Northeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	**NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER**	Application No.	**PA0063568**
Facility Type	**Industrial**		APS ID	**608368**
Major / Minor	**Minor**		Authorization ID	**1399426**

Applicant and Facility Information

Applicant Name	**Northampton Borough Municipal Authority Northampton County**	Facility Name	**Northampton Borough Municipal Authority WTP**
Applicant Address	PO Box 156 1 Clear Springs Drive	Facility Address	5200 2nd Street
	Northampton, PA 18067-0156		Coplay, PA 18037-2666
Applicant Contact	Stephen Kerbacher	Facility Contact	Martin Hozza
Applicant Phone	(610) 262-6711	Facility Phone	(610) 262-6711
Client ID	83459	Site ID	489536
SIC Code	4941	Municipality	North Whitehall Township
SIC Description	Trans. & Utilities - Water Supply	County	Lehigh
Date Application Received	May 23, 2022	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: Renewal of existing NPDES permit for water treatment facility.

Summary of Review

The applicant is requesting renewal of an NPDES permit to discharge treated filter backwash water from the Northampton Borough Municipal Authority Water Treatment Plant to Spring Creek, a cold-water fishery, migratory fishery-designated receiving stream in State Water Plan Basin 02C (Lower Lehigh River). Per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than the designated use. The discharge point is located approximately 300 feet upstream of the confluence of Spring Creek with the Lehigh River.

The treatment plant is located in North Whitehall Township and the discharge point is located in Whitehall Township.

There are no federal Effluent Limit Guidelines (ELG) that apply to this type of facility. The limits for Total Suspended Solids, Iron (Total), Manganese (Total), and pH are technology-based limits per Department guidance (Technology-Based Control Requirements for Water Treatment Plant Wastes, Doc. No. 362-2183-003). The limits for Aluminum (Total) and Total Residual Chlorine are water quality- based.

The applicant is requesting that the renewed permit be based on a long-term average discharge rate of 0.153, which is similar to the one permitted in previous permit term. A review of the DMRs shows a trend of increasing flows over the last 5 years but below design flow. 0.150 MGD appears a reasonable flow rate for basing the limits for the next 5-year permit cycle.

Water Quality based limitations:

Reasonable Potential Analysis:

TMS spreadsheet and TRC were used as Tools for conducting the reasonable potential study to evaluate WQBELs. For total residual chlorine, there is no new limit to be established, given the existing limit in the previous permit term is lower than the AML value from TRC model results (see attached document). The TMS model returned a new limit for cadmium and suggested monitoring for Total Silver (see attached document). Since the concentration reported on the table are non- detect and the Lab detection limit is lower than PADEP QL (see attached sheet with Lab results) those pollutants are not considered for limits or monitoring.

Also, Total Copper and Total Aluminum are reported as detect and the model returned monitoring for both. They will be monitored for the next permit term.

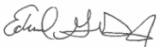
The Allentown bureau is the closest potable water supply withdrawal and is approximately 7.5 miles downstream of the discharge. The discharge is not expected to affect the water supply since the Lehigh river contributes for significant dilution.

The application includes a list of chemical additives used in the water treatment process, only one of which is expected to be present in the effluent (aluminum sulfate). The aluminum limits in the permit address the aluminum present in the discharge.

$Q_{7\text{-}10}$ = 0.24 cfs - based on 1996 Pollution Report which used the reference gage for Hokendauqua Creek near Northampton. There is no available representative/current gage which would justify revising the $Q_{7\text{-}10}$.

The WMS “open violations by clients Report” was run and there are no open violations.

EPA waiver is in effect.

Approve	Deny	Signatures	Date
X		Hakim Yesli (signed) Hakim Yesli / Environmental Engineering Specialist	April 15, 2025
X		 Edward Dudick, P.E. / Environmental Engineer Manager	April 30, 2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.15
Latitude	40Âº 42' 3.41"	Longitude	-75Âº 31' 1.18"
Quad Name		Quad Code	
Wastewater Description:	Water Treatment Effluent		

Receiving Waters	Spring Creek (CWF, MF)	Stream Code	3702
NHD Com ID	26293309	RMI	0.06
Drainage Area	3.0 sq mi	Yield (cfs/mi^2)	0.087
Q_{7-10} Flow (cfs)	0.24 cfs taken from gage	Q_{7-10} Basis	Reference gage
Elevation (ft)	310	Slope (ft/ft)	
Watershed No.	2-C	Chapter 93 Class.	CWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake			
PWS Waters	Lehigh river	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	7.5mi.

LFY = 0.24 cfs x DA = 0.24cfs x 3.0= 0.084cfs.

Technology based limitations:

The BPT technology-based effluent control for water treatment plant requirement as per Document: No 362-2183-003 are:

A / Filter backwash wastewater, or waste sludges generated from pre-sedimentation, coagulation/settling, water softening, or iron/manganese removal processes cannot be discharged to surface waters of the Commonwealth unless the following effluent quality can be achieved:

PARAMETER	MONTHLY AVERAGE (mg/l)	DAILY MAX (mg/l)
Suspended Solids	30	60
Iron (total)	2	4
Aluminum (total)	4	8
Manganese (total)	1	2
pH	6-9 (at all times)	

B / the permittee should explore all other options to dispose wastewater from regeneration of ion-exchange softening units before discharging it to surface waters.

Compliance History

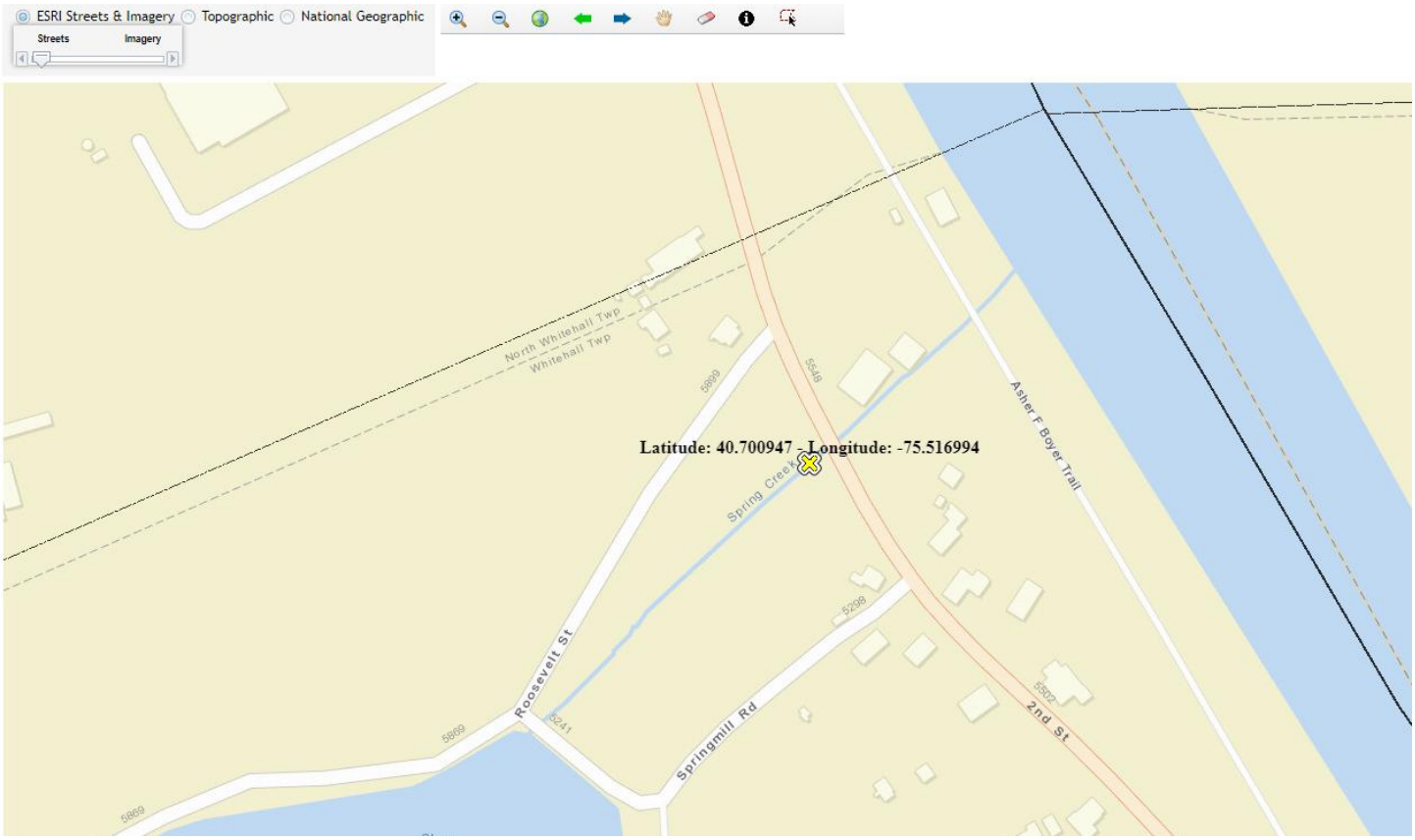
DMR Data for Outfall 001 (from July 1, 2021 to June 30, 2022): none of the values monitored in eEDMR for the pollutant of concern are above The limits set in permit.

Parameter	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21
Flow (MGD) Average Monthly	0.081	0.082	0.088	0.085	0.088	0.082	0.089	0.088	0.083	0.091	0.086	0.087
Flow (MGD) Daily Maximum	0.134	0.146	0.147	0.134	0.145	0.136	0.138	0.147	0.137	0.147	0.149	0.153
pH (S.U.) Minimum	6.74	6.70	6.80	6.91	6.88	6.68	6.97	6.68	6.76	6.58	6.24	6.82
pH (S.U.) Maximum	7.06	7.09	7.25	7.18	7.24	7.28	7.27	7.07	6.99	7.01	7.01	7.09
TRC (mg/L) Average Monthly	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
TRC (mg/L) Daily Maximum	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
TSS (mg/L) Average Monthly	< 4.0	< 4.0	1.0	< 4.0	< 4.0	2.8	< 4.0	1.0	< 4.0	< 4.0	< 4.0	< 4.0
TSS (mg/L) Daily Maximum	< 4.0	< 4.0	4.0	< 4.0	< 4.0	7.1	< 4.0	4.0	< 4.0	< 4.0	< 4.0	< 4.0
Total Dissolved Solids (mg/L) Average Quarterly	103			132			100			130		
Total Aluminum (mg/L) Average Monthly	0.177	0.193	0.319	0.220	0.237	0.287	0.440	0.457	0.247	0.306	0.204	0.158
Total Aluminum (mg/L) Daily Maximum	0.231	0.278	0.401	0.231	0.290	0.339	0.587	0.565	0.289	0.353	0.389	0.190
Total Iron (mg/L) Average Monthly	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	0.072	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
Total Iron (mg/L) Daily Maximum	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	0.288	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
Total Manganese (mg/L) Average Monthly	0.010	0.007	0.011	0.009	0.0007	0.013	0.015	0.013	0.010	0.022	0.015	0.006
Total Manganese (mg/L) Daily Maximum	0.014	0.013	0.017	0.013	0.014	0.015	0.019	0.014	0.013	0.025	0.025	0.014

Northampton B.
TRC_CALC (2).xls

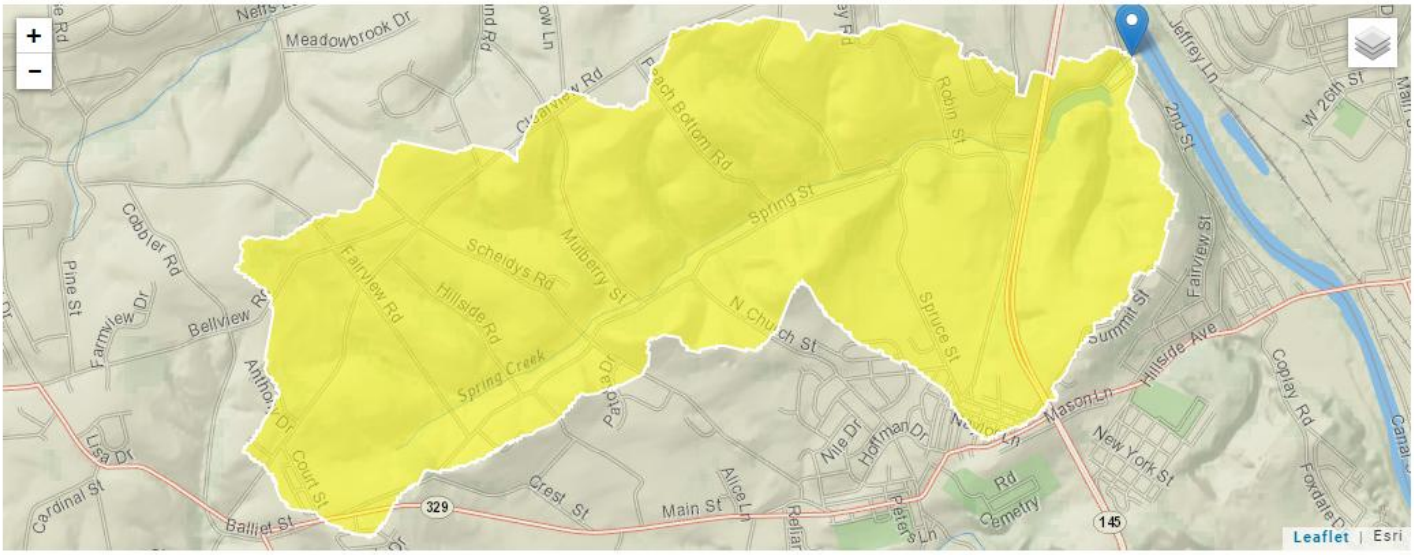
Northampton
borough Lab Data.p

eMap showing the outfall 001 location and spring creek running into Lehigh River to the East.



StreamStats Report

Region ID:	PA
Workspace ID:	PA20221205163602889000
Clicked Point (Latitude, Longitude):	40.70132, -75.51639
Time:	2022-12-05 11:36:25 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	6	percent
DRNAREA	Area that drains to a point on a stream	3	square miles
PRECIP	Mean Annual Precipitation	45	inches
ROCKDEP	Depth to rock	3.5	feet
STRDEN	Stream Density -- total length of streams divided by drainage area	2.38	miles per square mile

TMS PA0063568 (002).pdf

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.