Pennsylvania Department of Environmental Protection

-Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET Addendum INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0060054**
Facility Type	**Non-Municipal**	APS ID	**565062**
Major / Minor	**Minor**	Authorization ID	**1181583**

Applicant and Facility Information

Applicant Name	**Mt Airy #1 LLC**	Facility Name	**Mt Airy #1 a.k.a. Mt Airy Casino & Resort (MACR) WWTP**
Applicant Address	312 Woodland Road Mount Pocono, PA 18344-9703	Facility Address	Carlton Road To Woodland Road (no street number given in application) Mount Pocono, PA 18344
Applicant Contact	Lisa DeNaples or David Osborne P.E. (LaBella)	Facility Contact	Lianne R Asbury Alternate: Gino Cherubini (Prop Ops Mgr)
Applicant Phone	(570) 342-3101	Facility Phone	570-243-4840 or 570-269-6070
Client ID	243905	Site ID	450860
Ch 94 Load Status	Not Overloaded	Municipality	Paradise Township
Connection Status	-	County	Monroe
Date Application Received	May 1, 2017	EPA Waived?	Yes
Date Application Accepted	May 9, 2017	If No, Reason	-

Purpose of Application: RENEWAL OF EXISTING NPDES PERMIT.

Summary of Review

This Fact Sheet Addendum is for the **Mount Airy #1 LLC a.k.a. Mount Airy Casino & Resort (MACR) 0.225 MGD Redraft NPDES Permit No. PA0060054 (Paradise Township, Monroe County)** that discharges to Forest Hills Run (HQ-CWF, impaired due to organic enrichment, pathogens, and chlorides per DEP Stream Assessment at MACR Outfall location). Forest Hill Run flows into a ~0.1-mile reach of Swiftwater Creek, then into Paradise Creek, which flows into Brodhead Creek and eventually into the Delaware River.

A Redraft NPDES Permit was required due to age of 2017 Draft NPDES Permit; NPDES Permit template changes; updated DEP Policies (EDMR/ICIS reporting requirements, etc.) requirements; new concurrent DRBC Docket requirements that must be incorporated into the permit per Chapter 92a.12 & 92a.36; regulatory changes (E Coli Chapter 93 WQS, etc.); updated Forest Hills Run stream assessment; received public comments; Permittee desire to restart use of fully treated effluent (as Reclaimed Water Class B) in MACR golf course spray irrigation (originally authorized by the 1979 WQM Permit No. 4579402); undefined facility proposal for dam removal project; and 2026 NPDES application update information (including sampling data used in updated water quality modeling) found in Public Upload No. **376441** (with upload noting prior reference# 346042 for 9/12/2025 Draft Meeting Agenda, previous GIF version, and letter). This FS Addendum has expanded sections due to age of previous 2017 Draft NPDES Permit and need to update/consolidate Fact Sheet information. See the FS Addendum "Discharge, Receiving Waters and Water Supply Information" section (hereafter "Streams Section") for the 2025 Department Forest Hills Run Stream Assessment information.

Background Information for Permitting Context:

- **WWTP Annual Average Daily Flows (AADF)**: 0.05498 MGD (2023), 0.05384 MGD (2024), and 0.04624 MGD (2025), with highest 2025 monthly average flow of 0.0752 MGD (May 2025). Beside MACR flows, the facility

Approve	Deny	Signatures	Date
X		James D. Berger (signed) James D. Berger, P.E. / Environmental Engineer	January 23, 2026
X		Edward Dudick, P.E. / Environmental Engineer Manager	February 9, 2026

Summary of Review

received discharge from the "Villa-of-our Lady Retreat House" per 2017 NPDES Permit Renewal Application (but the 2026 Application update indicated no non-MACR flows to the Treatment Plant).

- **Use of Reclaimed Water (Fully-Treated Effluent) for Spray Irrigation of MACR Golf Course**: The 2026 NPDES Permit Application update indicated "N/A" for alternate usage of effluent such as spray irrigation, but indicated plans for spray irrigation permitting/construction within the NPDES Permit term. The 1979 WQM Permit No. 4579402 authorized direction of fully-treated effluent to the Golf Course for spray irrigation. The previous owner/operator removed or abandoned the spray irrigation-related infrastructure per current Permittee. The 1979 WQM permit No. 4579402-T1 was transferred to the current Permittee in 2007. The 2007 NPDES Permit Part C.I Six stated that the NPDES permit effluent limitations apply to the spray irrigation system permitted under WQM Permit No. 4579402-T1. The Department subsequently informed the Permittee that any future spray irrigation would have to meet current regulatory/technical requirements (PA Domestic Wastewater Facilities Manual; Reuse of Treated Wastewater Guidance Manual ID# 385-2188-002; NPDES Permit requirements; etc.). The 2026 Application update indicates the Permittee plans to pursue permitting, design, and construction of Effluent Spray Irrigation Modification (and unspecified WWTP Upgrades) in the 2026 - 2029 timeframe (schedule and milestones subject to change). In permitting terms:
    - Only fully-treated effluent, meeting all NPDES Permit Part A.I.A, A.I.B, and A.I.C requirements, may be reused. This spray irrigation does not include assumed use of soils/subgrade materials to further treat the fully-treated effluent being discharged to this HQ watershed.
    - This Redraft NPDES Permit has expanded Reclaimed Water requirements (see NPDES Permit Part A.I.D, Part C.I.I, and Part C.I.J) beyond old 1979 WQM permit requirements. The golf course use falls under the Reuse Policy's Class B Reclaimed Water requirements. The policy requires the additional Class B limits and additional Class B monitoring requirements including: Samples for all parameters, other than fecal coliform and disinfection byproducts, should be taken at the point of discharge from the treatment plant. Samples for fecal coliform and disinfection byproducts should be taken at the point of reuse (to address potential bacteria growth and stratification in storage tanks prior to reuse).
    - A new WQM Permit (amendment or new) would be required to authorize any construction/operation of any new/replacement and/or reused spray irrigation facilities prior to restart of spray irrigation. The original WQM permit included groundwater monitoring requirements, therefore baseline groundwater monitoring will also be required prior to start-up. See Fact Sheet Treatment Section for what the original 1979 WQM permit addressed.
    - As a Class B reclaimed water (subject to minimum secondary treatment, filtration and disinfection), the facility could request approval for any of the other Class B or C usages set forth in the DEP Reuse Manual via the WQM permit application (see NPDES Permit Part C.I.I) or by letter (after spray irrigation start-up).
- **Permittee-proposed Stream Restoration/Dam Removal Project**: The Permittee has mentioned (see Communications Log for details) a proposed 86.74-acre stream restoration project that would remove the existing Mount Airy Casino & Resort Dam# D45-243. The existing dam created the Mt Airy lake/impoundment that is used for the existing golf course's non-potable water irrigation supply and controls Forest Hills Run stream low flows at the WWTP Outfall No. 001 discharge point via the Dam Permit's minimum release rate (0.375 CFS). Removal of the dam would alleviate some negative stream impacts rising from the dam itself. However, the Dam's minimum release rate is used in DEP water quality modeling to determine NPDES permit effluent limits and monitoring requirements. Removal of the Dam might reduce Forest Hills Run low flows under the critical design conditions set forth by regulation (Chapter 96). In addition, the impoundment would no longer be available as a non-potable water source for golf course irrigation, potentially requiring additional/increased surface or groundwater withdrawal rates, i.e. also reducing Forest Hills Run low flows. Therefore, dam removal might impact future NPDES Permit limits required to protect the public health, safety, welfare, and environment. The Department previously requested a copy of the Permittee-mentioned Stream Restoration Plan; tentative permit coordination status/schedule for this project; and any available information on the critical post-dam-removal Forest Hills Run Q7-10 low-flows. The 2026 NPDES Application update did not contain any new or additional information:
    - The General Information Form (GIF) did not address the assorted permits/authorizations required for such a project (US Army Corp of Engineers; DRBC Docket updating; Dam Safety permitting; PADEP Waterways & Wetlands permits for floodplain encroachments or other; etc.). No project schedule was proposed (as compared to future spray irrigation/WWTP upgrade projects).
    - The GIF Permit Coordination Section explicitly indicated no floodplain project or dam modification/removal project was proposed.

Summary of Review

Therefore, NPDES Permit Part C.I.K special condition will require a scientific determination of post-dam-removal Forest Hills Run Q7-10 low flows (lowest 7-day period of flow in 10-year period) if this project goes forward. The Department reserves the authority to require an Application for Major NPDES Permit Amendment if necessary.

- **Delaware River Basin Commission (DRBC) Dockets**: MACR has two different DRBC Dockets.
  - 9/8/2022 Delaware River Basin Docket D-1977-058-4: Addressed DRBC WWTP influent monitoring and effluent limits. Per Chapter 92a.12 and 92a.36, the Department is required to incorporate any more stringent DRBC Docket effluent limitations or standards into the Redraft NPDES Permit. The Permittee had indicated it thought a number of the DRBC Docket limits were erroneous, but provided no DRBC documentation to show DRBC would relax any existing DRBC Docket limit or monitoring requirement. The DRBC Docket limits included
    - CBOD5:
      - Influent monitoring & reporting (weekly)
      - 20.0 mg/l monthly average (superseded by ABACT limits discussed below).
      - 85% minimum monthly average reduction
    - TSS: 10.0 mg/l monthly average
    - Ammonia-N (5/1 – 10/31): 1.5 mg/l monthly average
    - Ammonia-N (11/1 – 4/30): 4.5 mg/l monthly average
    - Dissolved Oxygen (DO): 7.0 mg/l instantaneous minimum
    - Other DRBC limits/monitoring requirements: Already in 2017 Draft NPDES Permit (TDS, TKN, Nitrate-Nitrite, etc.).
  - 9/10/2020 Delaware River Basin Docket D-1989-037-4: Addressed surface water withdrawals for golf course irrigation and other site water supplies. Docket information:
    - The existing surface water withdrawal (Mount Airy Lake/Dam): 14.47 Million Gallons per Month (MGPM) was authorized to irrigate the docket-holder's golf course (18-holes located on 898 acres, with ~30 acres of fairways & tees, 2.5 acres of greens, and 96.5 acres of "rough" that is irrigated) from an existing intake in Mount Airy Lake, an impoundment on Forest Hills Run. The irrigation average and maximum demand was identified at 0.117 MGD and 0.467 MGD. No projected increase in demand in next 10-year DRBC Docket term. The Mt. Airy Lake/pond has 60.93 MG storage capacity. The surface water is diverted from Mount Airy Lake via gravity to a pump house and is then pumped at approximately 1,200 GPM for irrigation. The surface water intake will only be used to provide water to the docket holder's golf course irrigation system.
    - Mount Airy Lake Conservation Release a.k.a. Minimum Dam Release: The Dam's minimum release rate of 0.375 CFS (0.243 MGD) is set in accordance with a PADEP Dam Permit No 45-243 and approved Discharge Management Plan (DMP). Per the Dam permit, the flow in the stream is to be managed by water releases from varying zones within the impoundments, unless the stream is flooding. The releases from the varying zone within the impoundments is to provide optimum quality of water to maintain and provide for the aquatic life downstream of the impoundment. The DRBC Docket noted the purpose of the DMP was to optimize the quality and quantity of water discharged to Forest Hills Run downstream of Mount Airy Lake. The DMP purpose was to provide a monthly schedule for the operation of dam tower that will optimize water quality and temperature to best provide for optimal cold-water fish habitat in Forest Hills Run. The DMP will also ensure the conservation release required by the Docket Section C. The Docket noted that there was no way to reliably maintain these releases until Fall 2017 (i.e. after dam repair and maintenance was performed).
    - Golf Course Spray Irrigation: The Docket requires evaluation of using WWTP effluent to irrigate the golf course in event of any future proposed expansion of the WWTP. The Docket noted that there was no expansion proposal and/or proposal for spray irrigation at the time of DRBC Docket issuance.
- **DEP E-facts Client (Permittee/Applicant) Number Update:** The Permittee Client number is subject to change. The updated NPDES Permit Application GIF update still identified the Permittee only as "owner" when the NPDES permittee must be the "operator with financial control", but it was previous NPDES Permittee. The Department is also merging redundant E-facts client number entries per SOP. There appears to be a number of redundant E-facts client numbers for this Permittee that require merging unless they are actual different legal entities (with different EIN numbers), including:
  - Client# 257712 (MOUNT AIRY 1 LLC)
  - Client# 243905 (MT AIRY 1 LLC)

Summary of Review

- Client #240006 (MOUNT AIRY 1 LLC) – with 6 open violations (Safe Drinking Water Program)
- Client# 305587 (MT AIRY CASINO & GC)
- Client# 251356 (MT AIRYS 18 BEST GC)
- Unclear if the following Client number is redundant or represents another entity: Client# 313339 (Mt Airy WWTP, no EIN#, 110 main street Mt Airy MD HQ address).

Changes from 2017 Draft NPDES Permit:

- **Parts A, B, C:** Updated standard NPDES Permit Template conditions (Parts A, B, and assorted standard Part C conditions).
- **Part A.I.A (Interim limits):**
  - Previous interim limits (DO, CBOD5, TSS, Ammonia-N) were superseded by existing DRBC Docket limits incorporated into Part A.I.C per Chapter 92a.12 and 92a.36, plus CBOD5 ABACT limit due to ongoing organic enrichment from the overall MACR facility. Significant digits added to interim TRC limits to clarify what are considered exceedances.
  - Copper, Lead: Interim monitoring required due to new Final WQBELs required per Reasonable Potential Analysis.
- **Part A.I.B (Final limits effective in three years):**
  - DO, TSS, Ammonia-N: Previous proposed final limits (DO, TSS, Ammonia-N) were superseded by existing DRBC docket limits incorporated into Part A.I.C per Chapter 92a.12 and 92a.36.
  - CBOD5: Final CBOD5 ABACT limits moved to Part A.I.C due to EDMR/application data indicating ongoing compliance**.** The ABACT limits superseded the less stringent DRBC CBOD5 limits.
  - TRC: Final TRC limits updated due to updated water quality modeling.
  - Copper, Lead: New Final WQBELs required per Reasonable Potential Analysis.
- **Part A.I.C (Limits & Monitoring Requirements):**
  - CBOD5: ABACT limits (10.0 mg/l monthly average; 20.0 mg/l daily max/IMAX) incorporated due to organic enrichment impairment originating from MACR. As facility has been meeting the new limits per EDMR/application data, the new limits will be effective upon PED. **NOTE**: Total Organic Carbon (TOC) was previously incorporated into the Draft NPDES Permit to help define organic enrichment contribution of facility to stream.
  - DO, TSS, Ammonia-N: Existing 9/8/2022 DRBC Docket No. D-1977-058-6 more stringent limits incorporated into Part A.I.C per Chapter 92a.12 and 92a.36. Effective upon PED.
  - E Coli: E Coli monitoring (quarterly) added due Chapter 93 WQS. Fecal coliform units updated.
  - Zinc: Monitoring required per Reasonable Potential Analysis.
  - Aluminum: Monitoring to gather information. Elevated stream levels reported in 2009 DEP Biologist memo. Alum is used for chemical phosphorus reduction.
  - Daily Max Limits and Reporting: Daily Max limits set equal to existing IMAX limits (no less stringent limits are possible, as any duration exceedance of an IMAX limit is an IMAX exceedance). Daily maximum reporting is required when there is no limit.
  - Sampling Clarifications:
    - Flow-proportional 24-Hour Composite Sampling: Going to 24-hour composite sampling to prevent potential sampling biasing. Flow proportional composite sampling is an existing NPDES Permit requirement.
    - Grab Sampling Limits: Grab sample limits clarified to be either instantaneous minimum or IMAX limits.
    - Monitoring Frequency: Going to daily DO monitoring per minimum monitoring frequency.
- **Part A.I Additional Requirements Supplemental Information:** The NPDES Permit basis flow has been clarified at 0.225 MGD to be consistent with original Planning/SEJ. Any increase over 0.225 MGD Annual Average Daily Flows would be subject to Chapter 93 Antidegradation requirements.
- **Parts C.I.A, B, C, and D:** Existing standard conditions (stormwater prohibition, necessary property rights; residuals management, and Planning).
- **Part C.I.E: New** standard Chlorine minimization condition added due to new TRC Final WQBEL, HQ stream considerations and fecal coliform issues indicating disinfection system issues and/or monitoring/reporting issues. Includes provisions in event facility chooses to upgrade to UV disinfection.

Summary of Review

- **Part C.I.F: New** operator in responsible charge notification condition due to pattern of noncompliance including misreporting of fecal coliform results (use of ">" reporting).
- **Part C.I.G**: **New** Operations & Maintenance (O&M) Plan condition due to pattern of noncompliance for discharges to HQ watershed.
- **Part C.I.H: Existing 2007 NPDES Permit condition restored to Redraft Permit (as it appears to have been accidently omitted in 2017 Draft NPDES Permit)**: "If, in the opinion of the Department, these works are not so operated or if by reason of change in the character of wastes or increased load upon the works, or changed use or condition of the receiving body of water, or otherwise, the said effluent ceases to be satisfactory or the sewerage facilities shall have created public nuisance, then upon notice by the Department, the right herein granted to discharge such effluent shall cease and become null and void unless within the time specified by the Department, the permittee shall adopt such remedial measures as will produce an effluent which, in the opinion of the Department, will be satisfactory for discharge into the said receiving body of water".
- **Part C.I.I: New** WQM Permit requirements if facility pursues spray irrigation (golf course) or other reclaimed water usage in future. Previous 1979-permitted spray irrigation facilities (removed or abandoned) require replacement and would be subject to current regulatory and technical requirements. Unclear if original groundwater monitoring system meets current requirements either.
- **Part C.I.J**: **New** Class B Reclaimed Water Reused Onsite conditions to clarify NPDES requirements if spray irrigation restarts onsite or other reclaimed water usages are proposed.
- **Part C.I.K: New** Dam removal project-related condition to require report determination critical stream Q7-10 low flow conditions (post-dam removal). NPDES Permit Amendment Application requirement upon request. The Department would evaluate the report information and determine if any permit updating is required.
- **Part C.I.L**: **New** Site-specific Best Management Practices (salt storage, distribution, application) due to chloride stream impairment (see FS Streams Section below). The permittee shall identify and implement state and/or nationally recognized Best Management Practices (BMPs) for the storage, distribution, and application of salt and/or deicing chemicals to the hospital's private road(s), drive-ways, parking lots, and walk-ways. A copy of the permittee-chosen BMPs shall be kept with the onsite NPDES permit copy and made available upon Department request.
- **Part C.II:** Standard solids management conditions
- **Part C.III: New** WQBELs for Toxic Pollutants (Total Copper and Total Lead) conditions per Reasonable Potential Analysis. Previous Draft NPDES Permit Part C.III Schedule of Compliance (infrastructure to meet DO, TRC, CBOD5, TSS, and Ammonia-N limits) is superseded due to existing DRBC Docket Limits (in effect now) and Part C.IV (TRC Requirements) standard language.
- **Part C.IV: New** Requirements for Total Residual Chlorine (TRC) due to new TRC limits effective in 3-years. Coordinated with Part C.III schedule of compliance plus GIF-mentioned 2026-2029 permitting time-frame for unspecified WWTP upgrades and/or spray irrigation work.

