitoring. During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall monitor the treatment works' final sludge at Station Number 4PD00004586, and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS, for location of sludge sampling.

Table - Sludge Monitoring - 586 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
51129 - Sludge Fee Weight - dry tons	-	-	-	-	-	-	-	1/Year	Total	December

Notes for Station Number 4PD00004586:

a. Monitoring is required when sewage sludge is removed from the permittee's facility for disposal in a solid waste landfill. The total Sludge Fee Weight of sewage sludge disposed of in a solid waste landfill for the entire year shall be reported on the December Discharge Monitoring Report (DMR).

b. If no sewage sludge is removed from the permittee's facility for disposal in a solid waste landfill during the year, select the "No Discharge" check box on the data entry form and PIN the eDMR.

c. Sludge fee weight means sludge weight, in dry U.S. tons, excluding any admixtures such as liming material or bulking agents.

d. See Part II, Items N, O, P and Q.

Part I, B. SLUDGE LIMITATIONS AND MONITORING REQUIREMENTS

3. Sludge Monitoring. During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall monitor the treatment works' final sludge at Station Number 4PD00004588, and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS, for location of sludge sampling.

Table - Sludge Monitoring - 588 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
70316 - Sludge Weight - Dry Tons	-	-	-	-	-	-	-	1/Year	Total	December

Notes for Station Number 4PD00004588:

a. Monitoring is required when sewage sludge is removed from the permittee's facility for transfer to another NPDES permit holder. The total sludge weight or sludge volume transferred to another NPDES permit holder for the entire year shall be reported on the December Discharge Monitoring Report (DMR).

b. If no sewage sludge is removed from the permittee's facility for transfer to another NPDES permit holder during the year, select the "No Discharge" check box on the data entry form and PIN the eDMR.

c. Sludge weight is a calculated total for the year. To convert from gallons of liquid sewage sludge to dry tons of sewage sludge: dry tons = gallons x 8.34 (lbs/gallon) x 0.0005 (tons/lb) x decimal fraction total solids.

d. See Part II, Items N, O, P and Q.

Part I, B. INFLUENT MONITORING REQUIREMENTS

4. Influent Monitoring. During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall monitor the treatment works' influent wastewater at Station Number 4PD00004601, and report to the Ohio EPA in accordance with the following table. Samples of influent used for determination of net values or percent removal must be taken the same day as those samples of effluent used for that determination. See Part II, OTHER REQUIREMENTS, for location of influent sampling.

Table - Influent Monitoring - 601 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00530 - Total Suspended Solids - mg/l	-	-	-	-	-	-	-	3/Week	24hr Composite	All
00720 - Cyanide, Total - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00981 - Selenium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01074 - Nickel, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01113 - Cadmium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01114 - Lead, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01118 - Chromium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01220 - Chromium, Dissolved Hexavalent - ug/l	-	-	-	-	-	-	-	1/Month	Grab	All
50092 - Mercury, Total (Low Level) - ng/l	-	-	-	-	-	-	-	1/Month	Grab	All
61941 - pH, Maximum - S.U.	-	-	-	-	-	-	-	1/Day	Continuous	All
61942 - pH, Minimum - S.U.	-	-	-	-	-	-	-	1/Day	Continuous	All
80082 - CBOD 5 day - mg/l	-	-	-	-	-	-	-	3/Week	24hr Composite	All

Notes for Station Number 4PD00004601:

a. Cadmium, chromium, copper, lead, nickel, selenium and zinc - See Part II, Item K.

b. Dissolved hexavalent chromium, mercury, total cyanide - See Part II, Item M.

c. Low-level mercury monitoring – See Part II, Items M and S.

d. Sampling for total recoverable copper – See Part II, Items K and U.

Part I, B. BYPASS MONITORING LIMITATIONS AND MONITORING REQUIREMENTS

5. Bypass Monitoring. During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall monitor the treatment plant's bypass when discharging, at Station Number 4PD00004602, and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS, for location of sampling.

Table - Bypass Monitoring - 602 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00051 - Bypass Occurrence - No./Day	-	-	-	-	-	-	-	When Disch.	24hr Total	All
00052 - Bypass Total Hours Per Day - Hrs/Day	-	-	-	-	-	-	-	When Disch.	24hr Total	All
00530 - Total Suspended Solids - mg/l	-	-	-	-	-	-	-	When Disch.	Grab	All
51428 - Bypass Volume - MGAL	-	-	-	-	-	-	-	When Disch.	24hr Total	All
80082 - CBOD 5 day - mg/l	-	-	-	-	-	-	-	When Disch.	Grab	All

Notes for Station Number 4PD00004602:

a. Data for 24 hour total flow, bypass occurrence, and bypass duration may be estimated if a measuring device is not available.

b. A Discharge Monitoring Report (DMR) for this station must be submitted every month.

c. Monitoring and sampling shall be conducted and reported on each day that there is a discharge through this station.

d. If there are no discharges during the entire month, select the "No Discharge" check box on the data entry form and PIN the eDMR.

e. Bypass Occurrence: If a discharge from this station occurs intermittently during a day, starting and stopping several times, report "1" for that day. If a discharge from this station occurs on more than one day but is the result of a continuing precipitation event, it should be counted as one occurrence: Report "1" on the first day of the discharge.

f. Discharge through this station is prohibited when the final effluent discharge flows from outfall 4PD00004001 are less than or equal to 10.0 MGD. The Director may take enforcement action for violations of this prohibition unless the three conditions specified at 40 CFR 122.41(m) and in Part III, Item 11.C.1 of this permit are met.

Part I, B. UPSTREAM MONITORING LIMITATIONS AND MONITORING REQUIREMENTS

6. Upstream Monitoring. During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall monitor the receiving stream, upstream of the point of discharge at Station Number 4PD00004801, and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS, for location of sampling.

Table - Upstream Monitoring - 801 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00625 - Nitrogen Kjeldahl, Total - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
31648 - E. coli - #/100 ml	-	-	-	-	-	-	-	2/Month	Grab	June - Aug
61432 - 48-Hr. Acute Toxicity Ceriodaphnia dubia - % Affected	-	-	-	-	-	-	-	1/Year	Grab	September
61435 - 96-Hr. Acute Toxicity Pimephales promela - % Affected	-	-	-	-	-	-	-	1/Year	Grab	September
61438 - 7-Day Chronic Toxicity Ceriodaphnia dubia - % Affected	-	-	-	-	-	-	-	1/Year	Grab	September
61441 - 7-Day Chronic Toxicity Pimephales promelas - % Affected	-	-	-	-	-	-	-	1/Year	Grab	September

Notes for Station Number 4PD00004801:

a. Biomonitoring - see Part II, Item Z.

Part I, B. DOWNSTREAM-FARFIELD MONITORING LIMITATIONS AND MONITORING REQUIREMENTS

7. Downstream-Farfield Monitoring. During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall monitor the receiving stream, downstream of the point of discharge, at Station Number 4PD00004901, and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS, for location of sampling.

Table - Downstream-Farfield Monitoring - 901 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00010 - Water Temperature - C	-	-	-	-	-	-	-	1/Month	Grab	All
00400 - pH - S.U.	-	-	-	-	-	-	-	1/Month	Grab	All
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00625 - Nitrogen Kjeldahl, Total - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00900 - Hardness, Total (CaCO3) - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
31648 - E. coli - #/100 ml	-	-	-	-	-	-	-	2/Month	Grab	June - Aug

Notes for Station Number 4PD00004901:

a. Phosphorus and Total Kjeldahl Nitrogen - See Part II, Item K.

Municipal Pretreatment Schedule

1. The permittee shall evaluate the adequacy of local industrial user limitations to prevent the introduction of pollutants into the POTW which will interfere with the operation of the POTW, pass through the POTW in amounts that exceed water quality standard-based limits, be incompatible with the POTW, or limit wastewater or sludge use options. Technical justification for revising local industrial user limitations to attain compliance with final table limits, along with a pretreatment program modification request, or technical justification for retaining existing local industrial user limitations shall be submitted for acceptance to Ohio EPA, Central Office Pretreatment Unit and to Ohio EPA, Central District Office, as soon as possible, but no later than 12 months after the permit effective date (Event Code 52599)

Technical justification is required for arsenic, cadmium, total chromium, dissolved hexavalent chromium, copper, free cyanide, lead, mercury, molybdenum, nickel, selenium, silver, and zinc unless screening of wastewater and sludge indicate these pollutants are not present in significant amounts. Technical justification is also required for any other pollutants where a local limit may be necessary to protect against pass through, interference or sludge disposal.

To demonstrate technical justification for new local industrial user limits or justification for retaining existing limits, a local limits technical justification report shall be submitted to Ohio EPA. The report shall be consistent with the guidance, procedures and methodologies found in Ohio EPA's and USEPA's local limits guidance documents available at:

https://epa.ohio.gov/divisions-and-offices/surface-water/permitting/guidance-documents-tools-and-checklists-for-approved-pretreatment-programs

The report shall include the following:
a. Identification of and justification for pollutants of concern for which local limits will be developed.

b. Treatment plant flow and industrial flows to which local limits will be applied. If the POTW is accepting any hauled waste include for each type of hauled waste (e.g. landfill leachate, septage), at least 5 data points detailing the dates and volumes of discharge and sampling results for all the pollutants of concern.

c. Domestic/background concentrations. To determine domestic/background concentrations, the permittee shall, at a minimum, sample at three different locations for five consecutive days or two different locations for seven consecutive days. These locations shall, to the extent possible, convey only domestic wastewater.

d. Treatment plant removal efficiencies. Whenever possible, site specific removal efficiencies shall be determined using actual plant data with analytical detection levels that are sensitive enough to provide values above the reporting level (RL) or practical quantification limit (PQL).

e. A comparison of maximum allowable headworks loadings based on all applicable criteria. Criteria may include sludge disposal, NPDES permit limits, waste load allocation values, and interference with biological processes such as activated sludge, sludge digestion, nitrification, etc. Calculation tables can be found on the Ohio EPA website at:

https://epa.ohio.gov/divisions-and-offices/surface-water/permitting/guidance-documents-tools-and-checklists-for-approved-pretreatment-programs

f. If revised industrial user discharge limits are proposed, the method of allocating available pollutant loads to industrial users.

g. If narrative or best management practices (BMPs) are proposed as local limits, information on how they will be implemented. When appropriate, industrial user discharge limits may include narrative local limits requiring industrial users to develop and implement BMPs. These narrative local limits may be used either alone or as a supplement to numeric limits.

h. Supporting data, assumptions, and methodologies used in establishing the information in item 1.a through 1.g above.

i. If new or revised industrial user discharge limits are proposed, the stamp and signature of a licensed Ohio professional engineer.

2. Revisions. The permittee shall submit a revised local limit technical justification report within 90 days of receiving notification from Ohio EPA of deficiencies in the submitted report.

3. If revisions to local industrial user limitations including best management practices are determined to be necessary, the permittee shall incorporate revised local industrial user limitations in all industrial user control documents, as applicable, no later than 4 months after the date of Ohio EPA's approval.

4. Sampling Methods

a. Mercury: If the permittee uses EPA Method 245.1 or 245.2 to sample domestic background locations and mercury concentrations are below detection, the permittee shall use EPA method 1631 or 245.7 to quantify domestic background contributions of mercury.

b. Free Cyanide: The permittee shall use ASTM D7237, OIA-1677-09, or ASTM D4282-02 to quantify domestic background contributions of free cyanide. [Note: The use of ASTM D4282-02 requires supporting documentation that it meets the requirement of a "sufficiently sensitive" test procedure as defined in 40 CFR 122.44(i)(1)(iv)].

Part II, Other Requirements

A. Operator Certification Requirements

1. Classification

a. In accordance with Ohio Administrative Code 3745-7-04, the sewage treatment facility shall be classified as a Class IV treatment works. The permittee shall designate one or more professional operator of record to oversee the technical operation of the treatment works with a valid certification of a class equal to or greater than the classification of the treatment works.

b. All sewerage (collection) systems that are tributary to this treatment works are Class II sewerage systems in accordance with paragraph (B)(1)(b) of rule 3745-7-04 of the Ohio Administrative Code. The permittee shall designate one or more professional operator of record to oversee the technical operation of the sewerage (collection) system with a valid certification of a class equal to or greater that the classification of the sewerage (collection) system.

2. Professional Operator of Record

a. Within three days of a change in a professional operator of record, the permittee shall notify the Director of the Ohio EPA of any such change on a form acceptable to Ohio EPA. The notification can be submitted either electronically via the Ohio eBusiness Center website (https://ebiz.epa.ohio.gov/login.html) or hard copy. The appropriate form can be found at the following website:

https://epa.ohio.gov/static/Portals/28/documents/opcert/Operator%20of%20Record%20Notification%20Form.pdf?ver=2018-09-11-102530-423

b. All applications for renewal of this NPDES permit shall include an updated Operator of Record Notification form along with other necessary forms and fees to be considered a complete application.

c. The professional operator of record for a class II, III, or IV treatment works or class II sewerage system may be replaced by a backup professional operator with a certificate one classification lower than the treatment works or sewerage system for a period of up to thirty consecutive days. The use of this provision does not require notification to the agency. This provision may not be used to routinely circumvent minimum staffing requirements.

d. Upon proper justification, such as military leave or long term illness, the director may authorize the replacement of the professional operator of record for a class II, III, or IV treatment works or class II sewerage system by a backup professional operator with a certificate one classification lower than the facility for a period of greater than thirty consecutive days. Such requests shall be made in writing to the appropriate district office.

3. Minimum Staffing Requirements

a. The permittee shall ensure that the treatment works professional operator of record is physically present at the facility in accordance with the minimum staffing requirements per paragraph (C)(1) of rule 3745-7-04 of the Ohio Administrative Code or the requirements from an approved 3745-7-04(C) minimum staffing hour reduction plan.

b. The permittee shall ensure that the collection system professional operator of record or a professional operator that is certified in the field of wastewater collection or wastewater treatment, class A operators excluded, is physically present at the collection system in accordance with the minimum staffing requirements per paragraph (C)(2) of rule 3745-7-04 of the Ohio Administrative Code.

c. If Ohio EPA approves a reduction in minimum staffing requirements based upon a facility operating plan, any change in the criteria under which the operating plan was approved (e.g., retirement of a professional operator listed in the approved staffing plan, loss of the professional operator of record, reduction in the workforce, removal or failure of automation or continuous monitoring, etc.) will require that the treatment works immediately return to the minimum staffing requirements included in paragraph (C)(1) of rule 3745-7-04 of the Ohio Administrative Code.

4. Additional Staffing Requirements

Visits to all treatment works shall be performed by the permittee, the permittee's representative, or agent five days a week and noted in the operational and maintenance records required by rule 3745-7-09 of the Administrative Code. Visits shall not be necessary when the treatment works is not in operation.

B. Description of the location of the required sampling stations are as follows:

Sampling Station	Description of Location
4PD00004001	Final effluent (Lat: 40N 17' 15"; Long: 83W 3' 30")
4PD00004300	System wide sanitary sewer overflow occurrences.
4PD00004586	Sludge disposed at landfill.
4PD00004588	Sludge transferred to another NPDES permitted facility.
4PD00004601	Raw sewage influent.
4PD00004602	Internal bypass upstream of traveling bridge sand filters.
4PD00004801	Upstream sampling station at the Winter St Bridge.
4PD00004901	Downstream sampling station at the Olentangy St Bridge.

C. RESERVED

D. Sanitary Sewer Overflow (SSO) Reporting Requirements

A sanitary sewer overflow is an overflow, spill, release, or diversion of wastewater from a sanitary sewer system. SSOs do not include wet weather discharges from combined sewer overflows specifically listed in Part II of this NPDES permit (if any). All SSOs are prohibited.
1. Reporting for SSOs That Imminently and Substantially Endanger Human Health

a) Immediate Notification

You must notify Ohio EPA (1-800-282-9378) and the appropriate Board of Health (i.e., city or county) within 24 hours of learning of any SSO from your sewers or from your maintenance contract areas that may imminently and substantially endanger human health. The telephone report must identify the location, estimated volume and receiving water, if any, of the overflow. An SSO that may imminently and substantially endanger human health includes dry weather overflows, major line breaks, overflow events that result in fish kills or other significant harm, overflows that expose the general public to contact with

raw sewage, and overflow events that occur in sensitive waters and high exposure areas such as protection areas for public drinking water intakes and waters where primary contact recreation occurs.

b) Follow-Up Written Report

Within 5 days of the time you become aware of any SSO that may imminently and substantially endanger human health, you must provide the appropriate Ohio EPA district office a written report that includes:

(i) the estimated date and time when the overflow began and stopped or will be stopped (if known);
(ii) the location of the SSO including an identification number or designation if one exists;
(iii) the receiving water (if there is one);
(iv) an estimate of the volume of the SSO (if known);
(v) a description of the sewer system component from which the release occurred (e.g., manhole, constructed overflow pipe, crack in pipe);
(vi) the cause or suspected cause of the overflow;
(vii) steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps; and
(viii) steps taken or planned to mitigate the impact(s) of the overflow and a schedule of major milestones for those steps.

