pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0060569**
Facility Type	**Non-Municipal**	APS ID	**999198**
Major / Minor	**Minor**	Authorization ID	**1384363**

Applicant and Facility Information

Applicant Name	**CMBK Resort Holdings LLC**	Facility Name	**Camelback Resort STP**
Applicant Address	193 Resort Drive	Facility Address	242 Resort Drive
	Tannersville, PA 18372		Tannersville, PA 18372
Applicant Contact	Erick Mezzina	Facility Contact	Carl Meyer
Applicant Phone	(570) 629-1661	Facility Phone	(570) 629-1661
Client ID	351489	Site ID	2573
Ch 94 Load Status	Not Overloaded	Municipality	Pocono Township
Connection Status	-	County	Monroe
Date Application Received	February 1, 2022	EPA Waived?	Yes
Date Application Accepted	May 12, 2022	If No, Reason	-

Purpose of Application: Renewal of NPDES Permit for Nonmunicipal STP.

Summary of Review

This is a 0.400 MGD Nonmunicipal STP discharging to Pocono Creek (HQ-CWF, MF; Natural Trout Reproduction Stream). Service area includes both commercial and residential sources.

- **Application**:
  - Original 2/1/2022 NPDES Permit Renewal application submittal was hard copy.
  - Response to Incompleteness Letter (5/12/2022 E-mail and attachments)
  - **On-Base No. 79331**: 12/19/2022 Response to Technical Deficiency Letter letter
  - **Public Upload No. 301711** (compliance response including 4/2/2024 Response Letter and 1/3/2025 & 3/15/2025 Response to compliance correspondence)
- **Underloading**: The 0.400 MGD facility had a 0.166 MGD ADF flow in 2019, 0.117 MGD ADF flow in 2020, and 0.131 MGD ADF flow in 2021. 0.172 MGD max monthly flow in February 2021. See EDMR for 2022-2025 flows. They indicate that they are using all four extended aeration tanks presently. Identified Service Area flows:
  - Camelback Ski Area/Camel Beach: 0.023 MGD average wastewater flows.
  - CBK Hotel and Indoor Park: 0.051 MGD average wastewater flows. The water park flows would include non-sewage water park flows resulting in dilution of any sewage contribution, but expected increased chlorides component.
  - Residential flows: Unquantified (The Village at Camelback townhouse project; Northridge at Camelback residential subdivision)
- **Existing Zinc and Copper Limits & Exceedances:** Facility has made progress, but has not yet eliminated exceedances of existing Total Copper Limits, but indicated optimism that its current source reduction project might allow for consistently meeting existing copper permit limits.
  - **Proposed WQBELs:** Incorporation of available stream total hardness data into the Reasonable Potential Analysis has resulted in more stringent Total Copper and Total Zinc permit limits, subject to a Part C

Approve	Deny	Signatures	Date
X		James D. Berger (signed) James D. Berger, P.E. / Environmental Engineer	June 30, 2025
X		Edward Dudick, P.E. / Environmental Engineer Manager	July 1, 2025

Summary of Review

(WQBELs for Toxic Pollutants) schedule of compliance. In practical terms, the stream total hardness (from local geology) would be expected to be similar to the STP discharge values.

- **Available Information**: See Compliance Section and Communications Log for additional information regarding the existing Copper & Zinc Limits and the facility's TRE efforts. The last time NPDES permit application extension request period (12 months, requested in a 4/2/2024 CBMK Letter) ended in April 2025.
  - To date, no NPDES antibacksliding exception request has been submitted to request any relief from the existing limits (despite the option being discussed in DEP technical deficiency letters). Nor has the permittee submitted additional information (including stream/discharge total hardness data) discussed in their 4/2/2024 Letter request for a 12-month extension. Ample time has been given for the permittee to pursue this option.
  - There is no option for any schedule of compliance for compliance with existing NPDES permit limits, as Chapter 92a.51 requires compliance as soon as practicable. The permittee would have an option for submitting an Application for Major NPDES Permit Amendment if it chose to pursue such an option in the future.
  - The facility underloading has acted to limit any negative stream impacts at this time, but permitting is based on the NPDES Permit-basis flow discharging during Q7-10 stream low flow conditions.

Sludge use and disposal description and location(s): Disposal at Hazleton Sewer Authority. 15.03 dry tons disposed in 2021.

Part C Special Conditions:

- **Parts C.I.A, B, C, & D**: Existing Standard conditions (stormwater prohibition; necessary property rights; proper management of residuals; and Planning).
- **Part C.I.E:** Existing Chlorine Minimization Condition
- **Part C.I.F**: **New site-specific WQM permit requirement condition in event that they choose to pursue Tertiary treatment (for either TP per existing WQM Permit and/or metals). The original WQM permit design included a tertiary phosphorus treatment system, but the original WWTP tertiary treatment design may be outdated at this point. The facility may also pursue tertiary treatment for metals removal in the future.**
- **Part C.I.G:** Existing Site-specific Condition (discharge/stream changes)
- **Part C.I.H**: **New Reporting requirements. Per DRBC Docket No. D-2001-040-3, the DRBC is requiring monitoring data submitted in an annual report due June 30 (including all water withdrawal rate monitoring, and flow conditions in Pocono Creek (discharge location), prepared by a hydrogeologist, that shall access the effects of the withdrawals on the local hydrogeological system. Submittal of a copy of this report will now be required by this NPDES Permit (along with some first submittal information requirements for context). Written notification of a declared drought emergency by the permittee shall be required to allow additional Department monitoring as needed.**
- **Part C.II**: Existing Solids Management conditions for non-lagoon facility
- **Part C.III**: **New WQBELs for Toxic Pollutants (Total Copper and Zinc) due to more stringent permit limits due to updated Reasonable Potential Analysis. Three-year schedule of compliance included for new more stringent limits. As the facility has been conducting TRE studies per correspondence, no more time can be granted to meet the proposed Final Limits. Please note that no relief can be granted from existing permit limits.**

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)	.400
Latitude	41º 3' 18.96"	Longitude	-75º 20' 31.73"
Quad Name	Mount Pocono	Quad Code	1043 (4-22.2)
Wastewater Description:	Sewage Effluent		
Receiving Waters	Pocono Creek (HQ-CWF, MF)	Stream Code	4779
NHD Com ID	26158536	RMI	12.99 per previous FS
Drainage Area	9.13 square miles	Yield (cfs/mi^2)	0.182
Q_{7-10} Flow (cfs)	1.66	Q_{7-10} Basis	See below
Elevation (ft)	~1157 (USGS PA Streamstats profile)	Slope (ft/ft)	-
Watershed No.	1-E	Chapter 93 Class.	HQ-CWF, MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	-		
Source(s) of Impairment	-		
TMDL Status	-	Name	-
Background/Ambient Data:	See below		
Nearest Downstream Public Water Supply Intake	EASTON SUBURBAN WATER AUTH ID# 101943-001		
PWS Waters	Delaware River	Flow at Intake (cfs)	-
PWS RMI	-	Distance from Outfall (mi)	>40 miles

Changes Since Last Permit Issuance:

- Pocono Creek has been designated a Natural Trout Reproduction stream.
- Facility discharges have not been meeting existing copper and zinc limits, but discharging far below NPDES permit basis flows (limiting potential negative impacts). See Compliance section for details. **It is recommended the DEP Biologists evaluate the stream once the facility has achieved consistent compliance with existing copper and zinc permit limits and in event of any service area expansion.**

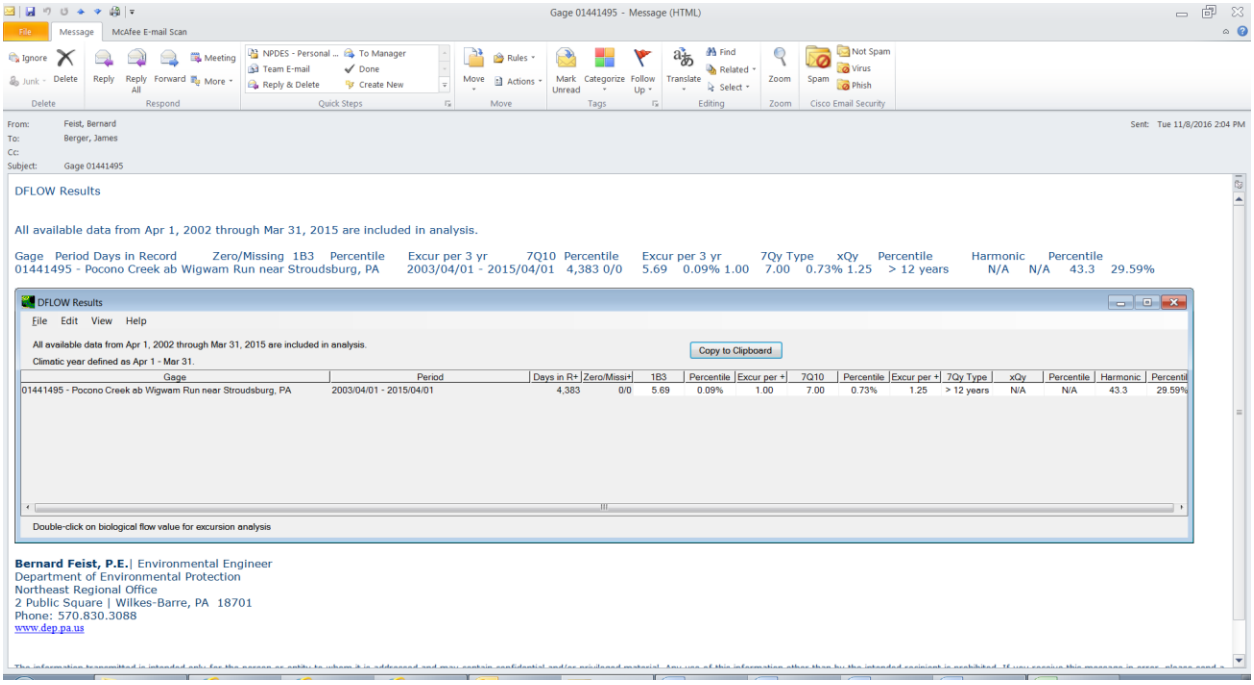
Other Comments:

- **Site Discharges**: The facility has only been discharging a fraction of its 0.400 MGD NPDES Permit-Basis flows (with some dilution of treated sewage concentration by treated water park discharges but potential copper/zinc water source contributions).
- **Receiving Watershed**:
  - There is no active USGS gage station No. 01441500 (Pocono Creek near Stroudsburg, PA, ~11 miles downstream, ~42 square mile drainage area) monitoring flows in the Pocono Creek watershed. Old USGS gage data (1911-1919,) is old and obsolete, with unknown impacts by additional water withdrawals (water park, other development, etc.) since gage monitoring took place. The only directly downstream gages are on Brodhead Creek.
  - There is a separate upstream STP (Coastal Environmental Camelback Resort Ski Side Village, NPDES Permit No. PA0061026) discharge on Pocono Creek, upstream of Outfall No. 001.
  - There is WQM Permit No. 503401 (Barley Brewing Company) outfall sampling point downstream of Outfall No. 001.

- An upstream Trib (Wolf Swamp Run, EV, Stream# 4832) has a Wolf Swamp Run dam (Dam No. 45-277, C-4 Dam)
- Upstream Pocono Creek has an upstream Crescent Lake dam (Dam No. 45-216, C-4 Dam)
- An upstream UNT No. 04836 to Dry Sawmill Run (HQ-CWF, Stream No. 4836) has a Higgins Dam (Dam No. 45-142, C-4 Dam)
- Upstream Dry Sawmill Run (HQ-CWF, Stream No. 4835) has a Pinetree Lake Dam (45-244, C1 Dam) with a 0.194 MGD minimum release rate in the Dam permit.
- UNT No. 4827 to Pocono Creek (HQ-CWF, Stream No. 4827) which has a confluence downstream of Outfall No. 001:
    - There are several dams on this UNT:
        - Barney's Pond Dam (**No. 45-275, C-4 dam**)
        - There are several dams shown on the UNT No. 4828 (HQ-CWF, Stream No. 4828) that flows into UNT No. 4827, including the Massad Camp Dam (**45-176, C-4 Dam**) and Camelback Reservoir Dam (**45-233, C-4 Dam**).
    - Surface & Groundwater water intakes: See figure below. There are assorted groundwater withdrawals in the UNT No. 4827 watershed and several surface water intakes, but the UNT confluence is downstream of Outfall No. 001.
        - No surface water intake upstream of Outfall No. 001.
        - There is a groundwater withdrawal (Crescent Lake POA) upstream of Outfall No. 001 and several other groundwater withdrawals that may or may not be in the same sub-watershed as Outfall No. 001.
        - UNT No. 4827 (to Pocono Creek with confluence downstream of Outfall No. 001) has a CBK Lodge LP Pond 1 surface water intake No. 290007-1, SF# 1420111, Other ID# 1420111. The Barney's Pond CBK Lodge LP Pond 2 surface water intake No. 290007-001, SF# 1420112, Other ID# 1420112) is also on this UNT. The DRBC Docket No. D-2001-040-3 (Camelback Surface Water Withdrawal) indicates the facility withdraws water for snow-making (winter months, with peak production noted to be in the December-January timeframe) with incidental maintenance withdrawals during other time-frames with a mandated 1.78 CFS Q7-10 passby flows (April through September) at the point of taking at that time.
    - DRBC Docket-Required Stream Monitoring: Exact location unknown, but E-maps place the ski-water adjacent withdrawal locations on the UNT No. 4827 to Pocono Creek. This renders any DRBC stream flow monitoring data of uncertain value (along with other missing information).

Q7-10 Low Flow: The Q7-10 is defined as 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) with the receiving stream flows impacted by potential losing stream segments per the 2005 USGS Report (see below)and by authorized groundwater withdrawals identified in assorted DRBC Dockets (see below). The Q7-10 flow is used within DEP water quality modeling to ensure that the water quality criteria is achieved at least 99% of the time (Chapter 96.4). An inaccurate Q7-10 flow might lead to water quality standard exceedances and stream degradation. The Low Flow Yield (LFY) is the Q7-10 low flow divided by stream drainage area (square miles) to produce a watershed LFY that can be used in water quality modeling. When there is a downstream gage on the same stream, the Department uses the gage data to calculate the Q7-10 low flow and LFY, unless there are site-specific considerations (distance, stream regulation, etc.) that undermine its validity.

DFLOW prediction for low flow was obtained from Previous NPDES Renewal Fact Sheet: The 7.0 CFS Q7-10 low flow was calculated via a standard USGS modeling program (BASINS DFLOW) and the LFY by the standard EPA/DEP method of dividing the known Q7-10 flow by the known drainage area. However, the gage is no longer being monitored and is not shown on DEP E-maps. Its accuracy for Outfall No. 001 is impacted due to limited data then available (not full 25 years) and stream regulation downstream of Outfall No. 001. Use of the USGS-estimated 38.3 square mile drainage area, resulted in a **0.182 CFS/square mile watershed LFY**.



Other flow data: The CBH20-submitted August 31, 2016 Langan Memorandum summarized the available (DRBC-required) Camelback gage (reporting to DRBC) data for the last ~10 years (4/8/2005 through 2/24/2016) and drainage area for Camelback's in-stream gauging station (located approximately 2000 feet downstream of the Pocono Creek Pump House, with an estimated 9.8 square mile drainage area). However, the report did not make an adequate technical case due to failure to calculate the Q7-10 low flow (computing a rolling-average instead), missing data, failure to verify the gage met USGS data standards, no consideration of water withdrawals, etc. The provided raw data and limited Langan analysis (plus uncertain location of place of stream flow measurement, lack of USGS certification, etc.) meant that DFLOW could not be used to calculate a more accurate site-specific Q7-10 stream flow.

PA Streamstats: PA Streamstats indicated the mean annual average precipitation for this area exceeded the regression equations range. This rendered the PA Streamstats-estimates too low to represent actual site conditions. This is consistent with DEP experience with other stream locations in the Poconos, where the Low Flow Yield (LFY) was higher than the 0.1 CFS/square mile LFY default value.

- At Outfall No. 001 location, PA Streamstats estimated: 0.457 CFS Q7-10 low flow for a 9.13 square mile drainage area, which equates to a 0.0500 CFS/square Mile LFY, but with a warning that the 48-inch mean annual precipitation was outside the regression equation range.
- At the USGS Gage No. 01441500 (Pocono Creek near Stroudsburg, PA)**:** PA Streamstats estimated 3.53 CFS Q7-10 low flow for a 43.5 square mile drainage area, which equates to a 0.0811 CFS/square mile watershed LFY.
- The Department did use a higher Q7-10 flow value for the TRC Spreadsheet water quality modeling.

Other USGS Stream Evaluations: The USGS has a number of scientific papers regarding flows in this geographic area, which are discussed below. The DFLOW value is presumed the most accurate, but the papers also indicate >0.1 CFS/square mile default LFY flows for this area.

- The USGS Scientific Investigations Report 2011-1070 "Selected Streamflow Statistics for Streamgage Locations in and near Pennsylvania" (Marla H. Stuckey and Mark A. Roland) did not address any historic Pocono Creek gage locations.
- The USGS Scientific Investigations Report 2006-5244 "Selected Streamflow Statistics and Regression Equations for Predicting Statistics at Stream Locations in Monroe County" (Ronald E. Thompson and Scott A. Hoffman) used available historical flow data (multiple regional gages, historic and currently operating) to statistically estimate stream flows at other gaged and ungaged stream locations using flow data from assorted regional gage data:

- USGS Gage No. 01441495 (Pocono Creek above Wigwam Run near Stroudsburg, PA) with 38.9 square mile drainage area. Predicted streamflow statistics of 3.5 CFS Q7-10 low flow. This equates to a **0.0899 CFS/square mile watershed LFY**. The period of record was not defined (2002- without end-date). However, the DEP DFLOW analysis had 12 years of data, allowing for more accurate Q7-10 low flow estimate. **NOTE**: This is not an existing gage per DEP E-maps and is not identified on the USGS PA Streamstats application.
- USGS Gage No. No. 01441500 (Pocono Creek near Stroudsburg, PA) with a 42.3 square mile drainage area. Predicted streamflow statistics of 5.5 CFS Q7-10 low flow. This equates to a **0.130 CFS/square mile watershed LFY**. The period of record was 1970-2001) for the utilized gages' data gathering.
- This study also attempted to estimate low flows at additional ungaged watershed locations including the Report's Figure 3 Location No. 70 (Pocono Creek near Camelback Mountain, with 10.8 square mile drainage area) which was the closest ungaged location on Pocono Creek to Outfall No. 001. The Q7-10 low flow was estimated at 1.9 CFS for the 10.8 square mile drainage area, i.e. **0.1759 CFS/square mile LFY** (i.e. assuming no losing stream segments due to ground or surface water withdrawals during critical low flow conditions).

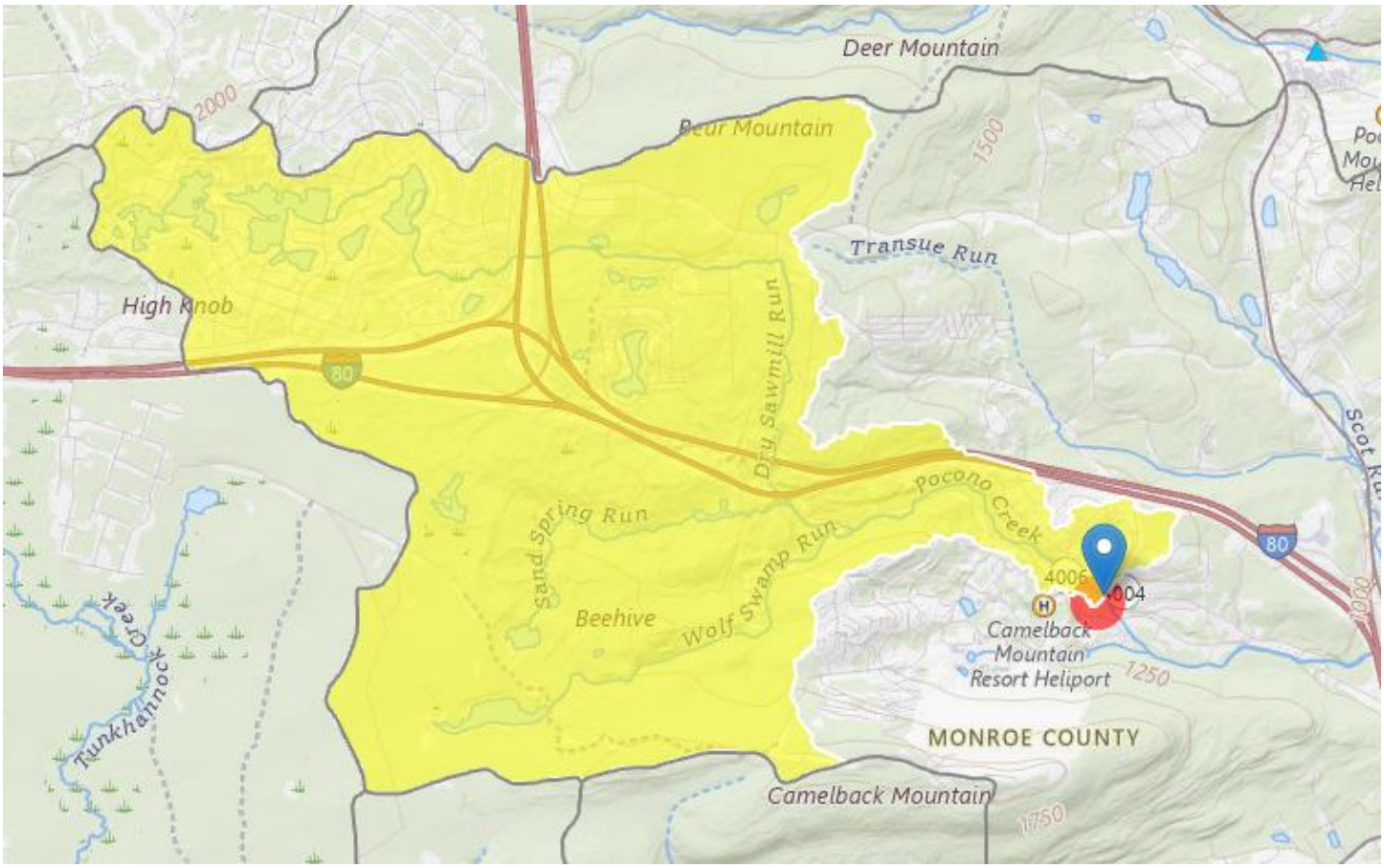
- The USGS Scientific Investigations Report 2005-5162 "Streamflow Statistics for the Paradise and Pocono Creek Watersheds and Selected Streamflow-Gaging Stations in Monroe County, Pennsylvania" (Ronald E. Thompson and Gregory J. Cavallo) also used historic data to estimate low flows:
  - USGS Gage No. 01441495 (Pocono Creek above Wigwam Run near Stroudsburg, PA) with 38.9 square mile drainage area. Predicted streamflow statistics of 6.6 CFS Q7-10 low flow. This equates to a **0.1696 CFS/square mile watershed LFY**. The period of record was not defined (2002- without end-date)
  - USGS Gage No. No. 01441500 (Pocono Creek near Stroudsburg, PA) with a 42.3 square mile drainage area. Predicted streamflow statistics of 6.4 CFS Q7-10 low flow. This equates to a **0.151 CFS/square mile watershed LFY. The period of record was 1932-2001 using available gage data for 12 non-continuously monitored gages and continuously monitored gages for the statistical analysis)**.
  - The USGS Report narrative noted "losing reaches" (i.e. reduced flow stream segments/subbasin yields compared to other stream segments/subbasins) that might be due to groundwater withdrawal or natural geological conditions or other causes along Pocono Creek between Sullivan Trail and SR 715 at Tannersville. **The Report also noted potential increased groundwater discharge effects causing higher yields due to holding ponds on Coolmoor Run (confluence downstream of STP discharge)**.

DRBC Dockets' Information:

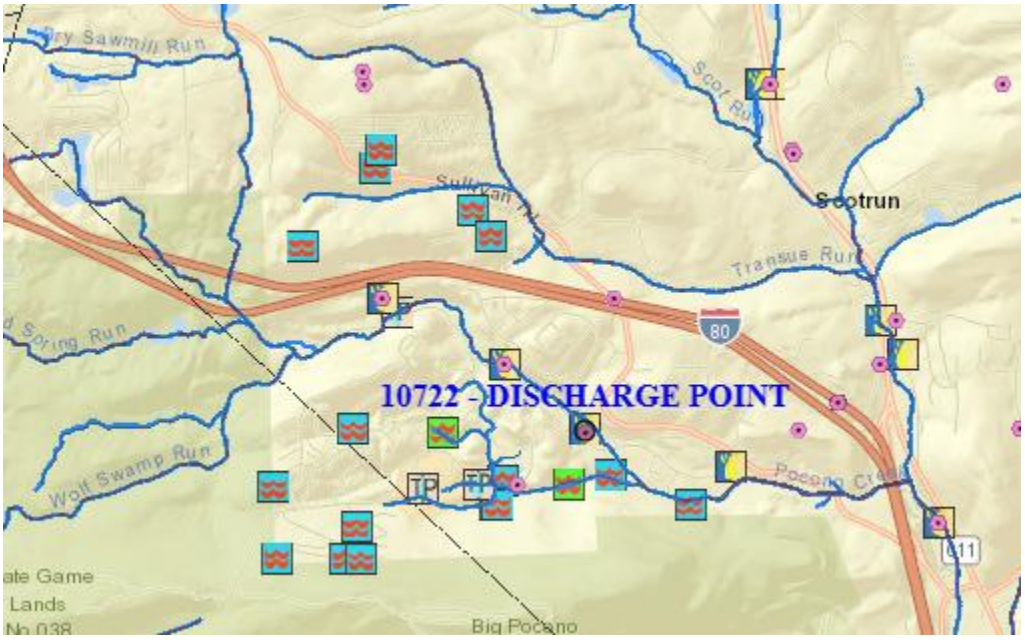
- Docket No. D-86-21 (0.400 MGD STP): Replacement STP (old STP abandoned and outfall relocated to Pocono Creek) including two phases:
  - Phase 1 (0.2 MGD high quality secondary treatment): New comminutor/bar screens, EQ Tank, two extended aeration tanks with clarifiers, a rapid sand filter, a chlorine contact tank/post-aeration tank, and a sludge holding tank.
  - Phase 2 (0.4 MGD tertiary treatment): Presumably the other two existing extended aeration tanks plus unbuilt Docket-described Tertiary Treatment (if required for TP removal) including: a flash mix tank, a flocculator, and tube settlers.
- 12/11/2019 Docket No. D-2008-026-2 (Three public water supply wells serving the Hotel & Indoor Water Park and Berrelli's Restaurant): Groundwater withdrawal at 5.71 MG/month from existing groundwater wells. The withdrawal rate was projected to increase to 0.156 MGD average and 0.196 MGD maximum. The Docket holder indicated the current approved allocation of 5.71 MG/Month is sufficient to meet its future water demands.
  - "Prior to entering the distribution system, the water is treated for corrosion control and disinfected…".
  - "The docket holder estimates the project withdrawals, used for purposes of public water supply and recreation, results in a consumptive use of 12 percent of the total water use".
  - The water use is subject to potential drought emergency restriction to only essential uses in event of a formal drought emergency declared by either Pennsylvania or the DRBC.
- 6/7/2023 Docket No. D-2001-040-3 (Surface Water Withdrawal): 160 MG/month from Pocono Creek, plus seasonal withdrawals of 40 MG/month from Massad Pond, and 15 MG/month from Barney's Pond. The DRBC Docket No. D-2001-040-3 (Camelback Surface Water Withdrawal) indicates the facility withdraws water for snow-making (winter months, with peak production noted to be in the December- January timeframe) with incidental maintenance withdrawals during other time-frames with a mandated Q7-10 passby flows at that time.
  - The Docket noted the facility also obtains potable water from eleven (11) transient non-community PWS wells.

- The facility is subject to a Drought Management and Continency Plan in event of a declared drought.
- Docket assumed Low Flow Conditions and CMBK Monitoring: The Docket assumed a 1.78 MGD Q7-10 low flow for Pocono Creek (based on USGS data collected as part of a "Pocono Creek Pilot Study" at the point of surface water withdrawal (not the Outfall location). The DRBC website indicated the Study was from 2001 – 2004, and would not incorporate the CMBK stream flow measurement data. However, the basis of the estimate was not technically explained. **NOTE**: See figures below.
  - Surface water withdrawal is required to cease when measured stream flow (measured below intake) is below 1.78 MGD (April through September).
  - Surface water withdrawal is required to cease when measured stream flow (measured below intake) is below 4.2 MGD (October through March).
  - The CMBK Pocono Creek streamflow monitoring program has been in operation since 2002-2003 snow season, with a relocation of the CMBK monitoring point in July 2013. The existing monitoring point is a "stilling well" (approximately 210 feed downstream of the surface water intake) where water levels are measured with a bubbler-type flow meter that measures the water level in Pocono Creek every 15 minutes and automatically calculates and records the stream flow based on a data rating curve. An updated monitoring and reporting plan curve was required by the 2023 DRBC Docket (within 60 days of Docket approval date). Docket Condition No. C.5 requires an annual report, prepared by a hydrogeologist, to summarize data and to assess the effects of the withdrawals on the local hydrogeological system.
  - DRBC estimated the project withdrawals, for snow making, results in a consumptive use of 22% of total water use.
- Other Water Sources: The 12/16/2022 CMBK Letter response noted that are multiple facilities including the Camelback Ski Area, Kartrite's Mountain House, Northridge, and the Village at Camelback which contribute sewage to the WWTP and that are supplied by water wells which are not regulated by DRBC Dockets.

Outfall No. 001 drainage area per PA Streamstats and E-maps water withdrawal points (surface and groundwater):



Watershed Water Withdrawals per E-maps: See surface water withdrawal and groundwater withdrawal points below:



- **Background/Ambient Data from previous Renewal Fact Sheet**: No stream sampling data available via E-maps. The November 2011 "Monroe County Water Quality Study 2010", prepared for the Monroe County Planning Commission included stream sampling data: The Report noted that the summer 2010 sampling occurred during a drought warning as recommended by the DEP (recommending a voluntary 5% reduction in nonessential water use).
  - Sampling location POCOCR20 – Pocono Township: ~15 yards downstream of confluence with Wolf Swamp Run (8/25/2010 sampling, ~1.67 miles upstream of CBH20 Outfall #001 (also upstream of separate STP discharge). Latitude: 41°, 03', 34.13"; Longitude: -75°, 22', 02.05"
  - Sampling location POCOCR16 – Pocono Township: ~10 yards downstream of confluence with Coolmoor Creek (8/25/2010 sampling, ~0.35 miles downstream of CBH20 Outfall #001). Latitude: 41°, 03', 05.86"; Longitude: -75°, 20', 15.94"

Background/Ambient Data:

Data Source:
2010 Monroe County Water Quality Study sampling points.

	Upstream (POCOCR20)	Downstream (POCOCR16)
pH (SU)	7.34	7.74
Temperature (°C)	13.63	15.03
Hardness (mg/L)	**21**	**34**
Chlorides (mg/L)	24.4	36.8
TDS (mg/L)	77	116
Nitrate (mg/L)	0.158	0.296
TKN (mg/L)	0.345	0.722
Total Alkalinity (mg/L)	11	17
TOC (mg/L)	1.3	1
BOD5 (mg/L)	ND (<2.00)	ND (<2.00)

Nitrite (mg/L)	ND (<0.005)	ND (<0.005)
Ammonia (mg/L)	ND (<0.200)	ND (<0.200)
TSS (mg/L)	ND (<5.00)	ND (<5.00)
Total P (mg/L)	ND (<0.100)	ND (<0.100)
Fecal Coliform (CFU/100 ml)	ND (<9)	64
Calcium (mg/L)	ND (<5.00)	9.42
Magnesium (mg/L)	1.54	2.2
Sulfate (mg/L)	4.8	6
DO (mg/L)	9.18	9.2

Treatment Facility Summary

Treatment Facility Name: Camelback Resort STP

WQM Permit No.	Issuance Date	Scope
4588407-T1	8/14/2019	Transfer of October 7, 1988 WQM Permit for STP
4508407 T-1	8/14/2019	Transfer of February 23, 2009 WQM Permit for 545.6 GPM Pump Station – 1 Massad Road
4508407	2/23/2009	545.6 GPM Pump Station – 1 Massad Road
4588407	10/7/1988	0.40 MGD STP (old 0.140 MGD plant abandoned) with **new** direct discharge to Pocono Creek (no longer to UNT to Pocono Creek). Constructed in two phases: Phase I included a new comminutor and bar screens (coarse and fine), 0.10 MGD EQ Tank, flow splitter box, two 0.10 MGD extended aeration biological treatment units, with clarifier, backwash filter, chlorine contact/post-aeration tank, 0.10 MGD sludge holding tank with new flow meter. Phase II involved an additional 0.10 MGD EQ tank, two 0.20 MGD extended aeration tanks. **A tertiary TP treatment unit (flash mix tank, flocculator, and tube settlers) was to be installed <u>if</u> needed in the future**. Force main connection to Pocono Creek. 9/28/1988 DRBC Docket # D-86-21 (revised) issued for new STP. **Previous WQM permits invalid (old abandoned STP and/or discharging to UNT to Pocono Creek). NPDES Permit Application indicates tertiary treatment unit not installed.**

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary (with TP tertiary treatment approved)	Extended Aeration	Liquid Chlorine	0.400

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.400	801.2*	Not Overloaded	0.100 MGD sludge holding tank	Offsite disposal

*Per 2015 NPDES Permit Renewal Form (assuming all four treatment units are operating).

<u>Changes Since Last Permit Issuance</u>: None known.

<u>Other Comments</u>:

<u>Application STP Description</u>: Bar screen/comminutor, two (2) 100,000-gallon equalization tanks, clarifier, and four (4) 100,000-gallon extended aeration tanks, one (1) 100,000-gallon sludge holding tank, sand filter, chlorine contact tank, and post-aeration tank. Sodium bicarbonate is used for pH adjustment. Application drawing shows the "Tertiary Treatment Unit (Future if Necessary)", i.e. unbuilt and not proposed to be constructed (in absence of TP limits) which the DRBC Docket noted would have included a flash mix tank, a flocculator, and tube settlers. **<u>NOTE</u>**: The 3/2/2022 DEP Inspection Report noted more details: one (1) muffin monster; aeration in the two equalization tanks; one (1) splitter box; four (4) clarifiers; one (1) sand filter; one (1) chlorine contact tank; one (1) post-air tank, and one (1) waste sludge tank. Liquid chlorine is fed at the head of the sand filter for disinfection and sand filter maintenance. Sodium bicarbonate is fed by hand as powder at the aerated influent EQ tanks for pH adjustment.

Application indicated that all four (4) existing extended aeration tanks are in operation under current typical conditions. Influent flow to the WWTP is collected in two (2) 100,000 GPD Influent Equalization tanks, which are aerated and provided with pH adjustment via chemical addition. Equalized influent is pumped to a flow splitter box which contains four

(4) airlifts – one for each extended aeration tank, which can be adjusted by the operator to control flowrates into each individual extended aeration tank (which was said to provide for more effective wastewater treatment, and moderates variability in effluent flow to the receiving stream). Therefore, tiered flows do not appear to be an option under current site operations.

No proposed additional wastewater treatment chemicals or plant upgrades to address copper or zinc effluent limits exceedances. Application indicated focus is on source reduction (water system work including potential corrosion control treatment system and replacement of potential copper/zinc sources; removal of potential sources at WWTP).

