UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON
BOULEVARD CHICAGO, IL
60604-3590

REPLY TO THE ATTENTION OF: WP-16J

November 2, 2021

Laurie Stevenson, Director
Ohio Environmental Protection Agency
Lazarus Government Center
50 West Town Street, Suite 700
Post Office Box 1049
Columbus, Ohio 43216-1049

Re: Specific Objection to the Proposed NPDES permit for the City of Euclid (OH0031062)

Dear Director Stevenson:

Pursuant to Section 402 of the Clean Water Act (CWA), 40 C.F.R. § 123.44 and the Memorandum of Agreement (MOA) Between *The Ohio Environmental Protection Agency And Region V, United States Environmental Protection Agency*, the U.S. Environmental Protection Agency (EPA) Region 5 received the referenced Proposed National Pollutant Discharge Elimination System (NPDES) permit (Proposed Permit) from the Ohio Environmental Protection Agency (OEPA). EPA performed an initial review, and by letter dated September 1, 2021, provided notification of EPA's general objection to the Proposed Permit pursuant to 40 C.F.R. § 123.44(a)(1).[1] By this letter, EPA is supplying specific grounds for its objection to the proposed permit in accordance with 40 C.F.R. § 123.44(b)(2), identifying the actions OEPA must take to eliminate the objection, and identifying the effluent limitations and conditions which the permit would include if it were issued by EPA.

It remains EPA's preference to continue to discuss the Proposed Permit with OEPA and reach an agreement on its terms and conditions. In Section III below are the considerations EPA would make if we were to issue the permit. The considerations are also available for OEPA to incorporate into any permit submitted to resolve the objection. Further, 40 C.F.R. § 122.44(d)(1)(vi) provides the State three options for the derivation of effluent limits based on narrative water quality criteria.

1 All cited federal regulations are made applicable to states by 33 U.S.C. §§ 1314(i) and 1342(c)(2) and 40 C.F.R. § 123.25.

I. Specific Grounds for Objection: The Proposed Permit Fails to Include Effluent Limitations Necessary to Achieve Water Quality Standards

The Euclid WWTP final effluent discharges to the Lake Erie Central Basin Open Waters assessment unit. The Lake Erie Central Basin Open Water assessment unit is designated for "public water supply" use in Ohio's federally-approved water quality standards (*Ohio Administrative Code (OAC)* 3745-31(A)), which means that Ohio has determined that it is a "water[ ] that, with conventional treatment, will be suitable for human intake and meet federal regulations for drinking water." OAC 3745-1-07(2)A). Ohio's federally-approved water quality standards also include narrative water quality criteria at OAC 3745-1-04 applicable to all water bodies in the state, including Lake Erie, that provide, among other things, that,

> To every extent practical and possible as determined by the director, these waters shall be:
> . . .
> (E) Free from nutrients entering the waters as a result of human activity in concentrations that create nuisance growths of aquatic weeds and algae.

As explained on page H-4 of OEPA's *2020 Integrated Water Quality Monitoring and Assessment Report* (May 2020) ("*2020 Integrated Report*"), OEPA uses a

> core indicator based on algae and associated cyanotoxins [that] is based on the aesthetic narrative criteria for algae described in OAC rule 3745-1-07 and uses cyanotoxins as an indicator of algae impairment. The State of Ohio initially developed numeric cyanotoxin drinking water thresholds for microcystins, saxitoxins, anatoxin-a and cylindrospermopsin in 2011 and these thresholds were the initial basis for cyanotoxin indicators of impairment. The numeric cyanotoxin drinking water thresholds were updated in the 2015 State of Ohio Public Water System Harmful Algal Bloom Response Strategy and remain in use through the current version of the strategy. The [public drinking water supply] PDWS beneficial use assessments are now based on comparison to the thresholds identified in the 2019 State of Ohio Public Water System Harmful Algal Bloom Response Strategy. In 2016, Ohio finalized new rules for harmful algal blooms and cyanotoxins at public water systems, including requirements for routine microcystins and cyanobacteria screening monitoring and reporting. For this report, Ohio EPA reevaluated the cyanotoxin indicators and decided to align the cyanotoxin indicators with adult drinking water threshold values for the 2020 reporting cycle. . . . Since cyanotoxin thresholds are based on acute or short-term exposures, the criteria are based on a maximum concentration not to be exceeded.

Specifically, OEPA uses a microcystin concentration of 1.6 micrograms per liter (ug/L) as a threshold for determining whether a particular water body is attaining water quality standards for public water supply uses. Based on that threshold, OEPA determined that the Lake Erie Central Basin Open Water assessment unit is not attaining its public water

supply designated use and the narrative criterion applicable to that use due to several water samples with microcystin concentrations above 1.6 ug/L. *See 2020 Integrated Report* at H-18.

The levels of microcystin in a water body such as the Lake Erie Central Basin Open water assessment unit is related to the levels of phosphorus in the water. EPA's most recent science on this topic is reflected in EPA's August 2021 *Ambient Water Quality Criteria to Address Nutrient Pollution in Lakes and Reservoirs*. According to the methods and models set forth in that document, total phosphorus levels of 7.0 ug/L are necessary to achieve microcystin concentrations of 1.6 ug/L in a water body such as the Lake Erie Central Basin Open Water assessment unit. A summary of the *Ambient Water Quality Criteria to Address Nutrient Pollution in Lakes and Reservoirs* and the analysis that EPA performed using that document to derive a total phosphorus level of 7.0 ug/L as being necessary to achieve microcystin concentrations of 1.6 ug/L is provided in Enclosure A to this letter.

The median background concentration of total phosphorus in the Lake Erie Central Basin Open water assessment unit near the outfall location is 9.9 ug/L**.** The phosphorus limit of 1000 ug/L in the proposed permit for Euclid, and Euclid's actual median total phosphorus discharge levels of 530 ug/L, are more than 100 and 75 times higher, respectively, than the 7.0 ug/L total phosphorus level necessary to achieve the 1.6 ug/L microcystin value to achieve the Ohio public water supply use and narrative criterion. The background levels of total phosphorus in the Lake exceed the 7.0 ug/L total phosphorus levels so there is no assimilative capacity for phosphorus loadings. A summary of relevant ambient and effluent monitoring data is provided in Enclosure B to this letter.

Given this information, Euclid discharges at a level that will contribute to an excursion above water quality standards, and Section 301(b)(1)(C) of the CWA and 40 C.F.R. § 122.44(d)(1) require that the permit include effluent limitations necessary to achieve Ohio's (1) narrative criterion for excess nutrients causing nuisance algae growth and (2) Lake Erie public drinking water use designation. 40 C.F.R. § 122.44(d)(1)(vii) requires that the limitations ensure that "the level of water quality to be achieved by limits on point sources established under this paragraph is derived from, and complies with, all applicable water quality standards." EPA objects because the proposed permit does not include any such effluent limitations, which is inconsistent with the requirements of Section 301(b)(1)(C) of the CWA, and 40 C.F.R. § 122.44(d)(1). *See also* 40 C.F.R. §§ 122.4(a) and 123.44(c)(1), (3), (4), (7) and (8).

II. The Actions OEPA Must Take to Eliminate the Objections and the Effluent Limitations that the Permit Would Include if it was Issued by EPA

To eliminate these objections, OEPA must revise the proposed permit to include effluent limitations for outfall 001 necessary to achieve Ohio's (a) narrative criterion for nutrients that cause nuisance algae growth and (b) public drinking water supply use designation for Lake Erie Central Basin during the growing season. The limits must ensure that "the level of water quality to be achieved by limits on point sources established … is derived from, and complies with all applicable water quality standards," including the public drinking water supply use designation for Lake Erie Central Basin. Alternatively, if Ohio issues a

water quality standards variance that is approved by EPA under section 303(c) of the Clean Water Act, 33 U.S.C. §1313(c), and 40 C.F.R. § 131.21 prior to issuance of the permit, the effluent limitation in the permit may be based on the highest achievable condition and actions to achieve it. The permit also must include adequate reporting, monitoring and sampling requirements to assure compliance with any such limitations. *See* 40 C.F.R. §§ 122.44(i) and 123.44(c)(5).

Consistent with 40 C.F.R. § 122.44(d)(1)(vi)(B), EPA derived a mass-based seasonal limit for phosphorus. Absent other information including the consideration of other approaches and other information to derive a limit in accordance with § 122.44(d)(1), EPA would issue a permit with an average weekly limit of 0.9 kg/d and an average monthly of 0.72 kg/d for phosphorus.[2]

The permit would include total phosphorus effluent limits consistent with the limits in OEPA's Proposed Permit for other seasons of the year, in accordance with 40 C.F.R. § 122.44(d)(5).

III. Considerations if the permit was issued by EPA

In addition to OEPA's requirements in the proposed permit part 1, C paragraphs A and B, EPA would (a) require a technical evaluation of local limits for phosphorus, pursuant to 40 C.F.R. § 122.44(j)(2)(ii), (b) include a compliance schedule with interim limits and annual milestones and reporting requirements consistent with the requirements of 40 C.F.R. § 122.47, and (c) consider water quality trading, pursuant to OAC Chapter 3745-5, if proposed by the City of Euclid.

As an alternative to the water quality-based effluent limits identified above, EPA would include alternative requirements and limitations in any permit it issues to the extent such requirements and limitations correspond to (a) any requirements and limitations included in any water quality standards variance granted by Ohio and approved by EPA under section 303(c) of the Clean Water Act, 33 U.S.C. § 1313(c), and 40 C.F.R. § 131.21 prior to EPA issuance of a permit or (b) the assumptions and requirements of any available wasteload allocation for the discharge in a total maximum daily load that has been prepared by OEPA and approved by EPA in accordance with 40 C.F.R. § 130.7 prior to EPA issuance of a permit.

IV. Next Steps

Under 40 C.F.R. § 122.4(c), the State may not issue this permit over an EPA objection. We look forward to working with OEPA to reach an agreement on a revised permit that resolves these objections.

If OEPA and/or Euclid present information showing that one of the other approaches consistent with 40 C.F.R. § 122.44(d)(1)(vi) will result in a limit protective of the

2 40 C.F.R. § 122.45(d)(2) requires average weekly and average monthly discharge limits for continuous discharges from publicly-owned treatment works.

designated use and narrative criteria and OEPA revises the proposed permit based on one of those approaches, it would resolve the objection.

Within ninety (90) days of your receipt of these objections, the State or any interested person may request that a public hearing be held by the Regional Administrator on these objections in accordance with 40 C.F.R. § 123.44(e). Following such a hearing, if one is held, the Regional Administrator will reaffirm the original objection, modify the terms of the objection, or withdraw the objection and provide OEPA notice of its decision. In accordance with 40 C.F.R. § 123.44(h), exclusive authority to issue the permit passes to EPA and the Regional Administrator may issue the permit (a) if no public hearing is held, and OEPA does not submit a permit revised to meet these objections within ninety (90) days of receipt of these objections or (b) if a public hearing is held, EPA does not withdraw its objection and OEPA does not submit a permit revised to meet the objections or modified objections within 30 days of the date of the notice described above of EPA's decision following the public hearing

If you have any questions related to EPA's review of this permit, please contact me or have your staff contact Stephen Jann, Chief, Permits Branch, at (312) 886-2446 or jann.stephen@epa.gov.

Sincerely,

Digitally signed by TERA FONG
Date: 2021.11.02 16:58:58 -05'00'

Tera L. Fong
Director, Water Division

Enclosures

cc: Tiffani Kavalec, Chief, Division of Surface Water, Ohio EPA
Daniel Knecht, City of Euclid

Enclosure A: Summary of EPA's CWA section 304(a) nutrient criteria for lakes and reservoirs and basis for model input

In August 2021, EPA published updated 304(a) recommendations for numeric nutrient criteria for lakes and reservoirs that replaced the previous ecoregional reference-derived 304(a) criteria from 2000. In the 2021 304(a) criteria, separate statistical stressor-response models link chlorophyll-a concentration to assessment endpoints related to aquatic life, recreation, and drinking water designated uses. Chlorophyll-a targets from these models can then be translated into total nitrogen and total phosphorus criteria using an additional set of models. The models, which are based on an EPA dataset of more than 1000 lakes and reservoirs across the country, are incorporated into interactive web applications within which a user can specify some model inputs to develop criteria based on desired risk and certainty levels and local environmental and geographic context. The 304(a) criteria document, response to public comments, links to model applications, and other materials are available at: https://www.epa.gov/nutrient-policy-data/ambient-water-quality-criteria-address-nutrient-pollution-lakes-and-reservoirs.

EPA's 304(a) lake nutrient criteria models were developed using data from inland lakes and reservoirs. The basic ecological relationships identified in the models are applicable to waterbodies that were not sampled, including the Great Lakes. With regard to applicability of the models in unsampled waterbodies, EPA's response to public comment states (p. 62): "The criterion models were developed using [National Lake Assessment] NLA data. Relationships estimated in the national criterion models may be informative when interpreting data collected from systems other than represented in the NLA data, and further evaluation of the applicability of these models is warranted. Some models estimate relationships between measurements at the level of individual samples (e.g., TN-TP-Chl a and Chl a-microcystin models), and therefore, the relationships estimated in these models are more likely to be applicable in lakes that were not included in the sampled population." Based on this information, and the fact that the Lake Erie Central Basin Open Waters assessment unit is impaired for public drinking water supplies due to algae, specifically from the cyanobacterial toxins known as microcystins, EPA used the chlorophyll-a-microcystin and total phosphorus (TP)-chlorophyll-a 304(a) models to determine the total phosphorus value that would be necessary to achieve the 1.6 ug/L microcystin threshold used by OEPA in assessing attainment of Ohio's public water supply designated uses and associated narrative criteria.

For the chlorophyll-a-microcystin model, the input parameters selected by the user are: target microcystin concentration (ug/L), allowable exceedance probability (the probability of exceeding the target microcystin concentration when lake chlorophyll concentration is equal to the specified output value), and the certainty level (range within which the criterion value is located with the specified probability). For the target microcystin concentration, EPA selected a value of 1.6 ug/L, which corresponds to EPA's drinking water health advisory standard to protect liver function in adults and children older than 6 years and the impairment threshold used by OEPA in its 2020 Integrated Report to list the open waters of Lake Erie's Central Basin as impaired. For the allowable exceedance probability, EPA selected a value of 0.05, or 5% exceedance. This is the middle value in

the range of possible model inputs and matches the exceedance probability that would be expected to trigger impairment based on OEPA's monitoring requirements for public water supplies. Based on OEPA's April 2020 *Public Water System Harmful Algal Bloom Response Strategy* (Table 2, p. 9), drinking water facilities with historic cyanotoxin detections are placed on the schedule 1 monitoring plan, which requires weekly sampling for cyanotoxins from May-October and biweekly sampling from November-April. This equates to about 39 samples over the year. OEPA's May 2020 *Integrated Report* (p. H-18) states that the drinking water facilities in the Central Basin that triggered the impairment determination had two raw water samples above the microcystin target, leading to an exceedance probability of 0.05 (2 samples above target/39 total samples = 0.051). Maintaining other inputs values, exceedance values of 0.05-0.10 did not alter the chlorophyll target produced from the model (rounded to the nearest whole number as accepted by the TP-chlorophyll model). For the certainty level, EPA selected a value of 0.90 reflecting a 5% probability that the output chlorophyll target is under-protective and that microcystin concentrations greater than 1.6 ug/L will be observed at that chlorophyll concentration. Certainty levels from 83-90% did not alter the chlorophyll target produced from the model (rounded to the nearest whole number as accepted by the TP-chlorophyll model). Based on these input values, the 304(a) chlorophyll-microcystin model produced a chlorophyll-a target of 2.5 ug/L to maintain microcystin concentrations <1.6 ug/L.

The chlorophyll-a target was then used in the TP-chlorophyll-a 304(a) model to obtain a TP value. The input parameters selected by the user for this model are: lake depth (in meters), Level III Ecoregion, target chlorophyll-a concentration (ug/L), and certainty level. For lake depth, EPA used the approximate depth of the outfall of the Euclid facility of 10 meters based on a bathymetry GIS layer with an overlay of the discharge GIS coordinates. For the Level III Ecoregion, EPA selected Ecoregion 83, Eastern Great Lakes Lowlands, as the Euclid WWTP is located within this ecoregion. Both ecoregion and lake depth model input parameters influence the particulate (sediment) phosphorus estimates in the model. EPA used the target chlorophyll-a concentration of 3 ug/L, rounded up from the chlorophyll-microcystin model value. For the certainty level, EPA selected a value of 0.90 reflecting a 5% probability that the output phosphorus criterion is under-protective. Certainty levels from 87-97% did not alter the phosphorus criterion produced from the model, and values between 63-86% increased the phosphorus criterion by only 1 ug/L.

Based on the above inputs, the CWA section 304(a) phosphorus model produced a total phosphorus value of 7 ug/L[3]. This value was used in subsequent calculations to determine effluent limits (see Enclosure B).

3 This value is the same as the total phosphorus criteria adopted by Illinois and Wisconsin, and approved by EPA, for Lake Michigan.

Enclosure B: Calculation of Effluent Limits for Phosphorus

Calculation of water quality-based effluent limits is dependent on the statistical model selected. For this analysis, EPA selected the statistical methods contained in EPA's 1991 *Technical Support Document for Water Quality-based Toxics Control* (EPA/505/2-90-001), section 5. Required inputs into this model include ambient information (numeric water quality criteria (WQC) and its duration period, background concentration of total phosphorus, and available dilution) and effluent quality data. Further discussions of these inputs follow. An Excel worksheet was developed to perform the calculations; this worksheet is available in the Attachment 1 *Euclid Limits Calculation*.

Ambient Information:

1. ***Narrative WQC***: A numeric expression of the narrative WQC at OAC 37455-1-04(E) was calculated to be 7 ug/L total phosphorus using EPA's 2021 304(a) *Ambient Water Quality Criteria to Address Nutrient Pollution in Lakes and Reservoirs*.
2. ***Duration period of the WQC***: A duration period of 123 days was selected to represent an average growing season for algae in Lake Erie. This value was based on NOAA's definition of a Lake Erie bloom season (July 1 through October 31). See https://coastalscience.noaa.gov/research/stressor-impacts-mitigation/hab-forecasts/lake-erie/faqs/.
3. ***Background total phosphorus concentration***: Ambient phosphorus data was obtained from the Water Quality Portal (https://www.waterqualitydata.us/). Attachment 2 *Euclid Ambient Phosphorus Stations Location* displays the location of the various ambient stations in proximity to the Euclid outfalls. Attachment 2 also contains the total phosphorus summary data for Station 21OHIO_WQX-301256. This station was selected for use in this analysis because of its location relative to the outfall, data set robustness, and period of record. The median value of 9.9 ug/L was selected for use. Note that this median value is consistent with data from other stations near the outfall, and exceeds the calculated numeric value of 7 ug/L.
4. ***Available Dilution***: A dilution ratio of 10 parts ambient to one part effluent was selected as the dilution ratio based on OAC 3745-1-05(B)(1). (See *Data Analysis* on next page.)

Effluent Data:

1. ***Effluent characterization***: Effluent data was obtained from EPA's Integrated Compliance Information System database for the period January 2010 through August 2021. These data were used to calculate the effluent coefficient of variation for outfall 001. The monthly average data describe a median concentration in outfall 001 of 530 ug/L and a coefficient of variation of 0.33. Attachment 3 *Euclid DMR Data* contains the total phosphorus discharge monitoring report data for outfall 001.
2. ***Effluent discharge rate***: From the Fact Sheet, the average design flow for outfall 001 is 34 cubic feet per second (22 million gallons per day).

Data Analysis: The above data were entered into the Euclid Limits Calculation worksheet.

1. ***Analysis deviations***: Because the ambient concentration of total phosphorus exceeds the numeric expression of the narrative WQC, there is no available assimilative capacity and therefore no available dilution. Therefore, the wasteload allocation was set equal to 7 ug/L.
2. ***Additional inputs***: additional inputs to the analysis are the probability basis and monitoring frequency. The probability basis was set to 95%, consistent with OAC 3745-2-04(D). The permit monitoring frequency was set to weekly sampling (four times/month) consistent with the current effective permit.

The final effluent limits are calculated to be:

	Units	**Average Monthly**	**Average Weekly**
Limits - Mass	kg/d	0.72	0.90

Enclosure B Attachment 1 - Euclid WWTP Phosphorus Calculations

Input

Lentic Systems			
Pollutant			
Results			
		Monthly Avg	Weekly Avg
Limits - Mass	kg/d	0.72	0.90

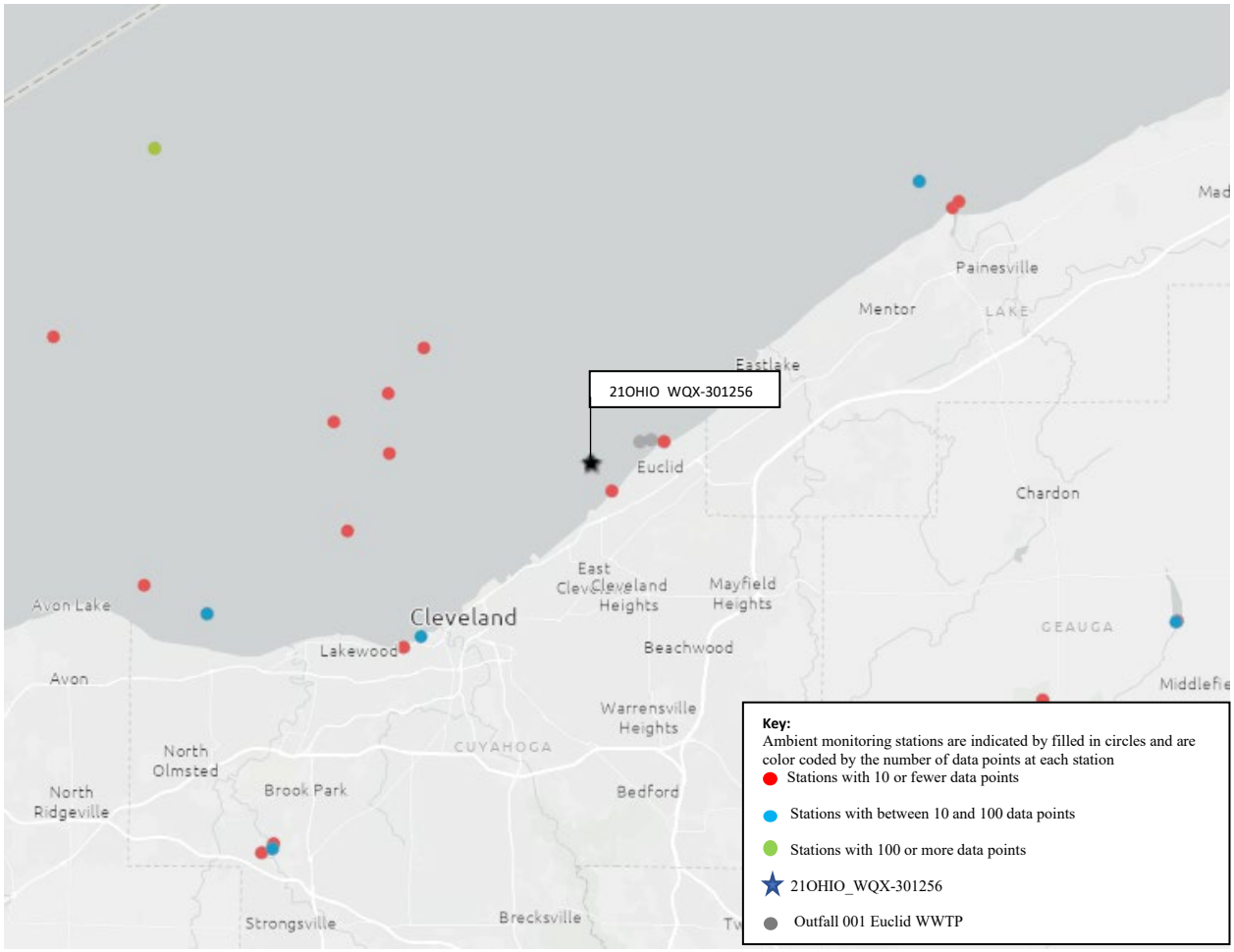
Inputs			
Factor	**Units**	**Chronic**	**Acute**
WQC	ug/L	7	--
Duration Averaging	days	123	1
Background Conc.	ug/L	9.9	9.9
Dilution Ratio	--	10:1	10:1
Upstream Parts	--	10	10
Effluent Parts	--	1	1
Effluent Flow	cfs	34	34
# Effluent Data	--	140	140
Effluent Average	ug/L	520	520
Effluent Max	ug/L	870	870
Effluent Std Dev	ug/L	170	170
Facility CV	--	0.33	0.33
Monitoring Frequency	#/month	4	1
Prob Basis PEQ	--	95%	95%
Prob Basis WQBEL	--	95%	95%

Step 1: WLA Calculation			
WQC	ug/L	7	--
Upstream Parts	--	10	10
Effluent Parts	--	1	1
Background Conc.	ug/L	9.9	9.9
WLA	ug/L	7	--

Step 2: LTA Calculation			
Prob Basis WQBEL	--	95%	95%
Duration Averaging	days	123	1
Facility CV	--	0.33	0.33
σ	--	0.029748515	0.321509771
LTA	ug/L	6.7	--
Min LTA	ug/L	6.7	

Step 3: Limits			
Prob Basis WQBEL	--	95%	95%
Monitoring Frequency	#/month	4	1
Facility CV	--	0.33	0.33
σ	--	0.163893233	0.321509771
Final Limits - Mass	kg/d	0.7190	0.8968

Enclosure B Attachment 2 - Euclid Ambient Phosphorus Stations Locations and Ambient Data



Ambient Water Quality Data from the Water Quality Portal –

Water Quality Portal: https://www.waterqualitydata.us:

Summary for Location 21OHIO_WQX-301256

Lat Lon	41.604 -81.5845
Start Date	2012-05-02
End Date	2015-09-15
Characteristic	Phosphorus
Form	Total
n	12
Units	ug/L
Min	4.2
Max	85
ArithMean	17.683333
GeoMean	12.224898
Stdev	21.988751
25%ile	8.225
Median	9.9
75%ile	17.475
CoV	1.2434732

Enclosure B Attachment 3 - Euclid Phosphorus DMR Data

	Start; Date	2010-01-31				
	End Date	2021-08-31				
		Count	140	140	140	140
		Min	0.088	0.11	4.4	6.2
		Max	0.87	1.41	44.9	83
		Stdev	0.169648976	0.229120203	8.346388097	12.34417703
		ArithMean	0.519316865	0.659607143	24.60390451	33.78876048
		Geomean	0.48395755	0.612445983	22.83441932	31.21585683
		CoV	0.326677194	0.347358584	0.339230226	0.365333823
		r^2	0.362539294	0.40034771	0.18419658	0.156447122
		Median	0.53	0.67	25	34
DMR Date	NPDES ID	Outfall	MO AVG (mg/L)	WKLY MAX (mg/L)	MO AVG (kg/d)	WKLY MAX (kg/d)
2010-01-31	OH0031062	001	0.27875	0.29	15.51514	20.19846
2010-02-28	OH0031062	001	0.27875	0.365	13.90415	27.22266
2010-03-31	OH0031062	001	0.35875	0.485	26.62823	41.90316
2010-04-30	OH0031062	001	0.40375	0.55	23.6879	35.94538
2010-05-31	OH0031062	001	0.28	0.305	12.8804	16.42538
2010-06-30	OH0031062	001	0.3311111	0.395	19.81254	22.87275
2010-07-31	OH0031062	001	0.3075	0.36	13.38522	16.62069
2010-08-31	OH0031062	001	0.21375	0.26	9.042412	9.947737
2010-09-30	OH0031062	001	0.335	0.4	14.17704	19.20811
2010-10-31	OH0031062	001	0.325	0.395	16.40452	21.80273
2010-11-30	OH0031062	001	0.355	0.445	16.50908	22.57941
2010-12-31	OH0031062	001	0.3	0.34	15	16
2011-01-31	OH0031062	001	0.32	0.41	16	24
2011-02-28	OH0031062	001	0.37	0.42	24	32
2011-03-31	OH0031062	001	0.38	0.44	13	37
2011-04-30	OH0031062	001	0.35	0.4	25	29
2011-05-31	OH0031062	001	0.45	0.61	30	33
2011-06-30	OH0031062	001	0.35	0.56	19	27
2011-07-31	OH0031062	001	0.31	0.37	14	14
2011-08-31	OH0031062	001	0.32	0.37	19	27
2011-09-30	OH0031062	001	0.35	0.42	24	32
2011-10-31	OH0031062	001	0.43	0.54	26	31
2011-11-30	OH0031062	001	0.4	0.58	23	42
2011-12-31	OH0031062	001	0.46	0.62	29	36
2012-01-31	OH0031062	001	0.38	0.44	27	36
2012-02-29	OH0031062	001	0.59	0.8	32	47
2012-03-31	OH0031062	001	0.48	0.57	32	39
2012-04-30	OH0031062	001	0.4	0.45	16	19
2012-05-31	OH0031062	001	0.44	0.58	17	21
2012-06-30	OH0031062	001	0.51	0.57	19	21
2012-07-31	OH0031062	001	0.55	0.63	20	27
2012-08-31	OH0031062	001	0.57	0.69	20	22
2012-09-30	OH0031062	001	0.42	0.51	22	25
2012-10-31	OH0031062	001	0.43	0.49	21	27
2012-11-30	OH0031062	001	0.67	0.77	30	46
2012-12-31	OH0031062	001	0.46	0.57	28	35
2013-01-31	OH0031062	001	0.46	0.53	23	35
2013-02-28	OH0031062	001	0.41	0.54	26	33
2013-03-31	OH0031062	001	0.52	0.7	35	52
2013-04-30	OH0031062	001	0.53	0.58	25	31
2013-05-31	OH0031062	001	0.77	0.85	34	40
2013-06-30	OH0031062	001	0.57	0.7	31	37

2013-07-31	OH0031062	001	0.7	0.92	24	42
2013-08-31	OH0031062	001	0.57	0.72	23	29
2013-09-30	OH0031062	001	0.7	0.9	28	41
2013-10-31	OH0031062	001	0.6	0.73	28	33
2013-11-30	OH0031062	001	0.72	0.93	44	61
2013-12-31	OH0031062	001	0.61	0.77	31	37
2014-01-31	OH0031062	001	0.38	0.43	19	21
2014-02-28	OH0031062	001	0.46	0.65	30	51
2014-03-31	OH0031062	001	0.47	0.68	26	40
2014-04-30	OH0031062	001	0.51	0.6	35	50
2014-05-31	OH0031062	001	0.54	0.68	30	32
2014-06-30	OH0031062	001	0.59	0.71	25	32
2014-07-31	OH0031062	001	0.79	0.94	37	40
2014-08-31	OH0031062	001	0.59	0.73	19	32
2014-09-30	OH0031062	001	0.71	0.84	32	44
2014-10-31	OH0031062	001	0.58	0.67	30	48
2014-11-30	OH0031062	001	0.36	0.4	21	29
2014-12-31	OH0031062	001	0.35	0.39	17	20
2015-01-31	OH0031062	001	0.54	0.96	36	83
2015-02-28	OH0031062	001	0.46	0.66	24	31
2015-03-31	OH0031062	001	0.58	0.77	37	53
2015-04-30	OH0031062	001	0.47	0.68	27	41
2015-05-31	OH0031062	001	0.61	0.73	25	46
2015-06-30	OH0031062	001	0.47	0.63	31	40
2015-07-31	OH0031062	001	0.61	0.74	32	58
2015-08-31	OH0031062	001	0.53	0.58	21	24
2015-09-30	OH0031062	001	0.62	0.74	22	28
2015-10-31	OH0031062	001	0.49	0.59	18	19
2015-11-30	OH0031062	001	0.54	0.58	19	20
2015-12-31	OH0031062	001	0.55	0.67	29	53
2016-01-31	OH0031062	001	0.57	0.8	28	36
2016-02-29	OH0031062	001	0.54	0.74	30	36
2016-03-31	OH0031062	001	0.53	0.66	6.5	26
2016-04-30	OH0031062	001	0.55	0.72	30	35
2016-05-31	OH0031062	001	0.745	0.96	34.2	39.3
2016-06-30	OH0031062	001	0.68	0.88	24	31
2016-07-31	OH0031062	001	0.45	0.51	16	17
2016-08-31	OH0031062	001	0.825	1.41	24.3	46.1
2016-09-30	OH0031062	001	0.769	1.03	20	35.3
2016-10-31	OH0031062	001	0.49	0.52	20	24
2016-11-30	OH0031062	001	0.46	0.67	14	23
2016-12-31	OH0031062	001	0.32	0.35	20	32
2017-01-31	OH0031062	001	0.35	0.41	32	46
2017-02-28	OH0031062	001	0.39	0.49	22	24
2017-03-31	OH0031062	001	0.43	0.5	20	27
2017-04-30	OH0031062	001	0.42	0.52	23	34
2017-05-31	OH0031062	001	0.64	0.71	31	37
2017-06-30	OH0031062	001	0.68	0.81	28	31
2017-07-31	OH0031062	001	0.53	0.6	22	28
2017-08-31	OH0031062	001	0.53	0.62	19	21
2017-09-30	OH0031062	001	0.48	0.55	17	23
2017-10-31	OH0031062	001	0.689	0.955	26.3	35.7
2017-11-30	OH0031062	001	0.583	1.07	24.4	39.6
2017-12-31	OH0031062	001	0.744	0.955	26.8	36.3
2018-01-31	OH0031062	001	0.635	0.945	34	58.7
2018-02-28	OH0031062	001	0.52	0.81	26	45
2018-03-31	OH0031062	001	0.57	0.63	28	35
2018-04-30	OH0031062	001	0.56	0.7	29	31
2018-05-31	OH0031062	001	0.53	0.71	27	31

2018-06-30	OH0031062	001	0.58	0.78	26	34
2018-07-31	OH0031062	001	0.5	0.58	20	22
2018-08-31	OH0031062	001	0.42	0.6	17	28
2018-09-30	OH0031062	001	0.41	0.46	17	22
2018-10-31	OH0031062	001	0.85	1	18	34
2018-11-30	OH0031062	001	0.63	0.76	29	40
2018-12-31	OH0031062	001	0.7	0.79	31	39
2019-01-31	OH0031062	001	0.67	0.85	27	44
2019-02-28	OH0031062	001	0.61	0.8	23	36
2019-03-31	OH0031062	001	0.56	0.64	23	26
2019-04-30	OH0031062	001	0.54	0.79	16	34
2019-05-31	OH0031062	001	0.7	0.87	37	49
2019-06-30	OH0031062	001	0.74	0.86	40	49
2019-07-31	OH0031062	001	0.67	0.81	28	35
2019-08-31	OH0031062	001	0.78	0.89	34	44
2019-09-30	OH0031062	001	0.66	0.76	29	40
2019-10-31	OH0031062	001	0.784	0.855	27.8	30.1
2019-11-30	OH0031062	001	0.63	0.72	29	39
2019-12-31	OH0031062	001	0.606	0.855	29.7	42.6
2020-01-31	OH0031062	001	0.78	0.95	42	56
2020-02-29	OH0031062	001	0.6	0.88	34	50
2020-03-31	OH0031062	001	0.63	0.86	34	45
2020-04-30	OH0031062	001	0.82	1.05	42.7	55.9
2020-05-31	OH0031062	001	0.54	0.74	26	34
2020-06-30	OH0031062	001	0.72	0.91	32	37
2020-07-31	OH0031062	001	0.66	0.79	28	32
2020-08-31	OH0031062	001	0.523	1.11	23.4	51.2
2020-09-30	OH0031062	001	0.27	0.45	12	20
2020-10-31	OH0031062	001	0.088	0.11	4.4	6.5
2020-11-30	OH0031062	001	0.14	0.25	6.8	13
2020-12-31	OH0031062	001	0.098	0.11	5.5	6.2
2021-01-31	OH0031062	001	0.13	0.27	7.3	15
2021-02-28	OH0031062	001	0.098	0.15	4.7	6.3
2021-03-31	OH0031062	001	0.21	0.31	10	13
2021-04-30	OH0031062	001	0.73	1.03	35.4	47.8
2021-05-31	OH0031062	001	0.87	1.07	44.9	54.8
2021-06-30	OH0031062	001	0.86	1.08	35.5	44.3
2021-07-31	OH0031062	001	0.8	1	43	46
2021-08-31	OH0031062	001	0.77	1	32	39
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