pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0255441**
Facility Type	**Storm Water**	APS ID	**1108515**
Major / Minor	**Minor**	Authorization ID	**1475076**

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

Applicant and Facility Information

Applicant Name	**Duquesne Light Co.**	Facility Name	**Kissick Ash Disposal Site**
Applicant Address	2825 New Beaver Avenue # N6-Tng	Facility Address	315 Log Cabin Road
	Pittsburgh, PA 15233-1003		Cheswick, PA 15024
Applicant Contact	John Bigi	Facility Contact	John Bigi
Applicant Phone	(412) 393-8119	Facility Phone	(412) 393-8119
Client ID	33626	Site ID	245647
SIC Code	4953	Municipality	Indiana Township
SIC Description	Trans. & Utilities - Refuse Systems	County	Allegheny
Date Application Received	February 28, 2024	EPA Waived?	Yes
Date Application Accepted	July 16, 2024	If No, Reason	

Purpose of Application: Renewal of NPDES Permit PA0255441.

Summary of Review

The Department received a renewal NPDES application from Duquesne Light Company (DLC) on February 28, 2024 for its Kissick Ash Disposal Site (KAD) located in Indiana Township, Allegheny County. The facility is a closed residual waste landfill. The landfill was operated by DLC for their exclusive use to dispose of coal-fired electrical generation waste streams. The facility's industrial activities are classified under SIC Code 4953 – Refuse Systems.

During operations of the KAD facility, materials received by the landfill consisted of fly ash, bottom ash draining treatment sludge, pyritic material, coal pile runoff sludge, mine floor sweepage, clarifier sludge, lime, lime grits, waste pond sludge, and ash treatment sludge. The Landfill was closed in 1997, prior to DCL's sale of the Cheswick Power Station in 2000. A soil cover was placed over the waste in 1997 and the site vegetated the same year. Leachate captured via underdrain piping is directed to the Monarch Mine Pool via the onsite borehole. From there it is expected to eventually be collected and treated at the Monarch Mine Treatment Plant (MMTP), sometimes also called the Monarch Mine Dewatering Plant.

The facility has two (2) stormwater Outfalls 001 and 002 that discharge to UNT to Little Deer Creek, designated in 25 PA Code Chapter 93 as a Trout Stock Fishery (TSF).

Outfall 001
The drainage area of Outfall 001 is 1,490,000 square feet and is 100% impervious. The drainage area consists of wooded undeveloped hillsides and closed; soil capped vegetated ash disposal area. Best management practices implemented in the drainage consists of maintenance of the soil cap, vegetative covers, and compliance with the PPC Plan.

Approve	Deny	Signatures	Date
X		Curtis Holes, P.E. / Environmental Engineer	July 17, 2024
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	August 2, 2024

Summary of Review

Outfall 002
The drainage area of Outfall 002 is 270,400 square feet and is 100% impervious. The drainage area consists of wooded undeveloped hillsides and closed; soil capped vegetated ash disposal area. Best management practices implemented in the drainage consists of maintenance of the soil cap, vegetative covers, and compliance with the PPC Plan.

The Department by Shawn Bell last inspected the facility on May 26, 2021 with no violations noted.

The client has no open violations.

Residual waste disposal must meet solid waste regulations.

It is recommended that a draft permit be published for public comment in response to this application.

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)	0.0 (varies)
Latitude	40º 34' 38.41"	Longitude	-79º 48' 54.29"
Quad Name	New Kensington West	Quad Code	1407
Wastewater Description:	Stormwater		
Receiving Waters	UNT to Little Deer Creek (TSF)	Stream Code	42291
NHD Com ID	123972759	RMI	0.4700
Drainage Area	0.9 mi^2	Yield (cfs/mi^2)	0.00763
Q_{7-10} Flow (cfs)	0.00687	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	872	Slope (ft/ft)	
Watershed No.	18-A	Chapter 93 Class.	TSF
Existing Use	**Trout Stock Fishery**	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	FLOW REGIME MODIFICATION, METALS, SILTATION, TOTAL DISSOLVED SOLIDS (TDS), TOTAL DISSOLVED SOLIDS (TDS), TURBIDITY		
Source(s) of Impairment	ACID MINE DRAINAGE, ACID MINE DRAINAGE, CONSTRUCTION, CONSTRUCTION, CONSTRUCTION, SUBSURFACE (HARDROCK) MINING		
TMDL Status	Final	Name	Little Deer Creek Watershed

Background/Ambient Data		Data Source
pH (SU)	6.52 – 8.24	Upstream (SW-1) Data from DLC's SWM permit 300476
Temperature (°F)		
Hardness (mg/L)	50 - 100	Upstream (SW-1) Data from DLC's SWM permit 300476
Other:		

Nearest Downstream Public Water Supply Intake		Wilkinsburg-Penn JT Water Authority (66 MGD)	
PWS Waters	Allegheny River	Flow at Intake (cfs)	2,390
PWS RMI	8.67	Distance from Outfall (mi)	9.7

Changes Since Last Permit Issuance: None

Other Comments: None

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0.0 (varies)
Latitude	40º 34' 34.63"	Longitude	-79º 48' 53.31"
Quad Name	New Kensington West	Quad Code	1407
Wastewater Description:	Stormwater		

Receiving Waters	UNT to Little Deer Creek (TSF)	Stream Code	42291
NHD Com ID	123972759	RMI	0.4200
Drainage Area	0.9 mi^2	Yield (cfs/mi^2)	0.00763
Q_{7-10} Flow (cfs)	0.00687	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	865	Slope (ft/ft)	
Watershed No.	18-A	Chapter 93 Class.	TSF
Existing Use	**Trout Stock Fishery**	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	FLOW REGIME MODIFICATION, METALS, SILTATION, TOTAL DISSOLVED SOLIDS (TDS), TOTAL DISSOLVED SOLIDS (TDS), TURBIDITY		
Source(s) of Impairment	ACID MINE DRAINAGE, ACID MINE DRAINAGE, CONSTRUCTION, CONSTRUCTION, CONSTRUCTION, SUBSURFACE (HARDROCK) MINING		
TMDL Status	Final	Name	Little Deer Creek Watershed

Background/Ambient Data		Data Source
pH (SU)	6.5 – 8.2	Upstream (SW-1) Data from DLC's SWM permit 300476
Temperature (°F)		
Hardness (mg/L)	50 - 100	Upstream (SW-1) Data from DLC's SWM permit 300476
Other:		

Nearest Downstream Public Water Supply Intake		Wilkinsburg-Penn JT Water Authority (66 MGD)	
PWS Waters	Allegheny River	Flow at Intake (cfs)	2,390
PWS RMI	8.67	Distance from Outfall (mi)	9.2

Changes Since Last Permit Issuance: None

Other Comments: None

Treatment Facility Summary

Treatment Facility Name: Cheswick Generating Station, Kissick Bottom Ash Landfill aka, Kissick Ash Disposal Site, Inlet to Monarch Mine Treatment Plant, under NPDES PA0001627, WQM Part II Permit 0270205.

WQM Permit No.	Issuance Date
0219200	08/13/19

1. Slip-lining 36-inch piping into a run of 48-inch corrugated metal pipe (CWP) and

2. Capping the inlet of the 24-inch CWP and

3. Altering the drainage in the vicinity of the current 24-inch CWP inlet to redirect stormwater flow away from this inlet and toward the modified inlet of the 36-inch HDPE pipe.

Changes Since Last Permit Issuance: **None**

Other Comments: **None**

Compliance History	
Summary of DMRs:	No violations of effluent limitations.
Summary of Inspections:	The Department last inspection was conducted by Shawn Bell on November 13, 2023 with no violations noted.

Other Comments: **None**

Compliance History

DMR Data for Outfall 001 (from June 1, 2023 to May 31, 2024)

Parameter	Benchmark	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23
pH (S.U.) Daily Maximum	**6.0 – 9.0**					8.2						7.8
COD (mg/L) Daily Maximum	**120.0**					< 9.1						36
TSS (mg/L) Daily Maximum	**100.0**					4.2						14
Total Iron (mg/L) Daily Maximum	**Report**					0.32						1.2

DMR Data for Outfall 002 (from June 1, 2023 to May 31, 2024)

Parameter	Benchmark	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23
pH (S.U.) Daily Maximum	**6.0 – 9.0**					8.3						7.5
COD (mg/L) Daily Maximum	**120.0**					< 9.1						31
TSS (mg/L) Daily Maximum	**100.0**					1.5						28
Total Iron (mg/L) Daily Maximum	**Report**					0.21						2.6

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.0 (varies)
Latitude 40º 34' 38.41" **Longitude** -79º 48' 54.29"

Federal Effluent Limitation Guidelines (ELGs)

The Kissick Ash Disposal Site is a closed captive landfill with no other industrial activities at the site and not subject to Federal Effluent Limitation Guidelines (ELGs) as SIC Code 4953 is not listed under 40 CFR 445. When a facility is not captured by a Federal ELG, TBELs are then developed on a case-by-case- basis using Best Professional Judgement (BPJ).

Application Sampling Data Summary

Parameter	Max Concentration (mg/L)
Oil & Grease	<4.4
BOD_5	3.4
COD	64
TSS	13
Total Nitrogen	1.413
Total Phosphorus	0.133
Ammonia	0.137
Phenol	0.033
Zinc	0.0115
Aluminum (µg/L)	942
Antimony (µg/L)	<0.429
Arsenic (µg/L)	0.8323
Barium (µg/L)	29.02
Beryllium (µg/L)	0.141
Boron (µg/L)	24.6
Cadmium (µg/L)	<0.0599
Chromium (µg/L)	1.51
Cobalt (µg/L)	0.497
Copper (µg/L)	3.913
Iron (µg/L)	909
Lead (µg/L)	1.563
Manganese (µg/L)	33.59
Mercury (µg/L)	0.174
Molybdenum (µg/L)	<0.67
Nickel (µg/L)	2.075
Selenium (µg/L)	<1.73
Silver (µg/L)	<0.163
Thallium (µg/L)	<0.143
Dissolved Iron (µg/L)	331
Hexavalent Chromium (µg/L)	13
TDS	130
Phosphorus	0.133
Chloride	8.120
Fluoride	0.105
Sulfate	15.3

Regulatory Effluent Standards and Monitoring Requirements

Consistent with the recommendations in Section III.C of the IW Effluent Limit SOP cited above, minimum standards described in the PAG-03 General Permit for “Discharges of Stormwater Associated with Industrial Activity” will be applied to KAD stormwater discharges. Based on KAD’s SIC Code, the facility would be classified under Appendix C – Landfills and Land Application Sites. The monitoring requirements of Appendix C of the PAG-03 are displayed in Table 1.

Table 1. PAG-03 – Appendix C Minimum Monitoring Requirements

Discharge Parameter	Units	Sample Type	Benchmark Values
pH	S.U.	Grab	9.0
Total Suspended Solids	mg/L	Grab	100
Ammonia-Nitrogen*	mg/L	Grab	XXX
Chemical Oxygen Demand	mg/L	Grab	120.0
Total Iron	mg/L	Grab	XXX
Total Nitrogen	mg/L	Calculation	XXX
Total Phosphorus	mg/L	Grab	XXX

***** During the development of the previous permit it was determined that Ammonia-Nitrogen monitoring was not warranted and was not imposed.

To the extent that effluent limits would be necessary to ensure that the BMPs are adequately implemented, DEP's *Permit Writer's Manual* recommends that effluent limits be developed for industrial stormwater discharges based on a determination of Best Available Technology (BAT) using Best Professional Judgment (BPJ). Although BPJ of BAT typically involves the evaluation of end-of-pipe wastewater treatment technologies, DEP considers the use of BMPs to be BAT for KAD's stormwater in this current renewal process.

Water Quality-Based Effluent Limitations (WQBELs)

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q_{7-10}) conditions. Stormwater discharges occur at variable rates and frequencies but not during Q_{7-10} conditions. Since the discharges from Outfall 001 is composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations based on water quality analyses are not proposed.

Anti-Backsliding

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402(o) arises when a permittee seeks relaxation of an effluent limitation which is based upon a State treatment standard of water quality standard.

Previous limits can be used pursuant to EPA's anti-backsliding regulation 40 CFR 122.44 *(l) Reissued permits. (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62). (2) In the case of effluent limitations established based on Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.*

The pH benchmark of 9.0 S.U. was derived from the pH benchmark in the PAG-03 general permit. The pH benchmark in the PAG-03 was included to be consistent with EPA's 2021 MSGP. However, unlike in the MSGP, the Department did not include a minimum pH benchmark value of 6.0 in its PAG-03 General Permit. The Department only included a maximum benchmark value for pH because it has been well documented that the stormwater within Pennsylvania has a pH below 6.0 S.U. (acid rain). Please refer to the National Atmospheric Deposition Program 2022 Annual Summary [2022as2.pdf (wisc.edu)] which confirms that the pH concentration of the stormwater in Pennsylvania is around is 5.3 S.U. With the possibility of the natural pH of the stormwater being below 6.0 without the influence of the subject permittee's industrial activities, the Department has deemed the imposition of a minimum stormwater benchmark of 6.0 S.U. to be improper and unjust and will not impose the lower limit.

Monitoring Requirements for Outfall 001

Effluent limits imposed at Outfall 001 are the most stringent of TBELs, WQBELs, regulatory effluent standards and monitoring requirements as discussed in the sections above. The applicable requirements for Outfall 001 are summarized in Table 2. The minimum sampling frequencies are chosen per PAG-03 guidelines and requirements and sampling types are applied based on Table 6-4 of *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (Document No. 362-0400-001, 10/97)*.

Table 2. Monitoring Requirements and Benchmarks for the KAD Site Outfall 001

Discharge Parameter	Units	Sample Type	Benchmark Values	Sample Frequency
pH	S.U.	Grab	9.0	1/6 months
Total Suspended Solids	mg/L	Grab	100.0	1/6 months
Iron, Total	mg/L	Grab	XXX	1/6 months
Chemical Oxygen Demand (COD)	mg/L	Grab	120.0	1/6 months
Total Nitrogen	mg/L	Calculation	XXX	1/6 months
Total Phosphorus	mg/L	Grab	XXX	1/6 months

Development of Effluent Limitations

Outfall No. 002 **Design Flow (MGD)** 0.0 (varies)
Latitude 40º 34' 34.63" **Longitude** -79º 48' 53.31"
Wastewater Description: Stormwater from surface drainage

Federal Effluent Limitation Guidelines (ELGs)

The Kissick Ash Disposal Site is a closed captive landfill with no other industrial activities at the site and not subject to Federal Effluent Limitation Guidelines (ELGs) as SIC Code 4953 is not listed under 40 CFR 445. When a facility is not captured by a Federal ELG, TBELs are then developed on a case-by-case- basis using Best Professional Judgement (BPJ).

Application Sampling Data Summary

Parameter	Max Concentration (mg/L)
Oil & Grease	<4.4
BOD_5	<2.0
COD	32.0
TSS	18
Total Nitrogen	0.831
Total Phosphorus	0.173
Ammonia	1.793
Phenol	0.027
Zinc	0.02321
Aluminum (µg/L)	923
Antimony (µg/L)	<0.429
Arsenic (µg/L)	1.036
Barium (µg/L)	28.64
Beryllium (µg/L)	<0.1072
Boron (µg/L)	20.9
Cadmium (µg/L)	<0.0599
Chromium (µg/L)	1.609
Cobalt (µg/L)	0.7139
Copper (µg/L)	2.729
Iron (µg/L)	1,200
Lead (µg/L)	1.523
Manganese (µg/L)	44.86
Mercury (µg/L)	0.098
Molybdenum (µg/L)	<0.67
Nickel (µg/L)	2.011
Selenium (µg/L)	<1.73
Silver (µg/L)	<0.163
Thallium (µg/L)	<0.143
Dissolved Iron (µg/L)	331
Hexavalent Chromium (µg/L)	5.0
TDS	170
Phosphorus	0.173
Chloride	13.2
Fluoride	0.151
Sulfate	22.9

Regulatory Effluent Standards and Monitoring Requirements

Consistent with the recommendations in Section III.C of the IW Effluent Limit SOP cited above, minimum standards described in the PAG-03 General Permit for “Discharges of Stormwater Associated with Industrial Activity” will be applied to KAD stormwater discharges. Based on KAD’s SIC Code, the facility would be classified under Appendix C – Landfills and Land Application Sites. The monitoring requirements of Appendix C of the PAG-03 are displayed in Table 3.

Table 3. PAG-03 – Appendix C Minimum Monitoring Requirements

Discharge Parameter	Units	Sample Type	Benchmark Values
pH	S.U.	Grab	9.0
Total Suspended Solids	mg/L	Grab	100
Ammonia-Nitrogen*	mg/L	Grab	XXX
Chemical Oxygen Demand	mg/L	Grab	120.0
Total Iron	mg/L	Grab	XXX
Total Nitrogen	mg/L	Calculation	XXX
Total Phosphorus	mg/L	Grab	XXX

***** During the development of the previous permit it was determined that Ammonia-Nitrogen monitoring was not imposed.

To the extent that effluent limits would be necessary to ensure that the BMPs are adequately implemented, DEP's *Permit Writer's Manual* recommends that effluent limits be developed for industrial stormwater discharges based on a determination of Best Available Technology (BAT) using Best Professional Judgment (BPJ). Although BPJ of BAT typically involves the evaluation of end-of-pipe wastewater treatment technologies, DEP considers the use of BMPs to be BAT for KAD's stormwater in this current renewal process.

Water Quality-Based Effluent Limitations (WQBELs)

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q_{7-10}) conditions. Stormwater discharges occur at variable rates and frequencies but not during Q_{7-10} conditions. Since the discharges from Outfall 002 is composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations based on water quality analyses are not proposed.

Anti-Backsliding

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402(o) arises when a permittee seeks relaxation of an effluent limitation which is based upon a State treatment standard of water quality standard.

Previous limits can be used pursuant to EPA's anti-backsliding regulation 40 CFR 122.44 *(l) Reissued permits. (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62). (2) In the case of effluent limitations established based on Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.*

The pH benchmark of 9.0 S.U. was derived from the pH benchmark in the PAG-03 general permit. The pH benchmark in the PAG-03 was included to be consistent with EPA's 2021 MSGP. However, unlike in the MSGP, the Department did not include a minimum pH benchmark value of 6.0 in its PAG-03 General Permit. The Department only included a maximum benchmark value for pH because it has been well documented that the stormwater within Pennsylvania has a pH below 6.0 S.U. (acid rain). Please refer to the National Atmospheric Deposition Program 2022 Annual Summary [2022as2.pdf (wisc.edu)] which confirms that the pH concentration of the stormwater in Pennsylvania is around is 5.3 S.U. With the possibility of the natural pH of the stormwater being below 6.0 without the influence of the subject permittee's industrial

activities, the Department has deemed the imposition of a minimum stormwater benchmark of 6.0 S.U. to be improper and unjust and will not impose the lower limit.

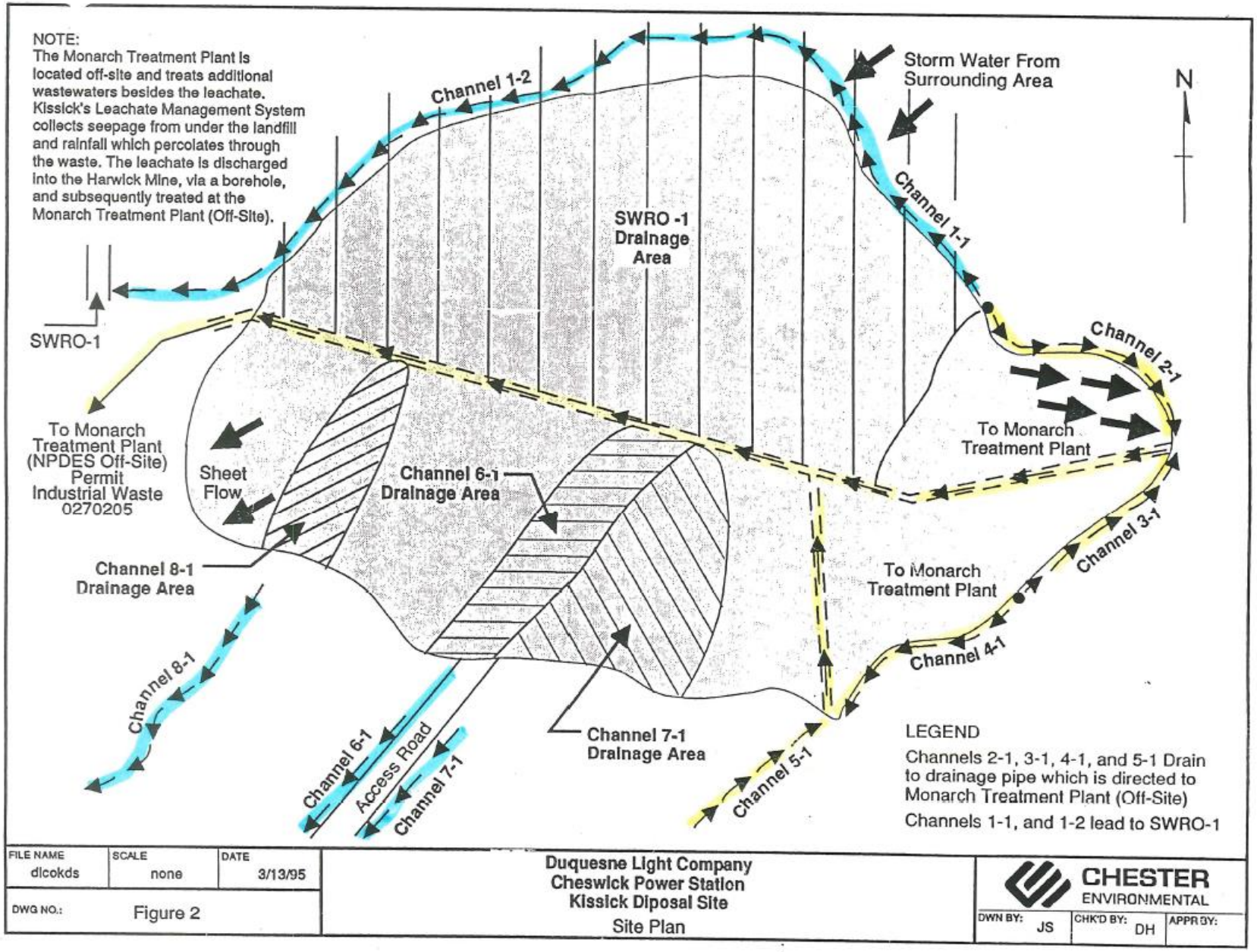
Monitoring Requirements for Outfall 002

Effluent limits imposed at Outfall 002 are the most stringent of TBELs, WQBELs, regulatory effluent standards and monitoring requirements as discussed in the sections above. The applicable requirements for Outfall 002 are summarized in Table 4. The minimum sampling frequencies are chosen per PAG-03 guidelines and requirements and sampling types are applied based on Table 6-4 of *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (Document No. 362-0400-001, 10/97)*.

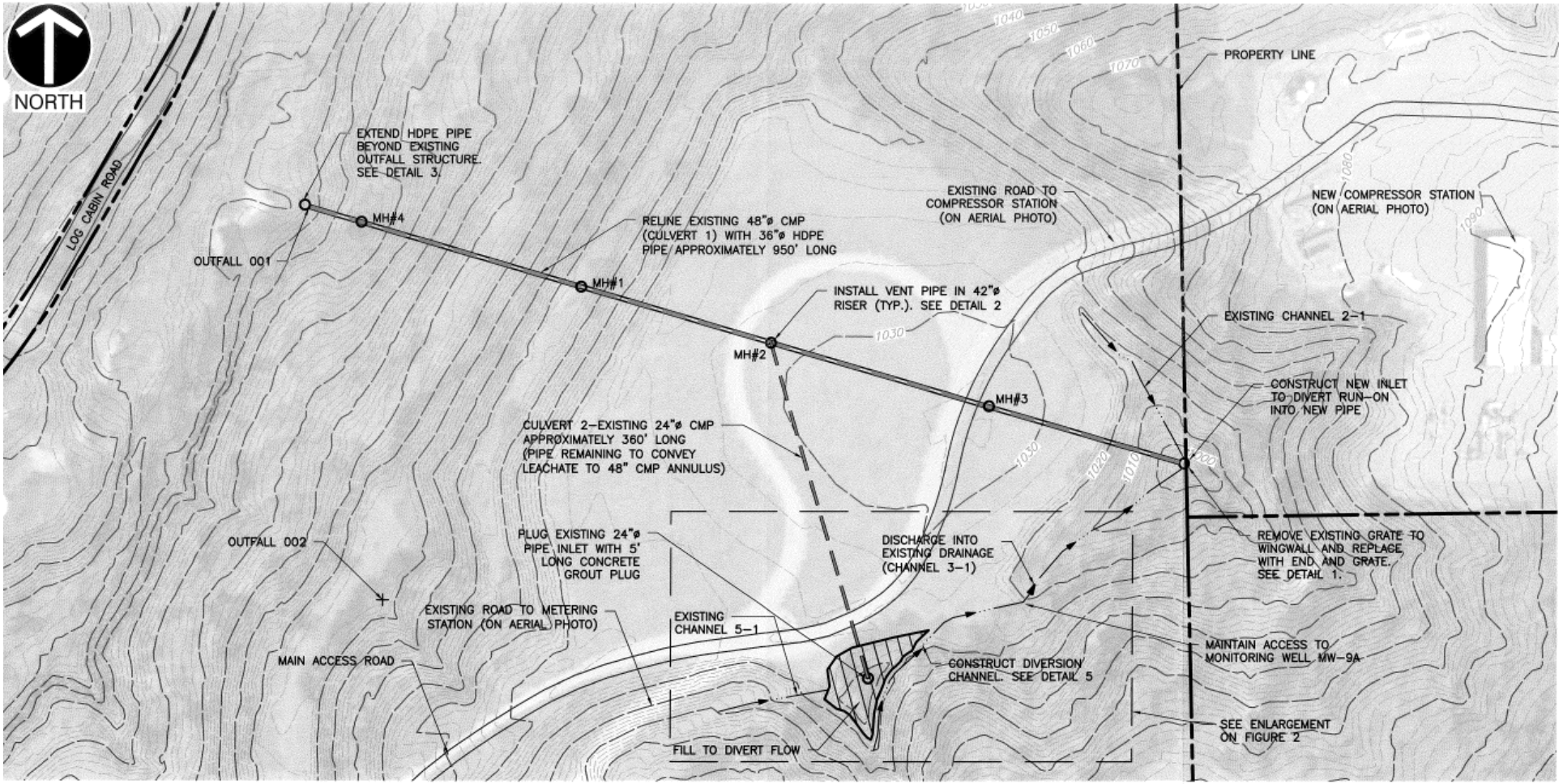
Table 4. Monitoring Requirements and Benchmarks for the KAD Site Outfall 001

Discharge Parameter	Units	Sample Type	Benchmark Values	Sample Frequency
pH	S.U.	Grab	9.0	1/6 months
Total Suspended Solids	mg/L	Grab	100.0	1/6 months
Iron, Total	mg/L	Grab	XXX	1/6 months
Chemical Oxygen Demand (COD)	mg/L	Grab	120.0	1/6 months
Total Nitrogen	mg/L	Calculation	XXX	1/6 months
Total Phosphorus	mg/L	Grab	XXX	1/6 months

Site Plan


NOTE:
The Monarch Treatment Plant is located off-site and treats additional wastewaters besides the leachate. Kissick's Leachate Management System collects seepage from under the landfill and rainfall which percolates through the waste. The leachate is discharged into the Harwick Mine, via a borehole, and subsequently treated at the Monarch Treatment Plant (Off-Site).
Channel 1-2
Storm Water From Surrounding Area
N
Channel 1-1
SWRO -1 Drainage Area
SWRO-1
Channel 2-1
To Monarch Treatment Plant (NPDES Off-Site) Permit Industrial Waste 0270205
Sheet Flow
Channel 6-1 Drainage Area
To Monarch Treatment Plant
Channel 3-1
Channel 8-1 Drainage Area
To Monarch Treatment Plant
Channel 8-1
Channel 4-1
Channel 6-1
Access Road
Channel 7-1
Channel 7-1 Drainage Area
Channel 5-1
LEGEND
Channels 2-1, 3-1, 4-1, and 5-1 Drain to drainage pipe which is directed to Monarch Treatment Plant (Off-Site)
Channels 1-1, and 1-2 lead to SWRO-1
FILE NAME dlcokds
SCALE none
DATE 3/13/95
DWG NO.: Figure 2
Duquesne Light Company
Cheswick Power Station
Kissick Diposal Site
Site Plan
CHESTER ENVIRONMENTAL
DWN BY: JS
CHK'D BY: DH
APPR BY:

Leachate Conveyance System



LEGEND

- 1250 — EXISTING CONTOUR
- PROPERTY LINE
- ROADS
- PROPOSED SURFACE WATER CHANNEL
- PROPOSED FILL AREAS
- MH#1 — APPROXIMATE MANHOLE LOCATION
- BURIED PIPE
- RELINED PIPE

SCALE IN FEET
0 100 200

*HAND SIGNATURE ON FILE

REFERENCE

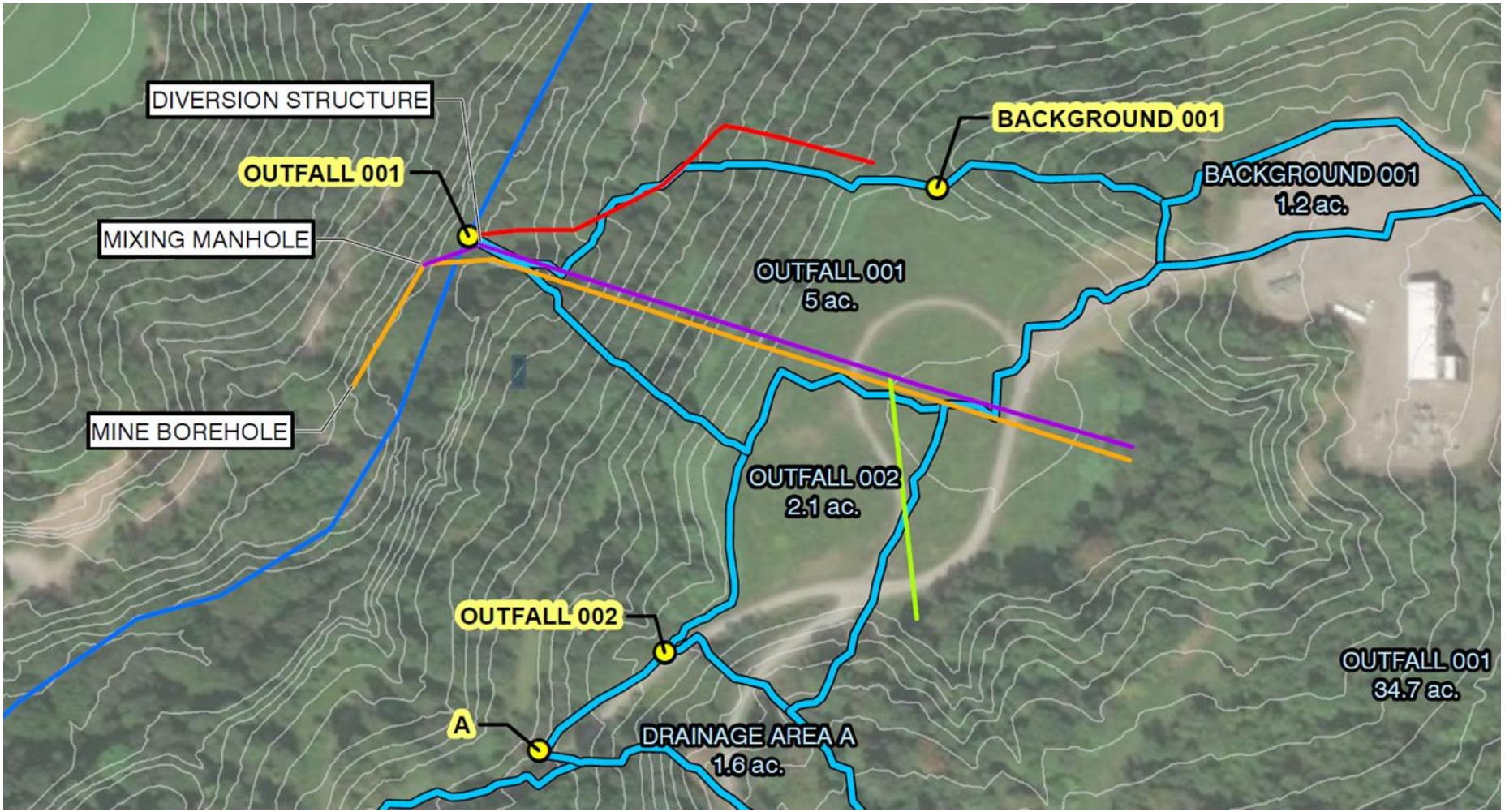
1. EXISTING CONTOURS DERIVED FROM THE PAMAP PROGRAM 3.2 FT DIGITAL ELEVATION MODEL OF PENNSYLVANIA; DEVELOPED BY PAMAP PROGRAM, PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY; DATED 2006.
2. GOOGLE EARTH PRO IMAGERY, IMAGE DATE: JUNE 14, 2014.

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DUQUESNE LIGHT COMPANY
KISSICK DISPOSAL SITE
INDIANA TOWNSHIP, ALLEGHENY CO., PA

SLIP LINING PLAN

DRAWN BY:	SCC	CHECKED BY:	BDC	APPROVED BY:	BDC*	FIGURE NO.:	1
DATE:	5/20/2019	DWG SCALE:	1"=100'	PROJECT NO:	140-085		



LEGEND

- OUTFALL LOCATIONS
- WATERSHED AREAS
- STREAM
- 10' CONTOUR (2006)
- 24" CMP SURFACE/STORM WATER
- 48"CMP SURFACE/STORM WATER
- 24" CMP LEACHATE
- CONCRETE DRAINAGE CHANNEL