



REGION 3

PHILADELPHIA, PA 19103

Report Title: Clean Water Act Compliance Evaluation Inspection Report
Inspection Date: 7/31/2024
Regulatory Program: National Pollutant Discharge Elimination System (NPDES)
Type of Activity: Wastewater
Facility Name: Parker Dam State Park
Permittee: Pennsylvania Department of Conservation and Natural Resources
Facility Owner/Operator: Pennsylvania Department of Conservation and Natural Resources
Facility Address: 28 Fairview Road
Penfield, PA 15849
Latitude and Longitude: 41° 12' 0.14", 78° 30' 19.14"W
Facility Permit No.: PA0044245
NPDES Permit Effective Date: 1/1/2020
NPDES Permit Expiration Date: 12/31/2024
NAICS Code: 221320
SIC Code: 4952
DSB ID: ECAD-5569

Facility Representative(s):

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Date

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I. INTRODUCTION

On July 31, 2024, representatives from EPA Region 3 (hereinafter, collectively referred to as “the EPA Inspection Team”) arrived at the Parker Dam State Park Wastewater Treatment Plant (hereinafter, “the Facility” or “WWTP”) in Penfield, Pennsylvania. The EPA Inspection Team displayed their credentials to Pennsylvania Department of Conservation and Natural Resources (“PA DCNR”) representatives at the outset of the inspection and explained the purpose of the inspection was to assess the Facility’s compliance with National Pollutant Discharge Elimination System (NPDES) Permit No. PA0044245 (hereinafter, “Permit”, see Attachment A).

A. Inspection Opening Conference

The EPA Inspection Team arrived at the Facility at approximately 1:00 PM for the inspection and met with the following Facility representatives:

Table 1: Inspection Attendee List

Name	Affiliation	Telephone	Email
EPA Region 3 Inspectors			
Shane McAleer	USEPA Region 3	215-814-5616	Mcaleer.shane@epa.gov
Sam Magro	USEPA Region 3	215-814-3158	Magro.samuel@epa.gov
Facility Representatives			
Nick Selner	PA DCNR	814-999-3851	nselner@pa.gov
Stephanie Countess	PA DCNR - FDC	717-783-3329	scountess@pa.gov
Shelbi Ritchie	PA DCNR	717-787-7398	shritchie@pa.gov

B. Weather and Precipitation Conditions

During the inspection, weather was clear and sunny. National Oceanic and Atmospheric Administration (NOAA) National Weather Service precipitation data for the date of the inspection and 5 days prior are provided in the Table 2 below:

Table 2. Precipitation Data

Station Name	Date	Precipitation Amount (inches) ¹
Clearfield Lawrence Airport, PA US (GHCND: USW00054792)	7/26/2024	0
Clearfield Lawrence Airport, PA US (GHCND: USW00054792)	7/27/2024	0
Clearfield Lawrence Airport, PA US (GHCND: USW00054792)	7/28/2024	0
Clearfield Lawrence Airport, PA US (GHCND: USW00054792)	7/29/2024	0
Clearfield Lawrence Airport, PA US (GHCND: USW00054792)	7/30/2024	0.26
Clearfield Lawrence Airport, PA US (GHCND: USW00054792)	7/31/2024	0

C. Summary of the Facility

The Parker Dam State Park WWTP is an active wastewater treatment facility inside the boundaries of the PA DCNR operated Parker Dam State Park. The Facility operates year-round and treats wastewater from public restrooms and campgrounds. During the months of July and August, the Facility has increased flow due to the increased attendance at the park. The operator stated the Facility receives approximately 5,000 gallons per day (gpd) of flow and is designed to handle approximately 45,000 gpd. In 2019, an inflow and infiltration (I&I) study and project was completed; the entire collection system was slip-lined, and all manholes were replaced. Mr. Nick Selner, the Facility operator, stated prior to the I & I Project, the system had an estimated flow of 40,000 gpd, mostly due to inflow and infiltration.

The Facility was built in the 1970s and is an extended aeration / activated sludge treatment system featuring two treatment trains in parallel (see Photos 10 and 37 of Attachment B - Photo Log), referred to as the Front and Back treatment trains.

Prior to the treatment trains there is a headworks chamber with a bar screen (Photos 5-7) which removes large debris from the influent prior to conveyance through the pump station (see Photos 8-9 of Attachment B). The pump station conveys wastewater to one of the two treatment trains. Wastewater is first conveyed through an equalization chamber (see Photo 13 of Attachment B), then through a flow regulator into the aeration chamber (see Photos 14-16 of Attachment B), then through the clarifier (see Photos 17-19 of Attachment B). From the clarifier, flow passes over a weir and into the tertiary tank (see Photos 21-28 of Attachment B) where further settling occurs, and flow passes through a sand filter. Finally, chlorine disinfection occurs using chlorine tablets (see Photos 20 and 26 of Attachment B) prior to effluent discharge to Outfall 001 (see Photos 32-36 of Attachment B).

From the clarification tanks, return activated sludge (RAS) is circulated back to the aeration basins (see Photos 14-16 of Attachment B), or waste activated sludge (WAS) is wasted into a 1,700-gallon sludge holding tank at the front of the equalization chamber for disposal (see Photos 11-12 of Attachment B). The operator typically wastes sludge 2-3 times a week for approximately 5-15 minutes. Waste sludge is hauled off for disposal approximately once a year.

Mr. Selner stated that the Back treatment train (see Photos 37-38 of Attachment B) is not currently being operated due to deficiencies in treatment. DCNR indicated there is a proposed project to replace the entire existing WWTP with a new treatment plant, which is in the design stage with a contracted engineering firm, Pennoni Associates. See Attachment H, Parker Dam Plant Upgrade Report, for the design report for the WWTP replacement project. The design is approximately 60% complete, with the estimated start of construction in two years.

II. Facility Activity

During the inspection, the EPA Inspection Team observed: the WWTP components from the headworks to the discharge at Outfall 001. The EPA Inspection Team observed the onsite laboratory, reviewed the Operator's daily standard operating procedures, weekly operator logs, and daily operator logbook. During the inspection, a settleability test was conducted by the operator (see Photos 1-2 of Attachment B). The EPA Inspection Team was escorted by the chief operator and PA DCNR representatives throughout the facility and given information and history of each process of the facility. The inspection observations were made pursuant to the requirements of the Permit. The observations from the inspection are described in detail below in the Observations section.

III. Observations

As part of the inspection, the EPA Inspection Team reviewed records and visually observed facility conditions. Visual observations and facility conditions were documented through photographs taken during the inspection by Sam Magro. The photographs ("Attachment B") for this report have been processed using EPA Region 3's Photo Management Process. A camera generated file name (e.g., P1010001) is assigned to each photograph as part of the process. The file names generated by the camera are used to identify each photograph in the Main Narrative and Photographs Log of this inspection report. Unused photographs are digitally stored and maintained in the inspection file. Unused photographs are available upon request.

The following section presents the EPA Inspection Team's observations relative to the Facility's Permit requirements.

Permit Requirement – Operation and Maintenance Requirements

Part B.1.E.2 of the permit states "The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee..."

Observation 1:

The EPA Inspection Team observed one of the two treatment trains, the Back treatment train, to be offline and inoperable during the inspection. The Back treatment train tanks were filled with stormwater and some wastewater (see Photos 10 and 37-38 of Attachment B). The WWTP was constructed in the 1970s and is beyond its useful life. The operator and DCNR representatives stated that the previously mentioned project to replace the WWTP (see Attachment H) was originally scheduled to start construction this summer (2024), however, the start of the project construction was pushed back two years.

Follow up: In an email dated August 22, 2024, Mr. Selner indicated repairs were recently made to the WWTP (see Observations 2 and 3 below). While the repairs were being made, the Back treatment train aeration tank was pumped out and used to hold the WWTP flow while the WWTP was not discharging. Mr. Selner indicated as a result, all the components of the Back treatment train functioned, and the Back treatment train is fully operational, just not in use.

Observation 2:

One of the two pumps for the sand filters was offline and sitting on the ground next to the Back treatment train (see Photo 31 of Attachment B). The operator stated the sand filter was operating at half capacity; the pump was recently repaired, but the sand filter needs to be vacuumed out and the sand needs to be replaced. The replacement sandbags were observed on the ground adjacent to the Front treatment train (see Photos 29-30 of Attachment B).

Follow up: In an email dated August 22, 2024, Mr. Selner indicated the sand filter has since been repaired and is back online.

Observation 3:

Rust and scaling of the effluent tank wall was observed (see Photo 28 of Attachment B). The operator stated a project to weld a steel plate over the damaged wall was scheduled for August 12, 2024.

Follow up: In an email dated August 22, 2024, Mr. Selner indicated the damaged tank sections have since been welded and repaired.

Observation 4:

Floatables and algae were observed in the Front treatment train clarifier (see Photo 17 of Attachment B). Duckweed was observed in the tertiary tank (see Photo 24 of Attachment B).

IV. Records Review

After the inspection the EPA Inspection Team requested documentation for review including:

- Corrective action log and non-compliance lists (Provided in 'Attachment F')
- Lab Analytical packages from January 2024 – Present
- Daily logs from January 2024, February 2024, and July 2024
- Plant SOP's and Operation and Maintenance Manual (Provided in 'Attachment E')
- 2024 STP Weekly Operating Reports
- 2024 Monthly Flow and Weather Sheets
- 2023 and 2024 STP Equipment Maintenance Records
- Sludge Removal and Hauling Manifests for 2023 and 2024
- Receipts for any residuals, wastes, or seed sludge received in 2023 and 2024
- Documentation of any plant design upgrades (Provided in 'Attachment G') including but not limited to:
 - Agreements and contracts

- Preliminary designs
- Timeline for plant replacement or rehab

Permit Requirement – Other Requirements

Part C.II.A. of the permit states “The permittee shall manage and properly dispose of sewage sludge and/or biosolids by performing sludge wasting that maintains an appropriate mass balance of solids within the treatment system. The wasting rate must be developed and implemented considering the specific treatment process type, system loadings, and seasonal variation while maintaining compliance with effluent limitations. Holding excess sludge within the clarifiers or in the disinfection process is not permissible.”

Observation 5:

The EPA Inspection Team observed the absence of specific wasting rates within the Sewage Treatment Plant Standard Operating Procedures, provided in ‘Attachment E’, which are required to be developed and implemented per the Permit. The operator stated that volume of sludge wasted was not measured, but rather estimated based on the time that the operator spent wasting sludge each day.

Permit Requirement – Effluent Limitations, Monitoring, Recordkeeping, and Reporting Requirements

Part A.I.A of the permit, establishes the sewage effluent limitations for outfall 001.

Observation 6:

The EPA Inspection Team reviewed data submitted by the facility in EPA’s Integrated Compliance Information System (“ICIS”) provided in Attachment C, which revealed exceedances of the effluent limitations for Outfall 001 in the last five years. The effluent exceedances are summarized in Table 3 below. As part of the records review, Mr. Selner submitted a document to EPA entitled “Parker Dam State Park Non-Compliance List” (Attachment F) which contains the Facility comments submitted with their eDMRs for effluent exceedances reported over the last 4 years.

Table 3: Five Year Violation History

Monitoring Period End Date	Parameter	Stat. Base	Reported Value/Units	Limit Value/Units	% Exceed.
10/31/2023	00610 - Nitrogen, ammonia total [as N]	MO AVG	4 mg/l	3 mg/l	33%
08/31/2023	74055 - Coliform, fecal general	INST MAX	>2,420 #/100ml	1,000 #/100ml	99,999%
07/31/2023	00610 - Nitrogen, ammonia total [as N]	MO AVG	5 mg/l	3 mg/l	67%
07/31/2023	50060 - Chlorine, total residual	INST MAX	0.07 mg/l	0.05 mg/l	40%
07/31/2023	74055 - Coliform, fecal general	INST MAX	2,420 #/100ml	1,000 #/100ml	142%
05/31/2023	80082 - BOD, carbonaceous [5 day, 20 C]	MO AVG	12 mg/l	10 mg/l	20%
10/31/2022	00610 - Nitrogen, ammonia total [as N]	MO AVG	8 mg/l	3 mg/l	167%

Monitoring Period End Date	Parameter	Stat. Base	Reported Value/Units	Limit Value/Units	% Exceed.
10/31/2022	74055 - Coliform, fecal general	INST MAX	1,300 #/100ml	1,000 #/100ml	30%
09/30/2022	00610 - Nitrogen, ammonia total [as N]	MO AVG	7 mg/l	3 mg/l	133%
09/30/2022	80082 - BOD, carbonaceous [5 day, 20 C]	MO AVG	18 mg/l	10 mg/l	80%
08/31/2022	74055 - Coliform, fecal general	INST MAX	2,429 #/100ml	1,000 #/100ml	143%
08/31/2022	80082 - BOD, carbonaceous [5 day, 20 C]	MO AVG	13 mg/l	10 mg/l	30%
07/31/2022	80082 - BOD, carbonaceous [5 day, 20 C]	MO AVG	26.5 mg/l	10 mg/l	165%
06/30/2022	80082 - BOD, carbonaceous [5 day, 20 C]	MO AVG	33 mg/l	10 mg/l	230%
01/31/2022	80082 - BOD, carbonaceous [5 day, 20 C]	MO AVG	43 mg/l	20 mg/l	115%
08/31/2021	80082 - BOD, carbonaceous [5 day, 20 C]	MO AVG	33.6 mg/l	10 mg/l	236%
12/31/2020	80082 - BOD, carbonaceous [5 day, 20 C]	MO AVG	66.2 mg/l	20 mg/l	231%
11/30/2020	00530 - Solids, total suspended	MO AVG	45 mg/l	20 mg/l	125%
07/31/2020	00610 - Nitrogen, ammonia total [as N]	MO AVG	28 mg/l	3 mg/l	833%
07/31/2020	80082 - BOD, carbonaceous [5 day, 20 C]	MO AVG	20 mg/l	10 mg/l	100%
06/30/2020	00610 - Nitrogen, ammonia total [as N]	MO AVG	4 mg/l	3 mg/l	33%
06/30/2020	74055 - Coliform, fecal general	GEO MEAN	1,603 #/100ml	200 #/100ml	702%
06/30/2020	74055 - Coliform, fecal general	INST MAX	2,970 #/100ml	1,000 #/100ml	197%
05/31/2020	00530 - Solids, total suspended	MO AVG	11 mg/l	10 mg/l	10%
09/30/2019	00610 - Nitrogen, ammonia total [as N]	MO AVG	11 mg/l	3mg/l	267%
08/31/2019	00610 - Nitrogen, ammonia total [as N]	MO AVG	10 mg/l	3 mg/l	233%
07/31/2019	00610 - Nitrogen, ammonia total [as N]	MO AVG	8 mg/l	3 mg/l	167%
05/31/2019	00300 - Oxygen, dissolved [DO]	MINIMUM	5.3 mg/l	6 mg/l	12%

V. Closing Conference

After the Facility walk, the EPA Inspection Team met with the facility representatives for a closing conference. The EPA Inspection Team shared preliminary observations with the facility. The EPA Inspection Team reiterated to the facility representatives that all preliminary observations discussed were not compliance determinations. Any and all preliminary observations shared were subject to further investigation by EPA upon the additional review of records and documentation. Additional observations may be contained in this inspection report that were not identified at the time of the closing conference after EPA reviewed additional materials following the inspection.

The inspection concluded at approximately 4:00 PM.

List of Attachments:

- Attachment A - NPDES Permit (PA0044245)
- Attachment B – Photo Log
- Attachment C – 5 Year Violations Report

- Attachment D – ECHO Detailed Facility Report
- Attachment E – Parker Dam SOP (2024 Update)
- Attachment F – Parker Dam Non-Compliance List
- Attachment G – Parker Dam Plant Upgrade Report (Pennoni)