

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

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0060054
APS ID 565062
Authorization ID 1181583

Applicant and Facility Information

Applicant Name	<u>Mt Airy 1 LLC</u>	Facility Name	<u>Mt Airy Casino & Resort</u>
Applicant Address	<u>42 Woodland Road</u> <u>Mount Pocono, PA 18344-9703</u>	Facility Address	<u>Carlton Road to Woodland Road</u> <u>Mount Pocono, PA 18344</u>
Applicant Contact	<u>Matthew Magda</u>	Facility Contact	<u></u>
Applicant Phone	<u>(570)243-4819</u>	Facility Phone	<u></u>
Client ID	<u>243905</u>	Site ID	<u>450860</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Paradise Township</u>
Connection Status	<u></u>	County	<u>Monroe</u>
Date Application Received	<u>May 1, 2017</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>May 1, 2017</u>	If No, Reason	<u></u>
Purpose of Application	<u>RENEWAL OF EXISTING NPDES PERMIT.</u>		

Summary of Review

The applicant is requesting the renewal of their NPDES permit to discharge up to 0.22 million gallons per day (MGD) of treated sewage into Forest Hills Run, a HQ-CWF (High Quality – Cold Water Fishes) receiving stream located in State Water Plan watershed 1-E. In 2016, their average daily flow was 0.072 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.

Forest Hills Run has been determined to be impaired due to organic enrichment and low dissolved oxygen from municipal point source discharges. Accordingly, the nutrient effluent limits in this permit have been modified to antidegradation best available combination of technologies (ABACT). The permit has two sets of limits for Outfall 001. The first set is required for the first three years of the permit term. The second set of limits takes effect the beginning of year four and are effective until permit expiration. The U.S. Environmental Protection Agency (EPA) published the NPDES Electronic Reporting Rule ("eReporting Rule") on October 22, 2015. While use of the eDMR system has been voluntary for most facilities until now, the eReporting Rule requires facilities to start submitting DMRs electronically. DEP requires all facilities not currently using eDMR to register as soon as possible.

For the first three years, all limits in the permit remain the same as in the existing permit. The CBOD₅, TSS, Total Residual Chlorine and pH are technology based limits. Ammonia, Fecal Coliform, and Dissolved Oxygen were water quality based limits in the existing permit. The Delaware River Basin Docket D-1977-058-4 requirements for Nitrate-Nitrite-N monitoring and the Total Dissolved Solids limit remain the same. Total Kjeldahl Nitrogen monitoring was added to the permit as per the Docket's request. Both Total Organic Carbon and Nitrate-Nitrite-N remain at monitoring. Monitoring for TN and TP is now required for all Individual Sewage Permits therefore the calculation for TN will be added.

For years four and five of the permit term, the CBOD₅ and TSS limits have been changed to the Antidegradation Best Available Combination of Technologies (ABACT) limits in accordance with Chapter 93.4a(c). The CBOD₅ was reduced from

Approve	Deny	Signatures	Date
X		Bernard Feist, P.E. / Environmental Engineer /s/	June 1, 2017
X		Amy M. Bellanca, P.E. / Environmental Engineer Manager /s/	June 1, 2017

Summary of Review

25 mg/l to 10 mg/l. TSS was reduced from 30 mg/l to 10 mg/l. Total Residual Chlorine was reduced from 1.0 mg/l to 0.5 mg/l in accordance with 92a.47(8). The total phosphorus remains 2.0 mg/l as per Chapter. 96.5. Dissolved Oxygen is increased to 7.0 mg/l.

ABACT Tech Limits-Sewage cases

			2000 to	
		<2000 gpd	50,000 gpd	>50,000gpd
Parameter		Limit	Limit	Limit
CBOD5	5/1 to 10/31	10	10	10
CBOD5	11/1 to 4/30	20	20	10
TSS		20	10	10
NH3-N	5/1 to 10/31	5	3	1.5
NH3-N	11/1 to 4/30	15	9	4.5
Disinfection		UV/ND	UV/ND	UV/ND

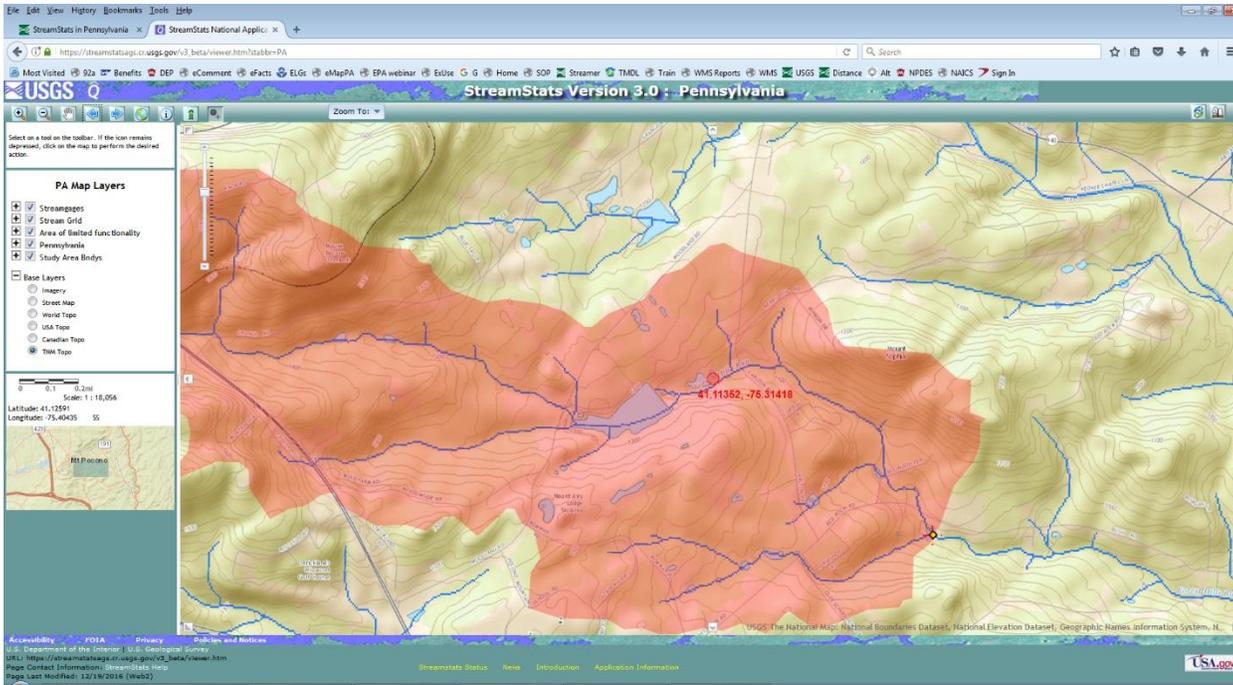
The WMS Report query "Water Management System Inspections" was run. On 03/07/2017 a Follow-up Inspection was completed with No Violations noted.

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

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.22</u>
Latitude	<u>41° 6' 47.71"</u>	Longitude	<u>-75° 18' 50.47"</u>
Quad Name	_____	Quad Code	_____
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Forest Hills Run</u>	Stream Code	<u>4953</u>
NHD Com ID	<u>26158268</u>	RMI	<u>2.8</u>
Drainage Area	<u>2.54 mi²</u>	Yield (cfs/mi ²)	<u>0.65</u>
Q ₇₋₁₀ Flow (cfs)	<u>1.65 cfs (1.07 MGD)</u>	Q ₇₋₁₀ Basis	<u>DFLOW USGS 01440485</u>
Elevation (ft)	<u>1125</u>	Slope (ft/ft)	<u>0.022</u>
Watershed No.	<u>1-E</u>	Chapter 93 Class.	<u>HQ-CWF</u>
Existing Use	_____	Existing Use Qualifier	_____
Exceptions to Use	_____	Exceptions to Criteria	_____
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Organic Enrichment/Low D.O., Pathogens</u>		
Source(s) of Impairment	<u>Municipal Point Source, Source Unknown</u>		
TMDL Status	_____	Name	_____
Background/Ambient Data	_____	Data Source	_____
pH (SU)	_____		_____
Temperature (°F)	_____		_____
Hardness (mg/L)	_____		_____
Other:	_____		_____
Nearest Downstream Public Water Supply Intake	<u>Brodhead Creek Regional Water Authority</u>		
PWS Waters	_____	Flow at Intake (cfs)	_____
PWS RMI	_____	Distance from Outfall (mi)	<u>@ 12.5 miles</u>

Gage	Period	Days in Record	7Q10	Harmonic
01440485 - Swiftwater Creek at Swiftwater, PA	2002/04/01 - 2015/04/01	4,748	4.28	13.5

STATION.--01440485 SWIFTWATER CREEK AT SWIFTWATER, PA
LOCATION.--Lat 41°05'38", long 75°19'21", Monroe County, Hydrologic Unit 02040104, on left bank at Aventis Pasteur Laboratories complex, at Discovery Drive in Swiftwater, Pocono Township, and 3.0 mi above mouth. --Funding for the operation of this station is provided by the Delaware River Basin Commission.
DRAINAGE AREA.--6.59 square miles. Hydrologic Unit Code: 2040104
 Q₇₋₁₀ LowFlowYield (cfs/mi²) = LFY = 4.28 / 6.59 = 0.65



RMI 2.8 at Outfall 001
 NAD 1983 Latitude: 41.1132 (41 06 48)
 NAD 1983 Longitude: -75.314 (-75 18 51)
 Drainage Area: 2.54 mi² ; Elevation = 1125 ft
 Stream flow = 0.65 * 2.54 = 1.65 cfs (1.07 MGD)
 Dilution = 4.86 : 1

RMI 0.0 at Confluence of Swiftwater Creek
 NAD 1983 Latitude: 41.1056 (41 06 20)
 NAD 1983 Longitude: -75.2994 (-75 17 58)
 Drainage Area: 3.75 mi² ; Elevation = 798 ft
 Slope = 0.022 ft/ft

WQM 7.0 Effluent Limits

	<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>				
	01E	4953	FOREST HILLS RUN				
RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
2.800	MT Airy	PA0060054	0.220	CBOD5	25		
				NH3-N	13.89	27.78	
				Dissolved Oxygen			3

TRC EVALUATION		Enter Facility Name in E3	
Input appropriate values in B4:B8 and E4:E7			
1.65	= Q stream (cfs)	0.5	= CV Daily
0.22	= 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 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 = 1.566	1.3.2.iii WLA_cfc = 1.519
PENTOXSD TRC	5.1a	LTAMULT_afc = 0.373	5.1c LTAMULT_cfc = 0.581
PENTOXSD TRC	5.1b	LTA_afc = 0.583	5.1d LTA_cfc = 0.883
Source	Effluent Limit Calculations		
PENTOXSD TRC	5.1f	AML MULT = 1.720	
PENTOXSD TRC	5.1g	AVG MON LIMIT (mg/l) = 0.500	BAT/BPJ
		INST MAX LIMIT (mg/l) = 1.170	

EFFLUENT TABLE A-2: DRBC Parameters Not Included in NPDES Permit

OUTFALL 001 (WWTP)		
PARAMETER	LIMIT	MONITORING
Total Kjeldahl Nitrogen *	Monitor & Report *	Monthly *

* DRBC Requirement

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 DRBC-1977-058-4.pdf
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 Mt Airy WQM 2017.pdf
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 Mt Airy TRC_CALC.xls
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 MT Airy 1985 Pollution Report.pdf