

Application Type Renewal
Facility Type Non-Municipal
Major / Minor Minor

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application No. PA0031071
APS ID 946265
Authorization ID 1398986

Applicant and Facility Information

Applicant Name <u>Northeast American Diocese Of The Malankara Orthodox Syrian Church</u>	Facility Name <u>Holy Transfiguration Retreat Center</u>
Applicant Address <u>2158 Route 106</u>	Facility Address <u>1000 Seminary Road</u>
<u>Muttontown, NY 11791</u>	<u>Dalton, PA 18414-9591</u>
Applicant Contact <u>Zachariah Nicholovos</u>	Facility Contact <u>Joseph Abraham</u>
Applicant Phone <u>(609) 792-0747</u>	Facility Phone <u>(609) 792-0747</u>
Client ID <u>337097</u>	Site ID <u>261993</u>
Ch 94 Load Status <u>Not Overloaded</u>	Municipality <u>Dalton Borough</u>
Connection Status <u>No Limitations</u>	County <u>Lackawanna</u>
Date Application Received <u>June 6, 2022</u>	EPA Waived? <u>Yes</u>
Date Application Accepted <u>June 6, 2022</u>	If No, Reason <u></u>
Purpose of Application <u>Renewal of NPDES Permit to discharge treated sewage effluent.</u>	

Summary of Review

The applicant is requesting renewal of an existing NPDES permit to discharge .018MGD of treated sewage effluent to Tributary 28831 of Ackerly Creek, a Cold-Water Fishes, Migratory Fishes receiving stream in PA State Water Basin 4-F (Tunkhannock Creek). 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 system for this facility is an activated sludge plant with primary treatment via a comminutor, secondary treatment via an EQ tan, aeration basin, and clarifiers, and finally uses chlorine for disinfection. The facility adds the following chemicals for treatment: Calcium Hypochlorite for disinfection, Sodium Sulfite for dechlorination, and Soda Ash for pH increase.

The application indicated that the facility has a minor I&I (Infiltration and Inflow) issue due to deterioration of pipes. The facility plans to address this issue in the near future.

Biosolids produced by this facility are managed under PA DEP Permit PAG092212 which expires in January of 2026. .31 dry tons of biosolids are used at Rural Wastewater in Wyoming County.

There are no representative stream gages in the vicinity of the outfall. The default LFY of 0.1 cfs/mi² was chosen to model the discharge. For modeling inputs, RMI values were obtained using the "PA Historic Streams" feature of eMapPA as well as the "measure" tool. Drainage areas were delineated using USGS's StreamStats Interactive Map and elevations were obtained using the elevation profile feature of StreamStats (see Watershed Information attachment). Q₇₋₁₀ for the point of first use was determined using the following equation: Using the outfall's drainage area and the state-wide Low-Flow Yield (LFY) of 0.1 cfs/mi²:

$$\frac{0.1 \text{ ft}^3/\text{sec}}{\text{mi}^2} \times .15 \text{ mi}^2 = \frac{.015 \text{ ft}^3}{\text{sec}}$$

Approve	Deny	Signatures	Date
X		<i>William Hon</i> William Hon / Environmental Engineer Specialist	June 18, 2025
X		<i>Edward Dudick</i> Edward Dudick, P.E. / Environmental Engineer Manager	July 16, 2025

Summary of Review

E. Coli monitoring requirements will be introduced into the new permit according to PA DEP policy for individual sewage effluent limitations. E. Coli requirements for a treatment plant with less than .05 MGD discharge is found in the SOP for establishing effluent limitations for individual sewage.

TRC and WQM modeling recommended more stringent limits for Total Residual Chloride (TRC), Dissolved Oxygen, and Ammonia-Nitrogen. Summer and Winter limits for Ammonia-Nitrogen will also go into effect. Winter limits are 3 times the amount of the summer limits. For example: if the summer limit is 2.71mg/L monthly average, the winter limit will be 8.13mg/L. All new limits will go into effect three (3) years after the permit effective date. The permittee will be able to conduct site specific studies on all new limitations and this will be included in Part C of the NPDES permit draft.

Parameter	Old Monthly Average (mg/L)	Old IMAX (mg/L)	New Monthly Average (mg/L)	New IMAX (mg/L)
TRC	.5	1.6	.09	.29
DO	-	5 (minimum)	-	7 (minimum)
Ammonia-Nitrogen	25	50	2.71	5.42

Limitations for pH, CBOD₅, Total Suspended Solids, and Fecal Coliform are technology-based and carried over from the previous permit. All monitoring & sampling requirements have been verified against Table 6-3 of the Permit Writer's Manual and the SOP for Establishing Effluent Limits in Individual Sewage Treatment Facilities. The only change is the language for sampling frequency: "Daily while Discharging" will be changed to "1/Day" for TRC, DO, and pH. Annual monitoring of Total Phosphorus, Total Nitrogen, Total Kjeldahl Nitrogen, and Nitrate-Nitrite as N are retained in this permit cycle.

Special conditions added in to the NPDES permit are as follows:

- Part C.2: Chlorine Minimization
- Part C.3: Dry Streams
- Part C.110A: Solids Management
- Part C.119: TRC, DO, and Ammonia-N Limits

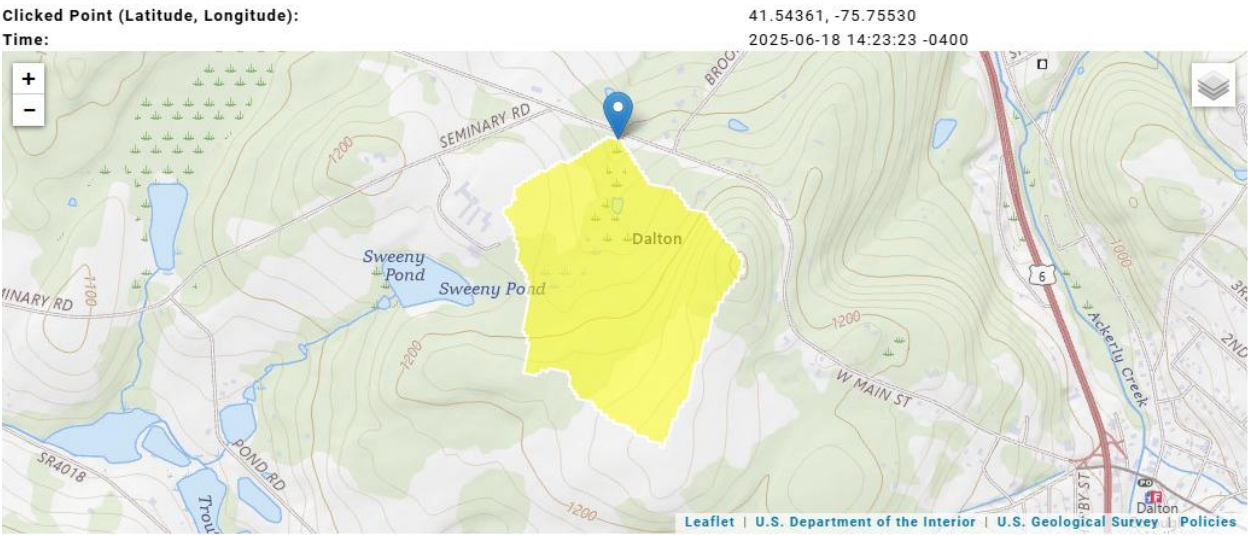
This facility discharges to the Chesapeake Bay Watershed but is not a listed facility on the Phase 3 WIP Wastewater Supplement.

The most recent inspection performed at this facility was an Administrative/File Review performed on 12/28/2023 where one (1) NOV was reported: Operator Certification - Failure to submit annual system fee. The last site inspection was performed on 5/24/2022 and resulted in no NOVs. Recommend Approval.

Modeling inputs:

PT 1 @ Outfall 001, Tributary 28831 of Ackerly Creek, 4F, Tunkhannock Creek, CWF, MF
RMI: .90 (for modeling)

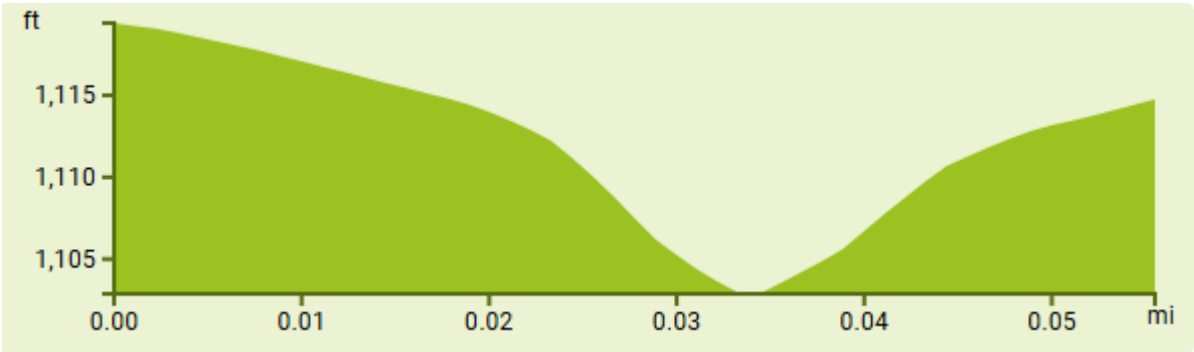
Summary of Review



+ Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.15	square miles
7 Day 10 Year Low Flow		0.000771	ft ³ /s



41.54356-75.755311102.88

L₇₋₁₀ for modeling:
Using the state-wide Low-Flow Yield (LFY) of 0.1 cfs/mi²:

$$\frac{0.1 \text{ ft}^3/\text{sec}}{\text{mi}^2} \times .15 \text{ mi}^2 = \frac{.015 \text{ ft}^3}{\text{sec}}$$

PT2 at conflux w/ Ackerly Creek, .90 miles away
RMI: .01 (For modeling)

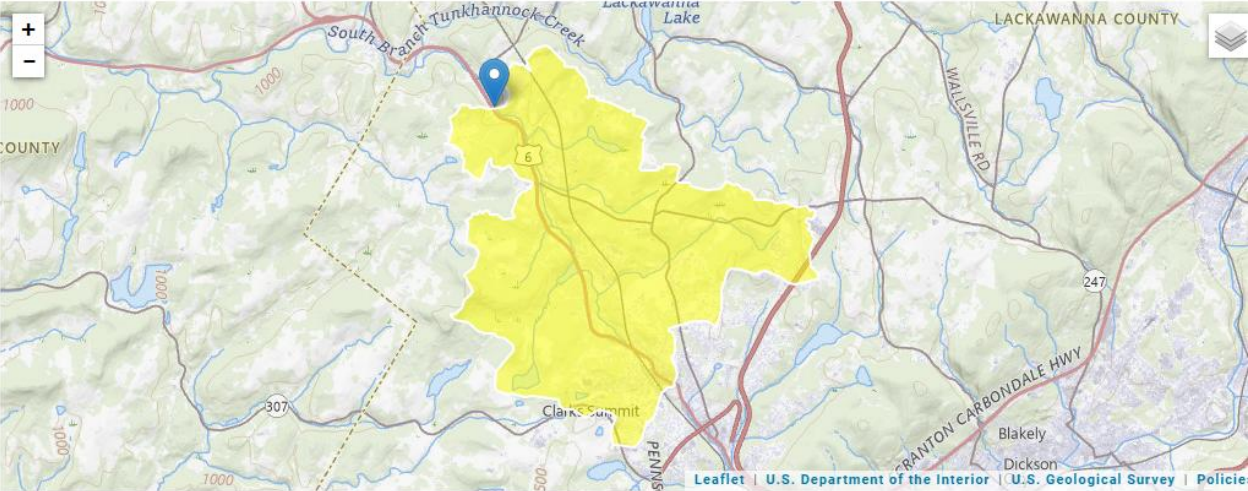
Summary of Review

Clicked Point (Latitude, Longitude):

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Time:

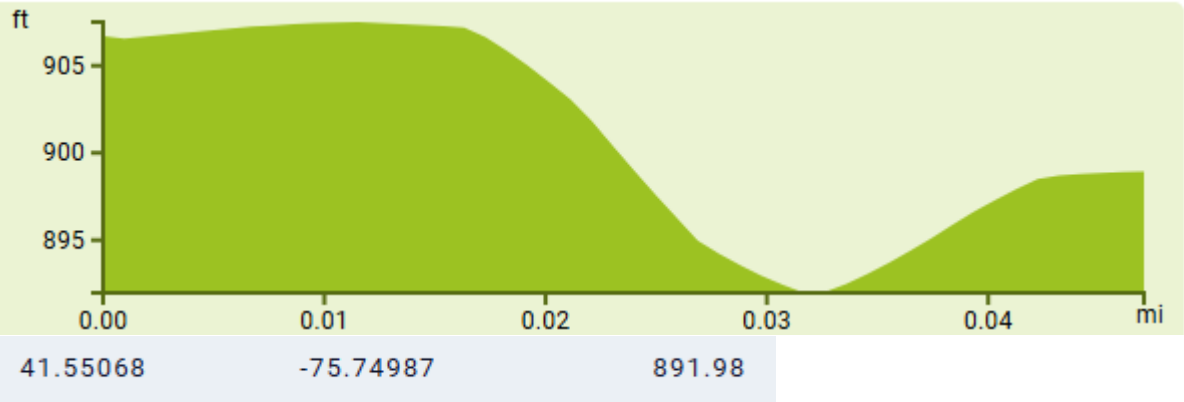
2025-06-18 14:36:01 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	15.6	square miles
7 Day 10 Year Low Flow		0.192	ft ³ /s



Summary of Review

Analysis Results WQM 7.0

Hydrodynamics

NH3-N Allocations

D.O. Allocations

D.O. Simulation

Effluent Limitations

RMI

Discharge Name

Permit Number

Disc Flow (mgd)

0.90

Holy Transfig R

PA0031071

0.0180

Parameter

Effluent Limit
30 Day Average
(mg/L)

Effluent Limit
Maximum
(mg/L)

Effluent Limit
Minimum
(mg/L)

CBOD5

25

NH3-N

2.71

5.42

Dissolved Oxygen

7

Record:

1 of 1

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TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.015	= Q stream (cfs)	0.5	= CV Daily
0.018	= Q discharge (MGD)	0.5	= CV Hourly
30	= no. samples	1	= AFC_Partial Mix Factor
0.3	= Chlorine Demand of Stream	1	= CFC_Partial Mix Factor
0	= Chlorine Demand of Discharge	15	= AFC_Criteria Compliance Time (min)
0.5	= BAT/BPJ Value	720	= CFC_Criteria Compliance Time (min)
0	= % Factor of Safety (FOS)		= Decay Coefficient (K)

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 0.191	1.3.2.iii	WLA cfc = 0.179
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.071	5.1d	LTA_cfc = 0.104

Source	Effluent Limit Calculations
PENTOXSD TRG	5.1f AML MULT = 1.231
PENTOXSD TRG	5.1g AVG MON LIMIT (mg/l) = 0.088 AFC
	INST MAX LIMIT (mg/l) = 0.286

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-

Summary of Review

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.



Pennsylvania
**Department of
Environmental Protection**