Public Comments on 2017 Draft NPDES Permit: Responses bolded.

7/14/2017 Paradise Township Public Comments:

- The Township supported the proposed more stringent limits and 3-year schedule of compliance. The Township is in support of the permit as long as the concentration limits noted are not changed to be more lenient: **Noted. Township has opportunity to comment on the Redraft NPDES Permit changes.**
- A copy of the Conditional Use approval for the expansion of the existing facility by 100 hotel rooms, meeting facility, kitchen, storage area, and associated ancillary improvements was included. Condition use approval was required. **Noted. The NPDES Permit does not supersede any local requirements.**
- Conditional Public hearings were held with Mt. Airy entering assorted documents into evidence dealing with their proposed improvements to the sewage treatment facilities, NPDES permit renewal, proposed improvements to the outfall structure, and details on their proposed discharge to Forest Hills Run. The Decision was attached. The information was provided for Department consideration. **Noted. The Department does not enforce local zoning or local ordinances, but examined the submitted Decision document to determine any implications for NPDES permitting. In terms of overlapping considerations:**
    - Mount Airy Lake/Dam Conditions Described: Mount Airy currently operates a Dam with spillway and discharge water Tower pursuant to Dam Permit No. 45-243. The existing Dam Tower is malfunctioning. The existing Tower outlet structure has three (3) sluice gate openings, all of which are in poor condition and do not operate properly. The sluice gates vary in elevations within the Tower and each gate regulated discharge

Summary of Review

of the lake at different levels. The Tower has three (3) operating inlet ports (sluice gates) which discharge to a 4th (4th) outlet port. The outlet port from the lake discharges to a pond on the golf course, then it discharges from the pond into Forest Hills Run or a lower pond. Mount Airy agrees the Tower is broken and needs to be fixed. Mount Airy is not allowed to discharge lake water over the Dam spillway except that flood waters may be discharged over the spillway. Mount Airy was then also currently working to improve the capacity of either the spillway or armor the embankment of the Dam. The Dam Permit required a minimum discharge of 0.375 CFS. Mount Airy was indicated to have agreed to repair the Tower and install a flow meter(s); and develop a discharge monitoring plan.

- **The PA Dam program oversaw some dam maintenance work circa 2017 under the existing Dam Permit No. D45-243. Any lake/dam outfall structure repair/maintenance, modification or dam removal falls under their jurisdiction.**
- **The Department lacks any authority to enforce any <u>local</u> requirements or agreements (Conditions Use permit; Greenway plans, etc.), which are the responsibility of the signatories. The DRBC will separately enforces its own Docket requirements.**
- **The Mount Airy Lake Dam minimum release controls the Forest Hills Run low flows at the Treatment Plant outfall location.**
- **The Permittee is considering removal of the dam, but no details are available. The NPDES Permit Part C.I.K condition addresses any such plan if it is pursued during the NPDES permit term.**

- <u>Stormwater Control for expansion area</u>: Stormwater control will be by underground detention facilities located immediately adjacent to the expansion. **Stormwater is prohibited from being directed to the Treatment Plant per existing Part C.I Special Condition prohibition. This NPDES Permit does not regulate stormwater that is otherwise properly managed. The PADEP Waterways & Wetlands Program & Monroe County Conservation District (MCCD) separately regulate stormwater management and erosion & sedimentation controls.**
- <u>Mount Airy Wastewater Treatment Plant:</u> Mount Airy has filed a NPDES Permit renewal application for the 220,000 GPD (0.22 MGD) Treatment Plant. The March 2007 NPDES Permit has been administratively extended. Mount Airy's sewage is treated by 220,000 GPD onsite Wastewater Treatment Plant (WWTP) under NPDES Permit No. PA0060054 and DRBC Docket No. D-1977-058-4. The WWTP discharge point is to Forest Hills Run (HQ, EV), about a quarter mile below the dam. The WWTP was estimated to receive peak flows of approximately 125,000 GPD, and discharges approximately 90,000 GPD (average). The project was expected to add an additional 25,000 GPD flow. Assorted statements about the existing Treatment Plant, previous draft NPDES Permit requirements, and its discharge were included.
  - **This Redraft NPDES Permit's public comment period allows for new or additional public comments from any interested party (including the DRBC).**
  - **The receiving Forest Hills Run designated usage is High Quality – Cold Water Fishes (HQ-CWF), not Exceptional Value (EV). The 0.225 MGD NPDES Permit basis discharge is covered by the original Social-Economic Justification (SEJ). The facility has available unused plant capacity at the 0.225 MGD Treatment Plant. The 6/26/2006 WQM Permit No. 4506404 previously authorized a new Sewer Collection System to service 200 room resort/hotel/casino (in addition to existing facilities).**
- <u>Forest Hills Run</u>: Forest Hills Run (the receiving stream) is degraded below the Dam despite the DEP Discharge Permit. Assorted statements on stream condition and history were included. It was noted that Mount Airy had constructed three (3) monitoring stations on Forest Hills Run (one upstream of lake; one downstream of dam; and one downstream of WWTP, along with lake monitoring at various depths. **Noted. See Fact Sheet Addendum Stream Section (below) for most recent Department stream assessment. Please note the comment appears to be referencing local agreement requirements pertaining to in-stream monitoring. There is no existing NPDES/WQM permit requirements for stream monitoring & reporting.**

<u>Brodhead Watershed Association/Penn Future submitted documentation that the Mount Airy Dam (Permit No. 45-243) for the upstream stream impoundment/dam requires a minimum release of 0.375 CFS</u>: **The Department concurs that the Dam is regulating the Forest Hills Run low flows and that the Dam minimum release flow is the applicable Q7-10 low flow value (plus any additional Forest Hills Run drainage area groundwater recharge).**

<u>9/15/2017 Delaware River Basin Commission (DRBC) Docket Comment & Response Document</u>: The DRBC provided draft 2017 DRBC Docket comment & response documents for informational/coordination purposes. See the more recent

Summary of Review

DRBC Dockets for current DRBC requirements. The document was reviewed and overlapping public comments discussed below:

- UV Disinfection should be required. Additional comment about continued use of chlorine disinfection versus DRBC Best Demonstrated Technology (BDT) recommended UV disinfection: **The DRBC response noted the DRBC regulations allow for use of chlorine for disinfection purposes. In addition, Chlorine disinfection is a widely used disinfection technology that can be used when NPDES permit limits can be met. The Department does not have authority to require any particular treatment technology if the permit requirements can be met.**
- Use of Treated Wastewater for Spray Irrigation per previous DRBC Dockets: **See current DRBC Docket requirements for use of treated effluent for spray irrigation. The Department has separate NPDES/WQM permitting requirements for such usage as discussed in this Fact Sheet Addendum.**
- Comment that DRBC and DEP low flow values differed: The DRBC noted that evaluation of low flows can vary depending upon how the calculations were performed and which data was used. DRBC noted that it provides the information for informational and comparative purposes. Most DRBC limits are technology-based, not water-quality-based. **The applicable low flow has been determined to be the minimum dam release flow (0.375 CFS) plus any incidental groundwater discharge for the drainage area downstream of the dam but upstream of Outfall No. 001.**
- DRBC separately Indicated an 85% Minimum Monthly Average Reduction CBOD5 Requirements was needed. **The current DRBC Docket requirement has been incorporated into this Redraft NPDES Permit per Chapter 92a.12 and 92a.36.**

July 17, 2017 Brodhead Water Association (BWA) and Citizens for Pennsylvania's Future (PennFuture) Public Comment Letter (including incorporated by reference June 16, 2017 BWA Letter):

- BWA/Penn Futures commented on the timing of new permit limits in the 2017 Draft NPDES Permit (i.e. Schedule of Compliance): **Due to changes the Redraft NPDES Permit, the previous Schedule of Compliance comments are moot. The parties are free to comment on the Redraft NPDES permit's schedules of compliance.**
- Forest Hill Run has been impaired for a number of years, and the Mt. Airy WWTP has caused or contributed to that impairment, despite the NPDES Permit issued to it by the Department (Opening Section): **See the Fact Sheet Addendum's Stream Section for the most recent Department stream evaluation of existing impairments. This Redraft NPDES Permit includes requirements meant to prevent WWTP contributions to ongoing impairments.**
- The 2007 NPDES Permit has been administratively extended, therefore, the facility has not received a renewed NPDES Permit for multiple permit terms (Section I)**.** Therefore, the permit parameter (permit limits and monitoring requirements and other condition) have not been updated in multiple NPDES Permit terms. **The Department anticipates issuing a Final NPDES permit (incorporating updates) in response to public comment on this Redraft NPDES Permit. The (separate) DRBC Dockets are in effect now, with DRBC having separate enforcement authority.**
- The Mount Airy WWTP impacts on Forest Hills Run has not been considered by DEP for multiple NPDES permit terms (Section I). **Incorrect. Forest Hills Run has become one of the most studied watersheds in Pennsylvania.**
    - **See Fact Sheet Addendum Stream Section for most recent Department assessment of Forest Hills Run.**
    - **See the DEP Water Quality "Continuous Instream Monitoring (CIM) Reports" webpage for Forest Hills Run stream data for various locations (UPS Carlton Road (located downstream of lake but upstream of Mt Airy Lodge STP); DWS Carlton Road (located downstream of Mt Airy Lodge STP); Red Rock Road (located further downstream from Mt Airy Lodge at the furthest downstream impaired segment from Mt Airy Lodge); and Woodland Road (located upstream of Mt Airy Lodge golf course along Woodland Trail).**
- Forest Hills Run is impaired by organic enrichment and low dissolved oxygen (DO) (Section I): **Forest Hills Run was determined to be impaired due to organic enrichment, but not low dissolved oxygen (DO) in the most recent Department stream assessment. Accordingly, the permit limits in this permit have been modified to antidegradation best available combination of technologies (ABACT) for Carbonaceous Biochemical Oxygen Demand (CBOD5) and includes overlapping existing DRBC Docket requirements (more stringent effluent DO limit; 85% CBOD5 minimum monthly average reduction requirement).**
- The WWTP has had assorted violations despite operating at less than one-third of its permitted 0.22 MGD capacity. Previous exceedances of Total Residual Chlorine (TRC), Total Suspended Solids (TSS), and low Dissolved Oxygen (DO). These actual pollutant loadings have caused or contributed to the impairment of Forest Hills Run (Section I):

Summary of Review

See FS Addendum Stream Section for most recent Department assessment of Forest Hills Run. See FS Addendum Compliance Section for more recent compliance history. TSS, TRC, and DO were not identified as causes of stream impairment, but more stringent permit limits and requirements are incorporated into the Redraft NPDES Permit.

- The Department never issued the 2013 Draft NPDES Permit (Section III): **This Redraft NPDES Permit replaces all previous Draft/Redraft NPDES Permits.**
- The 2007 Operation and Maintenance Plan for Greenway Land and Common Facilities Plan, Mount Airy must prepare an annual report which details the water quality parameter data for both Mount Airy Lake and Forest Hills Run, including biological monitoring and changes in data over time (Section III.A). This includes three stations sampled for macroinvertebrate life (Station 1, where Forest Hills Run enters the Mount Airy property; Station 2, below the lake but adjacent to a small pond and above the WWTP discharge point; and Station 3 where Forest Hills Run exits the Mount Airy property, below the WWTP discharge point). The collected data and other reports were indicated to show that the HQ-CWF aquatic life use and general water quality criterion (Chapter 93.6) are not being attained. The Mount Airy Greenway Monitoring Report indicated there is significant impairment below both the lake ad the WWTP compared to Station 1 (below the MPMA Plant discharge). It follows that the existing NPDES Permit (issued in 2007) has failed to perform the essential function of ensuring that the applicable water quality standards are achieved and maintained.
    - **See Fact Sheet Addendum Stream Section for most recent Department assessment of Forest Hills Run, which is one of the most studied watersheds in Pennsylvania. Please note that the stream impairments start upstream of this facility discharge, i.e. there are other known or suspected causes for any stream impairment than the WWTP discharge. The public comment did not include the referenced Mt. Airy Greenway Monitoring Reports and/or stream evaluation for Department review or evaluation. The August 10, 2022 BWA Letter included 2021 Mount Airy Greenway Land Annual Monitoring Study station data (but the station numbering appeared to differ from the previous BWM/PennFutures Letter description, rendering the data impossible to evaluate).**
    - **The Redraft NPDES Permit includes assorted new requirements to protect the stream, and the facility is separately considering a stream restoration project.**
    - **In terms of applicable water quality standards: Chapter 93.4a(c) specifically states the water quality of High Quality Waters shall be "maintained and protected", except as provided in Chapter 93.4c(b)(1)(iii) i.e. Social-Economic Justification (SEJ) which relaxes HQ protections down to the statewide Chapter 93 Water Quality Standards.**
        - **This facility has SEJ coverage which allows for 0.225 MGD discharges compliant with the Chapter 93 Statewide Water Quality Standards, and has been discharging since the 1970s.**
        - **A new antidegradation analysis and new antidegradation limits are only required if the facility exceeded its original 0.225 MGD SEJ coverage. No increased degradation is expected when there is no new, additional, or increased flow/load than previously permitted.**
        - **Contact the PA DEP Dam Program and Delaware River Basin Commission (DRBC) directly regarding any concern about lake dam negative impacts on the stream. The Department has noted that the lake dam has had a historic negative impact on aquatic life, with slow recovery downstream. The facility reportedly took corrective maintenance at the dam discharge tower per the DRBC Docket and is considering a stream restoration/dam removal project.**
        - **The regulations do not place the burden on a single facility to single-handedly restore an impaired watershed to a pristine condition, when stream impairment is known to have multiple upstream causes. In practical terms, the NPDES Permit is designed to prevent further degradation of Forest Hills Run due to the facility discharge (under the SEJ coverage).**

- The Proposed 3-Year Compliance Schedule for More Stringent Effluent Limitations Fails to Reach Those Limits "As Soon as Practicable" (Chapter 92a.51) for CBOD5, TSS, Ammonia-N (NH3-N), TRC, and DO. The public comment noted that the permittee has been aware of these coming new limits since 2013, and therefore should be able to achieve compliance within one year of PED. UV disinfection or other non-chlorine disinfection system requirements should be required as an ABACT limit (Section III.B.1): **The Redraft NPDES Permit includes new permit limits' effective dates.**
    - **CBOD5: The new ABACT limits will be effective upon Permit Effective Date.**

Summary of Review

- **TSS, Ammonia-N, and DO: The existing DRBC Docket Limits have been incorporated into the permit. The DRBC limits will be effective upon Permit Effective Date (and are already separately enforceable by the DRBC).**
- **TRC: The Department is providing a 3-year Schedule of Compliance for the more stringent TRC limit, but including additional chlorine minimization and chloride monitoring in the interim period. ABACT does not prohibit use of chlorine disinfection systems if permit limits can be met**.