An acceptable 5-day follow-up written report can be filled-in or downloaded from the Ohio EPA Division of Surface Water Permits Program Technical Assistance Web page at:
https://epa.ohio.gov/divisions-and-offices/surface-water/guides-manuals/permits-program-technical-assistance

2. Reporting for All SSOs, Including Those That Imminently and Substantially Endanger Human Health

a) Discharge Monitoring Reports (DMR)

Sanitary sewer overflows that enter waters of the state, either directly or through a storm sewer or other conveyance, shall be reported on your Discharge Monitoring Reports (DMR). You must report the system-wide number of occurrences for SSOs that enter waters of the state in accordance with the requirements for station number 300. A monitoring table for this station is included in Part I, B of this NPDES permit. For the purpose of counting occurrences, each location on the sanitary sewer system where there is an overflow, spill, release, or diversion of wastewater on a given day is counted as one occurrence. For example, if on a given day overflows occur from a manhole at one location and from a damaged pipe at another location and they both enter waters of the state, you should record two occurrences for that day. If overflows from both locations continue on the following day, you should record two occurrences for the following day. At the end of the month, total the daily occurrences from all locations on your system and report this number using reporting code 74062 (Overflow Occurrence, No./Month) on the 4500 form for station number 300.

b) Annual Report

You must prepare an annual report of all SSOs in your collection system, including those that do not enter waters of the state. The annual report must be in an acceptable format (see below) and must include:

(i) A table that lists an identification number, a location description, and the receiving water (if any) for each existing SSO. If an SSO previously included in the list has been eliminated, this shall be noted. Assign each SSO location a unique identification by numbering them consecutively, beginning with 301.

(ii) A table that lists the date that an overflow occurred, the unique ID of the overflow, the name of affected receiving waters (if any), and the estimated volume of the overflow (in millions of gallons). The annual report may summarize information regarding overflows of less than approximately 1,000 gallons.

(iii) A table that summarizes the occurrence of water in basements (WIBs) by total number and by sewershed. The report shall include a narrative analysis of WIB patterns by location, frequency and cause. Only WIBs caused by a problem in the publicly-owned collection system must be included.
Not later than March 31 of each year, you must submit one copy of the annual report for the previous calendar year. The report may be submitted electronically using the NPDES Annual Sanitary Sewer Overflow Report available through the Ohio EPA eBusiness Center, Division of Surface Water NPDES Permit Applications service. Alternatively, you may submit one hardcopy of the report to Ohio EPA Central District Office and one copy to: Ohio EPA; Division of Surface Water; NPDES Permit Unit; P.O. Box 1049; Columbus, OH, 43216-1049. An acceptable annual SSO report can be filled-in or downloaded from the Ohio EPA Division of Surface Water Permits Program Technical Assistance Web page at: https://epa.ohio.gov/divisions-and-offices/surface-water/guides-manuals/permits-program-technical-assistance

You also must provide adequate notice to the public of the availability of the report. Adequate public notice would include: notices posted at the community administration building, the public library and the post office; a public notice in the newspaper; or a notice sent out with all sewer bills.

E. The permittee shall maintain in good working order and operate as efficiently as possible the "treatment works" and "sewerage system" as defined in ORC 6111.01 to achieve compliance with the terms and conditions of this permit and to prevent discharges to the waters of the state, surface of the ground, basements, homes, buildings, etc.

F. Composite samples shall be comprised of a series of grab samples collected over a 24-hour period and proportionate in volume to the sewage flow rate at the time of sampling. Such samples shall be collected at such times and locations, and in such a fashion, as to be representative of the facility's overall performance.

G. Grab samples shall be collected at such times and locations, and in such fashion, as to be representative of the facility's performance.

H. The treatment works must obtain at least 85 percent removal of carbonaceous biochemical oxygen demand (five-day) and suspended solids (see Part III, Item 1).

I. POTWs that accept hazardous wastes by truck, rail, or dedicated pipeline are considered to be hazardous waste treatment, storage, and disposal facilities (TSDFs) and are subject to regulation under the Resource Conservation and Recovery Act (RCRA). Under the "permit-by-rule" regulation found at 40 CFR 270.60(c), a POTW must

1) comply with all conditions of its NPDES permit,

2) obtain a RCRA ID number and comply with certain manifest and reporting requirements under RCRA,

3) satisfy corrective action requirements, and

4) meet all federal, state, and local pretreatment requirements.

J. Water quality based permit limitations in this permit may be revised based on updated wasteload allocations or use designation rules. This permit may be modified, or revoked and reissued, to include new water quality based effluent limits or other conditions that are necessary to comply with a revised wasteload allocation, or an approved total maximum daily loads (TMDL) report as required under Section 303 (d) of the Clean Water Act.

K. Sampling for these parameters at station 4PD00004001, 4PD00004601, and 4PD00004901 shall occur the same day.

L. Sampling at station 4PD00004001 for these parameters shall occur one detention time (the time it takes for a volume of water to travel through the treatment plant) after sampling at station 4PD00004601 for the same parameters on the same day.

M. Sampling at station 4PD00004601 for these parameters shall occur one detention time (the time it takes for a volume of water to travel through the treatment plant) prior to sampling at station 4PD00004001 for the same parameters on the same day.

N. All disposal, use, storage, or treatment of sewage sludge by the permittee shall comply with Chapter 6111. of the Ohio Revised Code, Chapter 3745-40 of the Ohio Administrative Code and any further requirements specified in this NPDES permit, and any other actions of the Director that pertain to the disposal, use, storage, or treatment of sewage sludge by the permittee.

O. Sewage sludge composite samples shall consist of a minimum of six grab samples collected at such times and locations, and in such fashion, as to be representative of the facility's sewage sludge.

P. No later than March 1 of each calendar year, the permittee shall submit a report summarizing the sewage sludge disposal, use, storage, or treatment activities of the permittee during the previous calendar year. The report shall be submitted through the Ohio EPA eBusiness Center/STREAMS, Division of Surface Water NPDES Permit Applications service.

Q. Each day when sewage sludge is removed from the wastewater treatment plant for use or disposal, a representative sample of sewage sludge shall be collected and analyzed for percent total solids. This value of percent total solids shall be used to calculate the total Sewage Sludge Weight (Discharge Monitoring Report code 70316) and/or total Sewage Sludge Fee Weight (Discharge Monitoring Report code 51129) removed from the treatment plant on that day. The results of the daily monitoring and the weight calculations shall be maintained on site for a minimum of five years. The test methodology used shall be from Part 2540 G of Standard Methods for the Examination of Water and Wastewater American Public Health Association, American Water Works Association, and Water Environment Federation, using the edition which is current on the issuance date of the permit. To convert from gallons of liquid sewage sludge to dry tons of sewage sludge: dry tons = gallons x 8.34 (lbs/gallon) x 0.0005 (tons/lb) x decimal fraction total solids.

R. Monitoring for Free Cyanide (low-level)

Currently there are three approved methods for free cyanide listed in 40 CFR 136 that have a quantification level lower than any water quality-based effluent limits: ASTM D7237-10, OIA-1677-09, and ASTM D4282-02. (Note: The use of ASTM D4282-02 requires supporting documentation that it meets the requirement of a "sufficiently sensitive" test procedure as defined in 40 CFR 122.44(i)(1)(iv)).The permittee shall use one of these approved methods.

S. Monitoring for Mercury (low-level)

The permittee shall use either EPA Method 1631 or EPA Method 245.7 promulgated under 40 CFR 136 to comply with the influent and effluent mercury monitoring requirements of this permit.

T. Monitoring for Dissolved Orthophosphate (as P)

The permittee shall monitor for dissolved orthophosphate by grab sample. The permittee shall filter the grab sample within 15 minutes of collection using a 0.45-micron filter. The filtered sample must be analyzed within 48 hours. Samples shall be collected at such times and locations, and in such fashion, as to be representative of the facility's overall performance.

U. Method Detection Limits

The permittee shall use analytical procedures approved under 40 CFR 136 with method detection limits (MDLs) less than or equal to those listed below to comply with the monitoring requirements for the following parameters:

Parameter	MDL (µg/L)
Copper	6.0
Selenium	2.0

V. Outfall Signage

The permittee shall maintain] a permanent marker on the stream bank at each outfall that is regulated under this NPDES permit. This includes final outfalls, bypasses, and combined sewer overflows. The sign shall include, at a minimum, the name of the establishment to which the permit was issued, the Ohio EPA permit number, and the outfall number and a contact telephone number. The information shall be printed in letters not less than two inches in height. The sign shall be a minimum of 2 feet by 2 feet and shall be a minimum of 3 feet above ground level. The sign shall not be obstructed such that persons in boats or persons swimming on the river or someone fishing or walking along the shore cannot read the sign. Vegetation shall be periodically removed to keep the sign visible. If the outfall is normally submerged the sign shall indicate that. If the outfall is a combined sewer outfall, the sign shall indicate that untreated human sewage may be discharged from the outfall during wet weather and that harmful bacteria may be present in the water. When an existing sign is replaced or reset, the new sign shall comply with the requirements of this section.

W. Notification to Public Water Supply Operators

1. As required by the Ohio Administrative Code 3745-33-08(F), permits for facilities designated by the director as major discharges, in the following locations, shall require the permittee to notify the public water supply operator as soon as practicable after a discharge begins that results from a spill, separate sewer overflow, bypass, upset, or combined sewer overflow that reaches waters of the state:

a. Discharges within three thousand feet of a public water supply intake located in a lake; or

b. Discharges within ten stream miles upstream of a public water supply intake located in a reservoir or any other surface water of the state.

2. Public water supply operators meeting the criteria in Part II, Item X.1 above for the Upper Olentangy WRC are:

Del-Co Water Co.
6658 Olentangy River Road Delaware, Ohio 43015
Phone: 740-548-7746
Phone: 1-800-521-6779
Fax: 740-548-6203

3. The permittee shall maintain notification procedures between the wastewater system operator and public water supply operator[s] listed above in Part II, Item X.2 that defines the specific notification requirements to the public water supply operator and what constitutes notification "as soon as practicable".

X. Storm water

To comply with industrial storm water regulations, the permittee submitted a form for "No Exposure Certification" which was signed on September 10. 2018. Compliance with the industrial storm water regulations must be re-affirmed every five years. No later than September 10, 2023, the permittee must submit a new form for "No Exposure Certification" or make other provisions to comply with the industrial storm water regulations.

Y. Pretreatment Program Requirements

The permittee's pretreatment program initially approved on November 30, 1984 and all subsequent modifications approved before the effective date of this permit, shall be an enforceable term and condition of this permit.

To ensure that the approved program is implemented in accordance with 40 CFR 403, Chapter 3745-3 of Ohio Administrative Code and Chapter 6111 of the Ohio Revised Code, the permittee shall comply with the following conditions:

1. Legal Authority

The permittee shall adopt and maintain legal authority which enables it to fully implement and enforce all aspects of its approved pretreatment program including the identification and characterization of industrial sources, issuance of control documents, compliance monitoring and reporting, and enforcement.

The permittee shall establish agreements with all contributing jurisdictions, as necessary, to enable the permittee to fulfill its requirements with respect to industrial users discharging to its system.

2. Funding

The permittee shall have sufficient resources and qualified personnel to fully implement all aspects of its approved pretreatment program.

3. Industrial User Inventory

The permittee shall identify all industrial users subject to pretreatment standards and requirements and characterize the nature and volume of pollutants in their wastewater. Dischargers determined to be Significant Industrial Users according to OAC 3745-3-01 must be notified of applicable pretreatment standards and requirements within 30 days of making such a determination. This inventory shall be updated at a frequency to ensure proper identification and characterization of industrial users.

4. Slug Load Control Plans for Significant Industrial Users

The permittee shall evaluate the need for a plan, device or structure to control a potential slug discharge at least once during the term of each significant industrial user's control mechanism. Existing significant industrial users shall be evaluated within one year of the effective date of this permit if the users have never been evaluated. New industrial users identified as significant industrial users shall be evaluated within one year of being identified as a significant industrial user.

5. Local Limits

The permittee shall develop and enforce technically based local limits to prevent the introduction of pollutants into the POTW which will interfere with the operation of the POTW, pass through the treatment works, be incompatible with the treatment works, or limit wastewater or sludge use options.

The permittee shall use the following waste load allocation values when evaluating local limits for the following pollutants for which a final effluent limit has not been established:

Arsenic 150 ug/L
Cadmium 4.3 ug/L
Chromium, hexavalent 11 ug/L
Chromium, total 150 ug/L
Copper 17 ug/L
Free Cyanide 12 ug/L
Lead 16 ug/L
Mercury 12 ng/L
Molybdenum 20000 ug/L
Nickel 95 ug/L
Selenium 5 ug/L
Silver 1.3 ug/L
Zinc 220 ug/L

For the purpose of periodically reevaluating local limits, the permittee shall implement and maintain a sampling program to characterize pollutant contribution to the POTW from industrial and residential sources and to determine pollutant removal efficiencies through the POTW. The permittee shall continue to review and develop local limits as necessary.

6. Control Mechanisms

The permittee shall issue control mechanisms to all industries determined to be Significant Industrial Users as defined in OAC 3745-3-01. Control mechanisms must meet at least the minimum requirements of OAC-3745-3-03(C)(1)(c).

7. Industrial Compliance Monitoring

The permittee shall sample and inspect industrial users in accordance with the approved program or

approved modifications, including inspection and sampling of all significant industrial users at least annually. Sample collection, preservation and analysis must be performed in accordance with procedures in 40 CFR 136 and with sufficient care to produce evidence admissible in judicial enforcement proceedings.

The permittee shall also require, receive, and review self-monitoring and other industrial user reports when necessary to determine compliance with pretreatment standards and requirements. If the permittee performs sampling and analysis in lieu of an industrial user's self-monitoring, the permittee shall perform repeat sampling and analysis within 30 days of becoming aware of a permit violation, unless the permittee notifies the user of the violation and requires the user to perform the repeat analysis and reporting.

8. POTW Priority Pollutant Monitoring

The permittee shall annually monitor priority pollutants, as defined by U.S. EPA, in the POTW's influent, effluent and sludge. Sample collection, preservation, and analysis shall be performed using U.S. EPA approved methods.

a. A sample of the influent and the effluent shall be collected when industrial discharges are occurring at normal to maximum levels. Sampling of the influent shall be done prior to any recycle streams and sampling of the effluent shall be after disinfection. Both samples shall be collected on the same day or, alternately, the effluent sample may be collected following the influent sample by approximately the retention time of the POTW.

Sampling of sludge shall be representative of sludge removed to final disposal. A minimum of one grab sample shall be taken during actual sludge removal and disposal unless the POTW uses more than one disposal option. If multiple disposal options are used, the POTW shall collect a composite of grab samples from all disposal practices which are proportional to the annual flows to each type of disposal.

b. The results of these samples must be submitted on Ohio EPA Form 4221 with the permittee's annual pretreatment report. Samples may be collected at any time during the 12 months preceding the due date of the annual report and may be used to fulfill other NPDES monitoring requirements where applicable.

9. Enforcement

The permittee shall investigate all instances of noncompliance with pretreatment standards and requirements and take timely, appropriate, and effective enforcement action to resolve the noncompliance in accordance with the permittee's approved enforcement response plan.
On or prior to August 15th of each year, the permittee shall publish, in a newspaper of general circulation that provides meaningful public notice within the jurisdiction served by the permittee, a list of industrial users which, during the previous 12 months, have been in Significant Noncompliance [OAC 3745-3-03(C)(2)(h)] with applicable pretreatment standards or requirements.

10. Reporting

All reports required under this section shall be submitted through Ohio EPA's eBusiness Center/STREAMS, Division of Surface Water NPDES Permit Applications services. The Ohio EPA eBusiness Center can be found in the link: https://ebiz.epa.ohio.gov/login.html

a. Quarterly Industrial User Violation Report

On or prior to the 15th day of January, April, July and October, the permittee shall report the industrial users that are in violation of applicable pretreatment standards during the previous quarter. The report shall be prepared in accordance with guidance provided by Ohio EPA and shall include a description of all industrial user violations and corrective actions taken to resolve the violations.

b. Annual Pretreatment Report

On or prior to October 15th of each year, the permittee shall submit an annual report on the effectiveness of the pretreatment program. The report shall be prepared in accordance with guidance provided by Ohio EPA and shall include, but not be limited to: a discussion of program effectiveness; an industrial user inventory; a description of the permittee's monitoring program; a description of any pass through or interference incidents; a copy of the annual publication of industries in Significant Noncompliance; and, priority pollutant monitoring results.

11. Record Keeping

All records of pretreatment activities including, but not limited to, industrial inventory data, monitoring results, enforcement actions, and reports submitted by industrial users must be maintained for a minimum of three (3) years. This period of retention shall be extended during the course of any unresolved litigation. Records must be made available to Ohio EPA and U.S. EPA upon request.

12. Program Modifications

Any proposed modifications of the approved pretreatment program must be submitted to Ohio EPA for review, on forms available from Ohio EPA and consistent with guidance provided by Ohio EPA. If the modification is deemed to be substantial, prior approval must be obtained before implementation; otherwise, the modification is considered to be effective 45 days after the date of application. Substantial program modifications include, among other things, changes to the POTW's legal authority, industrial user control mechanisms, local limits, confidentiality procedures, or monitoring frequencies.

Z. Biomonitoring Program Requirements

The permittee shall continue to implement an effluent biomonitoring program to determine the toxicity of the effluent from outfall 4PD00004001.

General Requirements

All toxicity testing conducted as required by this permit shall be done in accordance with "Reporting and Testing Guidance for Biomonitoring Required by the Ohio Environmental Protection Agency" (hereinafter, the "biomonitoring guidance"), Ohio EPA, July 1998 (or current revision). The Standard Operating Procedures (SOP) or verification of SOP submittal, as described in Section 1.B. of the biomonitoring guidance shall be submitted no later than three months after the effective date of this permit. If the laboratory performing the testing has modified its protocols, a new SOP is required.
Testing Requirements
1. Chronic Bioassays

The permittee shall conduct annual chronic toxicity tests using water fleas (Ceriodaphnia dubia) and fathead minnows (Pimephales promelas) on effluent samples from outfall 4PD00004001. These tests shall be conducted as specified in Section 3 of the biomonitoring guidance.

2. Acute Bioassays

Acute endpoints, as described in Section 2.H. of the biomonitoring guidance, shall be derived from the chronic test.

3. Testing of Ambient Water

In conjunction with the acute and chronic toxicity tests, upstream control water shall be collected at a point outside the zone of effluent and receiving water interaction at station 4PD00004801. Testing of ambient waters shall be done in accordance with Sections 2 and 3 of the biomonitoring guidance.

4. Data Review

a. Reporting

Following completion of each annual bioassay requirement, the permittee shall report results of the tests in accordance with Sections 2.H.1., 2.H.2.a., 3.H.1., and 3.H.2.a. of the biomonitoring guidance, including reporting the results on the monthly DMR and submitting a copy of the complete test report to Ohio EPA, Division of Surface Water. The test report may be submitted electronically using the acute or chronic NPDES Biomonitoring Report Form available through the Ohio EPA eBusiness Center, Division of Surface Water NPDES Permit Applications service. Alternatively, the permittee may submit a hard copy of the report to Ohio EPA, Division of Surface Water, NPDES Permit Unit, P.O. Box 1049, Columbus, OH, 43216-1049.

Based on Ohio EPA's evaluation of the results, this permit may be modified to require additional biomonitoring, require a toxicity reduction evaluation, and/or contain whole effluent toxicity limits.

b. Definitions

TUa = Acute Toxicity Units = 100/LC50

TUc = Chronic Toxicity Units = 100/IC25

This equation for chronic toxicity units applies outside the mixing zone for warmwater, modified warmwater, exceptional warmwater, coldwater, and seasonal salmonid use designations except when the following equation is more restrictive (Ceriodaphnia dubia only):

TUc = Chronic Toxic Units = 100/square root of (NOEC x LOEC)

PART III - GENERAL CONDITIONS

1. DEFINITIONS

"Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

"Average weekly" discharge limitation means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week. Each of the following 7-day periods is defined as a calendar week: Week 1 is Days 1 - 7 of the month; Week 2 is Days 8 - 14; Week 3 is Days 15 - 21; and Week 4 is Days 22 - 28. If the "daily discharge" on days 29, 30 or 31 exceeds the "average weekly" discharge limitation, Ohio EPA may elect to evaluate the last 7 days of the month as Week 4 instead of Days 22 - 28. Compliance with fecal coliform bacteria or *E.coli* bacteria limitations shall be determined using the geometric mean.

"Average monthly" discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. Compliance with fecal coliform bacteria or E coli bacteria limitations shall be determined using the geometric mean.

"85 percent removal" means the arithmetic mean of the values for effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period.

"Absolute Limitations" Compliance with limitations having descriptions of "shall not be less than," "nor greater than," "shall not exceed," "minimum," or "maximum" shall be determined from any single value for effluent samples and/or measurements collected.

"Net concentration" shall mean the difference between the concentration of a given substance in a sample taken of the discharge and the concentration of the same substances in a sample taken at the intake which supplies water to the given process. For the purpose of this definition, samples that are taken to determine the net concentration shall always be 24-hour composite samples made up of at least six increments taken at regular intervals throughout the plant day.

"Net Load" shall mean the difference between the load of a given substance as calculated from a sample taken of the discharge and the load of the same substance in a sample taken at the intake which supplies water to given process. For purposes of this definition, samples that are taken to determine the net loading shall always be 24-hour composite samples made up of at least six increments taken at regular intervals throughout the plant day.

"MGD" means million gallons per day.

"mg/l" means milligrams per liter.

"ug/l" means micrograms per liter.

"ng/l" means nanograms per liter.

"S.U." means standard pH unit.

"kg/day" means kilograms per day.

"Reporting Code" is a five digit number used by the Ohio EPA in processing reported data. The reporting code does not imply the type of analysis used nor the sampling techniques employed.

"Quarterly (1/Quarter) sampling frequency" means the sampling shall be done in the months of March, June, August, and December, unless specifically identified otherwise in the Effluent Limitations and Monitoring Requirements table. "Yearly (1/Year) sampling frequency" means the sampling shall be done in the month of September, unless specifically identified otherwise in the effluent limitations and monitoring requirements table.

"Semi-annual (2/Year) sampling frequency" means the sampling shall be done during the months of June and December, unless specifically identified otherwise.

"Winter" shall be considered to be the period from November 1 through April 30.

"Bypass" means the intentional diversion of waste streams from any portion of the treatment facility.

"Summer" shall be considered to be the period from May 1 through October 31.

"Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

"Sewage sludge" means a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works as defined in section 6111.01 of the Revised Code. "Sewage sludge" includes, but is not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment processes. "Sewage sludge" does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator, grit and screenings generated during preliminary treatment of domestic sewage in a treatment works, animal manure, residue generated during treatment of animal manure, or domestic septage.

"Sewage sludge weight" means the weight of sewage sludge, in dry U.S. tons, including admixtures such as liming materials or bulking agents. Monitoring frequencies for sewage sludge parameters are based on the reported sludge weight generated in a calendar year (use the most recent calendar year data when the NPDES permit is up for renewal).

"Sewage sludge fee weight" means the weight of sewage sludge, in dry U.S. tons, excluding admixtures such as liming materials or bulking agents. Annual sewage sludge fees, as per section 3745.11(Y) of the Ohio Revised Code, are based on the reported sludge fee weight for the most recent calendar year.

2. GENERAL EFFLUENT LIMITATION

The effluent shall, at all times, be free of substances:

A. In amounts that will settle to form putrescent, or otherwise objectionable, sludge deposits; or that will adversely affect aquatic life or water fowl;

B. Of an oily, greasy, or surface-active nature, and of other floating debris, in amounts that will form noticeable accumulations of scum, foam, or sheen;

C. In amounts that will alter the natural color or odor of the receiving water to such degree as to create a nuisance;

D. In amounts that either singly or in combination with other substances are toxic to human, animal, or aquatic life;

E. In amounts that are conducive to the growth of aquatic weeds or algae to the extent that such growth become inimical to more desirable forms of aquatic life, or create conditions that are unsightly, or constitute a nuisance in any other fashion;

F. In amounts that will impair designated instream or downstream water uses

3. FACILITY OPERATION AND QUALITY CONTROL

All wastewater treatment works shall be operated in a manner consistent with the following:

A. At all times, the permittee shall maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee necessary to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with conditions of the permit.

B. The permittee shall effectively monitor the operation and efficiency of treatment and control facilities and the quantity and quality of the treated discharge.

C. Maintenance of wastewater treatment works that results in degradation of effluent quality shall be scheduled during non-critical water quality periods and shall be carried out in a manner approved by Ohio EPA as specified in the Paragraph in the PART III entitled, "UNAUTHORIZED DISCHARGES".

4. REPORTING

A. Monitoring data required by this permit shall be submitted monthly on Ohio EPA 4500 Discharge Monitoring Report (DMR) forms using the electronic DMR (e-DMR) internet application. e-DMR allows permitted facilities to enter, sign, and submit DMRs on the internet. e-DMR information is found on the following web page:

https://epa.ohio.gov/divisions-and-offices/surface-water/permitting/electronic-business-services

B. DMRs shall be signed by a facility's Responsible Official or a Delegated Responsible Official (i.e. a person delegated by the Responsible Official). The Responsible Official of a facility is defined as:

1. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (a) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or (b) The manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

3. In the case of a municipal, state or other public facility, by either the principal executive officer, the ranking elected official or other duly authorized employee.

For e-DMR, the person signing and submitting the DMR will need to obtain an eBusiness Center account and Personal Identification Number (PIN). Additionally, Delegated Responsible Officials must be delegated by the Responsible Official, either on-line using the eBusiness Center's delegation function, or on a paper delegation form provided by Ohio EPA. For more information on the PIN and delegation processes, please view the following web page:

https://epa.ohio.gov/divisions-and-offices/surface-water/guides-manuals/edmr-pin-information-and-application

C. DMRs submitted using e-DMR shall be submitted to Ohio EPA by the 20th day of the month following the month-of-interest.

D. If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified in Section 5. SAMPLING AND ANALYTICAL METHODS, the results of such monitoring shall be included in the calculation and reporting of the values required in the reports specified above.

E. Analyses of pollutants not required by this permit, except as noted in the preceding paragraph, shall not be reported to the Ohio EPA, but records shall be retained as specified in Section 7. RECORDS RETENTION.

5. SAMPLING AND ANALYTICAL METHOD

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored flow. Test procedures for the analysis of pollutants shall conform to regulation 40 CFR 136, "Test Procedures For The Analysis of Pollutants" unless other test procedures have been specified in this permit. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

6. RECORDING OF RESULTS

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

A. The exact place and date of sampling; (time of sampling not required on EPA 4500)

B. The person(s) who performed the sampling or measurements;

C. The date the analyses were performed on those samples;

D. The person(s) who performed the analyses;

E. The analytical techniques or methods used; and

F. The results of all analyses and measurements.

7. RECORDS RETENTION

The permittee shall retain all of the following records for the wastewater treatment works for a minimum of three years except those records that pertain to sewage sludge disposal, use, storage, or treatment, which shall be kept for a minimum of five years, including:

A. All sampling and analytical records (including internal sampling data not reported);

B. All original recordings for any continuous monitoring instrumentation;

C. All instrumentation, calibration and maintenance records;

D. All plant operation and maintenance records;

E. All reports required by this permit; and

F. Records of all data used to complete the application for this permit for a period of at least three years, or five years for sewage sludge, from the date of the sample, measurement, report, or application.

These periods will be extended during the course of any unresolved litigation, or when requested by the Regional Administrator or the Ohio EPA. The three year period, or five year period for sewage sludge, for retention of records shall start from the date of sample, measurement, report, or application.

8. AVAILABILITY OF REPORTS

Except for data determined by the Ohio EPA to be entitled to confidential status, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the appropriate district offices of the Ohio EPA. Both the Clean Water Act and Section 6111.05 Ohio Revised Code state that effluent data and receiving water quality data shall not be considered confidential.

9. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

10. RIGHT OF ENTRY

The permittee shall allow the Director or an authorized representative upon presentation of credentials and other documents as may be required by law to:

A. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.

B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit.

C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.

D. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

11. UNAUTHORIZED DISCHARGES

A. Bypass Not Exceeding Limitations - The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 11.B and 11.C.

B. Notice

1. Anticipated Bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

2. Unanticipated Bypass - The permittee shall submit notice of an unanticipated bypass as required in paragraph 12.B (24 hour notice).

C. Prohibition of Bypass

1. Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. The permittee submitted notices as required under paragraph 11.B.

2. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 11.C.1.

12. NONCOMPLIANCE NOTIFICATION

A. Exceedance of a Daily Maximum Discharge Limit

1. The permittee shall report noncompliance that is the result of any violation of a daily maximum discharge limit for any of the pollutants listed by the Director in the permit by e-mail or telephone within twenty-four (24) hours of discovery.

The permittee may report to the appropriate Ohio EPA district office e-mail account as follows (this method is preferred):

Southeast District Office: sedo24hournpdes@epa.ohio.gov
Southwest District Office: swdo24hournpdes@epa.ohio.gov
Northwest District Office: nwdo24hournpdes@epa.ohio.gov
Northeast District Office: nedo24hournpdes@epa.ohio.gov
Central District Office: cdo24hournpdes@epa.ohio.gov
Central Office: co24hournpdes@epa.ohio.gov

The permittee shall attach a noncompliance report to the e-mail. A noncompliance report form is available on the following web site under the Monitoring and Reporting - Non-Compliance Notification section:

https://epa.ohio.gov/divisions-and-offices/surface-water/permitting/individual-wastewater-discharge-permits

Or, the permittee may report to the appropriate Ohio EPA district office by telephone toll-free between 8:00 AM and 5:00 PM as follows:

Southeast District Office: (800) 686-7330
Southwest District Office: (800) 686-8930
Northwest District Office: (800) 686-6930
Northeast District Office: (800) 686-6330
Central District Office: (800) 686-2330
Central Office: (614) 644-2001

The permittee shall include the following information in the telephone noncompliance report:

a. The name of the permittee, and a contact name and telephone number;

b. The limit(s) that has been exceeded;

c. The extent of the exceedance(s);

d. The cause of the exceedance(s);

e. The period of the exceedance(s) including exact dates and times;

f. If uncorrected, the anticipated time the exceedance(s) is expected to continue; and,

g. Steps taken to reduce, eliminate or prevent occurrence of the exceedance(s).

B. Other Permit Violations

1. The permittee shall report noncompliance that is the result of any unanticipated bypass resulting in an exceedance of any effluent limit in the permit or any upset resulting in an exceedance of any effluent limit

in the permit by e-mail or telephone within twenty-four (24) hours of discovery.

The permittee may report to the appropriate Ohio EPA district office e-mail account as follows (this method is preferred):

Southeast District Office: sedo24hournpdes@epa.ohio.gov
Southwest District Office: swdo24hournpdes@epa.ohio.gov
Northwest District Office: nwdo24hournpdes@epa.ohio.gov
Northeast District Office: nedo24hournpdes@epa.ohio.gov
Central District Office: cdo24hournpdes@epa.ohio.gov
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Central District Office: (800) 686-2330
Central Office: (614) 644-2001

The permittee shall include the following information in the telephone noncompliance report:

a. The name of the permittee, and a contact name and telephone number;

b. The time(s) at which the discharge occurred, and was discovered;

c. The approximate amount and the characteristics of the discharge;

d. The stream(s) affected by the discharge;

e. The circumstances which created the discharge;

f. The name and telephone number of the person(s) who have knowledge of these circumstances;

g. What remedial steps are being taken; and,

h. The name and telephone number of the person(s) responsible for such remedial steps.

2. The permittee shall report noncompliance that is the result of any spill or discharge which may endanger human health or the environment within thirty (30) minutes of discovery by calling the 24-Hour Emergency Hotline toll-free at (800) 282-9378. The permittee shall also report the spill or discharge by e-mail or telephone within twenty-four (24) hours of discovery in accordance with B.1 above.

C. When the telephone option is used for the noncompliance reports required by A and B, the permittee shall submit to the appropriate Ohio EPA district office a confirmation letter and a completed noncompliance report within five (5) days of the discovery of the noncompliance. This follow up report is not necessary for the e-mail option which already includes a completed noncompliance report.

D. If the permittee is unable to meet any date for achieving an event, as specified in a schedule of compliance in their permit, the permittee shall submit a written report to the appropriate Ohio EPA district office within fourteen (14) days of becoming aware of such a situation. The report shall include the following:

1. The compliance event which has been or will be violated;

2. The cause of the violation;

3. The remedial action being taken;

4. The probable date by which compliance will occur; and,

5. The probability of complying with subsequent and final events as scheduled.

E. The permittee shall report all other instances of permit noncompliance not reported under paragraphs A or B of this section on their monthly DMR submission. The DMR shall contain comments that include the information listed in paragraphs A or B as appropriate.

F. If the permittee becomes aware that it failed to submit an application, or submitted incorrect information in an application or in any report to the director, it shall promptly submit such facts or information.

13. RESERVED

14. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

15. AUTHORIZED DISCHARGES

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than, or at a level in excess of, that authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such violations may result in the imposition of civil and/or criminal penalties as provided for in Section 309 of the Act and Ohio Revised Code Sections 6111.09 and 6111.99.

16. DISCHARGE CHANGES

The following changes must be reported to the appropriate Ohio EPA district office as soon as practicable:

A. For all treatment works, any significant change in character of the discharge which the permittee knows or has reason to believe has occurred or will occur which would constitute cause for modification

or revocation and reissuance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. Notification of permit changes or anticipated noncompliance does not stay any permit condition.

B. For publicly owned treatment works:

1. Any proposed plant modification, addition, and/or expansion that will change the capacity or efficiency of the plant;

2. The addition of any new significant industrial discharge; and

3. Changes in the quantity or quality of the wastes from existing tributary industrial discharges which will result in significant new or increased discharges of pollutants.

C. For non-publicly owned treatment works, any proposed facility expansions, production increases, or process modifications, which will result in new, different, or increased discharges of pollutants.

Following this notice, modifications to the permit may be made to reflect any necessary changes in permit conditions, including any necessary effluent limitations for any pollutants not identified and limited herein. A determination will also be made as to whether a National Environmental Policy Act (NEPA) review will be required. Sections 6111.44 and 6111.45, Ohio Revised Code, require that plans for treatment works or improvements to such works be approved by the Director of the Ohio EPA prior to initiation of construction.

D. In addition to the reporting requirements under 40 CFR 122.41(l) and per 40 CFR 122.42(a), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

1. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis of any toxic pollutant which is not limited in the permit. If that discharge will exceed the highest of the "notification levels" specified in 40 CFR Sections 122.42(a)(1)(i) through 122.42(a)(1)(iv).

2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" specified in 122.42(a)(2)(i) through 122.42(a)(2)(iv).

17. TOXIC POLLUTANTS

The permittee shall comply with effluent standards or prohibitions established under Section 307 (a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement. Following establishment of such standards or prohibitions, the Director shall modify this permit and so notify the permittee.

18. PERMIT MODIFICATION OR REVOCATION

A. After notice and opportunity for a hearing, this permit may be modified or revoked, by the Ohio EPA, in whole or in part during its term for cause including, but not limited to, the following:

1. Violation of any terms or conditions of this permit;

2. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

3. Change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

B. Pursuant to rule 3745-33-04, Ohio Administrative Code, the permittee may at any time apply to the Ohio EPA for modification of any part of this permit. The filing of a request by the permittee for a permit modification or revocation does not stay any permit condition. The application for modification should be received by the appropriate Ohio EPA district office at least ninety days before the date on which it is desired that the modification become effective. The application shall be made only on forms approved by the Ohio EPA.

19. TRANSFER OF OWNERSHIP OR CONTROL

This permit may be transferred or assigned and a new owner or successor can be authorized to discharge from this facility, provided the following requirements are met:

A. The permittee shall notify the succeeding owner or successor of the existence of this permit by a letter, a copy of which shall be forwarded to the appropriate Ohio EPA district office. The copy of that letter will serve as the permittee's notice to the Director of the proposed transfer. The copy of that letter shall be received by the appropriate Ohio EPA district office sixty (60) days prior to the proposed date of transfer;

B. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current and new permittee (including acknowledgement that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on) shall be submitted to the appropriate Ohio EPA district office within sixty days after receipt by the district office of the copy of the letter from the permittee to the succeeding owner;

At any time during the sixty (60) day period between notification of the proposed transfer and the effective date of the transfer, the Director may prevent the transfer if he concludes that such transfer will jeopardize compliance with the terms and conditions of the permit. If the Director does not prevent transfer, he will modify the permit to reflect the new owner.

20. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

21. SOLIDS DISPOSAL

Collected grit and screenings, and other solids other than sewage sludge, shall be disposed of in such a manner as to prevent entry of those wastes into waters of the state, and in accordance with all applicable laws and rules.

22. CONSTRUCTION AFFECTING NAVIGABLE WATERS

This permit does not authorize or approve the construction of any onshore or offshore physical structures

or facilities or the undertaking of any work in any navigable waters.

23. CIVIL AND CRIMINAL LIABILITY

Except as exempted in the permit conditions on UNAUTHORIZED DISCHARGES or UPSETS, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

24. STATE LAWS AND REGULATIONS

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Clean Water Act.

25. PROPERTY RIGHTS

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

26. UPSET

The provisions of 40 CFR Section 122.41(n), relating to "Upset," are specifically incorporated herein by reference in their entirety. For definition of "upset," see Part III, Paragraph 1, DEFINITIONS.

27. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

28. SIGNATORY REQUIREMENTS

All applications submitted to the Director shall be signed and certified in accordance with the requirements of 40 CFR 122.22.

All reports submitted to the Director shall be signed and certified in accordance with the requirements of 40 CFR Section 122.22.

29. OTHER INFORMATION

A. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

B. ORC 6111.99 provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $25,000 per violation.

C. ORC 6111.99 states that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit

including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $25,000 per violation.

D. ORC 6111.99 provides that any person who violates Sections 6111.04, 6111.042, 6111.05, or division (A) of Section 6111.07 of the Revised Code shall be fined not more than $25,000 or imprisoned not more than one year, or both.

30. NEED TO HALT OR REDUCE ACTIVITY

40 CFR 122.41(c) states that it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with conditions of this permit.

31. APPLICABLE FEDERAL RULES

All references to 40 CFR in this permit mean the version of 40 CFR which is effective as of the effective date of this permit.

32. AVAILABILITY OF PUBLIC SEWERS

Notwithstanding the issuance or non-issuance of an NPDES permit to a semi-public disposal system, whenever the sewage system of a publicly owned treatment works becomes available and accessible, the permittee operating any semi-public disposal system shall abandon the semi-public disposal system and connect it into the publicly owned treatment works.

National Pollutant Discharge Elimination System (NPDES) Permit Program

FACT SHEET

Regarding an NPDES Permit to Discharge to Waters of the State of Ohio
for **Upper Olentangy Water Reclamation Center (WRC)**

Public Notice No.: 172051
Public Notice Date: January 17, 2023
Comment Period Ends: February 16, 2023

Ohio EPA Permit No.: **4PD00004*PD**
Application No.: **OH0024911**

Name and Address of Applicant:
City of Delaware
Municipal Building
1 South Sandusky Street
Delaware, OH 43015

Name and Address of Facility Where Discharge Occurs:
Upper Olentangy WRC
225 Cherry Street
Delaware, OH 43015
Delaware County

Receiving Water: **Olentangy River**

Subsequent Stream Network: **Scioto River to Ohio River**

INTRODUCTION

Development of a Fact Sheet for NPDES permits is mandated by Title 40 of the Code of Federal Regulations (CFR), Section 124.8 and 124.56. This document fulfills the requirements established in those regulations by providing the information necessary to inform the public of actions proposed by the Ohio Environmental Protection Agency (Ohio EPA), as well as the methods by which the public can participate in the process of finalizing those actions.

This Fact Sheet is prepared in order to document the technical basis and risk management decisions that are considered in the determination of water quality based NPDES Permit effluent limitations. The technical basis for the Fact Sheet may consist of evaluations of promulgated effluent guidelines, existing effluent quality, instream biological, chemical and physical conditions, and the relative risk of alternative effluent limitations. This Fact Sheet details the discretionary decision-making process empowered to the Director by the Clean Water Act (CWA) and Ohio Water Pollution Control Law (Ohio Revised Code [ORC] 6111). Decisions to award variances to Water Quality Standards (WQS) or promulgated effluent guidelines for economic or technological reasons will also be justified in the Fact Sheet where necessary.

Antidegradation provisions in Ohio Administrative Code (OAC) Chapter 3745-1 describe the conditions under which water quality may be lowered in surface waters. No antidegradation review was necessary.

Effluent limits based on available treatment technologies are required by Section 301(b) of the CWA. Many of these have already been established by the United States Environmental Protection Agency (U.S. EPA) in the effluent guideline regulations (a.k.a. categorical regulations) for industry categories in 40 CFR Parts 405-499. Technology-based regulations for publicly-owned treatment works are listed in the Secondary Treatment Regulations (40 CFR Part 133). If regulations have not been established for a category of dischargers, the director may establish technology-based limits based on best professional judgment (BPJ).

Ohio EPA reviews the need for water-quality-based limits on a pollutant-by-pollutant basis. Wasteload allocations (WLAs) are used to develop these limits based on the pollutants that have been detected in the discharge, and the receiving water's assimilative capacity. The assimilative capacity depends on the flow in the water receiving the discharge, and the concentration of the pollutant upstream. The greater the upstream flow, and the lower the upstream concentration, the greater the assimilative capacity is. Assimilative capacity may represent dilution (as in allocations for metals), or it may also incorporate the break-down of pollutants in the receiving water (as in allocations for oxygen-demanding materials).

The need for water-quality-based limits is determined by comparing the WLA for a pollutant to a measure of the effluent quality. The measure of effluent quality is called Projected Effluent Quality (PEQ). This is a statistical measure of the average and maximum effluent values for a pollutant. As with any statistical method, the more data that exists for a given pollutant, the more likely that PEQ will match the actual observed data. If there is a small data set for a given pollutant, the highest measured value is multiplied by a statistical factor to obtain a PEQ; for example if only one sample exists, the factor is 6.2, for two samples - 3.8, for three samples - 3.0. The factors continue to decline as samples sizes increase. These factors are intended to account for effluent variability, but if the pollutant concentrations are fairly constant, these factors may make PEQ appear larger than it would be shown to be if more sample results existed.

SUMMARY OF PERMIT CONDITIONS

The effluent limits and/or monitoring requirements proposed for all parameters are the same as in the current permit, except those listed below.

New monitoring is proposed for selenium because the detected values in the pretreatment program data triggered monitoring requirements under Ohio Rule OAC 3745-33-07(A).

Limits are proposed to be removed for copper because the discharge no longer has the reasonable potential to contribute to exceedances of WQS. Monitoring is proposed to continue.

Monitoring requirements are proposed to be removed for lindane and strontium because lindane has not been detected in the effluent during the last permit cycle. Strontium monitoring has been removed because the detected values no longer trigger monitoring requirements under OAC 3745-33-07(A) due to the approval of higher strontium WQS.

Upstream monitoring requirements for temperature, dissolved oxygen and pH are proposed to be removed because the data is not used in water quality assessments. For the same reason downstream monitoring for dissolved oxygen would be removed. Upstream/downstream monitoring requirements for E. Coli. have been revised to obtain better monitoring data during the prime recreation months.

Annual chronic toxicity monitoring with the determination of acute endpoints monitoring is proposed for the life of the permit. This satisfies the minimum testing requirements of Ohio Administrative Code (OAC) 3754-33-07(B)(11) and will adequately characterize toxicity in the plant's effluent.

In Part II of the permit, special conditions are included that address sanitary sewer overflow (SSO) reporting; operator certification, minimum staffing and operator of record; whole effluent toxicity (WET) testing; storm water compliance; pretreatment program requirements; downstream public water supply notification; supplemental effluent data; and outfall signage.

Table of Contents

List of Figures

List of Tables

List of Attachments

List of Addendums

PROCEDURES FOR PARTICIPATION IN THE FORMULATION OF FINAL DETERMINATIONS

The draft action shall be issued as a final action unless the Director revises the draft after consideration of the record of a public meeting or written comments, or upon disapproval by the Administrator of the U.S. Environmental Protection Agency.

Within thirty days of the date of the Public Notice, any person may request or petition for a public meeting for presentation of evidence, statements or opinions. The purpose of the public meeting is to obtain additional evidence. Statements concerning the issues raised by the party requesting the meeting are invited. Evidence may be presented by the applicant, the state, and other parties, and following presentation of such evidence other interested persons may present testimony of facts or statements of opinion.

Requests for public meetings shall be in writing and shall state the action of the Director objected to, the questions to be considered, and the reasons the action is contested. Such requests should be emailed to HClerk@epa.ohio.gov or mailed to:

Legal Records Section
Ohio Environmental Protection Agency
P.O. Box 1049
Columbus, Ohio 43216-1049

Interested persons are invited to submit written comments upon the discharge permit. Comments should be submitted by email to epa.dswcomments@epa.ohio.gov (preferred method) or delivered in person or by mail no later than 30 days after the date of this Public Notice. Deliver or mail all comments to:

Ohio Environmental Protection Agency
Attention: Division of Surface Water
Permits Processing Unit
P.O. Box 1049
Columbus, Ohio 43216-1049

The Ohio EPA permit number and Public Notice numbers should appear on each page of any submitted comments. All comments received no later than 30 days after the date of the Public Notice will be considered.

Citizens may conduct file reviews regarding specific companies or sites. Appointments are necessary to conduct file reviews, because requests to review files have increased dramatically in recent years. The first 250 pages copied are free. For requests to copy more than 250 pages, there is a five-cent charge for each page copied. Payment is required by check or money order, made payable to Treasurer State of Ohio.

For additional information about this fact sheet or the draft permit, contact Eric Nygaard at 614-644-2024 (eric.nygaard@epa.ohio.gov).

INFORMATION REGARDING CERTAIN WATER QUALITY BASED EFFLUENT LIMITS

This draft permit may contain proposed water-quality-based effluent limits (WQBELs) for parameters that **are not** priority pollutants. (See the following link for a list of the priority pollutants: https://epa.ohio.gov/static/Portals/35/pretreatment/Pretreatment_Program_Priority_Pollutant_Detection_Limits.pdf.) In accordance with ORC 6111.03(J)(3), the Director established these WQBELs after considering, to the extent consistent with the Federal Water Pollution Control Act, evidence relating to the technical feasibility and economic reasonableness of removing the polluting properties from those wastes and to evidence relating to conditions calculated to result from that action and their relation to benefits to the people of the state and to

accomplishment of the purposes of this chapter. This determination was made based on data and information available at the time the permit was drafted, which included the contents of the timely submitted NPDES permit renewal application, along with any and all pertinent information available to the Director.

This public notice allows the permittee to provide to the Director for consideration during this public comment period additional site-specific pertinent and factual information with respect to the technical feasibility and economic reasonableness for achieving compliance with the proposed final effluent limitations for these parameters. The permittee shall email to epa.dswcomments@epa.ohio.gov (preferred method) or deliver or mail this information to:

Ohio Environmental Protection Agency
Attention: Division of Surface Water
Permits Processing Unit
P.O. Box 1049
Columbus, Ohio 43216-1049

Should the applicant need additional time to review, obtain or develop site-specific pertinent and factual information with respect to the technical feasibility and economic reasonableness of achieving compliance with these limitations, a written request for any additional time shall be sent to the above address no later than 30 days after the Public Notice Date on Page 1.

Should the applicant determine that compliance with the proposed WQBELs for parameters other than the priority pollutants is technically and/or economically unattainable, the permittee may submit an application for a variance to the applicable WQS used to develop the proposed effluent limitation in accordance with the terms and conditions set forth in OAC 3745-33-07(D). The permittee shall submit this application to the above address no later than 30 days after the Public Notice Date.

Alternately, the applicant may propose the development of site-specific WQS pursuant to OAC 3745-1-39. The permittee shall submit written notification regarding their intent to develop site specific WQS for parameters that are not priority pollutants to the above address no later than 30 days after the Public Notice Date.

LOCATION OF DISCHARGE/RECEIVING WATER USE CLASSIFICATION

Upper Olentangy WRC discharges to the Olentangy River at River Mile 25.27. Figure 1 shows the approximate location of the facility.

This segment of the Olentangy River is described by Ohio EPA River Code: 02-400, Hydrologic Unit Code: 05060001-11-01], County: Delaware, Ecoregion: Eastern Corn Belt Plains. The Olentangy River is designated for the following uses under Ohio's WQS (OAC 3745-1-09): Warmwater Habitat, General High Quality Water, Agricultural Water Supply, Industrial Water Supply, Primary Contact Recreation.

Use designations define the goals and expectations of a waterbody. These goals are set for aquatic life protection, recreation use and water supply use, and are defined in the Ohio WQS (OAC 3745-1-07). The use designations for individual waterbodies are listed in rules -08 through -32 of the Ohio WQS. Once the goals are set, numeric WQS are developed to protect these uses. Different uses have different water quality criteria.

Use designations for aquatic life protection include habitats for coldwater fish and macroinvertebrates, warmwater aquatic life and waters with exceptional communities of warmwater organisms. These uses all meet the goals of the federal CWA. Ohio WQS also include aquatic life use designations for waterbodies which cannot meet the CWA goals because of human-caused conditions that cannot be remedied without causing fundamental changes to land use and widespread economic impact. The dredging and clearing of some small streams to support agricultural or urban drainage is the most common of these conditions. These streams are given Modified Warmwater or Limited Resource Water designations.

Recreation uses are defined by the depth of the waterbody and the potential for wading or swimming. Uses are defined for bathing waters, swimming/canoeing (Primary Contact Recreation) and wading only (Secondary Contact which are generally waters too shallow for swimming or canoeing).

Water supply uses are defined by the actual or potential use of the waterbody. Public Water Supply designations apply near existing water intakes so that waters are safe to drink with standard treatment. Most other waters are designated for agricultural water supply and industrial water supply.

FACILITY DESCRIPTION

Upper Olentangy WRC was constructed in 1926 and last upgraded in 2007. The average design flow is 10.0 million gallons per day (MGD). Upper Olentangy WRC serves the City of Delaware. Upper Olentangy WRC has the following treatment processes (Figure 2):

- Influent pumping
- Bar screen
- Grit removal
- Scum removal
- Primary sedimentation
- Biological nitrification and BOD removal
- Biological de-nitrification
- Ferric chloride addition (secondary)
- Polymer addition (secondary)
- Secondary clarification
- Tertiary disk filters (10.0 MGD maximum); and
- Ultra-violet disinfection

The City of Delaware has 100% separate sewers in the collection system.

The City of Delaware has an approved pretreatment program. The City of Delaware has one (1) categorical user falling under the Transportation Equipment Cleaning Point Source Category listed in 40 CFR 442 that discharges 0.001 MGD of flow. The City of Delaware has four significant non-categorical users that discharge 0.017 MGD of flow.

The City of Delaware's potable water comes from the Olentangy River.

Upper Olentangy WRC utilizes the following sewage sludge treatment processes (Figure 2):

- Gravity thickening
- Polymer, lime, ferric chloride, alum addition
- Digestor gas utilization facilities
- Mechanical de-watering

Table 1 shows the last five years of sludge removed from Upper Olentangy WRC. Treated sludge is transferred to another NPDES permit holder or sent to a solid waste landfill.

The City of Delaware has no bypasses around preliminary treatment, biological treatment or final clarification. However, the tertiary filters are hydraulically limited to a total flow of 5.0 MGD and are utilized as a sidestream unit, with the remaining unfiltered effluent conveyed directly to UV disinfection and post aeration. Effluent from the tertiary filters is re-combined with the unfiltered effluent at UV disinfection. All effluent receives UV disinfection and post aeration prior to being discharged directly to the Olentangy River. See Figure 2 for a schematic of the treatment works.

DESCRIPTION OF EXISTING DISCHARGE

Table 2 presents the effluent violations for Upper Olentangy WRC during the previous five years. These violations were not caused by a known process error or upset condition.

Table 3 presents the average annual effluent flow rate for Upper Olentangy WRC for the previous five years. Upper Olentangy WRC has an estimated infiltration/inflow (I/I) rate of 1.0 MGD that does not cause known problems in the collection system. The City has pipe relining and sewer replacement projects underway to address the I/I rate.

Table 4 presents the number of SSOs reported by Upper Olentangy WRC for the previous five years. SSOs are reported at station 300.

Table 5 presents data characterizing the seasonal total phosphorus load from Upper Olentangy WRC during the previous five years. Upper Olentangy WRC must maintain phosphorus loading limits as part of the Olentangy River TMDL.

Table 6 presents chemical specific data compiled from data reported in annual pretreatment reports. Because this data is substantially identical to the application requirements in CFR 122.21(j), the Director has waived the requirement for submittal of supplemental effluent testing data as part of the NPDES renewal application.

Table 7 presents a summary of unaltered Discharge Monitoring Report (DMR). Data are presented for the period July 2017 through June 2022, and current permit limits are provided for comparison.

Table 8 summarizes the chemical specific data for outfall 001 by presenting the average and maximum PEQ values.

Table 9 summarizes the results of acute and chronic Whole Effluent Toxicity (WET) tests of the final effluent, using the water flea (*Ceriodaphnia dubia*) and fathead minnow (*Pimephales promelas*) as test organisms.

ASSESSMENT OF IMPACT ON RECEIVING WATERS

Pursuant to Section 303(d) of the Clean Water Act, each state is required to develop and submit a list to US EPA of its impaired and threatened waters (e.g. stream/river segments, lakes). For each water on the list, the state identifies the pollutant(s) causing the impairment, when known. The Deep Run-Olentangy River watershed assessment unit, which includes the Olentangy River in the vicinity of Upper Olentangy WRC is listed as impaired for aquatic life and recreation uses on Ohio's 303(d) list.

The Total Maximum Daily Load (TMDL) program focuses on identifying and restoring polluted rivers, streams, lakes and other surface water bodies. A TMDL is a written, quantitative assessment of water quality problems in a water body and contributing sources of pollution. It specifies the amount a pollutant needs to be reduced to meet water quality standards (WQS), allocates pollutant load reductions, and provides the basis for taking actions needed to restore a water body.

The Deep Run – Olentangy River watershed assessment unit, which includes the Olentangy River in the vicinity of Upper Olentangy WRC, is listed as impaired for aquatic life and recreation on Ohio's 2016 303(d) list. A TMDL for phosphorus discharges was approved for the Olentangy River by U.S. EPA on September 19, 2007.

An assessment of the impact of a permitted point source on the immediate receiving waters includes an evaluation of the available chemical/physical, biological, and habitat data which have been collected by Ohio EPA pursuant to the Five-Year Basin Approach for Monitoring and NPDES Reissuance. Other data may be used provided it was collected in accordance with Ohio EPA methods and protocols as specified by the Ohio WQS and Ohio EPA guidance documents. Other information which may be evaluated includes but is not limited to: NPDES permittee self-monitoring data; effluent and mixing zone bioassays conducted by Ohio EPA, the permittee, or U.S. EPA.

In evaluating this data, Ohio EPA attempts to link environmental stresses and measured pollutant exposure to the health and diversity of biological communities. Stresses can include pollutant discharges (permitted and unpermitted), land use effects, and habitat modifications. Indicators of exposure to these stresses include whole effluent toxicity tests, fish tissue chemical data, and fish health biomarkers (for example, fish blood tests).

Use attainment is a term which describes the degree to which environmental indicators are either above or below criteria specified by the Ohio WQS (OAC 3745-1). Assessing use attainment status for aquatic life uses primarily relies on the Ohio EPA biological criteria (OAC 3745-1-07; Table 7-15). These criteria apply to rivers and streams outside of mixing zones. Numerical biological criteria are based on measuring several characteristics of the fish and macroinvertebrate communities; these characteristics are combined into multimetric biological indices including the Index of Biotic Integrity and modified Index of Well-Being, which indicate the response of the fish community, and the Invertebrate Community Index, which indicates the response of the macroinvertebrate community. Numerical criteria are broken down by ecoregion, use designation, and stream or river size. Ohio has five ecoregions defined by common topography, land use, potential vegetation and soil type.

Three attainment status results are possible at each sampling location -full, partial, or non-attainment. Full attainment means that all of the applicable indices meet the bio-criteria. Partial attainment means that one or more of the applicable indices fails meet the bio-criteria. Nonattainment means that either none of the applicable

indices meet the bio-criteria or one of the organism groups indicates poor or very poor performance. An aquatic life use attainment table (see Table 10) is constructed based on the sampling results and is arranged from upstream to downstream and includes the sampling locations indicated by river mile, the applicable biological indices, the use attainment status (i.e., full, partial, or non), the Qualitative Habitat Evaluation Index, and comments and observations for each sampling location.

The Olentangy River was evaluated by OEPA staff for aquatic life and recreational use potential during the 2003-04 field seasons. This assessment included the collection of water chemistry and biological sampling at numerous sites in the Olentangy River and selected tributaries. A summary of the results from this assessment for the portion of the Olentangy River in the vicinity of the Upper Olentangy Water Reclamation Center and the Olentangy Environmental Control Center discharges can be found below in Table 10.

More information on the 2003-04 sampling can be found in the following technical support document (TSD): "Biological and Water Quality Study of the Olentangy River, Whetstone Creek and Select Tributaries 2003-04", OEPA, 2005. This document is available through the OEPA, Division of Surface Water website at http://epa.ohio.gov/dsw/document_index/psdindx.aspx.

A Total Daily Maximum Load (TMDL) report was approved for the Olentangy River basin on September 19, 2007 by US EPA. The TMDL specified that lower summer phosphorus limits of 0.5 mg/l (30-day average) are needed for the Upper Olentangy WRC and the Olentangy Environmental Control Center to maintain the Exceptional Warmwater use of the river. The TMDL is available through the Ohio EPA, Division of Surface Water website at: http://www.epa.ohio.gov/portals/35/tmdl/OlentangyTMDL_final_aug07.pdf.

Biological and Habitat data has been collected in the Olentangy River to assess the effect of dam removals upstream of the Upper Olentangy WRC. These dams were removed to improve aquatic communities in this segment of the river and the data in Table 10 shows that aquatic communities upstream from the WRC are now meeting WWH biological criteria. Note that these studies did not reassess the EWH segment of the river.

Ohio EPA resampled fish communities at two sites in the EWH segment of the Olentangy River in 2022. This assessment showed some improvement at the Powell Road site, while the site at Hyatts Road showed a slight decline.

The 2022 Integrated Water Quality Report provides the current status of the stream segment the Olentangy WRC discharges to, the Deep Run-Olentangy River, Assessment Unit 05060001 11 01 which is 48.91 mi^2 . The Integrated Report indicates that the Deep Run-Olentangy River assessment unit is attaining its human health designation based on historical data, but it's recreational use and aquatic life uses are impaired, but a TMDL is not needed since one was completed in 2007. However, the attainment of the public drinking water supply designation is unknown since there is insufficient data.

DEVELOPMENT OF WATER-QUALITY-BASED EFFLUENT LIMITS

Determining appropriate effluent concentrations is a multiple-step process in which parameters are identified as likely to be discharged by a facility, evaluated with respect to Ohio water quality criteria, and examined to determine the likelihood that the existing effluent could violate the calculated limits.

Parameter Selection

Effluent data for the Upper Olentangy WRC were used to determine what parameters should undergo WLA. The parameters discharged are identified by the data available to Ohio EPA, DMR data submitted by the permittee, compliance sampling data collected by Ohio EPA, and any other data submitted by the permittee, such as priority pollutant scans required by the NPDES application or by pretreatment, or other special conditions in the NPDES permit. The sources of effluent data used in this evaluation are as follows:

Self-monitoring data (DMR)	July 2017 through June 2022
Pretreatment data	2017-2021

Statistical Outliers and Other Non-representative Data
The data were examined and 31 values for nickel (7/17-10/19) were removed because the test method was less sensitive than methods used after that date. Excluding these values allowed the PEQ to be more representative of current effluent quality.

This data is evaluated statistically, and PEQ values are calculated for each pollutant. Average PEQ (PEQ_{avg}) values represent the 95th percentile of monthly average data, and maximum PEQ (PEQ_{max}) values represent the 95th percentile of all data points (see Table 8). See Modeling Guidance #1 for more information on PEQ calculations, available through the Ohio EPA, Division of Surface Water website at: https://www.epa.ohio.gov/portals/35/guidance/model1.pdf

The PEQ values are used according to Ohio rules to compare to applicable WQS and allowable WLA values for each pollutant evaluated. Initially, PEQ values are compared to the applicable average and maximum WQS. If both PEQ values are less than 25 percent of the applicable WQS, the pollutant does not have the reasonable potential to cause or contribute to exceedances of WQS, and no WLA is done for that parameter. If either PEQ_{avg} or PEQ_{max} is greater than 25 percent of the applicable WQS, a WLA is conducted to determine whether the parameter exhibits reasonable potential and needs to have a limit or if monitoring is required (see Table 11).

Wasteload Allocation
For those parameters that require a WLA, the results are based on the uses assigned to the receiving waterbody in OAC 3745-1. Dischargers are allocated pollutant loadings/concentrations based on the Ohio WQS (OAC 3745-1). Most pollutants are allocated by a mass-balance method because they do not break down in the receiving water. For free flowing streams, WLAs using this method are calculated using the following general equation: Discharger WLA = (downstream flow x WQS) - (upstream flow x background concentration). Discharger WLAs are divided by the discharge flow so that the allocations are expressed as concentrations. The following dischargers in the Olentangy River were considered in this WLA but were not considered interactive with the Upper Olentangy WRC (see Figure 3):

- Delaware Water Treatment Plant #2
- Delaware County Central Olentangy WWTP (proposed)

The WTP discharge was not considered interactive with Upper Olentangy because the WTP is not permitted to discharge at most critical flows (river flows less than 2.5 cubic feet per second (cfs)). WLAs for Upper Olentangy WRC at critical flows are more restrictive than considering the two discharges together.

The proposed Central Olentangy WWTP is also not considered as interactive at this time. The design limits for this plant set under Ohio's Antidegradation Rule process, coupled with the relatively small flow from Central Olentangy, do not affect WLAs for the Upper Olentangy WRC to any significant degree.

The applicable waterbody uses for this facility's discharge and the associated stream design flows are as follows:

Aquatic life (Warmwater Habitat)		
Toxics (metals, organics, etc.)	Average	Annual 7Q10
	Maximum	Annual 1Q10
Ammonia	Average	Summer 30Q10
		Winter 30Q10

Agricultural Water Supply	Harmonic mean flow
Human Health (nondrinking)	Harmonic mean flow

Allocations are developed using a percentage of stream design flow as specified in Table 12, and allocations cannot exceed the Inside Mixing Zone Maximum (IMZM) criteria.

The data used in the WLA are listed in Table 11 and Table 12. The WLA results to maintain all applicable criteria are presented in Table 13.

Whole Effluent Toxicity Wasteload Allocation

WET is the total toxic effect of an effluent on aquatic life measured directly with a toxicity test. Acute WET measures short term effects of the effluent while chronic WET measures longer term and potentially more subtle effects of the effluent.

WQS for WET are expressed in Ohio's narrative "free from" WQS rule [OAC 3745-1-04(D)]. These "free froms" are translated into toxicity units (TUs) by the associated WQS Implementation Rule (OAC 3745-2-09). WLAs can then be calculated using TUs as if they were water quality criteria.

The WLA calculations for WET are similar to those for aquatic life criteria - using the chronic toxicity unit (TU_c) and 7Q10 flow for the average and the acute toxicity unit (TU_a) and 1Q10 flow for the maximum. These values are the levels of effluent toxicity that should not cause instream toxicity during critical low-flow conditions. For Upper Olentangy WRC, the WLA values are 0.3 TU_a and 1.0 TU_c.

The chronic toxicity unit (TU_c) is defined as 100 divided by the estimate of the effluent concentration which causes a 25% reduction in growth or reproduction of test organisms (IC_{25}):

$$TU_c = 100/IC_{25}$$

This equation applies outside the mixing zone for warmwater, modified warmwater, exceptional warmwater, coldwater, and seasonal salmonid use designations except when the following equation is more restrictive (*Ceriodaphnia dubia* only):

TU_c = 100/geometric mean of No Observed Effect Concentration and Lowest Observed Effect Concentration

The acute toxicity unit (TU_a) is defined as 100 divided by the concentration in water having 50% chance of causing death to aquatic life (LC_{50}) for the most sensitive test species:

$$TU_a = 100/LC_{50}$$

This equation applies outside the mixing zone for all designated waters.

When the acute WLA is less than 1.0 TU_a, it may be defined as:

Downstream Dilution Ratio (downstream flow to discharger flow)	Allowable Effluent Toxicity (percent effects in 100% effluent)
up to 2	30
greater than 2 but less than 2.7	40

$$\text{Downstream Dilution Ratio} = \frac{1Q10 + [\text{WWTP flow rate}]}{[\text{WWTP flow rate}]} = \frac{0 \text{ cfs} + 15.5 \text{ cfs}}{15.5 \text{ cfs}} = 1.0$$

The acute WLA for Upper Olentangy WRC is 30 percent mortality in 100 percent effluent based on the dilution ratio of 1:1.

REASONABLE POTENTIAL/EFFLUENT LIMITS/MANAGEMENT DECISIONS

After appropriate effluent limits are calculated, the reasonable potential of the discharger to violate the WQS must be determined. Each parameter is examined and placed in a defined "group". Parameters that do not have a WQS or do not require a WLA based on the initial screening are assigned to either group 1 or 2. For the allocated parameters, the preliminary effluent limits (PEL) based on the most restrictive average and maximum WLAs are selected from Table 13. The average PEL (PEL_{avg}) is compared to the average PEQ (PEQ_{avg}) from Table 8, and the PEL_{max} is compared to the PEQ_{max}. Based on the calculated percentage of the allocated value [($PEQ_{avg} \div PEL_{avg}$) X 100, or ($PEQ_{max} \div PEL_{max}$) X 100)], the parameters are assigned to group 3, 4, or 5. The groupings are listed in Table 14.

The final effluent limits are determined by evaluating the groupings in conjunction with other applicable rules and regulations. Table 15 presents the final effluent limits and monitoring requirements proposed for Upper Olentangy WRC outfall 001 and the basis for their recommendation. Unless otherwise indicated, the monitoring frequencies proposed in the permit are continued from the existing permit.

Dissolved Oxygen, Total Suspended Solids, Ammonia-Nitrogen, Total Inorganic Nitrogen, CBOD5
The limits proposed for dissolved oxygen, total suspended solids, ammonia, total inorganic nitrogen and 5-day carbonaceous biochemical oxygen demand (CBOD5) are all based on plant design criteria for the plant expansion to 10.0 MGD. The TSS and CBOD5 limits are more stringent than the Secondary Treatment Standards in 40 CFR Part 133. The current summer ammonia limits have been evaluated using the WLA procedures and are protective of WQS for ammonia toxicity. The current dissolved oxygen limit is protective of WQS.

Total Phosphorus
Based on the initial limits from the Total Daily Maximum Load (TMDL) the current limits (1.0 mg/l avg) are proposed to continue for phosphorus. Upper Olentangy WRC has achieved the summer/fall seasonal TMDL load of 6384 lbs. (2902 kg) [See Table 7]. Achieving the final 0.5 mg/l TMDL limit does not appear to be necessary until the treatment plant more closely approaches the design flow of 10 MGD.

Oil & grease, pH, E. coli
Limits proposed for oil and grease, pH, and *Escherichia coli* are based on WQS (OAC 3745-1-35 and 37). Primary contact recreation *E. coli* standards apply to the Olentangy River.

Selenium
The Ohio EPA risk assessment (Table 14) places selenium in group 4. This placement, as well as the data in Table 6 and Table 8, support that this parameter does not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. Monitoring for Group 4 pollutants (where PEQ exceeds 50 percent of the WLA) is required by OAC 3745-33-07(A)(2).

Cadmium, Chromium, Hexavalent Chromium, Copper, Cyanide (free), Lead, Mercury, Nickel, Zinc, Total Filterable Residue (Total Dissolved Solids)

The Ohio EPA risk assessment (Table 14) places cadmium, chromium, hexavalent chromium, copper, free cyanide, lead, mercury, nickel, zinc and total dissolved solids in groups 2 and 3. This placement, as well as the data in Table 6 and Table 8, support that these parameters do not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. Monitoring at a low frequency is proposed to document that these pollutants continue to remain at low levels.

