Ohio EPA Permit No.: 4PK00004*ED
Application No: OH0136247

Action Date: May 20, 2025
Effective Date: July 1, 2025
Expiration Date: June 30, 2030

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),

Delaware County Commissioners

is authorized by the Ohio Environmental Protection Agency, hereinafter referred to as "Ohio EPA," to discharge from the Lower Scioto Water Reclamation Facility, located at 6579 Moore Rd., Delaware, Ohio, Delaware County, to O'Shaughnessy Reservoir on the Scioto River at River Mile 153.38, and to land apply treated effluent at the Scioto Reserve Golf Course in accordance with the conditions specified in Part 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 required by the Ohio EPA no later than 180 days prior to the above date of expiration.

John Logue
Director

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PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this NPDES permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from the following outfall: 4PK00004001. 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	Continuous	All
00300 - Dissolved Oxygen - mg/l	-	6.0	-	-	-	-	-	1/Day	Multiple Grab	All
00530 - Total Suspended Solids - mg/l	-	-	18	12	-	95.4	63.6	3/Week	24hr Composite	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	10	-	-	-	-	-	-	1 / 2 Weeks	Grab	All
00600 - Nitrogen, Total - mg/l	-	-	10	-	-	53.0	-	1 / 2 Weeks	Calculated	All
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	1.5	1.0	-	7.95	5.30	3/Week	24hr Composite	Summer
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	4.5	3.0	-	23.8	15.9	3/Week	24hr Composite	Winter
00625 - Nitrogen Kjeldahl, Total - mg/l	-	-	-	-	-	-	-	1 / 2 Weeks	24hr Composite	All
00630 - Nitrite Plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	1 / 2 Weeks	24hr Composite	All
00665 - Phosphorus, Total (P) - mg/l	-	-	1.5	1.0	-	7.90	5.30	1/Week	24hr Composite	All
00671 - Orthophosphate, Dissolved (as P) - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00680 - Carbon, Total Organic (TOC) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01074 - Nickel, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
01113 - Cadmium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
01114 - Lead, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly

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			
01118 - Chromium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
01220 - Chromium, Dissolved Hexavalent - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly
31648 - E. coli - #/100 ml	-	-	284	126	-	-	-	3/Week	Grab	Summer
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	Continuous	All
50092 - Mercury, Total (Low Level) - ng/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly
51173 - Cyanide, Free (Low-Level) - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly
61425 - Acute Toxicity, Ceriodaphnia dubia - TUa	-	-	-	-	-	-	-	1/Year	24hr Composite	June
61426 - Chronic Toxicity, Ceriodaphnia dubia - TUc	-	-	-	-	-	-	-	1/Year	24hr Composite	June
61427 - Acute Toxicity, Pimephales promelas - TUa	-	-	-	-	-	-	-	1/Year	24hr Composite	June
61428 - Chronic Toxicity, Pimephales promelas - TUc	-	-	-	-	-	-	-	1/Year	24hr Composite	June
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/Quarter	24hr Composite	Quarterly
80082 - CBOD 5 day - mg/l	-	-	5.0	3.0	-	26.5	15.9	3/Week	24hr Composite	All

Notes for Station Number 4PK00004001:
* Effluent loadings based on average design flow of 1.40 MGD.

a. Total Nitrogen shall be reported as the summation of concentrations reported for parameter codes 00625 Total Kjeldahl Nitrogen and 00630 Nitrate plus Nitrite.
b. Dissolved hexavalent chromium - See Part II, Item G.
c. Mercury - See Part II, Items G and N.
d. Orthophosphate - See Part II, Items G and O.
e. Free cyanide - See Part II, Items G.
f. Whole effluent toxicity monitoring - See Part II, Item T.

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning on the effective date of this NPDES permit and lasting until the expiration date, the permittee is authorized to direct treated final effluent for land application purposes in accordance with the following limitations and monitoring requirements from the following outfall: 4PK00004002. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 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			
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Month	Grab	All
00530 - Total Suspended Solids - mg/l	-	-	18	12	-	-	-	1/Week	24hr Composite	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	10	-	-	-	-	-	-	1/Quarter	Grab	Quarterly
00600 - Nitrogen, Total - mg/l	-	-	-	10	-	-	-	2/Week	24hr Composite	Yearly
00951 - Fluoride, Total (F) - mg/l	1.0	-	-	-	-	-	-	1/Year	Grab	Yearly
01002 - Arsenic, Total (As) - ug/l	100	-	-	-	-	-	-	1/Year	Grab	Yearly
01012 - Beryllium, Total - ug/l	100	-	-	-	-	-	-	1/Year	Grab	Yearly
01022 - Boron, Total - ug/l	750	-	-	-	-	-	-	1/Year	Grab	Yearly
01037 - Cobalt, Total (Co) - ug/l	50	-	-	-	-	-	-	1/Year	Grab	Yearly
01045 - Iron, Total (Fe) - ug/l	5000	-	-	-	-	-	-	1/Year	Grab	Yearly
01055 - Manganese, Total (Mn) - ug/l	200	-	-	-	-	-	-	1/Year	Grab	Yearly
01062 - Molybdenum (Mo) - ug/l	10	-	-	-	-	-	-	1/Year	Grab	Yearly
01074 - Nickel, Total Recoverable - ug/l	200	-	-	-	-	-	-	1/Year	Grab	Yearly
01087 - Vanadium, Total (V) - ug/l	100	-	-	-	-	-	-	1/Year	Grab	Yearly
01094 - Zinc, Total Recoverable - ug/l	2000	-	-	-	-	-	-	1/Year	Grab	Yearly
01105 - Aluminum, Total (Al) - ug/l	5000	-	-	-	-	-	-	1/Year	Grab	Yearly
01113 - Cadmium, Total Recoverable - ug/l	10	-	-	-	-	-	-	1/Year	Grab	Yearly
01114 - Lead, Total Recoverable - ug/l	1500	-	-	-	-	-	-	1/Year	Grab	Yearly
01118 - Chromium, Total Recoverable - ug/l	100	-	-	-	-	-	-	1/Year	Grab	Yearly
01119 - Copper, Total Recoverable - ug/l	200	-	-	-	-	-	-	1/Year	Grab	Yearly
01132 - Lithium, Total (Li) - ug/l	2500	-	-	-	-	-	-	1/Year	Grab	Yearly
01147 - Selenium, Total (Se) - ug/l	20	-	-	-	-	-	-	1/Year	Grab	Yearly
31648 - E. coli - #/100 ml	126	-	-	-	-	-	-	2/Week	Grab	All

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			
50045 - Application Rate-Wastewater, Spray - inches/day	-	-	-	-	-	-	-	When Disch.	Calculated	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	Continuous	All
80082 - CBOD 5 day - mg/l	-	-	5	3	-	-	-	1/Week	24hr Composite	All

Notes for Station Number 4PK00004002:

a. For land application requirements, see Part II, Item U.

b. Total Nitrogen shall be reported as the summation of concentrations reported for parameter codes 00625 Total Kjeldahl Nitrogen and 00630 Nitrate plus Nitrite.

PART I, B. SSO LIMITATIONS AND MONITORING REQUIREMENTS

1. SSO Monitoring. During the period beginning on the effective date of this NPDES permit and lasting until the expiration date, the permittee shall monitor at Station Number: 4PK00004300, 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 4PK00004300:

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 C and D.

PART I, B. SLUDGE LIMITATIONS AND MONITORING REQUIREMENTS

2. Sludge Monitoring. During the period beginning on the effective date of this NPDES permit and lasting until the expiration date, the permittee shall monitor the treatment works' final sludge at Station Number: 4PK00004586, 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 4PK00004586:

a. Monitoring is required when sewage sludge is removed from the permittee’s facility for disposal in a municipal solid waste landfill. The total Sludge Fee Weight of sewage sludge disposed of in a municipal 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 municipal solid waste landfill during the year, select the "No Discharge" check box on the data entry form and PIN the DMR.

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

d. Each day when sewage sludge is removed from the treatment works for disposal, a representative composite 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 Fee Weight (Discharge Monitoring Report code 51129) removed from the treatment plant on that day.

e. 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.

f. See Part II, Items K and L.

PART I, B. SLUDGE LIMITATIONS AND MONITORING REQUIREMENTS

3. Sludge Monitoring. During the period beginning on the effective date of this NPDES permit and lasting until the expiration date, the permittee shall monitor the treatment works' final sludge at Station Number: 4PK0004588, 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			
80991 - Sludge Volume, Gallons - Gals	-	-	-	-	-	-	-	1/Year	Total	December

Notes for Station Number 4PK00004588:

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

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

c. See Part II, Items K and L.

PART I, B. INFLUENT MONITORING REQUIREMENTS

4. Influent Monitoring. During the period beginning on the effective date of this NPDES permit and lasting until the expiration date, the permittee shall monitor the treatment works' influent wastewater at Station Number: 4PK00004601, 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			
00400 - pH - S.U.	-	-	-	-	-	-	-	1/Day	Grab	All
00530 - Total Suspended Solids - mg/l	-	-	-	-	-	-	-	3/Week	24hr Composite	All
80082 - CBOD 5 day - mg/l	-	-	-	-	-	-	-	3/Week	24hr Composite	All

Notes for Station Number 4PK00004601:

a. Sampling for the respective/common parameters shall occur on the same day as Outfall 4PK00004001.

PART I, B. WELL LIMITATIONS AND MONITORING REQUIREMENTS

5. Downstream Well Monitoring. During the period beginning on the effective date of this NPDES permit and lasting until the expiration date, the permittee shall monitor at Station Number: 4PK00004701 (MW-1), and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS.

Table - Well Monitoring - 701 – 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			
00011 - Water Temperature - F	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00074 – Turbidity, Transmissometer - NTU								2/Year	Grab	Semi-annual
00094 - Conductivity - Umho/Cm	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00400 - pH - S.U.	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00620 – Nitrite plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00940 - Chloride, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
31648 - E. coli - #/100 ml	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual

Notes for Station Number 4PK00004701:

a. For additional groundwater monitoring information, see Part II, Item U.

b. The monitoring well shall be sampled semi-annually for the parameters listed in the table. Reporting is required in the June and December DMRs.

c. pH, conductivity, temperature, and turbidity shall be analyzed in the field.

d. Ammonia-nitrogen, nitrate + nitrite, chloride, and E. coli shall be analyzed in a laboratory.

PART I, B. WELL LIMITATIONS AND MONITORING REQUIREMENTS

6. Downstream Well Monitoring. During the period beginning on the effective date of this NPDES permit and lasting until the expiration date, the permittee shall monitor at Station Number: 4PK00004702 (MW-2), and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS.

Table - Well Monitoring - 702 – 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			
00011 - Water Temperature - F	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00074 – Turbidity, Transmissometer - NTU								2/Year	Grab	Semi-annual
00094 - Conductivity - Umho/Cm	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00400 - pH - S.U.	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00620 – Nitrite plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00940 - Chloride, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
31648 - E. coli - #/100 ml	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual

Notes for Station Number 4PK00004702:

a. For additional groundwater monitoring information, see Part II, Item U.

b. The monitoring well shall be sampled semi-annually for the parameters listed in the table. Reporting is required in the June and December DMRs.

c. pH, conductivity, temperature, and turbidity shall be analyzed in the field.

d. Ammonia-nitrogen, nitrate + nitrite, chloride, and E. coli shall be analyzed in a laboratory.

PART I, B. WELL LIMITATIONS AND MONITORING REQUIREMENTS

7. Downstream Well Monitoring. During the period beginning on the effective date of this NPDES permit and lasting unit the expiration date, the permittee shall monitor at Station Number: 4PK00004703 (MW-3), and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS.

Table - Well Monitoring - 703 – 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			
00011 - Water Temperature - F	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00074 – Turbidity, Transmissometer - NTU								2/Year	Grab	Semi-annual
00094 - Conductivity - Umho/Cm	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00400 - pH - S.U.	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00620 – Nitrite plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00940 - Chloride, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
31648 - E. coli - #/100 ml	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual

Notes for Station Number 4PK00004703:

a. For additional groundwater monitoring information, see Part II, Item U.

b. The monitoring well shall be sampled semi-annually for the parameters listed in the table. Reporting is required in the June and December DMRs.

c. pH, conductivity, temperature, and turbidity shall be analyzed in the field.

d. Ammonia-nitrogen, nitrate + nitrite, chloride, and E. coli shall be analyzed in a laboratory.

PART I, B. WELL LIMITATIONS AND MONITORING REQUIREMENTS

8. Upstream Well Monitoring. During the period beginning on the effective date of this NPDES permit and lasting until the expiration date, the permittee shall monitor at Station Number: 4PK00004704 (MW-4), and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS.

Table - Well Monitoring - 704 – 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			
00011 - Water Temperature - F	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00074 – Turbidity, Transmissometer - NTU								2/Year	Grab	Semi-annual
00094 - Conductivity - Umho/Cm	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00400 - pH - S.U.	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00620 – Nitrite plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00940 - Chloride, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
31648 - E. coli - #/100 ml	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual

Notes for Station Number 4PK00004704:

a. For additional groundwater monitoring information, see Part II, Item U.

b. The monitoring well shall be sampled semi-annually for the parameters listed in the table. Reporting is required in the June and December DMRs..

c. pH, conductivity, temperature, and turbidity shall be analyzed in the field.

d. Ammonia-nitrogen, nitrate + nitrite, chloride, and E. coli shall be analyzed in a laboratory.

PART I, B. WELL LIMITATIONS AND MONITORING REQUIREMENTS

9. Downstream Well Monitoring. During the period beginning on the effective date of this NPDES permit and lasting until the expirations date, the permittee shall monitor at Station Number: 4PK00004705 (MW-5), and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS.

Table - Well Monitoring - 705 – 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			
00011 - Water Temperature - F	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00074 – Turbidity, Transmissometer - NTU								2/Year	Grab	Semi-annual
00094 - Conductivity - Umho/Cm	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00400 - pH - S.U.	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00620 – Nitrite plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00940 - Chloride, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
31648 - E. coli - #/100 ml	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual

Notes for Station Number 4PK00004705:

a. For additional groundwater monitoring information, see Part II, Item U.

b. The monitoring well shall be sampled semi-annually for the parameters listed in the table. Reporting is required in the June and December DMRs..

c. pH, conductivity, temperature, and turbidity shall be analyzed in the field.

d. Ammonia-nitrogen, nitrate + nitrite, chloride, and E. coli shall be analyzed in a laboratory.

PART I, B. WELL LIMITATIONS AND MONITORING REQUIREMENTS

10. Downstream Well Monitoring. During the period beginning on the effective date of this NPDES permit and lasting until the expiration date, the permittee shall monitor at Station Number: 4PK00004706 (MW-6), and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS.

Table - Well Monitoring - 706 – 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			
00011 - Water Temperature - F	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00074 – Turbidity, Transmissometer - NTU								2/Year	Grab	Semi-annual
00094 - Conductivity - Umho/Cm	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00400 - pH - S.U.	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00620 – Nitrite plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00940 - Chloride, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
31648 - E. coli - #/100 ml	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual

Notes for Station Number 4PK00004706:

a. For additional groundwater monitoring information, see Part II, Item U.

b. The monitoring well shall be sampled semi-annually for the parameters listed in the table. Reporting is required in the June and December DMRs..

c. pH, conductivity, temperature, and turbidity shall be analyzed in the field.

d. Ammonia-nitrogen, nitrate + nitrite, chloride, and E. coli shall be analyzed in a laboratory.

PART I, B. WELL LIMITATIONS AND MONITORING REQUIREMENTS

11. Downstream Well Monitoring. During the period beginning on the effective date and lasting until expiration date, the permittee shall monitor at Station Number: 4PK00004707 (MW-7), and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS.

Table - Well Monitoring - 707 – 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			
00011 - Water Temperature - F	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00074 – Turbidity, Transmissometer - NTU								2/Year	Grab	Semi-annual
00094 - Conductivity - Umho/Cm	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00400 - pH - S.U.	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00620 – Nitrite plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00940 - Chloride, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
31648 - E. coli - #/100 ml	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual

Notes for Station Number 4PK00004707:

a. For additional groundwater monitoring information, see Part II, Item U.

b. The monitoring well shall be sampled semi-annually for the parameters listed in the table. Reporting is required in the June and December DMRs.

c. pH, conductivity, temperature, and turbidity shall be analyzed in the field.

d. Ammonia-nitrogen, nitrate + nitrite, chloride, and E. coli shall be analyzed in a laboratory.

PART I, B. WELL LIMITATIONS AND MONITORING REQUIREMENTS

12. Downstream Well Monitoring. During the period beginning on the effective date and lasting until expiration date, the permittee shall monitor at Station Number: 4PK00004708 (MW-8), and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS.

Table - Well Monitoring - 708 – 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			
00011 - Water Temperature - F	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00074 – Turbidity, Transmissometer - NTU								2/Year	Grab	Semi-annual
00094 - Conductivity - Umho/Cm	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00400 - pH - S.U.	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00620 – Nitrite plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
00940 - Chloride, Total - mg/l	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual
31648 - E. coli - #/100 ml	-	-	-	-	-	-	-	2/Year	Grab	Semi-annual

Notes for Station Number 4PK00004708:

a. For additional groundwater monitoring information, see Part II, Item U.

b. The monitoring well shall be sampled semi-annually for the parameters listed in the table. Reporting is required in the June and December DMRs.

c. pH, conductivity, temperature, and turbidity shall be analyzed in the field.

d. Ammonia-nitrogen, nitrate + nitrite, chloride, and E. coli shall be analyzed in a laboratory.

PART I, B. UPSTREAM MONITORING REQUIREMENTS

13. Upstream Monitoring. During the period beginning on the effective date of this NPDES permit and lasting until the expiration date, the permittee shall monitor the receiving stream, upstream of the point of discharge at Station Number: 4PK00004801, 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			
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 – Nitrate Plus Nitrite, Total – mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00665 – Phosphorus, Total - mgl	-	-	-	-	-	-	-	1/Month	Grab	All
31648 - E. coli - #/100 ml	-	-	-	-	-	-	-	1/2Weeks	Grab	June-Aug
61432 - 48-Hr. Acute Toxicity Ceriodaphnia dubia - % Affected	-	-	-	-	-	-	-	1/Year	Grab	June
61435 - 96-Hr. Acute Toxicity Pimephales promela - % Affected	-	-	-	-	-	-	-	1/Year	Grab	June
61438 - 7-Day Chronic Toxicity Ceriodaphnia dubia - % Affected	-	-	-	-	-	-	-	1/Year	Grab	June
61441 - 7-Day Chronic Toxicity Pimephales promelas - % Affected	-	-	-	-	-	-	-	1/Year	Grab	June

Notes for Station Number 4PK00004801:

a. Sampling for the respective/common parameters shall occur on the same day as Outfall 4PK00004001.

b. Toxicity Biomonitoring - see Part II, Item S.

PART I, B. DOWNSTREAM-FARFIELD MONITORING REQUIREMENTS

14. Downstream-Farfield Monitoring. During the period beginning on the effective date of this NPDES permit and lasting until the expiration date, the permittee shall monitor the receiving stream, downstream of the point of discharge, at Station Number: 4PK00004901, and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS, for location of sampling.

Table - Downstream-Farfield Monitoring - 901 – Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00010 - Water Temperature - C	-	-	-	-	-	-	-	1/Month	Grab	All
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	-	-	-	-	-	-	-	1/2Weeks	Grab	June - Aug

Notes for Station Number 4PK00004901:

a. Sampling for the respective/common parameters, including Total Hardness (Parameter Code - 00900) shall occur on the same day as Outfall 4PK00004001.

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://dam.assets.ohio.gov/image/upload/epa.ohio.gov/Portals/28/documents/opcert/Operator_of_Record_Notification_Form.pdf

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
4PK00004001	Discharge of final effluent at post aeration prior to conveyed to the Scioto River. (Lat: 40.216667; Long: -83.144444)
4PK00004002	Land application of treated effluent to Scioto Reserve Golf Course.
4PK00004300	System wide sanitary sewer overflow occurrences.
4PK00004586	Disposal of sewage sludge or biosolids in an authorized landfill.
4PK00004588	Transfer of sewage sludge or biosolids to another NPDES permittee.
4PK00004601	Influent monitoring station.
4PK00004701	Downstream groundwater monitoring well MW-1.
4PK00004702	Downstream groundwater monitoring well MW-2.
4PK00004703	Downstream groundwater monitoring well MW-3.
4PK00004704	Upstream groundwater monitoring well MW-4.
4PK00004705	Downstream groundwater monitoring well MW-5.
4PK00004706	Downstream groundwater monitoring well MW-6.
4PK00004707	Downstream groundwater monitoring well MW-7.
4PK00004708	Downstream groundwater monitoring well MW-8.
4PK00004801	Upstream monitoring station at the State Route 257 bridge.
4PK00004901	Downstream monitoring station at the Home Road bridge.

C. 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 Ohio EPA, Central District Office, Division of Surface Water 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 your eDMR for station number 300.

b) Annual Report

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

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

Assign each SSO location a unique identification by numbering them consecutively, beginning with 301.

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

(iii) A table that summarizes the occurrence of water in basements (WIBs) by total number and by sewershed. The report shall include a narrative analysis of WIB patterns by location, frequency and cause. Only WIBs caused by a problem in the publicly-owned collection system must be included.

Not later than March 31 of each year, you must submit one copy of the annual report for the previous calendar year. The report may be submitted electronically using the NPDES Annual Sanitary Sewer Overflow Report available through the Ohio EPA eBusiness Center, Division of Surface Water NPDES Permit Applications service. Alternatively, you may submit one hardcopy of the report to Ohio EPA, Central District Office, Division of Surface Water 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.

D. 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.

E. All parameters, except flow, 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.

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. Water quality-based effluent limits (WQBELs) 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 WQBELs or other conditions that are necessary to comply with a revised wasteload allocation or approved Total Maximum Daily Load (TMDL) report, as required under Section 303(d) of the Clean Water Act.

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

L. No later than March 1st 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 Ohio EPA eBusiness Center, Division of Surface Water NPDES Permit Application service.

M. Monitoring for Mercury (low-level)

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

N. 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.

O. Outfall Signage

The permittee shall maintain a permanent marker on the shoreline 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.

P. Notification to Public Water Supply Operators

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

a. Discharges within three thousand (3,000) feet of a public water supply intake located in a lake; or

b. Discharges within ten (10) river miles upstream of a public water supply intake located in a reservoir or any other surface water of the state.

2. Public water supply operators meeting the criteria above for the permittee are:

City of Columbus, Department of Public Utilities, Division of Water
910 Dublin Road
Columbus, OH 43215
(614) 645-7020
Attn: Matt K. Steele, Assistant Administrator
email: MKSteele@Columbus.gov

3. Within 6 months of the effective date of the permit, the permittee shall update notification procedures between the permittee and public water supply operator(s) listed above, that defines the specific notification requirements and what constitutes notification "as soon as practicable".

Q. NPDES Application Supplemental Data Requirements

1. Pursuant to 40 CFR Part 122.21, the permittee must sample and analyze for a list of 101 parameters, including hardness, metals, volatile organic compounds (VOCs), acid-extractable compounds, and base-neutral compounds, as part of the next NPDES permit renewal application. The permittee must provide effluent data from a minimum of three samples taken within four and one-half years prior to the date of the permit application. The complete list of parameters is contained in Table 2 of "Appendix J to Part 122 - NPDES Permit Testing Requirements for Publicly Owned Treatment Works" (40 CFR Part 122.21(j)).

2. The permittee must collect effluent samples and analyze for pollutants in accordance with analytical methods approved under 40 CFR Part 136, unless an alternative is specified in the existing NPDES permit. Except for specified pollutants (e.g. VOCs and free cyanide), 24-hour composite samples must be used. Samples must be representative of any seasonal variation in the discharge. Existing data may be used, if available, in lieu of sampling done solely for the purpose of the application.

3. The permittee shall use sufficiently sensitive analytical methods that are capable of detecting and measuring pollutants at or below the respective water quality criteria or existing permit effluent limits.

4. The required analytical data shall be submitted on a form approved by the Director of Ohio EPA.

R. Stormwater No Exposure Certification

To comply with industrial storm water regulations, the permittee submitted a form for "No Exposure Certification", which was signed on January 24, 2023. The certification number is 4GRN01081 *BG. Compliance with industrial stormwater regulations must be reaffirmed every five years. No later than January 24, 2028, the permittee must submit a new form for "No Exposure Certification" or make other provisions to comply with industrial stormwater regulations.

S. Biomonitoring Program Requirements

The permittee shall continue to implement an effluent biomonitoring program to determine the toxicity of the effluent from outfall 4PK00004001.

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. Annual Bioassays

The permittee shall conduct an annual chronic toxicity test in June of each year during the course of this NPDES permit, as specified in Part I,A using water fleas (Ceriodaphnia dubia) and fathead minnows (Pimephales promelas) on effluent samples from outfall 4PK00004001. These tests shall be conducted as specified in Section 3 of the biomonitoring guidance. The acute endpoint, as described in Section 2.H. of the biomonitoring guidance, shall be derived from the chronic test.

2. 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 4PK00004801. Testing of ambient waters shall be done in accordance with Sections 2 and 3 of the biomonitoring guidance.

3. 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)

T. Land Application of Treated Effluent.

The Delaware County Board of Commissioners shall be responsible for proper operation and maintenance of the treated sewage land application system associated with the Scioto Reserve Golf Course and shall follow the condition as necessary:

1. Any person land applying treated sewage shall comply with the effluent and monitoring requirements in paragraph (K) of rule 3745-42-13 of the Administrative Code.

2. This permit specifically allows for the land application of treated sewage to the Scioto Reserve Golf Course at an average daily flow of 0.423 MGD.

3. Any new site proposed for the land application of treated effluent from the Lower Scioto Water Reclamation Facility shall be approved by the Director of Ohio EPA prior to the land application of treated sewage. This NPDES permit shall be modified prior to land the application of treated effluent to a new site. Any application to modify this permit shall include the information specified in paragraphs (F), (M) and (N) of Rule 3745-42-13 of the Ohio Administrative Code for the new site, shall be submitted to the Ohio EPA Division of Surface Water, and a new land application approval shall be received before the new site is used for land application of treated sewage.

4. Land application of treated sewage shall only occur at times identified in the approved land application modification request.

5. Treated sewage shall be land applied so as to minimize direct human contact, and the potential for creating aerosols and mist.

6. Signs shall be installed at the entrance to each land application area, to inform the public that the land is used for land application of treated sewage. At least one sign shall be posted at each area. Each sign shall include notification that: (i) All above ground sewage distribution pipes contain "Non-potable Water that is Not Suitable for Human Consumption"; and (ii) If applicable, all nozzles distribute "Non-potable Water that is Not Suitable for Human Consumption".

7. The Ohio EPA shall be notified at least six months prior to the expiration date of any land application contract. Notification shall be sent to the Ohio EPA, Division of Surface Water, Central District Office.

8. Records shall be kept in accordance with the approved land application management plan and paragraph (O) of rule 3745-42-13 of the Ohio Administrative Code.

9. The Scioto Reserve storage lagoon was approved on March 7, 2006, through PTI 01-11670.

10. As per Ohio Administrative Code 3745-42-13(E)(2)(a), the Director of Ohio EPA may waive any requirement in paragraph (C), paragraph (D) or any requirement in paragraphs (F) to (N) of this rule for land application systems installed prior to the effective date of this rule (effective date 7/1/2007). The Director waives the general requirements for ground water monitoring program for the lagoon and storage facility in Ohio Administrative Code 3745-42-13(L)(4).

However, if at any time additional information becomes available and the Director or his authorized representative determines the need for additional groundwater monitoring. The Delaware County Regional Sewer District shall implement the general requirements in Ohio Administrative Code 3745-42-13(L)(4).

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.

"Biosolids" means sewage sludge or mixtures containing sewage sludge that have been treated for beneficial use.

"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 waterfowl;

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

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

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

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

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

3. FACILITY OPERATION AND QUALITY CONTROL

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

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

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

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

4. REPORTING

A. Monitoring data required by this permit shall be submitted monthly on Ohio EPA 4500 Discharge Monitoring Report (DMR) forms using the electronic DMR (e-DMR) internet application. e-DMR allows permitted facilities to enter, sign, and submit DMRs on the internet. e-DMR information is found on the following web page:
https://epa.ohio.gov/divisions-and-offices/surface-water/permitting/electronic-business-services

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

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

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

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

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

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 the treatment, storage, transfer, or disposal, and the beneficial use of biosolids, 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 treatment works 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 or biosolids, 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 or biosolids, 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 email. A noncompliance report form is available on the following website 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 or biosolids, 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 Lower Scioto Water Reclamation Facility (Lower Scioto WRF)

Public Notice No.: 211331
Public Notice Date: April 14, 2025
Comment Period Ends: May 14, 2025

Ohio EPA Permit No.: **4PK00004*ED**
Application No.: **OH0136247**

Name and Address of Applicant:
Delaware County Commissioners
c/o Delaware County Regional Sewer District
101 North Sandusky Street
Delaware, OH 43015

Name and Address of Facility Where Discharge Occurs:
Lower Scioto WRF
6405 Moore Road
Delaware, OH 43015
Delaware County

Receiving Water: **O'Shaughnessy Reservoir on the Scioto River at River Mile 153.38**

Subsequent Stream Network: **Ohio River**

INTRODUCTION

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

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

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

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

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

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

SUMMARY OF PERMIT CONDITIONS

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

New effluent limitations and monitoring requirements will be included in a new outfall (002) that will be associated with the land application of final effluent to the Scioto Reserve Golf Course (Scioto Reserve GC) in accordance with OAC Rule 3745-42-13.

New monitoring requirements will be included in new monitoring stations (701 through 708) for groundwater monitoring associated with the storage of final effluent to the Scioto Reserve GC accordance with OAC Rule 3745-42-13.

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

At upstream monitoring station 801, new monitoring is proposed for total phosphorus, total Kjeldahl nitrogen, and nitrite plus nitrate to support nutrient evaluations in the receiving water. Monitoring for water temperature, dissolved oxygen, and pH is proposed to be removed.

At downstream monitoring station 901, new monitoring is proposed for total phosphorus, total Kjeldahl nitrogen, and nitrite plus nitrate to support nutrient evaluations in the receiving water.

To ensure that data is obtained that allows Ohio EPA to make water quality-related decisions regarding low level mercury and free cyanide, a special condition is proposed in Part II of the permit that provides guidance on the analytical method detection limits (MDLs) the permittee should use in analyzing for these contaminants.

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; requirements governing the land application of treated effluent; downstream public water supply notification; and outfall signage.

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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 John Owen by telephone at (614) 728-3849, or by email at john.owen@epa.ohio.gov.

INFORMATION REGARDING CERTAIN WATER QUALITY BASED EFFLUENT LIMITS

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

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

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

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

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

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

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

LOCATION OF DISCHARGE/RECEIVING WATER USE CLASSIFICATION

The Lower Scioto Water Reclamation Facility (WRF) discharges the O'Shaughnessy Reservoir in the Scioto River watershed at River Mile 153.38. Figure 1 shows the approximate location of the facility.

The O'Shaughnessy Reservoir is designated as Exceptional Warmwater Habitat per OAC 3745-1-07(B)(1)(c), a Public Water Supply per OAC 3745-1-07(B)(2)(a)(i), and Primary Contact Recreation per OAC 3745-1-07(B)(3)(b).

The segment of the Scioto River downstream of O'Shaughnessy Reservoir is described by Ohio EPA River Code: 02-001, Large River Assessment Unit Code: 05060001-90-01, County: Delaware, Ecoregion: Eastern Corn Belt Plains. The Scioto River is designated for the following uses under Ohio's WQS (OAC 3745-1-09): Warmwater Habitat, Public Water Supply, Agricultural Water Supply, Industrial Water Supply, and Primary Contact Recreation.

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

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

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

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

FACILITY DESCRIPTION

The Lower Scioto WRF was constructed in 2011 and began discharging in November of 2017. The average daily design flow is 1.4 million gallons per day (MGD) and the peak hydraulic capacity is 4.2 MGD. The Lower Scioto WRF serves the Lower Scioto Service Area which encompasses southwest Delaware County. The WRF has the following treatment processes which are shown on Figure 2:

- Influent Pumping
- Comminution
- Fine Screens
- Extended Aeration
- Chemical precipitation of phosphorus
- Secondary Clarification
- Tertiary Filtration

- Ultraviolet Disinfection
- Post Aeration

The collection system is 100% separated sewers.

