MIAMI VALLEY
Regional Planning Commission

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Water & Environment Subcommittee

May 14, 2025

9:30 a.m. to 11:00 a.m.

Location: Virtual Meeting

Link: https://us02web.zoom.us/j/89650949317?pwd=U7o22dEeoB9SEfFwwVcOeIWJY0XPp2.1

AGENDA

1. Introductions
2. **Facility Planning Area Updates**
    a. Proposed update to Piqua and Troy FPAs – City of Piqua
    b. Darke County Outreach Update – MVRPC
3. **Climate Pollution Reduction Grant**
    a. Final Regional Low Carbon Pathways – *Community First* and *Energy Transition*

    WESC participants are encouraged to review this list of assumptions built into the *Community First* and *Energy Transition* scenarios. The assumptions are listed in the second column of the table, sorted by sector (buildings, transportation, etc.).

    b. Economic Case for the Pathways
    c. Local Low-Carbon Pathways update
    d. Draft CCAP coming soon!

4. **SFY 2026 Meeting Dates:** Second Wednesdays in September, November, January, March, and May: **September 10, 2025, November 12, 2025, January 14, 2026, March 11, 2026 and May 13, 2026**

5. Adjourn

City of PIQUA

Date: March 4, 2025

To: MVRPC Board of Directors, Technical Advisory Committee, and Area Water Quality Planning Subcommittee Members

Re: Piqua Facility Planning Area (FPA) Boundary

Directors and Committee Members:

We submit for your consideration a request to amend the Piqua FPA boundary.

The City of Piqua has long planned for the expansion of water and sewer utilities to allow for the continued growth and expansion of the community, particularly to the south of the community. The annexation of 700 acres in 2023 and the recent annexation of 400+ acres into the municipal corporation limits on our southern border has prompted the need to adjust the FPA boundary in this area. The proposed boundary adjustment will encompass the annexation areas as well as future areas that have been identified for future growth and development opportunities that can be served by our wastewater treatment facility, which is less than three miles from the subject properties.

With the construction of a new water treatment plant in 2017 and an expansion of the wastewater treatment plant in 2019, the City of Piqua is positioned most favorably to serve the FPA boundary expansion area with water and gravity sewer mains and our plant has the capacity to serve them with substantial plant capacity available (over 50%). Additionally, the proposed areas have had engineering completed to confirm the ability of the City of Piqua to serve them.

Currently, Farrington Road is the FPA boundary between Piqua and Troy, and has been used as a placeholder since 2005, but this has never reflected the actual ability to serve the area. It is clear in 2025 that this line created 20 years ago, is no longer meeting the intent of the FPA boundary – to have designated management agencies (DMA) best serve areas with sewage collection infrastructure.

When reviewing the MVRPC guidelines, they require documentation and endorsements from jurisdictions located within and/or adjacent to the FPA for modifications. In this spirit, the City of Piqua reached out to the City of Troy making them aware of the proposed changes and offered to schedule a meeting with the City regarding this request prior to the meeting on March 12th.

When reviewing this request, it is important to understand that the boundaries set in 2005 are no longer reflective of the ability to best serve these properties, and when

decisions are made about the FPA boundaries, they should be considered and approved based on objective standards and proof that a DMA can serve the area in the most efficient way possible.

The City of Piqua has completed engineering studies showing our ability to serve these areas, have data to reflect that the wastewater treatment facility has the capacity to serve these areas, and the City is actively moving forward to achieve projects in the subject areas with landowners and developers.

Included with this submittal are the materials requested by the MVRPC Facility Planning Area Update Proposals Guidelines. We are hopeful that the Committee will review this request objectively based on the ability to serve the area, which the City of Piqua is ready and willing to do.

Please let us know if there are any questions pertaining to this request, we look forward to speaking with the Committee on March 12, 2025.

