pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0044245**
Facility Type	**Non-Municipal**	APS ID	**982822**
Major / Minor	**Minor**	Authorization ID	**1255154**

Applicant and Facility Information

Applicant Name	**PA DCNR**	Facility Name	**Parker Dam State Park**
Applicant Address	28 Fairview Road	Facility Address	28 Fairview Road
	Penfield, PA 15849-7902		Penfield, PA 15849-7902
Applicant Contact	James McCorkle, Park Manager	Facility Contact	James McCorkle, Park Manager
Applicant Phone	(814) 765-0630	Facility Phone	(814) 765-0630
Client ID	52524	Site ID	261798
Ch 94 Load Status	Not Overloaded	Municipality	Huston Township
Connection Status	No Limitations	County	Clearfield
Date Application Received	December 10, 2018	EPA Waived?	Yes
Date Application Accepted	December 13, 2018	If No, Reason	

Purpose of Application: Renewal of a NPDES Permit

Summary of Review

This PA DCNR sewage treatment plant serves Parker Dam State Park. A map of the discharge location is attached.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
X		Keith C. Allison / Project Manager	May 6, 2019
		Nicholas Hartranft, P.E. / Environmental Engineer Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.09
Latitude	41º 12' 0.14"	Longitude	-78º 30' 19.14"
Quad Name	Penfield	Quad Code	0917
Wastewater Description:	Sewage Effluent		
Receiving Waters	Laurel Run	Stream Code	24827
NHD Com ID	61432282	RMI	7.99
Drainage Area	17.6 mi^2	Yield (cfs/mi^2)	0.0212
Q_{7-10} Flow (cfs)	0.373	Q_{7-10} Basis	USGS Gage 01543500, Sinnemahoning Creek at Sinnemahoning, PA (1940-2008)
Elevation (ft)	1580	Slope (ft/ft)	0.00193
Watershed No.	8-A	Chapter 93 Class.	HQ-CWF, MF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Attaining Use(s)		
TMDL Status	Final	Name	Bennett Branch Sinnemahoning Creek
Nearest Downstream Public Water Supply Intake	PA American Water Company at Milton, PA		
PWS Waters	West Branch Susquehanna River	Distance from Outfall (mi)	>100 miles

Changes Since Last Permit Issuance: The above stream characteristics from the previous renewal in 2014 are adequate and therefore have not been updated at this time.

Other Comments: The abovementioned TMDL for the Bennett Branch Sinnemahoning Creek addresses the impacts of mine drainage. Laurel Run, the receiving stream and a tributary to Bennett Branch, has not been identified to be impaired by AMD or any other source. This discharge has not been identified in the TMDL and is not expected to contribute to the impairment to Bennett Branch because it consistently meets its pH limits and because it does not receive flow from any industrial discharges or other sources that should introduce significant levels of Aluminum, Iron and Manganese, the metals typically associated with AMD, above background levels. Therefore, because this discharge is not expected to be discharging these metals at levels above instream criteria, monitoring for these will not be included in this permit at this time.

This discharge is not expected to impact any downstream water supply with the limitations and monitoring proposed.

Treatment Facility Summary				
Treatment Facility Name: Parker Dam State Park WWTP				
WQM Permit No.	**Issuance Date**			
1774404	11/25/74			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Tertiary	Extended Aeration/Sand Filter	Chlorine with Dechlorination	0.09
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.09	476	Not Overloaded	Aerobic Digestion	Other WWTP

Changes Since Last Permit Issuance: None

Other Comments: The treatment facility, as permitted under WQM permit 1774404 consists of a bar screen, two aeration tanks, two clarifiers, a sand filter, chlorination and dechlorination and two small sludge digesters.

Hauled in Waste
The facility has not received sludge from any other sources and it is not anticipated that it will receive any over the next permit term.

Biosolids/Sludge Disposal
Wasted sludge is taken to other STPs for further processing.

Compliance History

DMR Data for Outfall 001 (from April 1, 2018 to March 31, 2019)

Parameter	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18	AUG-18	JUL-18	JUN-18	MAY-18	APR-18
Flow (MGD) Average Monthly	0.023	0.027	0.022	0.029	0.033	0.030	0.030	0.016	0.020	0.024	0.033	0.043
pH (S.U.) Minimum	6.6	6.6	6.6	6.6	6.8	7.0	7.0	6.3	6.3	6.5	6.6	6.5
pH (S.U.) Maximum	7.6	7.6	7.3	7.6	7.7	7.5	7.6	7.3	7.2	7.7	7.6	7.1
DO (mg/L) Minimum	6.7	7.9	7.6	8.2	7.0	6.0	6.1	6.0	6.0	6.0	4.9	6.8
TRC (mg/L) Average Monthly	< 0.01	< 0.01	< 0.02	< 0.02	< 0.03	< 0.02	< 0.02	< 0.003	< 0.02	< 0.02	< 0.01	< 0.03
TRC (mg/L) Instantaneous Maximum	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
CBOD5 (mg/L) Average Monthly	1.7	1.2	1	1	1	2	3	2	1	2	1	1
TSS (mg/L) Average Monthly	< 5	< 5	< 5	< 6	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Fecal Coliform (CFU/100 ml) Geometric Mean	< 3	4	< 2	< 2	< 2	< 3	< 7	< 3	< 2	228	7	< 13
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	6	4	< 2	< 2	2	< 4	12	< 4	< 2	1040	22	90
Total Nitrogen (mg/L) Average Monthly				9.81								
Ammonia (mg/L) Average Monthly	< 1	< 1	< 1	0.04	< 0.17	0.29	2.7	0.02	0.19	1.31	1.29	< 0.04
Total Phosphorus (mg/L) Average Monthly				0.584								