The Lower Scioto WRF does not have an approved pretreatment program. There are no industrial users that are tributary to the plant.

The service area's potable water comes from either Delco-Water or private wells.

The Lower Scioto WRF utilizes the following sewage sludge treatment processes:

- Aerobic Digestion
- Mechanical Dewatering of Sludge

Treated sludge will be disposed of in a municipal landfill, or possibly transferred to another NPDES permit holder.

The construction of the Lower Scioto facility was initially covered under Ohio EPA PTI No.: 576675 issued in June of 2007. In June of 2023 Ohio EPA issued a permit to install (Ohio EPA PTI No.: 1543175) to the Delaware County Regional Sewer District (DCRSD) that covered two (2) related improvement projects associated with the Lower Scioto WRF. The first one was to modify the existing Lower Scioto WRF aeration basins to include anaerobic zones for biological phosphorous removal, including new recycle pumps, modifications to baffle walls, high pressure air mixing system, low-pressure process aeration system, and associated electrical and I&C improvements. The modifications were also being made to comply with NFPA 820 as well as some cosmetic changes to some of the buildings. These improvements would not increase the WWTP permitted loads or hydraulic capacity. The second project involved demolishing the Scioto Reserve WRF and replacing it with a new pump station (PS) and force main that would connect the existing O'Shaughnessy PS, which conveys raw sewage flows to the Lower Scioto WRF. Also included in this project is a new effluent pump station and force main that would send treated effluent from Lower Scioto back to the Scioto Reserve golf course for irrigation. To accommodate these improvements Outfall 4PK00004002 is included in this renewal permit to authorize the storage and land application of treated effluent to the Scioto Reserve Golf Course.

DESCRIPTION OF EXISTING DISCHARGE

Table 1 presents a summary of the last seven years of sludge disposal from the Lower Scioto WRF.

Table 2 presents the effluent violations for Lower Scioto WRF discharge during the previous seven years. These violations were not caused by a known process error or upset condition.

Table 3 presents the average annual effluent flow rate for Lower Scioto WRF for the previous seven years. Lower Scioto WRF estimates there is an infiltration/inflow (I/I) rate to the collection system of 0.041MGD Additional steps are underway to minimize I&I in collection system: Flow monitoring completed at 3 locations December 2021 - June 2022. Manhole screening inspections currently in progress.

Table 4 presents the number of SSOs reported by Lower Scioto WRF for the previous seven years. SSOs are reported at station 300.

Table 5 presents data characterizing the seasonal total phosphorus load from the Lower Scioto WRF during the previous five years. The Lower Scioto WRF must maintain phosphorus loading limits as part of plant design.

Table 6 presents chemical specific data compiled from supplemental effluent testing data submitted as part of the NPDES renewal application.

Table 7 presents chemical specific data compiled from data collected by Ohio EPA.

Table 8 presents a summary of unaltered Discharge Monitoring Report (DMR). Data are presented for the period March 1, 2018, to September 30, 2024, and current permit limits are provided for comparison.

Table 9 summarizes the chemical specific data for outfall 001 by presenting the average and maximum PEQ values.

Table 10 summarizes the results of acute and chronic Whole Effluent Toxicity (WET) tests of the final effluent, using the water flea (*Ceriodaphnia dubia*) and fathead minnow (*Pimephales promelas*) as test organisms, as well as including a single Ohio EPA bioassay sampling of the final effluent from January 2023.

ASSESSMENT OF IMPACT ON RECEIVING WATERS

The Scioto River mainstem large river assessment unit, both up- and downstream of O'Shaughnessy Reservoir, is listed as impaired for recreation and human health on Ohio's 303(d) list. A TMDL (total maximum daily load) report is in preparation. The most recent data available is in the *Biological and Water Quality Study of the Middle Scioto River and Select Tributaries, 2010*. The attainment status of the Scioto River is also reported in the Ohio 2024 Integrated Water Quality Monitoring and Assessment Report.

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 7-1). These criteria apply to rivers and streams outside of mixing zones. Numerical biological criteria are based on measuring several characteristics of the fish and macroinvertebrate communities; these characteristics are combined into multimetric biological indices including the Index of Biotic Integrity and modified Index of Well-Being, which indicate the response of the fish community, and the Invertebrate Community Index, which indicates the response of the macroinvertebrate community. Numerical criteria are broken down by ecoregion, use designation, and stream or river size. Ohio has five ecoregions defined by common topography, land use, potential vegetation and soil type.

Three attainment status results are possible at each sampling location -full, partial, or non-attainment. Full attainment means that all of the applicable indices meet the 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, and comments and observations for each sampling location.

The most recent data available for aquatic life use in the Scioto River Mainstem is from 2022 and indicates that the Scioto River is in full attainment of its aquatic life use upstream, in the vicinity of, and downstream of the Lower Scioto WWTP.

The most recent data available for the recreation and human health uses are in Ohio EPA's 2012 technical support document (TSD), entitled *Biological and Water Quality Study of the Middle Scioto River and Select Tributaries, 2010*, which can be found at https://epa.ohio.gov/static/Portals /35/documents/ MiddleSciotoTSD2010.pdf. The associated appendices can be found at https://epa.ohio.gov/static/Portals/35/ documents /MidScioto_Appendix.pdf. On page 67 it states the following:

"*Twenty-eight locations in the watershed were tested for E. coli levels five to eleven times between May and October 2010. Evaluation of E. coli results revealed that 26 of the 28 locations sampled failed to attain the applicable geometric mean criterion, indicating an impairment of the recreation use at these locations, as depicted in Table 12 and Figure 18. Sources of elevated bacteria concentrations were ubiquitous and most likely due to a variety of inputs depending on the site location. In more rural locations, such as Eversole Run (Delaware County), Grove Run and Dry Run (Pickaway County), agricultural activities, including livestock production and land application, are more common and likely sources. In the central portion of the watershed, WWTP, CSOs, SSOs and unsewered areas are documented sources. In mixed land use watershed areas such as Grant Run watershed (Grove City area), HSTS and agricultural activities likely combine to contribute to bacteria contamination.*

Sample results at two popular Scioto River recreational areas, O'Shaughnessy Reservoir and Griggs Reservoir, did not exceed the PCR Class A criterion. These sites are located upstream from the impacts of the city of Columbus Jackson Pike WWTP and Southerly WWTP effluent discharges and collection system CSOs and SSOs. Bacterial contamination in most streams was present during both wet and dry weather events. This indicates that strategies to reduce bacteria levels in streams should include both nonpoint source and point source measures."

The *Summary of Findings from the 2020-2021 Aquatic Life and Water Quality Survey of Ohio's Large Rivers* can be found at https://epa.ohio.gov/divisions-and-offices/surface-water/reports-data/statewide-surface-water-surveys

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 Lower Scioto WRF were used to determine what parameters should undergo WLA. The parameters discharged are identified by the data available to Ohio EPA, DMR data submitted by the permittee, compliance sampling data collected by Ohio EPA, and any other data submitted by the permittee, such as

priority pollutant scans required by the NPDES application or by pretreatment, or other special conditions in the NPDES permit. The sources of effluent data used in this evaluation are as follows:

Self-monitoring data (DMR)	3/2018 through 9/2024
NPDES renewal application data	2021
Ohio EPA compliance sampling data	5/6/2022
Ohio EPA bioassay sampling data	1/24/23

Statistical Outliers and Other Non-representative Data
The data were examined and no values were removed from the evaluation. This data is evaluated statistically, and PEQ values are calculated for each pollutant. Average PEQ (PEQ_{avg}) values represent the 95th percentile of monthly average data, and maximum PEQ (PEQ_{max}) values represent the 95th percentile of all data points (see Table 9). See Modeling Guidance #1 for more information on PEQ calculations, available through the Ohio EPA, Division of Surface Water website at:
https://www.epa.ohio.gov/portals/35/guidance/model1.pdf

The PEQ values are used according to Ohio rules to compare to applicable WQS and allowable WLA values for each pollutant evaluated. Initially, PEQ values are compared to the applicable average and maximum WQS. If both PEQ values are less than 25 percent of the applicable WQS, the pollutant does not have the reasonable potential to cause or contribute to exceedances of WQS, and no WLA is done for that parameter. If either PEQ_{avg} or PEQ_{max} is greater than 25 percent of the applicable WQS, a WLA is conducted to determine whether the parameter exhibits reasonable potential and needs to have a limit or if monitoring is required (see Table 12).

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.

WLAs for direct discharges to lakes are calculated using the following equation for average criteria: WLA = (11 x Water Quality Criteria) – (10 x Background Concentration). Allocations for maximum criteria are set equal to the Inside Mixing Zone Maximum (IMZM) values. The data used in the WLA are listed in Table 12 and Table 13. The WLA results to maintain all applicable criteria are presented in Table 14.

Whole Effluent Toxicity Wasteload Allocation
Whole effluent toxicity (WET) is the total toxic effect of an effluent on aquatic life measured directly with a toxicity test. Acute WET measures short term effects of the effluent while chronic WET measures longer term and potentially more subtle effects of the effluent. WQC for WET are 0.3 TUa for acute toxicity and 1.0 TUc for chronic toxicity (OAC 3745-1-44).

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 3745-1-06, 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 Lower Scioto WRF, the WLA values are 1.0 TU_a and 11.0 TU_c.

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

$TU_c = 100/IC_{25}$

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

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

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

$TU_a = 100/LC_{50}$

This equation applies outside the mixing zone for warmwater, modified warmwater, exceptional warmwater, coldwater, and seasonal salmonid use designations.

REASONABLE POTENTIAL/EFFLUENT LIMITS/MANAGEMENT DECISIONS

After appropriate effluent limits are calculated, the reasonable potential of the discharger to violate the WQS must be determined. Each parameter is examined and placed in a defined "group". Parameters that do not have a WQS or do not require a WLA based on the initial screening are assigned to either group 1 or 2. For the allocated parameters, the preliminary effluent limits (PEL) based on the most restrictive average and maximum WLAs are selected from Table 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 the Lower Scioto WTR outfall 001 to the Scioto River and the basis for their recommendation, and Table 17 presents the same for the land application of final effluent to the Scioto Reserve Golf Course. Unless otherwise indicated, the monitoring frequencies proposed in the permit are continued from the existing permit.

OUTFALL 001

Dissolved Oxygen, TSS, $CBOD_5$, Ammonia, Total Kjeldahl Nitrogen, Nitrate plus Nitrite, Total Nitrogen and Total Phosphorus

The limits for dissolved oxygen, total suspended solids, ammonia and 5-day carbonaceous biochemical oxygen demand (CBOD5), total phosphorus, total nitrogen are all based on plant design criteria (Ohio EPA PTI Nos.: 576675 and 1543175). The TSS and $CBOD_5$ limits are more stringent than the Secondary Treatment Standards

in 40 CFR Part 133. The current ammonia limits have been evaluated using the WLA procedures and are protective of WQS for ammonia toxicity. To control the amount of nutrients being discharged into O'Shaughnessy Reservoir, total nitrogen was limited to be protective of the downstream drinking water standards and uses and is based on the summation of concentrations reported for total kjeldahl nitrogen and nitrate and nitrite concentrations. Additionally, the limitations for $CBOD_5$ and phosphorus were necessary to limit both carbon and phosphorus loading into the O' Shaughnessy Reservoir as an aid to minimize the growth of algae. The current dissolved oxygen limit is protective of WQS.

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

WQ Risk Assessment
The Ohio EPA risk assessment (Table 15) places no parameters in group 5, which recommends limits to protect water quality.

The Ohio EPA risk assessment (Table 15) places no parameters in group 4.

The Ohio EPA risk assessment (Table 15) places cadmium, chromium, dissolved hexavalent chromium, copper, free cyanide, total filterable residue, lead, mercury, nickel, and zinc in groups 2 and 3. This placement, as well as the data in 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 is proposed to document that these pollutants continue to remain at low levels.

The Ohio EPA risk assessment (Table 15) places strontium in group 2. This placement, as well as the data in Table 8 and Table 9, support that this parameter does not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. No monitoring is proposed.

Total Organic Carbon
These parameters are proposed to continue from the existing permit and are based on best technical judgement. Monitoring is maintained since for the purposes of monitoring the amount of carbon entering the reservoir and to aid in forecasting algae growth in the reservoir.

Flow and Temperature
Monitoring for these parameters is proposed to continue in order to evaluate the performance of the treatment plant.

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

Whole Effluent Toxicity Reasonable Potential
Based on evaluating the WET data presented in Table 10 and other pertinent data under the provisions of OAC 3745-33-07(B), the Lower Scioto WRF is placed in Category 4 with respect to WET. While this indicates that the plant's effluent does not currently pose a toxicity problem, annual toxicity testing is proposed consistent with the minimum monitoring requirements at OAC 3754-33-07(B)(11). Annual chronic toxicity monitoring with the determination of acute endpoints.

LAND APPLICATION OF TREATED EFFLUENT

A portion of the treated effluent from Lower Scioto WRF will be used for land application. The effluent is to be land applied at the existing Scioto Reserve Golf Course (Scioto Reserve GC) since the dedicated Scioto Reserve wastewater treatment plant is being decommissioned and the associated sewage will be treated by the Lower Scioto WRF. The existing effluent storage impoundment will be maintained and used to storage treated effluent for land application.

Outfall 002

New monitoring station 002 is being proposed for monitoring of treated effluent prior to land application. The limits for dissolved oxygen, pH. total suspended solids, CBOD5, total nitrogen, *E. coli* are all based on plant design criteria of the Lower Scioto WRF. Effluent limitations for total fluoride, total arsenic, total beryllium, total boron, total cobalt, total iron, total manganese, total molybdenum, nickel, total vanadium, total recoverable zinc, total recoverable aluminum, total recoverable cadmium, total recoverable lead, total recoverable chromium, total recoverable copper, total lithium, total selenium and total residual chlorine are based on effluent limitations found in OAC Rule 3745-42-13(K), Tables K-2 & K-5.

Stations 701, 702, 703, 704, 705, 706, 707 and 708

New groundwater monitoring well stations 701-708 are proposed to monitor the groundwater around the existing effluent storage facility. These stations will continue to assess potential impacts to groundwater by effluent infiltration from the storage impoundment. These stations were originally incorporated into the Scioto Reserve land application management plan (LAMP). With the elimination of the Scioto Reserve treatment system, final effluent from the Lower Scioto WRF will be directed to the existing storage impoundment for land application purposes. There were seven downstream monitoring wells (701, 702, 703, 705, 706, 707 and 708) one upstream monitoring well (704) used in the LAMP that will now are being incorporated into this renewal permit. Each well monitors the groundwater to document any changes in groundwater quality due to leakage from the storage impoundment. Each well monitors water temperature, turbidity, conductivity, pH, ammonia, nitrite plus nitrate, total chloride and *E. coli*.

ADDITIONAL MONITORING REQUIREMENTS

At upstream monitoring station 801, new monitoring is proposed for total phosphorus, total Kjeldahl nitrogen, and nitrite plus nitrate to support nutrient evaluations in the receiving water. Monitoring for water temperature, dissolved oxygen, and pH is proposed to be removed.

At downstream monitoring station 901, new monitoring is proposed for total phosphorus, total Kjeldahl nitrogen, and nitrite plus nitrate to support nutrient evaluations in the receiving water.

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

Sludge

The disposal of sewage sludge by removal to sanitary landfill or transfer to another facility with an NPDES permit has been included in the NPDES permit.

OTHER REQUIREMENTS

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

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

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

Public Water Supply Notification
An addition to OAC 3745-33-08 requires that permittees discharging wastewater within ten miles of a downstream public water supply intake located on the same waterway must develop and implement notification procedures in conjunction with the downstream public water supply operator in the event of a spill, separate sewer overflow, bypass or upset that reaches waters of the state. Since the City of Columbus operates an existing public water supply intake downstream from the Lower Scioto WRF, a Part II requirement has been included to regarding spill notification procedures.

NPDES Renewal Application Supplemental Effluent Data
The permittee must submit supplemental effluent data as part of the next NPDES permit renewal application. A minimum of three samples must be tested for 101 parameters, each collected within four and one-half years of the application submission date. The complete list of parameters to be analyzed is contained in Table 2 of "Appendix J to Part 122 - NPDES Permit Testing Requirements for Publicly Owned Treatment Works (§122.21(j))." Existing effluent data may be used, if available, in lieu of sampling performed solely for the purpose of the renewal application. See Part II of the permit for details.

Storm Water Compliance
To comply with industrial storm water regulations, the permittee submitted a form for "No Exposure Certification" which was signed on January 24, 2023. The certification number 4GRN01081*BG. Compliance with the industrial storm water regulations must be re-affirmed every five years. No later than January 24, 2028, the permittee must submit a new form for "No Exposure Certification" or make other provisions to comply with the industrial storm water regulations.

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

Figure 1. Location of Lower Scioto Water Reclamation Facility.

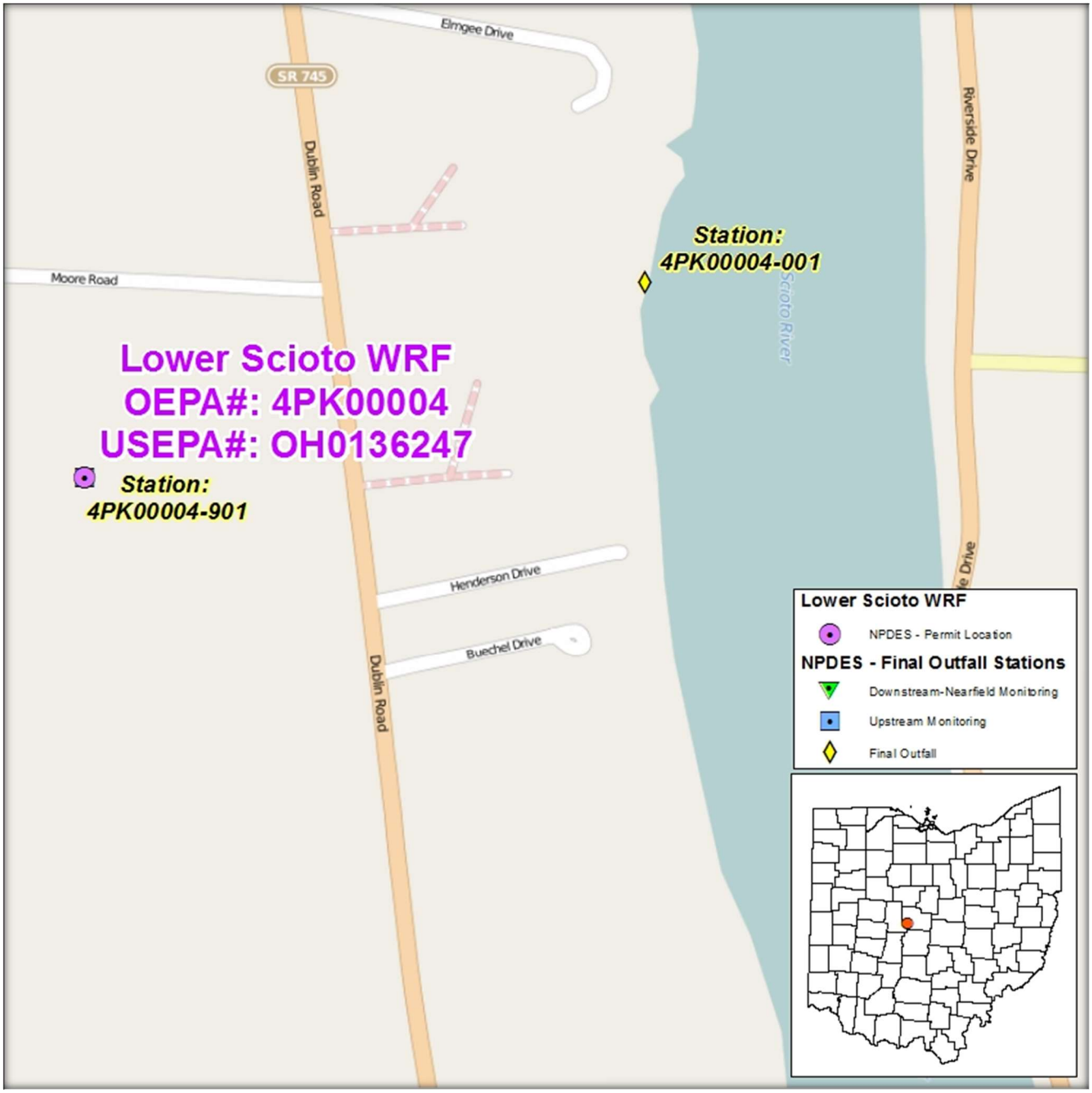

Figure 2. Diagram of Wastewater Treatment System

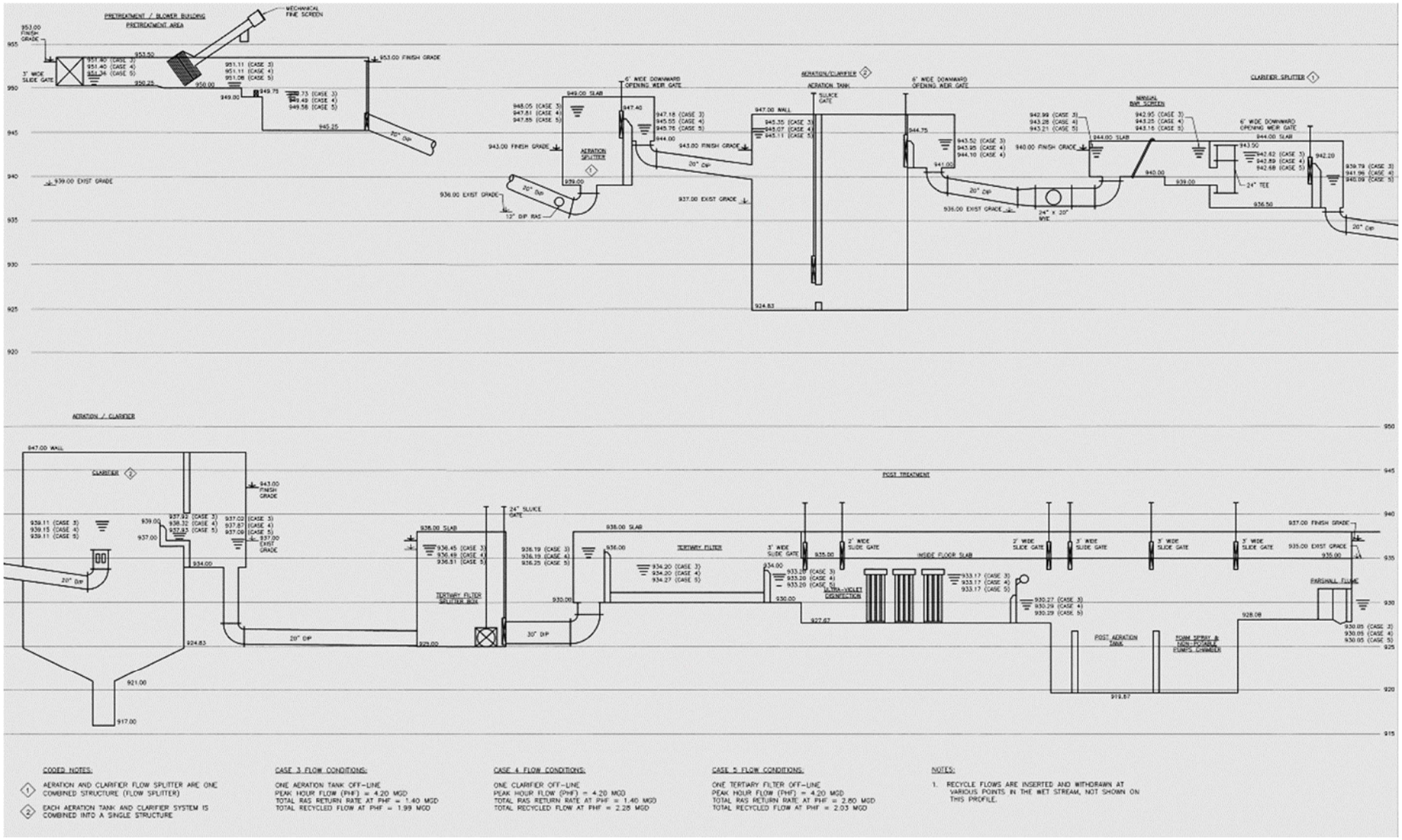

Table 1. Sewage Sludge Removal

Sum of Outfalls 581, 584, 585, 586, 588		
	Dry Tons Removed	
Year	Code 51129	Code 70316
2018	0	24
2019	0	347
2020	26.6	30.8
2021	2.65	46.8
2022	39.6	3.16
2023	47.1	12.8

Table 2. Effluent Violations for Outfall 001

Parameter	2018	2019	2020	2021	2022	2023	2024
CBOD 5 day	0	0	0	0	0	2	0
Nitrogen, Ammonia (NH3	0	0	0	3	2	0	0
Phosphorus, Total (P)	0	0	4	0	0	0	0
Total	0	0	4	3	2	2	0

From March 2018 through September 2024

Table 3. Annual Effluent Flow Rates for Outfall 001

Flow Rate (Million Gallons per Day)					
Year	# obs	Average	Median	95th Percentile	Maximum
2018	306	0.090	0.084	0.136	0.760
2019	360	0.085	0.084	0.131	0.187
2020	366	0.090	0.088	0.130	0.221
2021	365	0.101	0.097	0.149	0.209
2022	365	0.110	0.105	0.167	0.257
2023	365	0.126	0.121	0.179	0.343
2024	244	0.151	0.1445	0.209	0.400

MGD = million gallons per day.
Data from March 2018 through September 2024

Table 4. Sanitary Sewer Overflows Discharges

Year	Number of SSOs
2018	0
2019	0
2020	0
2021	0
2022	0
2023	0
2024	0

From March 2018 through September 2024

Table 5. Calculated Seasonal Total Phosphorus Loadings

For Months May - October					
Outfall	**Year**	**Obs. (n)**	**Median Phosphorus (mg/L)**	**Median Flow (MGD)**	**Median Loading (kg/day)**
001	2018[a]	21	0.240	0.077	0.083
001	2019	18	0.215	0.078	0.063
001	2020	24	0.215	0.095	0.080
001	2021	24	0.150	0.098	0.064
001	2022	24	0.410	0.100	0.155
001	2023	24	0.320	0.112	0.149
001	2024[b]	16	0.210	0.135	0.109

May through October
[a] = data set begins on 3/1/18
[b] = data set ends on 9/30/24
MGD = million gallons per day
n = number of samples

Table 6. Effluent Characterization Using NPDES Application Priority Pollutant Scan Data

Parameter	**Units**	**6/22/2021**
Antimony	µg/l	AA (200)
Arsenic	µg/l	AA (10)
Beryllium	µg/l	AA (10)
Cadmium	µg/l	AA (5)
Chromium	µg/l	AA (20)
Copper	µg/l	10
Lead	µg/l	AA (20)
Mercury	ng/l	AA (0.2)
Nickel	µg/l	AA (20)
Selenium	µg/l	AA (10)
Silver	µg/l	AA (5)
Thallium	µg/l	AA (50)
Total Filterable Residue	mg/l	1500
Zinc	µg/l	35

AA = not-detected (analytical method detection limit)

Table 7. Effluent Characterization Using Ohio EPA data

Parameter	Units	5/16/2022	1/4/2023
Aluminum	ug/l	AA (200)	AA (200)
Ammonia	mg/l	0.289	AA (0.05)
Antimony	µg/l	AA (2)	AA (2)
Arsenic	µg/l	AA (2)	AA (2)
Barium	ug/l	AA (15)	AA (15)
Beryllium	µg/l	AA (0.2)	AA (0.2)
Cadmium	µg/l	AA (0.2)	AA (0.2)
Chloride	mg/l	98.1	115.0
Chromium	µg/l	AA (2)	AA (2)
Copper	µg/l	AA (2)	10
Iron	ug/l	90.9	52.7
Lead	µg/l	AA (2)	AA (2)
Mercury	ng/l	AA (0.2)	AA (0.2)
Manganese	ug/l	75.3	47.1
Magnesium	mg/l	16.4	14.1
Nickel	µg/l	3.58	2.6
Nitrate+nitrite	mg/l	1.52	1.72
Selenium	µg/l	AA (2)	AA (2)
Silver	µg/l	AA (0.2)	AA (0.2)
Strontium	ug/l	591	729
Thallium	µg/l	AA (2)	AA (2)
Total Filterable Residue	mg/l	402	470
Zinc	µg/l	23.7	16.8

AA = not detected (analytical method detection limit)

Table 8. Effluent Characterization Using Self-Monitoring Data

Parameter	Unit	Current Limits		# Obs.	Percentiles		Data Range
		30 Day	Daily		50th	95th	
Outfall 001							
Water Temperature	°C	Monitoring Only		1863	17.0	23.0	7.00 - 25.0
Dissolved Oxygen	mg/L	--	6.0[m]	2358	10.4	8.10**	6.00 - 14.2
Total Suspended Solids	kg/day	63.6	95.4[w]	932	< 1.67	1.31	0 - 7.61
Total Suspended Solids	mg/L	12	18[w]	933	< 4.00	4.00	0 - 24.0
Oil and Grease	mg/L	--	10	156	< 5.00	5.20	0 - 10.0
Nitrogen, Total	kg/day	--	53.0[w]	156	1.36	3.13	0.329 - 5.17
Nitrogen, Total – 2018-18	mg/L	--	10[w]	2	2.68	3.08	2.22 - 3.13
Nitrogen, Total - 2018-24	mg/L	--	15[w]	154	3.48	7.40	1.13 - 11.5
Nitrogen, Ammonia – Summer	kg/day	5.30	7.95[w]	502	0.0496	0.478	0 - 2.63
Nitrogen, Ammonia - Summer	mg/L	1.0	1.5[w]	503	0.120	1.42	0 - 7.01
Nitrogen, Ammonia - Winter	kg/day	15.9	23.8[w]	461	0.103	1.07	0 - 4.74
Nitrogen, Ammonia - Winter	mg/L	3.0	4.5[w]	461	0.270	2.33	0 - 12.4
Nitrogen Kjeldahl, Total	mg/L	Monitoring Only		156	1.19	4.06	0 - 8.73
Nitrite Plus Nitrate, Total	mg/L	Monitoring Only		156	2.18	5.18	0.250 - 10.1
Phosphorus, Total	kg/day	5.30	7.90[w]	314	0.0804	0.353	0 - 1.37
Phosphorus, Total	mg/L	1.0	1.5[w]	315	0.200	0.936	0 - 1.80
Orthophosphate, Dissolved	mg/L	Monitoring Only		77	0.180	1.21	0 - 4.05
Carbon, T. Organic (TOC)	mg/L	Monitoring Only		78	7.75	10.0	4.70 - 13.0
Cyanide, Free	mg/L	Monitoring Only		1	--	--	< 0.00500
Nickel, TR	µg/L	Monitoring Only		27	< 10.0	10.0	0 - 10.0
Zinc, TR	µg/L	Monitoring Only		27	26.0	40.1	13.0 - 46.0
Cadmium, TR	µg/L	Monitoring Only		27	< 0.500	0.500	0 - 0.600
Lead, TR	µg/L	Monitoring Only		27	< 2.00	4.02	0 - 4.40
Chromium, TR	µg/L	Monitoring Only		27	< 10.0	10.0	0 - 10.0
Copper, TR	µg/L	Monitoring Only		27	< 10.0	10.0	0 - 18.0
Chromium, Dissolved Hexavalent	µg/L	Monitoring Only		27	< 4.00	4.00	0 - 10.0
E. coli	#/100 mL	126	284[w]	480	< 1.00	7.05	0 - 300
Flow Rate	MGD	Monitoring Only		2371	0.100	0.170	0.00800 - 0.760
Mercury, Total	ng/L	Monitoring Only		27	< 0.500	0.576	0 - 0.813
Cyanide, Free (Low-Level)	µg/L	Monitoring Only		26	< 0.00500	0.00450	0 - 0.00500
Acute Toxicity, Ceriodaphnia dubia	TUa	Monitoring Only		7	--	--	< 0.200
Chronic Toxicity, Ceriodaphnia dubia	TUc	Monitoring Only		7	< 1.00	0.700	0 - 1.00
Acute Toxicity, Pimephales promelas	TUa	Monitoring Only		7	--	--	< 0.200
Chronic Toxicity, Pimephales promelas	TUc	Monitoring Only		6	< 1.00	0.900	0 - 1.20
pH, Maximum	S.U.	--	9.0	2374	7.60	8.10	6.60 - 9.00

Parameter	Unit	Current Limits		# Obs.	Percentiles		Data Range
		30 Day	Daily		50th	95th	
pH, Minimum	S.U.	--	6.5[m]	2374	7.40*	6.70	6.50 - 9.70
Residue, Total Filterable	mg/L	Monitoring Only		26	461	559	372 - 587
CBOD 5 day	kg/day	15.9	26.5[w]	930	< 0.697	1.94	0 - 5.81
CBOD 5 day - 2018-2018	mg/L	3.0	5.0[w]	12	< 2.00	0.958	0 - 2.13
CBOD 5 day - 2018-2024	mg/L	10	15[w]	919	< 2.00	4.31	0 - 13.0
Sanitary Sewer Overflow Station 300							
Overflow Occurrence	No./Month	Monitoring Only		47	--	--	0 - 0
Sludge Station 586							
Sludge Fee Weight	dry tons	Monitoring Only		4	33.1	46.0	2.65 - 47.1
Sludge Weight	Dry Tons	Monitoring Only		6	27.4	272	3.16 - 347
Sludge Volume, Gallons	Gals	Monitoring Only		6	264000	4580000	0 - 5900000
Influent Monitoring Station 601							
pH	S.U.	Monitoring Only		2242	6.80*	7.50	0.100 - 8.00
Total Suspended Solids	mg/L	Monitoring Only		934	85.5	212	0 - 1100
CBOD 5 day	mg/L	Monitoring Only		931	65.0	180	0 - 780
Upstream Monitoring Station 801							
Water Temperature	°C	Monitoring Only		78	14.0	26.9	0.700 - 27.3
Dissolved Oxygen	mg/L	Monitoring Only		78	10.3	6.34**	5.30 - 17.3
pH	S.U.	Monitoring Only		78	7.80*	8.83	6.50 - 13.5
Nitrogen, Ammonia	mg/L	Monitoring Only		78	0.0500	0.262	0 - 1.09
E. coli	#/100 mL	Monitoring Only		39	72.0	1040	7.00 - 1300
48-Hr. Acute Toxicity Ceriodaphnia dubia	% Affected	Monitoring Only		7	--	--	< 10.0
96-Hr. Acute Toxicity Pimephales promela	% Affected	Monitoring Only		7	2.50	4.25	0 - 5.00
7-Day Chronic Toxicity Ceriodaphnia dubia	% Affected	Monitoring Only		7	< 10.0	7.00	0 - 10.0
7-Day Chronic Toxicity Pimephales promelas	% Affected	Monitoring Only		7	2.60	14.6	0 - 17.5
Downstream Monitoring Station 901							
Water Temperature	°C	Monitoring Only		77	15.0	27.5	0.0700 - 29.2
Dissolved Oxygen	mg/L	Monitoring Only		77	10.5	5.24**	4.30 - 16.3
pH	S.U.	Monitoring Only		77	7.70*	8.76	6.80 - 12.5
Nitrogen, Ammonia	mg/L	Monitoring Only		77	0.0800	0.350	0 - 1.60
Hardness, Total (CaCO3)	mg/L	Monitoring Only		77	260	360	1.80 - 1100
E. coli	#/100 mL	Monitoring Only		39	30.0	276	0 - 1130

* = For minimum pH, 5th percentile shown in place of 50th percentile.
** = For dissolved oxygen, 5th percentile shown in place of 95th percentile.
w = weekly average. DMR Data from March 1, 2018 through September 30, 2024
m = minimum limit

Table 9. Projected Effluent Quality for Outfall 001

Parameter	Units	Number of Samples	Number > MDL	PEQ Average	PEQ Maximum
Ammonia (Summer)	mg/L	337	235	0.95	1.65
Ammonia (Winter)	mg/L	218	188	1695	3.34
Cadmium - TR	µg/L	25	4	0.57	0.78
Chlorides	mg/L	2	2	319	437
Chromium - TR	µg/L	26	3	9.49	13
Hexavalent Chromium (Dissolved)	µg/L	26	3	9.49	13
Copper - TR	µg/L	26	4	17.1	23.4
Cyanide, Free	µg/L	17	3	0.0051	0.007
Residue, Total Filterable	mg/L	26	26	523.3	584.3
Iron - TR	µg/L	2	2	252.2	345.4
Lead - TR	µg/L	26	8	3.26	5.38
Magnesium	mg/L	2	2	45.5	62.3
Manganese - TR	µg/L	2	2	208.9	286.1
Mercury	ng/L	26	4	0.772	1.057
Nickel - TR	µg/L	26	3	9.49	13
Nitrate-N + Nitrite-N	mg/L	151	154	3.8	5.3
Strontium	µg/L	2	2	2022.2	2770.2
Zinc - TR	µg/L	26	26	37.9	50.3

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

Table 10. Summary of Acute and Chronic Toxicity Results

	Ceriodaphnia Dubia		*Pimephales promelas*	
Date	**TU_a**	**TU_c**	**TU_a**	**TU_c**
6/4/2018	AA (0.2)	AA (1.0)	AA (0.2)	AA (1.0)
6/24/2019	AA (0.2)	AA (1.0)	AA (0.2)	1.20
6/26/2020	AA (0.2)	AA (1.0)	AA (0.2)	AE ()
6/22/2021	AA (0.2)	AA (1.0)	AA (0.2)	AA (1.0)
6/21/2022	AA (0.2)	1.0	AA (0.2)	AA (1.0)
1/23/2023[#]	AA (0.2)	- -	AA (0.2)	- -
6/6/2023	AA (0.2)	AA (1.0)	AA (0.2)	AA (1.0)
6/4/2024	AA (0.2)	AA (1.0)	AA (0.2)	AA (1.0)

AA = non-detection; analytical method detection limit of 0.2 TU_a, 1.0 TU_c
AE = Analytical Data Not Valid
TU_a = acute toxicity unit
TU_c = chronic toxicity unit
(#) = Ohio EPA sampling event

Table 11. Use Attainment Table

ID	Station ID	Station Name	River Code	River Mile	Attain	IBI	MIwb	ICI	QHEI
12285	V03P30	SCIOTO R. N OF DUBLIN @ I-270	02-001-000	145.57	Full-WWH	46	9.8324	32	74.0
12278	201823	SCIOTO R. JUST S OF KLONDIKE, ADJ. KLONDIKE RD.	02-001-000	157.1	Full-WWH	48	9.5335	48	80.0

Data gathered from Attainment Table 14 from the *"Summary of Findings from the 2020-2021 Aquatic Life and Water Quality Survey of Ohio's Large Rivers";* Ohio EPA Technical Report AMS/2020LRGRV-2, Division of Surface Water, Assessment and Modeling Section, November 2023 (Revised January 2024).
Rd = road
RM = River mile
WWH = warmwater habitat
IBI = Index of Biotic Integrity
MIwb = Modified Index of well-being
ICI = Invertebrate Community Index
QHEI = Qualitative Habitat Evaluation Index

Table 12. Water Quality Criteria in the Study Area

Parameter	Units	Outside Mixing Zone Criteria				Inside Mixing Zone Maximum
		Average			Maximum Aquatic Life	
		Human Health	Agri-culture	Aquatic Life		
Ammonia (Summer)	mg/L	--	--	0.4	--	--
Ammonia (Winter)	mg/L	--	--	5.6	--	--
Cadmium - TR	µg/L	--	50	5.2	13	27
Chlorides	mg/L	--	--	--	--	--
Chromium - TR	µg/L	--	100	190	3900	7900
Hexavalent Chromium (Dissolved)	µg/L	--	--	11	16	31
Copper - TR	µg/L	--	500	21	34	69
Cyanide, Free	µg/L	400	--	12	46	92
Residue, Total Filterable	mg/L	--	--	1500	--	--
Iron - TR	µg/L	--	5000	--	--	--
Lead - TR	µg/L	--	100	22	410	830
Magnesium	mg/L	--	--	--	--	--
Manganese - TR	µg/L	--	--	--	--	--
Mercury [b]	ng/L	12	10000	910	1700	3400
Nickel - TR	µg/L	4600	200	120	1100	2100
Nitrate-N + Nitrite-N	mg/L	--	100	--	--	--
Strontium	µg/L	--	--	72000	190000	380000
Zinc - TR	µg/L	26000	25000	270	270	540

[b]bioaccumulative chemical of concern

Table 13. Instream Conditions and Discharger Flow

Parameter	Units	Season	Value	Basis
Hardness, OMZ	mg/L	annual	260	4PK00004901; 2018-24 n=76; 0<MDL
Hardness, IMZ	mg/L	annual	260	4PK00004901; 2018-24 n=76; 0<MDL
pH	S.U.	summer	8.4	4PK00004901; 2018-24 n=27; 0<MDL
		winter	7.7	4PK00004901; 2018-24 n=17; 0<MDL
Temperature	ºC	summer	26.55	4PK00004901; 2018-24 n=27; 0<MDL
		winter	6.2	4PK00004901; 2018-24 n=17; 0<MDL
Lower Scioto WRF flow	cfs	annual	2.1661	2023 NPDES Renewal Application
Background Water Quality				
Ammonia (Summer)	mg/L		0.05	4PK00004801; 2018-24; n=27; 11<MDL;
Ammonia (Winter)	mg/L		0.025	4PK00004801; 2018-24; n=18; 9<MDL;
Cadmium - TR	µg/L		0	STORET; 2018-24; n=20; 20<MDL;
Chlorides	mg/L		52.8	STORET; 2018-24; n=20; 0<MDL;
Chromium - TR	µg/L		1.0	STORET; 2018-24; n=20; 18<MDL;
Hexavalent Chromium (Dissolved)	µg/L		0	No representative data available.
Copper - TR	µg/L		2.6	STORET; 2018-24; n=20; 4<MDL;
Cyanide, Free	µg/L		0	No representative data available.
Residue, Total Filterable	mg/L		490.4	STORET; 2018-24; n=19; 0<MDL;
Iron - TR	µg/L		808.1	STORET; 2018-24; n=20; 0<MDL;
Lead - TR	µg/L		1.0	STORET; 2018-24; n=20; 18<MDL;
Magnesium	mg/L		28.2	STORET; 2018-24; n=20; 0<MDL;
Manganese - TR	µg/L		34.4	STORET; 2018-24; n=20; 1<MDL;
Mercury	ng/L		0	No representative data available.
Nickel - TR	µg/L		7.3	STORET; 2018-24; n=20; 0<MDL;
Nitrate-N + Nitrite-N	mg/L		2.6	STORET; 2018-24; n=19; 0<MDL;
Strontium	µg/L		3753	STORET; 2018-2024; n=20; 0<MDL;
Zinc - TR	µg/L		8.4	STORET; 2018-24; n=20; 8<MDL;

MDL = analytical method detection limit
n = number of samples
NPDES = National Pollutant Discharge Elimination System
Ohio EPA = Ohio Environmental Protection Agency
WWTP = wastewater treatment plant
STORET = Weighted average from OEPA Monitoring Station Nos. 601260 – Mill Creek Upst Bellpoint @ Mills Rd USGS GAGE and 201823 - Scioto River, S. of Klondike Adj Klondike Rd.

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

Parameter	Units	Outside Mixing Zone Criteria				Inside Mixing Zone Maximum
		Average			Maximum	
		Human Health	Agri-culture	Aquatic Life	Aquatic Life	
Ammonia (Summer)	mg/L	--	--	3.9	--	--
Ammonia (Winter)	mg/L	--	--	61.35	--	--
Cadmium - TR	µg/L	--	550	57	--	27
Chlorides	mg/L	--	--	--	--	--
Chromium - TR	µg/L	--	1090	2080	--	7900
Hexavalent Chromium (Dissolved)	µg/L	--	--	121	--	31
Copper - TR	µg/L	--	5474	205	--	69
Cyanide, Free	µg/L	4400	--	132	--	92
Residue, Total Filterable	mg/L	--	--	11596	--	--
Iron - TR	µg/L	--	46919	--	--	--
Lead - TR	µg/L	--	1090	232	--	830
Magnesium	mg/L	--	--	--	--	--
Manganese - TR	µg/L	--	--	--	--	--
Mercury[B]	ng/L	12	10000	910	--	3400
Nickel - TR	µg/L	50527	2127	1247	--	2100
Nitrate-N + Nitrite-N	mg/L	--	1074	--	--	--
Strontium	µg/L	--	--	754474	--	380000
Zinc - TR	µg/L	285916	274916	2886	--	540

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

Table 15. Parameter Assessment

Group 1: Due to a lack of criteria, the following parameters could not be evaluated at this time.

Chlorides	Magnesium	Manganese - TR

Group 2: PEQ < 25 percent of WQS or all data below minimum detection limit.
WLA not required. No limit recommended; monitoring optional.

Cadmium - TR	Chromium - TR	Cyanide, Free
Iron - TR	Lead - TR	Mercury
Nickel - TR	Nitrate-N + Nitrite-N	Strontium
Zinc - TR		

Group 3: PEQmax < 50 percent of maximum PEL and PEQavg < 50 percent of average PEL.
No limit recommended; monitoring optional.

Hexavalent Chromium (Dissolved)	Copper – TR	Residue, Total Filterable

Group 4: PEQmax >= 50 percent, but < 100 percent of the maximum PEL or PEQavg >= 50 percent, but < 100 percent of the average PEL. Monitoring is appropriate.

None

Group 5: Maximum PEQ >= 100 percent of the maximum PEL or average PEQ >= 100 percent of the average PEL, or either the average or maximum PEQ is between 75and 100 percent of the PEL and certain conditions that increase the risk to the environment are present. Limit recommended.

Limits to Protect Numeric Water Quality Criteria

		Recommended Effluent Limits	
Parameter	*Units*	*Average*	*Maximum*

None

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

Table 16. Final Effluent Limits for Outfall 001

Parameter	Units	Concentration		Loading (kg/day)[a]		Basis[b]
		Daily Maximum	30 Day Average	Daily Maximum	30 Day Average	
Water Temperature	°C	- - - - - - - - - - - Monitor - - - - - - - - - - -				M[c]
Dissolved Oxygen	mg/L	--	6.0[m]	--	--	WQS
TSS	mg/L	18[d]	12	95.4[d]	63.6	PD
Oil & Grease	mg/L	10	--	--	--	WQS
Nitrogen, Total	mg/l	10[d]	--	53.0	--	PD
Ammonia (summer)	mg/L	1.5 [d]	1.0	7.95[d]	5.30	PD
Ammonia (winter)	mg/L	4.5 [d]	3.0	23.8 [d]	15.9	PD
Total Kjeldahl Nitrogen	mg/L	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Nitrate plus Nitrite	mg/L	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Phosphorus	mg/L	1.5[d]	1.0	7.90[d]	5.30	PD
Carbon, Total Organic	mg/l	- - - - - - - - - - - Monitor - - - - - - - - - - -				BTJ
Orthophosphate, Dissolved	mg/L	- - - - - - - - - - - Monitor - - - - - - - - - - -				PMR
Nickel	µg/L	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Zinc	µg/L	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Cadmium	µg/L	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Lead	µg/L	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Chromium	µg/L	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Copper	µg/L	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Dissolved Hexavalent Chromium	µg/L	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
E. coli	#/100 mL	284 [d]	126	--	--	WQS
Flow Rate	MGD	- - - - - - - - - - - Monitor - - - - - - - - - - -				M[c]
Mercury, Low Level	ng/L	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Free Cyanide	µg/L	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
Acute Toxicity, *Ceriodaphnia dubia*	TUa	- - - - - - - - - - - Monitor - - - - - - - - - - -				WET
Chronic Toxicity, *Ceriodaphnia dubia*	TUc	- - - - - - - - - - - Monitor - - - - - - - - - - -				WET
Acute Toxicity, *Pimephales promelas*	TUa	- - - - - - - - - - - Monitor - - - - - - - - - - -				WET
Chronic Toxicity, *Pimephales promelas*	TUc	- - - - - - - - - - - Monitor - - - - - - - - - - -				WET
Total Filterable Residue	mg/L	- - - - - - - - - - - Monitor - - - - - - - - - - -				M
pH, maximum	SU	9.0	--	--	--	WQS
pH, minimum	SU	6.5[m]	--	--	--	WQS
CBOD5	mg/L	5.0[d]	3.0	26.5[d]	15.9	PD

[a] Effluent loadings based on average design discharge flow of 1.4MGD.

[b] Definitions:

BTJ = Best Technical Judgment
M = Division of Surface Water NPDES Permit Guidance 1: Monitoring frequency requirements for Sanitary Discharges
NPDES = National Pollutant Discharge Elimination System
PD = Plant Design (OAC 3745-33-05(E))
PMR = Phosphorus monitoring requirements (ORC 6111.03)

PTS = Phosphorus Treatment Standards (OAC 3745-33-06 (C))
WET = Minimum testing requirements for whole effluent toxicity [OAC 3745-33-07(B)]
WQS = Ohio Water Quality Standards (OAC 3745-1)
VAR = Variance from a WQS (Mercury variance (OAC 3745-1-38(J)))

[c] Monitoring of flow and other indicator parameters is specified to assist in the evaluation of effluent quality and treatment plant performance.
[d] 7-day average limit.
[m] minimum limit

Table 17. Final Effluent Limits for Outfall 002 for Land Application to Scioto Reserve GC

Parameter	Units	Concentration		Loading (kg/day)		Basis[a]
		Daily Maximum	30 Day Average	Daily Maximum	30 Day Average	
pH	S.U.	9.0	6.0[m]	--	--	PD
TSS	mg/L	18[c]	12	--	--	PD
Oil & Grease, Hexane Ext.	mg/L	10	--	--	--	LAMP
Nitrogen, Total	mg/L	--	10	--	--	PD
Fluoride, Total	mg/L	1.0	--	--	--	LAMP
Arsenic, Total (As)	µg/l	100	--	--	--	LAMP
Beryllium, Total	µg/l	100	--	--	--	LAMP
Boron, Total	µg/l	750	--	--	--	LAMP
Cobalt, Total (Co)	µg/l	50	--	--	--	LAMP
Iron, Total (Fe)	µg/l	5000	--	--	--	LAMP
Manganese, Total (Mn)	µg/l	200	--	--	--	LAMP
Molybdenum (Mo)	µg/l	10	--	--	--	LAMP
Nickel, Total Rec.	µg/l	200	--	--	--	LAMP
Vanadium, Total	µg/l	100	--	--	--	LAMP
Zinc, Total Rec.	µg/l	2000	--	--	--	LAMP
Aluminum, Total Rec.	µg/l	5000	--	--	--	LAMP
Cadmium, Total Rec.	µg/l	10	--	--	--	LAMP
Lead, Total Rec.	µg/l	1500	--	--	--	LAMP
Chromium, Total Rec.	µg/l	100	--	--	--	LAMP
Copper, Total Rec.	µg/l	200	--	--	--	LAMP
Lithium, Total (Li)	µg/l	2500	--	--	--	LAMP
Selenium, Total (Se)	µg/l	20	--	--	--	LAMP
E. coli	#/100 ml	126	--	--	--	LAMP
Application Rate – Wastewater Spray	inches/day	--	--	--	--	LAMP
Flow Rate	MGD	--	--	--	--	M[b]
Chlorine, Total Residual	mg/l	10	--	--	--	LAMP
CBOD5	mg/L	5	3	--	--	PD

[a] Definitions:
LAMP = Effluent quality for land application systems (OAC 3745-42-13(K) Tables K-2 & K-5)
M = Division of Surface Water NPDES Permit Guidance 1: Monitoring frequency requirements for Sanitary Discharges
NPDES = National Pollutant Discharge Elimination System
PD = Plant Design (OAC 3745-33-05(E))

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

[c] 7-day average limit.

[m] minimum limit

Addendum 1. Whole Effluent Toxicity Reasonable Potential Analysis
Whole effluent toxicity testing produced only non-detection results for acute toxicity in [*Ceriodaphnia dubia* and *Pimephales promelas]*, and therefore fall under Hazard Category 4.

Hazard Category Summary

	Ceriodaphnia dubia		*Pimephales promelas*	
	Acute	**Chronic**	**Acute**	**Chronic**
Effluent Toxicity (Table A)	4	4	4	4
	4		4	

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

Table A. Effluent Toxicity

	Ceriodaphnia dubia		*Pimephales promelas*	
	Acute	**Chronic**	**Acute**	**Chronic**
WLA	1.0	11.0	1.0	11.0
# of tests	8	7	8	7
Maximum value	AA	1.0	AA	1.2
Percent of tests >WLA	0	0	0	0
Geometric mean	0	1.0	0	1.026
Average Exceedance (Geomean * Percent of tests >WLA)	0	0	0	0
Average Exceedance / WLA	0	0	0	0

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

Addendum 2. 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
LAMP	Land Application Management Plan
LTCP	Long-term Control Plan
MDL	Analytical method detection limit
MGD	Million gallons per day
NPDES	National Pollutant Discharge Elimination System
OAC	Ohio Administrative Code
Ohio EPA	Ohio Environmental Protection Agency
ORC	Ohio Revised Code
ORSANCO	Ohio River Valley Water Sanitation Commission
PEL	Preliminary effluent limit
PEQ	Projected effluent quality
PMP	Pollution Minimization Program
PPE	Plant performance evaluation
SSO	Sanitary sewer overflow
TMDL	Total Daily Maximum Load
TRE	Toxicity reduction evaluation
TU	Toxicity unit
U.S. EPA	United States Environmental Protection Agency
WET	Whole effluent toxicity
WLA	Wasteload allocation
WPCF	Water Pollution Control Facility
WQBEL	Water-quality-based effluent limit
WQS	Water Quality Standards
WWTP	Wastewater Treatment Plant