Sincerely,

Kyle A. Hinkelman, AICP
Community Services Director

cc: Paul Oberdorfer, City Manager
Chris Schmiesing, Economic Development Director
Kevin Krejny, Utilities Director

City of PIQUA

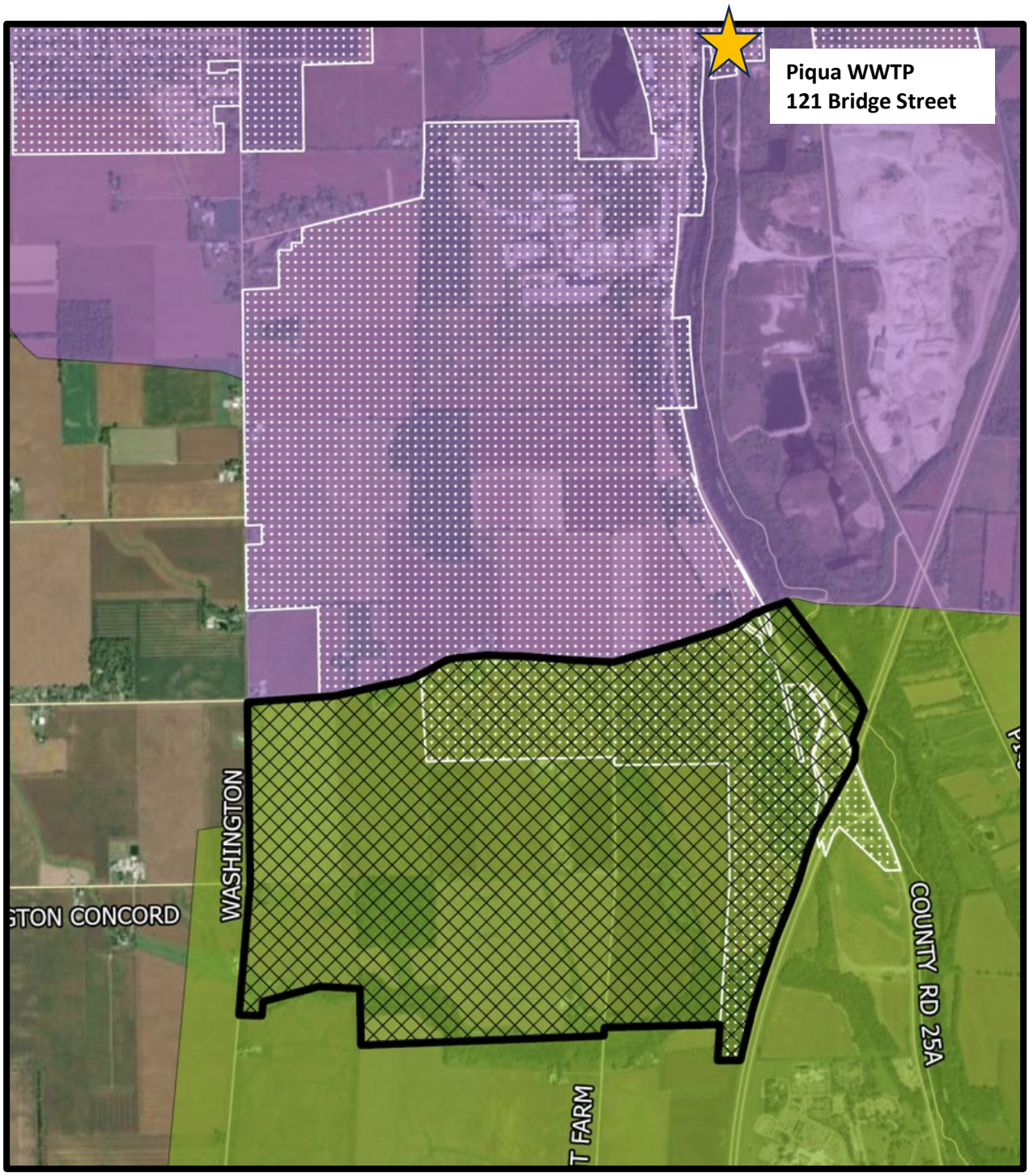
Facility Plan Update
Materials and Documentation

FPA Update Request

A layout of the proposed boundary change has been included, as well as the required GIS files, including a shapefile with the proposed boundary.

Please note the map on the next page includes:

1. Piqua Wastewater Treatment Plant (~47% capacity) – 121 Bridge Street
2. Piqua FPA Boundary, shown in purple
3. Piqua Jurisdictional Boundary, shown in hatched white
4. Troy FPA Boundary, shown in green
5. Piqua Proposed FPA modification, shown in hatched lines



Map 1: Proposed FPA Boundary Changes to Piqua FPA

Piqua Past and Future Projected Population

According to decennial Census data, the City of Piqua population has remained relatively unchanged since 1990. Population projections from MVRPC projects that Miami County may grow by 14% from 2010 population numbers by 2050.

Piqua, Ohio (Decennial Census Data)	
2020	20,354
2010	20,522
2000	20,738

Total 20-year population loss of 1.8%

Miami County, Ohio (Census Decennial Data)	
2020	108,744
2010	102,506
2000	98,868

Total 20-year population gain of 9.9%

MVRPC (2050 Population and Employment Projections for Long Range Transportation Planning) projects additional population growth of an additional 8,500 people for Miami County by 2050. The City of Piqua currently has multiple subdivisions under construction with an additional 400+ single family homes to be constructed in the next 5 years. The City also has 32 new apartment units coming online in 2026 and a potential for multiple projects that would add another 100+ apartment units to our community in 2026.

This residential growth is due to the stagnation of the community over the last 20 years, and does not include the recent economic expansion opportunities that Piqua is seeing to bring advanced manufacturing and technology companies to the city. As the city works with its development partners to develop the Piqua MegaSite, additional residential growth is anticipated.

Piqua is well positioned to capture a significant share of the anticipated population growth projected for the county. Piqua has plans in place to meet the population growth housing needs through subdivision development activity and on infill sites within the community.

Planning for Development

The Plan It Piqua Comprehensive Plan (2007) describes the southwestern area surrounding the city as being well suited for strategic growth. A highest and best use analysis commissioned by Grow Piqua Now shows that advanced manufacturing and technology uses are an excellent fit for the land. The proximity of Exit 78 along I-75, the availability of large tracts of undeveloped land, and the proximity to Piqua's utility services make this an attractive location for development. The land that has been annexed over the last 5 years reflects an IH – Industrial Heavy designation, which permits the advanced manufacturing uses that are being proposed.

The City of Piqua has engaged Fishbeck Engineering to complete water and sewer modeling as well as begin to design the locations for water and sewer services to these areas. As of now, the City anticipates construction to begin on water lines in Q3, 2025 with the majority of additional construction beginning in 2026.

The ability to serve the proposed areas that have been recently annexed into the City of Piqua, as well as additional areas adjacent to this annexed land, is documented through the Fishbeck master planning and modeling effort recently completed.

The buildout of development within the proposed FPA boundary modification is likely to occur over the next 5 years, if not sooner.

Treatment within the Proposed FPA

Piqua upgraded its wastewater treatment plant in 2018, and the plant is now fully modernized and can treat up to 8.7 MGD. 2024 use averaged 4.1 MGD, meaning that the plant is at less than half of its maximum capacity. The City's preferred method of treatment for new manufacturing development in the area is to gravity-feed all wastewater to the existing plant, which is located less than three miles north of the property.

The City of Piqua has proactively worked with Fishbeck Engineering to understand all of the water and wastewater modeling for the city, including the proposed area. The models show excess capacity is available and the existing WWTP is more than capable of handling the projected needs for full buildout of the proposed FPA modification into the City of Piqua.

As part of these calculations, the City has requested that there be a reserve capacity kept at the wastewater plant to assure the community can also see residential growth. To that end, if average daily water usage is 100 gallons per person, and Piqua grew by 10% as the County as a whole did over the past 20 years, an additional need for about 200,000 gallons of treatment would be required. With over four million gallons per day of capacity, that leaves 3.8 MGD that can be utilized for potential growth at the southern border of Piqua.

Public Involvement

This boundary has been discussed at public meetings throughout 2023 and during multiple Utilities Board meetings during 2024. Most recently the Piqua Planning Commission discussed the boundary on March 11, 2025.

Water Quality

Piqua is a water quality-focused jurisdiction. The City does not allow new septic systems, with an aim to protect the region's fresh water assets to the extent possible. Failing septic systems may not be rebuilt if a connection to the wastewater system is feasible.

Stormwater quality is increasingly a focus as well, and the City will be implementing recommended riparian buffers and allowing native prairie species to be planted on industrial sites to take the place of mowed grass, to decrease the quantity and increase the quality of stormwater runoff on industrial sites within Piqua. Any wetlands within the boundary will be both avoided by development and protected by a setback buffer to reduce impacts.

Piqua has created parking maximums and encouraged shared parking along with requirements for Low Impact Development techniques for parking lot construction which all combine to make Piqua a best-case regulatory environment for large site development to occur in terms of protection of water resources.

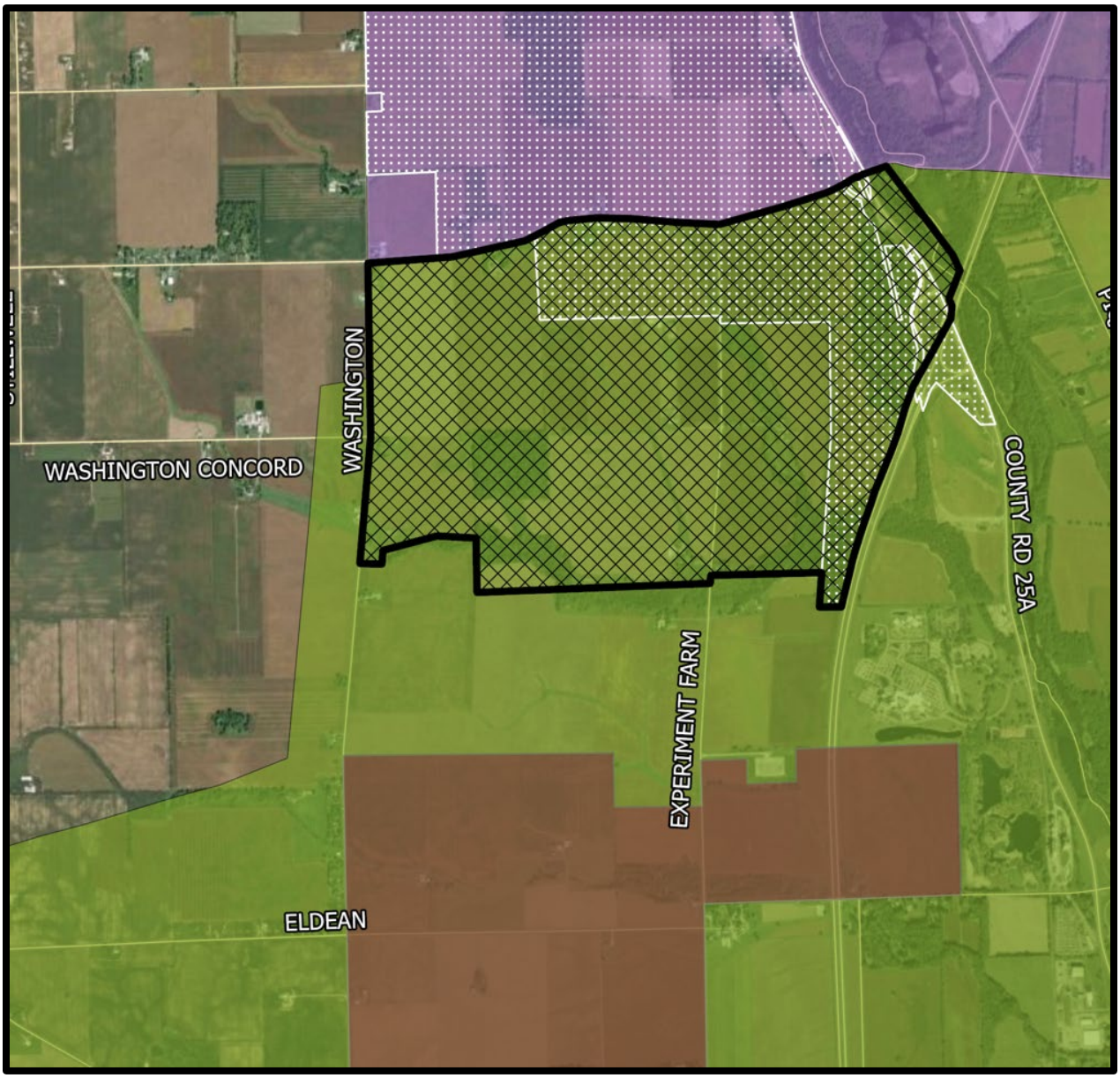
Regional Coordination

The City of Piqua has begun to engineer solutions for the newly annexed property into the city, as well as the areas that would be easily served by the city in the future. The city has discussed the development of the area north of I-75 and south of Farrington Road with the State of Ohio, JobsOhio, Dayton Development Coalition, and many other regional development partners. All of these entities understand the importance of this area to the City of Piqua and its ability to grow and develop.

The City of Piqua has provided the FPA boundary proposal to the City of Troy and has offered to meet with the city to discuss the boundary modification. As of the date of this amendment request to MVRPC, the City of Troy has not responded to that request for an in-person or phone meeting.

Piqua and Troy have traditionally had a professional and open relationship when it comes to governmental coordination and cooperation. Competition always has some presence in the world of economic development and job recruitment, but Piqua will always celebrate wins for the region, as they reflect on increased choices for housing and employers for the community and a better quality of life. Piqua is very excited to see the trends turning for Ohio and the Midwest as a whole, and we are positioning ourselves to compete with other states and regions for businesses.

The City of Piqua views Farrington Road as an arbitrary placeholder for the FPA boundaries between the two jurisdictions, and with the recent annexations and planning efforts to reflect who can serve this area by both Troy and Piqua it is apparent that is not the appropriate boundary. The City of Troy has recently completed a study near Eldean Road, which is south of the proposed modification boundary, and at this time is not reflecting an ability to serve further north than this location. As reflected in Map 3 on the next page, the City of Piqua is requesting to modify the boundary to properties that are adjacent to the existing jurisdictional boundary lines and not go further south into areas that the City of Troy is engineering for development.



Map 3: Troy MegaSite Compared to City of Piqua FPA Boundary Request (Proposed Boundary Request is hatched, with Troy MegaSite in red).

Part I, A. - FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from the following outfall: 1PD00008001 . See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 001 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day					
Parameter	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly	Measuring Frequency	Sampling Type	Monitoring Months
00010 - Water Temperature - C	-	-	-	-	-	-	-	1/Day	Maximum Indicating Thermometer	All
00300 - Dissolved Oxygen - mg/l	-	6.0	-	-	-	-	-	1/Day	Multiple Grab	All
00530 - Total Suspended Solids - mg/l	-	-	18	12	-	593	396	3/Week	24hr Composite	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	10	-	-	-	-	-	-	1/Month	Grab	All
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	1.5	1.0	-	49.4	33	3/Week	24hr Composite	Summer
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	4.5	3.0	-	149	98.8	3/Week	24hr Composite	Winter
00625 - Nitrogen Kjeldahl, Total - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00630 - Nitrite Plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Week	24hr Composite	All
00671 - Orthophosphate, Dissolved (as P) - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00981 - Selenium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
01074 - Nickel, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
01079 - Silver, 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
01118 - Chromium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day					
Parameter	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly	Measuring Frequency	Sampling Type	Monitoring Months
01129 - Molybdenum, 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	September
61426 - Chronic Toxicity, Ceriodaphnia dubia - TUc	-	-	-	-	-	-	-	1/Year	24hr Composite	September
61427 - Acute Toxicity, Pimephales promelas - TUa	-	-	-	-	-	-	-	1/Year	24hr Composite	September
61428 - Chronic Toxicity, Pimephales promelas - TUc	-	-	-	-	-	-	-	1/Year	24hr Composite	September
61941 - pH, Maximum - S.U.	9.0	-	-	-	-	-	-	1/Day	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	-	-	15	10	-	494	330	3/Week	24hr Composite	All

Notes for station 1PD00008001:

* Effluent loadings based on average design flow of 8.7 MGD.

a. Dissolved orthophosphate - See Part II, Item W.

b. Nickel, selenium, silver, zinc, cadmium, lead, total chromium, copper, molybdenum - See Part II, Item L.

c. Dissolved hexavalent chromium - See Part II, Item M and V.

d. Mercury - See Part II, Item M and T.

e. Free cyanide - See Part II, Item M and S.

g. Whole effluent toxicity - See Part II, Item X.