pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0056804**
Facility Type	**Industrial**	APS ID	**1109584**
Major / Minor	**Minor**	Authorization ID	**1477057**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Applicant and Facility Information

Applicant Name	**North Penn North Wales Water Authority Montgomery County**	Facility Name	**Forest Park WTP**
Applicant Address	PO Box 317	Facility Address	PO Box 317 144 Park Avenue
	Chalfont, PA 18914-0317		Chalfont, PA 18914-0317
Applicant Contact	Frank Ciaccia	Facility Contact	Wayne Letourneau
Applicant Phone	(215) 822-5950	Facility Phone	(215) 822-5950
Client ID	35064	Site ID	241480
SIC Code	4941	Municipality	Chalfont Borough
SIC Description	Trans. & Utilities - Water Supply	County	Bucks
Date Application Received	February 20, 2024	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: Renewal

Summary of Review

The PA Department of Environmental Protection (PADEP) received a NPDES permit renewal request from North Penn North Wales Water Authority to discharge 1.94 MGD (with a maximum design capacity of 2.8 MGD) of treated wastewater from Forest Park WTP located at 144 Park Ave., Chalfont PA in Chalfont Borough, Bucks County. The treated wastewater is discharged into Pine Run Creek via Outfalls 001 and 002.

Forest Park Water is a potable water treatment plant that consists of raw water pumping, flocculation, sedimentation, filtration, granular carbon contactors, and a clear well. Wastewater consists of backwash from filters and granular carbon contactors, centrate from solids thickening, and centrate from centrifuge dewatering. Wastewater is combined in a wastewater settling basins and discharged through Outfall 002. Outfall 001 is an alternate discharge from a lagoon which is used when the wastewater settling basins are unavailable.

There is no process change since last issuance of permit.

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		*Vasantha* Vasantha Palakurti / Environmental Engineering Specialist	August 9, 2024
X		*Pravin Patel* Pravin C. Patel, P.E. / Environmental Engineer Manager	August 9, 2024

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	1.94
Latitude	40Âº 17' 24.90"	Longitude	-75Âº 12' 11.88"
Quad Name		Quad Code	
Wastewater Description:	IW Process Effluent without ELG		
Receiving Waters	Pine Run (TSF, MF)	Stream Code	02790
NHD Com ID	25478950	RMI	0.18
Drainage Area	11.6	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	1.65	Q_{7-10} Basis	StreamStat
Elevation (ft)	254	Slope (ft/ft)	
Watershed No.	2-F	Chapter 93 Class.	TSF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	ALGAE, SILTATION		
Source(s) of Impairment	DAM OR IMPOUNDMENT, SITE CLEARANCE (LAND DEVELOPMENT OR REDEVELOPMENT)		
TMDL Status	Final	Name	Neshaminy Creek

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	1.94
Latitude	40Âº 17' 27.39"	Longitude	-75Âº 12' 9.65"
Quad Name		Quad Code	
Wastewater Description:	IW Process Effluent without ELG		
Receiving Waters	Pine Run	Stream Code	Pine Run
NHD Com ID	25478950	RMI	25478950
Drainage Area	11.7	Yield (cfs/mi^2)	11.7
Q_{7-10} Flow (cfs)	1.65	Q_{7-10} Basis	1.65
Elevation (ft)		Slope (ft/ft)	
Watershed No.	2-F	Chapter 93 Class.	2-F
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	ALGAE, SILTATION		
Source(s) of Impairment	DAM OR IMPOUNDMENT, SITE CLEARANCE (LAND DEVELOPMENT OR REDEVELOPMENT)		
TMDL Status	Final	Name	Neshaminy Creek

Compliance History

DMR Data for Outfall 002 (from June 1, 2023 to May 31, 2024)

Parameter	MAY-24	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23
Flow (MGD) Average Monthly	1.54	1.11	1.06	0.98	1.1	1.11	1.18	1.97	2.77	2.66	2.68	2.59
Flow (MGD) Daily Maximum	1.69	1.43	1.19	1.08	1.3	1.49	1.22	2.82	2.83	2.82	2.81	2.70
pH (S.U.) Instantaneous Minimum	7.30	7.33	7.46	7.26	7.28	7.26	7.39	7.34	7.34	7.23	7.30	7.46
pH (S.U.) Instantaneous Maximum	7.54	7.54	7.60	7.54	7.46	7.71	7.58	7.60	7.49	7.40	7.64	7.64
TRC (mg/L) Average Monthly	0.03	0.04	0.11	0.04	0.06	0.06	0.07	0.06	0.11	0.05	0.07	0.04
TRC (mg/L) Instantaneous Maximum	0.04	0.05	0.17	0.05	0.08	0.07	0.14	0.09	0.16	0.06	0.12	0.06
TSS (lbs/day) Average Monthly	< 78	< 92.3	< 38.4	< 56.8	24.3	81	< 52.4	51	127.3	< 291.5	275.2	132.7
TSS (lbs/day) Daily Maximum	< 109	288.4	54.6	< 70.3	30.8	110	100.5	78	153.4	< 392.8	450.2	157.6
TSS (mg/L) Average Monthly	< 6.1	< 13.0	< 4.3	< 7.1	2.8	9.2	< 5.3	3.1	5.5	< 13.2	12.2	6.1
TSS (mg/L) Daily Maximum	< 8.3	46.1	5.5	< 10.0	3.7	14.8	10.3	3.5	6.5	< 16.7	19.7	7.0
Total Phosphorus (lbs/day) Average Monthly	0.36	< 0.29	< 0.23	< 0.17	< 0.2	0.4	0.27	0.7	1.5	2.8	2.7	0.82
Total Phosphorus (lbs/day) Daily Maximum	0.52	0.48	0.30	0.18	0.23	0.5	0.39	1.2	1.7	3.3	5.0	1.1
Total Phosphorus (mg/L) Average Monthly	0.03	< 0.03	< 0.03	< 0.02	< 0.02	0.05	0.03	0.04	0.06	0.13	0.12	0.04
Total Phosphorus (mg/L) Daily Maximum	0.04	0.04	0.03	0.02	0.03	0.07	0.04	0.09	0.07	0.15	0.22	0.05

Total Aluminum (lbs/day) Average Monthly	3.4	3.2	4.1	3.1	3.9	7.6	5.3	7.2	10.7	8.0	11.2	10.9
Total Aluminum (lbs/day) Daily Maximum	4.7	4.8	6.1	3.4	5.7	9.8	9.8	9.6	12.5	8.4	13.1	12.8
Total Aluminum (mg/L) Average Monthly	0.26	0.35	0.46	0.38	0.44	0.87	0.54	0.44	0.46	0.36	0.50	0.50
Total Aluminum (mg/L) Daily Maximum	0.36	0.47	0.61	0.40	0.61	1.3	1.0	0.50	0.54	0.42	0.61	0.57
Total Iron (lbs/day) Average Monthly	0.48	< 0.32	< 0.34	0.37	< 0.42	1.1	0.50	< 0.48	< 0.58	< 0.44	1.0	1.1
Total Iron (lbs/day) Daily Maximum	0.56	0.60	0.60	0.51	0.56	1.8	1.1	0.94	0.92	0.47	1.3	1.2
Total Iron (mg/L) Average Monthly	0.04	< 0.03	< 0.04	0.05	< 0.05	0.13	0.05	< 0.03	< 0.03	< 0.02	0.05	0.05
Total Iron (mg/L) Daily Maximum	0.04	0.05	0.06	0.06	0.06	0.24	0.11	0.04	0.04	0.02	0.06	0.06
Total Manganese (lbs/day) Average Monthly	2.1	1.1	0.47	0.37	0.3	0.7	0.42	1.3	3.4	9.5	5.8	5.9
Total Manganese (lbs/day) Daily Maximum	3.0	1.9	0.62	0.45	0.46	2.1	0.59	3.5	3.5	10.8	8.7	10.1
Total Manganese (mg/L) Average Monthly	0.16	0.12	0.05	0.05	0.03	0.06	0.04	0.07	0.15	0.43	0.26	0.28
Total Manganese (mg/L) Daily Maximum	0.21	0.16	0.07	0.05	0.05	0.17	0.06	0.15	0.15	0.46	0.38	0.50
Chlorodibromo-methane (mg/L) Average Monthly	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.001	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0002	< 0.0002	< 0.0002
Chlorodibromo-methane (mg/L) Daily Maximum	< 0.0005	< 0.0005	< 0.0002	< 0.0002	< 0.001	< 0.0002	< 0.0002	< 0.0002	< 0.0005	< 0.0002	< 0.0002	< 0.0002
Dichlorobromo-methane (mg/L) Average Monthly	< 0.001	0.00344	0.00082	0.00031	< 0.0005	< 0.0002	0.00046	0.00038	< 0.001	0.00046	0.00083	0.00088
Dichlorobromo-methane (mg/L) Daily Maximum	< 0.001	0.00344	0.00082	0.00031	< 0.0005	< 0.0002	0.00046	0.00038	< 0.001	0.00046	0.00083	0.00088

Chloroform (mg/L) Average Monthly	0.0103	0.168	0.0155	0.00501	0.00374	0.0041	0.00663	0.00358	0.00359	0.0149	0.0185	0.0334
Chloroform (mg/L) Daily Maximum	0.0103	0.168	0.0155	0.00501	0.00374	0.0041	0.00663	0.00358	0.00359	0.0149	0.0185	0.0334
PFOA (mg/L) Average Quarterly			0.00000 25			0.00000 46			0.00000 34			0.00000 19
PFOA (mg/L) Daily Maximum			0.00000 25			0.00000 46			0.00000 34			0.00000 19
PFOS (mg/L) Average Quarterly			< 0.00000 19			0.00000 33			0.00000 5			0.00000 19
PFOS (mg/L) Daily Maximum			< 0.00000 19			0.00000 33			0.00000 5			0.00000 19

Compliance History

Effluent Violations for Outfall 002, from: July 1, 2023 To: May 31, 2024

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	04/30/24	Daily Max	46.1	mg/L	40.0	mg/L

Compliance History	
Summary of DMRs:	Facility exceeded TSS in April 2024, and Total Aluminum in February 2021.
Summary of Inspections:	The facility was last inspected in May 2022 and no violations were reported.

Development of Effluent Limitations

Outfall No. 001 and oo2 **Design Flow (MGD)** 1.3
Latitude 40º 17' 25.00" **Longitude** -75º 12' 12.00"
Wastewater Description: IW Process Effluent without ELG

Technology-Based Limitations

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

Parameter	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)

Water Quality-Based Limitations

DMR data from 2019 to 2024 was summarized and reviewed for this analysis. Based on design flow of 1.94 MGD and the reported data entered in Toxic Screening Analysis Spreadsheet, there were no parameters of concern.

Therefore, metals and total residue chlorine previous limits have been rolled over to this renewal.

Phosphorus:

A Nutrient TMDL is proposed for the Neshaminy Creek watershed. Based on a review of discharge monitoring reports (DMRs), Forest Park is not a major contributor of phosphorus. The phosphorus in discharge is primarily due to ambient intake water concentrations, and an orthopolyphosphate additive added to the clearwell used to corrosion control within the water distribution. Since Nishaminy creek is impaired with excessive algae growth, Phosphorous limits were revised in previous renewal to meet the current average monthly flow rate. No changes to Phosphorous limits in this renewal.

Total Suspended Solids:

Since Nishaminy Creek is impaired with siltation, TSS limits were revised to meet the average monthly flow rate. Based on the current average monthly flow rate and review of the DMRs indicated that facility was consistently meeting a TSS limits of 20 mg/l (or less) on a monthly average basis. Therefore, it was recommended to continue the TSS limit of 20 mg/l as a monthly average, and 40 mg/l as a daily maximum for this renewal.

TRC

During previous renewal, TRC limits were revised to meet the current average monthly flow rate.

Metals

Existing Aluminum, Manganese, Total Iron are technology-based limits and are carried over for this renewal.

Disinfection Byproducts

Chlorodibromomethane, Chloroform, and Dichlorobromomethane will continue to be monitored.

PFOA and PFOS

PFOA and PFOS were added during last renewal and will be continued to monitor. Facility believes the PFOS contamination is caused by the Navy Base and increase in new developments in the area.


TMS PA0056804.pdf


StreamStats-Q7-10.pdf

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" (386-0400-001), 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	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/week	Grab
TRC	XXX	XXX	XXX	0.24	XXX	0.56	1/week	Grab
TSS	324	647	XXX	20.0	40.0	50	1/week	Grab
Total Phosphorus	8	16	XXX	0.5	1.0	1.25	1/week	Grab
Total Aluminum	16	32	XXX	1.0	2.0	2.5	1/week	Grab
Total Iron	32	64	XXX	2.0	4.0	5	1/week	Grab
Total Manganese	16	32	XXX	1.0	2.0	2.5	1/week	Grab
Chlorodibromo-methane	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Dichlorobromo-methane	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Chloroform	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
PFOA	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
PFOS	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab

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" (386-0400-001), SOPs and/or BPJ.

Outfall 002, 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	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/week	Grab
TRC	XXX	XXX	XXX	0.24	XXX	0.56	1/week	Grab
TSS	324	647	XXX	20.0	40.0	50	1/week	Grab
Total Phosphorus	8	16	XXX	0.5	1.0	1.25	1/week	Grab
Total Aluminum	16	32	XXX	1.0	2.0	2.5	1/week	Grab
Total Iron	32	64	XXX	2.0	4.0	5	1/week	Grab
Total Manganese	16	32	XXX	1.0	2.0	2.5	1/week	Grab
Chlorodibromo-methane	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Dichlorobromo-methane	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Chloroform	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
PFOA	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
PFOS	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab