pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**New**	Application No.	**PA0276693**
Facility Type	**Non-Municipal**	APS ID	**1097449**
Major / Minor	**Minor**	Authorization ID	**1455992**

Applicant and Facility Information

Applicant Name	**Omi Rivera**	Facility Name	**Rivera SRSTP**
Applicant Address	160 E. Moorestown Road	Facility Address	160 E. Moorestown Road
	Wind Gap, PA 18091		Wind Gap, PA 18091-9726
Applicant Contact	Omi Rivera	Facility Contact	Omi Rivera
Applicant Phone	(570) 216-1706	Facility Phone	(570) 216-1706
Client ID	379968	Site ID	862088
Ch 94 Load Status	-	Municipality	Bushkill Township
Connection Status	-	County	Northampton
Date Application Received	February 21, 2023	EPA Waived?	Yes
Date Application Accepted	February 21, 2023	If No, Reason	-

Purpose of Application: New NPDES permit for SRSTP discharge.

Summary of Review

A draft permit was issued to the previous property owner on April 25, 2023. The Department received transfer paperwork identifying the current property owner as the proposed permittee. The information below is copied from the previous draft permit fact sheet.

The applicant requested a new SRSTP NPDES permit for discharge of 400 gpd (0.0004 MGD) of treated sewage to an unnamed tributary to West Branch Sobers Run, an exceptional value and migratory fish (EV, MF) receiving stream in State Water Plan Basin 01-F (Jacoby – Bushkill Creeks). As per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than its designated use. The SRSTP will replace the existing malfunctioning on-lot disposal system.

The proposed system consists of a 1,250-gallon Roth MultiTank model RMT-1250 septic tank with a Biotube effluent filter and an Orenco AdvanTex AX20-RTUV treatment unit with 1,500 gpd capacity. An Orenco UV light will be installed in a chamber that feeds into a pump discharge compartment. A ¾ HP 4-inch submersible pump will discharge flows through a 1" ball valve that limits flows entering the unnamed tributary. Effluent flows will then continue through 4" PVC piping with the last 50 feet perforated and wrapped by permeable geotextile fabric set in 2B gravel. An endwall structure will then direct flows to the unnamed tributary. Tank floats / alarms and a UV warning alarm are included in the design.

The most stringent of the limitations in the PAG-04 general permit, water quality modeling, and antidegradation ABACT limitations are included in this permit (see table below). A note is added under the Part A effluent limitation table requiring the samples for Fecal Coliform and Ammonia-Nitrogen to be taken between June 1 and August 31 each year. The treatment plant will utilize ultraviolet light for disinfection so the sampling frequency for TRC is "daily when discharging". The permittee will have to sample for TRC only when using chlorine for cleaning the treatment system or if utilizing chlorine for back-up disinfection (see Part C.I.D.). As per ABACT standards, TRC must not be detected in the effluent. The maximum QL used to analyze TRC must be 0.02 mg/L. Part C.II includes specific sampling requirements for TRC. Part C.III includes a

Approve	Deny	Signatures	Date
X		Brian Burden Brian Burden, E.I.T. / Project Manager	September 28, 2023
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Program Manager	10-31-23

Summary of Review

requirement for monthly cleaning of the UV bulb contact surface. In addition to the annual average Fecal Coliform limitation below, an IMAX of 1,000 No./100mL is included in the permit.

Paramater	Monthly Average Limitations		
	ABACT (< 2,000 gpd)	Modeling / Technology	PAG-04 Permit
CBOD5 (5/1 - 10/31)	10.0	25.0	-
CBOD5 (11/1 - 4/30)	20.0	25.0	-
BOD5	-	-	**10.0**
Total Suspended Solids	20.0	30.0	**10.0**
NH3-N (5/1 - 10/31)	**5.0**	25.0	-
NH3-N (11/1 - 4/30)	15.0	Report	-
Total Residual Chlorine	**< 0.02 / ND**	0.5	Report
pH (standard units)	-	**6.0 - 9.0**	**6.0 - 9.0**
Fecal Coliform (geo mean)	-	200 / 2,000	**200**

The default low flow yield (LFY) of 0.1 cfs/mi^2 was used to model the discharge since there are no nearby representative stream gages and the drainage area is too small for USGS StreamStats to generate reliable flow assumptions in the delineated watershed. Drainage areas, RMIs and elevations were obtained using USGS StreamStats and DEP's eMapPA (see attached).

Antidegradation

After evaluation of the property by the applicant's consultant, Brand Environmental Consulting Services, Inc., and the Department, it was confirmed that soils were unsuitable for a conventional or alternate on-lot disposal system.

Antidegradation guidance states that treatment technologies for discharges to EV waters should center on the use of pollution prevention technologies to reduce pollutant loads on treatment systems followed by the use of the soil/geologic matrix to remove some or all of the wastewater constituents as an alternative to surface water discharge. The design of the wastewater treatment system includes 50 feet of perforated pipe with geotextile wrapping surrounded by 2B gravel to promote additional filtering of the effluent. The septic tank will reduce pollutant loads entering the Advantex treatment system.

The guidance also states: *Treatment and discharge of wastewater to EV waters can only be permitted if the maintenance or enhancement of existing surface and groundwater quality can be demonstrated.* The stream to discharge dilution ratio was large enough for modeling not to recommend water quality-based limitations. The proposed limitations for BOD_5, TSS, NH_3-N and TRC are more stringent than the technology-based limitations and Fecal Coliform geometric mean limitations remain at 200 No./100mL year-round.

This proposed discharge is expected to improve the water quality of the unnamed tributary since a malfunctioning on-lot system will be removed from the Sobers Run watershed. The extra flow entering the receiving stream from the discharge isn't expected to impact the downstream surface water channels due to the favorable streamflow / discharge ratio.

Act 537 planning approval for the project was granted in a letter from the Department, dated January 26, 2023. Water Quality Management general permit application WQG012231 was submitted for construction of the treatment system.

The Annual Maintenance Report (AMR) that's to be issued with the final permit shall be used to record the monitoring results. Discharge Monitoring Reports (DMRs) will not be sent with the final permit. EPA waiver is in effect.

Note: The current version of eMapPA labels the receiving stream as Tributary 4647 to Bushkill Creek when using the identify feature and the PA Historic Streams layer. All available interactive maps show the outfall on an unnamed tributary to West Branch Sobers Run. West Branch Sobers Run meets with Sobers Run before discharging to Bushkill Creek.

Summary of Review


WQM Modeling.pdf


TRC Calculation.pdf


StreamStats 001.pdf


StreamStats Point 2.pdf


Elevations RMIs.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.