Compliance History

Effluent Violations for Outfall 001, from: April 1, 2018 To: March 31, 2019

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
DO	05/18	Min	4.9	mg/L	6.0	mg/L
Fecal Coliform	06/18	Geo Mean	228	CFU/100 ml	200	CFU/100 ml
Fecal Coliform	06/18	IMAX	1040	CFU/100 ml	1000	CFU/100 ml

For the Fecal Coliform violations noted above for June 2018, the permittee indicated in the non-compliance form for the month's DMR that the plant's backwash and return tanks would be washed and the permittee would keep the chlorine residual to a minimum of 0.2 mg/L. No comment was provided for the single Dissolved Oxygen minimum violation in May 2018.

Summary of Inspections: The facility has been inspected periodically by the Department over the past permit term, most recently on March 7, 2019, by Clarissa Alcorn, WQS. This inspection identified the effluent violations listed above but noted no operational violations.

Other Comments: A WMS query found the following open violations listed in the attached table for PA DCNR (See Attachment B).

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.09
Latitude 41º 11' 57.00" **Longitude** -78º 30' 22.00"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments: The above technology-based limit for TRC is not as stringent as the antidegradation requirements for the discharge to a high-quality stream which includes dechlorination and a maximum limit of 0.05 mg/l which are already included in the permit.

Water Quality-Based Limitations

CBOD5-NH3-N & DO

The facility has existing limits of 10 mg/l summer and 20 mg/l winter for TSS and $CBOD_5$, limits of 3 mg/l summer and 9 mg/l winter for NH3-N and a dissolved oxygen minimum of 6 mg/l all based on antidegradation to protect the high-quality stream.

The WQM7.0 model allows the Department to evaluate point source discharges of dissolved oxygen (DO), carbonaceous BOD ($CBOD_5$), and ammonia-nitrogen (NH_3-N) into free-flowing streams and rivers. To accomplish this, the model simulates two basic processes: the mixing and degradation of NH_3-N in the stream and the mixing and consumption of DO in the stream due to the degradation of $CBOD_5$ and NH_3-N. However, no WQM7.0 modeling was performed at this time for the discharge to the Laurel Run as the antidegradation limits listed should be adequately protective.

Total Residual Chlorine

The existing TRC limit of 0.05 mg/L is based on anti-degradation for protection of the high-quality designation of the receiving stream.

Toxics Management

No further “Reasonable Potential Analysis” was performed to determine additional parameters as candidates for limitations for this minor sewage treatment facility with no industrial contributions.

Chesapeake Bay/Nutrient Requirements

According to the Pennsylvania’s Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, this facility is considered a Phase 5 Chesapeake Bay sewage discharger, and as such requires no nutrient loading limits. Per a review of the facility DMRs over the past permit term the Total Nitrogen has averaged 16 mg/L and the Total Phosphorus has averaged 1.1 mg/L. Annual monitoring will remain for the discharge to a special protection watershed.

Best Professional Judgment (BPJ) Limitations

Comments: None needed at this time beyond the water quality and technology-based limits noted above.

Anti-Backsliding

No limitations were made less stringent consistent with the anti-degradation requirements of the Clean Water Act and 40 CFR 122.44(l).

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/week	Weir
pH (S.U.) Oct 1 - Apr 30	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	3/week	Grab
pH (S.U.) May 1 - Sep 30	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO Oct 1 - Apr 30	XXX	XXX	6.0 Inst Min	XXX	XXX	XXX	3/week	Grab
DO May 1 - Sep 30	XXX	XXX	6.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC Oct 1 - Apr 30	XXX	XXX	XXX	0.05	XXX	0.05	3/week	Grab
TRC May 1 - Sep 30	XXX	XXX	XXX	0.05	XXX	0.05	1/day	Grab
CBOD5 Nov 1 - Apr 30	XXX	XXX	XXX	20	XXX	40	2/month	8-Hr Composite
CBOD5 May 1 - Oct 31	XXX	XXX	XXX	10	XXX	20	2/month	8-Hr Composite
TSS Nov 1 - Apr 30	XXX	XXX	XXX	20	XXX	40	2/month	8-Hr Composite
TSS May 1 - Oct 31	XXX	XXX	XXX	10	XXX	20	2/month	8-Hr Composite
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Total Nitrogen	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9	XXX	18	2/month	8-Hr Composite

Outfall 001 , Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3	XXX	6	2/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: The above limits and monitoring are unchanged. The existing monitoring frequencies for pH, DO and TRC are based on previous agreements between DEP and DCNR and are unchanged.

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	PENTOXSD for Windows Model (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Toxics Screening Analysis Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☒	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☒	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☒	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☒	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☒	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☒	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☒	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 391-2000-022, 3/1999.
☒	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☒	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: Establishing Effluent Limitations for Individual Sewage Permits
☐	Other: