Application No.: OH0023221
Ohio EPA Permit No.: 3PD00018*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.	188605
Date of Issue of Public Notice:	Sep-07-2023
Name and Address of Applicant:	Mayor and Council, City of Ravenna, 3722 Hommon Ave., Ravenna, OH, 44266
Name and Address of Facility Where Discharge Occurs:	Ravenna WWTP, 3772 Hommon, Ravenna, OH, 44266, Portage County
Outfall Flow and Location List:	001 2,800,000 GPD 41N 8' 58" 81W 15' 42"
Receiving Stream:	Hommon Ditch
Nature of Business:	POTW
Key parameters to be limited in the permit are as follows:	Dissolved Oxygen, Total Suspended Solids, Oil and Grease, Hexane Extr Method, Nitrogen, Ammonia (NH3), Phosphorus, Total, E. coli, Mercury, Total (Low Level), Acute Toxicity, Ceriodaphina dubia, Chronic Toxicity, Ceriodaphnia dubia, Acute Toxicity, Pimephales promelas, Chronic Toxicity, Pimephales promelas, pH Maximum, pH, Minimum, CBOD 5day, Arsenic, Total In Sludge, Cadmium, Total In Sludge, Copper, Total In Sludge, Lead, Total In Sludge, Nickel, Total In Sludge, Zinc, Total In Sludge, Selenium, Total In Sludge, Fecal Coliform in Sludge, Mercury, Total In Sludge, Molybdenum In Sludge

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, Northeast District Office 2110 East Aurora Road, Twinsburg, Ohio 44087 .

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. Individual NPDES draft permits that are in public notice are now available on DSW's web site: http://www.epa.ohio.gov/dsw/permits/individuals/draftperm.aspx

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.: 3PD00018*PD
Application No: OH0023221

Action Date:
Effective Date:
Expiration Date: 5 Years

DRAFT COPY
SUBJECT TO REVISION
OHIO EPA

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 Ravenna

is authorized by the Ohio Environmental Protection Agency, hereinafter referred to as "Ohio EPA," to discharge from the City of Ravenna Wastewater Treatment Plant, located at 3772 Hommon Road, Ravenna, Ohio, Portage County, and discharging to Hommon Road Ditch ("Hommon Ditch") at River Mile 0.85 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: 44

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: 3PD00018001. 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	-	-	-	-	-	-	-	1/Day	Maximum Indicating Thermometer	All
00300 - Dissolved Oxygen - mg/l	-	7.5	-	-	-	-	-	1/Day	Multiple Grab	All
00530 - Total Suspended Solids - mg/l	-	-	15	10	-	159	106	3/Week	24hr Composite	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	10	-	-	-	-	-	-	1 / 2 Weeks	Grab	All
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	1.5	1.0	-	15.9	10.6	3/Week	24hr Composite	Summer
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	11.7	7.8	-	124	82.7	3/Week	24hr Composite	Winter
00625 - Nitrogen Kjeldahl, Total - mg/l	-	-	-	-	-	-	-	1/Month	Composite	All
00630 - Nitrite Plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00665 - Phosphorus, Total (P) - mg/l	-	-	1.23	0.82	-	13.0	8.7	1/Week	24hr Composite	All
00671 - Orthophosphate, Dissolved (as P) - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
01074 - Nickel, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01113 - Cadmium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.

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			
01114 - Lead, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01118 - Chromium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01220 - Chromium, Dissolved Hexavalent - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
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	1700	-	-	2.3	0.018	-	0.000024	1/Month	Grab	All
51173 - Cyanide, Free (Low-Level) - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
61425 - Acute Toxicity, Ceriodaphnia dubia - TUa	1.0	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
61426 - Chronic Toxicity, Ceriodaphnia dubia - TUc	-	-	-	1.0	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
61427 - Acute Toxicity, Pimephales promelas - TUa	1.0	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
61428 - Chronic Toxicity, Pimephales promelas - TUc	-	-	-	1.0	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
61941 - pH, Maximum - S.U.	9.0	-	-	-	-	-	-	1/Day	Multiple Grab	All
61942 - pH, Minimum - S.U.	-	6.5	-	-	-	-	-	1/Day	Multiple Grab	All
70300 - Residue, Total Filterable - mg/l	-	-	-	-	-	-	-	1 / 2 Weeks	24hr Composite	All
80082 - CBOD 5 day - mg/l	-	-	12.3	8.2	-	131	87	3/Week	24hr Composite	All

Notes for Station Number 3PD00018001:

* Effluent loadings based on average design flow of 2.8 MGD.

a. Mercury - See Part II, Items Q, U, V and W.

b. Orthophosphate - See Part II, Item R.

c. Free cyanide - See Part II, Item P.

d. Biomonitoring - See Part II, Item X.

e. Quarterly-Alt. refers to the months of March, June, September, and December.

f. pH - The critical (maximum and minimum) values shall be reported each day.

g. The WWTP utilizes ultraviolet (UV) light for disinfection.

PART I, B. BYPASS LIMITATIONS AND MONITORING REQUIREMENTS

1. 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 3PD00018002, and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS, for location of sampling.

Table - Bypass Monitoring - 002 - 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 3PD00018002:

a. This station is comprised of the emergency bypass located at the headworks.

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

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

d. Monitoring and sampling shall be conducted and reported on each day that there is a discharge through this station. 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. 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. SSO LIMITATIONS AND MONITORING REQUIREMENTS

2. 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 3PD00018300, 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 3PD00018300:

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

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 3PD00018581, 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 - 581 - 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			
00611 - Ammonia (NH3) In Sludge - mg/kg	-	-	-	-	-	-	-	1/Year	Composite	December
00627 - Nitrogen Kjeldahl, Total In Sludge - mg/kg	-	-	-	-	-	-	-	1/Year	Composite	December
00668 - Phosphorus, Total In Sludge - mg/kg	-	-	-	-	-	-	-	1/Year	Composite	December
00938 - Potassium In Sludge - mg/kg	-	-	-	-	-	-	-	1/Year	Composite	December
01003 - Arsenic, Total In Sludge - mg/kg	75	-	-	-	-	-	-	1/Year	Composite	December
01028 - Cadmium, Total In Sludge - mg/kg	85	-	-	-	-	-	-	1/Year	Composite	December
01043 - Copper, Total In Sludge - mg/kg	4300	-	-	-	-	-	-	1/Year	Composite	December
01052 - Lead, Total In Sludge - mg/kg	840	-	-	-	-	-	-	1/Year	Composite	December
01068 - Nickel, Total In Sludge - mg/kg	420	-	-	-	-	-	-	1/Year	Composite	December
01093 - Zinc, Total In Sludge - mg/kg	7500	-	-	-	-	-	-	1/Year	Composite	December
01148 - Selenium, Total In Sludge - mg/kg	100	-	-	-	-	-	-	1/Year	Composite	December
51129 - Sludge Fee Weight - dry tons	-	-	-	-	-	-	-	1/Year	Total	December
51131 - Fecal Coliform in Sludge - CFU/gram	2000000	-	-	-	-	-	-	1/Year	Multiple Grab	December
70316 - Sludge Weight - Dry Tons	-	-	-	-	-	-	-	1/Year	Total	December
71921 - Mercury, Total In Sludge - mg/kg	57	-	-	-	-	-	-	1/Year	Composite	December

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			
78465 - Molybdenum In Sludge - mg/kg	75	-	-	-	-	-	-	1/Year	Composite	December

Notes for Station Number 3PD00018581:

a. Monitoring is required when sewage sludge is removed from the permittee's facility for application to the land. The monitoring data shall be reported on December Discharge Monitoring Report (DMR). The monitoring data can be collected at any time during the reporting period.

b. Metal analysis must be completed during each reporting period whether or not sewage sludge is removed from the facility and applied to the land. Alternatively, the number of composite samples collected and reported prior to the next land application event shall be increased to account for the reporting period(s) in which land application did not occur. If all accumulated sewage sludge has been removed and hauled to a landfill, incinerated or transferred to another NPDES permit holder, then the metal analysis is not required.

c. If no sewage sludge is removed from the facility during the reporting period, enter the results for the metal analysis on the DMR and enter "0" for sludge weight and sludge fee weight.

d. If no sewage sludge is removed from the facility during the reporting period and no metal analysis is completed during the reporting period, select the "No Discharge" check box on the data entry form and PIN the eDMR.

e. If metal analysis has not been completed previously during each reporting period: when sewage sludge is removed from the facility all metal analysis results shall be reported on the applicable DMR by entering the separate results on different days within the DMR. For example, if no sewage sludge has been removed from the facility for a full calendar year, and quarterly monitoring is required by the permit, then five (four from the previous year and one for the current monitoring period) separate composite samples of the sewage sludge are required to be collected and analyzed for metals prior to removal from the facility. The first sample result may be entered on the first day of the DMR, the second result on the second day of the DMR, and so on. A note may then be added to indicate the actual day(s) when the samples were collected.

f. It is recommended that composite samples of the sewage sludge be collected and analyzed close enough to the time of land application to be reflective of the sludge's current quality, but not so close that the results of the analysis are not available prior to land applying the sludge.

g. The permittee shall maintain the appropriate records on site to verify that the requirements of Pathogen Reduction and Vector Attraction Reduction have been met.

h. Units of mg/kg are on a dry weight basis.

i. 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.

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

k. See Part II, Items L, M, N, and O.

l. To sample for fecal coliform, the treatment plant should collect and analyze a grab sample every other day over a two week period for a total of seven grab samples when practical. Each of the grab samples shall be analyzed independently to determine the MPN/g of fecal coliform in the individual sample. The geometric mean of those seven results shall be reported on the DMR. Each fecal coliform sample must be delivered to the analytical lab within six hours after the sample has been collected, in accordance with the requirements for Part 9221 E. or part 9222 D., "Standard Methods for the Examination of Water and Wastewater". This process must be completed prior to sewage sludge being removed from the treatment facility.

PART I, B. SLUDGE LIMITATIONS AND MONITORING REQUIREMENTS

4. 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 3PD00018586, 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 3PD00018586:

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 L, M, N, and O.

PART I, B. SLUDGE LIMITATIONS AND MONITORING REQUIREMENTS

5. 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 3PD00018588, 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 3PD00018588:

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 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 L, M, N, and O.

PART I, B. INFLUENT MONITORING REQUIREMENTS

6. 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 3PD00018601, 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/Quarter	Grab	Quarterly - Alt.
01074 - Nickel, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01113 - Cadmium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01114 - Lead, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01118 - Chromium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01220 - Chromium, Dissolved Hexavalent - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
50092 - Mercury, Total (Low Level) - ng/l	-	-	-	-	-	-	-	1/Month	Grab	All
61941 - pH, Maximum - S.U.	-	-	-	-	-	-	-	1/Day	Multiple Grab	All
61942 - pH, Minimum - S.U.	-	-	-	-	-	-	-	1/Day	Multiple Grab	All
80082 - CBOD 5 day - mg/l	-	-	-	-	-	-	-	3/Week	24hr Composite	All

Notes for Station Number 3PD00018601:

a. Quarterly-Alt. refers to the months of March, June, September, and December.

b. Sampling for the respective parameters shall be performed on the same day as Outfall 3PD00018001.

PART, B. BYPASS LIMITATIONS AND MONITORING REQUIREMENTS

7. 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 3PD00018602, 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.	Total	All
00052 - Bypass Total Hours Per Day - Hrs/Day	-	-	-	-	-	-	-	When Disch.	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 3PD00018602:

a. This station is comprised of the EQ Basin overflow, prior to Outfall 3PD00018001.

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

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

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

8. 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 3PD00018801, 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			
00010 - Water Temperature - C	-	-	-	-	-	-	-	1/Month	Grab	All
00300 - Dissolved Oxygen - mg/l	-	-	-	-	-	-	-	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
00630 - Nitrite Plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
31648 - E. coli - #/100 ml	-	-	-	-	-	-	-	1 / 2 Weeks	Grab	June - Aug
61432 - 48-Hr. Acute Toxicity Ceriodaphnia dubia - % Affected	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
61435 - 96-Hr. Acute Toxicity Pimephales promelas - % Affected	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
61438 – 7-Day Chronic Toxicity Ceriodaphnia dubia - % Affected	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
61441 – 7-Day Chronic Toxicity Pimephales promelas - % Affected	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.

Notes for Station Number 3PD00018801:

a. Sampling for the respective parameters shall be performed on the same day as Outfall 3PD00018001.

b. Biomonitoring - see Part II, Item X.

c. Quarterly-Alt. refers to the months of March, June, September, and December.

Part I, B. DOWNSTREAM-NEARFIELD MONITORING REQUIREMENTS

9. Downstream-Nearfield 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 3PD00018901, and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS, for location of sampling.

Table - Downstream-Nearfield 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
00300 - Dissolved Oxygen - mg/l	-	-	-	-	-	-	-	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
00630 - Nitrite Plus Nitrate, 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	-	-	-	-	-	-	-	1 / 2 Weeks	Grab	June - Aug

Notes for Station Number 3PD00018901:

a. Sampling for the respective parameters shall be performed on the same day as Outfall 3PD00018001.

PART I, C. - SCHEDULE OF COMPLIANCE

Milestone Summary Report			
Section	Report	Event Code	Due Date
Municipal Pretreatment Schedule	Eff Limits For Pollutants	52599	6 months after the permit effective date

1. Municipal Pretreatment Schedule

a. 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, Northeast District Office, as soon as possible, but no later than six (6) months from the effective date of this permit.
(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/pretreatment-program

The report shall include the following:

i. Identification of and justification for pollutants of concern for which local limits will be developed.

ii. 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.

iii. 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.

iv. 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).

v. 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/pretreatment-program

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

vii. 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.

viii. Supporting data, assumptions, and methodologies used in establishing the information in item 1.a.i through 1.a.vii above.

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

b. 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.

c. 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.

d. Sampling Methods

i. 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.

ii. Free Cyanide: The permittee shall use ASTM D7237, OIA-1677-09, or ASTM D4282-02 to quantify domestic background contributions of free cyanide. 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).

2. Evaluation for Reducing Discharge of Phosphorus

The permittee shall continue to develop and implement treatment and/or control strategies aimed at reducing the discharge of phosphorus at outfall 3PD00018001.

The permittee shall fill out and submit the Evaluation for Reducing Discharge of Phosphorus Form which reports on the overall progress towards reducing the final effluent concentration of nutrients attached with the submittal of the future permit renewal application. The form is available on Ohio EPA's website at:

https://epa.ohio.gov/divisions-and-offices/surface-water/permitting/individual-wastewater-discharge-permit-applications-industrial-and-municipal-discharges-

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 III 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 than 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
3PD00018001	Final effluent (Lat: 41 N 08 ' 58 "; Long: 81 W 15 ' 42 ")
3PD00018002	Emergency manual bypass gate from headworks to Hommon Avenue Ditch
3PD00018300	System wide sanitary sewer overflow occurrences
3PD00018581	Sludge removed for land application
3PD00018586	Sludge removed for landfill disposal
3PD00018588	Sludge hauled to another WWTP for disposal
3PD00018601	Plant influent
3PD00018602	Equalization Basin overflow prior to Outfall 3PD00018001
3PD00018801	Hommon Road Ditch upstream of plant effluent
3PD00018901	Hommon Road Ditch downstream of plant effluent

C. All parameters, except flow and any other continuously-recorded parameters, need not be monitored on days when the plant is not normally staffed (Saturdays, Sundays, and Holidays). On those days, report "AN" on the monthly report form.

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 Northeast 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. Multiple grab samples shall be comprised of at least three grab samples collected at intervals of at least three hours during the period that the plant is staffed on each day for sampling. Samples shall be collected at such times and locations, and in such fashion, as to be representative of the facility's overall performance. The critical value shall be reported.

I. 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).

J. 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.

K. 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.

L. 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.

M. 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.

N. 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.

O. 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.

P. 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.

Q. Monitoring for Mercury (low-level)

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

R. 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.

S. 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.

T. Pretreatment Program Requirements

The permittee's pretreatment program initially approved on June 13, 1985, 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 104 ug/L
Cadmium 4.3 ug/L
Chromium, hexavalent 11 ug/L
Chromium, total 104 ug/L
Copper 17 ug/L
Lead 17 ug/L
Molybdenum 10413 ug/L
Nickel 97 ug/L
Selenium 5.1 ug/L
Silver 1.3 ug/L
Zinc 227 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 March 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 February, May, August, and November, 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 March 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.

U. General Mercury Variance

The permittee is granted a renewal of the general mercury variance under the provisions of Rule 3745-01-38(H) of the Ohio Administrative Code. The City of Ravenna has demonstrated that the facility is currently unable to comply with the monthly average water quality based effluent limit of 1.3 ng/L without construction of expensive end-of-pipe controls more stringent than those required by sections 301(b) and 306 of the Clean Water Act. The City of Ravenna is currently able to achieve an annual average mercury concentration of 12 ng/L. For general mercury variance purposes, the annual average mercury effluent concentration is defined as the average of the most recent 12 months of effluent data.

One of the conditions of the general mercury variance is that the permittee make reasonable progress towards attaining the water quality based effluent limits for mercury (1.b, below). To accomplish this, the permittee is required to continue implementing a pollutant minimization program (PMP) for mercury. The elements of a PMP include: a control strategy to locate, identify and, where cost-effective, reduce levels of mercury that contribute to discharge levels; periodic monitoring of sources and the treatment system; and annual reporting of results.

The plan of study that was part of the permittee's original 2006 application for coverage under the general mercury variance included items associated with developing a control strategy and initial implementation of a PMP. By implementing the plan of study and meeting other conditions of its NPDES permit, the permittee has been taking actions consistent with a PMP for mercury. Condition 1.d below, requires the

permittee to continue implementing a PMP for mercury.

1. As conditions of this variance, the permittee shall meet the following requirements:

a. The permittee shall comply with the effluent limitations for mercury at outfall 3PD00018001 given in Part I, A. of this permit.

b. The permittee shall make reasonable progress towards attaining the monthly average water quality-based effluent limit for mercury by complying with the general mercury variance conditions included in this NPDES permit.

c. The permittee shall use EPA Method 1631 to comply with the influent and effluent mercury monitoring requirements of this permit.

d. The permittee shall continue implementing a PMP for mercury consistent with the plan of study included in the permittee's mercury variance application and any other subsequent information submitted by the permittee.

e. The permittee shall assess the impact of the mercury variance on public health, safety, and welfare by, as a minimum, monitoring for mercury in the facility's influent and effluent as required by this NPDES permit.

f. The permittee shall maintain an annual average mercury effluent concentration equal to or less than 12 ng/L.

g. On or prior to March 15th of each year, the permittee shall submit two copies of an annual PMP report to Ohio EPA, Division of Surface Water, NPDES Permit Unit, P.O. Box 1049, Columbus, OH, 43216-1049. The annual PMP report shall include:

i. All minimization program monitoring results for the year

ii. A list of potential sources of mercury

iii. A summary of all actions taken to meet the effluent limits for mercury

iv. Any updates of the control strategy, including actions planned to reduce the levels of mercury in the treatment plant's final effluent

The Ohio EPA Annual Mercury PMP Report and Appendices are available on the Division of Surface Water Permits Program Technical Assistance web page at the following website:

https://epa.ohio.gov/divisions-and-offices/surface-water/guides-manuals/permits-program-technical-assistance

h. Upon completion of the actions identified in the plan of study as required in Part II, Item U.1.d. of this permit or upon submittal of the permittee's NPDES permit renewal application, whichever comes first, the permittee shall submit to Ohio EPA's Northeast District Office a certification stating that all permit conditions imposed to implement the plan of study and the PMP have been satisfied and whether compliance with the monthly average water quality based effluent limit for mercury has been achieved and can be maintained. This certification shall be accompanied by the following:

i. All available mercury influent and effluent data for the most recent 12 month period.

ii. Data documenting all known significant sources of mercury and the steps that have been taken to reduce or eliminate those sources; and

iii. A determination of the lowest mercury concentration that currently available data indicate can be reliably achieved through implementation of the PMP.

2. Exceedance of the annual average limit of 12 ng/L.

a. If at any time after the effective date of this permit, the permittee's annual average mercury effluent concentration exceeds 12 ng/L, the permittee shall:

i. Notify Ohio EPA's Northeast District Office not later than 30 days from the date of the exceedance.

ii. Submit an individual variance application, if a variance is desired, not later than 6 months from the date of the exceedance; or

iii. Request a permit modification not later than 6 months from the date of the exceedance for a compliance schedule to attain compliance with the water quality-based effluent limits for mercury.

b. If the permittee complies with either 2.a.ii or 2.a.iii, above, the general mercury variance conditions included in this NPDES permit will remain in effect until the date that the Director acts on the individual variance application or the date that the permit modification becomes effective.

c. If the permittee does not comply with either 2.a.ii or 2.a.iii, above, a monthly water-quality based effluent limit for mercury of 1.3 ng/L shall apply at outfall 3PD00018001 beginning 6 months from the date of the exceedance.

3. The requirements of Part II, Item U.2 shall not apply if the permittee demonstrates to the satisfaction of the Director that the mercury concentration in the permittee's effluent exceeds 12 ng/L due primarily to the presence of mercury in the permittee's intake water.

V. Renewal of Mercury Variance

For renewal of the mercury variance authorized in this permit, the permittee shall include the following information with the submittal of the subsequent NPDES permit renewal application:

1. the certification described under Part II, Item U.1.h., and all information required under Part II, Item U.1.h.i. through Part II, Item U.1.h.iii;

2. a status report on the progress being made implementing the pollutant minimization program (PMP). This information may be included in the annual PMP report required under Part II, Item U.1.g;

3. a listing of the strategies and/or programs in the PMP which will be continued under the next renewal of this permit; and

4. a statement requesting the renewal of the mercury variance.

W. Permit Reopener for Mercury Variance Revisions

Ohio EPA may reopen and modify this permit at any time based upon Ohio EPA water quality standard revisions to the mercury variance granted in Part II, Item U of this permit.

X. Biomonitoring Program Requirements

The permittee shall continue to implement an effluent biomonitoring program to determine the toxicity of the effluent from outfall 3PD00018001.

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 chronic toxicity tests, as specified in Part I.A, using water fleas (*Ceriodaphnia dubia*) and fathead minnows (*Pimephales promelas*) on effluent samples from outfall 3PD00018001. These tests shall be conducted as specified in Section 3 of the biomonitoring guidance.

2. Acute Bioassays

The permittee shall conduct definitive acute toxicity tests, as specified in Part I.A, using water fleas (*Ceriodaphnia dubia*) and fathead minnows (*Pimephales promelas*) on effluent samples from outfall 3PD00018001. These tests shall be conducted as specified in Section 2 of the biomonitoring guidance. Acute toxicity tests need not be performed for months in which chronic toxicity tests are conducted. 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 3PD00018801. 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 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)

Y. Industrial Stormwater Compliance

The permittee has obtained coverage under Ohio EPA’s Multi-Sector General Industrial Storm Water Permit (MSGP No. OHR000007). Permit number 3GR01886*FG was issued on August 1, 2022.

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 weeks 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
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 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 the **City of Ravenna Wastewater Treatment Plant**

Public Notice No.: 188605
Public Notice Date: September 7, 2023
Comment Period Ends: October 7, 2023

Ohio EPA Permit No.: **3PD00018*PD**
Application No.: **OH0023221**

Name and Address of Applicant:

City of Ravenna
210 Park Way Drive
Ravenna, Ohio 44266

Name and Address of Facility Where Discharge Occurs:

City of Ravenna WWTP
3722 Hommon Road
Ravenna, Ohio 44266
Portage County

Receiving Water: **Hommon Road Ditch (aka Hommon Avenue Ditch)**

Subsequent Stream Network: **Wahoo Ditch, Breakneck Creek, Cuyahoga River, Lake Erie**

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.

The reasonable potential analysis placed mercury in Group 5. The data indicates that this parameter has the reasonable potential to exceed WQS and, therefore, limits are necessary. The variance-based 30-day average limit is recommended to be decreased in accordance with the data presented as part of the facility's mercury variance renewal request.

The reasonable potential analysis placed copper in Group 4. Based on this placement, the existing effluent limits are recommended to be removed; monthly monitoring will continue.

Based on a review of Whole Effluent Toxicity (WET) data, reasonable potential to exceed WQS has been demonstrated. As such, chronic and acute toxicity limits for *Ceriodaphnia dubia* (water flea) and *Pimephales promelas* (fathead minnow) are recommended to continue.

A compliance schedule is proposed for the facility to continue implementation of treatment and/or control strategies to reduce the discharge of phosphorus.

The monitoring frequencies for *E. coli* have been changed from 1/month (Summer) to 1/ 2 weeks (June - August) at the upstream and downstream monitoring stations. The increased frequency over a shorter duration will facilitate impairment assessments.

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; and outfall signage.

This permit renewal is proposed for a term of approximately 5 years.

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 Rebecca Werner at 330-963-1106 or Rebecca.Werner@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: http://epa.ohio.gov/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

The City of Ravenna Wastewater Treatment Plant ("Ravenna WWTP") discharges to Hommon Road Ditch via Outfall 3PD00018001 at River Mile 0.85. Hommon Road Ditch ("Hommon Ditch") subsequently flows into Wahoo Ditch, followed by Breakneck Creek and the Cuyahoga River. The approximate location of the facility is shown in Figure 1.

This segment of Hommon Road Ditch is described by Ohio EPA River Code: 19-028-003. Watershed Assessment Unit (WAU) Code: 04110002-02-02, County: Portage, Ecoregion: Erie/Ontario Lake Plain Ecoregion.

For aquatic life use, Hommon Ditch is designated limited resource waters (LRW), Wahoo Ditch is designated modified warmwater habitat (MWH), and Breakneck Creek is designated warmwater habitat (WWH) under Ohio's Water Quality Standards (OAC 3745-1-26). Wahoo Ditch and Breakneck Creek are designated for primary contact recreation (PCR) while Hommon Ditch is designated as secondary contact (SCR). All three streams are designated for agricultural water supply (AWS) and industrial water supply (IWS) uses.

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 (MWH) or Limited Resource Water (LRW) 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 (PCR) and wading only (Secondary Contact - 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 AWS and IWS.

FACILITY DESCRIPTION

The Ravenna WWTP was initially constructed in 1907. The most recent treatment plant modification was initiated in 2004. The plant serves the City of Ravenna and outlying parts of the unincorporated areas of Ravenna, Rootstown, and Shalersville townships in Portage County. The total population within the service area is approximately 18,771. The collection system is comprised of 100 percent separate sanitary sewers. Water supply for the service area is provided by the Ravenna Water Treatment Plant as well as private wells.

The tertiary treatment facility provides treatment to an average design flow of 2.8 million gallons per day (MGD) with a peak hydraulic capacity of 6.02 MGD. As depicted in Figure 2, the existing wet-stream treatment processes and/or equipment include:

- Screening
- Grit Removal

- Flow Equalization
- Primary Clarification
- Activated Sludge Biological Secondary Treatment Process
- Secondary Clarification
- Tertiary Disk Filtration
- Phosphorus Removal (Alum Addition)
- Ultraviolet Disinfection
- Cascade Post Aeration

When influent flows exceed the capacity of the treatment plant, wastewater can be diverted from primary treatment to two flow equalization (EQ) basins, each with a storage capacity of 1.4 million gallons. Diversion to the EQ basins generally occur when the influent flow reaches 5.5 to 6.0 MGD. The limiting design factor in the treatment process preventing higher amounts of wastewater being treated is the capacity of the disk filters. Once sent to the EQ basins, wastewater is re-introduced into the treatment process as the influent flow rate decreases or discharged from the EQ basin directly to the outfall sewer. Excess wet-weather overflow from the EQ basins (Internal Bypass Station 3PD00018602) combines with the treated effluent prior to the sampler at Outfall 3PD00018001.

In addition to the internal bypass, the plant is equipped with an emergency bypass (Outfall 3PD00018002) at the plant headworks. A manual gate can be opened to direct flow from the headworks directly to Hommon Ditch without treatment. This bypass has only been used once in the past 15 years.

Waste sludge from the treatment process is anaerobically digested for pathogen and vector control. The digested sludge is dewatered using a belt filter press, stored either in the sludge storage building or on sludge drying beds, and land applied for agronomic benefit. The dewatered Class B sludge is presently land applied under contract. Table 1 shows the quantities of sludge removed for the past 5 years.

The City of Ravenna continues to implement an Ohio EPA-approved industrial pretreatment program, initially approved on June 13, 1985. The pretreatment program is mandated under the Clean Water Act and regulates industrial facilities discharging process wastewater to publicly owned treatment works (POTWs). Because POTWs are not generally designed to treat for these substances, pretreatment programs are needed to ensure that potentially serious problems do not arise. Since local sewer control is best handled at the local level, Ohio EPA typically delegates the program responsibilities to the local control authority.

Based on information in the NPDES renewal application, there are there are 3 categorical and 6 non-categorical significant industrial users (SIUs) presently discharging to the Ravenna WWTP. The total flow from the SIUs is approximately 0.275 MGD.

DESCRIPTION OF EXISTING DISCHARGE

The annual effluent flow rates for Ravenna WWTP for the review period, January 2018 through March 2023, are presented in Table 2.

Effluent limitations violations reported for the review period, January 2018 through March 2023, are listed in Table 3.

Plant bypasses from the EQ basin are reported utilizing Bypass Station 3PD00018602. Bypass data for the review period, January 2018 through March 2023, are presented in Table 4.

Ravenna WWTP currently reports collection system sanitary sewer overflows (SSO) utilizing SSO Station 3PD00018300. SSO data for the review period, January 2018 through March 2023, are presented in Table 5.

The seasonal phosphorus discharges from Outfall 3PD00018001 are listed in Table 6

Table 7 presents a summary of unaltered Discharge Monitoring Report (DMR) data for the review period, January 2018 through March 2023. The current permit limits are provided for comparison.

Table 8 presents a select summary of effluent data from the facility's annual pretreatment reports for the period, 2018 to 2022. Under the provisions of 40 CFR 122.21(j), the Director has waived the requirement for submittal of expanded effluent testing data as part of the NPDES renewal application. Ohio EPA has access to substantially identical information through the submission of annual pretreatment program reports and/or from Ohio EPA effluent testing conducted.

Table 9 summarizes the chemical specific data for Outfall 3PD00018001 by presenting the average and maximum PEQ values.

Table 10 summarizes the results of acute Whole Effluent Toxicity (WET) tests of the final effluent using the water flea (*Ceriodaphnia dubia*) and fathead minnow (*Pimephales promelas*) as the test organisms.

ASSESSMENT OF IMPACT ON RECEIVING WATERS

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 (IBI) and modified Index of Well-Being (MIwb), which indicate the response of the fish community, and the Invertebrate Community Index (ICI), 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 biocriteria. Partial attainment means that one or more of the applicable indices fails meet the biocriteria. Nonattainment means that either none of the applicable indices meet the biocriteria or one of the organism groups indicates poor or very poor performance. An aquatic life use attainment table (see Table 11) 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 (QHEI), and comments and observations for each sampling location.

Pursuant to Section 303(d) of the Clean Water Act (CWA), 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. Ohio EPA's biennial "*Integrated Water Quality Monitoring and Assessment Report*" (Integrated Report) summarizes the general condition of Ohio's waters and identifies waters that are not meeting water quality goals. The report satisfies the CWA requirements for both Section 305(b) for biennial reports on the condition of the State's waters and Section 303(d) for a prioritized list of impaired waters. For each impaired water, Ohio EPA typically prepares a Total Maximum Daily Load (TMDL) analysis.

The 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. Ohio EPA typically focuses on watersheds in preparing TMDLs.

The attainment status of Breakneck Creek is reported in the final Ohio 2022 Integrated Report. The Feeder Canal-Breakneck Creek assessment unit, WAU 041100020202, which includes Hommon Road Ditch and Wahoo Ditch in the vicinity of the Ravenna WWTP, is listed as impaired for human health (historical), aquatic life (various causes), and recreation (*E. coli*) on Ohio's 303(d) list. The full Integrated Report can be found at this website:

https://epa.ohio.gov/static/Portals/35/tmdl/2022intreport/Full-2022-IR.pdf

A final Total Daily Maximum Load (TMDL) report was approved in March 2000 for the Middle Cuyahoga River. The TMDL report can be found at:

https://epa.ohio.gov/divisions-and-offices/surface-water/reports-data/cuyahoga-river-watershed.

Recommendations from the TMDL regarding total suspended solids, CBOD5, dissolved oxygen, ammonia-nitrogen and total phosphorus effluent limits were implemented through previous versions of the Ravenna WWTP NPDES permit. The recommendations of the TMDL are proposed to continue in this permit (see

Table 16).

The Cuyahoga River basin currently has three approved TMDL reports. In addition to the middle section, the upper section was approved in September 2004 and the lower section was approved in September 2003. As part of the TMDL implementation process, a comprehensive chemical, physical, and biological monitoring survey was conducted in the Cuyahoga River mainstem and 67 tributary streams, including Wahoo Ditch and Breakneck Creek, in 2017 and 2018. This assessment included sampling at sites in Breakneck Creek and Wahoo Ditch. No biological assessments were available for Hommon Ditch. A summary of the biological assessment results for the interactive segment can be found in Table 9. The complete details regarding the assessments in Breakneck Creek and Wahoo Ditch can be found in the following draft technical support document; "*Biological and Water Quality Study of the Cuyahoga River Watershed, 2017 and 2018*"; Ohio EPA, February, 2023:

https://epa.ohio.gov/static/Portals/35/tmdl/TSD/Cuyahoga/Cuyahoga-TSD.pdf

The report notes that:

> *"... Compared to historical survey results, fish index scores from the lower reaches of Breakneck Creek have markedly improved (Figure 43). This was especially evident around Wahoo Ditch and the Franklin Hills and Ravenna WWTPs, where previous surveys documented water quality issues that led to fish community impairment (Ohio EPA 1999)..."*

Additional information about Breakneck Creek can be found in the technical support document; "*Biological and Water Quality Study of the Cuyahoga River and Selected Tributaries*"; Ohio EPA, August, 1999.

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 Ravenna WWTP were used to determine what parameters should undergo a 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)	January 2018 through March 2023
Pretreatment data	2018 to 2022

The data were examined and the following value was removed from the evaluation as non-representative data:

Parameter	Date	Value	Units	Comment
Mercury	7/17/2019	27.4	mg/L	Non-Representative High Value

The average and maximum projected effluent quality (PEQ) values are presented in Table 9.

For more information on PEQ calculations, see Modeling Guidance #1 at the following webpage:
https://epa.ohio.gov/static/Portals/35/guidance/model1.pdf

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. By rule, mixing zones are not authorized for pollutants, such as mercury, which have been designated as bioaccumulative chemicals of concern (BCCs). For BCCs, the WLA is set equal to the respective WQS value.

The methodology employed generally depends on whether the facility is considered a direct discharger to a (1) free-flowing receiving water/stream or (2) non-flowing receiving water/Lake.

For free flowing streams, WLAs for both average and maximum criteria are performed 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.

WLAs for direct discharges to lakes are performed using the following equation for average criteria:

Discharger WLA = (11 x WQS) – (10 x Background Concentration).

The following dischargers in the Breakneck Creek study area were considered interactive (see Figure 3):

- Ravenna WWTP
- Franklin Hills WWTP

These facilities were allocated together for most parameters due to the size of the plant discharges, the flows of the Breakneck Creek, Wahoo Ditch and Hommon Road Ditch, and the relatively close proximity of the two plants. The exception was the ammonia-N WLA, which was done separately for each facility because ammonia-N is considered to be a non-conservative parameter.

The available assimilative capacity was distributed among them using the conservative substance wasteload allocation (CONSWLA) water quality model for conservative parameters. CONSWLA is the model Ohio EPA typically uses in multiple discharger situations. CONSWLA model inputs for flow are fixed at their critical low levels and inputs for effluent flow are fixed at their design or 50th percentile levels. Background concentrations are fixed at a representative value (generally a 50th percentile) using available ambient stream data from upstream sampling stations. A mass balancing method is then used to allocate effluent concentrations that maintain WQS under these conditions. This technique is appropriate when data bases are unavailable to generate statistical distributions for inputs and if the parameters modeled are conservative.

The applicable waterbody uses for the Ravenna WWTP effluent 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-N	Average	Summer/winter 30Q10
Human Health (nondrinking)		Harmonic mean flow

Agricultural Water Supply	Harmonic mean flow
Wildlife Habitat	Annual 90Q10

Allocations are developed using a percentage of stream design flow, as specified in Table 13. WLA results cannot exceed the IMZM unless a mixing demonstration is completed in accordance with OAC 3745-2-08 that justifies an alternate value.

The data used in the WLA are listed in Table 12 and Table 13. The wasteload allocation results that would allow the Ravenna WWTP to maintain all applicable water quality criteria are presented in Table 14.

Whole Effluent Toxicity WLA

Whole effluent toxicity (WET) is the total toxic effect of an effluent on aquatic life measured directly with a toxicity test. Acute WET tests measure survival and mortality of the test organism over a short time period (48- or 96-hours). Chronic WET tests measure survival and mortality, as well as effects on growth and reproduction over a longer period of the test organism's life.

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 (i.e. TUa and TUc) for use in NPDES permits by the associated WQS Implementation Rule (OAC 3745-2-09). The translation results in numeric values of 0.3 TUa and 1.0 TUc. WLAs can then be calculated using these values as if they were water quality criteria.

There are two separate reasonable potential procedures in Ohio - one for the Lake Erie watershed and one for the Ohio River watershed. Dischargers in the Ohio River watershed are assessed using OAC 3745-33-07(B). Dischargers in the Lake Erie watershed are assessed in accordance with the "Great Lakes Water Quality Initiative Implementation Procedures" contained in 40 CFR Part 132, Appendix F, Procedure 6.

The WLA calculations for WET are similar to those for aquatic life criteria - using the chronic toxicity unit (TUc) and 7Q10 flow for the average and the acute toxicity unit (TUa) and 1Q10 flow for the maximum. WET WLAs are based on meeting the values of 0.3 TUa and 1.0 TUc downstream of the discharge, and include any available dilution. These values are the levels of effluent toxicity that should not cause instream toxicity during critical low-flow conditions. WLAs for acute toxicity are capped at 1.0 TUa unless the discharger demonstrates that an Area-of-Initial-Mixing (AIM) exists under OAC 3745-2-08, or that one of the factors in OAC 3745-33-07(B)(5)-(9) allows a higher TUa limit to be granted. For the purposes of establishing WET limitations, the values of 1.0 TUa and 1.0 TUc are the most restrictive limitations that can be applied in NPDES permits [OAC 3745-33-07(B)(10)].

For the Ravenna WWTP, the wasteload allocation values are 0.30 TUa and 1.01 TUc.

The chronic toxicity unit (TUc) 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}):

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

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):

$$TUc = 100/\text{geometric mean of NOEC and LOEC}$$

Where NOEC is the No Observed Effect Concentration and LOEC is the Lowest Observed Effect Concentration.

The acute toxicity unit (TUa) 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:

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

This equation applies outside the mixing zone for all designated waters. Based on the above, a value of 1.0 TUa is the lowest value that can be calculated using the equation. TUa values between 0.2 and 1.0 are based on an interpolation of toxic effects where an LC_{50} cannot be identified.

When the acute wasteload allocation is less than 1.0 TUa, it may be defined as a ratio of the stream dilution to the effluent flow:

Acute Dilution Ratio (downstream flow to discharger flow)	Allowable Effluent Toxicity (percent effects in 100% effluent)
up to 2 to 1	30
greater than 2 to 1 but less than 2.7 to 1	40
2.7 to 1 to 3.3 to 1	50

$$Acute\ Dilution\ Ratio = \frac{\left[[1Q10] + [Outfall\ flow\ rate]\right]}{[Outfall\ flow\ rate]} = \frac{[0.037 + 2.32]}{[2.32]} = 1.02$$

The acute wasteload allocation for the Ravenna WWTP can be expressed as 30 percent mortality in 100 percent effluent based on the dilution ratio of 1.02 to 1. If the acute dilution ratio is less than 3.3 to 1.0, and there is evidence that effluent values between 0.3 TUa and 1.0 TUa cause or contribute to violations of WQS, the permittee may be required to investigate and remediate toxicity in this range.

REASONABLE POTENTIAL/ EFFLUENT LIMITS/HAZARD 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 14. The average PEL (PEL_{avg}) is compared to the average PEQ (PEQ_{avg}) from Table 9, 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 15.

The final effluent limits are determined by evaluating the groupings in conjunction with other applicable rules and regulations.

Table 16 presents the final effluent limits and monitoring requirements proposed for Ravenna WWTP Outfall 3PD00018001 and the basis for their recommendation. Unless otherwise indicated, the monitoring frequencies proposed in the permit are continued from the existing permit. Additional information on permit guidance is available at the following webpage:

https://epa.ohio.gov/static/Portals/35/guidance/npdes_permit_guidance%201.pdf

Water Temperature and Flow Rate

Monitoring is proposed to continue for water temperature and flow rate in order to assist in the evaluation of effluent quality and treatment plant performance, and in accordance with Ohio EPA guidance.

Total Suspended Solids, Ammonia (as Nitrogen), Dissolved Oxygen, Total Phosphorus, and 5-Day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)

The proposed limits for total suspended solids (TSS), ammonia-nitrogen, 5-day carbonaceous biochemical oxygen demand (CBOD5), total phosphorus, and dissolved oxygen (DO) are all a continuation from the existing permit and are based on plant design criteria. They are consistent with the recommendations of the TMDL for the Middle Cuyahoga River. The concentration limits at the current design flow of 2.8 MGD represent an adjustment to the original TMDL design flow value of 2.3 MGD; these changes were originally incorporated in Permit No. 3PD00018*LD (January 2003). A ratio was applied to the limits at the time {(*KD version) 2.3 MGD/2.8 MGD = 0.82} and new limits included.

Oil and Grease and pH

Limits proposed for oil and grease and pH are based on Ohio WQS (OAC 3745-1-35 and -37).

Escherichia coli

Secondary contact recreation criteria in OAC 3745-1-37 apply to Hommon Ditch at the point of discharge from the Ravenna WWTP. However, Ohio rules require that water quality standards in downstream segments must also be protected. Because primary contact recreation (PCR) contact recreation *E. coli* standards apply to both Wahoo Ditch and Breakneck Creek, the monthly and weekly *E. coli* limits have been set at the PCR derived values of 126/100 ml and 284/100 ml, respectively.

Mercury

The Ohio EPA risk assessment (Table 15) places mercury in group 5. This placement, as well as the data in Table 7, Table 8, and Table 9, indicates that the reasonable potential to exceed WQS exists and limits are necessary to protect water quality. For this parameter, the PEQ is greater than 100 percent of the WLA and certain conditions exist that increase the risk to the environment. Pollutants that meet this requirement must have permit limits under OAC 3745-33-07(A)(1).

The NPDES permit for the Ravenna WWTP was originally modified pursuant to OAC 3745-33-07(D)(10)(a) in July 2007 to include a variance-based limit for mercury. The existing NPDES permit includes a revised variance-based limit of 3.7 ng/L for mercury. Based on available monitoring data and new application information, the permittee has determined that the Ravenna WWTP cannot meet the 30-day average water quality-based effluent limit (WQBEL) of 1.3 ng/L. However, the effluent data shows that the Ravenna WWTP can meet the mercury annual average value of 12 ng/L. The Pollutant Minimization Program (PMP) schedule developed from the original variance continues to be implemented, and further reductions in mercury may be possible.

Ravenna WWTP submitted information supporting the renewal of the variance. Ohio EPA has reviewed the mercury variance information and has determined that it meets the requirements of the OAC. The permittee's application has also demonstrated to the satisfaction of Ohio EPA that there is no readily apparent means of complying with the WQBEL without constructing prohibitively expensive end-of-pipe controls for mercury. Based upon these demonstrations, the Ravenna WWTP is eligible for renewal of the mercury variance under OAC 3745-1-38(H).

A condition in Part II of the NPDES permit lists the provisions of the mercury variance renewal, and includes the following requirements:

- A lower variance-based monthly average effluent limit of 2.3 ng/L, based on the review of the facility's monitoring data, i.e. PEQ data (See Table 9);
- A requirement that the permittee make reasonable progress to meet the WQBEL for mercury by implementing the plan of study, which has been developed as part of the PMP;
- Low-level mercury monitoring of the plant's influent and effluent;
- A requirement that the annual average mercury effluent concentration is less than or equal to 12 ng/L as specified in the plan of study;
- A requirement to submit an annual report on implementation of the PMP; and
- A requirement for submittal of a certification stating that all permit conditions related to implementing the plan of study and the PMP have been satisfied, but that compliance with the monthly average WQBEL for mercury has not been achieved.

Copper, Selenium, and Total Filterable Residue (aka Total Dissolved Solids or TDS)

The Ohio EPA risk assessment (Table 15) places these parameters in group 4. This placement, as well as the data in Table 7, Table 8, and Table 9, support that these parameters do not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. Based on the current analysis, the existing copper limit is recommended to be removed. Continued monitoring is recommended to continue for both copper and TDS.

Based on a review of the selenium pretreatment dataset in Table 8, the "Method A" PEQ calculations appears to over-represent the level of this parameter in the discharge. The PEQs are based on two low-level detections (i.e. 0.5 and 1.0 µg/L selenium) within the small dataset. Both results are substantially less than the corresponding selenium WQS of 5.0 µg/L; the remaining 3 analyses were reported below the analytical method detection levels. Based on this additional analysis, selenium does not appear to have the reasonable potential to contribute to WQS exceedances. Using the discretion allowed the Director under OAC 3745-33-07(A)(6), no additional monitoring requirements beyond the annual Pretreatment Program priority pollutant scan (PPS) data is recommended for this parameter.

Cadmium, Chromium, Free Cyanide, Hexavalent Chromium (Dissolved), Lead, Nickel, and Zinc

The Ohio EPA risk assessment (Table 15) places these parameters in groups 2 and 3. This placement, as well as the data in Table 7, Table 8, and Table 9, 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 reduced frequencies, i.e. 1/Quarter, is recommended for these parameters.

Antimony, Arsenic, Beryllium, Molybdenum, Silver, and Thallium

The Ohio EPA risk assessment (Table 15) places these parameters in group 2. This placement, as well as the data in Table 7, Table 8, and Table 9, 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 additional monitoring requirements beyond the pretreatment program PPS data are recommended for these parameters.

Total Kjeldahl Nitrogen (TKN) and Nitrate+Nitrite (as Nitrogen)

In accordance with Ohio EPA guidance, a new monitoring requirement has been added for TKN. The Ravenna WWTP discharges a nutrient load and monitoring for these nitrogen parameters will allow Ohio EPA to adequately characterize the influence of the treatment plant on the receiving stream. Additionally, monitoring will ensure that a nutrient data set is maintained for use in future stream studies and/or updates to the TMDL.

Dissolved Orthophosphate

Monthly monitoring is proposed for dissolved orthophosphate (as P). This monitoring is required by ORC 6111.03. Monitoring for orthophosphate is proposed to further develop nutrient datasets for dissolved reactive phosphorus and to assist in stream and watershed assessments and studies. Ohio EPA monitoring, as well as other in-stream monitoring, are generally performed via the collection of grab samples. Thus, orthophosphate is proposed to be collected by grab sample to maintain consistent data to support watershed and stream surveys. The grab sample must be filtered within 15 minutes of collection using a 0.45-micron filter. The filtered sample must be analyzed within 48 hours of sample collection.

Whole Effluent Toxicity (WET) Reasonable Potential

Evaluating the acute and chronic toxicity results for the test organisms in Table 10 and Attachment 1 under the provisions of 40 CFR Part 132, Appendix F, Procedure 6, gives an estimated chronic PEQ of 3.4 TUc for *C. dubia* and 6.58 TUc for *P. promelas*. Reasonable potential for toxicity for *C. dubia* and *P. promelas* is demonstrated, since these values exceed the WLA value of 1.01 TUc. Consistent with Procedure 6 and OAC 3745-33-07(B)(10), a monthly average limit of 1.0 TUc and a daily maximum limit of 1.0 TUa is recommended to continue. Quarterly chronic toxicity monitoring with the determination of acute endpoints is recommended. 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.

Influent Monitoring

Continued monitoring of the plant influent parameters are recommended. Frequencies are recommended to match the requirements for Outfall 3PD00018001.

Upstream (3PD00018801) and Downstream (3PD00018901) Monitoring

- Continued monitoring in the receiving stream are recommended for the following parameters: DO, pH, temperature, ammonia-N, nitrate-nitrite (as N), TKN, phosphorus, *E. coli*, acute toxicity (upstream only) and hardness (downstream only).

- The monitoring frequencies for *E. coli* have been changed from 1/month (Summer) to 1/ 2 weeks (June - August) at the upstream and downstream monitoring stations. The increased frequency over a shorter duration will facilitate impairment assessments.

Bypass Monitoring (3PD00018002 and 3PD00018602)

Monitoring of the bypass locations are recommended for the following parameters: bypass occurrences, bypass volume, bypass total hours, total suspended solids, and $CBOD_5$.

Sludge

Limits and monitoring requirements proposed for the disposal of sewage sludge by the following management practices are based on OAC 3745-40: Class B biosolids agronomic land application (Station 3PD00018581) and hauling to an authorized landfill (Station 3PD00018586).

OTHER REQUIREMENTS

Compliance Schedule(s)

Pretreatment Local Limits Review - A compliance schedule is proposed for the Ravenna WWTP to submit a technical justification for either revising its local industrial user limits or retaining its existing local limits. Details are in Part I.C of the permit.

Phosphorus Optimization - A compliance schedule is proposed for the facility to continue to implement treatment and/or control strategies aimed at reducing the discharge of phosphorus. Additionally, an evaluation report must be completed and submitted as part of the next NPDES renewal application. 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 discharge monitoring reports (DMRs); 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 OAC 3745-7. These rules require the Ravenna WWTP to have a Class III wastewater treatment plant operator in charge of the sewage treatment plant operations discharging through Outfall 3PD00018001. These rules also require the permittee to designate one or more operator of record to oversee the technical operation of the treatment works.

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 free cyanide limits.

Outfall Signage

Part II of the permit includes requirements for the permittee to place and maintain a sign at each outfall providing information about the discharge. Signage at outfalls is required pursuant to OAC 3745-33-08(A). Signs are not required at in-plant sampling stations or at outfalls that are not accessible to the public by land or by recreational use of the water body, e.g. submerged off-shore outfalls.

Part III

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

Stormwater Compliance

On August 1, 2022, the Ravenna WWTP was issued permit number 3GR01886*FG under Ohio EPA's Multi-Sector General Industrial Storm Water Permit (MSGP No. OHR000007). To demonstrate continuing compliance

with the storm water requirements, the Ravenna WWTP shall submit either a Notice of Intent (NOI) or a "No Exposure Certification" at the time of re-issuance of the MSGP. Alternatively, the Ravenna WWTP may seek to consolidate coverage under the individual permit via submission of NPDES Application Form 2F.

Figure 1. Location of Ravenna WWTP

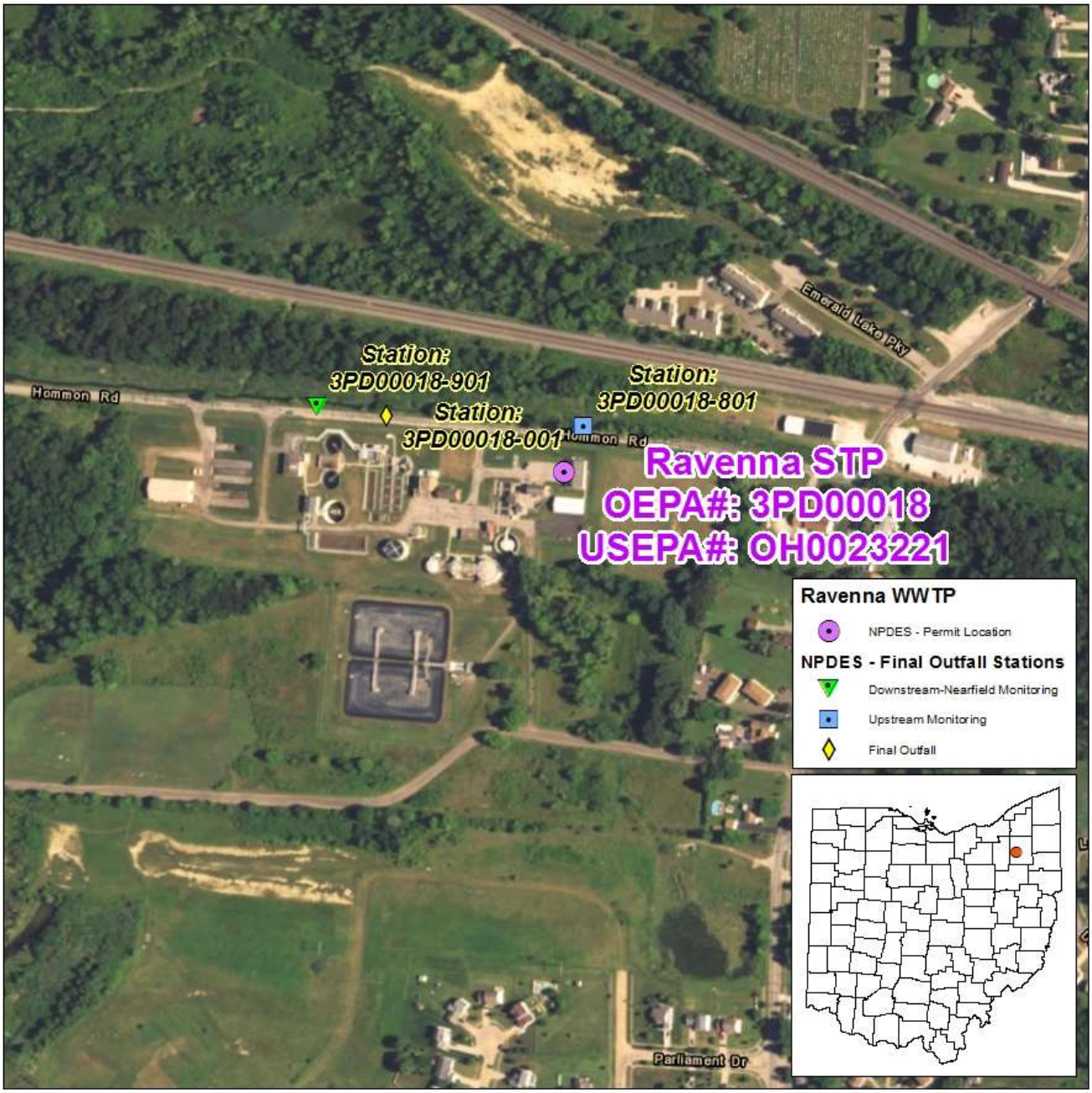


Figure 2. Diagram of Ravenna WWTP

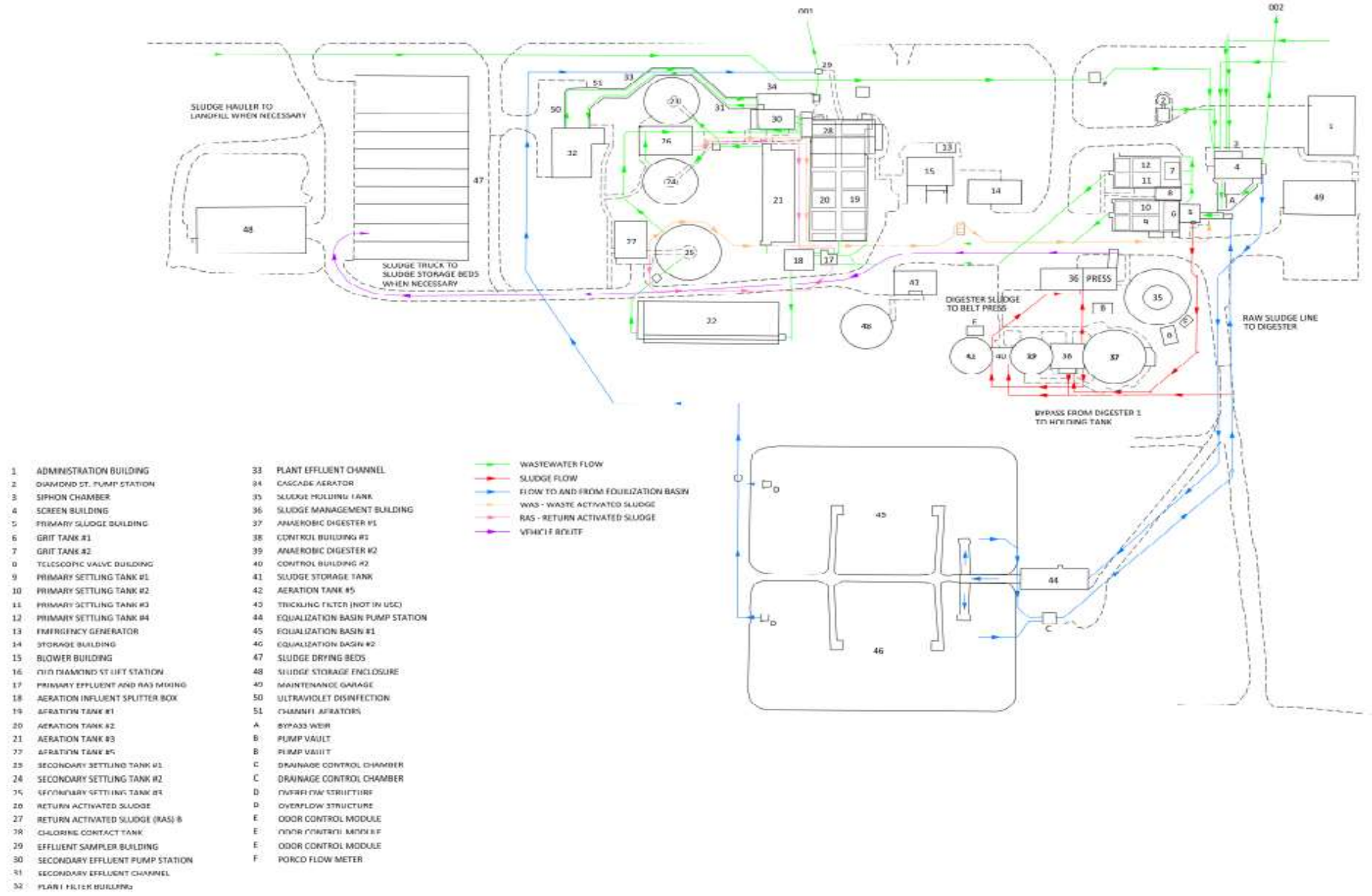
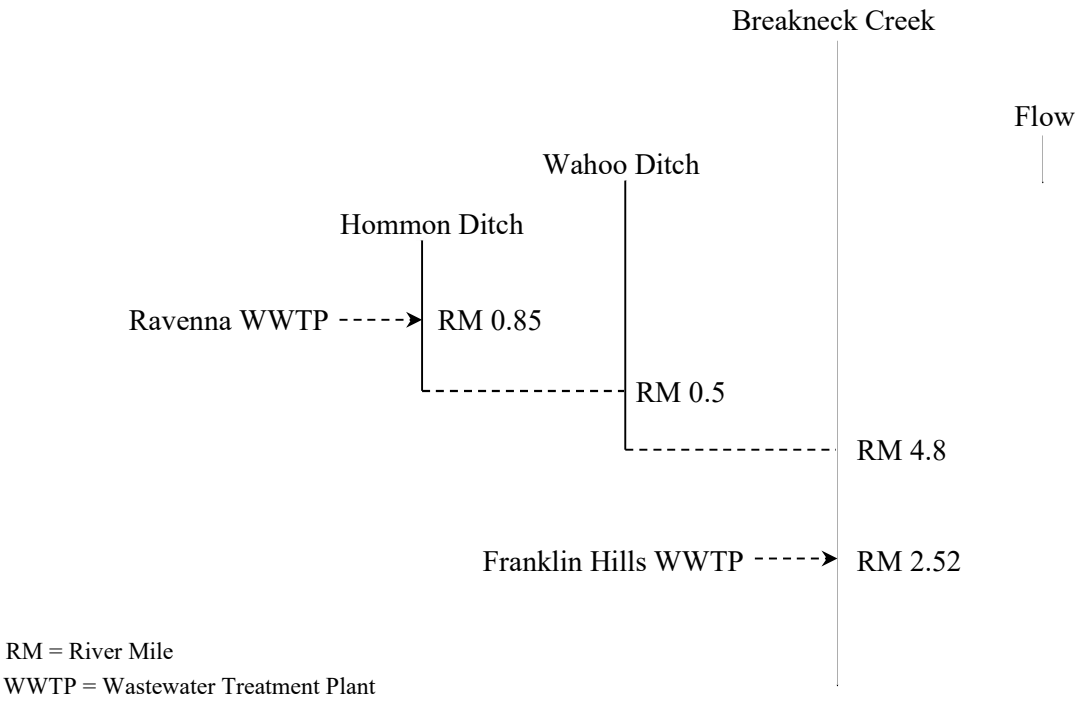


Figure 3. Breakneck Creek Study Area:



RM = River Mile
WWTP = Wastewater Treatment Plant

Table 1. Sewage Sludge Removal

Year	Station 3PD00018581 Class B Biosolids Land Application (Dry Tons)	Station 3PD00018586 Landfill Disposal (Dry Tons)
2018	216.9	--
2019	215.7	--
2020	278.49	--
2021	193.84	--
2022	191.08	--

Table 2. Average Annual Effluent Flow Rates

Year	Annual Flow in MGD				
	# Days	Average	Median	95th Percentile	Maximum
2018	365	1.61	1.36	3.04	3.83
2019	365	1.66	1.43	2.92	4.13
2020	366	1.57	1.45	2.51	3.59
2021	365	1.50	1.35	2.45	3.24
2022	365	1.62	1.47	2.78	3.64
2023	90	2.09	2.02	3.16	3.27

MGD = million gallons per day

Table 3. Effluent Limit Violations for Outfall 3PD00018001(1/2018 – 3/2023)

Parameter	2018	2019	2020	2021	2022	2023	Total
Chronic Toxicity, *Ceriodaphnia dubia*	0	0	1	0	0	0	**1**
Chronic Toxicity, *Pimephales promelas*	2	2	0	0	0	0	**4**
Dissolved Oxygen	0	0	0	0	1	0	**1**
Mercury, Total (Low Level)	0	0	0	0	1	2	**3**
pH, Maximum	0	0	0	1	0	0	**1**
pH, Minimum	0	0	1	0	0	0	**1**
Total	**2**	**2**	**2**	**1**	**2**	**2**	**11**

Table 4. Plant EQ Basin Overflow/Bypasses (1/2018 – 3/2023)

Year	Bypass Flow in MGD* (Station 3PD00018602)			
	No. of Events	Maximum	Median	Mean
2018	12	3.41	1.01	1.33
2019	10	2.93	0.86	1.02
2020	4	2.58	0.94	1.15
2021	6	1.07	0.51	0.57
2022	8	2.03	0.62	0.79
2023	3	1.50	0.50	0.71

MGD = million gallons per day

Table 5. Sanitary Sewer Overflow Discharges

Year	Number
2018	2
2019	3
2020	2
2021	3
2022	6

Table 6. Effluent Phosphorus Discharges for Outfall 3PD00018001 (2018 - 2022)

Year	Obs.	Median Phosphorus (mg/L)	Median Flow (MGD)	Median Loading (kg/day)
2018	30	0.71	1.08	3.28
2019	27	0.76	1.30	3.99
2020	24	0.60	1.16	2.60
2021	24	0.73	1.21	3.48
2022	25	0.69	1.24	3.32

Table 7. Effluent Characterization Using Self-Monitoring Data (1/2018 – 3/2023)

Parameter	Unit	Current Limits		# Obs.	Percentiles		Data Range
		30 Day	Daily		50th	95th	
Water Temperature	°C	Monitor		1916	15.6	23.3	7.7 - 36.6
Dissolved Oxygen	mg/L	--	7.5[m]	1916	10.7	9*	7.3 - 18.7
Total Suspended Solids	kg/day	106	159[w]	764	17.8	60.4	3.66 - 247
Total Suspended Solids	mg/L	10	15[w]	764	3	8	1 - 21
Oil and Grease	mg/L	--	10	126	--	--	< 5
Nitrogen, Ammonia - Summer	kg/day	10.6	15.9[w]	366	.246	.806	.026 - 4.85
Nitrogen, Ammonia - Summer	mg/L	1.0	1.5[w]	366	.048	.152	.004 - .989
Nitrogen, Ammonia - Winter	kg/day	82.7	124[w]	406	.322	14.2	.0324 - 41.8
Nitrogen, Ammonia - Winter	mg/L	7.8	11.7[w]	406	.054	1.4	.007 - 4.5
Nitrite Plus Nitrate, Total	mg/L	Monitor		63	20.3	27.7	9.21 - 28.5
Phosphorus, Total	kg/day	8.7	13.0[w]	269	3.78	7.72	.695 - 10.8
Phosphorus, Total	mg/L	0.82	1.23[w]	269	.7	1.05	.14 - 1.25
Dissolved Orthophosphate (as P)	mg/L	Monitor		65	.46	1.4	.01 - 2.1
Nickel, TR	µg/L	Monitor		21	--	--	< 10
Zinc, TR	µg/L	Monitor		21	27	51	16 - 55
Cadmium, TR	µg/L	Monitor		21	--	--	< .5
Lead, TR	µg/L	Monitor		21	< 2	7.9	0 - 8.4
Chromium, TR	µg/L	Monitor		21	--	--	< 10
Copper, TR	kg/day	0.201	0.318	65	< .0322	.0882	0 - .137
Copper, TR	µg/L	19	30	65	< 10	14	0 - 26
Chromium, Dissolved Hexavalent	µg/L	Monitor		21	--	--	< 4
E. coli	#/100 mL	126	284[w]	364	3	100	1 - 680
Flow Rate	MGD	Monitor		1916	1.43	2.85	.73 - 4.13
Mercury, Total	kg/day	0.00004	0.0181	63	.00000556	.0000259	0 - .000058
Mercury, Total	ng/L	3.7	1700	63	1.06	2.94	0 - 4.69
Cyanide, Free (Low-Level)	µg/L	Monitor		21	--	--	< .003
Acute Toxicity, *Ceriodaphnia dubia*	TUa	--	1.0	21	< 1	.2	0 - .4
Chronic Toxicity, *Ceriodaphnia dubia*	TUc	1.0	--	21	< 1	< 1	0 - 2.82
Acute Toxicity, *Pimephales promelas*	TUa	--	1.0	22	< 1	.19	0 - .3
Chronic Toxicity, *Pimephales promelas*	TUc	1.0	--	22	< 1	2.75	0 - 4.7
pH, Maximum	S.U.	--	9.0	1916	7.2	7.8	6.7 - 9.3
pH, Minimum	S.U.	--	6.5[m]	1916	7	6.7*	6.2 - 8.3
Residue, Total Filterable	mg/L	Monitor		126	698	889	110 - 1080
CBOD 5 day	kg/day	87	131[w]	762	9.84	34.2	2.81 - 96.7

Parameter	Unit	Current Limits		# Obs.	Percentiles		Data Range
		30 Day	Daily		50th	95th	
CBOD 5 day	mg/L	8.2	12.3[w]	762	2	4	1 - 10

* = For pH minimum and dissolved oxygen, 5th percentile shown in place of 95th percentile.
TR = Total Recoverable
w = weekly average
m = Minimum limit

Table 8. Effluent Characterization Using Pretreatment (PT) Data

Parameter (µg/L)	PT Sample Date				
	7/25/2018 (*)	7/17/2019 (*)	3/18/2020 (*)	8/18/2021	7/20/2022
Antimony	AA 5.0	AA 5.0	AA 5.0	AA 0.8	1.1
Arsenic	AA 5.0	AA 5.0	AA 5.0	1.1	1.2
Beryllium	AA 3.0	AA 3.0	AA 3.0	AA 2.0	AA 0.1
Cadmium	AA 3.0	AA 3.0	AA 3.0	AA 1.0	AA 0.1
Chromium	AA 7.0	AA 7.0	AA 7.0	AA 6.0	AA 1.5
Copper	9.0	AA 8.0	12	8	7.2
Lead	AA 10	AA 10	AA 10	AA 9.0	AA 0.2
Mercury (ng/L)	3.6	27.4	3.0	0.4	1.4
Molybdenum	AA 20	AA 20	AA 20	3.8	5.2
Nickel	AA 8.0	AA 8.0	AA 8.0	AA 4.0	3.1
Selenium	AA 4.0	AA 4.0	AA 4.0	0.5	1.0
Silver	AA 5.0	AA 5.0	AA 5.0	AA 2.0	AA 0.4
Thallium	AA 5.0	AA 5.0	AA 5.0	AA 0.1	AA 0.1
Zinc	36	27	32	31	14

(*) Reported "AA" values during specified periods represent analytical quantification levels (QLs), not method detection limits (MDLs).

Table 9. Projected Effluent Quality

Parameter	Units	Number of Samples	Number MDL	PEQ Average	PEQ Maximum
Self-Monitoring (DMR) Data					
Ammonia-N (summer)	mg/L	243	243	0.091	0.167
Ammonia-N (winter)	mg/L	208	208	0.31	0.67
Cadmium – TR [A]	µg/L	26	0	--	--
Chromium - TR [A]	µg/L	26	0	--	--
Chromium, Dissolved Hexavalent	µg/L	21	0	--	--
Copper - TR [A]	µg/L	70	23	12.27	17.64
Cyanide,free	µg/L	21	0	--	--
Lead - TR [A]	µg/L	22	4	7.972	10.92
Mercury - TR (BCC) [A]	ng/L	67	66	2.282	3.356
Nickel - TR [A]	µg/L	26	1	9.49	13
Nitrate-N + Nitrite-N	mg/L	63	63	25.75	32.32
Phosphorus	mg/L	269	269	0.95	1.211
Total Filterable Residue	mg/L	126	126	945	1266
Zinc - TR [A]	µg/L	26	26	43.82	59.66
Pretreatment Data					
Antimony	µg/L	2	1	3.051	4.18
Arsenic - TR	µg/L	2	2	3.329	4.56
Beryllium	µg/L	5	0	--	--
Molybdenum	µg/L	5	2	8.731	11.96
Selenium - TR	µg/L	5	2	1.679	2.3
Silver	µg/L	5	0	--	--
Thallium	µg/L	5	0	--	--

[A] DMR data combined with Pretreatment data and/or Ohio EPA Compliance data.
DMR = Discharge Monitoring Report
MDL = analytical laboratory method detection limit
PEQ = projected effluent quality
TR = total recoverable

Table 10. Summary of Acute and Chronic Toxicity Results

Date	*Ceriodaphnia Dubia* TUa	*Ceriodaphnia Dubia* TUc	*Pimephales promelas* TUa	*Pimephales promelas* TUc
2/4/2018	AA (1.0)	AA (1.0)	0.2	1.01
5/5/2018	AA (1.0)	AA (1.0)	AA (1.0)	AA (1.0)
8/6/2018	AA (1.0)	AA (1.0)	AA (1.0)	AA (1.0)
11/5/2018	AA (1.0)	AA (1.0)	AA (1.0)	4.7
2/3/2019	AA (1.0)	AA (1.0)	AA (1.0)	2.78
5/6/2019	AA (1.0)	AA (1.0)	0.3	2.16
5/26/2019	--	--	AA (1.0)	AA (1.0)
8/4/2019	AA (1.0)	AA (1.0)	AA (1.0)	AA (1.0)
11/3/2019	AA (1.0)	AA (1.0)	AA (1.0)	AA (1.0)
2/3/2020	--	--	AA (1.0)	AA (1.0)
2/9/2020	0.4	2.82	--	--
5/3/2020	AA (1.0)	AA (1.0)	AA (1.0)	AA (1.0)
8/3/2020	AA (1.0)	AA (1.0)	AA (1.0)	AA (1.0)
11/8/2020	AA (1.0)	AA (1.0)	AA (1.0)	AA (1.0)
2/7/2021	AA (1.0)	AA (1.0)	AA (1.0)	AA (1.0)
5/4/2021	0.2	AA (1.0)	AA (1.0)	AA (1.0)
8/2/2021	AA (0.2)	AA (1.0)	AA (1.0)	AA (1.0)
11/7/2021	AA (0.2)	AA (1.0)	AA (1.0)	AA (1.0)
2/6/2022	AA (0.2)	AA (1.0)	AA (1.0)	AA (1.0)
5/1/2022	AA (1.0)	AA (1.0)	AA (1.0)	AA (1.0)
8/7/2022	AA (1.0)	AA (1.0)	AA (1.0)	AA (1.0)
11/6/2022	AA (1.0)	AA (1.0)	AA (1.0)	AA (1.0)
2/14/2023	AA (1.0)	AA (1.0)	AA (1.0)	AA (1.0)

TUa = acute toxicity unit
TUc = chronic toxicity unit
AA = non-detection; analytical method detection limit of 0.2 TUa, and 1.0 TUc

Table 11. Use Attainment Status

Location	Year	River Mile	Use Designation	Attainment Status	Causes of Impairment	Sources of Impairment
Wahoo Ditch at Ravenna, upstream White Rubber	2009	2.6	MWH	NON	Dir. habitat alterations organic enrich/DO siltation unknown toxicity natural limits flow alteration	Flow reg. /mod. & minor municipal point source development, municipal point source and natural non-irrigated crop production, channelization
Wahoo Ditch at Ravenna, adjacent White Rubber	2009	2.5	MWH	NON	" "	" "
Wahoo Ditch at Ravenna, at Main St.	2018	1.22	MWH	FULL	--	--
Breakneck Creek upstream Wahoo Ditch	1996	5.2	WWH	FULL	--	--
Breakneck Creek upstream Franklin Hills WWTP at Powder Mill Rd.	2018	3.1	WWH	FULL	--	--
Breakneck Creek downstream Franklin Hills WWTP near mouth	2018	0.05	WWH	FULL	--	--

MWH = Modified Warmwater Habitat
WWH = Warmwater Habitat
WWTP = Wastewater Treatment Plant

Table 12. Water Quality Criteria in the Study Area

Parameter	Units	Outside Mixing Zone Criteria					Inside Mixing Zone Maximum
		Average				Maximum Aquatic Life	
		Wildlife	Human Health	Agri-culture	Aquatic Life		
Ammonia-N (summer)	mg/L	--	--	--	2.8 [F]	--	--
Ammonia-N (winter)	mg/L	--	--	--	6.9 [F]	--	--
Antimony	µg/L	--	780	--	190	900	1800
Arsenic - TR	µg/L	--	580	100	150	340	680
Beryllium	µg/L	--	130 [C]	100	38[B]	320 [B]	640 [B]
Cadmium - TR	µg/L	--	730	50	4.5	11	22
Chromium - TR	µg/L	--	14000	100	160	3400	6800
Chromium VI - Dissolved	µg/L	--	14000	--	11	16	31
Copper - TR	µg/L	--	64000	500	18	29	58
Cyanide - free	µg/L	--	48000	--	5.2	22	44
Lead - TR	µg/L	--	--	100	17	330	650
Mercury - TR [D]	ng/L	1.3	3.1	10000	910	1700	3400
Molybdenum	µg/L	--	10000	--	20000	190000	370000
Nickel - TR	µg/L	--	43000	200	100	900	1800
Nitrate-N + Nitrite-N	mg/L	--	--	100	--	--	--
Phosphorus	mg/L	--	--	--	--	--	--
Selenium - TR	µg/L	--	3100	50	5	62	120
Silver	µg/L	--	11000	--	1.3	5.3	12
Thallium	µg/L	--	--	--	17	79	160
Total Filterable Residue	mg/L	--	--	--	1500	--	--
Zinc - TR	µg/L	--	35000	25000	230	230	460

[A] Human Health and Aquatic Life Criteria are Tier I unless otherwise indicated.
[B] Tier II Values
[C] Carcinogen
[E] Bioaccumulative Chemical of Concern (BCC)
[F] MWH criteria for Wahoo Ditch (since Hommon Ditch is designated LRW, no average NH3-N criteria apply)
TR = total recoverable

Table 13. Instream Conditions and Discharger Flows

Parameter	Units	Season	Value	Basis
Upstream flows:				
Hommon Ditch above Ravenna WWTP				
1Q10	cfs	annual	0.037	USGS gage #4206000, 1940-2022 data
7Q10	cfs	annual	0.089	USGS gage #4206000, 1940-2022 data
30Q10	cfs	summer	0.138	USGS gage #4206000, 1940-2022 data
30Q10	cfs	winter	0.350	USGS gage #4206000, 1940-2022 data
90Q10	cfs	annual	0.184	USGS gage #4206000, 1940-2022 data
Harmonic Mean Flow	cfs	annual	0.715	USGS gage #4206000, 1940-2022 data
Wahoo Ditch above Hommon Ditch				
1Q10	cfs	annual	0.042	USGS gage #4206000, 1940-2022 data
7Q10	cfs	annual	0.102	USGS gage #4206000, 1940-2022 data
30Q10	cfs	summer	0.157	USGS gage #4206000, 1940-2022 data
30Q10	cfs	winter	0.399	USGS gage #4206000, 1940-2022 data
90Q10	cfs	annual	0.209	USGS gage #4206000, 1940-2022 data
Harmonic Mean Flow	cfs	annual	0.814	USGS gage #4206000, 1940-2022 data
Breakneck Creek above Wahoo Ditch				
1Q10	cfs	annual	0.281	USGS gage #4206000, 1940-2022 data
7Q10	cfs	annual	0.678	USGS gage #4206000, 1940-2022 data
30Q10	cfs	summer	1.05	USGS gage #4206000, 1940-2022 data
30Q10	cfs	winter	2.665	USGS gage #4206000, 1940-2022 data
90Q10	cfs	annual	1.396	USGS gage #4206000, 1940-2022 data
Harmonic Mean Flow	cfs	annual	5.432	USGS gage #4206000, 1940-2022 data
Mixing Assumption	%	average	25	Stream-to-discharge ratio
	%	maximum	100	Stream-to-discharge ratio
Ravenna WWTP				
Outfall 001 flow rate	cfs (MGD)	design	4.33 (2.8)	NPDES permit application
Franklin Hills WWTP				
Outfall 001 flow rate	cfs (MGD)	design	2.32 (1.5)	NPDES permit application

Parameter	Units	Season	Value	Basis
Instream Hardness	mg/L	annual	216	DMR (Ravenna 901); 63 values, 2018-2023
Background Water Quality for Hommon Ditch				
Ammonia	mg/L	summer	0.18	DMR 801; 20 values, 3<MDL, 2018-23
Ammonia	mg/L	winter	0.15	DMR 801; 17 values, 5<MDL, 2018-23
Arsenic	µg/L	annual	2.64	EA3; 7 values, 0<MDL, 2018
Antimony	µg/L	annual	0	No representative data available.
Cadmium	µg/L	annual	0	EA3; 7 values, 7<MDL, 2018
Chromium	µg/L	annual	0	EA3; 7 values, 7<MDL, 2018
Chromium VI - Dissolved	µg/L	annual	0	No representative data available.
Copper	µg/L	annual	2.55	EA3; 7 values, 1<MDL, 2018
Cyanide, free	µg/L	annual	0	No representative data available.
Lead	µg/L	annual	0	EA3; 7 values, 7<MDL, 2018
Mercury	µg/L	annual	0	No representative data available.
Molybdenum	µg/L	annual	0	No representative data available.
Nickel	µg/L	annual	2.63	EA3; 7 values, 0<MDL, 2018
Nitrate + Nitrite	mg/L	annual	0.6	DMR 801; 63 values, 21<MDL, 2018-23
Selenium	µg/L	annual	0	EA3; 7 values, 7<MDL, 2018
Silver	µg/L	annual	0	No representative data available.
Total Filterable Residue	mg/L	annual	636	EA3; 7 values, 0<MDL, 2018
Zinc	µg/L	annual	0	EA3; 7 values, 7<MDL, 2018

DMR = Discharge Monitoring Report
EA3 = Ohio EPA Ecological Assessment and Analysis Application
MDL = method detection limit
NPDES = National Pollutant Discharge Elimination System
TR = total recoverable
USGS = United States Geological Survey

Table 14. Summary of Effluent Limits to Maintain Applicable Water Quality Criteria

Parameter	Units	Outside Mixing Zone Criteria					Inside Mixing Zone Maximum
		Average				Maximum Aquatic Life	
		Wildlife	Human Health	Agri-culture	Aquatic Life		
Ammonia-N (summer)	mg/L	--	--	--	2.88 [D]	--	--
Ammonia-N (winter)	mg/L	--	--	--	7.45 [D]	--	--
Arsenic – TR [B]	µg/L	--	604	104	152	343	680
Cadmium – TR [B]	µg/L	--	760 [A]	52 [A]	4.3	10	22
Chromium – TR [B]	µg/L	--	14579 [A]	104	158	3429	6800
Chromium, Dissolved Hexavalent [B]	µg/L	--	14579 [A]	--	11	16	31
Copper - TR	µg/L	--	66646 [A]	521 [A]	17	28	58
Cyanide - free	µg/L	--	48000	--	5.2	22	44
Lead - TR	µg/L	--	--	104	17	316	650
Mercury - TR [C]	ng/L	1.3	3.1	10000 [A]	910	1700	3400
Molybdenum [B]	µg/L	--	10413	--	20217	191624	370000
Nickel – TR [B]	µg/L	--	44777 [A]	208	97	885	1800
Nitrate-N + Nitrite-N	mg/L	--	--	104	--	--	--
Phosphorus	mg/L	--	--	--	--	--	--
Selenium - TR	µg/L	--	3228 [A]	52	5.1	63	120
Silver [B]	µg/L	--	11455 [A]	--	1.3	5.7	12
Total Filterable Residue	mg/L	--	--	--	1509	--	--
Zinc - TR	µg/L	--	36447 [A]	26033 [A]	227	232	460

[A] Allocation must not exceed the Inside Mixing Zone Maximum.
[B] Parameter would not require a WLA based on reasonable potential procedures, but allocation requested by permit staff.
[C] Bioaccumulative Chemical of concern (BCC).
[D] WLA to meet MWH criteria in Wahoo Ditch.
TR = total recoverable

Table 15. Parameter Assessment

Group 1:	Due to a lack of numeric criteria, the following parameters could not be evaluated at this time.		
	No parameters placed in the group.		
Group 2:	PEQ < 25% of WQS or all data below minimum detection limit; WLA not required. No limit recommended, monitoring optional		
	Ammonia-N (summer)	Ammonia-N (winter)	Antimony
	Arsenic	Beryllium	Cadmium - TR
	Chromium - TR	Chromium, Dissolved Hexavalent	Cyanide, free
	Molybdenum	Nickel	Silver
	Thallium		
Group 3:	PEQmax < 50% of maximum PEL and PEQavg < 50% of average PEL. No limit recommended, monitoring optional.		
	Lead	Nitrate-N + Nitrite-N	Zinc
Group 4:	PEQmax > 50% but <100% of the maximum PEL or PEQavg > 50% but < 100% of the average PEL. Monitoring is appropriate.		
	Copper - TR	Total Filterable Residue	Selenium - TR*
Group 5:	Maximum PEQ > 100% of the maximum PEL or average PEQ > 100% of the average PEL, or either the average or maximum PEQ is between 75 and 100% 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**
Mercury [A]	ng/L	annual	1.3	1700

* Selenium - see placement discussion in "Reasonable Potential/ Effluent Limits/Hazard Management Decisions".

[A] Bioaccumulative Chemical of concern (BCC).
PEL = preliminary effluent limit
PEQ = projected effluent quality
TR = total recoverable
WLA = wasteload allocation
WQS = water quality standard

Table 16. Final Effluent Limits for Outfall 3PD00018001

Parameter	Units	Frequency	Concentration		Loading (kg/day)[a]		Basis[b]
			30 Day Average	Daily Maximum	30 Day Average	Daily Maximum	
Water Temperature	°C	1/day	- - - - - - - - - - - Monitor - - - - - - - - - - -				M[c]
Dissolved Oxygen	mg/L	1/day	7.5 (Minimum)				PD/TMDL
Total Suspended Solids	mg/L	3/week	10	15[d]	106	159[d]	PD/TMDL
Oil & Grease	mg/L	1/ 2 weeks	--	10	--	--	WQS
Ammonia (as N) - Summer	mg/L	3/week	1.0	1.5 [d]	10.6	15.9 [d]	PD/TMDL
Ammonia (as N) - Winter	mg/L	3/week	7.8	11.7 [d]	82.7	124 [d]	PD/TMDL
Total Kjeldahl Nitrogen	mg/L	1/month	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Nitrate+Nitrite (as N)	mg/L	1/month	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Phosphorus, Total	mg/L	1/week	0.82	1.23 [d]	8.7	13.0 [d]	PD/TMDL
Orthophosphate, Dissolved (as P)	mg/L	1/month	- - - - - - - - - - - Monitor - - - - - - - - - - -				PMR
Cyanide, Free	µg/L	1/quarter	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Nickel	µg/L	1/quarter	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Zinc	µg/L	1/quarter	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Cadmium	µg/L	1/quarter	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Lead	µg/L	1/quarter	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Chromium	µg/L	1/quarter	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Copper	µg/L	1/month	- - - - - - - - - - - Monitor - - - - - - - - - - -				RP
Hexavalent Chromium, Dissolved	µg/L	1/quarter	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
E. coli	#/100 mL	3/week	126	284[d]	--	--	WQS
Flow Rate	MGD	1/day	- - - - - - - - - - - Monitor - - - - - - - - - - -				M[c]
Mercury	ng/L	1/month	2.3	1700	0.000024	0.018	VAR
Residue, Total Filterable	mg/L	1/ 2 weeks	- - - - - - - - - - - Monitor - - - - - - - - - - -				RP
Carbonaceous Biochemical Oxygen Demand (5 day), CBOD5	mg/L	3/week	8.2	12.3[d]	87	131[d]	PD/TMDL
pH	S.U.	1/day	6.5 (Min) - 9.0 (Max)		--	--	WQS
Acute Toxicity							
Ceriodaphnia dubia	TUa	1/quarter	--	1.0	--	--	WET/RP
Pimephales promelas	TUa	1/quarter	--	1.0	--	--	WET/RP
Chronic Toxicity							
Ceriodaphnia dubia	TUc	1/quarter	1.0	--	--	--	WET/RP
Pimephales promelas	TUc	1/quarter	1.0	--	--	--	WET/RP

[a] Effluent loadings based on average design discharge flow of 2.8 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)
PTS = Phosphorus Treatment Standards (OAC 3745-33-06 (C))
RP = Reasonable Potential for requiring water quality-based effluent limits and monitoring requirements in permits (OAC 3745-33-07(A))
TMDL = "Total Maximum Daily Loads for the Middle Cuyahoga River", Ohio EPA Final Report, March 2000
VAR = Mercury variance renewal (OAC 3745-1-38(H))
WET = Whole Effluent Toxicity (40 CFR Part 132, Appendix F, Procedure 6 and/or OAC 3745-33-07(B))
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.

Attachment 1. Whole Effluent Toxicity Reasonable Potential Analysis

	Water Flea (*Ceriodaphnia dubia*)		Fathead Minnow (*Pimephales promelas*)	
	Acute	**Chronic**	**Acute**	**Chronic**
WLA (TU)	0.3	1.0	0.3	1.0
Total # of Tests	21	21	22	22
Maximum Value (TU)	0.4	2.82	0.3	4.7
Coefficient of Variation[1] (standard deviation/mean) [Where # tests > 10]	0.2	0.4	0.1	0.7
Multiplying Factors[2]	1.1	1.2	1.1	1.4
PEQ (Maximum Value x Multiplying Factor)	0.44*	3.4	0.33*	6.58
Reasonable Potential Demonstrated? (Yes/No) (Yes if PEQ > WLA)	No*	Yes	No*	Yes

[1] 40 CFR Part 132, Appendix F, Paragraph D(3)
[2] 40 CFR Part 132, Appendix F, Table F6-1
* TUa values less than 1.0 are interpolations.

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
OMZM	Outside mixing zone maximum
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
WWTC	Wastewater Treatment Plant