Compliance History

DMR Data for Outfall 001 (from May 1, 2024 to April 30, 2025)

Parameter	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24
Flow (MGD) Average Monthly	**0.0664**	**0.0889**	**0.1245**	**0.1155**	**0.0851**	**0.0781**	**0.0717**	**0.0665**	**0.1338**	**0.1109**	**0.0644**	0.0521
Flow (MGD) Daily Maximum	**0.1226**	**0.1597**	**0.2613**	**0.2543**	**0.1565**	**0.1611**	**0.1264**	**0.1412**	**0.3132**	**0.1953**	**0.1213**	0.1600
pH (S.U.) Minimum	6.65	6.25	6.05	6.02	6.38	6.91	6.91	6.42	6.14	6.41	6.88	6.99
pH (S.U.) Maximum	7.68	7.46	7.77	7.83	7.67	7.70	7.70	7.73	7.84	7.80	7.80	7.75
DO (mg/L) Minimum	8.0	10.3	7.2	10.7	10.4	8.8	8.1	8.1	6.9	6.6	8.1	8.4
TRC (mg/L) Average Monthly	**0.080**	**0.192**	**0.100**	**0.195**	**0.200**	**0.0186**	**0.157**	**0.089**	**0.068**	**0.066**	**0.067**	**0.136**
TRC (mg/L) Instantaneous Maximum	**0.470**	**0.880**	**0.450**	**0.530**	**0.820**	**0.430**	**0.690**	**0.450**	**0.200**	**0.0290**	**0.370**	**1.200**
CBOD5 (lbs/day) Average Monthly	< 1.7	< 2.1	< 2.3	< 2.7	< 1.5	< 1.5	< 1.4	< 1.0	< 2.7	< 3.2	< 3.7	< 2.2
CBOD5 (mg/L) Average Monthly	< 3.0	< 3.0	< 3.0	< 3.0	< 3.2	< 3.0	< 3.0	< 3.0	< 3.0	< 3.8	< 7.7	< 6.0
TSS (lbs/day) Average Monthly	< 2.8	< 3.4	< 4.7	< 5.6	< 2.5	< 2.5	< 2.4	< 1.7	< 4.5	< 4.3	< 2.5	< 2.2
TSS (mg/L) Average Monthly	< 5.0	< 5.0	< 5.7	< 6.7	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 6.2	< 5.6
Total Dissolved Solids (lbs/day) Average Monthly		719			1274			2137			806	
Total Dissolved Solids (mg/L) Average Monthly		1260			1940			1350			1250	
Fecal Coliform (No./100 ml) Geometric Mean	< 1.8	< 1.2	< 3.9	7.8	2.3	< 6.4	< 4.4	< 2.9	19.0	3.6	< 1.4	< 1.1
Fecal Coliform (No./100 ml) Instantaneous Maximum	10.8	2.0	24.6	40.8	27.5	< 37.9	22.8	10.9	30.1	6.3	< 2.0	2.0

Nitrate-Nitrite (lbs/day) Average Monthly		26.0			25.6			< 79.2			22.62	
Nitrate-Nitrite (mg/L) Average Monthly		45.5			39.0			< 50.0			35.1	
Total Nitrogen (lbs/day) Average Monthly		26.0			25.7			75.0			22.67	
Total Nitrogen (mg/L) Average Monthly		45.53			39.05			47.37			35.2	
Ammonia (lbs/day) Average Monthly	< 0.1	< 0.5	< 0.2	< 0.2	< 0.9	< 0.1	< 0.1	< 0.1	< 0.2	< 0.2	< 0.1	< 0.1
Ammonia (mg/L) Average Monthly	< 0.2	< 0.9	< 0.2	< 0.2	1.0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
TKN (lbs/day) Average Monthly		< 0.6			< 0.7			< 1.6			0.64	
TKN (mg/L) Average Monthly		< 1.0			< 1.0			< 1.0			1.0	
Total Phosphorus (lbs/day) Average Monthly		4.7			4.6			11.9			3.83	
Total Phosphorus (mg/L) Average Monthly		8.2			6.9			7.5			5.94	
Total Copper (lbs/day) Average Monthly	0.006	0.006	0.009	0.013	0.007	0.006	0.006	0.005	0.015	0.024	0.010	0.005
Total Copper (mg/L) Average Monthly	**0.011**	**0.009**	**0.011**	**0.014**	**0.014**	**0.012**	**0.012**	**0.013**	**0.016**	**0.029**	**0.021**	**0.014**
Total Copper (mg/L) Daily Maximum	**0.015**	**0.010**	**0.012**	**0.018**	**0.020**	**0.013**	**0.013**	**0.014**	**0.020**	**0.035**	**0.039**	**0.017**
Total Zinc (lbs/day) Average Monthly	0.030	0.031	0.042	0.076	0.048	0.020	0.024	0.019	0.088	0.062	0.015	0.027
Total Zinc (mg/L) Average Monthly	**0.053**	**0.043**	**0.053**	**0.087**	**0.076**	**0.041**	**0.050**	**0.054**	**0.097**	**0.071**	**0.036**	**0.066**
Total Zinc (mg/L) Daily Maximum	**0.062**	**0.052**	**0.059**	**0.118**	**0.132**	**0.045**	**0.066**	**0.075**	**0.185**	**0.094**	**0.040**	**0.119**
Chloride (lbs/day) Average Monthly		320			546			901			402.2	
Chloride (mg/L) Average Monthly		561			831			569			624.0	

DMR Data for Outfall 001 (from June 1, 2022 to May 31, 2023)

Parameter	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22
Flow (MGD) Average Monthly	**0.0493**	**0.0706**	**0.0803**	**0.122**	**0.126**	**0.096**	**0.073**	**0.059**	**0.077**	**0.144**	**0.154**	**0.099**
Flow (MGD) Daily Maximum	**0.1369**	**0.1198**	**0.1908**	**0.235**	**0.281**	**0.206**	**0.148**	**0.121**	**0.165**	**0.241**	**0.216**	**0.144**
pH (S.U.) Minimum	6.21	6.20	6.1	6.3	6.3	6.4	6.4	6.3	6.3	6.5	6.4	6.5
pH (S.U.) Maximum	7.10	7.00	7.1	7.2	7.3	7.3	6.9	6.9	7.0	7.1	7.0	6.8
DO (mg/L) Minimum	5.0	5.1	10.0	9.0	9.0	8.0	7.0	8.0	7.0	7.0	7.0	7.0
TRC (mg/L) Average Monthly	0.165	0.100	0.254	0.172	0.203	0.288	0.239	0.193	0.137	0.121	0.073	0.171
TRC (mg/L) Instantaneous Maximum	0.800	0.320	0.930	0.430	0.750	0.560	0.810	0.520	0.540	0.640	0.320	0.460
CBOD5 (lbs/day) Average Monthly	1.9	< 3.2	< 2.8	< 6.1	< 6.31	< 5.15	< 3.65	< 2.95	< 6.24	< 7.2	< 7.71	< 4.95
CBOD5 (mg/L) Average Monthly	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.43	< 6.0	< 6.0	< 9.72	< 6.0	< 6.0	< 6.0
TSS (lbs/day) Average Monthly	1.6	< 2.6	< 4.0	11.04	< 6.94	< 4.67	< 3.04	< 2.46	< 3.21	< 7.14	19.37	< 4.13
TSS (mg/L) Average Monthly	< 5.0	< 5.0	< 9.9	10.85	< 6.3	< 5.84	< 5.0	< 5.0	< 5.0	< 5.95	15.08	< 5.0
Total Dissolved Solids (lbs/day) Average Monthly			637			537.05			1668.75			583.47
Total Dissolved Solids (mg/L) Average Monthly			1140			1150			1070			1060
Fecal Coliform (No./100 ml) Geometric Mean	20.9	17.6	62.7	37.6	108.9	< 2.65	< 1.76	< 18.4	< 5.39	109.5	**> 1517.3**	15.16
Fecal Coliform (No./100 ml) Instantaneous Maximum	118.7	55.6	410.6	218.7	1986.3	130.9	9.7	721.5	45.7	517.2	**> 2419.6**	579.4
Nitrate-Nitrite (lbs/day) Average Monthly			16.8			< 12.61			< 37.9			< 11.12
Nitrate-Nitrite (mg/L) Average Monthly			30.0			< 27.0			< 24.3			< 20.2

Total Nitrogen (lbs/day) Average Monthly			16.8			12.64			41.34			11.22
Total Nitrogen (mg/L) Average Monthly			30.0			27.07			26.51			20.39
Ammonia (lbs/day) Average Monthly	0.2	< 0.7	< 1.2	4.92	**11.18**	< 2.65	< 0.122	< 0.098	1.03	5.81	< 3.08	< 1.48
Ammonia (mg/L) Average Monthly	0.7	< 1.4	< 2.3	4.84	**10.64**	< 3.31	< 0.2	< 0.20	1.6	4.84	< 2.40	< 1.79
TKN (lbs/day) Average Monthly			0.6			< 0.467			3.29			< 0.550
TKN (mg/L) Average Monthly			1.0			< 1.0			2.11			< 1
Total Phosphorus (lbs/day) Average Monthly			6.4			1.93			8.69			2.82
Total Phosphorus (mg/L) Average Monthly			11.5			4.13			5.57			5.12
Total Copper (lbs/day) Average Monthly	0.006	0.009	0.013	0.0315	0.021	0.0256	0.0149	0.0103	0.0069	0.016	0.0221	0.0238
Total Copper (mg/L) Average Monthly	0.017	0.017	**0.031**	**0.031**	**0.020**	**0.03214**	**0.0244**	**0.0209**	0.0107	0.0136	0.017	**0.0288**
Total Copper (mg/L) Daily Maximum	0.022	0.019	**0.067**	**0.0429**	**0.0305**	**0.0497**	**0.0296**	0.0262	0.0131	0.0159	0.0211	**0.0356**
Total Zinc (lbs/day) Average Monthly	0.043	0.031	0.082	0.164	0.138	0.1690	0.179	0.0979	0.0549	0.085	0.0791	0.0923
Total Zinc (mg/L) Average Monthly	0.130	0.058	**0.196**	0.161	0.131	**0.2114**	**0.294**	**0.199**	0.0856	0.071	0.0616	0.1118
Total Zinc (mg/L) Daily Maximum	0.211	0.064	**0.487**	0.237	0.226	**0.4120**	**0.450**	0.221	0.176	0.0833	0.0831	0.129
Chloride (lbs/day) Average Monthly			308			245.18			720.53			253.75
Chloride (mg/L) Average Monthly			551			525			462			461

DMR Data for Outfall 001 (from January 1, 2022 to August 31, 2022)

Parameter	MAY-22	APR-22	MAR-22	FEB-22	JAN-22

Flow (MGD) Average Monthly	**0.082**	**0.126**	**0.117**	**0.175**	**0.152**
Flow (MGD) Daily Maximum	**0.165**	**0.222**	**0.176**	**0.287**	**0.238**
pH (S.U.) Minimum	6.3	6.4	6.5	6.1	6.1
pH (S.U.) Maximum	6.9	6.9	7.2	7.2	6.9
DO (mg/L) Minimum	8.0	8.0	8.0	10.0	10.0
TRC (mg/L) Average Monthly	0.088	0.125	0.231	0.172	0.212
TRC (mg/L) Instantaneous Maximum	0.240	0.250	0.730	0.560	0.890
CBOD5 (lbs/day) Average Monthly	< 4.10	< 6.31	< 5.85	< 9.09	< 7.61
CBOD5 (mg/L) Average Monthly	< 6.0	< 6.0	< 6.0	< 6.23	< 6.0
TSS (lbs/day) Average Monthly	< 3.88	< 10.40	< 6.69	< 17.0	< 7.16
TSS (mg/L) Average Monthly	< 5.68	< 9.9	< 6.86	< 11.65	< 5.65
Total Dissolved Solids (lbs/day) Average Monthly			1900.31		
Total Dissolved Solids (mg/L) Average Monthly			995		
Fecal Coliform (No./100 ml) Geometric Mean	12.92	260.2	67.6	**> 285.5**	14
Fecal Coliform (No./100 ml) Instantaneous Maximum	35.9	1203.3	285.1	**> 2419.6**	21.6
Nitrate-Nitrite (lbs/day) Average Monthly			< 1.87		
Nitrate-Nitrite (mg/L) Average Monthly			< 0.98		
Total Nitrogen (lbs/day) Average Monthly			68.14		

Total Nitrogen (mg/L) Average Monthly			35.68		
Ammonia (lbs/day) Average Monthly	< 0.526	< 1.94	< 4.91	15.44	1.27
Ammonia (mg/L) Average Monthly	< 0.769	< 1.85	< 5.03	10.58	1.00
TKN (lbs/day) Average Monthly			66.08		
TKN (mg/L) Average Monthly			34.6		
Total Phosphorus (lbs/day) Average Monthly			7.79		
Total Phosphorus (mg/L) Average Monthly			4.08		
Total Copper (lbs/day) Average Monthly	0.014	0.018	0.0172	0.048	0.043
Total Copper (mg/L) Average Monthly	**0.021**	0.0169	**0.0176**	**0.033**	**0.034**
Total Copper (mg/L) Daily Maximum	**0.0286**	0.0203	**0.0304**	**0.0569**	**0.036**
Total Zinc (lbs/day) Average Monthly	0.077	0.075	0.0705	0.308	0.302
Total Zinc (mg/L) Average Monthly	0.113	0.071	0.0723	**0.211**	**0.238**
Total Zinc (mg/L) Daily Maximum	0.155	0.0831	0.0989	**0.353**	**0.257**
Chloride (lbs/day) Average Monthly			947.29		
Chloride (mg/L) Average Monthly			496		

DMR Data for Outfall 001 (from January 1, 2021 to December 31, 2021)

Parameter	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21
Flow (MGD) Average Monthly	**0.118**	**0.109**	**0.101**	**0.115**	**0.171**	**0.156**	**0.107**	**0.101**	**0.109**	**0.157**	**0.172**	0.167
Flow (MGD) Daily Maximum	**0.238**	**0.208**	**0.150**	**0.228**	**0.300**	**0.281**	**0.172**	**0.239**	**0.206**	**0.228**	**0.239**	0.229
pH (S.U.) Minimum	6.3	6.2	6.2	6.1	6.3	6.2	6.4	6.3	6.2	6.3	6.2	6.1

pH (S.U.) Maximum	6.8	6.7	6.7	6.8	7.1	6.8	6.9	6.8	6.8	6.9	7.0	6.9
DO (mg/L) Minimum	9.0	8.0	8.0	7.0	7.0	7.0	7.0	7.0	7.0	9.0	10.0	9.0
TRC (mg/L) Average Monthly	0.220	0.275	0.187	0.106	0.095	0.075	0.118	0.122	0.100	0.239	0.234	0.249
TRC (mg/L) Instantaneous Maximum	0.550	0.450	0.410	0.340	0.320	0.210	0.460	0.250	0.220	0.610	0.470	0.500
CBOD5 (lbs/day) Average Monthly	< 5.90	< 5.45	< 5.054	< 5.75	< 8.56	< 7.81	< 5.35	< 5.05	< 5.43	< 10.246	< 9.87	< 8.36
CBOD5 (mg/L) Average Monthly	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 7.825	< 6.88	< 6.0
TSS (lbs/day) Average Monthly	< 4.92	< 4.55	< 4.212	< 4.93	< 9.45	< 7.49	< 4.46	< 5.21	< 5.07	< 8.806	10.40	< 7.94
TSS (mg/L) Average Monthly	< 5.0	< 5.0	< 5.0	< 5.14	< 6.625	< 5.76	< 5.0	6.18	< 5.6	< 6.725	7.25	< 5.7
Total Dissolved Solids (lbs/day) Average Monthly	428.34			2034.6			864.52			2010.61		
Total Dissolved Solids (mg/L) Average Monthly	1070			1140			1420			1230		
Fecal Coliform (No./100 ml) Geometric Mean	34.2	1.0	5.34	51	222	29.01	8.93	16.38	15.82	69.7	< 13.41	8.2
Fecal Coliform (No./100 ml) Instantaneous Maximum	517.2	1.0	15.8	1732.9	571.7	547.5	260.3	46.5	50.4	1046.2	791.5	108.1
Nitrate-Nitrite (lbs/day) Average Monthly	< 10.77			< 32.3			< 21.37			< 33.84		
Nitrate-Nitrite (mg/L) Average Monthly	< 26.9			< 18.1			< 35.1			< 20.7		
Total Nitrogen (lbs/day) Average Monthly	10.72			33.5			21.71			36.81		
Total Nitrogen (mg/L) Average Monthly	26.79			18.77			35.66			22.52		
Ammonia (lbs/day) Average Monthly	< 1.54	< 0.182	< 0.198	0.213	2.58	< 0.667	< 0.264	< 0.202	0.435	1.082	< 2.38	< 0.53
Ammonia (mg/L) Average Monthly	< 1.56	< 0.2	< 0.235	0.2216	1.806	< 0.513	< 0.296	< 0.24	0.481	0.826	< 1.66	0.38

TKN (lbs/day) Average Monthly	< 0.40			< 1.78			< 0.609			< 3.27		
TKN (mg/L) Average Monthly	< 1.0			< 1.0			< 1.0			< 2.0		
Total Phosphorus (lbs/day) Average Monthly	1.92			13.49			4.22			9.58		
Total Phosphorus (mg/L) Average Monthly	4.8			7.56			6.93			5.86		
Total Copper (lbs/day) Average Monthly	0.032	0.035	0.0322	0.0245	0.036	< 0.0240	0.0175	0.031	0.025	0.033	0.033	0.053
Total Copper (mg/L) Average Monthly	**0.033**	**0.0383**	**0.038**	**0.0255**	**0.025**	**0.0184**	**0.0196**	**0.037**	**0.027**	**0.025**	**0.023**	**0.038**
Total Copper (mg/L) Daily Maximum	**0.0364**	**0.0582**	**0.0529**	**0.0473**	**0.039**	0.0223	0.0237	**0.0547**	**0.049**	**0.032**	**0.032**	**0.0627**
Total Zinc (lbs/day) Average Monthly	0.144	0.143	0.1381	0.133	0.208	0.161	0.0776	0.158	0.138	0.232	0.222	0.411
Total Zinc (mg/L) Average Monthly	0.146	0.157	**0.164**	0.1387	0.146	0.1235	0.0870	**0.188**	0.152	**0.177**	0.155	**0.295**
Total Zinc (mg/L) Daily Maximum	0.212	0.241	0.214	0.220	**0.293**	0.160	0.129	**0.340**	**0.358**	**0.335**	**0.219**	**0.478**
Chloride (lbs/day) Average Monthly	158.53			801.36			365.29			931.7		
Chloride (mg/L) Average Monthly	396			449			600			570		

Compliance History

Effluent Violations for Outfall 001, from: June 1, 2024 To: April 30, 2025

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Total Copper	07/31/24	Avg Mo	0.029	mg/L	.017	mg/L
Total Copper	06/30/24	Avg Mo	0.021	mg/L	.017	mg/L
Total Copper	06/30/24	Daily Max	0.039	mg/L	.027	mg/L
Total Copper	07/31/24	Daily Max	0.035	mg/L	.027	mg/L

Effluent Violations for Outfall 001, from: February 1, 2021 To: May 31, 2023

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Ammonia	02/28/22	Avg Mo	10.58	mg/L	6.0	mg/L
Ammonia	08/31/22	Avg Mo	4.84	mg/L	3.0	mg/L
Ammonia	01/31/23	Avg Mo	10.64	mg/L	6.0	mg/L
Fecal Coliform	08/31/21	Geo Mean	222	No./100 ml	200	No./100 ml
Fecal Coliform	02/28/22	Geo Mean	> 285.5	No./100 ml	2000	No./100 ml
Fecal Coliform	07/31/22	Geo Mean	1517.3	No./100 ml	200	No./100 ml
Fecal Coliform	09/30/21	IMAX	1732.9	No./100 ml	1000	No./100 ml
Fecal Coliform	02/28/22	IMAX	> 2419.6	No./100 ml	10000	No./100 ml
Fecal Coliform	07/31/22	IMAX	> 2419.6	No./100 ml	1000	No./100 ml
Total Copper	02/28/21	Avg Mo	0.023	mg/L	0.017	mg/L
Total Copper	03/31/21	Avg Mo	0.025	mg/L	0.017	mg/L
Total Copper	04/30/21	Avg Mo	0.027	mg/L	0.017	mg/L
Total Copper	05/31/21	Avg Mo	0.037	mg/L	.017	mg/L
Total Copper	06/30/21	Avg Mo	0.0196	mg/L	.017	mg/L
Total Copper	07/31/21	Avg Mo	0.0184	mg/L	.017	mg/L
Total Copper	08/31/21	Avg Mo	0.025	mg/L	.017	mg/L
Total Copper	09/30/21	Avg Mo	0.0255	mg/L	.017	mg/L
Total Copper	10/31/21	Avg Mo	0.038	mg/L	.017	mg/L

Total Copper	11/30/21	Avg Mo	0.0383	mg/L	.017	mg/L
Total Copper	12/31/21	Avg Mo	0.033	mg/L	.017	mg/L
Total Copper	01/31/22	Avg Mo	0.034	mg/L	.017	mg/L
Total Copper	02/28/22	Avg Mo	0.033	mg/L	.017	mg/L
Total Copper	03/31/22	Avg Mo	0.0176	mg/L	.017	mg/L
Total Copper	05/31/22	Avg Mo	0.021	mg/L	.017	mg/L
Total Copper	06/30/22	Avg Mo	0.0288	mg/L	.017	mg/L
Total Copper	07/31/22	Avg Mo	0.0172	mg/L	.017	mg/L
Total Copper	10/31/22	Avg Mo	0.0209	mg/L	.017	mg/L
Total Copper	11/30/22	Avg Mo	0.0244	mg/L	.017	mg/L
Total Copper	12/31/22	Avg Mo	0.03214	mg/L	.017	mg/L
Total Copper	01/31/23	Avg Mo	0.020	mg/L	.017	mg/L
Total Copper	02/28/23	Avg Mo	0.031	mg/L	.017	mg/L
Total Copper	03/31/23	Avg Mo	0.031	mg/L	.017	mg/L
Total Copper	02/28/21	Daily Max	0.032	mg/L	0.027	mg/L
Total Copper	03/31/21	Daily Max	0.032	mg/L	0.027	mg/L
Total Copper	04/30/21	Daily Max	0.049	mg/L	0.027	mg/L
Total Copper	05/31/21	Daily Max	0.0547	mg/L	.027	mg/L
Total Copper	08/31/21	Daily Max	0.039	mg/L	.027	mg/L
Total Copper	09/30/21	Daily Max	0.0473	mg/L	.027	mg/L
Total Copper	10/31/21	Daily Max	0.0529	mg/L	.027	mg/L
Total Copper	11/30/21	Daily Max	0.0582	mg/L	.027	mg/L

Total Copper	12/31/21	Daily Max	0.0364	mg/L	.027	mg/L
Total Copper	01/31/22	Daily Max	0.036	mg/L	.027	mg/L
Total Copper	02/28/22	Daily Max	0.0569	mg/L	.027	mg/L
Total Copper	03/31/22	Daily Max	0.0304	mg/L	.027	mg/L
Total Copper	05/31/22	Daily Max	0.0286	mg/L	.027	mg/L
Total Copper	06/30/22	Daily Max	0.0356	mg/L	.027	mg/L
Total Copper	11/30/22	Daily Max	0.0296	mg/L	.027	mg/L
Total Copper	12/31/22	Daily Max	0.0497	mg/L	.027	mg/L
Total Copper	01/31/23	Daily Max	0.0305	mg/L	.027	mg/L
Total Copper	02/28/23	Daily Max	0.0429	mg/L	.027	mg/L
Total Copper	03/31/23	Daily Max	0.067	mg/L	.027	mg/L
Total Zinc	03/31/21	Avg Mo	0.177	mg/L	0.162	mg/L
Total Zinc	05/31/21	Avg Mo	0.188	mg/L	.162	mg/L
Total Zinc	10/31/21	Avg Mo	0.164	mg/L	.162	mg/L
Total Zinc	01/31/22	Avg Mo	0.238	mg/L	.162	mg/L
Total Zinc	02/28/22	Avg Mo	0.211	mg/L	.162	mg/L
Total Zinc	10/31/22	Avg Mo	0.199	mg/L	.162	mg/L
Total Zinc	11/30/22	Avg Mo	0.294	mg/L	.162	mg/L
Total Zinc	12/31/22	Avg Mo	0.2114	mg/L	.162	mg/L
Total Zinc	03/31/23	Avg Mo	0.196	mg/L	.162	mg/L
Total Zinc	01/31/22	Daily Max	0.257	mg/L	.253	mg/L
Total Zinc	02/28/22	Daily Max	0.353	mg/L	.253	mg/L

Total Zinc	03/31/21	Daily Max	0.335	mg/L	0.253	mg/L
Total Zinc	04/30/21	Daily Max	0.358	mg/L	0.253	mg/L
Total Zinc	05/31/21	Daily Max	0.340	mg/L	.253	mg/L
Total Zinc	08/31/21	Daily Max	0.293	mg/L	.253	mg/L
Total Zinc	11/30/22	Daily Max	0.450	mg/L	.253	mg/L
Total Zinc	12/31/22	Daily Max	0.4120	mg/L	.253	mg/L
Total Zinc	03/31/23	Daily Max	0.487	mg/L	.253	mg/L

Summary of Inspections:

FACILITY NAME	INSP PROGRAM	INSP ID	INSPECTED DATE	INSP TYPE	INSPECTION RESULT DESC	# OF VIOLATIONS
CAMELBACK RESORT STP	WPCNP	3359254	12/16/2024	Administrative/File Review	Viol(s) Noted & Immediately Corrected	1
CAMELBACK RESORT STP	WPCNP	3504509	10/04/2023	Administrative/File Review	Violation(s) Noted	3
CAMELBACK RESORT STP	WPCNP	3338220	02/15/2023	Routine/Partial Inspection	No Violations Noted	0
CAMELBACK RESORT STP	WPCNP	3328611	10/06/2022	Administrative/File Review	Viol(s) Noted & Immediately Corrected	1
CAMELBACK RESORT STP	WPCNP	3289927	04/25/2022	Administrative/File Review	Violation(s) Noted	4
CAMELBACK RESORT STP	WPCNP	3035546	03/22/2022	Administrative/File Review	No Violations Noted	0
CAMELBACK RESORT STP	WPCNP	3328495	03/02/2022	Compliance Evaluation	No Violations Noted	0
CAMELBACK RESORT STP	WPCNP	3025339	02/20/2022	Administrative/File Review	Violation(s) Noted	1
CAMELBACK RESORT STP	WPCNP	3947161	12/20/2021	Administrative/File Review	Violation(s) Noted	2

CAMELBACK RESORT STP	WPCNP	3440420	12/03/2021	Administrative/File Review	Violation(s) Noted	1
CAMELBACK RESORT STP	WPCNP	3643312	05/21/2020	Administrative/File Review	Violation(s) Noted	1
CAMELBACK RESORT STP	WPCNP	3319691	02/16/2020	Administrative/File Review	Violation(s) Noted	1

Other Comments:

Facility History: The facility was taken over in 2019 by the current owner/operator.
Notices of Violations (NOVs):

- 12/16/2024 NOV (Total Copper, Ammonia-N, Total Zinc, Dissolved Oxygen, Fecal Coliform exceedances; failure to collect samples per NPDES Permit minimum frequencies). The permittee responses included the following information:
    - 1/3/2025 Camelback Resort Letter: The non-metal exceedances were blamed on aeration line/diffusor issues, with replacement/repair conducted. The letter noted two copper piping replacement projects on the property were planned. Missing sampling data was blamed on employee issues.
    - 3/15/2025 Camelback Resort Letter regarding the “compliance plan”. The letter noted there were assorted previous projects, some described in a separate 4/2/2024 Letter (not attached), with the projects including identifying and removing piping and other equipment known to contain copper or zinc. A future project included removal of copper piping at the Big Pocono Week Room at the Ski area, to begin in April 2025. It was estimated to be completed within two months of initiation (which would be circa July 2025). They hope the project will allow them to comply with the existing Copper limits, and noted reduction of copper exceedances in recent time-frames. No other projects were listed therein.
- 10/4/2023 NOV (annual fee payment)
- 1/15/2023 NOV (Total Copper, Total Zinc, Fecal Coliform; Ammonia-N exceedances; 7/2022 EDMR reporting error; WWTP overflow & collection system SSO)
- 10/6/2022 NOV (annual fee payment)
- 12/1/2021 NOV (Fecal Coliform, TSS, Total Copper, Total Zinc exceedances; late DMR; failure to monitor flow during all operating months; improper composite sample reporting (composite was reported, not 8-hour composite in 2017); missing supplemental reports; WWTP overflow)
    - The NPDES Permit presently required 24-hour composite sampling.
    - The previous NPDES Permit had TRE conditions for Copper and Zinc limits that became effective 8/1/2020.
    - The Application Compliance Section indicated a 12/14/2021 Letter response to the 12/3/2021 NOV, with follow-up Report to be submitted by 1/31/2022.
    - The Application indicated “Operational, procedural, and maintenance adjustments have been made to address compliance issues at the STP” including:
        - Replacement chemical feed tubing (with future replacements as part of site O&M).
        - Site inspection to discuss water system issues that might be contributing factors.
        - Future replacement of badly corroded galvanized grit strut grating structures to eliminate a potential source of Zinc leaching.
- Inspection Reports Highlights:

- 3/2/2022 Inspection Report Highlights:
  - Department recommended the current effluent sampling location/set-up be reviewed to ensure it is reporting representative sampling.
  - Treatment plant takes flow from the Camelback Resort, Village at Camelback, and Northridge at Camelback residential areas, and former Cameltop restaurant.
  - Investigation into sources of Copper and Zinc were ongoing. Replacing the corroded copper lined heat exchanger (hotel) did not have the magnitude of benefit hoped for. They thought the zinc might be coming from corroded galvanized safety grating over the aerated influent EQ tank, recently replaced. The potential for drinking water system sources was noted. Potential treatment options such as pH adjustment were noted.
  - There are seven (7) pump stations in the collection/conveyance system, inspected twice per year, with some pump stations having auxiliary back-up power.
- 3/22/2022 Inspection Report Highlights:
  - It was a joint inspection (Clean Water Program and Safe Drinking Water Program). Highlights included:
  - Several items of interest were noted during the inspection: the fact that the treatment system on the Main Lodge system is offline, the hot water lines (many times) seem to have a slightly more advanced level of copper corrosion (observed as increased green on the surface), the possibility of a back feed of carbon dioxide into the potable water system from the soda dispenser units, etc.
  - Department staff discussed with those onsite how the above listed items could increase the levels of corrosion in the potable water system which, in turn, could increase the levels of Copper and Zinc entering the treatment plant. Department staff discussed some ideas for sampling of the drinking water system to help further pinpoint “hot spots” of higher levels of Copper and Zinc.

- Late Application: A 7/14/2022 Administrative Extension Letter was issued. A complete and technically adequate NPDES Permit Renewal was due February 1, 2022.
  - Application received 2/1/2022 omitted some lab sampling results. Assigned to this reviewer on 2/10/2022.
  - The NPDES Permit expires JULY 31, 2022.
  - Incompleteness Letter: Drafted 2/11/2022.
  - Complete 5/12/2022.

Open Violations: The **6/26/2025** WMS Query (Open Violations by Client Number) indicated **eighteen (18)** open violations:

FACILITY	INSP PROGRAM	PROGRAM SPECIFIC ID	INSP ID	VIOLATION ID	VIOLATION DATE	VIOLATION CODE	VIOLATION
CAMELBACK LODGE & WATERPARK	Safe Drinking Water	2451075	3983760	8234837	05/23/2025	C1F	CROSS-CONNECTIONS EXIST WITHOUT PRO PROTECTION
CAMELBACK LODGE & WATERPARK	Safe Drinking Water	2451075	3983760	8234838	05/23/2025	C4A	FAILURE TO OPERATE AND MAINTAIN THE W
CAMELBACK LODGE & WATERPARK	Safe Drinking Water	2451075	3983760	8234839	05/23/2025	C1A	FAILURE TO MEET DESIGN AND CONSTRUC
CAMELBACK LODGE & WATERPARK	Safe Drinking Water	2451075	3983760	8234840	05/23/2025	B3B	FAILURE TO PROVIDE NOTIFICATION TO DE OF DETERMINING THAT A PRIORITY VIOLAT

CAMELBACK SKI PATROL ANNEX	Safe Drinking Water	2451124	3830072	8201017	09/13/2024	C4A	FAILURE TO OPERATE AND MAINTAIN THE W
CAMELBACK SKI PATROL ANNEX	Safe Drinking Water	2451124	3830072	8201018	09/13/2024	C1A	FAILURE TO MEET DESIGN AND CONSTRUC
CAMELBACK ADMINISTRATION BLDG	Safe Drinking Water	2451125	3751437	8184441	04/18/2024	C1A	FAILURE TO MEET DESIGN AND CONSTRUC
CAMELBACK CAMELTOP LODGE	Safe Drinking Water	2451127	3758306	8186137	11/01/2023	C4A	FAILURE TO OPERATE AND MAINTAIN THE W
CAMELBACK PENNSYLVANIA ROOM	Safe Drinking Water	2451128	3751417	8184433	04/18/2024	C4A	FAILURE TO OPERATE AND MAINTAIN THE W
CAMELBACK SNOW TUBING	Safe Drinking Water	2451311	3638704	8163825	11/01/2023	B6A	OTHER VIOLATIONS DEEMED TO BE SIGNIF DEFICIENCIES
CAMELBACK RESORT STP	WPC NPDES	PA0060569	3289927	938077	12/03/2021	92A.44	NPDES - Violation of effluent limits in Part A of p
CAMELBACK RESORT STP	WPC NPDES	PA0060569	3289927	938078	12/03/2021	92A.41(A)12B	NPDES - Failure to submit monitoring report(s) c monitoring reports
CAMELBACK RESORT STP	WPC NPDES	PA0060569	3289927	938079	12/03/2021	92A.61(C)	NPDES - Failure to monitor pollutants as require permit
CAMELBACK RESORT STP	WPC NPDES	PA0060569	3289927	938080	12/03/2021	92A.41(A)4	NPDES - Failure to take all reasonable steps to r any discharge or sludge use or disposal in violat
CAMELBACK RESORT STP	WPC NPDES	PA0060569	3504509	985150	02/15/2023	92A.44	NPDES - Violation of effluent limits in Part A of p
CAMELBACK RESORT STP	WPC NPDES	PA0060569	3504509	985151	02/15/2023	92A.41(A)4	NPDES - Failure to take all reasonable steps to r any discharge or sludge use or disposal in violat
CAMELBACK RESORT STP	WPC NPDES	PA0060569	3504509	985152	02/15/2023	CSL611	CSL - Failure to comply with terms and condition
CAMELBACK RESORT STP	WPC NPDES	PA0060569	3947161	8226837	12/16/2024	92A.44	NPDES - Violation of effluent limits in Part A of p

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .400
Latitude 41º 3' 17.70" **Longitude** -75º 20' 33.00"
Wastewater Description: Sewage Effluent

Permit Limits/Monitoring (changes bolded): **Modeling to be done to verify adequacy of existing limits.**

Parameter	Limit (mg/l unless otherwise specified)	SBC	Model/Basis
CBOD5 May 1 – Oct 31	33.4 Lbs/d **Report Lbs/d** 10.0 **20.0** 20.0	Monthly Average **Daily Max** Monthly Average **Daily Max** IMAX	Existing WQBEL (ABAT limit) supported by water quality modeling. Application Data: **35.4 mg/l max** and <6.47 mg/l average (109 samples).
CBOD5 Nov 1 – April 30	66.7 Lbs/d **Report Lbs/d** 20.0 **40.0** 40.0	Monthly Average **Daily Max** Monthly Average **Daily Max** IMAX	See above.
TSS	100.0 Lbs/d **Report Lbs/d** 30.0 **60.0** 60.0	Monthly Average **Daily Max** Monthly Average **Daily Max** IMAX	Existing Technology limit (Chapter 92a.47) Application Data: 60 mg/l max and <6.45 mg/l average (109 samples)
pH	6.0 – 9.0 SU	**Inst. Min** - **IMAX**	Existing Technology limit (Chapter 92a.47). Application Data: 6.1 – 7.3 SU (761 samples)
Dissolved Oxygen (DO)	5.0	**Inst.** Minimum	Existing WQBEL. Application Data: 7 mg/l min and 8.33 mg/l average (761 samples)
Fecal Coliform (5/1 – 9/30)	200/100 ml 1,000/100 ml	Geo Mean IMAX	Existing Technology limit (Chapter 92a.47) Application Data: **>2419.6/100 ml max** and **>214.4/100 ml** average (109 samples). **Some EDMR sample results were ">".**
Fecal Coliform (10/1 – 4/30)	2,000/100 ml 10,000 ml/100 ml	Geo Mean IMAX	Existing Technology limit (Chapter 92a.47).
Total Residual Chlorine	**0.31** **1.02**	Average Monthly IMAX	**Revised WQBEL per updated TRC Spreadsheet modeling. Effective immediately due to compliance in last 11 of 12 months per EDMR.** Application Data: 0.65 mg/l max and 0.17 mg/l average (761 samples)
Ammonia-Nitrogen (May 1 - Oct 31)	10.0 Lbs/d **Report Lbs/d** 3.0 **9.0** 9.0	Monthly Average **Daily Max** Monthly Average **Daily Max** IMAX	Existing monthly average limit WQBEL (ABAT limit) supported by WQM Model 7.0. Application Data: **28.7 mg/l max** and <0.97 mg/l average (109 samples)

Ammonia-Nitrogen (Nov 1 - Apr 30)	20.0 Lbs/d **Report Lbs/d** 6.0 18.0 18.0	Monthly Average **Daily Max** Monthly Average **Daily Max** IMAX	See above. Standard winter multiplier.
Total Copper (interim)	Report Lbs/d **Report Lbs/d** 0.017 0.027 0.035	Monthly Average **Daily Max** Monthly Average Daily Max IMAX	**Existing WQBEL.** Application Data: **0.067 mg/l max and 0.0307 mg/l average (110 samples)**
Total Copper (Final)	**0.021 Lbs/d 0.033 Lbs/d 0.006 0.010 0.016**	**Monthly Average Daily Max Monthly Average Daily Max IMAX**	**Revised WQBEL per Reasonable Potential Analysis.** **Application Data: 0.067 mg/l max and 0.0307 mg/l average (110 samples)**
Total Zinc (interim)	Report Lbs/d **Report Lbs/d** 0.162 0.253 0.325	Monthly Average **Daily Max** Monthly Average Daily Max IMAX	Existing WQBEL. Application Data: **0.478 mg/l max and 0.1629 mg/l average (110 samples)**
Total Zinc (Final)	**0.21 Lbs/d 0.33 Lbs/d 0.063 0.099 0.160**	**Monthly Average Daily Max Monthly Average Daily Max IMAX**	**Revised WQBEL per Reasonable Potential Analysis.** **Application Data: 0.067 mg/l max and 0.0307 mg/l average (110 samples)**
Total Phosphorus	Report Lbs/d **Report Lbs/d** Report **Report**	Monthly Average **Daily Max** Monthly Average **Daily Max**	Existing Monitoring Requirement. The 1988 WQM Permit included provision for a tertiary TP treatment unit in event a limit becomes applicable in the future. (Chapter 92a.61) Application Data: 7.56 mg/l max and 6.16 mg/l average (9 samples).
Total Nitrogen (Nitrate-Nitrite-N + TKN measured in same sample with reporting of both TKD and Nitrate-Nitrite)	Report Lbs/d **Report Lbs/d** Report **Report**	Monthly Average **Daily Max** Monthly Average **Daily Max**	Quarterly monitoring for 0.400 MGD non-Bay facility. (Chapter 92a.61) Application Data: TN: 38.27 mg/l max and 27.04 mg/l average (9 samples) TKN: 2 mg/l max and 1.2 mg/l average (9 samples) Nitrate-Nitrite-N: 36.5 mg/l max and 26.3 mg/l average (9 samples)
Chlorides	Report Lbs/d **Report Lbs/d** Report **Report**	Monthly Average **Daily Max** Monthly Average **Daily Max**	Quarterly reporting requirement due to new Water Park source (i.e. potential wastewater in addition to sewage) and application-identified 291 mg/l concentration and DRBC parameter of interest. (Chapter 92a.61) Application Data: 600 mg/l max and 435 mg/l average (9 samples)
Total Dissolved Solids (TDS)	Report Lbs/d **Report Lbs/d** Report	Monthly Average **Daily Max** Monthly Average	Existing Quarterly reporting requirement due to application-identified new Water Park source (i.e. potential wastewater in addition

	Report	**Daily Max**	to sewage) and application-identified TDS concentration exceeding original SEJ-assumed 500 mg/l discharge. (Chapter 92a.61) Application Data: 1420 mg/l max and 1069 mg/l average (9 samples)
Sulfates	-	-	See Reasonable Potential analysis. Application Data: 48.3 mg/l (1 sample)

Comments:

Previous SEJ: The facility is permitted for 0.400 MGD flow from the Camelback Ski Resort (with Social-Economic Justification a.k.a. SEJ). The SEJ documentation indicated coverage of ski areas, 180-unit resort hotel, 480-unit restaurant, 75-unit motel, and 224-unit resort/hotel (i.e. original planning/SEJ assumptions).

Limits and Monitoring Requirements: Updated to address EDMR requirements (Instantaneous Minimum and IMAX for grab samples) and to incorporate daily max limits to ensure reporting (as any exceedance of the existing IMAX limit, of whatever duration, is an violation).

Updated WQM Model 7.1.1: Existing limits are supported.

CamelbackWQModel.pdf

Updated TRC Spreadsheet: Slightly more stringent limits are required, but facility has been in compliance with the new limits in 11 out of 12 months EDMR data. Therefore, new limits will apply on PED.

TRC EVALUATION			
Input appropriate values in A3:A9 and D3:D9		CMBK STP	
1.66	= Q stream (cfs)	0.5	= CV Daily
0.4	= Q discharge (MGD)	0.5	= CV Hourly
30	= no. samples	0.777	= AFC_Partial Mix Factor
0.3	= Chlorine Demand of Stream	1	= CFC_Partial Mix Factor
0	= Chlorine Demand of Discharge	15	= AFC_Criteria Compliance Time (min)
0.5	= BAT/BPJ Value	720	= CFC_Criteria Compliance Time (min)
0	= % Factor of Safety (FOS)		=Decay Coefficient (K)

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 0.684	1.3.2.iii	WLA cfc = 0.845
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.255	5.1d	LTA_cfc = 0.491

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.314	AFC
		INST MAX LIMIT (mg/l) = 1.026	

Reasonable Potential Analysis: See TMS output below which used the revised 0.182 CFS/square mile LFY and 21 mg/l Total Hardness (stream value also used for discharge, replacing default values in the absence of any additional site-specific data provided by the permittee). In practical terms, the stream Total Hardness represents what water sources to the STP would likely have. More stringent Copper and Zinc limits resulted.

☑ *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	0.021	0.033	0.006	0.01	0.016	mg/L	0.006	AFC	Discharge Conc ≥ 50% WQBEL (RP)
Total Zinc	0.21	0.33	0.063	0.099	0.16	mg/L	0.063	AFC	Discharge Conc ≥ 50% WQBEL (RP)

CamelbackTMSPDF.pdf

Communications Log/Copper and Zinc Permit Limits History:

- **7/20/2017**: NPDES Permit No. PA0060569 issued with proposed Copper and Zinc limits and three-year TRE Conditions. The 2017 NPDES Permit Renewal Fact Sheet noted a new water park flow was being received at the STP. The annual flows ranged from 0.053 – 0.083 through the 2011 – 2014 time-frame, with the highest monthly average flow of 0.083 MGD in July 2014 (prior to the water park). **NOTE**: Water Park O&M discharges would tend to dilute many sewage constituents but possibly increase metal constituents from the water supply system/source (copper and zinc from piping and source water). The TRE indicated an evaluation of polymer additives for copper & zinc removal.
- **10/2/2017**: CBH20 Letter indicating it would conduct site-specific discharge and/or stream data collection TRE option.
  - **1/9/2018**: TRE Phase 1 Work Plan submittal:
    - Mapping of the four identified wastewater source areas: Initial round of sampling to identify "hot spots" for copper and zinc for follow-up sampling for pH, hardness and other indicators of relative corrosivity:
      - Camelback Lodge and Indoor Water Park
      - Camelback Ski Area & Outdoor Water Park
      - The Village at Camelback townhouse project
      - Northridge at Camelback residential subdivision
    - Sampling of STP effluent for total and dissolved metals
    - Inventory of chemical sources
    - Internal evaluation of STP galvanized covers as potential Zn source
    - May include:
      - Mapping of four wastewater source areas
      - Additional stream sampling above and below STP Outfall for hardness, pH, background concentrations, etc.
      - Jar testing of polymer products for reduction of Copper and Zinc
      - Well water sources with corrosive water can be treated/buffered (corrosion control systems)
      - Consideration for replacement of galvanized steel and/or copper piping.
  - **4/17/2019**: TRE Phase 1 Report: A number of "hot spots" were identified for further action (replacement of copper piping, potential zinc sources). Other Work was noted to be in progress. Jar testing was planned.
  - **8/14/2019**: NPDES Permit Amendment No. PA0060569-A1 (**permit transfer**) including the existing special conditions for Chlorine minimization; TRC Schedule of Compliance; and Toxic Reduction Evaluation (TRE) for Copper and Zinc. WQM Permit transfers took place at same time.
  - **8/1/2020**: Final Copper, and Zinc limits Effective date.
  - **8/30/2020**: Permittee letter asking for relief from existing Total Copper and Total Zinc limits due to COVID impacts (reduced business and flows/loadings not consistent with expected future operations making trends difficult to ascertain) while they proceed with TRE Phase I work.
  - **2/1/2022**: NPDES Permit Renewal Application received.
  - **3/22/2022**: Inspection Report: A Water Quality Specialist from the Clean Water Program and Sanitarian (Adam Hoelper) from the Safe Drinking Water Program conducted an inspection of some of the drinking water plumbing and distribution lines associated with the following: the Main Lodge system, the Admin Building System, the former Pennsylvania Room System, and the Maintenance Building. Several items of interest were noted during the inspection: the fact that the treatment system on the Main Lodge system is offline, the hot water lines (many times) seem to have a slightly more advanced level of copper corrosion (observed an increased green on the surface), the possibility of a back feed of carbon dioxide into the potable water system from the soda dispenser units, etc.
    - Department staff discussed with those onsite how the above listed items could increase the levels of corrosion in the potable water system which, in turn, could increase the levels of Copper and Zinc entering the treatment plant.
    - Department staff discussed some ideas for sampling of the drinking water system to help further pinpoint "hot spots" of higher levels of Copper and Zinc.
    - Department staff reminded those present for the inspection to ensure that all permitting requirements were met prior to making any changes to the drinking water system.
    - Department staff briefly discussed changes that could be made at the treatment plant with the current setups to help reduce the levels of Copper and Zinc in the effluent and also what changes might have to be made to meet these limits in the future if all other actions fail to reduce the Copper and Zinc levels to within permit limits
  - **4/12/2022**: DEP Incompleteness Letter issued.

- **5/12/2022**: Response to DEP Incompleteness Letter (NPDES permit renewal): **E-mail with attachments.**
  - The response letter referenced a 3/22/2022 Site Inspection (Clean Water and Safe Drinking Water inspection. They indicated a discussion where about addressing copper and zinc in the water supply (source reduction), rather than STP treatment. They indicated a plan to replace badly corroded galvanized grip strut covers in the summer of 2022 to reduce a potential zinc source. There is no current plan to install the WQM Permitted Tertiary (phosphorus) treatment system (flash mix tank, flocculator and tube settlers). There is no current plan to add chemicals for metals removal at the Treatment plant.
    - They have replaced Galvanized Steel well riser pipes in two site wells (Hotel Well No. 4 and Summit House Well). As other well pumps/risers are replaced, they will be replaced by stainless steel, polyethylene or PVC materials.
    - All copper plumbing in the Camelback Mountain Adventures Building have been replaced with polyethylene tubing. Similar plumbing improvements are planned for main ski lodge bathrooms in the future.
    - Raw water sampling for the three (3) wells for the Hotel and Indoor Water Park were tested in February 2022.
    - They indicated the consultant (RKR Hess) had been authorized to proceed with permitting of corrosion control system for the Hotel and Indoor Water Park System and additional improvements at the Summit House Public Water System (replacement of hydropneumatics Tanks and associated piping thought to be contributing to zinc levels).. The 1/31/2022 Response to NOV Letter indicated planned repairs to a Phosphate-based chemical feed system to the Hotel water supply.
    - Heat Exchangers were identified as a potential copper source at the Hotel and were replaced in Fall 2021 with units constructed of more corrosion-resistant Copper-Nickel alloys.
    - All proposed new capital improvements and repairs of existing plumbing will incorporate materials which do not contribute to elevated Copper and Zinc concentrations in the sewage.
    - The consultant has hired an additional technical consultant (Woodard & Curran (W&C) to assist with compliance with the copper and zinc limits.
  - TRE Phase I Workplan Implementation information in the Letter attachments:
    - Attachment 1 (1/9/2018 TRE Work Plan with cover letter): The Work Plan was vague on what needed to be done versus optional, and was not completed in time to allow for avoidance of the subsequent 2020 Copper and Zinc permit limits.
    - Attachment 2 (4/17/2019 TRE Phase 1 Report): This Report included point source water testing from 10 PWS sources and was noted to be ongoing. Monthly effluent data (12 months) was included. They compared 2016 and 2017 WWTP influent and effluent copper and zinc data. Other TRE Work Plan actions were not addressed.
    - Attachment 3 (1/9/2019 Phase I Work Plan Submittal with **undated** updates but apparently also submitted as an attachment to the 1/31/2022 Response to NOV as Attachment 3): The document indicated:
      - Mapping Status (Water and Sewage piping) and Flows/Loadings: Influent flows/loadings from the different areas have not been calculated.
      - Lodge/Hotel and Indoor Water Park: Mapping is available. Efforts were focused on this area due to high copper concentrations (compared to permit limit). Kartrite's Restaurant (FKA Cameltop) exhibited intermittent high zinc concentrations.
        - Ski Area and Outdoor Park Waterpark: Description provided, no mention if mapping is complete.
        - Village at Camelback: No mapping. Pipe material is unknown.
        - Northridge: Mapping is available.
        - Pipeline: Operator tested effluent at outfall, and found no discernable difference in metal concentrations (i.e. pipeline is not apparent source).
      - No differentiation between total and dissolved metals "has been examined".
      - Developing a "raw well water sampling protocol" for sampling wells serving hotel: They might change well usage to those with lower copper/zinc concentrations, depending on results (or provide interconnections or corrosion control or targe removal of certain areas of plumbing.
      - Stream Sampling: Copper and Zinc were non-detect, but no stream sampling data included.
      - Chemical Sources: They have examined the MS-DS for Hotel and Indoor/Outdoor water parks but found no source of copper and zinc, but nothing "stood out". No MS-DS for with Village or Northridge, which are believed to have pools and perhaps hot tubs.

- Jar Testing: Still being planned. The determination of Total versus Dissolved metals may be ain indication of polymer addition effectiveness. Operator believes effluent is clear, with only limited benefits from polymer use.
- Coordination with Other Water System and Collection System Owners: Heat exchangers at hotel were replaced in Fall 2021. Potential usage of immersed copper anodes at the Indoor Water Park will be investigated further.
- STP: Operator observed corrosion of galvanized Grip-Strut Grating covers over the treatment tanks (potential zinc source during rain events) that "should be probably be replaced regardless" (for safety reasons).
- Replacement of Piping: CMBK will plan to utilize non-metallic materials in future capital improvements projects.
- Corrosion Control: Activating a previously permitted Polyphosphate treatment system may provide some benefit. Additional corrosion control systems can be designed, permitted and installed on the various water systems at the hotel and ski area, "if warranted by water quality data, and it is believed that this will have an impact. "We have had some initial discussions with the PADEP Water Supply Division about the permitting requirements for the various classifications of water system".

▪ Attachment 4 (January 31, 2022 "Updated Response to December 3, 2021 Notice of Violation" (NOV) "Future Actions to be Taken to Maintain Compliance"): The Response indicated:
- Hotel and Indoor Water Park:
  - The Hotel and Indoor Water Park sampling protocol of raw well water from the three (3) wells has been developed. Sampling scheduled. Depending on results, CMBK might preferentially operate wells, replace water well riser pipes, or target removal and replacement of plumbing within certain areas of the hotel.
  - Heat exchangers replaced in Fall 2021.
  - Internal plumbing of hotel will be inspected for any zones of copper or zinc plumbing that can be feasibly replaced.
  - CMBK will fully investigate whether the Indoor Water Park may have immersed Copper anodes that could contribute to copper concentrations. Camelbeach submerged anodes should be verified in terms of any similar anodes and what material they are composed of.
- Ski area and Camelbeach:
  - Different wells service different areas. CMBK will isolate these areas if possible, and obtain sewage influent flow fro the areas.
  - They will use the Hotel raw water sampling protocol. CMBK might preferentially operate wells, replace water well riser pipes, or target removal and replacement of plumbing within certain areas.
  - They will incorporate non-metallic materials in any future capital improvements project.
- Kartrite's Mountain House Restaurant:
  - Replacement of Kartrite's hydropneumatics pressure tank, well riser pipe and GSP piping was planned for 2022.
  - The addition of corrosion control treatment will be considered as a future upgrade if warranted.
- Residential Areas (Village at Camelback; Northridge):
  - CMBK will coordinate its efforts with the contributing residential areas to investigate potential source of copper and zinc from their wastestreams.
  - MSDS sheets will e requested and reviewed for any pool and hot tub treatment chemicals.
- WWTP:
  - CMBK will replace the corroding galvanized strut grating. Alternate materials will be considered.
  - Effluent samples will be periodically tested for Total versus Dissolved Copper and Zinc (as an indication of potential polymer addition effectiveness). Depending on the results, jar testing of polymers will be considered.
  - Periodic sampling of effluent at outfall under varying seasonal and weather conditions to see if any difference in metals concentration.

▪ December 14, 2021 Response to NOV Letter:
- They indicated that they continue to implement the TRE Phase 1 Work Plan investigation.

- Noted COVID impact made it difficult to track down the sources with shutdown of resort industry or reduced flow/loadings.
- Hotel heat exchangers have been replaced.
- A phosphate-based chemical feed system will be repaired.

- **7/8/2022**: Camelback (RKR Hess) Letter requesting administrative extension.
- **7/14/2022**: NPDES Permit Administrative Extension letter for the Camelback Resort STP's NPDES Permit No. PA0060569 (Pocono Township, Monroe County)
- **11/16/2022**: DEP Technical Deficiency Letter Issued
- **12/16/2022**: Response to DEP Technical Deficiency Letter **(On-Base No. 79331)** received. TRE-related:
  - Update: CBMK has replaced all its heat exchangers and multiple copper anodes in the Hotel & Water park. Corroded grates were replaced in the WWTP. A corrosion control treatment system has been applied for under the PADEP Public Water Supply permit to address corrosive water in the Hotel & Water Park. Kartrite Restaurant is currently closed but CMBK intends to pursue improvements in the public water supply. PWS permit applications were submitted 12/12/2022. They are continuing to replace copper and galvanized steel piping at its facility during its on-going capital improvements at the resort. They did not estimate any date when they expected to be consistently in compliance with the existing permit limits.
  - Woodard & Curran (W&C) report in Exhibit 1 (site and data evaluation of metals discharge issues)
  - Surface water flow data and withdrawal data
  - Influent/Effluent Data: 4/4/2022 CMBK (RKR Hess) E-mail (to DEP Clean Water Program Manager, not application reviewer) with application updates (updated NPDES Permit Application Influent/Effluent tables). **NOTE**: DEP no longer accepts e-mailed application documents. Application documents must be submitted either hard copy or via DEP On-Base.
- **8/3/2023:** Second Tech Def letter
- **9/30/2023**: Applicant (Mezzina) E-mail asked for more time to respond to Tech Def Letter.
  - We believe that there is ample evidence to demonstrate that the permit limits for Cu and Zn, lowered by an order of magnitude in 2020, are not technically appropriate for the CMBK resort. As described in your letter, we are, or will be conducting stream studies, undertaking additional data reviews and providing documentation that the facility qualifies under one or more "anti-backsliding" measures in order to demonstrate that different permit limits will be protective of the environment while at the same time ensuing that the facility can maintain consistent compliance with its permit limits. We estimate that that work will take at least six months, depending on a number of factors, not the least of which is weather conditions. We are therefore requesting an extension of 180 days to complete this work and submit data and reports to DEP.
  - In the meantime, we are continuing to pursue technical methods for lowering Cu and Zn concentrations in our discharge. These efforts will be supported by measures such as, but not limited to, installing a (DEP-approved) phosphate injection system, aimed at reducing potential leaching of metals from piping, and performing jar-testing trials. In order to yield the most reliable results, the jar testing must be performed over multiple seasons – which reflect significant differences in both weather conditions and occupancy of the resort. Those efforts are likely to extend for at least a year.
- **4/2/2024:** Applicant (Mezzina) E-mail including:
  - Summary of activities completed to date, and especially the tasks completed since our last communication including:
    - Improvements/Modifications Within the Facility
    - "Jar Testing" to Evaluate Potential Treatment Methods: CMBK has also initiated a jar testing program aimed at evaluating the efficacy of treatment of zinc- and copper-bearing wastewater in the treatment plant in the event that the measures above do not fully achieve the desired goal of consistent month after month compliance with the permit limits. CMBK has contracted with Woodard & Curran (W&C) to evaluate modifications to its WWTP to enhance the removal of metals. As part of our evaluation, W&C is executing three rounds of jar testing to evaluate the effectiveness of various treatment chemistries. The treatment chemistries evaluated include various combinations of precipitants, pH adjustment chemicals, coagulants, and polymer. Round 1 of jar testing was completed in October of 2023. Round 2 of jar testing was completed in February of 2024 to capture the winter peak season condition. The third round of jar testing will be carried out in July of 2024 to capture the summer peak season condition. Loading to the WWTP is anticipated to be higher during the peak season conditions. At the close of the second round of jar testing, W&C has identified treatment chemistries that could be used to meet the permit limits for copper and zinc. The goals of the third round are to confirm and optimize the recommended treatment chemistries under the summer peak conditions and confirm that the changes in wastewater chemistry resulting from the operation of the hotel buffer system do not

impact the effectiveness of the recommended treatment chemistries. Additional, back-end treatment of wastewater would require a substantial capital investment that could prove prohibitively expensive but CMBK has nevertheless pursued this laboratory-scale testing program in order to be a position to evaluate all of its alternatives. In order to yield the most reliable results, the jar testing must be performed over multiple seasons – which reflect significant differences in both weather conditions and occupancy of the resort. As described above, those efforts will continue through much of 2024. Combined with the other efforts either in progress or planned, we estimate **we will require an additional 12 months to both complete the work and generate and analyze the results**.

- Stream Characterization Studies: Finally, CMBK has retained consultants to perform certain stream characterization studies. CMBK contracted with a third party consultant to characterize Pocono Creek in the vicinity of WWTP Outfall 001. The characterization has been completed and consisted of stream sampling and a stream survey. The stream survey was executed in October 2023 and gathered information on stream width, depth, slope, velocity, etc. Three stream and outfall sampling and analysis events were performed in January and February of 2024. **Each event collected data on total hardness, total and dissolved copper, and total and dissolved zinc in Pocono Creek and the Outfall 001 discharge**.
- Time Extension Request**:** We are therefore requesting the 12-month extension at this time, while acknowledging that an ultimate technical remedy, if needed, may require additional time. **NOTE**: **This extension would have ended on 4/2/2025.**

- **3/15/2025:** Public Upload No. 301711 included 9/30/2023 Letter (as last applicant correspondence) and Compliance Plan to address operational issues (including metals). Included 4/2/2024 Letter asking for a 12-month extension while it gathered additional information.
- **4/18/2025:** CMBK STP response to NOV Letter.