Arsenic, Lindane, Molybdenum, Strontium
The Ohio EPA risk assessment (Table 14) places arsenic, lindane, molybdenum and strontium in group 2. This placement, as well as the data in Table 6 and Table 8, support that these parameters do not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. No new monitoring is proposed. Monitoring for lindane and strontium are proposed to be removed. Effluent sampling required as part of the industrial pretreatment program will provide data for these parameters in future reasonable potential analysis.

Dissolved Orthophosphate
Monitoring for dissolved orthophosphate (as P) is required by ORC 6111.03. This monitoring will further develop nutrient datasets that are used in stream and watershed assessments and studies. Because Ohio EPA monitoring, as well as other in-stream monitoring, for dissolved orthophosphate is taken by grab sample, grab samples are proposed for orthophosphate to maintain consistent data. The grab samples must be filtered within 15 minutes of collection using a 0.45-micron filter. The filtered sample must be analyzed within 48 hours.

Whole Effluent Toxicity Reasonable Potential
Based on evaluating the WET data presented in Table 9, Attachment 1, and other pertinent data under the provisions of OAC 3745-33-07(B), the Upper Olentangy WRC is placed in Category 3 with respect to WET. The one exceedance of the chronic WLA was small, and recent biological survey work shows full attainment of biological WQS downstream of the facility. While this indicates that the plant's effluent does not currently pose a toxicity problem, annual toxicity testing is proposed consistent with the minimum monitoring requirements at OAC 3754-33-07(B)(11). Annual chronic toxicity monitoring with the determination of acute endpoints is proposed for the life of the permit. The proposed monitoring will adequately characterize toxicity in the plant's effluent.

Additional Monitoring Requirements
Additional monitoring requirements proposed at the final effluent, influent and upstream/downstream stations are included for all facilities in Ohio and vary according to the type and size of the discharge. In addition to permit compliance, this data is used to assist in the evaluation of effluent quality and treatment plant performance and for designing plant improvements and conducting future stream studies.

Sludge
Limits and monitoring requirements proposed for the disposal of sewage sludge by the following management practices are based on OAC 3745-40: removal to sanitary landfill or transfer to another facility with an NPDES permit.

OTHER REQUIREMENTS

Compliance Schedule
Pretreatment Local Limits Review - A 12-month compliance schedule is proposed for the City to submit a technical justification for either revising its local industrial user limits or retaining its existing local limits. If revisions to local limits are required, the City must also submit a pretreatment program modification request. Details are in Part I.C of the permit.

Sanitary Sewer Overflow Reporting

Provisions for reporting SSOs are again proposed in this permit. These provisions include: the reporting of the system-wide number of SSO occurrences on monthly operating reports; telephone notification of Ohio EPA and the local health department, and 5-day follow up written reports for certain high risk SSOs; and preparation of an annual report that is submitted to Ohio EPA and made available to the public. Many of these provisions were already required under the "Noncompliance Notification", "Records Retention", and "Facility Operation and Quality Control" general conditions in Part III of Ohio NPDES permits.

Operator Certification and Operator of Record
Operator certification requirements have been included in Part II of the permit in accordance with rules effective on August 15, 2018 (OAC 3745-7). These rules require the Upper Olentangy WRC to have a Class IV wastewater treatment plant operator in charge of the sewage treatment plant operations discharging through outfall 001. These rules also require the permittee to designate one or more operator of record to oversee the technical operation of the treatment works and sewerage system.

Low-Level Free Cyanide Testing
Currently there are three approved methods for free cyanide listed in 40 CFR 136 that have a quantification level lower than water quality-based effluent limits:

- ASTM D7237-10, OIA-1677-09, and ASTM D4282-02. (Note: The use of ASTM D4282-02 requires supporting documentation that it meets the requirement of a "sufficiently sensitive" test procedure as defined in 40 CFR 122.44(i)(1)(iv)).

These methods will allow Ohio EPA to make more reliable water quality-related decisions regarding free cyanide. Because the quantification levels are lower than any water quality-based effluent limits, it will also be possible to directly evaluate compliance with any free cyanide limits.

Outfall Signage
Part II of the permit includes requirements for the permittee to place and maintain a sign at each outfall to the Olentangy River providing information about the discharge. Signage at outfalls is required pursuant to OAC 3745-33-08(A).

Public Water Supply Notification
An addition to OAC 3745-33-08 requires that permittees discharging wastewater within ten miles of a downstream public water supply intake located on the same waterway must develop and implement notification procedures in conjunction with the downstream public water supply operator in the event of a spill, separate sewer overflow, bypass or upset that reaches waters of the state. Since Del-Co Water operates a public water supply intake within ten miles downstream from the Upper Olentangy WRC, an item in Part II of the permit requires the development of notification procedures within six months after the effective date of the permit *OR* requires the continuation of established notification procedures.

Part III
Part III of the permit details standard conditions that include monitoring, reporting requirements, compliance responsibilities, and general requirements.

Storm Water Compliance
To comply with industrial storm water regulations, the permittee submitted a form for "No Exposure Certification" which was signed on 9/10/2018. The certification number is 4GRN01124. Compliance with the industrial storm water regulations must be re-affirmed every five years. No later 9/10/2023, the permittee must submit a new form for "No Exposure Certification" or make other provisions to comply with the industrial storm water regulations.

Figure 1. Location of Upper Olentangy WRC

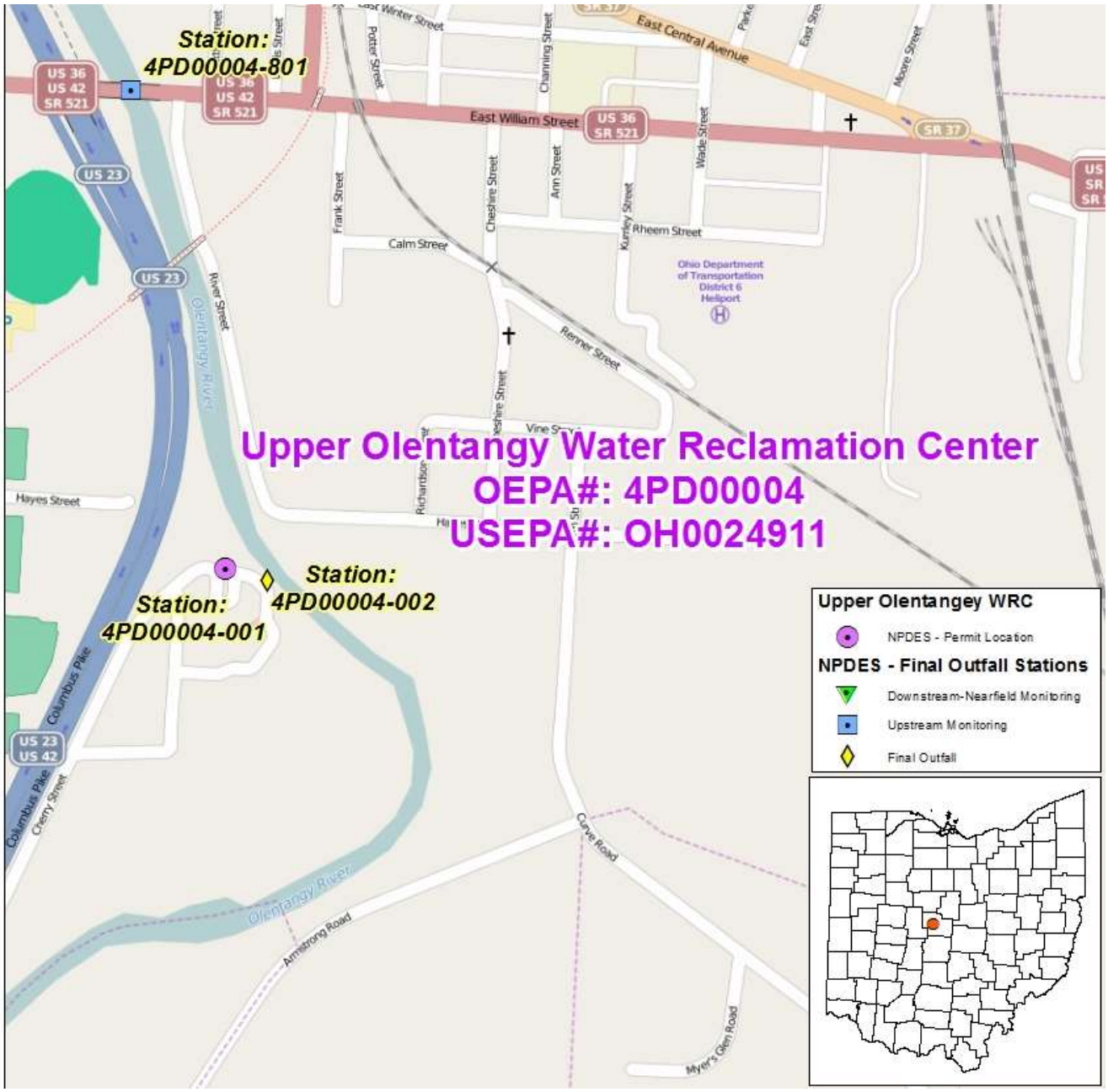

Figure 2. Diagram of Wastewater Treatment System

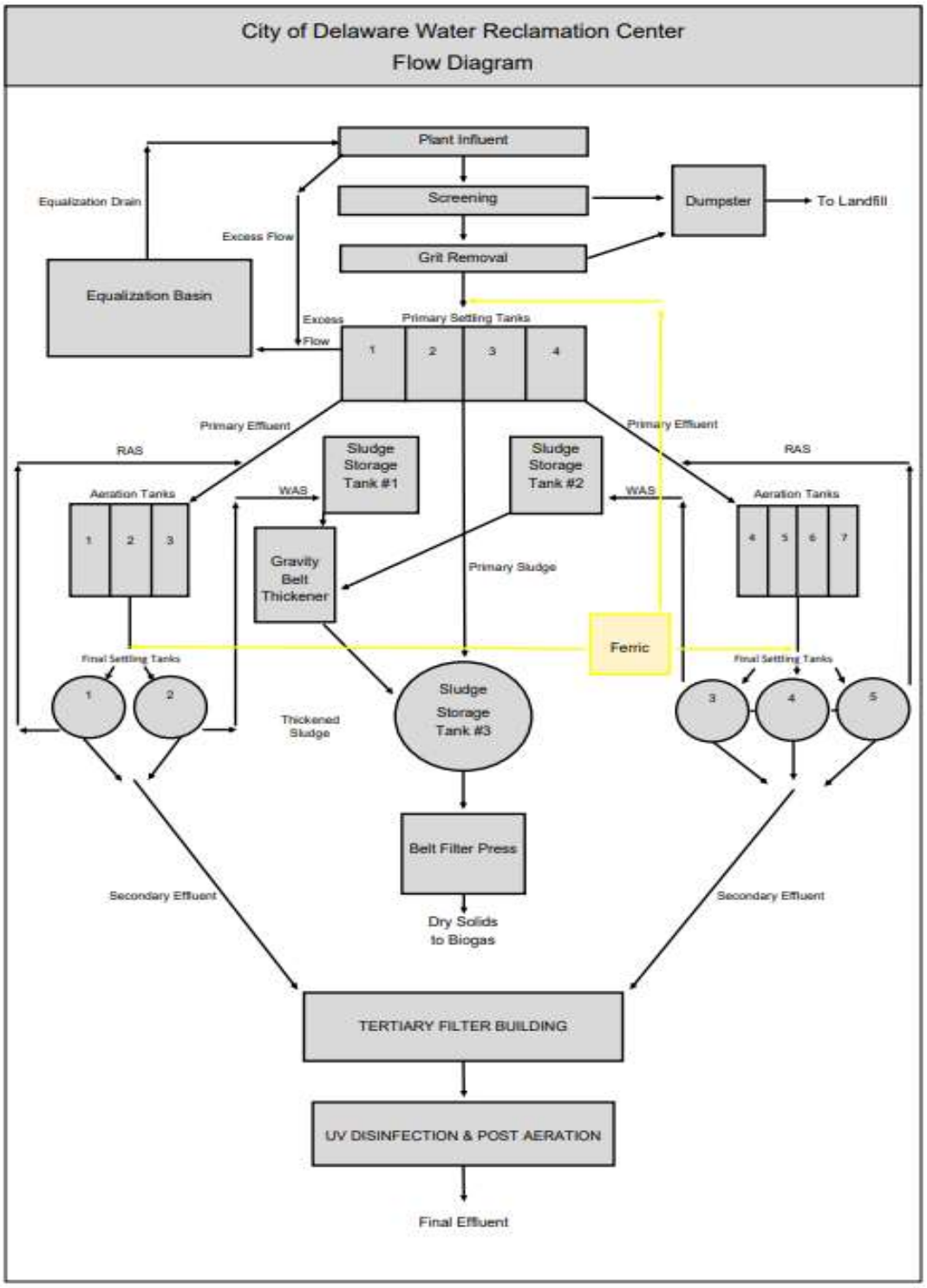

Figure 3. Olentangy River Study Area

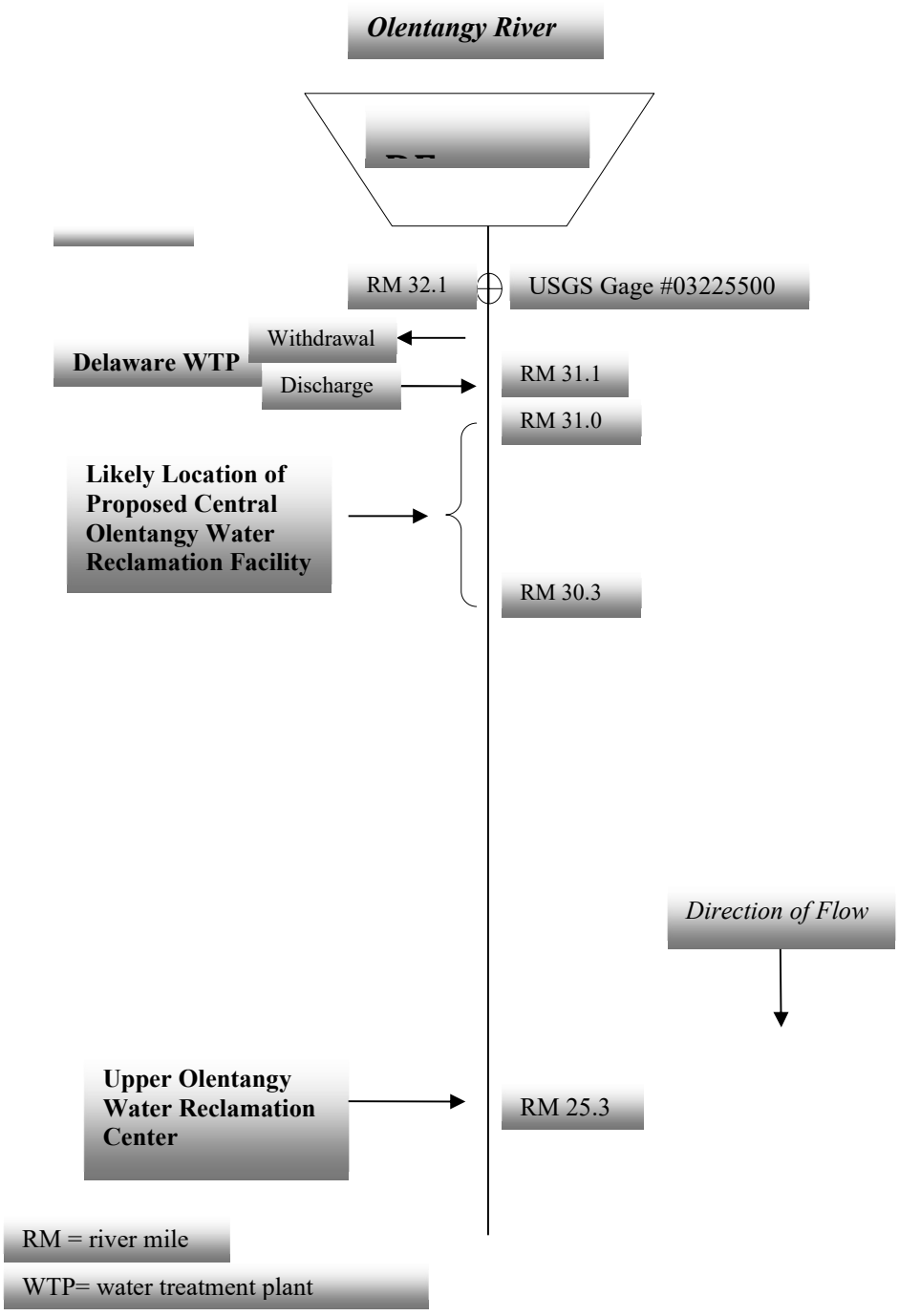

Table 1. Sewage Sludge Removal

Year	Dry Tons Removed	
	Landfill	Other Facility
2017		1110
2018		1110
2019		1270
2020	243	1020
2021		1260

Table 2. Effluent Violations for Outfall 001

PARAMETER	2017	2018	2019	2020	2021	2022
Copper, Total Recoverable	2	0	0	0	0	0
Dissolved Oxygen	0	2	1	0	0	0
Nitrogen, Ammonia (NH3)	0	4	2	1	3	0
Nitrogen, Inorganic, Total	0	0	1	2	1	0
Phosphorus, Total (P)	0	1	0	2	0	2
Total	**2**	**7**	**4**	**5**	**4**	**2**

Table 3. Average Annual Effluent Flow Rates

	Flow Rate (Million Gallons per Day)					
Outfall	Year	# obs	Average	Median	95th Percentile	Maximum
1	2017	184	3.697674	3.2405	6.04545	17.66
1	2018	365	4.460805	3.75	8.928	18.121
1	2019	365	4.388	3.627	8.5368	18.639
1	2020	366	4.620505	4.3045	7.2745	20.537
1	2021	365	4.581885	4.108	8.7386	15.261
1	2022	181	5.595591	4.877	11.755	16.17

MGD = million gallons per day.

Table 4. Sanitary Sewer Overflows Discharges

Year	Number of SSOs
2017	5
2018	5
2019	0
2020	9
2021	0
2022	3

Table 5. Calculated Seasonal Total Phosphorus Loadings

Outfall	Year	Obs.	Median Phosphorus (mg/L)	Median Flow (MGD)	Median Loading (kg/day)	Total Seasonal Phosphorus (kg)
001	2017	32	0.505	3.0845	6.13	1315
001	2018	48	0.825	3.1275	10.3	2052
001	2019	48	0.785	3.3805	9.56	2448
001	2020	50	0.84	3.443	10.7	2156
001	2021	48	0.8	3.849	11.1	2060
001	2022	16	0.775	4.1875	11.3	2391

Data is for May-Oct, except 2017 (July-Oct) and 2022 (May-June)
MGD = million gallons per day
n = number of samples

Table 6. Effluent Characterization Using Pretreatment Program Data

Parameter	Units	10/2017	5/30/2018	5/15/2019	5/13/2020	6/16/2021	6/15/2022
Antimony	µg/L	AA (5)	AA (5)	AA (5)	AA (1)	AA (0.8)	AA (0.8)
Arsenic	µg/L	AA (5)	AA (5)	AA (5)	AA (0.3)	AA (0.3)	0.5
Beryllium	µg/L	AA (3)	AA (3)	AA (3)	AA (0.1)	AA (0.1)	AA (0.1)
Cadmium	µg/L	AA (3)	AA (3)	AA (3)	AA (0.1)	AA (0.1)	AA (0.1)
Chromium	µg/L	AA (7)	AA (7)	AA (7)	1	1.6	2
Copper	µg/L	AA (8)	AA (8)	AA (8)	2	3.5	2.8
Lead	µg/L	AA (10)	AA (10)	AA (10)	AA (0.1)	AA (0.2)	AA (0.2)
Mercury	ng/L	AA (0.5)	1.1	AA (0.5)	AA (0.5)	AA (0.5)	0.9
Nickel	µg/L	AA (8)	AA (8)	AA (8)	3	4.5	4.2
Selenium	µg/L	AA (4)	AA (4)	AA (4)	1	0.9	0.4
Silver	µg/L	AA (5)	AA (5)	AA (5)	AA (0.4)	AA (0.4)	AA (0.4)
Thallium	µg/L	AA (5)	AA (5)	AA (5)	AA (0.1)	AA (0.1)	AA (0.1)
Zinc	µg/L	36	27	30	28	44	43
Phenolics, total	µg/L	AA (50)	AA (50)	AA (50)	220	AA (45)	41

AA = not-detected (analytical method detection limit)

Table 7. Effluent Characterization Using DMR Data

			Current Permit Limits			Percentiles		
Parameter	**Season**	**Units**	**30 day**	**Daily**	**# Obs.**	**50th**	**95th**	**Data Range**
Outfall 001								
Water Temperature	Annual	C	Monitor		1826	17.7	22.1	10.3-22.9
Dissolved Oxygen	Summer	mg/l	--	7.0 min.	920	8.2	9	6.8-9.8
Dissolved Oxygen	Winter	mg/l	--	7.0 min.	905	9	10	6.3-10.8
Total Suspended Solids	Annual	mg/l	*	*	1810	0	4.8	0-49
Total Suspended Solids	Annual	kg/day	*	*	1810	0	105	0-2880
Oil and Grease, Hexane Extr Method	Annual	mg/l	--	10	241	0	0	0-7.3
Oil and Grease, Hexane Extr Method	Annual	kg/day	--	--	241	0	0	0-170
Nitrogen, Ammonia (NH3)	Summer	mg/l	0.75	1.12 [a]	886	0	1.06	0-8.55
Nitrogen, Ammonia (NH3)	Winter	mg/l	2.83	4.25 [a]	851	0.291	3.65	0-20
Nitrogen, Ammonia (NH3)	Summer	kg/day	28	42 [a]	886	0	17.3	0-361
Nitrogen, Ammonia (NH3)	Winter	kg/day	108	161 [a]	851	4.99	92.1	0-646
Nitrogen Kjeldahl, Total	Annual	mg/l	Monitor		61	1.2	3.04	0-10.9
Nitrogen Kjeldahl, Total	Annual	kg/day	--	--	61	18.6	75.1	0-170
Nitrogen, Inorganic, Total	Annual	mg/l	**	**	129	5.02	7.93	0.37-9.76
Nitrogen, Inorganic, Total	Annual	kg/day	**	**	129	72.8	175	6.9-321
Phosphorus, Total (P)	Annual	mg/l	1.0	1.5 [a]	485	0.78	1.1	0.1-2.71
Phosphorus, Total (P)	Annual	kg/day	38	57 [a]	485	11.7	24.8	1.24-160
Orthophosphate, Dissolved (as P)	Annual	mg/l	Monitor		62	0.69	1.14	0.05-2.15
Orthophosphate, Dissolved (as P)	Annual	kg/day	--	--	62	10.8	18.2	0.488-43.6
Nickel, Total Recoverable	Annual	µg/l	Monitor		60	1	4	0-4.3
Nickel, Total Recoverable	Annual	kg/day	--	--	60	0.0113	0.0631	0-0.0823
Strontium, Total Recoverable	Annual	µg/l	Monitor		60	2850	3900	0-5100
Strontium, Total Recoverable	Annual	kg/day	--	--	60	41.4	60.7	0-80.8
Zinc, Total Recoverable	Annual	µg/l	Monitor		60	32.5	57	11-69
Zinc, Total Recoverable	Annual	kg/day	--	--	60	0.467	1.03	0.242-1.92
Cadmium, Total Recoverable	Annual	µg/l	Monitor		60	0	0	0-0
Cadmium, Total Recoverable	Annual	kg/day	--	--	60	0	0	0-0
Lead, Total Recoverable	Annual	µg/l	Monitor		60	0	5.35	0-8
Lead, Total Recoverable	Annual	kg/day	--	--	60	0	0.0999	0-0.196
Chromium, Total Recoverable	Annual	µg/l	Monitor		60	0	0	0-0.6
Chromium, Total Recoverable	Annual	kg/day	--	--	60	0	0	0-0.012
Copper, Total Recoverable	Annual	µg/l	18	29	120	0	6.05	0-38
Copper, Total Recoverable	Annual	kg/day	0.68	1.1	120	0	0.088	0-0.401
Chromium, Dissolved Hexavalent	Annual	µg/l	Monitor		62	0	0	0-7
Chromium, Dissolved Hexavalent	Annual	kg/day	--	--	62	0	0	0-0.122
E. coli	Annual	#/100 ml	126	284 [a]	386	26.7	185	1-715

Lindane	Annual	ug/l	Monitor		10	0	0	0-0
Lindane	Annual	kg/day	--	--	10	0	0	0-0
Flow Rate	Annual	MGD	Monitor		1826	3.98	8.54	1.73-20.5
Mercury, Total (Low Level)	Annual	ng/l	Monitor		60	0.351	1.37	0-8.62
Mercury, Total (Low Level)	Annual	kg/day	--	--	60	5.88E-06	2.29E-05	0-0.000423
Cyanide, Free (Low-Level)	Annual	µg/l	Monitor		60	0	0	0-0
Cyanide, Free (Low-Level)	Annual	kg/day	--	--	60	0	0	0-0
Acute Toxicity, Ceriodaphnia dubia	Annual	TUa	Monitor		5	0	0	0-0
Chronic Toxicity, Ceriodaphnia dubia	Annual	TUc	Monitor		5	0	1.12	0-1.4
Acute Toxicity, Pimephales promelas	Annual	TUa	Monitor		5	0	0	0-0
Chronic Toxicity, Pimephales promelas	Annual	TUc	Monitor		5	0	0	0-0
pH, Maximum	Annual	S.U.	--	9.0	1826	7.7	8.2	7.2-8.6
pH, Minimum	Annual	S.U.	--	6.5	1826	7.3	7.6	6.8-8.2
Residue, Total Filterable	Annual	mg/l	Monitor		61	560	780	330-1100
Residue, Total Filterable	Annual	kg/day	--	--	61	8350	15500	4190-28600
CBOD 5 day	Summer	mg/l	10	15 [a]	913	1.37	2.98	0-8.4
CBOD 5 day	Winter	mg/l	18	27 [a]	896	1.64	7.49	0-9.44
CBOD 5 day	Summer	kg/day	379	568[a]	913	18	54.1	0-550
CBOD 5 day	Winter	kg/day	681	1022 [a]	896	28.3	248	0-563

* = summer TSS limits: 14 mg/l (30-day), 21 mg/l (7-day), 580 kg/day (30-day), 795 kg/day (7-day);
winter TSS limits: 25 mg/l (30-day), 37 mg/l (7-day), 946 kg/day (30-day), 1401 kg/day (7-day).
** = summer TIN limits: 6.3 mg/l (30-day), 9.5 mg/l (7-day), 238 kg/day (30-day), 358 kg/day (7-day);
Winter TIN limits: 8.1 mg/l (30-day), 12.2 mg/l (7-day), 307 kg/day (30-day), 460 kg/day (7-day).
[a] = weekly average.

Table 8. Projected Effluent Quality for Outfall 001

Parameter	Units	Number of Samples	Number > MDL	PEQ Average	PEQ Maximum
Ammonia-S	mg/L	600	228	0.428	1.06
Ammonia-W	mg/L	423	244	2.16	4.63
Arsenic - TR	µg/L	6	1	1.1	1.5
Cadmium - TR	µg/L	60	0	--	--
Chromium - TR	µg/L	35	5	1.7	2.4
Chromium, Dissolved Hexavalent	µg/L	62	1	5.11	7
Copper - TR	µg/L	125	21	6.4	8.7
Cyanide - free (wwh,ewh,mwh)	µg/L	60	0	--	--
Dissolved solids (ave)	mg/L	61	61	702	860
gamma-Hexachloro-cyclohexane (Lindane) (BCC)	µg/L	10	0	--	--
Lead - TR	µg/L	60	23	4.8	7
Lindane	µg/L	10	0	--	--
Mercury - TR (BCC)	ng/L	65	46	1.5	2.3
Molybdenum	µg/L	2	2	25.0	34.2
Nickel - TR	µg/L	34	32	3.8	4.9
Selenium - TR	µg/L	3	3	2.19	3.0
Silver (wwh,ewh,mwh)	µg/L	5	0	--	--
Strontium	µg/L	60	59	3812	5053
Zinc - TR	µg/L	65	65	47	62

MDL = analytical method detection limit
PEQ = projected effluent quality
* Per OAC 3745-2-04(E)(3), ammonia PEQ is based on data collected during the following months:
Summer – June through September
Winter – December through February

Table 9. Summary of Acute and Chronic Toxicity Results

	Ceriodaphnia Dubia		*Pimephales Promelas*	
Date	Acute (Tu_a)	Chronic (Tu_c)	Acute (Tu_a)	Chronic (Tu_c)
9/1/2017	AA (0.2)	AA (1.0)	AA (0.2)	AA (1.0)
9/1/2018	AA (0.2)	AA (1.0)	AA (0.2)	AA (1.0)
9/1/2019	AA (0.2)	1.4	AA (0.2)	AA (1.0)
9/1/2020	AA (0.2)	AA (1.0)	AA (0.2)	AA (1.0)
9/1/2021	AA (0.2)	AA (0.2)	AA (1.0)	AA (1.0)

AA = non-detection; analytical method detection limit of 0.2 TU_a, 1.0 TU_c
TU_a = acute toxicity unit
TU_c = chronic toxicity unit

Table 10. Use Attainment Table

				2003					
Location	RM	AQL Use	IBI	MIwb	ICI	QHEI	Attainment Status	Impairment Causes	Impairment Sources
Main Rd	32.1[B]/32.1	WWH	42	10.2	40	66	FULL		
Panhandle Rd	28.1/28.2	WWH	36[ns]	6.2*	28*	55.5	PARTIAL	Impounded, siltation	Panhandle Rd Dam
Adj Hudson Rd	27.5/27.4	WWH	40	8.1[ns]	44	76.5	FULL		
Dst WRC	24.5/24.5	WWH	42	9.1	50	75.5	FULL		
Hyatt Rd	19.4/19.5	EWH	45*	9.0[ns]	50	89	PARTIAL	nutrient enrichment, siltation	Urbanization
Powell Rd	15.0/14.9	EWH	46[ns]	9.1[ns]	46	81.5	FULL		
Mt. Air	12.4[B]/13.2	EWH	50	9.9	50	72.5	FULL		
				2005					
Location	RM	AQL Use	IBI	MIwb	ICI	QHEI	Attainment Status	Impairment Causes	Impairment Sources
Panhandle Rd	28.2 Imp	WWH	30*	6.1*	20*	55.5	NON	Habitat/Flow alteration	Panhandle Rd dam
Adj Hudson Rd	27.5	WWH	42	7.1*	42	81	PARTIAL	Fish passage barrier	Ust/dst dams
Central Ave	26.0 Imp	WWH	38[ns]	9.5	26*	45.5	PARTIAL	Habitat/Flow alteration	Central Ave dam
William St	25.8 Imp	WWH	34*	8.6	32[ns]	49	PARTIAL	Habitat/Flow alteration	River St dam
River/Hayes Sts	25.4	WWH	46	8.6	50	84	FULL		
				2009					
Location	RM	AQL Use	IBI	MIwb	ICI	QHEI	Attainment Status	Impairment Causes	Impairment Sources
Adj Hudson Rd	27.5	WWH	46	9.4	54	70	FULL		
Central Ave	26	WWH	48	8.8	44	62.5	FULL		
William St	25.8	WWH	46	9.1	52	54.5	FULL		
River/Hayes Sts	25.4	WWH	48	9.0[ns]	52	63	FULL		
				2016					
Location	RM	AQL Use	IBI	MIwb	ICI	QHEI	Attainment Status	Impairment Causes	Impairment Sources
Panhandle Rd	28.2	WWH	50	10.3	38	82.3	FULL		
Central Ave	26	WWH	48	11	46	83	FULL		
William St	25.8	WWH	48	9.6	48	77.5	FULL		
Pollack/Braumiller Rds	22.5	WWH	44	8.6	52	69	FULL		

				2022					
Location	RM	AQL Use	IBI	MIwb	ICI	QHEI	Attainment Status	Impairment Causes	Impairment Sources
Hyatt Rd	19.4	EWH	38*	9.3[ns]	--	69.5			
Powell Rd	15.0	EWH	52	9.8	--	84.5			
All fish collection sites are wading sites except boat sites indicated by B.									
Biocriteria (ECBP)									
Index - Site Type	WWH	EWH							
IBI: Boat	42	48							
IBI: Wading	40	50							
MIwb: Boat	8.5	9.6							
MIwb: Wading	8.3	9.4							
ICI	36	46							

* Significant departure from ecoregion biocriterion; poor and very poor results are underlined.
ns = non-significant departure from biocriteria (±4 IBI or ICI units, ±0.5 MIwb units)
Attainment status based on one organism group is placed in parentheses.

Data gathered from the following reports:

Biological and Water Quality Study of the Olentangy River, Whetstone Creek and Selected Tributaries, 2003-04;
Biological and Habitat Study of the Olentangy River 2005 and 2009;
2016 and 2017 Biological and Habitat Studies of the Rivers and Streams in 33 Section 319(h) and SWIF/GLRI Project Areas in Ohio; and 2022 fish sampling done for this permit renewal.

EWH = Exceptional Warmwater Habitat
IBI = Index of Biotic Integrity
ICI = Invertebrate Community Index
MIwb = Modified Index of Well-being
RM = River mile
WWH = warmwater habitat

Table 11. Water Quality Criteria in the Study Area

Parameter	Units	Outside Mixing Zone Criteria				Inside Mixing Zone Maximum
		Average			Maximum Aquatic Life	
		Human Health	Agri-culture	Aquatic Life		
Ammonia-S	mg/L	--	--	0.7	--	--
Ammonia-W	mg/L	--	--	2.3	--	--
Arsenic - TR	µg/L	--	100	150	340	680
Cadmium - TR	µg/L	--	50	4.3	10	20
Chromium - TR	µg/L	--	100	150	3200	6400
Chromium, Dissolved Hexavalent	µg/L	--	--	11	16	31
Copper - TR	µg/L	1300	500	17	27	55
Cyanide - free (wwh,ewh,mwh)	µg/L	22000	--	12	46	92
Dissolved solids (ave)	mg/L	--	--	1500	--	--
gamma-Hexachloro-cyclohexane (Lindane) (BCC)	µg/L	0.63[c]	--	0.057	0.95	1.9
Lead - TR	µg/L	--	100	16	300	600
Mercury - TR (BCC)	ng/L	12	10000	910	1700	3400
Molybdenum	µg/L	--	--	20000	190000	370000
Nickel - TR	µg/L	4600	200	95	850	1700
Selenium - TR	µg/L	11000	50	5	62	120
Silver (wwh,ewh,mwh)	µg/L	--	--	1.3	5.4	11
Strontium	µg/L	--	--	53000	140000	280000
Zinc - TR	µg/L	69000	25000	220	220	440

[c] = carcinogen

Table 12. Instream Conditions and Discharger Flow

Parameter	Units	Season	Value	Basis
Stream Flows				
1Q10	cfs	annual	0	USGS 03225500 + upstream drainage
7Q10	cfs	annual	0	USGS 03225500 + upstream drainage
30Q10	cfs	summer	2.55	USGS 03225500 + upstream drainage
		winter	4.73	USGS 03225500 + upstream drainage
Harmonic Mean	cfs	annual	41	USGS 03225500 + upstream drainage
Mixing Assumption	%	average	100	
	%	maximum	100	
Hardness, OMZ	mg/l	annual	203	Upper Olentangy 901
Hardness, IMZ	mg/l	annual	203	Upper Olentangy 901
pH	S.U.	summer	8.2	Upper Olentangy 901
		winter	8.2	Upper Olentangy 901
Temperature	C	summer	23	Upper Olentangy 901
		winter	7	Upper Olentangy 901
Upper Olentangy WRC flow	cfs	annual	15.472	plant design flow
Background Water Quality				
Ammonia-S	mg/L		0.1	Up Olen 801; 2017-22; n=20; 14<MDL; 1/2 MDL
Ammonia-W	mg/L		0.425	Up Olen 801; 2017-22; n=20; 5<MDL; median
Arsenic - TR	µg/L		2.5	EA3; 1999-03; n=14; 5<MDL; 1/2 MDL
Cadmium - TR	µg/L		0	EA3; 1999-03; n=14; 14<MDL; all values <MDL
Chromium - TR	µg/L		0	EA3; 1999-03; n=14; 14<MDL; all values <MDL
Chromium, Dissolved Hexavalent	µg/L		0	No representative data available.
Copper - TR	µg/L		0	EA3; 1999-03; n=14; 14<MDL; all values <MDL
Cyanide - free (wwh,ewh,mwh)	µg/L		0	No representative data available.
Dissolved solids (ave)	mg/L		300	EA3; 1999-03; n=14; 0<MDL; median
gamma-Hexachloro-cyclohexane (Lindane) (BCC)	µg/L		0	No representative data available.
Lead - TR	µg/L		1	EA3; 1999-03; n=14; 13<MDL; 1/2 MDL
Mercury - TR (BCC)	ng/L		0	No representative data available.

Molybdenum	µg/L		0	No representative data available.
Nickel - TR	µg/L		0	EA3; 1999-03; n=14; 14<MDL; all values <MDL
Selenium - TR	µg/L		0	EA3; 1999-03; n=14; 14<MDL; all values <MDL
Silver (wwh,ewh,mwh)	µg/L		0	No representative data available.
Strontium	µg/L		679	EA3; 1999-03; n=14; 0<MDL; median
Zinc - TR	µg/L		5	EA3; 1999-03; n=14; 11<MDL; 1/2 MDL

MDL = analytical method detection limit
n = number of samples
NPDES = National Pollutant Discharge Elimination System
Ohio EPA = Ohio Environmental Protection Agency
WWTP = wastewater treatment plant

Table 13. Summary of Effluent Limits to Maintain Applicable Water Quality Criteria

Parameter	Units	Outside Mixing Zone Criteria				Inside Mixing Zone Maximum
		Average			Maximum Aquatic Life	
		Human Health	Agri-culture	Aquatic Life		
Ammonia-S	mg/L	--	--	0.8	--	--
Ammonia-W	mg/L	--	--	2.87	--	--
Arsenic - TR	µg/L	--	358	150	340	680
Cadmium - TR	µg/L	--	182	4.3	10	20
Chromium - TR	µg/L	--	365	150	3200	6400
Chromium, Dissolved Hexavalent	µg/L	--	--	11	16	31
Copper - TR	µg/L	4745	1825	17	27	55
Cyanide - free (wwh,ewh,mwh)	µg/L	80299	--	12	46	92
Dissolved solids (ave)	mg/L	--	--	1500	--	--
gamma-Hexachloro-cyclohexane (Lindane) (BCC)	µg/L	0.63	--	0.057	0.95	1.9
Lead - TR	µg/L	--	362	16	300	600
Mercury - TR (BCC)	ng/L	12	10000	910	1700	3400
Molybdenum	µg/L	--	--	20000	190000	370000
Nickel - TR	µg/L	16790	730	95	850	1700
Selenium - TR	µg/L	40149	182	5	62	120
Silver (wwh,ewh,mwh)	µg/L	--	--	1.3	5.4	11
Strontium	µg/L	--	--	53000	140000	280000
Zinc - TR	µg/L	251833	91235	220	220	440

[A] Allocation must not exceed the Inside Mixing Zone Maximum

[B] Bioaccumulative Chemical of Concern (BCC); no mixing zone allowed after 11/15/2010, WQS must be met at end-of-pipe, unless requirements for an exception are met as listed in OAC 3745-2-05(A)(2)(e)(ii)

Table 14. Parameter Assessment

Group 1:	Due to a lack of criteria, the following parameters could not be evaluated at this time.		
	Total Suspended Solids	Total Kjeldahl Nitrogen	Total Phenolics
Group 2:	PEQ < 25 percent of WQS or all data below minimum detection limit. WLA not required. No limit recommended; monitoring optional.		
	Arsenic	Cadmium	Chromium
	Cyanide, free	Lindane	Mercury
	Molybdenum	Nickel	Silver
	Strontium		
Group 3:	PEQ_{max} < 50 percent of maximum PEL and PEQ_{avg} < 50 percent of average PEL. No limit recommended; monitoring optional.		
	Hexavalent Chromium	Copper	Lead
	Total Filterable Residue (dissolved solids)		Zinc
Group 4:	$PEQ_{max} \geq$ 50 percent, but < 100 percent of the maximum PEL or $PEQ_{avg} \geq$ 50 percent, but < 100 percent of the average PEL. Monitoring is appropriate.		
	Ammonia-N (summer)	Selenium	
Group 5:	Maximum PEQ ≥ 100 percent of the maximum PEL or average PEQ ≥ 100 percent of the average PEL, or either the average or maximum PEQ is between 75 and 100 percent of the PEL and certain conditions that increase the risk to the environment are present. Limit recommended.		

Limits to Protect Numeric Water Quality Criteria

			Recommended Effluent Limits	
Parameter	Units	Period	Average	Maximum
Ammonia-N	mg/l	Winter	2.87	--

PEL = preliminary effluent limit
PEQ = projected effluent quality
WLA = wasteload allocation
WQS = water quality standard

Table 15. Final Effluent Limits for Outfall 001

Parameter	Units	Concentration		Loading (kg/day)[a]		Basis[b]
		Daily Maximum	30 Day Average	Daily Maximum	30 Day Average	
Water Temperature	°C	- - - - - - - - - - Monitor - - - - - - - - - - -				M[c]
Dissolved Oxygen	mg/L	7.0[m]	--	--	--	ABS/AD
TSS (summer)	mg/L	21[d]	14	795[d]	530	ABS/PD
TSS (winter)	mg/L	37[d]	25	1401[d]	946	ABS/PD
Oil & Grease	mg/L	10	--	--	--	WQS
Ammonia (summer)	mg/L	1.12 [d]	0.75	42 [d]	28	ABS/PD
Ammonia (winter)	mg/L	4.25 [d]	2.83	161 [d]	108	ABS/PD
Total Kjeldahl Nitrogen	mg/L	- - - - - - - - - - Monitor - - - - - - - - - - -				M
Total Inorganic Nitrogen (summer)	mg/L	9.5 [d]	6.3	358 [d]	238	ABS/AD
Total Inorganic Nitrogen (winter)	mg/L	12.2 [d]	8.1	460 [d]	307	ABS/AD
Phosphorus	mg/L	1.5 [d]	1.0	57 [d]	35	ABS/AD/TMDL
Orthophosphate	mg/L	- - - - - - - - - - Monitor - - - - - - - - - - -				PMR
Selenium	µg/L	- - - - - - - - - - Monitor - - - - - - - - - - -				M/RP
Nickel	µg/L	- - - - - - - - - - Monitor - - - - - - - - - - -				M
Zinc	µg/L	- - - - - - - - - - Monitor - - - - - - - - - - -				M
Cadmium	µg/L	- - - - - - - - - - Monitor - - - - - - - - - - -				M
Lead	µg/L	- - - - - - - - - - Monitor - - - - - - - - - - -				M
Chromium	µg/L	- - - - - - - - - - Monitor - - - - - - - - - - -				M
Copper	µg/L	- - - - - - - - - - Monitor - - - - - - - - - - -				M
Dissolved Hexavalent Chromium	µg/L	- - - - - - - - - - Monitor - - - - - - - - - - -				M
E. coli	#/100 mL	284 [d]	126	--	--	WQS
Flow Rate	MGD	- - - - - - - - - - Monitor - - - - - - - - - - -				M[c]
Mercury	ng/L	- - - - - - - - - - Monitor - - - - - - - - - - -				M
Free Cyanide	µg/L	- - - - - - - - - - Monitor - - - - - - - - - - -				M
Acute Toxicity, *Ceriodaphnia dubia*	TUa	- - - - - - - - - - Monitor - - - - - - - - - - -				WET
Chronic Toxicity, *Ceriodaphnia dubia*	TUc	- - - - - - - - - - Monitor - - - - - - - - - - -				WET
Acute Toxicity, *Pimephales promelas*	TUa	- - - - - - - - - - Monitor - - - - - - - - - - -				WET
Chronic Toxicity, *Pimephales promelas*	TUc	- - - - - - - - - - Monitor - - - - - - - - - - -				WET
Total Filterable Residue	mg/L	- - - - - - - - - - Monitor - - - - - - - - - - -				M
pH, maximum	SU	9.0	--	--	--	WQS
pH, minimum	SU	6.5[m]	--	--	--	WQS
CBOD5 (summer)	mg/L	15[d]	10	568[d]	379	ABS/PD
CBOD5 (winter)	mg/L	27[d]	18	1022[d]	681	ABS/PD

[a] Effluent loadings based on average design discharge flow of 10 MGD.

[b] Definitions:

M = Division of Surface Water NPDES Permit Guidance 1: Monitoring frequency requirements for Sanitary Discharges
PD = Plant Design (OAC 3745-33-05(E))
PMR = Phosphorus monitoring requirements (ORC 6111.03)
RP = Reasonable Potential for requiring water quality-based effluent limits and monitoring requirements in permits (OAC 3745-33-07(A))
TMDL = Total Maximum Daily Load
WET = Minimum testing requirements for whole effluent toxicity [OAC 3745-33-07(B)(11)]
WLA = Wasteload Allocation procedures (OAC 3745-2)
WQS = Ohio Water Quality Standards (OAC 3745-1)

[c] Monitoring of flow and other indicator parameters is specified to assist in the evaluation of effluent quality and treatment plant performance.

[d] 7 day average limit.

[m] minimum limit

Attachment 1. Whole Effluent Toxicity Reasonable Potential Analysis

Whole effluent toxicity testing produced only non-detection results for [acute and/or chronic] toxicity in [*Ceriodaphnia dubia* and/or *Pimephales promelas]*, and therefore fall under Hazard Category 4. The reasonable potential analyses in Tables 3B, 3C, and 3D were only performed for *Ceriodaphnia dubia* chronic toxicity (TUc Cd).

Hazard Category Summary

	Ceriodaphnia dubia		***Pimephales promelas***	
	Acute	**Chronic**	**Acute**	**Chronic**
Effluent Toxicity (Table A)	4	3	4	4
Near-Field Impact (Table B)	4		4	
Far-field Impact (Table C)		4		4
	4		4	

Hazard Categories: 1: Toxicity adequately documented 3: Toxicity possible
2: Toxicity strongly suspected 4: No toxicity

Table A. Effluent Toxicity

	Ceriodaphnia dubia		***Pimephales promelas***	
	Acute	**Chronic**	**Acute**	**Chronic**
WLA	0.3	1.0	0.3	1.0
# of tests	5	5	5	5
Maximum value	AA	1.4	AA	AA
Percent of tests >WLA	--	20	--	--
Geometric mean	--	1.12	--	--
Average Exceedance (Geomean * Percent of tests >WLA)	--	0.22	--	--
Average Exceedance / WLA	--	0.22	--	--

Attribute Evaluated	**Hazard Category 1**	**Hazard Category 2**	**Hazard Category 3**	**Hazard Category 4**
Degree of Toxicity	Adequately Documented	Strongly Suspected	Possible	None
(1) Minimum number of tests (5)	3 TUc Cd	1 TUc Cd	0 or 1 TUc Cd	0 or 1 TUc Cd
(2) Percent of tests >WLA	>30	20 to 30 TUc Cd	10 to 20 TUc Cd	10
(3) Average Exceedance/WLA[1] (Tables B and C data not available)				
(a) Acute[2]	> 0.3	≥ 0.3	≥ 0.2	< 0.2
(b) Chronic	> 0.3	≥ 0.3	≥ 0.2	< 0.2
(3) Average Exceedance/WLA[1] (Tables B and C data available)				
(a) Acute[2]	> 0.5	≥ 0.3	≥ 0.3	< 0.3
(b) Chronic	>0.67	≥ 0.5	≥ 0.5	< 0.5 TUc Cd

Attribute Evaluated	Hazard Category 1	Hazard Category 2	Hazard Category 3	Hazard Category 4
Degree of Toxicity	Adequately Documented	Strongly Suspected	Possible	None
(4) Maximum TU value (Tables 3B and 3C data not available)	≥(3xWLA)	≥WLA	≥WLA	<WLA
(4) Maximum TU value (Tables 3B and 3C data available)	> WLA TUc Cd	≥ WLA TUc Cd	≥ 0.5xWLA	< 0.5xWLA

Table B. Near-Field Toxicity

Attribute Evaluated	Hazard Category 1	Hazard Category 2	Hazard Category 3	Hazard Category 4
Degree of Toxicity	Adequately Documented	Strongly Suspected	Possible	None
(1) Mortality within mixing zone[3]	≥ 20%	≤ 20%	≤ 20%	< 20%
(2) Stream community impact				
(a) implied chemically[4, 6]	≥3xIMZM or >LC50	≥1.5xIMZM or >LC50	≥0.75xIMZM or >0.75xLC50	≤0.5xIMZM or ≤0.75xLC50
(b) implied toxicologically[4]	≥1.0 TUa	≥1.0 TUa	≥1.0 TUa	<1.0 TUa
(c) implied biologically	Toxic	Fair/poor community	Slight impact	None

Table C. Far-Field Toxicity

Attribute Evaluated	Hazard Category 1	Hazard Category 2	Hazard Category 3	Hazard Category 4
Degree of Toxicity	Adequately Documented	Strongly Suspected	Possible	None
(1) Aquatic life use impairment (Ohio EPA biological criteria)	Yes[5]	Yes or partial[5]	Partial	None TUc Cd
(2) Stream community impact implied toxicologically[3]	Significant effect	Significant effect	Unknown or slight effect	None
(3) Other indicators	Stress indicated	Stress indicated	Stress indicated	No stress TUc Cd

[1] Compare (per cent exceedances x geometric mean TU) to table factor.
[2] Use 0.3 x WLA for situations where AIM exists.
[3] Results of ambient toxicity test are not binding or required for classification as to category but, if available, will be interpreted under the weight of evidence principle giving due consideration as to sampling location and conditions.
[4] Based on effluent data. May not be appropriate for situations where AIM exists.
[5] Lack of attainment due to toxic, complex or unidentifiable type of impact.
[6] The LC50-based criteria are used only for pollutant parameters that do not have numeric criteria.

Addendum 1. Acronyms

ABS	Anti-backsliding
BPJ	Best professional judgment
CFR	Code of Federal Regulations
CMOM	Capacity Management, Operation, and Maintenance
CONSWLA	Conservative substance wasteload allocation
CSO	Combined sewer overflow
CWA	Clean Water Act
DMR	Discharge Monitoring Report
DMT	Dissolved metal translator
IMZM	Inside mixing zone maximum
LTCP	Long-term Control Plan
MDL	Analytical method detection limit
MGD	Million gallons per day
NPDES	National Pollutant Discharge Elimination System
OAC	Ohio Administrative Code
Ohio EPA	Ohio Environmental Protection Agency
ORC	Ohio Revised Code
ORSANCO	Ohio River Valley Water Sanitation Commission
PEL	Preliminary effluent limit
PEQ	Projected effluent quality
PMP	Pollution Minimization Program
PPE	Plant performance evaluation
SSO	Sanitary sewer overflow
TMDL	Total Daily Maximum Load
TRE	Toxicity reduction evaluation
TU	Toxicity unit
U.S. EPA	United States Environmental Protection Agency
WET	Whole effluent toxicity
WLA	Wasteload allocation
WPCF	Water Pollution Control Facility
WQBEL	Water-quality-based effluent limit
WQS	Water Quality Standards
WWTP	Wastewater Treatment Plant