pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0035335**
Facility Type	**Non-Municipal**	APS ID	**1049455**
Major / Minor	**Minor**	Authorization ID	**1373863**

Applicant and Facility Information

Applicant Name	**Barton Court MHC LLC**	Facility Name	**Barton Court MHC LLC**
Applicant Address	1199 Lancaster Ave suite 100	Facility Address	Bartonsville Avenue
	Berwyn, Pa 19312		Bartonsville, PA 18321
Applicant Contact	Maria Denton maria@arxventures.com	Facility Contact	Tony Zuchinski tony@arxventures.com
Applicant Phone	610-429-0582	Facility Phone	(215) 896-1272
Client ID	366069	Site ID	1455
Ch 94 Load Status	Not Overloaded	Municipality	Pocono Township
Connection Status		County	Monroe
Date Application Received	July 1, 2021	EPA Waived?	Yes
Date Application Accepted	July 7, 2021	If No, Reason	

Purpose of Application: RENEWAL AND TRANSFER OF EXISTING NPDES PERMIT.

Summary of Review

The Old client #248107 was Barton Court MHP, the new client is Barton Court MHC, LLC #366069. WQM 4569403 and WQM 4574404 will also be transferred with the Final Permit.

The applicant is requesting the renewal and transfer of an existing NPDES Permit to discharge up to 0.0117 MGD of treated sewage into an Unnamed Tributary to Pocono Creek, a High Quality - Cold Water Fishes (HQ-CWF, MF) receiving stream in Watershed 1-E. In 2020, the average daily flow was 0.005 MGD. 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 is not expected to affect public water supplies.

CBOD, TSS and pH are Tech based limits. TRC, ammonia-N, dissolved oxygen and fecal coliform are water quality based limits. Water quality modeling has produced a new summer Ammonia – N limit. Monitoring for TN and TP continues for all Individual Sewage Permits at a minimum frequency of 1/year. Monitoring is also included for TKN and Nitrate-Nitrite as N since they are components of the calculation for TN. Recent DMRs and inspection reports reveal no operational problems.

The WMS Report query “Water Management System Inspections” was run. On 09/29/2020 a Routine/Complete Inspection was done with No Violations noted.

The WMS “Open Violations by Client Report" was run and there are No Open Violations.

The Existing Permit expires on December 31, 2021and the renewal was submitted July 1, 2021.

Public Participation

Approve	Deny	Signatures	Date
X		Bernard Feist (signed) Bernard Feist, P.E. / Environmental Engineer	October 26, 2021
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager	10-28-21

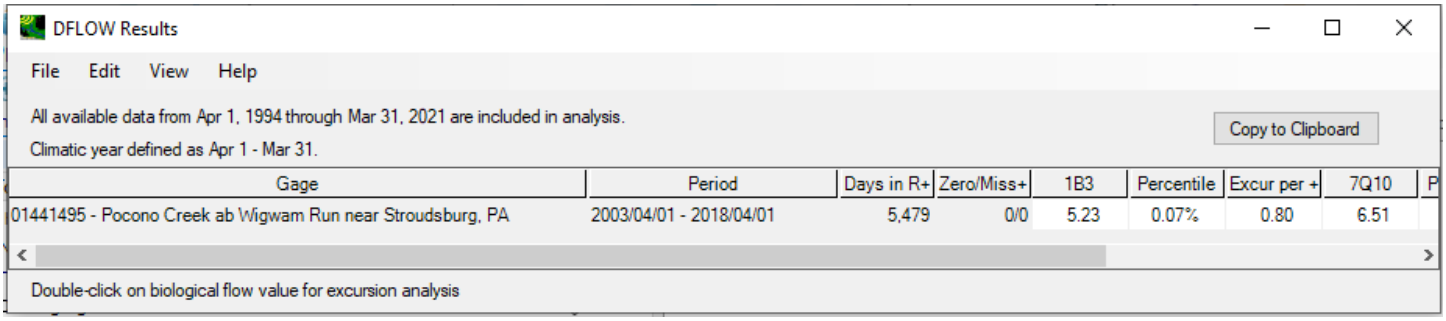
Summary of Review
DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments 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.

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.0117
Latitude	41º 1' 16.37"	Longitude	-75º 16' 53.49"
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Pocono Creek (HQ-CWF, MF)	Stream Code	04791
NHD Com ID	26158666	RMI	0.062
Drainage Area	0.44	Yield (cfs/mi^2)	0.17
Q_{7-10} Flow (cfs)	0.08	Q_{7-10} Basis	DFlow USGS 01442500
Elevation (ft)	860	Slope (ft/ft)	
Watershed No.	1-E	Chapter 93 Class.	HQ-CWF, MF
Assessment Status	Attaining Use(s): Migratory Fish, aquatic life, water supply and recreation		
Nearest Downstream Public Water Supply Intake	Easton Area Water System		
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	➢ 25

Barscreen, Aeration Tank, Clarifier, Two Settling Tanks and a Chlorine Contact Tank.

Changes Since Last Permit Issuance: E-Coli Monitoring

USGS 01441495 Latitude 40°59'27", Longitude 75°15'20" NAD27 Monroe County, Pennsylvania, Hydrologic Unit 02040104 Drainage area: 38.9 square miles Datum of gage: 574.57 feet above NGVD29.
LowFlowYield (cfs/mi2)= LFY = 6.51/ 38.9 = 0.17



RMI 0.62 Outfall 001 860 Feet NAD 1983 Latitude: 41 01 04 NAD 1983 Longitude:-75 17 09
Drainage Area: 0.44 mi2
Stream flow = 0.17 * 0.44 = 0.075 cfs (0.05 MGD)
Dilution ratio = 0.05 / .0117 = **4.3 : 1**

RMI 0.0 Confluence of Pocono Creek 775 feet NAD 1983 Latitude:41 00 44 NAD 1983 Longitude:-75 17 17
Drainage Area: 35.4 mi2
Stream flow = 0.17 * 35.4 = 6. cfs

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .0117
Latitude 41º 1' 18.00" **Longitude** -75º 17' 3.00"
Wastewater Description: Sewage Effluent

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" (362-0400-001), SOPs and/or BPJ.

Technology-Based Limitations

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

Parameter	Minimum	Average Monthly	Average Weekly	IMAX	Basis
Flow (MGD)	XXX	Report	Report Max Daily	XXX	§§ 92a.27, 92a.61
CBOD5 (mg/L)	XXX	25	40	50	§ 92a.47
TSS (mg/L)	XXX	30	45	60	§ 92a.47
TRC (mg/L)+	XXX	1.2	XXX	1.	§§ 92a.47-48
NH3-N (mg/L)	XXX	25	XXX	50	BPJ
D.O. (mg/L)	4	XXX	XXX	XXX	BPJ
pH (SU)	6	XXX	XXX	9	§ 92a.47, § 95.2
Total N (mg/L)	XXX	Report	XXX	XXX	§ 92a.61
Total P (mg/L)	XXX	Report	XXX	XXX	§ 92a.61
Fecal Coliform (No./100 ml) (May-Sept)	XXX	200 Geo Mean	XXX	1,000	§ 92a.47
Fecal Coliform (No./100 ml) (Oct-April)	XXX	2,000 Geo Mean	XXX	10,000	§ 92a.47
E. Coli (No./100 ml)*	XXX	XXX	XXX	Report	§ 92a.61

+ Facility-specific regional BAT for facility < 0.1 MGD, no upgrade/expansion, and no documented TRC stream issue

* 2021 update - Sewage discharges will include monitoring, at a minimum, for E. Coli, in new and reissued permits, with a monitoring frequency of 1/month for design flows >= 1 MGD, 1/quarter for design flows >= 0.05 and < 1 MGD, 1/year for design flows of 0.002 – 0.05 MGD.