- The Department has a Duty to Ensure Attainment of Water Quality Standards per 40 CFR 122.4(d), 40 CFR 122.44(d)(1), Chapter 92a.2, Chapter 92.53(4), Chapter 92a.75(b)(2), and Chapter 96.3(a, c) (Section III.B.2): The documentation prepared by the Department fails to demonstrate that the limitations set forth in the 2013 Draft NPDES Permit will alleviate the longstanding impairment of Forest Hills Run and result in compliance with all applicable water quality standards. Basing the mass limits on a 0.22 MGD discharge flow does not prevent future increases in mass loadings from the 2016-estimated 0.072 MGD discharge. **This Redraft NPDES Permit supersedes any previous Draft NPDES Permit.**
  - **Receiving Stream Protection: See above comment-responses. In addition, the NPDES Permit is designed to allow the facility to meet the Federal Clean Water Act, the PA Clean Streams Law, and the applicable Chapter 93 Water Quality Standards (which incorporate applicable 40 CFR Federal regulations by reference) under critical design conditions (NPDES Permit Basis discharge during Q7-10 low flow conditions). The NPDES Permit was developed using scientifically-supported water quality modeling and technical guidance policies to achieve the applicable regulatory requirements. See Effluent Limits Section below for the Reasonable Potential Analysis to cause an exceedance of the applicable Chapter 93 Water Quality Standard (a.k.a. criteria) under critical design conditions. See Communications Log and General History (below) for the history of this NPDES permit.**
  - **Mass limits: In practical terms, the numeric Chapter 93 Water Quality Standards are concentration-based, not mass-based. Mass limits are derived from the permitted concentration limits multiplied by the 0.225 MGD NPDES Permit Basis/SEJ flow multiplied by a conversion factor. The permitted concentration limits are either regulatory/technology-based limits or based on Water Quality-Based Effluent Limits (WQBELs), whichever is the most stringent.**
- The Low Flow used to calculate the 2017 Draft NPDES Permit's Effluent Conditions was based on an incorrect stream low flow estimate that is superseded by the upstream Dam No. 45-243 minimum flow of 0.375 CFS (Section III.C.1): **The Department concurs and has updated the Redraft NPDES Permit and water quality modeling to address the minimum dam release flow.**
- The 2017 Draft NPDES Permit fails to require pollutant load reductions that are the "lynchpin" to alleviate the impairment of Forest Hills Run, and would allow for pollutant load increases. The Department must prepare a watershed Total Maximum Daily Load (TMDL) due to the stream impairment (organic enrichment/low Dissolved Oxygen) receiving too many pounds per day of certain pollutants. If there is too much load the Department must ensure that the current loading is reduced. The starting point should be the actual historic load versus the maximum loading under the NPDES Permit. A comparison of 2016 CBOD5 loadings (<1.4 – 4.43 lbs/day) to the proposed Final CBOD5 Limits (18.35 lbs/day for 10.0 mg/l CBOD5 monthly average limits). (Section III.C.2). **Chapter 96 defines a TDML (Total Maximum Daily Load) as "The sum of individual waste load allocations for point sources, load allocations for nonpoint sources and natural quality and a margin of safety expressed in terms of mass per time, toxicity or other appropriate measures". See Fact Sheet Addendum Stream Section for most recent Department assessment of Forest Hills Run for organic enrichment (including carbonaceous biochemical oxygen demand a.k.a. CBOD5).**
  - **The most recent Department stream assessment indicates the source of the organic enrichment issues is recreational/boating activities, not the WWTP discharge.**
  - **No TMDL has been developed for Forest Hills Run, but the known dischargers' NPDES Permit renewals focus on alleviating negative impacts on the receiving stream when they are contributing to the problem. This Redraft Permit incorporates the cited ABACT limits for CBOD5 (carbonaceous biochemical oxygen demand) and more stringent DRBC Docket limits for Dissolved Oxygen (DO).**
  - **In event a TMDL is required in the future, Chapter 96.4 explains the general TMDL procedure, with any proposed TMDL subject to public notice and public comment periods. The Department could not impose TMDL-based Waste Load Allocations (mass limits) in the absence of a final approved watershed TMDL. The mass loadings would be based on the 0.225 MGD NPDES Permit Basis/SEJ flows. If a TMDL is developed in the future, the facility would be required to meet any more stringent TMDL mass load limits set forth in the Final TMDL at that time.**

Summary of Review

- The Phosphorus Limit will not protect the water quality of Forest Hills Run: The Total Phosphorus limit (2.0 mg/l as a monthly average) is excessive compared to actual WWTP discharge concentrations (0.585 mg/l for a 10-month period in 2016; and averaging near 0.5 mg/l with no value above 1.0 mg/l in a previous 3-year period). The regulations allow for more stringent permit limits when the discharge of phosphorus contributes or threatens to impair existing or designated uses, such as the case with Forest Hills Run. Additionally, the average dry weather total phosphorus level as measured in Station 3 in the Forest Hills Run below the WWTP discharge was 0.129 mg/l with a range of 0.029 – 0.395 mg/l (2016 Mt Airy Greenway Monitoring Report), which is considered "poor" water quality (levels above 0.1 mg/l) per a cited document not provided. The Department has set forth more stringent permit limits at other facilities in the Forest Hills Run and the greater Brodhead Creek watershed. The final permit must include a Total Phosphorus that is sufficiently stringent to reduce the actual loading of Total Phosphorus below the actual historic concentrations that have caused impairment in Forest Hills Run. (Section III.C.4). **The Department cannot concur:**
    - **See Fact Sheet Addendum Stream Section for most recent Department assessment of Forest Hills Run. The listed known causes of stream impairment do not include "eutrophication" (i.e. excessive richness of nutrients (including phosphorus, nitrogen, or other plant nutrients) in a lake or other body of water, frequently due to runoff from the land, which causes a dense growth of plant life and death of animal life from lack of oxygen).**
    - **The existing 2.0 mg/l monthly average and 4.0 mg/l IMAX Total Phosphorus limits are covered by the SEJ coverage and are consistent with Chapter 96.5 (Nutrient discharges). There is no existence of identified nutrient-caused impairments triggering the need for more stringent limits.**
    - **The public comment did not include the referenced Mt. Airy Greenway Monitoring Reports and/or stream evaluation for Department review or evaluation.**
- BWA/PennFutures commented on the lack of a Total Nitrogen Limit (Section III.C.4): The lack of Total Nitrogen (specifically Nitrate-Nitrogen-N) limits is problematic and may not protect the water quality of Forest Hills Run,
    - **There is no existing Chapter 93 numeric Water Quality Standard for Total Nitrogen in the absence of identified nutrient-caused stream impairments. The listed known causes of stream impairment do not include "eutrophication" (i.e. excessive richness of nutrients (including phosphorus, nitrogen, or other plant nutrients) in a lake or other body of water, frequently due to runoff from the land, which causes a dense growth of plant life and death of animal life from lack of oxygen).**
    - **The public comment did not include the referenced Mt. Airy Greenway Monitoring Reports and/or stream evaluation for Department review or evaluation.**
- BWA/PennFutures commented on a 10 mg/l Nitrate-Nitrite-N limit (Section III.C.4): **The**
    - Other (Mount Pocono Municipal Authority, PA0044997; Stroudsburg, PA0029289) facilities have such limits. **Irrelevant as site-specific circumstances and histories can result in site-specific permit requirements not applicable elsewhere. The comment provided no regulatory or technical basis for imposing such a permit limit. In practical terms, the Nitrate-Nitrite-N Chapter 93 Water Quality Standard is for protection of public water supplies, with no downstream Public Water Supply (PWS) Intake close enough to be impacted by this facility' discharge. The MPMA discharge flows into Mt Airy Lake where there is a surface water intake for non-potable surface water withdrawals for golf course irrigation. There is no surface water intake that would be impacted downstream of the WWTP discharge.**
    - The (macroinvertebrate) IBI scores below the WWTP discharge were consistently the lowest found in Monroe County. Water Chemistry data was cited, but without the supporting documentation. **See Fact Sheet Addendum Stream Section for most recent Department assessment of Forest Hills Run.**
    - Synergistic/Cumulative Effects of nutrients with organic enrichment and reported low dissolved oxygen concentrations) and warmer lake impoundment waters: **See Fact Sheet Addendum Stream Section for most recent Department assessment of Forest Hills Run. Mount Airy Lake is attaining its aquatic life and potable water uses (i.e. no identified impairment in the lake itself at present). The expressed concern was algae growth, but no information on stream algae levels or eutrophication were provided to support the public comment. The Permittee is considering a stream restoration/dam removal project (that would alleviate warmer lake temperatures), but that project is outside the scope of this NPDES permit renewal.**
- DEP must impose non-chlorine disinfectant technology and non-discharge alternatives (Conclusions Section):
    - **Conversion to Non-chlorine disinfection: The Department does not have the regulatory authority to impose specific technologies on a permittee. Chlorine disinfection (with de-chlorination) is a widely used technology that can achieve the applicable permit limits in High Quality watersheds.**

Summary of Review

- **Spray Irrigation Options: The Permittee indicates it is pursuing spray irrigation as an option, with the Redraft NPDES Permit including specific provisions to address it.**

- Concern about two-tiered (seasonal) Ammonia-N limits (Conclusions Section): **Seasonal Ammonia-N limits address the Ammonia-N Chapter 93 Water Quality Criteria temperature-dependence (i.e. Ammonia-N is more toxic at higher temperature which allows for seasonal limits). In practical terms, the existing DRBC limits (being incorporated into the NPDES Permit) are more stringent than previous NPDES permit limits.**

Sludge use and disposal description and location(s): 34 dry tons were shipped offsite in 2025. Ultimate disposal or beneficial use location was not identified in the 2026 NPDES Permit Application update.

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.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.225 (SEJ permit basis)
Latitude	41º 6' 47.71"	Longitude	-75º 18' 50.47"
Quad Name	Mount Pocono	Quad Code	1043 (4.22.2)
Wastewater Description:	Treated Sewage Effluent		

Receiving Waters	Forest Hills Run (HQ-CWF)	Stream Code	4953
NHD Com ID	26158268	RMI	~2.8 (per DRBC Docket)
Drainage Area	2.76 (per USGS PA Streamstats)	Yield (cfs/mi^2)	0.127 watershed below dam release (see below)
Q_{7-10} Flow (cfs)	0.3851 CFS (dam release plus small drainage area below dam).	Q_{7-10} Basis	See below.
Elevation (ft)	~1125	Slope (ft/ft)	-
Watershed No.	1-E	Chapter 93 Class.	HQ-CWF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	**ORGANIC ENRICHMENT, PATHOGENS, CHLORIDES (see below)**		
Source(s) of Impairment	**See below**		
TMDL Status	-	Name	-

Background/Ambient Data		Data Source
		3/30/2022 DEP Sample# 0209548 (upstream of WWTP and Downstream of Mt Airy Lake). 3/30/2022 Downstream DEP Sample# 0209547 (downstream of WWTP, upstream of Carlton Road)
pH (SU)	7.35	See above; 7.39 downstream
Temperature (°C)	4.8	See above; 4.9 downstream
Hardness (mg/L)	67	See above; 70 downstream
CBOD5 (mg/L)	2.33	See above; 1.73 downstream
TDS (mg/l)	226	See above; 236 downstream
Total Nitrogen (mg/l)	0.48	See above; 1.10 downstream
Total Phosphorus (mg/L)	0.014	See above; 0.023 downstream
Copper, Total (ug/l)	<4.0	See above; <4.0 downstream
Aluminum, Total (ug/l)	26.5	See above; 78.9 downstream.
Iron, Total (ug/l)	252.0	See above; 325.0 downstream
Manganese, Total (ug/l)	233.0	See above; 458.0 downstream
Zinc, Total (ug/l)	11.8	See above; 5.19 downstream

Nearest Downstream Public Water Supply Intake		Brodhead Creek Regional Authority	
PWS Waters	Brodhead Creek	Flow at Intake (cfs)	-
PWS RMI	-	Distance from Outfall (mi)	~17 miles

Changes Since Last Permit Issuance (2007):

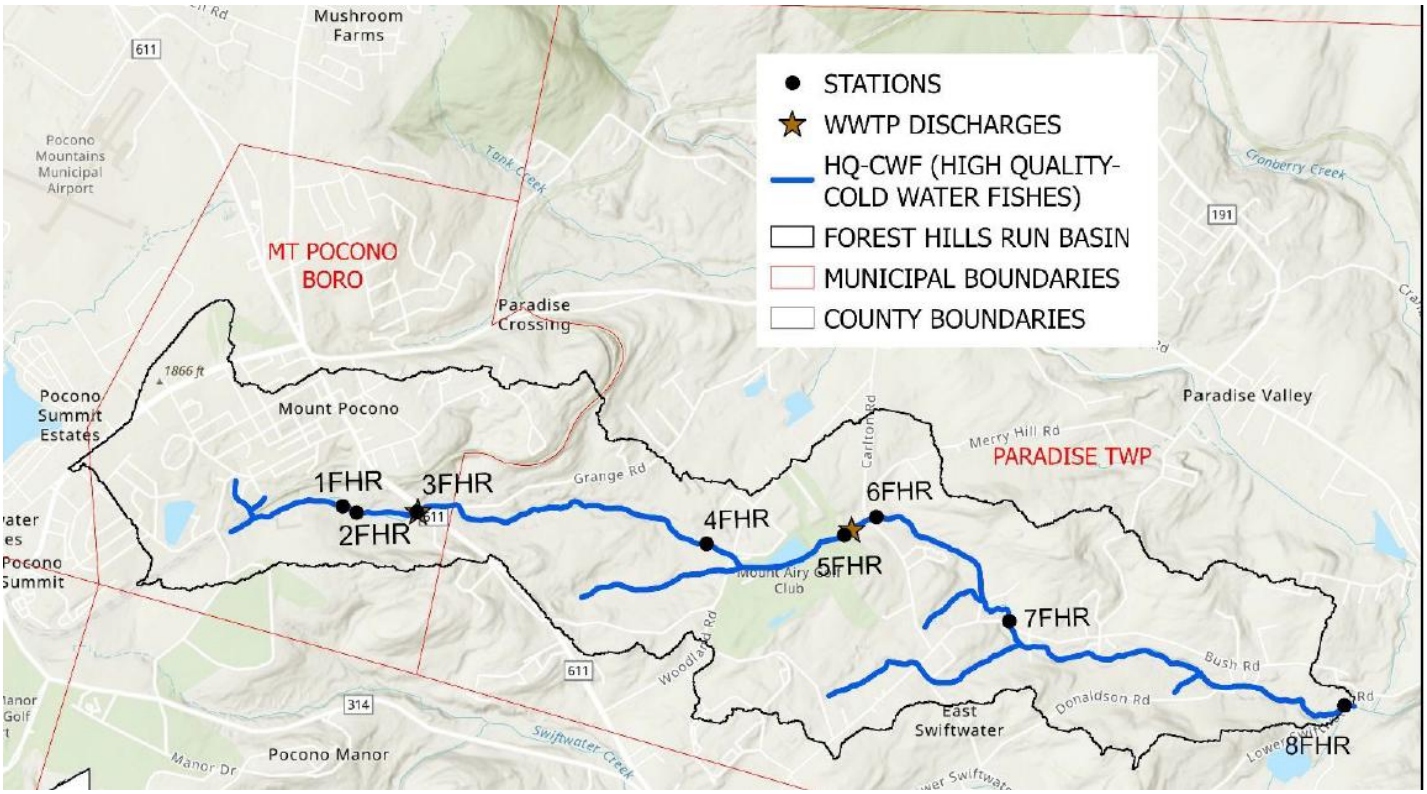
- Stream designated Natural Trout Reproduction Stream.
- Mt Airy Lake assessment indicates attaining uses (potable water supply, aquatic life), but Permittee has indicated eventual plans for stream restoration including removal of the Dam# 45-243 (Mount Airy Casino & Resort) B-1

High Hazard Dam. No details or permit coordination information status/schedule provided with application (despite request), so the project is deemed speculative in terms of the 5-year NPDES Permit Term. This permittee had conducted dam repairs (circa 2017).

- E-maps contains updated Forest Hills Run impairment information regarding causes and known impairments:
  - Urban Runoff/Storm Sewers – Chloride
  - Recreation and Tourism (non-boating) – organic enrichment
  - Source Unknown - pathogens
- Upstream Mount Pocono Municipal Authority (MPMA) POTW has taken actions (spray irrigation from April through November; WWTP upgrades including "chiller" unit, etc.) that are expected to have improved impaired upstream stream conditions.
- New 2025 DEP "Forest Hills Run Monroe County "Special Protection Use Assessment Report"" (prepared by the DEP Assessment Section WQ Division Bureau of Clean Water) looked at the overall Forest Hills Run watershed. It will be reviewed by EPA and go through a public comment period before its conclusion are addressed in the next (2026) Water Quality Triennial review (and possible updating of listed Forest Hills Run stream impairments). Report information included but was not limited to:
  - General: Forest Hills Run originates in Mt Pocono Borough, Monroe County as a freestone surface water and flows east before joining Paradise Creek in Paradise Township. The entire basin includes 7.8 stream miles and drains 5.6 square miles with land cover consisting of 60.6% forested, 35.5% developed (or urban, which is used interchangeably within this document), and 1.8% agriculture (Dewitz 2021). Changes to land cover between 2001 and 2021 occurred throughout the basin, where forested land cover was replaced with urban and herbaceous land cover. Urban and anthropogenic influences throughout the basin included stormwater runoff (including from two unmapped UNTs), the Mount Airy Lake impoundment, and the Mount Airy Golf Club golf course. There were three National Pollutant Discharge Elimination System permitted activities in the Forest Hills Run basin. The permitted activities included MPMA WWTP (publicly owned sewage facility), MACR WWTP (non-publicly owned sewage facility), and Mount Airy Casino & Golf Course (pesticide application).
  - Watershed Salinity-related:
    - Forest Hills Run mainstem from UNT 04969 to Mount Airy Lake (excluding the Lake) was impaired based on water chemistry data collected from 1985 through 2025, and macroinvertebrate data collected in 2022. Source Urban Runoff/Storm Sewers, cause Chloride.
    - Forest Hills Run mainstem from Mount Airy Lake Dam to UNT 04966 was impaired based on water chemistry data collected from 1985 through 2022 and macroinvertebrate data collected in 2022.
      - Source Urban Runoff/Storm Sewers, cause Chloride.
      - Source Recreation and Tourism (Non-Boating), cause Organic Enrichment.
    - Forest Hills Run mainstem from UNT 04966 to the mouth at the confluence with Swiftwater Creek was impaired based on water chemistry and macroinvertebrate data collected in 2022.
      - Source Recreation and Tourism (Non-Boating), cause Organic Enrichment.
    - Increasing salinity in surface waters has been identified as an emerging issue through a concept called Freshwater Salinization Syndrome (Kaushal 2018). The diverse range of issues encompassing Freshwater Salinization Syndrome support this assessment's conclusion that the temporal increase in chloride concentrations throughout the Forest Hills Run Basin was considered water quality degradation. As such, the documented increases in chloride concentrations constituted an impairment of the Special Protection Use based on the regulatory requirement to maintain existing water quality.
    - As residential land use increased, the application of deicing salts – often NaCl, $MgCl_2$, or calcium magnesium acetate – to roads, parking lots, driveways, and sidewalks would also have increased in winter months. The presence of deicing salts has also been observed to mobilize heavy metals (Bäckström et al. 2004). According to Bäckström et al. (2004), heavy metal concentrations, including copper and zinc, increased in soil and often reached surface waters due to ion exchange with calcium, the complexation with dissolved organic matter, and colloid dispersion. In one study, increased deicing salt concentration observations in surface waters had been highest in winter months but persisted year-round (Corsi et al. 2015). The likely influence of a considerable amount of slag in the fill that elevated the railroad north of Forest Hills Run, is another likely contributor to the concentration of these chemical parameters found throughout the Forest Hills Run Basin.

