

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

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0092487  
 APS ID 1114576  
 Authorization ID 1486587

**Applicant and Facility Information**

Applicant Name	<u>Nino Barsotti</u>	Facility Name	<u>Ninos Restaurant STP</u>
Applicant Address	<u>546 Three Mile Hill Road</u> <u>Mount Pleasant, PA 15666-8874</u>	Facility Address	<u>546 Three Mile Hill Rd</u> <u>Mount Pleasant, PA 15666-8874</u>
Applicant Contact	<u>Nino Barsotti</u>	Facility Contact	<u>Matthew Hayman</u>
Applicant Phone	<u>(724) 547-2900</u>	Facility Phone	<u>(814) 279-5301</u>
Client ID	<u>45085</u>	Site ID	<u>243894</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Bullskin Township</u>
Connection Status		County	<u>Fayette</u>
Date Application Received	<u>May 28, 2024</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted		If No, Reason	
Purpose of Application	<u>Permit Renewal</u>		

**Summary of Review**

The applicant has applied for a renewal of NPDES Permit No. PA0092487, which was previously issued by the Department on November 15, 2019. That permit expires on November 30, 2024.

WQM Permit No. 2676402 authorized the construction of a STP with a hydraulic design capacity of 0.007 MGD.

The existing extended aeration treatment process consists of EQ tank, an aeration tank, a clarifier, Pyradeck fixed media filtration and chlorination.

No upgrades are proposed at this renewal.

The receiving stream, UNT to Jacobs Creek, is classified as a CWF and is located in State Watershed No. 19-D.

The applicant has complied with Act 14 Notifications and no comments were received.

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		<i>Sara Abraham</i> Sara Reji Abraham, E.I.T. / Project Manager	July 30, 2024
x		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	08/05/2024

**Summary of Review**

eDMR review shows the discharge is in compliance with existing permit effluent limitations.  
No comments received from Operations Section.

Permit Conditions:

- A. No Stormwater
- B. Acquire Necessary Property Rights
- C. Proper Sludge Disposal
- D. Phase Out When Municipal Sewers Available
- E. Chlorine Optimization
- F. Operator Notification
- G. Solids Management

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.007</u>
Latitude	<u>40° 8' 35.75"</u>	Longitude	<u>-79° 28' 57.97"</u>
Quad Name	<u>Mammoth</u>	Quad Code	<u>1710</u>
Wastewater Description: <u>Treated Sewage Effluent</u>			

Receiving Waters	<u>Unnamed Tributary to Jacobs Creek (CWF)</u>	Stream Code	<u>37983</u>
NHD Com ID	<u>69914045</u>	RMI	<u>0.15</u>
Drainage Area	<u>2.85</u>	Yield (cfs/mi <sup>2</sup> )	<u>0.026</u>
Q <sub>7-10</sub> Flow (cfs)	<u>0.074</u>	Q <sub>7-10</sub> Basis	<u>PA Bulletin 12, STA 03083000, Green Lick Run @ Green Lick Reservoir (previous fact sheet)</u>
Elevation (ft)	<u>1160</u>	Slope (ft/ft)	<u>0.025</u>
Watershed No.	<u>19-D</u>	Chapter 93 Class.	<u>CWF</u>
Exceptions to Use	<u>None</u>	Exceptions to Criteria	<u>None</u>
Assessment Status	<u>Attaining Use(s)</u>		

Nearest Downstream Public Water Supply Intake	<u>Pennsylvania-American Water Company, Pittsburgh</u>		
PWS Waters	<u>Monongahela River</u>		
PWS RMI	<u>4.6</u>		

Treatment Facility Summary				
Treatment Facility Name: Ninos Restaurant STP				
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary with Ammonia Reduction	Extended Aeration	Chlorine	0.007
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.007		Not Overloaded	Aerated Holding Tank	Other WWTP

Changes Since Last Permit Issuance: None

Compliance History

DMR Data for Outfall 001 (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	0.001	0.002	0.0012	0.001	0.0017	0.001	0.001	0.002	0.001	0.0004	0.002	0.002
pH (S.U.) Daily Minimum	7.1	7.1	7.1	7.2	7.0	7.1	7.1	7.1	7.0	7.1	7.2	7.1
pH (S.U.) Daily Maximum	7.4	7.3	7.4	7.5	7.2	7.3	7.3	7.3	7.3	7.5	7.4	7.3
DO (mg/L) Daily Minimum	6.8	6.0	7.1	6.7	6.2	6.9	7.3	6.8	6.2	7.0	7.1	7.2
TRC (mg/L) Average Monthly	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.2	0.3
TRC (mg/L) Instantaneous Maximum	0.6	0.5	0.4	0.5	0.5	0.5	0.6	0.7	0.7	0.6	0.4	0.6
CBOD5 (mg/L) Average Monthly	< 2.0	18	2	< 2.3	7.5	3.0	2.0	< 1.7	< 1.7	< 1.5	2.5	12.0
CBOD5 (mg/L) Instantaneous Maximum	2	32	2	3.0	11.0	4.0	2.0	< 1.9	< 1.7	< 1.5	3.0	14.0
TSS (mg/L) Average Monthly	16	14	9	7	13.0	11.0	7.0	6	10	6	12	8.0
TSS (mg/L) Instantaneous Maximum	16	16	12	7	16.0	13.0	8.0	6	12	6	14	11
Fecal Coliform (No./100 ml) Geometric Mean	43.9	4.2	22.1	7.9	46.8	19.8	6.3	10.7	50.3	11.4	17.5	7.8
Fecal Coliform (No./100 ml) Instantaneous Maximum	104.3	17.3	33.6	12.1	85.5	20.3	39.9	10.9	60.2	25	25.9	9.8
Total Nitrogen (mg/L) Daily Maximum						6.67						
Ammonia (mg/L) Average Monthly	< 0.10	< 0.10	< 0.10	< 0.12	0.36	< 0.1	< 0.15	0.12	0.14	< 0.10	< 0.11	< 0.10
Ammonia (mg/L) Instantaneous Maximum	< 0.10	< 0.10	< 0.10	0.13	0.20	< 0.1	0.19	0.14	0.15	< 0.10	0.11	< 0.10

**NPDES Permit Fact Sheet  
Ninos Restaurant STP**

**NPDES Permit No. PA0092487**

Total Phosphorus (mg/L) Daily Maximum						0.86						
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**Compliance History**

**Development of Effluent Limitations**

<b>Outfall No.</b> <u>001</u>	<b>Design Flow (MGD)</b> <u>.007</u>
<b>Latitude</b> <u>40° 8' 34.00"</u>	<b>Longitude</b> <u>-79° 28' 59.00"</u>
<b>Wastewater Description:</b> <u>Treated Sewage Effluent</u>	

**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 <sub>5</sub>	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**

In the past, the discharge was modeled using WQAM6.3 to evaluate the CBOD<sub>5</sub>, Ammonia Nitrogen and Dissolved Oxygen parameters. Because there have been no changes to the discharge or the receiving stream, it is not necessary to remodel these three parameters using the current WQM 7.0 model. The modeling results show technology based effluent limitations for CBOD<sub>5</sub> are appropriate.

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
Ammonia Nitrogen (May 1 to Oct 31)	10.0	Average Monthly	WQAM6.3**
Ammonia Nitrogen (Nov 1 to April 30)	20.0	Average Monthly	WQAM6.3

\*All existing limits are recommended to carry over to the draft permit.

\*\*Previous modeling report is attached for reference.

**Nutrient monitoring:**

Nutrient monitoring is required to establish the nutrient load from the wastewater treatment facility and the impacts that load may have on the quality of the receiving stream. The existing 1/year monitor and report requirement for Total N & Total P is carried over to the draft permit as per Chapter 92.a.61.

**E.Coli:**

E. Coli monitoring is included in the draft permit according to the DEP SOP guidance (Chapter 92.a.61). This is a new requirement and is consistent with the requirements of other similar discharges in the area.

**Best Professional Judgment (BPJ) Limitations**

A Dissolved Oxygen minimum limitation of 4.0 mg/l was imposed previously based on the standard in 25 PA Code Chapter 93 and best professional judgment. This is continued in the draft permit.

**Anti-Backsliding**

N/A

**Proposed Effluent Limitations and Monitoring Requirements**

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

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	0.007	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/day	Grab
DO	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	Grab
TSS	XXX	XXX	XXX	30	XXX	60	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	20	XXX	40	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	10	XXX	20	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

TRC\_CALC

TRC EVALUATION				
Input appropriate values in A3:A9 and D3:D9				
0.074	= Q stream (cfs)		0.5	= CV Daily
0.007	= 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
TRC	1.3.2.iii	WLA_afc = 2.199		1.3.2.iii
PENTOXSD TRG	5.1a	LTAMULT_afc = 0.373		5.1c
PENTOXSD TRG	5.1b	LTA_afc = 0.819		5.1d
				WLA_cfc = 2.136
				LTAMULT_cfc = 0.581
				LTA_cfc = 1.242
Source	Effluent Limit Calculations			
PENTOXSD TRG	5.1f	AML_MULT = 1.231		
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.500		BAT/BPJ
		INST MAX LIMIT (mg/l) = 1.635		
WLA_afc	$(.019/e^{-k \cdot AFC\_tc}) + [(AFC\_Yc \cdot Qs \cdot 0.019 / Qd \cdot e^{-k \cdot AFC\_tc}) \dots$ $\dots + Xd + (AFC\_Yc \cdot Qs \cdot Xs / Qd)] \cdot (1 - FOS / 100)$			
LTAMULT_afc	$EXP((0.5 \cdot LN(cvh^2 + 1)) - 2.326 \cdot LN(cvh^2 + 1)^{0.5})$			
LTA_afc	$wla\_afc \cdot LTAMULT\_afc$			
WLA_cfc	$(.011/e^{-k \cdot CFC\_tc}) + [(CFC\_Yc \cdot Qs \cdot 0.011 / Qd \cdot e^{-k \cdot CFC\_tc}) \dots$ $\dots + Xd + (CFC\_Yc \cdot Qs \cdot Xs / Qd)] \cdot (1 - FOS / 100)$			
LTAMULT_cfc	$EXP((0.5 \cdot LN(cvd^2 / no\_samples + 1)) - 2.326 \cdot LN(cvd^2 / no\_samples + 1)^{0.5})$			
LTA_cfc	$wla\_cfc \cdot LTAMULT\_cfc$			
AML_MULT	$EXP(2.326 \cdot LN((cvd^2 / no\_samples + 1)^{0.5}) - 0.5 \cdot LN(cvd^2 / no\_samples + 1))$			
AVG MON LIMIT	$MIN(BAT\_BPJ, MIN(LTA\_afc, LTA\_cfc) \cdot AML\_MULT)$			
INST MAX LIMIT	$1.5 \cdot ((av\_mon\_limit / AML\_MULT) / LTAMULT\_afc)$			

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③

SINCE INTERACTION OF THE BARSOTTI, MENNONITE ASSOC. AND MACCARELLI DISCHARGES IS NOT EXPECTED TO OCCUR, THE BARSOTTI STP DISCHARGE WILL BE MODELED AS A SINGLE DISCHARGE IN THE EMPR MODELING WQM6.3.

MODEL STP DISCHARGE FLOW RATE

7000 GPD

RUNOFF PERIOD 12 HRS FROM PART II 2676402

$$\frac{7000 \text{ GPD} \times 24 \text{ HRS/DAY}}{12 \text{ HR PERIOD}} = 14,000 \text{ GPD RATE.}$$

HOWEVER, FLOW EQUALIZATION PROVIDED USE 7000 GPD

REACH DESCRIPTION

FROM POINT OF DISCHARGE TO CONFLUENCE WITH JACOBS CRK.

DISTANCE  $\approx$  800 ft

$$\text{SLOPE} = .025 \text{ ft/ft} = (1160' - 1140') / 800'$$

D.O. GOAL 5.0 mg/L

HEADWATER DATA

Q <sub>7-10</sub>	=	.074
TEMP.	=	25°
pH	=	7
D.O.	=	7.12
CBOD <sub>5</sub>	=	2
NH <sub>3</sub> -N	=	.1
K <sub>c</sub>	=	0

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Q <sub>s</sub>	=	.014
TEMP.	=	20
pH	=	7
D.O.	=	2
CBOD <sub>5</sub>	=	25
NH <sub>3</sub> -N	=	25
K <sub>c</sub>	=	1.5

Q <sub>t</sub>	=	0
TEMP.	=	↓
pH	=	↓
CBOD <sub>5</sub>	=	↓
NH <sub>3</sub> -N	=	↓

REACH 1  
UNT

D.O.	=	3.0
K <sub>a</sub>	=	.6
Slope	=	.025
Length	=	800
D.A.	=	2.85
W/D ratio	=	10/1

JACOBS CRK

NINO BARSOTTI RESTAURANT STP NPDES PA0092487  
 FILE:

*SUMMER EVALUATION*

HEADWATERS AND TRIBUTARY DATA

NO. OF REACHES : 1

RH	Q7-10 (CFS)	T (C)	PH	DO (MG/L)	CBOD5 (MG/L)	NH3-N (MG/L)
HW	.074	25	7	7.12	2	.1
1	0					

STREAM CHARACTERISTICS

RCH	Q7-10 CFS	T (C)	PH	DO MG/L	CBOD5 MG/L	NH3-N MG/L
1	.07	25	7	7.12	2	.1

Q 1-10/Q 7-10 = .64  
 Q30-10/Q 7-10 = 1.36

NINO BARSOTTI RESTAURANT STP NPDES PA0092487  
 FILE:

DISCHARGER DATA  
 07-10 DESIGN CONDITIONS

RH	Q	T	PH	DO	CBOD5	NH3-N	KC
	MGD	(C)		MG/L	MG/L	MG/L	
1	7E-03	20	7	2	25	25	1.5

REACH CHARACTERISTICS

RH	D.O.	KN	RCH. SL.	RCH. LEN.	DRAIN AREA	W/D
	GOAL (/D)	(/D)	(FT/FT)	(FT.)	(MI^2)	
1	5	.6	.025	800	2.85	10

NINO BARSOTTI RESTAURANT STP NPDES PA0092487  
 FILE:

RH	REACH CHARACTERISTICS	
	KR (/D)	TT (DAYS)
1	0	0

FILE: BARSOTTI REST STP.WQM6.3

NH3-N DISCHARGE ALLOCATIONS AT 030-10

DIS	Q (MGD)	IND. CONC. (MG/L)	ALL. CONC. (MG/L)	CRIT. RCH.	PCT. RED. (%)
1	7E-03	13.35	13.35	0	0

10

NH3-N DISCHARGE ALLOCATIONS AT Q1-10

DIS	Q	IND.	ALL.	CRIT.	FCT.
	(MGD)	CONC.	CONC.	RCH.	RED.
		(MG/L)	(MG/L)		(%)
1	7E-03	38.37	38.37	0	0

FILE: BARSOTTI REST STP.WQM6.3

*SUMMER EVALUATION*

MULTIPLE DISCHARGE LIMITATIONS  
 (TOTAL) DISCHARGE = 7E-03 MGD  
 TEMP = 24.4 PH = 7  
 CBOD-5= 4.94 NH3-N= 1.79 D.O. = 6.47  
 KC = .907 KN= .6 D.O.GOAL = 5  
 KR= 14.051 (OWENS)  
 DIS. 1 RCH. 1 TRVL TIME: .193

TR. TM. (DAYS)	CBOD-5 (MG/L)	NH3-N (MG/L)	D.O. (MG/L)
.019	4.83	1.76	6.69
.039	4.73	1.73	6.86
.058	4.63	1.71	7
.077	4.53	1.68	7.11
.097	4.43	1.65	7.12
.116	4.34	1.63	7.12
.135	4.25	1.6	7.12
.155	4.16	1.57	7.12
.174	4.07	1.55	7.12
.193	3.98	1.52	7.12

EFFLUENT LIMITATIONS DISPLAY

DIS #	Q MGD	NH3-N TOX.		DISS. OXYGEN	
		1 DAY	30 DAY	C-BOD5 30-DAY	NH3-N EFF. 30-DAY D.O.
1	7E-03	26.7	13.4	25	13.4 2

IMPOSE 20.0 10.0 25

THE ALLOWABLE NH<sub>3</sub>-N EFFLUENT CONCENTRATIONS WERE SLIGHTLY REDUCED TO ACCOUNT FOR THE OTHER DISCHARGES IN THE WATERSHED WHICH MAY BE ELEVATING THE NH<sub>3</sub>-N STREAM CONCENTRATION.

FILE: BARGOTTI REST STP.WQM6.3 WINTER EVALUATION

HEADWATERS AND TRIBUTARY DATA

NO. OF REACHES : 1

RH	Q7-10 (CFS)	T (C)	PH	DO (MG/L)	CBOD5 (MG/L)	NH3-N (MG/L)
HW 1	.148 0	5	7	10.2	2	.1

DISCHARGER DATA  
 Q7-10 DESIGN CONDITIONS

RH	Q MGD	T (C)	PH	DO MG/L	CBOD5 MG/L	NH3-N MG/L	KC
1	7E-03	15	7	2	25	25	1.5

FILE: BARSOTTI REST STP.WQM6.3 WINTER

RH	REACH CHARACTERISTICS					
	D.O. GOAL	KN (/D)	RCH. SL. (FT/FT)	RCH. LEN. (FT.)	DRAIN AREA (MI^2)	W/D
1	5	.6	.025	800	2.85	10

RH	REACH CHARACTERISTICS	
	KR (/D)	TT (DAYS)
1	0	0

FILE: BARSOTTI WINTER.WQM6.3 WINTER

NH3-N DISCHARGE ALLOCATIONS AT Q30-10

DIS	Q (MGD)	IND. CONC. (MG/L)	ALL. CONC. (MG/L)	CRIT. RCH.	PCT. RED. (%)
1	7E-03	25	25	0	0

NH3-N DISCHARGE ALLOCATIONS AT Q1-10

DIS	Q (MGD)	IND. CONC. (MG/L)	ALL. CONC. (MG/L)	CRIT. RCH.	PCT. RED. (%)
1	7E-03	50	50	0	0

FILE: BARSOTTI WINTER.WQM6.3 WINTER

EFFLUENT LIMITATIONS DISPLAY

DIS #	Q MGD	NH3-N TOX.		DISS. OXYGEN		
		1 DAY	30 DAY	C-BOD5 30-DAY	NH3-N 30-DAY	EFF. D.O.
1	7E-03	50	25	25	25	2

IMPOSE

40 20 25

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2X SUMMER LIMITATIONS