pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0010782**
Facility Type	**Industrial**	APS ID	**1035080**
Major / Minor	**Minor**	Authorization ID	**1347782**

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

Applicant and Facility Information

Applicant Name	**Trogon Development LLC**	Facility Name	**Beagle Club Ash Disposal Site** (formerly part of Titus Generating Stn)
Applicant Address	PO Box 1636	Facility Address	296 Poplar Neck Road
	Canovanas, PR 00729-1636		Birdsboro, PA 19508
Applicant Contact	Ronald Froh, President & CEO	Facility Contact	Jesse Froh, VP Operations / & Linda Denison, Env.Mgr, ATON Env'l.
Applicant Phone	314-227-8315 / admin@clpstl.com	Facility Phone	(314) 580-6736, Froh / 614-565-2297, Denison and LDenison@CommercialLiabilityPartners.com
Client ID	361817	Site ID	502733 **(PF ID #840311)**
SIC Code	562	Municipality	Cumru Township
SIC Description	Refuse Systems	County	Berks
Date Application Received	August 27, 2020	EPA Waived?	No
Date Application Accepted		If No, Reason	TMDL - PCBs in Schuylkill River – change in requirements

Purpose of Application: Renewal of NPDES permit – industrial wastewater

Summary of Review

The previous NPDES permit was issued February 23, 2016 and amended on July 27, 2020. The renewal application was submitted August 27, 2020, such that the permit was administratively extended past its expiration date of February 28, 2021. A transfer application was then submitted in March 2021. The NPDES renewal permit will be issued to the new owners.

This ash disposal site was capped, including geosynthetic material, and vegetated in 2017 and re-vegetated in 2019. A leachate pond collects leachate from the capped site. Settling occurs and some wastewater is batch discharged via a manually controlled valve into the stormwater runoff pond. Internal Monitoring Point 104 is the leachate pond discharge. The stormwater runoff pond also collects stormwater from the capped site besides the leachate, also provides for settling, with batch discharges through outfall 004 into the Schuylkill River. Both batch discharges occur over 3 to 5 days once per month or less. There are no flow meters: the flow rates are based on changes of pond levels.

NPDES Permit PA0010782 used to authorize discharges on the west side of the Schuylkill River as well when Titus Generating Station (Primary Facility ID #246169) was operating. Titus generated electricity using steam and coal. Those operations ceased, the coal piles were removed, closure plans were approved by DEP, and the land was sold. The Beagle Club Ash Disposal Site accepted stabilized coal ash generated by Titus Generating Station when it operated and some sludge from the Titus Generating Station's on-site Sedimentation Basins. The last waste accepted was in April 2015. The residual leachate at Beagle Club Ash Disposal Site is still subject to the federal ELGs for Steam Electric Power Generating Point Sources 40 CFR Part 423. The stormwater from the Beagle Club Ash Disposal Site qualifies as stormwater associated with industrial activity, also needing coverage by a NPDES permit.

Approve	Deny	Signatures	Date
x		*Bonnie J. Boylan* Bonnie J. Boylan / Environmental Engineering Specialist	May 4, 2021
x		*Maria D. Bebenek for Daniel W. Martin* Daniel W. Martin, P.E. / Environmental Engineer Manager	May 12, 2021
x		*Maria D.Bebenek* Maria D. Bebenek, P.E. / Environmental Program Manager	May 12, 2021

Summary of Review

The two settling ponds at the Beagle Club Ash Disposal Site were constructed in accordance with WQM permit 0678202. Both are lined. The WQM permit 0678202 for this facility is also being transferred to the new owners. The transferred WQM permit will be issued with the final NPDES permit.

DEP's Waste Management Program also oversees the ash landfill. Required groundwater monitoring will continue at the site until they issue a Final Closure certification.

Note:
Separately, on its own parcel of land and a different Primary Facility ID#, there remain two Combustion Turbines on the former Titus Generating Station site. These generate electricity using fuel oil but do not generate wastewater discharges and do not need a NPDES permit. NPDES coverage for industrial stormwater is also not required for this type of industrial activity. The generating units are cooled by air flow and operate under a DEP-issued Air Quality permit.

Design Flow

The same design flow is given in the application as the previous permit: 1.3 MGD for outfall 004 and 0.1 MGD for IMP 104. The flows reported in DEP's eDMR system, from April 1, 2019 through March 31, 2021, support carrying forward the design flow of 1.3 MGD for outfall 004. (A copy of the reviewed eDMRs is attached.) The flows from outfall 004 include the flows at IMP 104.

The flows reported in DEP's eDMR system, from April 1, 2019 through March 31, 2021, for IMP 104 are higher than the previous 'design flow' of 0.1 MGD: the daily maximum reported was 0.41 MGD and the 90th percentile of the daily maximum values reported was 0.26 MGD. The permit is not affected by the 'design' flow of this IMP, however, because the Technology Based Effluent Limits were imposed as concentration limits rather than mass load limits and no WQBELs were imposed at this IMP.

The discharge from this facility to the Schuylkill River is intermittent and infrequent. For the calendar year 2020, the Supplement Daily Monitoring eDMRs reported only 21 days with a flow at outfall 004.

Note:
For intermittent, infrequent discharges such as these, a calculated 'monthly average' flow reported on the eDMR (the sum of flows for the month divided by the number of days in a month instead of the number of days of discharge) would be much lower than the actual daily flow when discharging and should not be used as a basis for calculating water quality based effluent limits: the limits may not be protective of the receiving water.

Delaware River Basin Commission

A DRBC docket exists for this site: D-1987-026-5, approved on March 10, 2021 and expiring on February 28, 2016. The docket was not available to be viewed from the DRBC's website and online Interactive Map. According to State regulations and an interagency agreement, DRBC will be given the opportunity to comment on this draft NPDES permit.

Outstanding Violations

There are no outstanding violations for this facility according to eFacts database for Clean Water Program and to eFacts' Site Search: all past violations have been corrected or closed out.

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.	004	Design Flow (MGD)	1.3
Latitude	40º 18' 23"	Longitude	-75º 54' 22"
Quad Name		Quad Code	
Wastewater Description:	Intermittent Discharge: ash landfill leachate and stormwater runoff from ash landfill		
Receiving Waters	Schuylkill River (WWF, MF)	Stream Code	0833
NHD Com ID	25993164	RMI	71.3
Drainage Area	922 sq.mi.*	Yield (cfs/mi^2)	0.23 *
Q_{7-10} Flow (cfs)	212 *	Q_{7-10} Basis	Gage correlation*
Elevation (ft)	Approx. 175 (per topo map)	Slope (ft/ft)	
Watershed No.	3-C	Chapter 93 Class.	WWF, MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	POLYCHLORINATED BIPHENYLS (PCBS)		
Source(s) of Impairment	SOURCE UNKNOWN		
TMDL Status	Final	Name	Schuylkill River PCB TMDL

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake	Pottstown		
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	>14

*gage correlation using USGS gage data, 2011 Stuckey and Roland report: Low Flow Yield of 0.23 cfs/sq.mi..
Per USGS PA Stream Stats Online tool, Drainage Area at discharge location = 922 sq.mi.
0.23 cfs/sq.mi. x 922 sq.mi. = Q7-10 at discharge location = 212 cfs

For modeling, next downstream node shown on eMapPA for Schuylkill River is at confluence with Trout Run = 68.5 RMI
Drainage Area at this point is 926 sq.mi. per USGS PA Stream Stats Online tool. (approx.. elev. of 160' per eMapPA)

Discharge, Receiving Waters and Water Supply Information

Outfall No.	104	Design Flow (MGD)	*0.26 (based on past 2 years of eDMR data)*
Latitude	40º 18' 19"	Longitude	-75º 54' 17"
Quad Name		Quad Code	
Wastewater Description:	Ash landfill leachate		
Receiving Waters	Schuylkill River (WWF, MF)	Stream Code	0833
NHD Com ID	25993164	RMI	71.3
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	3-C	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	POLYCHLORINATED BIPHENYLS (PCBS)		
Source(s) of Impairment	SOURCE UNKNOWN		
TMDL Status	Final	Name	Schuylkill River PCB TMDL

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake			
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Treatment Facility Summary

Treatment Facility Name: Beagle Club Ash Disposal Site

WQM Permit No.	Issuance Date
0678202 T-4	7/27/2020
0678202 T-3	2/26/2014
0678202 T-2	3/25/2011

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Industrial	Primary	Settling	None	

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal

Other Comments:

DEP began using eFacts database in 1980's and loaded some historic data into it but not all. There was a Commercial Landfill permit (#300668) issued by DEP as early as 2/23/1978. The landfill permit was last modified in 2021.

PREVIOUS PERMIT LIMITS, OUTFALL 004:

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/discharge	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/discharge	Grab
TSS	XXX	XXX	XXX	30	100	XXX	1/discharge	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	3500	7000	8750	1/discharge	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	20	30	1/discharge	Grab
Sulfate	XXX	XXX	XXX	XXX	Report	XXX	1/discharge	Grab
Chloride	XXX	XXX	XXX	XXX	Report	XXX	1/discharge	Grab
Bromide	XXX	XXX	XXX	XXX	Report	XXX	1/discharge	Grab
PCBs (Dry Weather) (pg/L) *	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite
PCBs (Wet Weather) (pg/L) *	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite

PREVIOUS PERMIT LIMITS, IMP 104:

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD) Internal Monitoring Point	Report	Report	XXX	XXX	XXX	XXX	1/discharge	Estimate
pH (S.U.) Internal Monitoring Point	XXX	XXX	6.0	XXX	XXX	9.0	1/discharge	Grab

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)					
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Minimum Measurement Frequency	Required Sample Type
TSS Internal Monitoring Point	XXX	XXX	XXX	30	100	XXX	1/discharge	Grab
Oil and Grease Internal Monitoring Point	XXX	XXX	XXX	15	20	30	1/discharge	Grab

Compliance History

There have been no Clean Water violations since 2009, according to DEP's eFacts database.

There have been no NPDES permit exceedances or other non-compliances with NPDES permit since at least 2018.

The most recent DEP Clean Water inspection occurred on September 23, 2020. No violations were noted. High levels of Dissolved Oxygen were measured by DEP inspector for both ponds and some floating algae was observed: 11.56 mg/l at stormwater pond, 12.35 mg/l at leachate pond. Inspector was told by permittee that the ponds had last been cleaned out in 2017, to remove accumulated sediment.

Development of Effluent Limitations

Outfall No. 104 **Design Flow (MGD)** *0.26 per recent eDMRs*
Latitude 40° 18' 19" **Longitude** 75° 54' 17"
Wastewater Description: Ash monofill leachate

Technology-Based Effluent Limitations (TBELs)

Federal Effluent Limitation Guidelines (ELGs):

The Steam Electric Power Generating ELGs [40 CFR Part 423] apply to "combustion residual leachate" and "legacy wastewater", present in both ponds and both outfall 004 and IMP 104.

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
Total Suspended Solids	30.0 *	Avg. Monthly	40 CFR Part 423	
Total Suspended Solids	100.0 *	Daily Maximum	40 CFR Part 423	
Oil and Grease	15.0 *	Avg. Monthly	40 CFR Part 423	
Oil and Grease	20.0 *	Daily Maximum	40 CFR Part 423	
Oil and Grease	30	Instantaneous Maximum		PA Code Title 25 Chapter 95.2
pH	6.0-9.0	Minimum- IMAX		PA Code Title 25 Chapter 95.2

*may be imposed as concentration **or** as mass loading

The Delaware River Basin Commission (DRBC) also has applicable effluent limits in 18 CFR Part 410 but they are not more stringent than the above. The DRBC Water Quality Regulations [18 CFR Part 410] includes an effluent limit of 100 units (on Platinum-Cobalt scale) for Color as needed. The application included 3 sampling events for color with a maximum of 31 units. Therefore no Color limit is needed. The previous permit also did not include a color limit.

Best Professional Judgment (BPJ) Limitations (TBEL)

None

Additional Considerations

The federal ELGs discuss the presence of Mercury and Arsenic and other metals at levels of concern at many Electric Power Stations although they do not impose limits for these pollutants for "combustion residual leachate" at existing sources. Mercury, Arsenic, and all metals were included in the modeling for WQBELs which are discussed on the next page.

Development of Effluent Limitations

Outfall No.	004	**Design Flow (MGD)**	1.3
Latitude	40° 18' 23"	**Longitude**	75° 54' 22"

Wastewater Description: Leachate from ash disposal area + stormwater from ash disposal area

Technology-Based Effluent Limitations (TBELs)

Same as for IMP 104; see table on previous page. Based on the TBELs, the previous permit limits are carried forward for pH, TSS, and Oil and Grease.

Monitoring for Bromide, Chloride, and Sulfate was not continued: monitoring had been required in the previous permit to gather data following the 2013 Triennial Review of Standards and in response to the Environmental Quality Board's comments. It is believed that enough data has been gathered for this effort.

The DRBC also has applicable effluent limits in 18 CFR Part 410 but they are not more stringent than the current limits with the exception of TDS which is discussed below in the WQBEL section. The DRBC Water Quality Regulations includes an effluent limit of 100 units (on Platinum-Cobalt scale) for Color as needed. The application included three sampling events for color with a maximum concentration of 30 Pt-Co units, well below 100 Pt-Co units. No Color limit has been imposed. The previous permit also did not include a Color limit.

Water Quality-Based Effluent Limitations (WQBELs)

Total Maximum Daily Load (TMDL):

The Schuylkill River was not meeting its designated use for fish consumption due to the presence of Polychlorinated Biphenyls (PCBs) which caused it to be listed as an Impaired Water and a TMDL to be developed for reducing PCBs discharged to the river.

This facility has been monitoring Total PCBs since 2011. The average concentration of the results reviewed by DEP between 2011 and 2020, inclusive, was 3428 pg/l. (When the results were available, DEP decreased the sample concentration by the greater of the field blank or the method blank.) While the concentrations in the past three years have decreased, the average concentration during wet weather conditions reported for 2018 through 2020 was 172 pg/l and the average concentration during dry weather conditions reported for 2018 through 2020 was 261 pg/l. These concentrations are greater than the target of 44 pg/l in the TMDL.

The TMDL that was approved in 2007 did not require permit limits to be imposed for Total PCBs but did require that direct dischargers to the Schuylkill River develop and implement PMPs when the discharge concentrations of Total PCBs were greater than 44 pg/l. That requirement has been added to the renewal permit in the Part C Conditions, consistent with other dischargers to the Schuylkill River with known concentrations of PCBs over 44 pg/l.

Other than TMDL:

Water quality modeling (output files attached) was conducted using the greater of the maximum concentrations in the application or the maximum concentrations reported in the last two years of eDMRs reviewed. DEP has recently started using an Excel-based Toxics Management Spreadsheet (TMS) rather than its former Access-based PENTOX model. The calculations and logic from the PENTOX model are still incorporated, as described in the Technical Reference Guidance Document [391-2000-011]. The TMS performs a Reasonable Potential analysis at the same time and will recommend limits or monitoring requirements for each parameter if deemed necessary to protect the receiving waterway.
Three sample results for Total Hardness were reported in the application for outfall 004, with an average concentration of 684 mg/l. (The Total Hardness reported in the 2015 application for outfall 004 was 1020 mg/l, but based on only one sample. The Total Hardness reported in the 2020 application for IMP 104, which feeds into the stormwater pond, was 1260 mg/l as an average of 3 samples.) The discharge Hardness input value used in the model was 684 mg/l. The minimum pH reported on eDMRs for outfall 004 from April 1, 2019 through March 31, 2021 was 7.8 s.u. This was used as a model input value, for discharge pH. A width : depth ratio of 100:1, an estimate, was used as a model input value, to refine the WQBEL. DEP's commonly used default values were used for fate coefficients and background concentrations.

For this facility, the model did not find Reasonable Potential to cause an instream exceedance of water quality criteria for any parameter: the concentrations in the discharge were sufficiently below the calculated WQBELs .

Parameter	Limit (mg/l)	SBC	Model
None	None	Not Applicable	Toxics Management Spreadsheet, version 1.3/ former PENTOX model

The model did recommend a monitoring requirement in the renewal permit for Total Boron and Total Copper and it has been added:

Parameter	Max. Discharge Conc., 104 (mg/l)	No. of Detects/ No. of Samples, 104	Max. Discharge Conc., 004 (mg/l)	No. of Detects/ No. of Samples, 004	Most Stringent WQBEL (mg/l)	104 conc as % of WQBEL	004 conc as % of WQBEL
Total Boron	49.5	3 / 3	26.4	3 / 3	112.8	43.9 %	23.4 %
Total Copper	0.0525	3 / 3	0.114	3 / 3	0.244	21.5 %	46.7 %

Because Copper water quality criteria is Hardness-dependent, the permittee should also monitor the 004 discharge for Hardness. The collected data will inform the next Reasonable Potential evaluation.

CBOD5 and Ammonia:

DEP's WQM 7.0 model was not used (for CBOD5 or BOD5 and Ammonia) because the discharges do not contain high concentrations of organic matter: the maximum BOD5 concentration reported in the application for outfall 004 was 8 mg/l; the maximum Ammonia concentration for outfall 004 was 0.08 mg/l. For IMP 104, which feeds the stormwater pond, the maximum BOD5 concentration reported in the application was 5 mg/l and the maximum Ammonia concentration was 0.07 mg/l.

Total Dissolved Solids (TDS):

18 CFR Part 410 apply since the discharge is within the Delaware River watershed. Those regulations include a TDS effluent limit of 1000 mg/l or a TDS determination demonstrating that the discharge would not cause an exceedance of the in-stream TDS criteria in 18 CFR Part 410: the more stringent of 500 mg/l or a 133% increase over background concentrations.

This facility previously applied to DRBC for a TDS determination and received a docket allowing them to discharge up to 3500 mg/l as a monthly average TDS limit. The 3500 mg/l TDS limit was included in their previous NPDES permit and is being carried forward into the renewal NPDES permit. The eDMRs reviewed show that their TDS concentrations have been less than the allowance.

Mass Load Limits:

Because the flow is intermittent and highly dependent on weather conditions, no mass load limits were imposed. No mass load limits were imposed in the previous permit either.

Other

Chemical Additives:

The Fact Sheet associated with the 2016 permit stated: application indicates no chemical additives used. The 2020 renewal application states that Copper Sulfate is infrequently used to control algae in the ponds, at a maximum usage rate of 2 lbs/day.

Copper Sulfate is on DEP's approved chemical additive list with the following Safe Levels:

Acute Aquatic Life Effect Level = 0.006 mg/l
Chronic Aquatic Life Effect Level = 0.001 mg/l
Human Health Safe Usage Concentration = 0.45 mg/l
No CRL

Copper Sulfate was included in the Toxics Management Spreadsheet, used to calculate WQBELs for the facility. It yielded a result of 0.0836 mg/l as the Average Monthly limit and 0.130 mg/l as the Maximum Daily limit. Considering Copper Sulfate is not used routinely and only infrequently and considering that the discharge at outfall 004 is an intermittent discharge and not a frequent discharge, the Maximum Daily WQBEL was used to calculate the maximum safe usage rate:

0.130 mg/l x 1.3 MGD x 8.34 conversion factor = 1.41 lbs/day

Their stated usage rate of 2 lbs/day, used infrequently, is more than the maximum usage rate deemed safe according to the above information.

DEP cannot approve their usage rate and will inform the permittee. They have the option to submit engineering calculations or another form of demonstration that the Copper Sulfate in the discharge at 004 will not exceed the Maximum Daily WQBEL of 0.130 mg/l or they have the option to use $\leq$ 1.41 lbs/day of Copper Sulfate or to propose a different chemical additive on DEP's online Approved List of Chemical Additives or another strategy for handling algae growths in the pond. The facility will be required to submit to DEP a signed Chemical Additive Notification Form before they can use Copper Sulfate (or any other chemical additive) and will subsequently need to submit Chemical Additive Usage Supplemental DMRs when they use approved Chemical Additives. DEP will keep the approved chemical additives and maximum usage rates in DEP's eFacts database.

Nutrient monitoring :

DEP has been adding nutrient monitoring, at minimum, to permits when the discharges have the potential to exceed 75 lbs/day of Total Nitrogen and 25 lbs/day of Total Phosphorus or when a TMDL exists that includes nutrients. [See SOP for Establishing Effluent Limitations for Individual Industrial Permits.]

Sampling results at 004 (and 104) showed low concentrations of Total Nitrogen (TN) and Total Phosphorus (TP): a maximum concentration of 2.06 mg/l at outfall 004 and a maximum concentration of 3.2 mg/l at IMP 104 for TN; a maximum concentration of 0.26 mg/l at outfall 004 and a maximum concentration of 0.03 mg/l at IMP 104 for TP. The estimated mass loads are 57.5 lbs/day of TN and 3.14 lbs/day of TP. As such, no limits or monitoring requirements for nutrients have been added to the permit.

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 as needed, and BPJ. When not given in regulations, Instantaneous Maximum (IMAX) limits may be 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 004, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)					
	Average Monthly	Daily Max	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Minimum Measurement Frequency	Required Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/discharge	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/discharge	Grab
TSS	XXX	XXX	XXX	30.0	100.0	XXX	1/discharge	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	3500	7000	8750	1/discharge	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15.0	20.0	30	1/discharge	Grab
Total Boron	XXX	XXX	XXX	Report	Report	XXX	1/discharge	24-Hr Composite
Total Copper	XXX	XXX	XXX	Report	Report	XXX	1/discharge	24-Hr Composite
Hardness as CaCO3	XXX	XXX	XXX	Report	Report	XXX	1/discharge	24-Hr Composite
PCBs (Dry Weather) (pg/L) *	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite
PCBs (Wet Weather) (pg/L) *	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite

*See Part C Conditions

Compliance Sampling Location: at discharge of stormwater pond

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 as needed, and BPJ. When not given in regulations, Instantaneous Maximum (IMAX) limits may be determined by 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 104, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)					
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Minimum Measurement Frequency	Required Sample Type
Flow (MGD) Internal Monitoring Point	Report	Report	XXX	XXX	XXX	XXX	1/discharge	Estimate
pH (S.U.) Internal Monitoring Point	XXX	XXX	6.0	XXX	XXX	9.0	1/discharge	Grab
TSS Internal Monitoring Point	XXX	XXX	XXX	30.0	100.0	XXX	1/discharge	Grab
Oil and Grease Internal Monitoring Point	XXX	XXX	XXX	15.0	20.0	30	1/discharge	Grab

Compliance Sampling Location: at discharge of ash leachate pond that precedes the stormwater pond

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☒	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model 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: Establishing Effluent Limitations for Individual Industrial Permits
☒	Other: DRBC docket 1987-026 CP-3, Titus Generating Station

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Toxics Management Spreadsheet
Version 1.3, March 2021

Discharge Information

Instructions | Discharge | Stream

Facility: **Beagle Club Ash - effluent** NPDES Permit No.: **PA0010782** Outfall No.: **004**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **leachate+stormwater**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
1.3	684	7.8						

					0 if left blank		0.6 if left blank		0 if left blank			1 if left blank	
	Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L		1990000									
	Chloride (PWS)	mg/L		25000									
	Bromide	mg/L		1400									
	Sulfate (PWS)	mg/L		1210000									
	Fluoride (PWS)	mg/L		300									
Group 2	Total Aluminum	µg/L		39									
	Total Antimony	µg/L		2									
	Total Arsenic	µg/L		11									
	Total Barium	µg/L		21									
	Total Beryllium	µg/L	<	1									
	Total Boron	µg/L		26400									
	Total Cadmium	µg/L		0.2									
	Total Chromium (III)	µg/L	<	1									
	Hexavalent Chromium	µg/L		3									
	Total Cobalt	µg/L	<	0.5									
	Total Copper	µg/L		114									
	Free Cyanide	µg/L	<	20									
	Total Cyanide	µg/L	<	20									
	Dissolved Iron	µg/L	<	50									
	Total Iron	µg/L		46									
	Total Lead	µg/L	<	1									
	Total Manganese	µg/L		81									
	Total Mercury	µg/L	<	0.2									
	Total Nickel	µg/L		2.2									
	Total Phenols (Phenolics) (PWS)	µg/L	<	5									
	Total Selenium	µg/L		6.7									
	Total Silver	µg/L	<	0.2									
	Total Thallium	µg/L	<	0.2									
	Total Zinc	µg/L		26									
	Total Molybdenum	µg/L		665									
	Acrolein	µg/L	<										
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<										
	Benzene	µg/L	<										
	Bromoform	µg/L	<										

Group 3	Carbon Tetrachloride	µg/L	<										
	Chlorobenzene	µg/L											
	Chlorodibromomethane	µg/L	<										
	Chloroethane	µg/L	<										
	2-Chloroethyl Vinyl Ether	µg/L	<										
	Chloroform	µg/L	<										
	Dichlorobromomethane	µg/L	<										
	1,1-Dichloroethane	µg/L	<										
	1,2-Dichloroethane	µg/L	<										
	1,1-Dichloroethylene	µg/L	<										
	1,2-Dichloropropane	µg/L	<										
	1,3-Dichloropropylene	µg/L	<										
	1,4-Dioxane	µg/L	<										
	Ethylbenzene	µg/L	<										
	Methyl Bromide	µg/L	<										
	Methyl Chloride	µg/L	<										
	Methylene Chloride	µg/L	<										
	1,1,2,2-Tetrachloroethane	µg/L	<										
	Tetrachloroethylene	µg/L	<										
	Toluene	µg/L	<										
	1,2-trans-Dichloroethylene	µg/L	<										
	1,1,1-Trichloroethane	µg/L	<										
	1,1,2-Trichloroethane	µg/L	<										
	Trichloroethylene	µg/L	<										
	Vinyl Chloride	µg/L	<										
Group 4	2-Chlorophenol	µg/L	<										
	2,4-Dichlorophenol	µg/L	<										
	2,4-Dimethylphenol	µg/L	<										
	4,6-Dinitro-o-Cresol	µg/L	<										
	2,4-Dinitrophenol	µg/L	<										
	2-Nitrophenol	µg/L	<										
	4-Nitrophenol	µg/L	<										
	p-Chloro-m-Cresol	µg/L	<										
	Pentachlorophenol	µg/L	<										
	Phenol	µg/L	<										
	2,4,6-Trichlorophenol	µg/L	<										
	Acenaphthene	µg/L	<										
	Acenaphthylene	µg/L	<										
	Anthracene	µg/L	<										
	Benzidine	µg/L	<										
	Benzo(a)Anthracene	µg/L	<										
	Benzo(a)Pyrene	µg/L	<										
	3,4-Benzofluoranthene	µg/L	<										
	Benzo(ghi)Perylene	µg/L	<										
	Benzo(k)Fluoranthene	µg/L	<										
	Bis(2-Chloroethoxy)Methane	µg/L	<										
	Bis(2-Chloroethyl)Ether	µg/L	<										
	Bis(2-Chloroisopropyl)Ether	µg/L	<										
	Bis(2-Ethylhexyl)Phthalate	µg/L	<										
	4-Bromophenyl Phenyl Ether	µg/L	<										
	Butyl Benzyl Phthalate	µg/L	<										

	2,6-Dinitrotoluene	µg/L	<										
	Di-n-Octyl Phthalate	µg/L	<										
	1,2-Diphenylhydrazine	µg/L	<										
	Fluoranthene	µg/L	<										
	Fluorene	µg/L	<										
	Hexachlorobenzene	µg/L	<										
	Hexachlorobutadiene	µg/L	<										
	Hexachlorocyclopentadiene	µg/L	<										
	Hexachloroethane	µg/L	<										
	Indeno(1,2,3-cd)Pyrene	µg/L	<										
	Isophorone	µg/L	<										
	Naphthalene	µg/L	<										
	Nitrobenzene	µg/L	<										
	n-Nitrosodimethylamine	µg/L	<										
	n-Nitrosodi-n-Propylamine	µg/L	<										
	n-Nitrosodiphenylamine	µg/L	<										
	Phenanthrene	µg/L	<										
	Pyrene	µg/L	<										
	1,2,4-Trichlorobenzene	µg/L	<										
Group 6	Aldrin	µg/L	<										
	alpha-BHC	µg/L	<										
	beta-BHC	µg/L	<										
	gamma-BHC	µg/L	<										
	delta BHC	µg/L	<										
	Chlordane	µg/L	<										
	4,4-DDT	µg/L	<										
	4,4-DDE	µg/L	<										
	4,4-DDD	µg/L	<										
	Dieldrin	µg/L	<										
	alpha-Endosulfan	µg/L	<										
	beta-Endosulfan	µg/L	<										
	Endosulfan Sulfate	µg/L	<										
	Endrin	µg/L	<										
	Endrin Aldehyde	µg/L	<										
	Heptachlor	µg/L	<										
	Heptachlor Epoxide	µg/L	<										
	PCB-1016	µg/L	<	0.1									
	PCB-1221	µg/L	<	0.1									
	PCB-1232	µg/L	<	0.1									
	PCB-1242	µg/L	<	0.1									
	PCB-1248	µg/L	<	0.1									
	PCB-1254	µg/L	<	0.1									
	PCB-1260	µg/L	<	0.1									
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<										
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L	<										
	Total Uranium	µg/L	<										
	Osmotic Pressure	mOs/kg											
	Copper Sulfate	µg/L		9999999									

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Toxics Management Spreadsheet
Version 1.3, March 2021

Stream / Surface Water Information

Beagle Club Ash - effluent, NPDES Permit No. PA0010782, Outfall 004

Instructions | Discharge | Stream

Receiving Surface Water Name: **Schuylkill River**

No. Reaches to Model: 1

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	000833	71.3	175	923			Yes
End of Reach 1	000833	69.9	165	924			Yes

$Q_{7\text{-}10}$

Location	RMI	LFY (cfs/mi^2)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	71.3	0.23			100							100	7		
End of Reach 1	69.9	0.23			100										

Q_h

Location	RMI	LFY (cfs/mi^2)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	71.3														
End of Reach 1	69.9														

Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	
Copper Sulfate	0	0		0	N/A	N/A	N/A	

☑ *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 Boron	Report	Report	Report	Report	Report	µg/L	112,817	AFC	Discharge Conc > 10% WQBEL (no RP)
Total Copper	Report	Report	Report	Report	Report	µg/L	244	AFC	Discharge Conc > 10% WQBEL (no RP)
Copper Sulfate	0.91	1.41	83.6	130	209	µg/L	83.6	AFC	Discharge Conc ≥ 50% WQBEL (RP)

☑ *Other Pollutants without Limits or Monitoring*

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable
Fluoride (PWS)	N/A	N/A	PWS Not Applicable
Total Aluminum	10,446	µg/L	Discharge Conc ≤ 10% WQBEL
Total Antimony	597	µg/L	Discharge Conc ≤ 10% WQBEL
Total Arsenic	1,066	µg/L	Discharge Conc ≤ 10% WQBEL
Total Barium	255,742	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Cadmium	30.0	µg/L	Discharge Conc ≤ 10% WQBEL
Total Chromium (III)	9,593	µg/L	Discharge Conc < TQL
Hexavalent Chromium	227	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cobalt	1,323	µg/L	Discharge Conc < TQL
Free Cyanide	306	µg/L	Discharge Conc ≤ 25% WQBEL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	31,968	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	159,839	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	363	µg/L	Discharge Conc < TQL
Total Manganese	106,559	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	5.33	µg/L	Discharge Conc < TQL

MONITORIN	MONITORIN	VERS	OUT	PARAM	UNITS	LOAD_1	LOAD_	LOAD_1_S	LOAD_2	LOAD_	LOAD_2_	C_UNI	CONC_	CONC_	CONC_1_	CONC_	CONC_2	CON
4/1/2019	4/30/2019	1	4	Flow	MGD	0.157	Monit	Average M	0.197	Monitc	Daily Max							
5/1/2019	5/31/2019	2	4	Flow	MGD	0.57	Monit	Average M	0.64	Monitc	Daily Max							
7/1/2019	7/31/2019	1	4	Flow	MGD	0.58	Monit	Average M	0.88	Monitc	Daily Max							
8/1/2019	8/31/2019	1	4	Flow	MGD	0.47	Monit	Average M	0.71	Monitc	Daily Max							
10/1/2019	10/31/2019	1	4	Flow	MGD	0.53	Monit	Average M	0.81	Monitc	Daily Max							
11/1/2019	11/30/2019	1	4	Flow	MGD	0.42	Monit	Average M	0.52	Monitc	Daily Max							
12/1/2019	12/31/2019	1	4	Flow	MGD	0.03	Monit	Average M	0.04	Monitc	Daily Max							
1/1/2020	1/31/2020	1	4	Flow	MGD	0.64	Monit	Average M	0.89	Monitc	Daily Max							
3/1/2020	3/31/2020	1	4	Flow	MGD	0.46	Monit	Average M	0.61	Monitc	Daily Max							
4/1/2020	4/30/2020	1	4	Flow	MGD	0.43	Monit	Average M	0.59	Monitc	Daily Max							
6/1/2020	6/30/2020	1	4	Flow	MGD	0.5	Monit	Average M	0.74	Monitc	Daily Max							
8/1/2020	8/31/2020	1	4	Flow	MGD	0.54	Monit	Average M	0.74	Monitc	Daily Max							
11/1/2020	11/30/2020	1	4	Flow	MGD	0.46	Monit	Average M	0.46	Monitc	Daily Max							
12/1/2020	12/31/2020	1	4	Flow	MGD	0.55	Monit	Average M	0.72	Monitc	Daily Max							
1/1/2021	1/31/2021	1	4	Flow	MGD	0.64	Monit	Average M	0.92	Monitc	Daily Max							
3/1/2021	3/31/2021	1	4	Flow	MGD	0.2889	Monit	Average M	0.431	Monitc	Daily Max							
						0.4541	Avg		0.6186	Avg								
						0.64	Max		0.92	Max								
						0.61	90th percentile		0.885	90th percentile								
4/1/2019	4/30/2019	1	4	Oil and Grease								mg/L				< 5.0	15	Aver
5/1/2019	5/31/2019	2	4	Oil and Grease								mg/L				< 5.0	15	Aver
7/1/2019	7/31/2019	1	4	Oil and Grease								mg/L				< 5	15	Aver
8/1/2019	8/31/2019	1	4	Oil and Grease								mg/L				< 5	15	Aver
10/1/2019	10/31/2019	1	4	Oil and Grease								mg/L				< 5	15	Aver
11/1/2019	11/30/2019	1	4	Oil and Grease								mg/L				GG	15	Aver
12/1/2019	12/31/2019	1	4	Oil and Grease								mg/L				< 5	15	Aver
1/1/2020	1/31/2020	1	4	Oil and Grease								mg/L				< 5	15	Aver
3/1/2020	3/31/2020	1	4	Oil and Grease								mg/L				< 5	15	Aver
4/1/2020	4/30/2020	1	4	Oil and Grease								mg/L				< 5	15	Aver
6/1/2020	6/30/2020	1	4	Oil and Grease								mg/L				< 3	15	Aver
8/1/2020	8/31/2020	1	4	Oil and Grease								mg/L				< 3	15	Aver
11/1/2020	11/30/2020	1	4	Oil and Grease								mg/L				GG	15	Aver
12/1/2020	12/31/2020	1	4	Oil and Grease								mg/L				< 5	15	Aver
1/1/2021	1/31/2021	1	4	Oil and Grease				21				mg/L				< 5	15	Aver
3/1/2021	3/31/2021	1	4	Oil and Grease								mg/L				< 5.0	15	Aver
1/1/2019	12/31/2019	1	4	PCBs Dry Weather Analysis								ng/L						

MONITORIN	MONITORIN	VERSIC	OUTFAI	PARAMET	UNITS	C_UNITS	CONC	CONC	CONC	CONC_2_\	CONC_2_L	CONC_2_S	CONC_3_\	CONC_3_L	CONC_3_S	SAMP
4/1/2019	4/30/2019	1	4	Total Dissolved S		mg/L				988	3500	Average M	988	7000	Daily Max	1/disc
5/1/2019	5/31/2019	2	4	Total Dissolved S		mg/L				1280	3500	Average M	1280	7000	Daily Max	1/disc
7/1/2019	7/31/2019	1	4	Total Dissolved S		mg/L				1510	3500	Average M	1510	7000	Daily Max	1/disc
8/1/2019	8/31/2019	1	4	Total Dissolved S		mg/L				1560	3500	Average M	1560	7000	Daily Max	1/disc
10/1/2019	10/31/2019	1	4	Total Dissolved S		mg/L				512	3500	Average M	512	7000	Daily Max	1/disc
11/1/2019	11/30/2019	1	4	Total Dissolved S		mg/L				GG	3500	Average M	GG	7000	Daily Maximum	
12/1/2019	12/31/2019	1	4	Total Dissolved S		mg/L				1880	3500	Average M	1880	7000	Daily Max	1/disc
1/1/2020	1/31/2020	1	4	Total Dissolved S		mg/L				1990	3500	Average M	1990	7000	Daily Max	1/disc
3/1/2020	3/31/2020	1	4	Total Dissolved S		mg/L				952	3500	Average M	952	7000	Daily Max	1/disc
4/1/2020	4/30/2020	1	4	Total Dissolved S		mg/L				1010	3500	Average M	1010	7000	Daily Max	1/disc
6/1/2020	6/30/2020	1	4	Total Dissolved S		mg/L				1855	3500	Average M	1970	7000	Daily Max	2/disc
8/1/2020	8/31/2020	1	4	Total Dissolved S		mg/L				1430	3500	Average M	1440	7000	Daily Max	1/disc
11/1/2020	11/30/2020	1	4	Total Dissolved S		mg/L				GG	3500	Average M	GG	7000	Daily Maximum	
12/1/2020	12/31/2020	1	4	Total Dissolved S		mg/L				1170	3500	Average M	1170	7000	Daily Max	1/disc
1/1/2021	1/31/2021	1	4	Total Dissolved S		mg/L				880	3500	Average M	880	7000	Daily Max	1/disc
3/1/2021	3/31/2021	1	4	Total Dissolved S		mg/L				1290	3500	Average M	1290	7000	Daily Max	1/disc
													1990	Max		
4/1/2019	4/30/2019	1	4	Total Suspended		mg/L				7	30	Average M	7	100	Daily Max	1/disc
5/1/2019	5/31/2019	2	4	Total Suspended		mg/L				27	30	Average M	27	100	Daily Max	1/disc
7/1/2019	7/31/2019	1	4	Total Suspended		mg/L				2	30	Average M	2	100	Daily Max	1/disc
8/1/2019	8/31/2019	1	4	Total Suspended		mg/L				6	30	Average M	6	100	Daily Max	1/disc
10/1/2019	10/31/2019	1	4	Total Suspended		mg/L				4	30	Average M	4	100	Daily Max	1/disc
11/1/2019	11/30/2019	1	4	Total Suspended		mg/L				GG	30	Average M	GG	100	Daily Maximum	
12/1/2019	12/31/2019	1	4	Total Suspended		mg/L				9	30	Average M	9	100	Daily Max	1/disc
1/1/2020	1/31/2020	1	4	Total Suspended		mg/L				12	30	Average M	12	100	Daily Max	1/disc
3/1/2020	3/31/2020	1	4	Total Suspended		mg/L				6	30	Average M	6	100	Daily Max	1/disc
4/1/2020	4/30/2020	1	4	Total Suspended		mg/L				12	30	Average M	12	100	Daily Max	1/disc
6/1/2020	6/30/2020	1	4	Total Suspended		mg/L				14	30	Average M	14	100	Daily Max	2/disc
8/1/2020	8/31/2020	1	4	Total Suspended		mg/L				14	30	Average M	16	100	Daily Max	1/disc
11/1/2020	11/30/2020	1	4	Total Suspended		mg/L				GG	30	Average M	GG	100	Daily Maximum	
12/1/2020	12/31/2020	1	4	Total Suspended		mg/L				9	30	Average M	9	100	Daily Max	1/disc
1/1/2021	1/31/2021	1	4	Total Suspended		mg/L				5	30	Average M	5	100	Daily Max	1/disc
3/1/2021	3/31/2021	1	4	Total Suspended		mg/L		22		< 2.0	30	Average M	< 2.0	100	Daily Max	1/disc
6/1/2019	6/30/2019	1	104													

MONITORIN	MONITORIN	VERSIC	OUTFAI	PARAMET	UNITS	LOAD_1_	LOAD_1_	1_SBC	2_VALU	2_LIMIT	2_SBC	SAMPLE_F	SAMPLE_T
6/1/2019	6/30/2019	1	104										
9/1/2019	9/30/2019	1	104										
2/1/2020	2/29/2020	1	104										
5/1/2020	5/31/2020	1	104										
7/1/2020	7/31/2020	1	104										
7/1/2020	7/31/2020	1	104										
9/1/2020	9/30/2020	1	104										
10/1/2020	10/31/2020	1	104										
2/1/2021	2/28/2021	1	104										
4/1/2019	4/30/2019	1	104	Flow	MGD	0.047	Monitor	Average	0.06	Monitor	Daily M	1/discharg	Estimate
5/1/2019	5/31/2019	2	104	Flow	MGD	0.11	Monitor	Average	0.12	Monitor	Daily M	1/discharg	Estimate
7/1/2019	7/31/2019	1	104	Flow	MGD	0.17	Monitor	Average	0.26	Monitor	Daily M	1/discharg	Estimate
8/1/2019	8/31/2019	1	104	Flow	MGD	0.13	Monitor	Average	0.27	Monitor	Daily M	1/discharg	Estimate
10/1/2019	10/31/2019	1	104	Flow	MGD	0.26	Monitor	Average	0.41	Monitor	Daily M	1/discharg	Estimate
11/1/2019	11/30/2019	1	104	Flow	MGD	0.07	Monitor	Average	0.09	Monitor	Daily M	1/discharg	Estimate
12/1/2019	12/31/2019	1	104	Flow	MGD	0.03	Monitor	Average	0.04	Monitor	Daily M	1/discharg	Estimate
1/1/2020	1/31/2020	1	104	Flow	MGD	0.07	Monitor	Average	0.09	Monitor	Daily M	1/discharg	Estimate
3/1/2020	3/31/2020	1	104	Flow	MGD	0.09	Monitor	Average	0.12	Monitor	Daily M	1/discharg	Estimate
4/1/2020	4/30/2020	1	104	Flow	MGD	0.09	Monitor	Average	0.12	Monitor	Daily M	1/discharg	Estimate
6/1/2020	6/30/2020	1	104	Flow	MGD	0.1	Monitor	Average	0.15	Monitor	Daily M	1/discharg	Estimate
8/1/2020	8/31/2020	1	104	Flow	MGD	0.06	Monitor	Average	0.08	Monitor	Daily M	1/discharg	Estimate
11/1/2020	11/30/2020	1	104	Flow	MGD	0.04	Monitor	Average	0.06	Monitor	Daily M	1/discharg	Estimate
12/1/2020	12/31/2020	1	104	Flow	MGD	0.07	Monitor	Average	0.09	Monitor	Daily M	1/discharg	Estimate
1/1/2021	1/31/2021	1	104	Flow	MGD	0.06	Monitor	Average	0.08	Monitor	Daily M	1/discharg	Estimate
3/1/2021	3/31/2021	1	104	Flow	MGD	0.0335	Monitor	Average	0.0239	Monitor	Daily M	1/discharg	Estimate
						0.08941	Avg		0.129	Avg			
						0.26	Max		0.41	Max			
						0.15	90th percentile		0.265	90th percentile			

MONITORIN	MONITORIN	OUTFA	PARAMETER	C_UNITS	CONC_	CONC_	CONC_1_S	CONC_2	CONC_2	CONC_2_S	CONC_3	CONC_	CONC_3_S	SAMPLE_F
4/1/2019	4/30/2019	104	Oil and Grease	mg/L				< 5.0	15	Average M	< 5.0	20	Daily Max	1/discharg
5/1/2019	5/31/2019	104	Oil and Grease	mg/L				< 5.0	15	Average M	< 5.0	20	Daily Max	1/discharg
7/1/2019	7/31/2019	104	Oil and Grease	mg/L				< 5	15	Average M	< 5	20	Daily Max	1/discharg
8/1/2019	8/31/2019	104	Oil and Grease	mg/L				< 5	15	Average M	< 5	20	Daily Max	1/discharg
10/1/2019	10/31/2019	104	Oil and Grease	mg/L				< 5	15	Average M	< 5	20	Daily Max	1/discharg
11/1/2019	11/30/2019	104	Oil and Grease	mg/L				GG	15	Average M	GG	20	Daily Maximum	
12/1/2019	12/31/2019	104	Oil and Grease	mg/L				< 5	15	Average M	< 5	20	Daily Max	1/discharg
1/1/2020	1/31/2020	104	Oil and Grease	mg/L				< 5	15	Average M	< 5	20	Daily Max	1/discharg
3/1/2020	3/31/2020	104	Oil and Grease	mg/L				< 5	15	Average M	< 5	20	Daily Max	1/discharg
4/1/2020	4/30/2020	104	Oil and Grease	mg/L				< 1.4	15	Average M	< 1.4	20	Daily Max	1/discharg
6/1/2020	6/30/2020	104	Oil and Grease	mg/L				< 3	15	Average M	< 5	20	Daily Max	2/discharg
8/1/2020	8/31/2020	104	Oil and Grease	mg/L				< 3	15	Average M	< 5	20	Daily Max	1/discharg
11/1/2020	11/30/2020	104	Oil and Grease	mg/L				< 5.0	15	Average M	< 5.0	20	Daily Max	1/discharg
12/1/2020	12/31/2020	104	Oil and Grease	mg/L				< 5	15	Average M	< 5	20	Daily Max	1/discharg
1/1/2021	1/31/2021	104	Oil and Grease	mg/L				< 5	15	Average M	< 5	20	Daily Max	1/discharg
3/1/2021	3/31/2021	104	Oil and Grease	mg/L				< 5.0	15	Average M	< 5.0	20	Daily Max	1/discharg
4/1/2019	4/30/2019	104	pH	S.U.	8.77	6	Instantaneous Minimum				8.77	9	Instantane	1/discharg
5/1/2019	5/31/2019	104	pH	S.U.	8.51	6	Instantaneous Minimum				8.51	9	Instantane	1/discharg
7/1/2019	7/31/2019	104	pH	S.U.	8.46	6	Instantaneous Minimum				8.46	9	Instantane	1/discharg
8/1/2019	8/31/2019	104	pH	S.U.	8.33	6	Instantaneous Minimum				8.33	9	Instantane	1/discharg
10/1/2019	10/31/2019	104	pH	S.U.	8.23	6	Instantaneous Minimum				8.23	9	Instantane	1/discharg
11/1/2019	11/30/2019	104	pH	S.U.	GG	6	Instantaneous Minimum				GG	9	Instantaneous Maxim	
12/1/2019	12/31/2019	104	pH	S.U.	8.31	6	Instantaneous Minimum				8.31	9	Instantane	1/discharg
1/1/2020	1/31/2020	104	pH	S.U.	8.28	6	Instantaneous Minimum				8.28	9	Instantane	1/discharg
3/1/2020	3/31/2020	104	pH	S.U.	8.42	6	Instantaneous Minimum				8.42	9	Instantane	1/discharg
4/1/2020	4/30/2020	104	pH	S.U.	7.53	6	Instantaneous Minimum				7.53	9	Instantane	1/discharg
6/1/2020	6/30/2020	104	pH	S.U.	7.5	6	Instantaneous Minimum				7.5	9	Instantane	1/discharg
8/1/2020	8/31/2020	104	pH	S.U.	7.5	6	Instantaneous Minimum				7.5	9	Instantane	1/discharg
11/1/2020	11/30/2020	104	pH	S.U.	7	6	Instantaneous Minimum				7.1	9	Instantane	1/discharg
12/1/2020	12/31/2020	104	pH	S.U.	GG	6	Instantaneous Minimum				GG	9	Instantaneous Maxim	
1/1/2021	1/31/2021	104	pH	S.U.	7.4	6	Instantaneous Minimum				7.4	9	Instantane	1/discharg
3/1/2021	3/31/2021	104	pH	S.U.	7.8	6	Instantaneous Minimum				7.81	9	Instantane	1/discharg
4/1/2019	4/30/2019	104	Total Suspended Solids	mg/L				2	30	Average M	2	100	Daily Max	1/discharg
5/1/2019	5/31/2019	104	Total Suspended Solids	mg/L				5	30	Average M	5	100	Daily Max	1/discharg
7/1/2019	7/31/2019	104	Total Suspended Solids	mg/L		24		4	30	Average M	4	100	Daily Max	1/discharg
8/1/2019	8/31/2019	104	Total Suspended Solids	mg/L				5	30	Average M	5	100	Daily Max	1/discharg

MONITORIN	MONITORIN	VERSIC	OUTFAI	PARAMET	UNITS	C_UNITS	CONC_2_\	CONC_2_L	CONC_2_S	CONC_3_\	CONC_3_L	CONC_3_S	SAMPLE_F	SAMPLE_T
4/1/2019	4/30/2019	1	104	Total Suspended		mg/L	2	30	Average M	2	100	Daily Max	1/discharg	Grab
5/1/2019	5/31/2019	2	104	Total Suspended		mg/L	5	30	Average M	5	100	Daily Max	1/discharg	Grab
7/1/2019	7/31/2019	1	104	Total Suspended		mg/L	4	30	Average M	4	100	Daily Max	1/discharg	Grab
8/1/2019	8/31/2019	1	104	Total Suspended		mg/L	5	30	Average M	5	100	Daily Max	1/discharg	Grab
10/1/2019	10/31/2019	1	104	Total Suspended		mg/L	9	30	Average M	9	100	Daily Max	1/discharg	Grab
11/1/2019	11/30/2019	1	104	Total Suspended		mg/L	GG	30	Average M	GG	100	Daily Max	imum	
12/1/2019	12/31/2019	1	104	Total Suspended		mg/L	3	30	Average M	3	100	Daily Max	1/discharg	Grab
1/1/2020	1/31/2020	1	104	Total Suspended		mg/L	5	30	Average M	5	100	Daily Max	1/discharg	Grab
3/1/2020	3/31/2020	1	104	Total Suspended		mg/L	3	30	Average M	3	100	Daily Max	1/discharg	Grab
4/1/2020	4/30/2020	1	104	Total Suspended		mg/L	6	30	Average M	6	100	Daily Max	1/discharg	Grab
6/1/2020	6/30/2020	1	104	Total Suspended		mg/L	8	30	Average M	8	100	Daily Max	2/discharg	Grab
8/1/2020	8/31/2020	1	104	Total Suspended		mg/L	8	30	Average M	9	100	Daily Max	1/discharg	Grab
11/1/2020	11/30/2020	1	104	Total Suspended		mg/L	6	30	Average M	6	100	Daily Max	1/discharg	Grab
12/1/2020	12/31/2020	1	104	Total Suspended		mg/L	5	30	Average M	5	100	Daily Max	1/discharg	Grab
1/1/2021	1/31/2021	1	104	Total Suspended		mg/L	3	30	Average M	3	100	Daily Max	1/discharg	Grab
3/1/2021	3/31/2021	1	104	Total Suspended		mg/L	3.5	30	Average M	5	100	Daily Max	1/discharg	Grab

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