Water Quality-Based Limitations

A "Reasonable Potential Analysis" determined the following parameters were candidates for limitations:

The following new limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
NH_3-N (5/1 – 9/30)	12.0	Average Monthly	WQ Model
NH_3-N (10/1 – 4/30)	Monitor	Average Monthly	WQ Model

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)
0.62	Barton	PA0035335	0.0117

Parameter	Effluent Limit 30 Day Average (mg/L)	Effluent Limit Maximum (mg/L)	Effluent Limit Minimum (mg/L)
CBOD5	25		
NH3-N	11.9	23.8	
Dissolved Oxygen			3

Record: 1 of 1 | No Filter | Search

TRC EVALUATION			**Enter Facility Name in E3**		
Input appropriate values in B4:B8 and E4:E7			Barton MHP		
0.08	= Q stream (cfs)		1.2	= CV Daily	
0.0117	= Q discharge (MGD)		0.5	= CV Hourly	
4	= no. samples		1	= AFC_Partial Mix Factor	
0.3	= Chlorine Demand of Stream		1	= CFC_Partial Mix Factor	
0	= Chlorine Demand of Discha		15	= AFC_Criteria Compliance Time (min)	
1.2	= 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 = 1.429		1.3.2.iii	WLA cfc = 1.386
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373		5.1c	LTAMULT cfc = 0.321
PENTOXSD TRG	5.1b	LTA_afc= 0.532		5.1d	LTA_cfc = 0.445
Source		Effluent Limit Calculations			
PENTOXSD TRG	5.1f	AML MULT = 3.114			
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 1.200		BAT/BPJ	
		INST MAX LIMIT (mg/l) = 1.551			

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Compliance History

DMR Data for Outfall 001 (from July 1, 2020 to June 30, 2021)

Parameter	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20
Flow (MGD) Average Monthly	0.006	0.005	0.005	0.006	0.008	0.007	0.006	0.005	0.004	0.004	0.004	0.005
Flow (MGD) Daily Maximum	0.008	0.007	0.009	0.01	0.01	0.014	0.01	0.007	0.006	0.006	0.006	0.009
pH (S.U.) Minimum	6.18	6.56	6.56	6.60	6.56	6.68	6.50	6.72	6.57	7.51	6.85	6.2
pH (S.U.) Maximum	7.33	7.19	7.24	7.54	7.07	7.15	7.65	7.26	7.91	6.82	7.84	7.4
DO (mg/L) Minimum	9.62	10.63	9.19	10.47	6.02	10.21	6.62	7.49	6.19	6.6	7.0	6.2
TRC (mg/L) Average Monthly	0.37	GG	0.13	0.15	0.12	0.11	0.09	0.05	0.23	0.25	0.10	0.2
TRC (mg/L) Instantaneous Maximum	0.32	GG	0.46	1.07	0.87	0.91	0.94	0.30	1.12	1.05	0.61	0.3
CBOD5 (mg/L) Average Monthly	4.3	4.9	5.45	4.5	5.6	6.3	2.0	< 2.0	2.0	< 2.0	4.4	2.5
TSS (mg/L) Average Monthly	10.0	< 4.0	9.4	21.0	7.5	9.2	< 4.0	< 4.0	< 4.0	< 4.0	4.9	< 4.0
Fecal Coliform (CFU/100 ml) Geometric Mean	108	12	< 2.24	< 1	26	462	< 1	2	6	> 400	> 279	120
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	108	12	5	< 1	26	462	< 1	2	6	> 20000	> 20000	120
Nitrate-Nitrite (mg/L) Annual Average							0.38					
Total Nitrogen (mg/L) Annual Average							15.6					
Ammonia (mg/L) Average Monthly	0.23	0.13	< 0.96	4.35	0.35	1.01	0.19	0.78	0.25	0.29	1.61	0.54
TKN (mg/L) Annual Average							15.3					
Total Phosphorus (mg/L) Annual Average							6.67					