- After a stream impairment is listed, the Department can take assorted potential actions to deal with the identified impairment (such as the newly identified watershed salinity issues), but no details are available at this time.

- Stream Impairments:
  - Forest Hills Run mainstem from UNT 04969 to Mount Airy Lake (excluding the Lake) was impaired based on water chemistry data collected from 1985 through 2025, and macroinvertebrate data collected in 2022.
    - Source Urban Runoff/Storm Sewers, cause Chloride.
  - Forest Hills Run mainstem from Mount Airy Lake Dam to UNT 04966 was impaired based on water chemistry data collected from 1985 through 2022 and macroinvertebrate data collected in 2022.
    - Source Urban Runoff/Storm Sewers, cause Chloride.
    - Source Recreation and Tourism (Non-Boating), cause Organic Enrichment.
  - Forest Hills Run mainstem from UNT 04966 to the mouth at the confluence with Swiftwater Creek was impaired based on water chemistry and macroinvertebrate data collected in 2022.
    - Source Recreation and Tourism (Non-Boating), cause Organic Enrichment.
- CBOD5 (organic enrichment):
  - The 5-day carbonaceous biological oxygen demand (CBOD5) could be used as an indicator of the biodegradation of organic constituents. CBOD5 was measured in March of 2022 (Table 3) and the results were highest at Station 5FHR (2.33 mg/L) and decreased at Station 6FHR (1.73 mg/L). Downstream of Mount Airy Lake, the results from several parameters showed increased concentrations at stations 5FHR and/or 6FHR. These increases at Station 5FHR demonstrated the influence of the Mount Airy Lake impoundment and/or the Mount Airy Golf Club course. Data analysis results at both 5FHR and 6FHR, which represented less than a the typical ½ mile reach recommended for an assessment unit (Shull and Pulket 2021), often indicated water quality impacts that did not extend to Station 7FHR and, therefore, were considered localized impacts. (Underlining added.)
  - Source Recreation and Tourism (Non-Boating), cause Organic Enrichment
- Figure: See Report figure excerpt below for Mt Airy STP location relative to the stream sampling locations.
  - Station 5FHR is downstream of Mt Airy Lake and upstream of WWTP. Station 6FHR is downstream of MACR WWTP discharge point. 11/8/2022 Sampling Results Table 5 for metals:
    - Total Copper: 0.704 ug/l (5FHR) and 1.69 ug/l (6FHR)
    - Total Lead: <1 ug/l (5FHR and 6FHR)
    - Total Zinc: 44 ug/l (5FHR) and 33.5 ug/l (6FHR)



2025ForestHillsRun Assess.pdf

Other Comments:

Previous DEP Biologist Memo: The 6/29/2009 DEP Biologist (Sherril R. Leap) Forest Hills Run memo addressed an aquatic chemical and biological investigation conducted on 5/28/2008, at a time of expected nominal STP flows (religious retreat, golf club, Mount Airy Lodge had shutdown but Casino had not started operations). It would not address any improvements due to STP and/or Dam O&M since 2008.

- The Memo noted that the Mount Airy Treatment Plant outfall is downstream of Mount Airy Lake. The memo noted: "Lakes often produce a negative effect on a stream community: with a discharge that may be warmer than the instream temperature; a decrease in dissolved oxygen if the lake discharges from a depth located deeper in the hypolimnion; and an increase in organic material suspended in the water if algae blooms occur. The suspended particles settle out over the downstream substrate, covering the substrate and removing either living space for those taxa that scurry over or attach to the substrate or removing the source of food (attached periphyton) for other taxa".
- Based on the metric scoring results:
  - Monitoring Stations 2 & 3 (upstream of Mount Airy property) were impaired.
  - Monitoring Station 6 (50 yards downstream of lake discharge; 25 yards upstream of STP discharge) showed an impact related to the lake.
  - Monitoring Station 7 (downstream of STP discharge, 10 yards upstream of Carlton Road) & 8 (downstream of STP, 10 yards upstream of Swiftwater Road Bridge) showed impairment most likely due to the STP discharge. **NOTE**: It is difficult to separate out impairment sources contributions, given known upstream sources of impairment.

Forest Hills Run (upstream of lake):

- Upstream STPs on Forest Hills Run:

  - The 0.40/0.50 MGD (tiered) Mount Pocono Municipal Authority STP (NPDES No. PA0044997) outfall is upstream on Forest Hills Run. The MPMA has gone to spray irrigation (during warmer weather) and undertaken several Treatment plant modifications (Chiller units, etc.) to reduce impact on the receiving stream.
  - Scotrun Estates STP (NPDES No. PA0062430) discharge point is shown on Forest Hills Run, upstream of Mount Airy lake/dam, but WMS indicates the NPDES Permit was terminated in 1997.
- Additional Upstream Forest Hills Run-listed impairments (upstream of Mount Airy Lake): URBAN RUNOFF/STORM SEWERS - THERMAL MODIFICATIONS; MUNICIPAL POINT SOURCE DISCHARGES - METALS (zinc); HIGHWAY/ROAD/BRIDGE RUNOFF (NON-CONSTRUCTION RELATED) - THERMAL MODIFICATIONS.

Q7-10 low flow: The Q7-10 low flow is the actual or estimated lowest 7 consecutive-day average flow that occurs once in 10 years for a stream with unregulated flow, or the estimated minimum flow for a stream with regulated flow (Chapter 96.1). A minimum dam release is a "regulated flow". The Q7-10 low flow is used in Department water quality modeling to address Chapter 96.3 (Water quality protection requirements) and Chapter 96.4 (TMDLs and WQBELs) requirements. The watershed Low Flow Yield (LFY) is the Q7-10 low flow divided by the stream drainage area in square miles. The LFY method allows for calculation of a site-specific Q7-10 low flow by multiplying the stream drainage area (at the location of interest) by a known watershed LFY determined at a different location.

- Controlling Factor: The 0.375 CFS Mount Airy Lake Dam (Dam# 45-243) Minimum Release Flow governs the Q7-10 low flow at the Mt Airy Lake Dam discharge point. PA Streamstats estimated a 2.68 square mile drainage area at the apparent discharge point. This would equate to an estimated LFY of 0.1399 CFS/square mile at that location (with the minimum dam discharge potentially greater than Q7-10 low flows if the dam had never been built). WWTP Outfall No. 001 discharge location drainage area was estimated at 2.76 square miles (i.e. additional 0.08 square mile drainage area @0.127 CFS/square mile watershed LFY would equate to **0.3851 CFS Q7-10 low flow at Outfall No. 001**). See below for how the watershed LFY (downstream of Mt Airy Lake dam) was determined.
  - The permittee has indicated eventual plans for a stream restoration project (including dam removal) but could not provide any status report/tentative permitting schedule for a project likely requiring DRBC Docket Updates (WWTP and water withdrawal), potential US Army Corp of Engineers involvement, and likely multiple permit coordination requirements (Dam program; PADEP Waterways & Wetlands stormwater; E&S control and floodplain encroachments; etc.). The project is therefore too immature and speculative to be addressed by the current 5-year NPDES Permit Renewal. The General Information Form did not include permit coordination information other than an estimate overall 86.74-acres earth disturbance area, but indicated no water obstruction/encroachment, not wetlands encroachment, no dam removal or modification, etc. No project schedule was included except for unidentified WWTP upgrades/spray irrigation (golf course) design, permitting, and construction in the 2026 – 2029 time-frame (with "Schedules & Milestones are subject to change"), which would be independent of any dam removal project except for possibly being within the undefined 86.74-acre area.
  - The Department requested any available information on expected post-dam removal Forest Hills Run Q7-10 low flows, but nothing was provided in the application. Therefore, this NPDES Permit Renewal cannot address post-project flows and will require a stream low flow evaluation if the dam removal project proceeds.
- 1984 Permitting Assumptions: The Q7-10 used in the 1984 Water Pollution Report was based on USGS Gage 1440450 (Paradise Creek at Henryville, PA) information from old PA Bulletin 12. However, the PA Bulletin 12 is no longer recommended for use by the USGS. The USGS PA Streamstats methodology is recommended for ungaged streams, but is superseded here by the Dam that regulates stream flow at Outfall No. 001. It is also unknown what the impact of dam removal might be on a former downstream gage location's low flows (that is no longer being monitored).
- Swiftwater Gage: The Swiftwater USGS Gage (Gage 01440485 –Swiftwater Creek) is on a different stream, and well outside the expected range for low flow yields (~6.9 times statewide LFY default). Its gage data cannot be used for other streams due to the anomalous flows (noted as unusual in USGS Scientific publications).
- 9/13/2017 DRBC Docket D-1977-58-5 Information: Near the project site, Forest Hills Run had an estimated seven-day low flow with a recurrence interval of ten years of 0.71 MGD (1.1 CFS). The ratio of this low flow to the average design wastewater flow (0.22 MGD) is approximately 3 to 1. The basis for this DRBC-determined value was unclear.
- Overall Watershed LFY: The watershed Low Flow Yield is the Q7-10 low flow divided by the drainage area in square miles. When stream drainage areas do not allow for calculation of the Q7-10 directly via the USGS PA Streamstats website, the LFY method allows for calculation of a site-specific Q7-10 low flow, assuming the

watershed LFY is representative of site conditions. There is no presently monitored downstream stream gage on Forest Hill Run, with downstream Brodhead Creek stream gages too distant and with too dissimilar watershed characteristics to allow their usage in developing a Q7-10 low flow value. The Swiftwater Creek Stream Gage is reporting low flows that are outside of expected ranges, rendering it unusable for estimating Forest Hills Run flow estimation. A separate evaluation of upstream conditions for the Mount Pocono Municipal Authority NPDES Permit renewal determined that the USGS PA Streamstats was underestimating upstream low flows to an uncertain degree, rendering it suspect. The USGS Scientific Investigations Report No. 2005-5162 (Streamflow Statistics for the Paradise and Pocono Creek Watersheds and Selected Streamflow-Gaging Stations in Monroe County, Pennsylvania by Ronald E. Thompson and Gregory J. Cavallo) contained old watershed gage data and calculated low flows that was used to calculate an overall Paradise Creek watershed LFY (0.127 CFS/square mile):

USGS Gage	Thomson & Cavallo Predicted Q7-10*	Other Flow information
Gage# 01440485 Swiftwater Creek at Swiftwater, PA (6.59 square mile drainage area; gage data from **2001 to present)**. Only ~3-years of data was available for the Thompson & Cavallo analysis. Latitude: 41.093889˚ Longitude: -75.322500˚	4.1 CFS	4.6 CFS Q7-10 low flow per USGS Hydrologic Toolbox analysis of 2001-2024 gage data. 4.6 CFS would equate to a 0.69 CFS/square mile LFY for the gaged Swiftwater Creek watershed. **NOTE**: The DEP statewide LFY default is 0.1 CFS/square mile.
Gage# 01440500 Paradise Creek at Henryville, PA (30.2 square mile drainage area; gage data from **1965 – 1991**; located below the Swiftwater Creek confluence and above the Cranberry Creek Confluence per USGS report coordinates) Latitude: 41.100000˚ Longitude: -75.251389˚	7.1 CFS*	USGS PA Streamstats estimated the Q7-10 low flow at 2.1 CFS for approximate drainage area of 29.4 square miles at the given old gage location in comparison. This is equivalent to 0.0714 CFS/square mile watershed LFY.

* If one subtracts the abnormally high Swiftwater Creek Q7-10 low flow (4.1 CFS) and gage drainage area (6.59 square miles), then Paradise Creek has a remaining ~3 CFS Q7-10 discharge from a 23.61 square mile drainage area. This is equivalent to a **0.127 CFS/square mile watershed Low Flow Yield (LFY)**. In the absence of any available Forest Hills Run flow data to better estimate stream low flow, this watershed LFY can be used at points downstream of the known minimum dam release flow (0.375 MGD). In event of a dam removal project, NPDES Permit Part C.I.K will require a scientific determination of the post-dam-removal Q7-10 low flow due to potential water withdrawals and any available updated information on stream flows.

Impairment Causes/Sources:

- Organic Enrichment: As the 2025 Stream Assessment Report indicated organic enrichment causes were “Source Recreation and Tourism (Non-Boating)” from the facility, DEP ABACT limits (CBOD5) will be incorporated with the existing DRBC Docket-based 85% CBOD5 minimum monthly average reduction requirement to limit potential WWTP contributions to overall organic enrichment issues.
- Salinity: As the 2025 Stream Assessment Report indicated salinity causes were “Urban Runoff/Storm Sewers” (chlorides) for stream impairment, no limits were included in the Redraft NPDES Permit for the STP. NPDES Permit Part A.I.C includes Chlorides and TDS monitoring, with Part C.I.L requiring facility use of salt-management BMPs to address potential facility contributions to stream salinity issues.
- Pathogens: If the disinfection system is properly operated and maintained, the facility is not expected to be a source of pathogens. See Compliance History section for reported fecal coliform exceedances. The NPDES Permit includes new Chapter 92.47 Fecal Coliform limits, new E Coli monitoring, and an O&M Plan requirement that will address any WWTP contribution.

- Dam: As noted in the 6/29/2009 DEP Biologist memo, dams can cause negative impacts. The facility indicates that it is planning to remove the existing Dam# 45-243 B1 Dam, which would address such dam impacts, but no schedule or status of project is available.

Treatment Facility Summary

Treatment Facility Name: Mt Airy #1 a.k.a. MACR WWTP

WQM Permit No.	Issuance Date	Scope
168S016	6/11/1968	Original STP
4574410	10/21/1974	Additional aeration tank and settling tank, larger chlorine contact tank (replacement), aerated flocculation tank equipped with alum feed equipment and **two (2) new microstrainers** per DRBC Docket No. D-74-131 CP. Existing 0.140 MGD STP (designed for 0.225 MGD capacity) included bar screen, comminutor, grit chamber, two aeration tanks, two final settling tanks, an aerated sludge holding tank, and chorine contact tank (with chlorination equipment).
4577402	1/10/1979	Upgrade to 0.225 MGD from 0.140 MGD (rerating of existing units/equipment); replacement bypass bar screen and 28,300-gallon aerated equalization tank, new chlorine contact tank, and an alum building with 6,000-gallon fiberglass lined alum tank. **Existing STP was noted to include two microstrainers**. DEP SEJ Approval dated 1/26/1977.
4579402	6/6/1979	Allowing use of STP effluent (meeting NPDES Permit No. PA0060054 requirements) to spray irrigate the Mt. Airy golf course from May through October (in conjunction with water from Mt. Airy Lake via Surface Water Intake), with STP discharge to Forest Hills Run in the remainder of the year. The existing polishing pond would be expanded, a low pressure aeration system, overflow and pump intake would be installed. A pump station and 6-inch force main (with concrete encased stream crossing) would be constructed to pump the effluent to the wet well of the golf course irrigation system. **Three groundwater monitoring wells were to be sampled semi-annually for TDS, MBAS, Chlorides, and Fecal Coliform**. Approximately 2.6 MG/week will be needed for 1-inch week at fairways and 1.5-inch per week for greens and tees. The STP was estimated to provide ~50% of the requirement. During drought, the application rate would be reduced to 0.5-inch per week for fairways and 0.75-inch per week for greens and tees using only treated STP effluent. The 1/19/2010 DEP Letter noted the WQM permit was transferred on 2/16/2006, when inquiring about spray irrigation usage onsite. 2/9/2010 Permittee (Gannett Fleming) correspondence indicated that historically the (previous) facility owners abandoned usage of the spray irrigation system for unknown reasons, with the spray irrigation infrastructure removed. **NOTE**: Spray Irrigation facilities included repurposed polishing pond impoundment, pump station, stream crossing pipe, in addition to spraying infrastructure plus groundwater monitoring wells.
4506404	6/26/2006	New Sewer Collection System to service 200 room resort/hotel/casino per E-facts note. Spray irrigation rehab work removed from application. 182 GPM Mount Airy Pump Station No. 1 design capacity. No WWTP upgrade or rehab addressed therein. 2006 Design Engineer Report noted WWTP design included bar screen, aerated equalization basin, three complete mix activated sludge basins (each followed by a secondary clarifier). Sludge is returned to either head of aeration basins or wasted to one of two aerated sludge holding basins with airlift pumps. Clarified wastewater is chlorinated prior to discharge to aerated polishing pond. No Module 1 found for project.

4579402-T1	2/16/2006	1/19/2010 DEP Letter noted the 1979 WQM permit (spray irrigation) was transferred on 2/16/2006, when inquiring about spray irrigation usage onsite. In practical terms, the old spray irrigation WQM permit is too obsolete to allow for replacement of removed spray irrigation facilities not designed to meet current regulatory/DEP technical guidance requirements. The 2007 NPDES Permit Part C.I Six stated: "The effluent discharge limitations in this permit apply to the spray irrigation system permitted under Water Quality Permit No. 4579402-T1".

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary with TP removal	Extended aeration, chemical TP treatment	Sodium Hypochlorite	0.225 MGD*

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.225*	459**	Not Overloaded	Aerated sludge holding tank	Disposal

* NPDES Permit Basis flow and Hydraulic Design Capacity is set to 0.225 MGD Annual Average Daily Flow per SEJ coverage.
**1977 WQM permitted organic design capacity.

Changes Since Last Permit Issuance: See below.

Other Comments:

2026 Process Flow & Instrumentation Diagram/narrative: Influent manhole; 12-inch diameter sewer main; one (1) Comminutor; one (1) Mechanical Screen (rotating drum) with bar screen bypass; one (1) Influent Flow meter; one (1) Flow diversion box (with one (1) Flow equalization tank including alum feed bypass); one (1) Distribution chamber; three (3) Aeration Tanks; three (3) Settling Tanks; one (1) Chlorine Contact Tank (with wall mounted effluent meter) ; one (1) Effluent manhole; piping to Outfall No. 001. Settling Tanks have Return Waste Line to one (1) Sludge Holding Tank No. 3 with one Sludge Holding Tank dewater pump station for pumping to Flow Equalization Tank. Old Sludge Holding Tanks Nos. 1 and 2 are indicated to be not used per diagram but in series use per narrative (directing solids to Sludge Holding Tank No. 3) but piping not shown on figure. Influent/Effluent sampling points not identified. Use of alum for phosphorus reduction (15 GPD in 2026), soda ash for pH control (50 lb/day in 2026 update), sodium bicarbonate for alkalinity (100 lb/day in 2026 update) and polymer for sludge handling (not identified as wastewater treatment chemical in 2026 update). Liquid Sodium Hypochlorite (3 GPD in 2026 update) chlorine disinfection system. Not mentioned:

- Reaction tank with oil skimmer
- Two (2) microstrainers
- Chlorine Contact Tank's provisions for breakpoint chlorination and sulfur dioxide dechlorination (which would require WQM permitting to pursue along with any proposed de-chlorination system)
- Alum building with 6,000-gallon tank
- Old spray irrigation facilities (retained polishing pond, low pressure aeration system, overflow, pump station and force-main to Golf Course, plus groundwater monitoring system). These facilities were reportedly removed or abandoned by prior permittee.

Older WWTP descriptions:

- 1/10/1977 WQM Permit No. 4577402 IRR Process Description:
  - Existing Comminutor, bypass bar screen, aerated equalization tank, mixing and flocculation facilities, reaction tank with oil skimmer, three aeration tanks, three settling tanks, two microstrainers, and two chlorine contact tanks.
  - Replacement bar screen, new 28,300-gallon aerated equalization tank, new chlorine contact tank (with provisions for breakpoint chlorination and sulfur dioxide dechlorination), and alum building with 6,000-gallon fiberglass lined alum tank.

- 6/6/1979 WQM Permit No. 4579402 (spray irrigation option) IRR Description: Use of existing polishing pond to provide detention time, with low pressure aeration system, overflow, and pump intake. Pump station and 6-inch force main to golf course pumps' wet well, with concrete encased stream crossing. Groundwater monitoring system. **NOTE**: The facility had indicated the spray irrigation unit/equipment had been abandoned by previous permittee and removed from site. Not clear if spray irrigation distribution system was abandoned or modified. A new WQM permit, meeting current regulatory/technical requirements, would be required for any future spray irrigation option.
- 2017 NPDES Application Form and Process Flow Diagram Deescription: Extended aeration system. Treatment units consist of a bar screen followed by an aerated equalization basin. Flow from the equalization basin is split between three (3) complete mix activated sludge aeration basins, each followed by a secondary clarifier. Sludge is returned to the head of the aeration basins or wasted to the sludge basin with airlift pumps. The plant effluent is chlorinated prior to discharge to Forest Hills Run. Narrative indicated use of alum for phosphorus reduction (15 GPD in 2026), soda ash for pH control (50 lb/day in 2026), sodium bicarbonate for alkalinity (100 lb/day in 2026) and **polymer for sludge handling (not identified as wastewater treatment chemical** in 2026 update**).** No de-chlorination chemical usage identified in 2026**.** Liquid Sodium Hypochlorite (3 GPD in 2026) chlorine disinfection system. Process flow diagram also showed distribution chamber (i.e. splitter box), and aerated sludge holding tank. **NOTE**: 2024 Circuit Rider Plan indicate alum is added at influent EQ Tank via peristatic pump, and indicated sodium bicarb is also used onsite. No SOPs were attached to the Circuit Rider Plan.
- 1/06/2022 DEP Inspection Report Description: Treatment plant takes the flow from the Mount Airy Casino and Resort as well as a nearby building that was once a convent. Flow enters the treatment plant through a headworks containing a comminutor, mechanical bar screen (with manual bar screen to be used if the mechanical bar screen must be bypassed) before entering a splitter box, aerated influent E.Q. tank, second splitter box, and three treatment trains. Each treatment train consists of an aeration basin and clarifier. Flow recombines after the treatment trains and passes through two chlorine contact tanks and two post air tanks and finally a discharge E.Q. tank before being discharged at Outfall 001. A large waste sludge tank is still in use here with an older, smaller one present but not in use. Liquid Chlorine: fed at the chlorine contact tanks for disinfection. Soda Ash: fed at the aeration basins as a powder by hand for alkalinity and pH adjustment. Sodium Bicarbonate: fed at the aeration basins as a powder by hand for alkalinity and pH adjustment.
    - Inspection report noted effluent samples were 24-hour composite samples, but not flow-proportional per existing admin-extended 2007 NPDES permit.
    - Inspection report recommended inoperative influent flow meter be repaired.
    - The Department requests that the manner of the loading of the treatment trains be researched with the goal of having them all fed evenly; and that any changes made to this end be sent to the Department in writing.

9/8/2022 DRBC Docket No. D-1977-058-6 (Mt Airy #1 LLC – WWTP): WWTP description did not contain mention of the two microstrainers.

Compliance History

DMR Data for Outfall 001 (from December 1, 2024 to November 30, 2025)

Parameter	NOV-25	OCT-25	SEP-25	AUG-25	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24
Flow (MGD) Average Monthly	0.0378	0.0452	0.0431	0.0477	0.0475	0.0454	0.0752	0.037	0.0608	0.0345	0.0344	0.0616
Flow (MGD) Daily Maximum	0.0481	0.057	0.0527	0.0706	0.0595	0.0599	0.1535	0.0538	0.0851	0.047	0.065	0.279
pH (S.U.) Instantaneous Minimum	6.91	7.19	7.1	6.96	7.25	7.26	7.26	7.11	7.48	7.5	7.53	7.6
pH (S.U.) Instantaneous Maximum	8.14	8.14	8.33	8.46	8.2	8.02	8.13	8.52	8.54	8.32	8.14	8.28
DO (mg/L) Instantaneous Minimum	7.66	7.39	7.8	7.47	**6.65**	7.28	**6.85**	8.06	7.93	9.61	8.24	8.20
TRC (mg/L) Average Monthly	**0.8**	**0.6**	**0.6**	**0.8**	**0.4**	**0.4**	**0.3**	**0.30**	**0.2**	**0.3**	**0.4**	**0.3**
CBOD5 (lbs/day) Average Monthly	< 0.8	< 1.0	< 1.1	< 1.1	< 1.3	< 1.1	< 2.5	< 0.9	< 1.5	< 0.8	< 0.8	< 0.9
CBOD5 (mg/L) Average Monthly	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.7	< 3.1	< 3.6	< 3.0	< 3.0	< 3.0
TSS (lbs/day) Average Monthly	1.4	1.7	1.6	8.1	< 2.6	< 4.8	18.2	< 4.5	9.2	4.5	3.8	3.8
TSS (mg/L) Average Monthly	5.5	5.1	4.3	**21.1**	< 6.5	**< 12.8**	**21.9**	**< 15.1**	**22.5**	**17.7**	**15.5**	**15.7**
Total Dissolved Solids (lbs/day) Average Quarterly			227.33			232			158			219.3
Total Dissolved Solids (mg/L) Average Quarterly			591.66			592.3			522.0			614.3
Fecal Coliform (No./100 ml) Average Monthly	< 9.0	< 10.0	< 10	**> 26**	< 3	14	**> 119**	**> 24.0**	**> 105.0**	**> 72.0**	7.0	34.0
Fecal Coliform (No./100 ml) 90% of Samples			10	**> 2419.6**	21.3	36.4	**> 2419.6**					

Nitrate-Nitrite (mg/L) Average Monthly	25.1	25.4	25	25	29.27	35.5	23.5	32.3	17.9	30.6	27.4	28.4
Ammonia (lbs/day) Average Monthly	< 0.06	< 0.07	< 0.09	< 0.08	< 0.08	< 0.07	< 0.1	< 0.06	< 0.3	4.5	1.1	< 0.06
Ammonia (mg/L) Average Monthly	< 0.2	< 0.2	< 0.3	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.6	< 0.2	3.9	< 0.2
Total Phosphorus (lbs/day) Average Monthly	0.2	0.1	0.2	0.4	0.3	0.3	1.4	0.3	0.4	0.7	0.2	0.1
Total Phosphorus (mg/L) Average Monthly	0.7	0.4	0.5	1.1	0.7	0.9	1.6	0.9	1.0	**2.5**	0.7	0.7

DMR Data for Outfall 001 (from January 1, 2024 to November 30, 2024):

Parameter	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24	JAN-24
Flow (MGD) Average Monthly	0.0546	0.0448	0.0429	0.0478	0.0455	0.0436	0.0422	0.0652	0.07727	0.044	0.0766
Flow (MGD) Daily Maximum	0.1366	0.1233	0.0608	0.0684	0.0628	0.0552	0.0523	0.1489	0.1462	0.0617	0.1994
pH (S.U.) Instantaneous Minimum	7.37	7.43	7.53	6.91	7.27	6.08	6.84	7.16	7.35	7.22	7.3
pH (S.U.) Instantaneous Maximum	8.22	8.65	8.48	8.3	8.09	7.98	8.02	8.17	8.03	8.08	7.97
DO (mg/L) Instantaneous Minimum	7.62	7.38	**6.40**	7.22	7.07	7.26	7.26	7.51	7.4	7.86	7.22
TRC (mg/L) Average Monthly	**0.30**	**0.3**	**0.30**	**< 0.4**	**0.3**	**0.4**	**0.4**	**0.2**	**0.2**	**0.3**	**0.4**
CBOD5 (lbs/day) Average Monthly	< 1.1	< 1.4	< 1.0	< 1.1	< 1.0	< 1.5	< 1.0	< 6.5	< 4.1	< 1.4	< 8.3
CBOD5 (mg/L) Average Monthly	< 3.9	< 3.0	< 3.0	< 3.0	< 3.0	< 4.2	< 3.0	< 6.7	< 1.9	< 3.8	< 9.3
TSS (lbs/day) Average Monthly	3.4	2.7	2.0	2.8	< 2.7	2.9	1.4	< 5.1	< 11.1	2.5	8.6
TSS (mg/L) Average Monthly	**11.9**	5.0	6.3	7.19	< 7.7	7.8	3.9	< 6.6	< 5.0	6.3	9.7

Total Dissolved Solids (lbs/day) Average Quarterly			245			437.6			296		
Total Dissolved Solids (mg/L) Average Quarterly			702.0			572.0			405.3		
Fecal Coliform (No./100 ml) Average Monthly	17.0	40.0	71	5	92	29	< 40	127.0	< 178.0	16.0	< 88.0
Fecal Coliform (No./100 ml) 90% of Samples			**1011.2**	9.2	613.1	**2419.6**	686.7				
Nitrate-Nitrite (mg/L) Average Monthly	34.4	40.3	45.8	46.1	49	48.6	46.3	19.6	14.44	22.26	9.34
Ammonia (lbs/day) Average Monthly	< 0.06	< 0.1	0.07	< 0.07	< 0.08	< 0.2	< 0.3	< 0.6	< 0.4	0.6	1.8
Ammonia (mg/L) Average Monthly	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.4	< 0.7	< 0.6	< 0.8	1.7	2.8
Total Phosphorus (lbs/day) Average Monthly	0.3	0.4	0.4	0.3	0.3	0.4	0.7	0.6	0.3	0.3	0.5
Total Phosphorus (mg/L) Average Monthly	0.9	0.8	1.3	0.7	0.8	1.1	2.0	0.9	0.6	1.0	0.6

Compliance History

Effluent Violations for Outfall 001, from: February 1, 2024 To: November 30, 2025

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Fecal Coliform	02/28/25	Avg Mo	> 72.0	No./100 ml	2000.0	No./100 ml
Fecal Coliform	03/31/25	Avg Mo	> 105.0	No./100 ml	2000.0	No./100 ml
Fecal Coliform	04/30/25	Avg Mo	> 24.0	No./100 ml	2000.0	No./100 ml
Fecal Coliform	05/31/25	Avg Mo	> 119	No./100 ml	200	No./100 ml

Fecal Coliform	08/31/25	Avg Mo	> 26	No./100 ml	200	No./100 ml
Fecal Coliform	06/30/24	90%SAMPLES	2419.6	No./100 ml	1000	No./100 ml
Fecal Coliform	09/30/24	90%SAMPLES	1011.2	No./100 ml	1000	No./100 ml
Fecal Coliform	05/31/25	90%SAMPLES	> 2419.6	No./100 ml	1000	No./100 ml
Fecal Coliform	08/31/25	90%SAMPLES	> 2419.6	No./100 ml	1000	No./100 ml
Total Phosphorus	02/28/25	Avg Mo	2.5	mg/L	2.0	mg/L

Summary of Inspections:

SITE NAME	INSP PROGRAM	INSP ID	INSPECTED DATE	INSP TYPE	INSPECTION RESULT DESC	# OF VIOLATIONS
MT AIRY CASINO & RESORT	WPCNP	2201364	01/06/2022	Administrative/File Review	Violation(s) Noted	2
MT AIRY CASINO & RESORT	WPCNP	2691128	12/30/2021	Follow-up Inspection	No Violations Noted	0
MT AIRY CASINO & RESORT	WPCNP	2610757	07/15/2021	Administrative/File Review	Violation(s) Noted	1
MT AIRY CASINO & RESORT	WPCNP	3219805	05/08/2020	Administrative/File Review	Violation(s) Noted	1
MT AIRY CASINO & RESORT	WPCNP	2386195	03/23/2020	Compliance Evaluation	No Violations Noted	0
MT AIRY CASINO & RESORT	WPCNP	3030769	01/30/2018	Administrative/File Review	No Violations Noted	0
MT AIRY CASINO & RESORT	WPCNP	2314473	01/17/2018	Routine/Partial Inspection	Violation(s) Noted	2
MT AIRY CASINO & RESORT	WPCNP	3374960	04/11/2017	Administrative/File Review	Violation(s) Noted	1
MT AIRY CASINO & RESORT	WPCNP	2684447	03/07/2017	Compliance Evaluation	Violation(s) Noted	1
MT AIRY CASINO & RESORT	WPCNP	3013565	01/23/2017	Administrative/File Review	No Violations Noted	0

MT AIRY CASINO & RESORT	WPCNP	2548100	12/29/2016	Follow-up Inspection	Violation(s) Noted	1
MT AIRY CASINO & RESORT	WPCNP	3307318	12/13/2016	Compliance Evaluation	No Violations Noted	0
MT AIRY CASINO & RESORT	WPCNP	2145202	06/25/2015	Routine/Complete Inspection	No Violations Noted	0
MT AIRY CASINO & RESORT	WPCNP	2544325	08/07/2014	Routine/Partial Inspection	No Violations Noted	0
MT AIRY CASINO & RESORT	WPCNP	2554187	09/03/2013	Follow-up Inspection	No Violations Noted	0
MT AIRY CASINO & RESORT	WPCNP	2569387	02/06/2013	Follow-up Inspection	No Violations Noted	0

Other Comments:

- **EDMR data indicated noncompliance with existing (more stringent) DRBC Docket limits (being incorporated into this permit per Chapter 92a.12 and 92a.36) in addition to existing NPDES permit limits. As the DRBC Docket limit have been effective since 2022, the new limits will be effective upon Permit Effective Date.**
- 9/3/2013 NOV for Certified Operator Invoice nonpayment.
- 12/30/2021 NOV for late Annual fee.
- 7/15/2021 NOV (Fecal Coliform, TSS, TRC, and Total Phosphorus exceedances). The 7/29/2021 ESC NOV response letter attributed some of the issues to clarifier issues such as bulk causing rising sludge which flowed into the post-pond and chlorine contact tanks, plus noted FOG issues. TP issues were blamed on a broken chemical feed line (underground).
- There were assorted 2020-2025 Fecal Coliform exceedances blamed on equipment issues, in addition to several Total Phosphorus exceedances blamed on equipment issues. They have been reporting “>” fecal coliform results in the last several years. 1/6/2022 Inspection Report indicated that the inspector discussed the “>” and “<” reporting results but EDMR problems in 2025.
- The facility appears to have removed two permitted microstrainer units from the WWTP (apparently by previous owner/operator). The facility may need to replace them to achieve TSS limits going forward. The Permittee could alternatively update the WQM Permit to authorize their removal.

Compliance History: See Background section for apparent redundant client numbers.

- No open violation per 1/22/2026 WMS query under Client No. 243905.

Client ID: 243905
Client: All

Open Violations: 0
No data was found using the criteria entered. Please revise your choices and try again.

- Six open violations per 1/22/2026 query under Client No. 240006:

PF KIND	INSP PROGRAM	PROGRAM SPECIFIC ID	VIOLATION ID	VIOLATION DATE	VIOLATION CODE	VIOLATION
NonTransient NonCommunity	Safe Drinking Water	2450677	951257	04/12/2022	C1A	FAILURE TO MEET DESIGN AND CONSTRUCTION STANDARDS
NonTransient NonCommunity	Safe Drinking Water	2450677	951258	04/12/2022	C1A	FAILURE TO MEET DESIGN AND CONSTRUCTION STANDARDS
NonTransient NonCommunity	Safe Drinking Water	2450677	951259	04/12/2022	C1A	FAILURE TO MEET DESIGN AND CONSTRUCTION STANDARDS
NonTransient NonCommunity	Safe Drinking Water	2450677	951260	04/12/2022	C8-OLD	FAILURE OF A CWS TO PERFORM A SYSTEM EVALUATION ANNUALLY
NonTransient NonCommunity	Safe Drinking Water	2450677	951261	04/12/2022	D6E	FAILURE OF A CWS TO DEVELOP AND/OR UPDATE AN EMERGENCY RESPONSE PLAN
NonTransient NonCommunity	Safe Drinking Water	2450677	951262	04/12/2022	D2I	FAILURE TO COMPLY WITH UNINTERRUPTED SYSTEM SERVICE PLAN REQUIREMENTS

Pennsylvania
Department of
Environmental Protection

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .225
Latitude 41º 6' 48.67" **Longitude** -75º 18' 51.06"
Wastewater Description: Sewage Effluent

Permit Limits and monitoring requirements (Changes bolded): Changes from administratively extended 2007 NPDES permit/current EDMR reporting requirements are bolded.

Parameter	Limit (mg/l unless otherwise specified)	SBC	Model/Basis
Flow	Report MGD Report MGD	Monthly Average Daily Max	EDMR range (19 months): 0.042 – 0.077 MGD monthly average 0.047 – 0.279 MGD daily max
CBOD5 **(Final on PED)**	**18.7** lbs/d **37.5 lbs/d** **10.0** **20.0** **20.0**	Monthly Average **Daily Max** Monthly Average **Daily Max** IMAX	**ABACT Limits imposed due to facility-specific Organic Enrichment issues in receiving stream, superseding DRBC Docket limits**. **EDMR and application data shows facility can comply with ABACT limits upfront. Increasing organic loadings would contribute to ongoing organic enrichment issues.** 2017 Application data: 3.56 mg/l average (8-hour composite). EDMR range (19 months): <3.0 - <9.3 mg/l monthly averages 2026 Application Data: Effluent:16 mg/l CBOD5 max and 3.11 mg/l average (52 samples) Influent: 1170 mg/l BOD5 max and 356.5 mg/l BOD5 average (80 grab samples)
CBOD5 Influent (Raw Sewage Influent) (Final on PED)	**Report lb/d** **Report lb/d** **Report** **Report**	**Monthly Average** **Daily Max** **Monthly Average** **Daily Max**	**DRBC Docket monitoring requirement (Chapter 92a.12, 36)** 2017 Application data: 284.9 mg/l BOD5 2026 Application data: 356.5 mg/l average BOD5 (80 grab samples), 103.08 mg/l min, and 1170 mg/l max.
CBOD5 Minimum % Removal (Final on PED)	**85%**	**Minimum Monthly Average**	**DRBC Docket requirement (Chapter 92a.12, 36)** 2026 Data Analysis**:** Facility met minimum based on BOD5 influent and CBOD5 effluent data (assuming 1.2 BOD5: 1.0 CBOD5 standard ratio for effluent) based on average BOD5 influent and average CBOD5 effluent values.
TSS **(Final on PED)**	**18.3** lbs/d **36.7 lbs/d** **1**0.0 **20.0** **2**0.0	Monthly Average **Daily Max** Monthly Average **Daily Max** IMAX	DRBC Docket requirement (Chapter 92a.12, 36) supersedes any less stringent requirement (55 lb/d and 30 mg/l monthly average/60 mg/l IMAX in 2007 permit). 2017 Application data: 18.5 mg/l average (8-hour composite) EDMR range (19 months): <3.9 – **22.5** mg/l monthly averages 2026 Application Data: Effluent: **94 mg/l max** and 13.4 mg/l average (52 samples) Influent: 1640 mg/l max and 339.72 mg/l average (80 grab samples)
pH	6.0 – 9.0 SU	Inst. Min - IMAX	Existing Technology limit (Chapter 92a.47).

			2017 Application data: 6.7 SU minimum and 7.6 SU maximum EDMR range (12 months): 6.08 – 8.65 SU 2026 Application Data: 6.91 – 8.54 SU (365 samples)
Fecal Coliform (5/1 – 10/31)	200/100 ml 1,000/100 ml	Geo Mean IMAX	Existing Technology limit (Antidegradation) per Chapter 92a.47. (No 90% samples language in Chapter 92a.47.) 2017 Application data: 2.88/100 mil average EDMR range (19 months): Assorted EDMR results were ">", which automatically considered an exceedance. <5 - <178 mg/l GEO mean 9.2 - **>2419**/100 ml (90% of samples) 2026 Application Data: **2419.6/100 ml max** and 36.08/100 ml (52 samples)
Fecal Coliform (11/1 – 4/30)	2000/100 ml **10,000/100 ml**	Geo Mean **IMAX**	Existing Technology limit with IMAX added per Chapter 92a.47.
E Coli	**Report/100 ml**	**IMAX**	**New standard monitoring requirement due to E Coli Chapter 93 WQS (Chapter 92a.61)** 2017 and 2026 Application data: None
Ammonia-Nitrogen (May 1 - Oct 31) **(Final on PED)**	**2.7** lbs/d **5.5 lbs/d** **1.5** **3.0** **3.0**	Monthly Average **Daily Max** Monthly Average **Daily Max** IMAX	DRBC Docket requirement (Chapter 92a.12, 36) supersedes any less stringent requirement (45.9 lb/d and 25 mg/l monthly average in 2007 permit per WMS). Standard multipliers used. 2017 Application data: 2.0 mg/l (Nov – April) and 0.64 mg/l (May – October) EDMR range (19 months): <0.2 - **3.9** mg/l monthly averages 2026 Application Data: Effluent: **26.2 mg/l max** and 0.55 mg/l average (52 samples) Influent: 50.8 mg/l max and 22.42 mg/l average (80 grab samples)
Ammonia-Nitrogen (Nov 1 - Apr 30) **(Final on PED)**	**8.2** lbs/d **16.5 lbs/d** **4.5** **9.0** **9.0**	Monthly Average **Daily Max** Monthly Average **Daily Max** IMAX	See above.
Dissolved Oxygen (DO) **(Final on PED)**	**7**.0	Inst. Minimum	DRBC Docket requirement (Chapter 92a.12, 36) supersedes any less stringent requirement (6.0 mg/l instant minimum in 2007 permit per WMS). supported by water quality modeling? 2017 Application data: **6.03 mg/l minimum** EDMR range (19 months): **6.40** - <8.2 mg/l minimum 2026 Application Data: 6.65 mg/l min and 9.23 mg/l average (365 samples)
Total Phosphorus	3.**6** lb/d **7.3 lb/d** 2.0 **4.0** 4.0	Monthly Average **Daily Max** Monthly Average **Daily Max** IMAX	Existing WQBEL and DRBC Docket requirement. Recalculated monthly average was 3.66 lbs/day rounded to 3.6 for conservatism. Standard multipliers used. 2017 Application data: **3.0 mg/l average** EDMR range (19 months): 0.6 – **2.5** mg/l monthly averages 2026 Application Data: Effluent: **5.98 mg/l max** and 0.975 mg/l average (52 samples)

			Influent: 18.7 mg/l max and 6.80 mg/l average (80 grab samples)
Total Residual Chlorine (TRC) **(interim – 3 years)**	1.0 2.0	Monthly Average IMAX	Existing facility-specific BAT TBEL (Chapter 92a.48) in absence of facility upgrade or de-chlorination. 2017 Application data: **1.01** mg/l max and 0.46 mg/l average EDMR range (19 months): 0.2 – 0.4 mg/l monthly averages 2026 Application Data: **1.87 mg/l max and 0.45 mg/l average** (52 samples)
Total Residual Chlorine (TRC) (final – 4th year)	**0.17** **0.55**	**Monthly Average** **IMAX**	**New WQBEL per TRC spreadsheet – effective in 3 years as EDMR data indicates exceedances in 2025 while preventing fecal coliform exceedances.**
Total Nitrogen (Nitrate- Nitrite plus TKN measured in same sample)	**Report lb/d** **Report lb/d** **Report** **Report**	**Monthly Average** **Daily Max** **Monthly Average** **Daily Max**	DRBC Docket requirement (Chapter 92a.12 and 36). 2017 Application data: Not calculated, but see below for component information. EDMR range (19 months): None 2026 Application Data: 42.1 mg/l max and 29.41 mg/l average (52 samples)
Nitrate-Nitrite as N	**Report lb/d** **Report lb/d** Report **Report**	**Monthly Average** **Daily Max** Monthly Average **Daily Max**	Existing DRBC Docket requirement (Chapter 92a.12 and 36) and existing NPDES permit requirement. 2017 Application data: 20.4 mg/l average EDMR range (19 months): 9.34 – 48.6 mg/l monthly averages 2026 Application Data: Effluent: 39.6 mg/l max and 27.11 mg/l average (52 samples) Influent: 2.36 mg/l max and 0.314 mg/l average (80 grab samples)
Total Kjehldahl Nitrogen (TKN)	**Report lb/d** **Report lb/d** **Report** **Report**	**Monthly Average** **Daily Max** **Monthly Average** **Daily Max**	**Existing DRBC Docket requirement (Chapter 92a.12 and 36)** 2017 Application data: 4.8 mg/l average EDMR range (19 months): None 2026 Application Data: 21 mg/l max and 2.25 mg/l average (52 samples)
Total Dissolved Solids (TDS)	**1834 lb/d** **Report lb/d** 1000.0 **2000.0** 2000.0	Monthly Average **Daily Max** Monthly Average **Daily Max** IMAX	**Existing DRBC Docket requirement with standard multipliers. Due to monthly average nature of existing limit, monthly monitoring required. Slight change in recalculated TDS mass load limit.** 2017 Application data: 402 mg/l average EDMR range (19 months): 405.30 – 702.0 mg/l quarterly averages 2026 Application Data: Effluent: 718 mg/l max and 560.75 mg/l average (52 samples) Influent: 1060 mg/l max and 179.36 mg/l average (80 grab samples)
Total Organic Carbon (TOC)	**Report lb/d** **Report lb/d** **Report** **Report**	**Monthly Average** **Daily Max** **Monthly Average** **Daily Max**	**Monitoring requirement (Chapter 92a.61) from previous Draft NPDES Permit to gather information on organic loadings to help characterize STP contribution to stream organic enrichment.** 2017 Application data: 8.9 mg/l EDMR range (19 months): None

			2026 Application Data: None
Chlorides	**Report lb/d** **Report lb/d** **Report** **Report**	**Annual Average** **Daily Max** **Annual Average** **Daily Max**	**Semi-annual monitoring requirement to gather information for baseline due to watershed salinity issues and to account for seasonal spray irrigation usage. (Chapter 92a.61)** 2017 Application data: None EDMR range (19 months): None 2026 Application Data: 134 mg/l max and 122.3 mg/l average (3 grab samples)
Total Copper **(Final effective in 3-years with interim monitoring)**	**0.030 lb/d** **0.046 lb/d** **0.016** **0.025** **0.039**	**Annual Average** **Daily Max** **Annual Average** **Daily Max** **IMAX**	**New WQBELs due to Reasonable Potential Analysis, with interim monitoring prior to Final WQBELs effective 4th year of NPDES Permit Term.** 2017 Application data: None EDMR range (19 months): None 2026 Application Data: 0.0188 mg/l max and 0.015 mg/l average (3 grab samples)
Total Lead **Final effective in 3-years with interim monitoring**	**Report lb/d** **Report lb/d** **Report** **Report**	**Annual Average** **Daily Max** **Annual Average** **Daily Max**	**New WQBELs due to Reasonable Potential Analysis, with interim monitoring prior to Final WQBELs effective 4th year of NPDES Permit Term.** 2017 Application data: None EDMR range (19 months): None 2026 Application Data:<0.007 mg/l (3 grab samples) at insensitive ND concentration (0.001 mg/l DEP TQL)
Specific Conductivity	**Report umhos/cm** **Report umhos/cm**	**Monthly Average** **Daily Max**	**This monitoring has been added as a fingerprint constituent for any proposed beneficial use of fully treated effluent for golf course irrigation and due to overall watershed salinity issues.**

Comments:

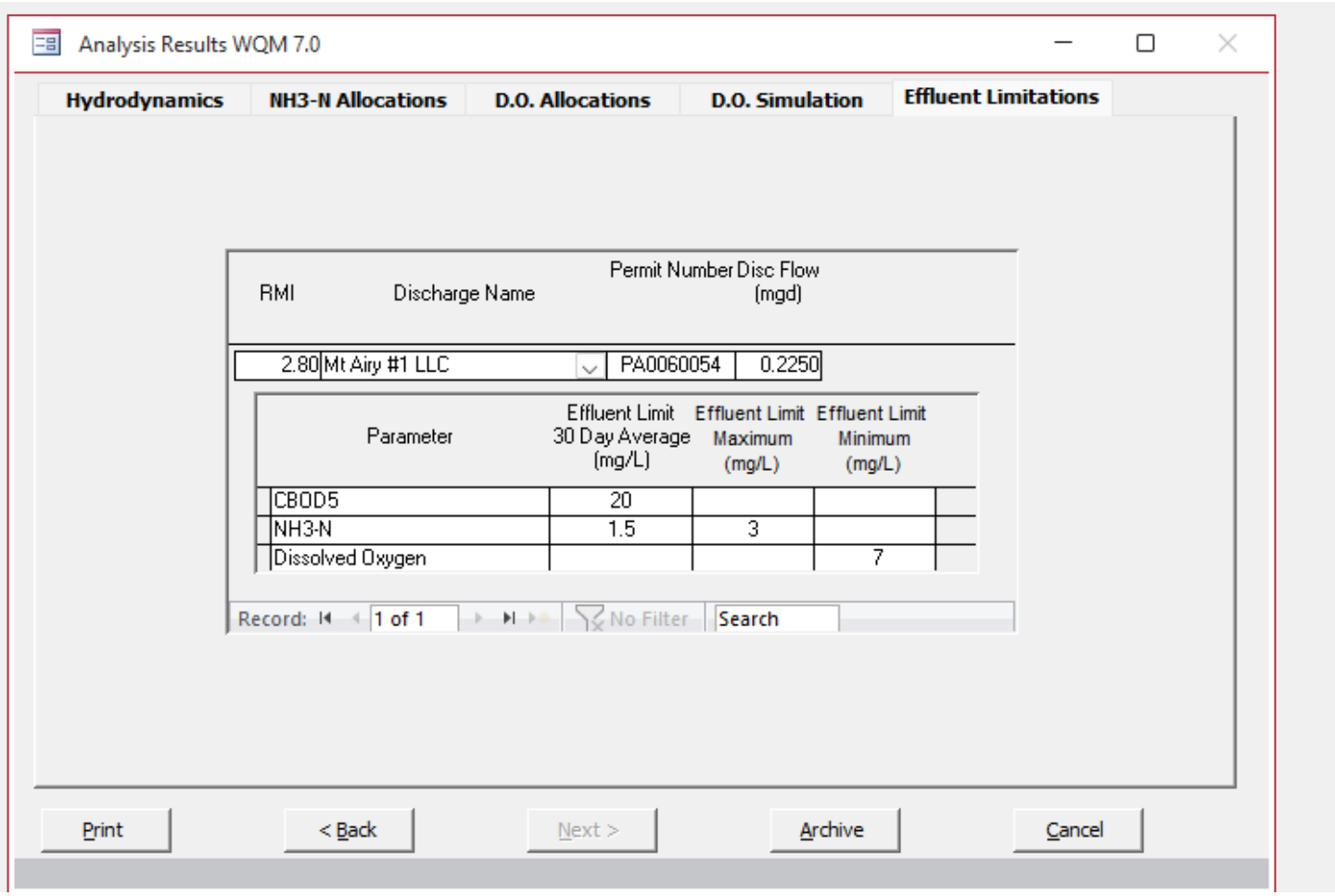
- Going to flow-proportional 24-hour composite sampling to eliminate any biasing for discharge to HQ-CWF stream.
- Maximum daily limits set equal to existing or new IMAX limits for maximum flexibility (because any duration exceedance of an IMAX limit is a permit limit exceedance). Additional daily max reporting does not require any additional sampling.
- Minimum monitoring frequencies: Existing monitoring frequencies retained for existing constituent monitoring except as superseded by daily monitoring (DO), weekly monitoring for CBOD5 Raw Sewage Influent (DRBC requirement) and monthly monitoring for new parameters (TKN, TOC, Total Nitrogen, TDS, CBOD5 minimum monthly average reduction) that do not require weekly monitoring. Annual sampling for constituents being monitored for baseline (chlorides, aluminum).

Modeling assumptions: 0.225 MGD (SEJ basis flow) discharge to Forest Hills Run, 0.375 MGD minimum dam release plus any additional groundwater recharge from stream drainage (between dam and location) at Paradise Creek watershed LFY (0.127 CFS/square mile) s. Default total hardness (100 mg/l default in absence of discharge hardness data) and known stream total hardness (67 mg/l) used. 2026 NPDES Permit application update contained incorrect Outfall No. 001 coordinates (wrong county) and its project location figure did not show Treatment Plant or Outfall location or golf course location) to further refine the water quality modeling.

Location Point	Drainage Area (square miles)	Elevation (Feet)	RMI	Q7-10 low flow (dam release plus additional stream drainage area) and equivalent LFY

1 - Outfall 001	2.76	1125	2.8	0.3851 CFS & 0.1395 CFS/sq. mil.
2- Above UNT 4967 (with several ponds visible on PA Streamstat topo)	3.21	1031.17	1.97	0.4423 CFS & 0.1377 CFS/sq. mil.
3 – Below UNT 4967	3.37	1031.07	1.96	0.4626 CFS & 0.1372 CFS/sq. mil.
4 – Above confluence with Swiftwater Creek	5.06	801.85	0.001	0.6772 CFS & 0.1338 CFS/sq. mil.

WQM Model 7.0: WQM modeling, using DRBC Docket Limits & overall watershed LFY show that the DRBC limits are adequately protective. Therefore, any more stringent ABACT CBOD5 limits are also supported at the greater Q7-10 low flows.



MtAiryWQModel.pdf

Reasonable Potential Analysis: Total Copper & Total Lead Limits; Total Aluminum and Total Zinc monitoring requirements apply. The Part C.III (WQBELs for Toxic Pollutants) conditions have been incorporated into the NPDES Permit for Total Copper and Total Lead.

- The metals sampling was grab sampling, not 24-hour composite sampling, indicating potential for biasing.

- The Total Lead results had an insensitive non-detect concentration (<0.007 mg/l) which did not meet DEP TQL. Per the EPA Sufficiently Sensitive Rule, the Total Lead insensitive ND concentration must be treated as the constituent being present at the insensitive ND concentration.
- Aluminum: Monitoring to gather information. Elevated levels reported in 2009 DEP Biologist memo, but no data in application. Alum is used for chemical phosphorus reduction.

☑ *Recommended WQBELs & Monitoring Requirements*

No. Samples/Month: 4

	Mass Limits		Concentration Limits						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
Total Copper	0.03	0.046	0.016	0.025	0.039	mg/L	0.016	AFC	Discharge Conc ≥ 50% WQBEL (RP)
Total Lead	0.01	0.015	0.005	0.008	0.013	mg/L	0.005	CFC	Discharge Conc ≥ 50% WQBEL (RP)
Total Zinc	Report	Report	Report	Report	Report	mg/L	0.14	AFC	Discharge Conc > 10% WQBEL (no RP)

MtAiryTMSPDF.pdf

TRC Spreadsheet: The old Regional BAT/facility-specific BAT value of 1 mg/l TRC monthly average has been superseded by updated TRC water quality modeling.

A	B	C	D	E	F	G
TRC EVALUATION						
Input appropriate values in A3:A9 and D3:D9			Mt Airy #1 LLC WWTP			
0.3851	= Q stream (cfs)		0.5	= CV Daily		
0.225	= 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)		
1	= 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 = 0.372		1.3.2.iii	WLA cfc = 0.355	
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373		5.1c	LTAMULT cfc = 0.581	
PENTOXSD TRG	5.1b	LTA_afc= 0.139		5.1d	LTA_cfc = 0.206	
Source		Effluent Limit Calculations				
PENTOXSD TRG	5.1f	AML MULT = 1.231				
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.171		AFC		
		INST MAX LIMIT (mg/l) = 0.558				

Antidegradation Analysis: No new, additional, or increased degradation is expected from permit action. Original 1/10/1977 Social-Economic Justification (SEJ) covered 0.225 MGD discharge of treated sewage and reduction of applicable Chapter 93 requirements to statewide minimum water quality standards. The Redraft NPDES Permit's new or more stringent permit limits, monitoring requirements, and permit conditions are expected to address any contribution to existing impairments to the HQ-CWF receiving stream.

Development of Effluent Limitations

Outfall No.	002	**Design Flow (MGD)**	.225
Latitude	41º 6' 48.67"	**Longitude**	-75º 18' 51.06"

Wastewater Description: Fully Treated Sewage Effluent being used for Golf Course Irrigation at point of use or tank discharge to point of use.

Permit Limits and monitoring requirements (Changes bolded): New requirements if the facility pursues spray irrigation of golf course (or other Class B or C Reclaimed water use).

Parameter	Limit (mg/l unless otherwise specified)	SBC	Model/Basis
Flow	Report MGD Report MGD	Monthly Average Daily Max	Monitoring & Reporting
BOD5	Report lb/d Report lb/d 10.0 20.0 20.0	Monthly Average Daily Max Monthly Average Daily Max IMAX	DEP No. 385-2188-002 (Reuse of Treated Wastewater Guidance Manual) Class B reclaimed water use minimum standards prior to point of use -land discharge for golf course irrigation.
Turbidity	10 NTU 15 NTU 15 NTU	Monthly Average Daily Max IMAX	See above
Fecal Coliform	2.2/100 ml 23/100 ml	Monthly Average IMAX	See above
TRC	>0.02	IMIN	See above. Where chlorine is utilized for disinfection, a total chlorine residual of at least 1.0 mg/L should be maintained for a minimum contact time of 30 minutes at design average flow. The treatment facility should provide continuous on-line monitoring for chlorine residual. If converted to UV disinfection, see Part C.I.D chlorine minimization monitoring & reporting requirements.
UV dosage	≥100 mJ/cm^2	IMIN	See above. This dose should also be based on continuous monitoring of lamp intensity, UV transmittance and flow rate. Requirement only pertains if facility changes to UV disinfection.
UV Intensity	Report uw/cm^2	IMIN	See above.
UV Transmittance	Report %	IMIN	See above.
Specific Conductivity	Report umhos/cm Report umhos/cm	Monthly Average IMAX	This monitoring has been added as a fingerprint constituent for any proposed beneficial use of fully treated effluent for golf course irrigation and due to overall watershed salinity issues.

Comments:

- As noted elsewhere in FS Addendum, a new WQM Permit application (new or amendment) would be needed prior to any use of treated effluent for spray irrigation or other reclaimed water usage onsite. Groundwater monitoring well baseline information is also likely to be required as original 1979 information is likely outdated and not meeting current requirements for an acceptable groundwater monitoring system, even if the original wells could be found and sampled.
- The above requirements presume that all NPDES Permit Parts A.I.A, A.I.B, and A.I.C permit limits and monitoring requirements are addressed prior to this limited additional monitoring of the WWTP discharge to Spray Irrigation and/or other WQM-permitted reclaimed water usage in this HQ watershed.

Communications Log and General History for Anti-deg Purposes:

6/11/1968: Sewage Permit issued.
10/21/1974: 0.140 MGD WQM Permit No. 4574410 issued with Special Conditions including effluent limits for the expansion and upgrade of the Treatment Plant to 0.140 MGD. DEP Files indicate Treatment Plant designed for 0.225 MGD flow, but initially reduced volume authorization pending Planning, etc. The associated DRBC Docket No. D-74-131 CP noted existing Treatment Plant consisted of bar screen, comminutor, grit chamber, two aeration tanks, two final settling tanks, an aerated sludge holding tank, and a chlorine contact tank, with the proposed facilities including additional aerated tank and settling tank, a larger replacement chlorine contact tank, and aerated flocculation tank equipped with alum feed equipment to treat combined flow, and two new microstrainers each designed to filter effluent at a rate of 0.3 to 1.5 MGD.
1/10/1977: SEJ Approval Memo for expanded 0.225 MGD discharge.
1/10/1977: WQM Permit No. 4577402 issued for expansion to 0.22 MGD capacity. Concurrent NPDES Permitting was noted. The WQM IRR noted the treatment system consisted of: comminutor, bypass bar screen, aerated equalization tank, mixing and flocculation facilities, reaction tank with oil skimmer, three (3) aeration tanks, three (3) settling tanks, two (2) microstrainers, and two (2) chlorine contact tanks. Module 1 indicated waste stabilization pond to be abandoned.
4/6/1977: DEP Memo on April 4, 1977 Administrative Conference: This memo noted that the Q7-10 low flow was is the minimum release from Mount Airy lake, which is covered by a DER permit. (DER was the previous name of DEP.)

- The receiving stream was noted to be a “conservation area”. **NOTE**: The policy for conservation areas prior to 1979 was very similar to the current HQ category of waters which is the reason why those streams were mostly all converted to HQ in the 1979 rulemaking that established the High Quality (HQ) classification.
- The 1974 WQM permit design was noted to be designed for a 0.225 MGD discharge to abate stream degradation and SEJ time-frames, but with a lower initial approved discharge flow (with the facility able to pursue rerating later). It was noted the WQM permit allowed for potential “breakpoint chlorination” (with de-chlorination) option to address ammonia-N in the future. It was noted the wastewater pond would also reduce TRC in the effluent.

6/6/1979: WQM Permit No. 4579402 issued for spray irrigation to golf course.
10/16/2007: NPDES Permit issued. **Concurrent WQM permits transfer to current Permittee**.
1/19/2010: DEP Letter inquiring about the usage of spray irrigation onsite.
2/9/2010: Mount Airy Casino (Gannett Fleming) letter regarding removed Spray Irrigation system. Letter information included:

- Mount Airy #1, LLC purchased the resort on 12/30/2004.
- The Department provided feedback at a 4/25/2006 Meeting and follow-up 6/1/2006 DEP Letter indicating new requirements would pertain to spray irrigation due to public access and DEP Draft Reuse of Treated Wastewater Guidance Manual. The 2/9/2010 letter indicated the facility treatment plant would not be able to meet the more stringent requirements, and that further investigation into site soils, groundwater, and golf course management procedures would be required. A pending WQM permit application was indicated to have been modified to remove Treatment Plant improvements. The infrastructure used to store and pump treated wastewater for golf course irrigation was indicated to have been removed.

3/20/2012: NPDES Permit renewal application received.
4/2/2013: Draft NPDES Permit issued.
8/19/2013: Revised Draft NPDES Permit issued for public comment. Cover letter noted 3-year Schedule of Compliance added per Mount Airy request. Fact Sheet noted stream impairment and proposed imposition of ABACT limits (CBOD5 and TSS). Proposed reduction of TRC limits per Chapter 92a.48. TOC monitoring proposed. DRBC Docket requirements noted. Proposed in-stream monitoring requirements (fecal coliform, TN, Nitrite-Nitrate-N, TKN, TP, Total Organic Carbon (TOC)).
1/12/2016: BWA Letter indicated concern about the on-stream Mt. Airy lake/impoundment flows and water temperatures. The letter concern include that prior Department of Forest & Waters (identified as DEP predecessor) Dam Permit No. 45-243 required that: “only flood flows will be discharged over the concrete spillway and at all other times the flow in the stream will consist of water release from varying zones within the impoundment so as to provide the optimum quality desired to maintain and provide for fish life”. The letter indicated BWA did not believe that this permit requirement was being met. 2014 Benthic Macroinvertebrate monitoring data was attached.
9/12/2017: 2012 NPDES renewal application disposed (marked as entered in error in E-facts).
5/1/2017: New NPDES Permit renewal application received.
5/24/2017: Public Notice letter return receipts submitted.
6/6/2017: Draft NPDES Permit issued including proposed limits for Dissolved Oxygen (DO), TRC, CBOD5, TSS, and Ammonia-N with 3-year schedule of compliance.
6/17/2017: Brodhead Watershed Association Letter stating BWA had several concerns that it wanted to bring to the Department’s attention, prior to the NPDES permit public comment period due to “unique localized characteristics of Forest Hill Run”:

- Concern that the stream low flow should be based upon Dam minimum release flow, and not what was used.
- Concern that the permit should have Total Nitrogen permit limits and there should not be tiered Ammonia-N limits (ABACT limits in three years per Schedule of Compliance).

6/20/2017: Meeting on Draft NPDES Permit with meeting agenda items including proposed effluent criteria, public notice schedule, public comment schedule, schedule for final issuance, schedule for meeting NPDES permit requirements, ABACT non-discharge limits, and proposed expansion of resort.
7/14/2017: Paradise Township Letter regarding Draft NPDES Permit Application.
9/13/2017: DRBC Docket No. D-1977-058-4 Information: CBOD5 influent monitoring & 85% minimum monthly average reduction requirement added. Referenced Final limits (ABACT) that were not issued. Other DRBC limits appear more stringent than old NPDES permit limits.
10/1/2017: PA Bulletin Notice issued for Draft NPDES Permit (starting public comment period). Permit action delayed due to Forest Hills Run investigation.
9/10/2020: DRBC Docket No D-1989-037-4 (Mt. Airy Groundwater and Surface Water Withdrawal): Information included:

- Covers the site wells but also "existing surface water withdrawal of up to 14.47 MGM to irrigate the docket holder's golf course from an existing intake in Mount Airy Lake, an impoundment on Forest Hills Run". NOTE: This monthly flow is equivalent to 0.482333 MGD flow (0.746 MGD) removed daily. This would result in a dry stream situation.
- At the project site, the docket holder is required to maintain the normal flow of Forest Hills Run downstream of the docket holder's dam by releasing water from the impoundment at a continuous rate of not less than 0.375 cubic feet per second (0.243 million gallons per day) as per Department of Forests and Waters – Water and Power Resources Board (currently the PADEP) Permit No. 45-243 issued on September 2, 1970. According to the permit, the flow in the stream is to be maintained by water releases from varying zones within the impoundment, unless the stream is flooding. The releases from the varying zones in the impoundment is to provide optimum quality of water to maintain and provide for the aquatic life downstream of the impoundment. A means to reliably maintain these releases from the impoundment had not been operational until Fall of 2017.
- By letter dated March 9, 2016, the PADEP required Mount Airy to rehabilitate the dam and spillway for safety purposes and to facilitate the required releases. In accordance with Paradise Township's Conditional Use Decision (July 6, 2017) for the docket holder's hotel expansion, Mount Airy submitted a plan to comply with PADEP's requirements and other requirements in Paradise Township's Conditional Use Decision. The plan included making the necessary repairs to the outlet tower, dam and spillway, which were completed in the fall of 2017. The discharge from the lake is now performed in accordance with the current Discharge Management Plan (DMP, March 14, 2019 Revised April 30, 2019) prepared by F. X. Browne, Inc. (FXB Project No. PA1853-02). The purpose of the DMP is to optimize the quality and quantity of water discharged to Forest Hills Run downstream of Mount Airy Lake. The DMP will, at a minimum, provide a monthly schedule for the operation of tower ports that will optimize water quality and temperature to best provide for optimal cold-water fish habitat in Forest Hills Run. The Discharge Management Plan will also ensure that the conservation release required by Section C. DECISION Condition C.3. is maintained. The Discharge Management Plan is to be revised annually by February 27th based upon an analysis of the preceding year's data. The 2019 report is the annual revision and is based on data from 2018.
- The docket holder is required to maintain the normal flow of Forest Hills Run downstream of the docket holder's dam by releasing water from the impoundment at a continuous rate of not less than 0.375 cubic feet per second (0.243 million gallons per day). The docket holder shall maintain a record of the daily release flows demonstrating compliance with this condition. The docket holder shall submit the monitoring results annually to the DRBC, and to the PADEP as appropriate, absent any observed excursions below the minimum release of 0.375 cubic feet per second. If such an excursion occurs, the docket holder shall submit the results and provide a written explanation within thirty days of the excursion to the DRBC and the action(s) taken to correct the excursion and protect against a future occurrence. The DMP annual report shall also be provided DRBC (see Section C. DECISION Condition C.3.).

3/1/2022: Project reassigned to new engineer, but on hold due to ongoing stream assessment, etc.
8/10/2022: BWA Letter inquiring about status of Draft NPDES Permit. Forest Hills Run stream information (including IBI scores included). Files unclear whether DEP response was by telephone or letter.
5/1/2024: Public Upload# 231213: Circuit Rider – System Specific Management Plan submittal. Plan prepared by operator William J Dixon (ESC).
3/19/2025: Public Upload# 304577: Mt Airy (ESC) Letter regarding compliance issue ("solids were visibility noted pushing out via Outfall 001"). Incident said to have been most likely due to EQ Tank not being online that day.

4/2/2025: DEP (Berger) Restart E-mail notifying permittee that the NPDES Permitting had restarted and asking for updated NPDES Permit application information by June 1, 2026. MS Outlook noted that previous client/site contact and

project technical consultant e-mail addresses were not receiving mail, but other Mt. Airy e-mail contacts (found in E-facts) appear to have received. In addition, the Department asked the Certified Operator to pass on the copy to his contacts in a follow-up e-mail (same day) to ensure receipt. E-mail items included:

- The Department also understands that you may be pursuing a (Dam 45-243) dam removal project within the 5-year NPDES Permit term. A dam removal project would impact the availability of an existing surface water intake and site water source for golf course irrigation, etc. The Department will require a tentative schedule for such a project in terms of project-related application submittals (DRBC Docket; Dams; Waterways & Waterways; Safe Drinking Water for public water supplies; WQM permitting for treatment plant upgrades for land application if proposed; etc.) and construction schedule (if it is anticipated within the next 5 years). Likewise, if you anticipate pursuing land application of treated wastewater in the next five (5) years for any purpose, explain in detail with tentative schedule for WQM permit application submittal.
- Update the NPDES permit application information as needed, with flagging of substantive changes, and provide any (previous and/or new) public comments on the 2017 Draft NPDES Permit by **June 1, 2025**. Otherwise, the Department will act on the presently available information to prepare and issue a Redraft NPDES Permit (subject to public comment prior to final permit action). Submit the response to this e-mail via DEP Public Upload, and e-mail mail me the Public Upload Reference # when submitted.
- Treatment Plant Process Information: Provide updated narrative and process flow diagram (showing all treatment units (including any chemical treatment for phosphorus reduction, alkalinity or pH adjustment), disinfection facilities, piping, discharge points, overflow and bypass locations, sampling locations and sewage sludge or biosolids processing facilities), flagging & explaining any changes from WQM-permitted design/operations:
    - 1/10/1977 WQM Permit No. 4577402 IRR Process Description:
        - Existing Comminutor, bypass bar screen, aerated equalization tank, mixing and flocculation facilities, reaction tank with oil skimmer, three aeration tanks, three settling tanks, two microstrainers, and two chlorine contact tanks.
        - Replacement bar screen, new 28,300-gallon aerated equalization tank, new chlorine contact tank (with provisions for breakpoint chlorination and sulfur dioxide dechlorination), and alum building with 6,000-gallon fiberglass lined alum tank.
    - 6/6/1979 WQM Permit No. 4579402 (spray irrigation option) IRR Description: Use of existing polishing pond to provide detention time, with low pressure aeration system, overflow, and pump intake. Pump station and 6-inch force main to golf course pumps' wet well, with concrete encased stream crossing. NOTE: The facility had indicated the spray irrigation unit/equipment had been abandoned by previous permittee and removed from site. A new WQM permit, meeting new requirements, would be required for any future land application option.
    - 2017 NPDES Application Form and Process Flow Diagram: Narrative indicated WAS/RAS piping, and use of alum for phosphorus reduction, soda ash for pH control, and polymer for sludge handling. Process flow diagram also showed distribution chamber (i.e. splitter box), and aerated sludge holding tank.
- Sewage Sludge/Biosolids Management: Provide updated information for previous year or two.
- Influent Testing Information and Effluent Testing Information (for >0.1 MGD facilities): This is your opportunity to provide updated NPDES Permit application-required influent and effluent sampling & analysis data with lab sheets (in addition to using existing compliance reporting information from the last two years per form instructions, i.e. 730 samples for daily monitoring, 104 samples for weekly monitoring, 24 samples for monthly monitoring, 8 samples for quarterly monitoring, 2 samples for annual monitoring) in completed tables (all rows & columns must be completed as required by the form). Your original application was missing required parameters and did not complete all required columns. Please note that the EPA Sufficiently Sensitive Rule requires the Department to treat any insensitive Non-Detect (ND) concentration (above DEP Target Quantitation Limits (TQL)) as the constituent being present at the insensitive ND concentration. See NPDES Application form instructions for DEP TQLs. Any Treatment Plant changes (rehab, etc.), since previous application sampling, might also impact potential permit limits.
- Other Information:
    - Provide the minimum (during stream low flow periods), average and daily maximum surface water withdrawal rates from Forest Hills Run and/or lake over the last five (5) years and anticipated future withdrawal rates.
    - If you have any optional site-specific data (see Major Sewage NPDES Permit Application Instructions Attachment B) to refine the Department's Reasonable Potential Analysis, especially regarding (impaired) stream conditions and low flows, provide it with the response to this e-mail.
- Public Comments on the 2017 Draft NPDES Permit: Include a copy of all previous permittee comments on the 2019 Draft NPDES Permit. You are free to provide additional public comment on the 2017 Draft NPDES Permit (including its assorted schedules of compliance and permit limit effective dates). It is also important that you document any completed and/or ongoing site corrective action/O&M work for the public record.

4/8/2025: Mount Airy (Lianne Asbury) E-mail request for extension to **July 31** for a response to the 4/2/2025 DEP (Berger) E-mail. The E-mail indicated changes in client/site contact.
4/8/2025: DEP (Berger) E-mail granting extension to 7/31, but requesting updated client/site contact information to allow Department to contact the facility.
4/8/2024: Mount Airy (Lianne Asbury) E-mail providing updated client/site contact information.
4/8/2025: Forwarded 4/2/2025 DEP E-mail to alternate FX Browne contact (Frank Browne) as courtesy (as application project contact e-mail no longer there).
8/18/2025: DEP (Berger) reminder e-mail for overdue application.
8/19/2025: Mt Airy (Jenifer Fields, consultant) E-mail asking for additional three weeks to respond.
8/20/2025: DEP (Berger) E-mail granting extension to 9/12/2025. Told them to include any dam permit application if they were going to pursue dam modifications.
8/26/2025: Mt Airy (Jenifer Fields, consultant) E-mail request for DEP files.
8/26/2025: DEP (Berger) E-mail response to contact Records Management, with copies of some public comments from local watershed group and Paradise Township, without attachments as a courtesy.
9/12/2025: Mt Airy Letter (Public Upload) request for meeting prior to providing previously requested application update information. Included updated General Information Form.
9/16/2025: DEP (Berger) E-mail scheduling the Mt Airy-requested 10/22/2025 Meeting (in-person at NERO) with some tentative feedback on the Mt Airy-listed meeting agenda items to facilitate discussions:

"There are several complicating factors wherein an in-person discussion might be more productive to lay the groundwork for additional information, as well as a revised draft permit. MACR is willing to provide additional information following the meeting, should the discussion prove to be useful". Their proposed agenda items (with preliminary DEP feedback E-mailed to them in bold):

- 2017 MACR Draft NPDES Permit:
    - Basis for Limit Changes: **See the 2017 Draft NPDES Permit Fact Sheet. The Department will be re-evaluating all permit limits & monitoring requirements using any updated information that you provide in accordance with the current NPDES Sewage Application forms/instructions (available via DEP E-library), DEP SOPs (see DEP SOPs webpage), current DEP water quality models (available via the DEP Water Quality Models & Tools webpage), and DEP Technical Guidance (available via DEP E-library), etc.**
    - Necessary Parameters: **See current (minor) NPDES Sewage Application sampling & analysis requirements. Old data might result in unnecessary permit limits/monitoring requirements due to EPA Sufficiently Sensitive Rule (if not meeting DEP TQLs) and/or sampling results predating any substantial O&M at the facility.**
- Stream Restoration Project (Dam Removal):
    - Historic Instream Assessments: **Contact DEP Records Management to arrange a file review for any historic instream assessment information. The Department is working on an updated Forest Hills Run assessment but it might not be completed until 2026. You may also want to contact Mount Pocono Municipal Authority to obtain any in-stream assessments that they have been separately conducting. NOTE: 2025 DEP Stream Assessment Report subsequently e-mailed to MACR.**
    - Future Expected Changes: **The Department is awaiting any information that you can provide on any proposed dam removal project and its expected impacts on the receiving stream (including any water withdrawal rates).**
- DRBC 2022 Docket for WWTP Discharge: **The DRBC is an independent regulatory agency that should be contacted directly about any DRBC Docket updating requirements. Per Chapter 92a.12 and 92a.36, any new or more stringent DRBC permit limit and/or monitoring requirement would be incorporated into the permit (influent CBOD5 monitoring in the 2022 DRBC Docket for example), with DRBC able to ask for other things if they update the DRBC Docket due to dam removal project or otherwise.**
- DRBC Docket for Withdrawal: **See above. The Department would also recommend a separate PACT Meeting (arranged via DEP website) if you want to discuss any dam removal with changes to previously authorized water withdrawals with the relevant DEP programs (Dam Safety, Waterways & Wetlands, Safe Drinking Water, Clean Water, etc.).**
- Update on WQM Permit for Spray Irrigation: **The 1/19/2010 DEP Letter noted the 1979 WQM permit (spray irrigation) was transferred on 2/16/2006, when inquiring about spray irrigation usage onsite. 2/9/2010 Permittee (Gannett Fleming) correspondence indicated that historically the (previous) facility owners abandoned usage of the spray irrigation system for unknown reasons, with the spray irrigation infrastructure removed. Any new spray irrigation proposal would have to meet current DEP requirements (Domestic Wastewater Facilities Manual (DWFM), Land Application technical guidance, and Reuse**

Technical Guidance requirements (available via DEP E-library) especially with public exposure on the golf course.

- New General Information Form (GIF) Feedback in E-mail: The Department reviewed the GIF to see if it had information about any dam project. Several issues were noted:
  - Client Information Section: The Mt Airy Casino Resort (MACR) LLC EIN# looked like a Social Security number format. Verify the correct full legal name and registered fictitious name & EIN#. If the permittee has changed EIN#, provide the required completed NPDES/WQM Permit Transfer Application (available via DEP E-library). **NOTE**: EIN# differed from previous NPDES permit renewals' application information.
  - Site Information Section: The applicant/permittee/client was identified as "owner". The NPDES regulations require the permittee to be the "operator with financial control" (i.e. owner/operator is acceptable)
  - Facility Information Section & Coordination Section: No other DEP Facility ID#s were provided for any proposed dam project, modification of PWS intake or groundwater wells, etc. The Coordination Section responses were partly unreadable, but did not indicate any dam project, any floodplain work related to dam work, etc. It did indicate an 86.74-acre earth disturbance and installation of four 10,000-gallon propane tanks.
  - Certification Section: Lacked signature and date.

9/22/2025: 2025 Forest Hills Stream Assessment Report provided to Records Management for inclusion in scheduled file review requested by MACR technical consultant (Jennifer Fields, ACRI).

10/22/2025: Meeting Highlights: In addition to the previous 9/16/2025 E-mail Feedback above:

- **Participants**:
  - DEP: Amy Bellanca, Ed Dudick, James Berger
  - MACR:
    - Lianne Asbury (MACR)
    - Darren Wenner (MACR)
    - Jennifer Fields (ACRI)
    - Cosmo Servidio (ACRI)
    - AJ Magnotta (Labella Associates)
- **General**:
  - Previous Agenda Item feedback: Department noted a 9/16/2025 Department (Berger) E-mail had included several information feedback comments on the meeting agenda items, but one consultant (AJ Magnotta) indicated he had not seen it. Provided a printed copy to him at the meeting.
  - Certified Operator: Darren Wenner (MACR) is now a certified operator (Chapter 302), getting up to speed on the treatment plant.
    - Department noted EDMR was reporting Fecal Coliform exceedances (use of ">" sign in EDMR reporting) which needed to be addressed by either the Certified Operator and/or laboratory going forward.
    - Department recommended the new Certified Operator review the last five (5) years of EDMR data to look at anomalies and to determine if EDMR needs to be corrected.
    - Department noted that if they spot additional operational issues, they should contact DEP Monitoring & Compliance to address them. The Department works with those who come forward to resolve issues.
  - Treatment Plant: MACR is planning to optimize treatment plant operations for efficiency, but have no plans to modify the Treatment Plant physically at present. The Department noted the old WQM permits had listed two micro-strainers onsite without any clear approval for their removal. The Department recommended that they check to see if the facility matches WQM permitting and send in a "clean-up" WQM permit application if they find discrepancies. Who knows what the previous site owner/operator might have changed over the years (besides removal of the old spray irrigation-related facilities).
  - Resent Documentation: AJ had resubmitted the 9/12/2025 MACR meeting request letter, draft agenda, and GIF form via Public Upload just prior to the meeting. The Department noted that it had not any chance to review the documents. AJ indicated no updates were included.
  - New DEP Inspector: Noah McDaniel is the new DEP Inspector for the facility/area.
- **2017 MACR Draft NPDES Permit**: In addition to the 9/16/2025 DEP E-mail comments:
  - Basis for Limit Changes:
    - The Department noted that the 2017 Draft NPDES permit documents are obsolete. The Department was going to revise the NPDES documents/water quality modeling due to received public comments back in 2018. The Department will be updating the water quality modeling, etc. as needed in the Redraft NPDES Permit using any updated information provided or available. MACR can send in any question or comment or new information on the old 2017 Draft NPDES

permit as public comments along with any updated application information. Third parties had commented on the 2017 Draft NPDES Permit, but no MACR public comments had been found.

- 2017 Draft NPDES Permit ABACT limits:
  - MACR asked for basis of 2017 Draft NPDES Permit ABACT permit-limits basis, as they did not understand why they were added. ABACT would apply to new or increased discharge per the Antideg Technical Guidance. They were unaware of any DEP policy for applying ABACT limits otherwise.
  - The Department noted that the stream is impaired due to organic enrichment (CBOD5) with the facility apparently already in compliance with the ABACT CBOD5 limits (10 mg/l monthly average and 20 mg/l daily max/IMAX limits).
  - MACR noted the 2025 DEP Forest Hills Run Stream Assessment Report did not attribute organic enrichment issues cause to the sewage treatment plant.
  - The Department noted that it would be reviewing all permit limits in a redraft NPDES Permit and would be explaining its permitting rationale in any Redraft NPDES Permit. It would be explicitly addressing the previous ABACT limits. The Department also noted that the 2025 DEP Assessment Report information was not available in 2017.
- Necessary Parameters:
  - They noted missing effluent metals data, etc. in the old NPDES permit application and will be doing sampling & analysis. They noted that they have TDS data from EDMR reporting.
  - They noted that the recent EDMR data appeared consistent with the old application data in general.
  - DEP noted that there were other missing NPDES Permit application parameter information. For example, no chlorides data when chlorides are now a watershed concern due to the 2025 DEP Assessment Report (salinity issues). DEP will likely require monitoring data to establish a base-line going forward (to show the facility is not contributing to the stream issues, etc.).

- **Stream Restoration Project (including Dam No. 45-243 Removal or breaching)**: They will be submitting a "stream restoration project" submittal within the week to the appropriate DEP Program. They expect to hear about it within 90 days of submittal. They indicated that they plan to terminate the existing dam permit after the stream restoration project is complete.
  - Historic Instream Assessments: MACR received the 2025 DEP Assessment Report. Department noted that MPMA may have additional historic stream assessment data.
  - Future Expected Changes:
    - MACR planned to have a 1-2 acre water reservoir for golf course irrigation water (not changing the surface water withdrawal location but rerouting stream around the proposed water reservoir pond). They confirmed that the GIF-mentioned ~87-acre earth disturbance project was the stream restoration project.
    - MACR were internally discussing whether they would be directing treated effluent to the new reservoir as a water source for golf course irrigation or have a separate Outfall 002 discharge for that purpose.
  - Permit Coordination:
    - MACR indicated that they were talking to the DRBC about the project in terms of DRBC docket updating requirements (if any).
    - MACR said that there had been a PACT meeting on the project already. They said the stream restoration project did not require a permit per their understanding.
    - The Department noted the General Information Form indicated a ~87-acre earth disturbance project, but did not indicate any permit coordination for work within floodplains, wetlands, etc. and/or for Safe Drinking Water for any water withdrawal requirements. Usually if something changes with a permitted facility, there is a need to update the applicable DEP programs even if there is no permit requirement.
  - Q7-10 Low Flow:
    - MACR thought the dam permitting had established the Q7-10 low flow (and were looking for the documentation), and that they were going to use PA Streamstats also.
    - The Department asked for a copy of any such previous Q7-10 documentation. The Department also noted that PA Streamstats can be impacted by the upstream dam (with minimum release requirements). The Department recommended that they look at the post-2017 Dam-rehab project lake/flow data to see if they can bolster the case for any identified Q7-10 low flow (for post-dam removal conditions).

  - Stream benefits: MACR expect the project to benefit the receiving stream in terms of temperature and Dissolved Oxygen (DO). The Department noted it may re-evaluate the stream for macroinvertebrates (IBI scores) after the project to see how the stream benefits.
- **DRBC Docket D-1977-058-6 for 0.22 MGD MACR WWTP (issued 9/8/2022)**: In addition to the 9/16/2025 DEP E-mail comments:
  - MACR said that the 2022 DRBC Docket appeared to include limits from the unissued 2017 Draft NPDES Permit. They have been in communication with the DRBC (Kovach) about removing those limits from the Docket.
  - The Department noted that they needed something in writing from DRBC about those permit limits being removed from the existing DRBC Docket, because Chapter 92a.12/92a.36 would require the Department to incorporate any additional/more stringent DRBC Docket requirement into the Redraft NPDES Permit otherwise.
    NOTE: This DRBC docket did not address any (WWTP fully treated effluent) spray irrigation/reclaimed water usage for golf course irrigation.
- **DRBC Docket D-1989-037-4 for Groundwater/Surface Water Withdrawal (issued 9/10/2020)**: In addition to the 9/16/2025 DEP E-mail comments:
  - MACR is in contact with the DRBC. They were unsure of docket-updating requirements due to the proposed stream restoration project (see above). **NOTE**: This Docket authorizes surface water withdrawals for golf course irrigation purposes. 14.47 million gallons/month (mgm) was allocated for golf course irrigation.
- **Update on WQM Permit for Spray Irrigation**: In addition to the 9/16/2025 DEP E-mail comments:
  - MACR is still looking at its options and which way to proceed (if they pursue this option) as a "side resource" (in addition to stream withdrawal). The previous WQM-permitted spray irrigation facilities have been removed from the site. MACR noted that the old WQM application information was limited.
  - The Department noted that a new WQM permit or WQM permit amendment would be required for this usage, meeting current standards per previous discussions with MACR (found in the DEP files). Current standards, available on DEP E-library, include:
    - PA Domestic Wastewater Facilities Manual (DWFM)
    - "Reuse of Treated Wastewater Guidance Manual", especially requirements for Class A or A+ reclaimed water (where there is greater public exposure). A copy of the Manual was handed to one of the MACR consultants. The higher classes allow for greater public exposure. MACR noted that they would want to retain nutrients in any reclaimed water for fertilizer value.
    - There is a draft Land Application Technical Guidance Manual on E-library. If MACR needed soils to further treat the effluent, that would be land application (not reclaimed water usage).
  - The Department noted the original 1979 WQM Permit (spray irrigation on golf course) was old, but maybe the DEP Geologist (Hannigan) might have some knowledge of the WQM permitted groundwater monitoring wells. The Module 19 would have to be completed with any WQM permit application. A PA LPG as well as Design Engineer would be needed for any such WQM permit application.
- **General Information Form**: The updated GIF had issues noted in the 9/16/2025 Department E-mail comments and rediscussed as one consultant had not been forwarded the e-mail by the project technical consultant contact:
  - Client EIN# change: This had changed from previous permitting. If changed, then a NPDES/WQM Permit Transfer Application would be required with fee.
  - Client-to-Site Relationship: The NPDES permittee must be the "operator with financial control" per regulation. Owner/operator is acceptable. Owner is not enough on its own.
  - Facility Information/Permit Coordination: No Facility ID#s/permit coordination information was supplied for work within a floodplain or wetlands, etc. for the proposed ~87-acre stream restoration project. Some of the permit coordination pages were incomplete (impossible to tell if "no" was indicated). **NOTE**: PADEP Waterways & Wetlands personnel later indicated permits likely needed, but were not at any previous PACT meeting for the project.
  - Project Information: A general time schedule/milestone dates for the stream restoration project are needed due to NPDES permitting considerations (impact on Q7-10 low flow, etc.). **NOTE**: The project consultant information may also need updating as the client/project consultant contact had apparently not forwarded a previous DEP e-mail to at least one of the present consultants.
  - Certification: Missing signature and title.
- **Next Steps**:
  - MACR will give a target date for submittal of application update/public comments by **10/29/2025**. MACR guesstimated it might take 6 weeks for all of the new sampling data. The Department would prefer to have everything to come in at once. The Department would prefer to have the stream restoration project

be addressed upfront in the application, so as to not need a future NPDES permit amendment during the 5-year NPDES Permit term.

- The Department would review the new MACR application information/public comments and issue a Redraft NPDES Permit for public comment. Some environmental groups had previously commented on the 2017 Draft NPDES Permit, and might comment again. The Department would review all public comments.

10/22/2025: DEP (Berger) E-mail forwarding 9/16/2025 DEP (Berger) E-mail to AJ Magnotta (consultant, Labella) who indicated that he had not seen it.
10/30/2025: Permittee (Jen Fields) E-mail requesting extension to 12/31/2025 for the updated NPDES permit renewal application (new sampling data, etc.)
10/30/2025: DEP (Berger) E-mail granting extension to 12/31/2025.
1/9/2026: DEP (Berger) E-mail reminder for overdue submittal.
1/9/2026: Mt Airy (Jenifer Fields, consultant) contacted Program Manager. She indicated lab delays with application to be submitted the following week. She indicated the Army Corp of Engineers may get involved in the concurrent stream restoration/dam removal project (potentially impacting stream flows and thus NPDES permitting).
1/16/2026: Public Upload# **376441** (revised NPDES Permit application) received.