pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0087483**
Facility Type	**Industrial**	APS ID	**550679**
Major / Minor	**Minor**	Authorization ID	**1219852**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Applicant and Facility Information

Applicant Name	**Elizabethtown Area Water Authority**	Facility Name	**Elizabethtown Area Water System – Cornwall Quarry Water Transfer Facility**
Applicant Address	211 W Hummelstown Street Elizabethtown, PA 17022-2079	Facility Address	Burd Coleman Road Cornwall, PA 17016
Applicant Contact	Del Becker	Facility Contact	Del Becker
Applicant Phone	(717) 367-7448	Facility Phone	(717) 367-7448
Client ID	240335	Site ID	262256
SIC Code	4911	Municipality	West Cornwall Township
SIC Description	Trans. & Utilities - Electric Services	County	Lebanon
Date Application Received	January 24, 2018	EPA Waived?	Yes
Date Application Accepted	March 30, 2018	If No, Reason	
Purpose of Application	NPDES Renewal.		

Summary of Review

Elizabethtown Area Water Authority has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit. The permit was issued on July 19, 2013 and became effective on August 1, 2013. The permit authorizes the diversion of water from the Cornwall Quarry to an UNT of Conewago Creek located in West Cornwall Township, Lancaster County. The existing permit expiration date was July 31, 2018, and the permit has been administratively extended since that time.

Changes to the renewal: No changes were made to the 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.

Approve	Deny	Signatures	Date
		Benjamin R. Lockwood / Environmental Engineering Specialist	November 22, 2019
		Daniel W. Martin, P.E. / Environmental Engineer Manager	
		Maria D. Bebenek, P.E. / Program Manager	

Summary of Review
Supplemental information for this report is located in an attachment below.  Elizabethtown Area Water Authority - Cc

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	1.5
Latitude	40º 15' 33.1"	Longitude	76º 27' 37.8"
Quad Name	Lebanon	Quad Code	1634
Wastewater Description:	Intermittent Discharge – Quarry Water		
Receiving Waters	Conewago Creek (TSF, MF)	Stream Code	No stream code
NHD Com ID	56400799	RMI	0.1
Drainage Area	0.3 mi^2	Yield (cfs/mi^2)	0.04
Q_{7-10} Flow (cfs)	0.012	Q_{7-10} Basis	USGS PA StreamStats
Elevation (ft)	708	Slope (ft/ft)	
Watershed No.	7-G	Chapter 93 Class.	TSF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	N/A		
Source(s) of Impairment	N/A		
TMDL Status	Final	Name	Conewago Creek Watershed
Nearest Downstream Public Water Supply Intake	Elizabethtown Borough		
PWS Waters	Conewago Creek	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	13

Changes Since Last Permit Issuance: USGS PA StreamStats is showing a drainage are of 0.3 mi^2 and a Q_{7-10} flow of 0.012 cfs.

Other Comments: None

Compliance History	
Summary of Inspections:	8/26/2015: A routine inspection was conducted. The quarry appeared clear, with fish present. A grab sample was taken from the quarry sample sink. The results were pH: 7.94, D.O.: 11.05 mg/l, Temperature: 18 C. The stream at the outfall had very little flow, up and downstream. The outfall was also clear. 8/2/2016: A routine inspection was conducted. The quarry appeared clear with some areas of algae below the surface. A grab sample was taken from the quarry sample sink. The results were pH: 7.31, D.O.: 10.39 mg/l, Temperature: 18.6 C. The water was clear. The stream at the transfer pipe was clear up and down stream. Some silt was present in front of the discharge pipe. 9/26/2017: A routine inspection was conducted. In 2017, the water transfer testing was postponed due to the risk of groundwater contamination from an abandoned industrial site near the quarry. The site clean-up had recently been completed, and Elizabethtown Area Water Authority was given the okay to pump from the quarry. Steve Bixler noted that they would not be running the transfer pumps for the 2-week period this year due to wet weather. The quarry appeared clear. Algae was present below the water surface. The transfer location was observed. There was no discharge occurring and the flap gate on the pipe was down. There was rip rap in place to prevent erosion. There was a small amount of flow in the stream, which appeared clear with sediment also in the stream bed. 8/23/2019: A routine inspection was conducted. Due to wet weather in 2018, the pumps were not run for an extended testing period. The pumps were turned on to begin two week testing between 8/16/19 – 8/30/19. The quarry appeared clear, and the intake pipes were visible. The quarry water was tested on-site for daily permit parameters. The water appeared clear and met permit limits. The transfer pipe discharge location was observed. There was very low flow in the stream upstream of the discharge. The upstream channel had a significant amount of silt present and significant stream bank erosion was occurring. The discharge was tested for daily permit parameters. The discharge appeared clear and met permit limits. Rip rap was in place to prevent erosion.

Other Comments: There are no open violations associated with this permittee or facility.

Existing Effluent Limitations and Monitoring Requirements

The table below summarizes the effluent limits and monitoring requirements implemented in the existing NPDES permit.

Outfall 001

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Daily Average	Maximum	Instant. Maximum		
Flow (MGD)	Report	1.5 Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Temperature (ºF) Jan 1 - 31	XXX	XXX	XXX	40	XXX	XXX	1/week	I-S
Temperature (ºF) Feb 1 - 28	XXX	XXX	XXX	40	XXX	XXX	1/week	I-S
Temperature (ºF) Mar 1 - 31	XXX	XXX	XXX	46	XXX	XXX	1/week	I-S
Temperature (ºF) Apr 1 - 15	XXX	XXX	XXX	52	XXX	XXX	1/week	I-S
Temperature (ºF) Apr 16 - 30	XXX	XXX	XXX	58	XXX	XXX	1/week	I-S
Temperature (ºF) May 1 - 15	XXX	XXX	XXX	64	XXX	XXX	1/week	I-S
Temperature (ºF) May 16 - 31	XXX	XXX	XXX	68	XXX	XXX	1/week	I-S
Temperature (ºF) Jun 1 - 15	XXX	XXX	XXX	70	XXX	XXX	1/week	I-S
Temperature (ºF) Jun 16 - 30	XXX	XXX	XXX	72	XXX	XXX	1/week	I-S
Temperature (ºF) Jul 1 - 31	XXX	XXX	XXX	74	XXX	XXX	1/week	I-S
Temperature (ºF) Aug 1 - 15	XXX	XXX	XXX	80	XXX	XXX	1/week	I-S
Temperature (ºF) Aug 16 - 31	XXX	XXX	XXX	87	XXX	XXX	1/week	I-S
Temperature (ºF) Sep 1 - 15	XXX	XXX	XXX	84	XXX	XXX	1/week	I-S
Temperature (ºF) Sep 16 - 30	XXX	XXX	XXX	78	XXX	XXX	1/week	I-S

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Daily Average	Maximum	Instant. Maximum		
Temperature (ºF) Oct 1 - 15	XXX	XXX	XXX	72	XXX	XXX	1/week	I-S
Temperature (ºF) Oct 16 - 31	XXX	XXX	XXX	66	XXX	XXX	1/week	I-S
Temperature (ºF) Nov 1 - 15	XXX	XXX	XXX	58	XXX	XXX	1/week	I-S
Temperature (ºF) Nov 16 - 30	XXX	XXX	XXX	50	XXX	XXX	1/week	I-S
Temperature (ºF) Dec 1 - 31	XXX	XXX	XXX	42	XXX	XXX	1/week	I-S

Compliance Sampling Location: Quarry Pump Station

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	1.5
Latitude	40º 15' 33.1"	**Longitude**	76º 27' 37.8"

Wastewater Description: Intermittent Discharge

Technology-Based Limitations

There are no applicable technology-based effluent limitations.

Additional Considerations

Elizabethtown Area Water Authority diverts water from the Cornwall Quarry to an Unnamed Tributary to Conewago Creek as needed. This provides a supplemental water source, and typically only occurs during periods of drought. Elizabethtown Area Water Authority is permitted to transfer up to 1.5 mgd. It is recommended that flow be monitored, which is consistent with the existing permit. The previous fact sheet stated that available data indicated that conventional pollutant levels are low and do not require monitoring. Dissolved oxygen concentrations in the mine pool approached saturation in the upper levels. The pH levels of the mine pool were always within the standard 6.0 to 9.0 range. A water analysis of the Cornwall Pit was evaluated for toxics during the initial application in February 1997. This evaluation concluded that no toxics were present, as was expected. The most recent application does not change this conclusion and no further evaluation is necessary.

Temperature Limitations

Per the previous fact sheet, in 1997, the Fish Commission expressed concern for thermal shock. Therefore, a reasonable potential (RP) analysis was performed for temperature. Effluent limitations for temperature were calculated using the Case 2 Thermal Worksheet with a wastewater flow of 1,5 mgd, which is listed as the maximum daily discharge rate in the application. A stream Q_{7-10} flow of 0.012 cfs was used in the temperature worksheet. The worksheet provided permit limits for a discharge to TSF. The limits were less stringent than the limits in the existing permit, therefore the existing permit limits will remain in the renewal. A printout of the worksheet is attached.

Anti-Degradation

The effluent limits for this discharge have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. No High Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

303(d) Listed Streams

The discharge is located on a 303(d) listed stream segment which is part of the Conewago Creek Watershed TMDL. The nutrient-related TMDL was completed in 2001 and revised in 2006. Per the previous fact sheet, since this discharge involves a water transfer from a quarry, it was not included in any nutrient allocation.

Class A Wild Trout Fisheries

No Class A Wild Trout Fisheries are impacted by this discharge.

Anti-Backsliding

Pursuant to 40 CFR § 122.44(l)(1), all proposed permit requirements addressed in this fact sheet are at least as stringent as the requirements implemented in the existing NPDES permit unless any exceptions addressed by DEP in this fact sheet.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

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

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	1.5 Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Temperature (ºF) Jan 1 - 31	XXX	XXX	XXX	XXX	40	XXX	1/week	I-S
Temperature (ºF) Feb 1 - 28	XXX	XXX	XXX	XXX	40	XXX	1/week	I-S
Temperature (ºF) Mar 1 - 31	XXX	XXX	XXX	XXX	46	XXX	1/week	I-S
Temperature (ºF) Apr 1 - 15	XXX	XXX	XXX	XXX	52	XXX	1/week	I-S
Temperature (ºF) Apr 16 - 30	XXX	XXX	XXX	XXX	58	XXX	1/week	I-S
Temperature (ºF) May 1 - 15	XXX	XXX	XXX	XXX	64	XXX	1/week	I-S
Temperature (ºF) May 16 - 31	XXX	XXX	XXX	XXX	68	XXX	1/week	I-S
Temperature (ºF) Jun 1 - 15	XXX	XXX	XXX	XXX	70	XXX	1/week	I-S
Temperature (ºF) Jun 16 - 30	XXX	XXX	XXX	XXX	72	XXX	1/week	I-S
Temperature (ºF) Jul 1 - 31	XXX	XXX	XXX	XXX	74	XXX	1/week	I-S
Temperature (ºF) Aug 1 - 15	XXX	XXX	XXX	XXX	80	XXX	1/week	I-S
Temperature (ºF) Aug 16 - 31	XXX	XXX	XXX	XXX	87	XXX	1/week	I-S

Outfall 001, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Temperature (ºF) Sep 1 - 15	XXX	XXX	XXX	XXX	84	XXX	1/week	I-S
Temperature (ºF) Sep 16 - 30	XXX	XXX	XXX	XXX	78	XXX	1/week	I-S
Temperature (ºF) Oct 1 - 15	XXX	XXX	XXX	XXX	72	XXX	1/week	I-S
Temperature (ºF) Oct 16 - 31	XXX	XXX	XXX	XXX	66	XXX	1/week	I-S
Temperature (ºF) Nov 1 - 15	XXX	XXX	XXX	XXX	58	XXX	1/week	I-S
Temperature (ºF) Nov 16 - 30	XXX	XXX	XXX	XXX	50	XXX	1/week	I-S
Temperature (ºF) Dec 1 - 31	XXX	XXX	XXX	XXX	42	XXX	1/week	I-S

Compliance Sampling Location: Quarry Pump Station

Other Comments: None

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	PENTOXSD for Windows Model (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☒	Temperature Model Spreadsheet (see Attachment)
☐	Toxics Screening Analysis Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☒	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 391-2000-022, 3/1999.
☐	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other: