pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0085677**
Facility Type	**Industrial**	APS ID	**25011**
Major / Minor	**Minor**	Authorization ID	**1075635**

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

Applicant and Facility Information

Applicant Name	**Harley Davidson Motor Company, Operations Inc.**	Facility Name	**Former York Naval Ordnance Plant (fYNOP)**
Applicant Address	1425 Eden Road	Facility Address	1425 Eden Road
	York, PA 17402-1907		York, PA 17402-1907
Applicant Contact	Sharon Fisher	Facility Contact	
Applicant Phone	(717) 852-6544	Facility Phone	
Client ID	80030	Site ID	443840
SIC Code	3751	Municipality	Springettsbury Township
SIC Description	Manufacturing - Motorcycles, Bicycles, And Parts	County	York
Date Application Received	June 1, 2015	EPA Waived?	Yes
Date Application Accepted	June 5, 2015	If No, Reason	
Purpose of Application	NPDES RENEWAL.		

Summary of Review

This protection report is for the renewal of NPDES permit No. PA0085677 (first permitted in 1993), Harley Davidson Motor Company, Ops., Inc. (Harley Davidson), for discharge from an existing groundwater extraction and treatment system (GWTS). The GWTS was designed to treat groundwater containing volatile organic compounds (VOCs) of concern that consist of trichloroethene (TCE), tetrachloroethene (PCE), 1,1,1-trichloroethane (TCA), and degradation products, including cis-1,2-dichloroethene (cis-1,2-DCE) and 1,1-dichloroethene (1,1-DCE).

Groundwater is extracted from up to 17 pumping wells to an equalization (EQ) tank. The groundwater leaves the EQ tank and is injected with a chemical sequestrant as it is pumped to the air stripping unit for treatment before being discharged to Codorus Creek via Outfall 003.
Figure 1. Location of the facility, GWTS, and Outfall 003 (*Figure 1 from the Amended Permit Renewal, received 2/13/2018*)
Figure 2. Site Plan. (*Figure 1-2 from the Groundwater Extraction and Treatment System Annual Operations Report for the Period January 1 through December 31, 2018 Former York Naval Ordnance Plant*)

The outfall was relocated to Codorus Creek in 2005, at which time the NPDES permit limits were amended to reflect the increased flow of the receiving stream.

Currently the facility is covered under NPDES Permit No PA0085677, which expired November 30, 2015.
The renewal application was received on time on June 1, 2015.

On February 13, 2018, an amended permit renewal was received from Harley Davidson. The most notable modifications/amendments to the application package are as follows:

1. Update of the site name to former York Naval Ordnance Plant (fYNOP). Harley Davidson remains the client.

Approve	Deny	Signatures	Date
x		/s/ Brenda J. Fruchtl, P.G. / Licensed Professional Geologist	September 3, 2019
x		/s/ Scott M. Arwood, P.E. / Environmental Engineer Manager	9/5/19

Summary of Review

2. Update of projected average groundwater production flows, from the past 5 years, considering the most current pumping data from 2014 through 2017 was added, and prior production from 2010 through 2012 was eliminated. Note: The maximum flow and design flow remain unchanged.
3. Addition of a new source from three (3) recovery wells (CW-21, CW-22, and CW-23) installed in the Southern Property Boundary Area (SPBA) of the Harley Davidson property (fYNOP East Campus).
4. Updated system description and operational history in Module 2, to reflect site name change, collection well abandonments, and new SPBA collection wells.

The western portion (58 acres) of the site was sold in 2012 and then redeveloped during 2016 (the western portion is now referred to as the West Campus), and some groundwater facilities were reconfigured or abandoned. The West Campus now owned by NP York 58, LLC (NP York), has a 775,000-square foot warehouse over much of the former manufacturing area. The fYNOP team continues to retain environmental liability and obligations related to pre-sale environmental conditions on the West Campus, the former TCA Tank Area collection wells (CW-8 and CW-16) located near Building 2 on the West Campus were approved for shutdown and abandoned in January 2016, prior to construction of the warehouse.

Approximately 47,198 pounds of VOCs have been removed by the GWTS since 1990 (through 2018).

Technical Deficiencies / Clarification Requests

On April 4, 2019, a Technical Deficiency (TD) email was sent. Module 2 (received February 13, 2018) was incomplete. *On April 12, 2019, a response to the April 4, 2019 TD email was received from Harley Davidson (responses in italics)*

1. The parameters reported in the untreated groundwater differed from the parameters reported in the treated groundwater.
    a. Sample results for 1,1- Dichloroethane, cis-1,2-Dichloroethene (cis-1,2-DCE), and 1,1,1-Trichloroethane (TCA) are provided for the untreated groundwater, and not for the treated groundwater.
    b. Sample results for Methylene Chloride are provided for the treated groundwater, and not for the untreated groundwater.

    The untreated groundwater list represents those parameters that H-D believes are potentially present in site groundwater that is undergoing remediation. The list of treated groundwater parameters was prepared according to the list of compounds in H-D's current discharge permit, and that were available for reporting. H-D only tests for these permit parameters in the treated effluent.

2. According to the Module 2 Sample Results Instructions, groundwater contamination type of Chlorinated Organics should report a minimum of three sample results in both treated and untreated groundwater for the following parameters: Benzene, Toluene, Ethylbenzene, Total Xylenes, MTBE, Total Suspended Solids, pH (S.U.), Oil and Grease, Dissolved Iron, Dissolved Lead, Dissolved Mercury, Trichloroethylene, Tetrachloroethylene, Vinyl Chloride, and Naphthalene.
    a. Since the application was originally submitted in July 2015, I am only asking that you check "believed absent" next to the parameters which were not sampled (but are listed above as parameters requiring sampling for chlorinated organics groundwater contamination) and provide a brief explanation as to why those parameters are believed absent. (Note: these parameters may be required to be sampled for future renewal applications.)

    Based on the history of investigations at fYNOP, H-D does not believe that any of the other parameters listed in Module 2 are present, other than those with reported values. Therefore, H-D will revise the Module 2 pages for Treated and Untreated Groundwater, and will mark "Believed Absent" for all parameters without sample results. (Note: revised Module 2 received via email on 4/16/19)

3. The following parameters were detected in one or more of the collections wells and the influent to Outfall 003: TCA, 1,1-Dichloroethane, 1,1-Dichloroethene, cis-1,2-DCE, Methylene Chloride, PCE, TCE, and 1,4-Dioxane. Sample results should be provided for all the parameters known or suspected to be present in the untreated groundwater in the Module 2 Sample Results tables for both treated and untreated groundwater.
    a. Provide updated Module 2 Sample Results tables for both treated and untreated groundwater that includes sample results for all the parameters of concerns.

    The untreated groundwater list provided in Module 2 (Feb. 2018) represents those parameters that H-D believes are currently present in site groundwater that is undergoing remediation. All of the parameters you listed are included in the untreated groundwater list for Module 2, with exception of methylene chloride and 1,4-dioxane. H-D does

Summary of Review

not believe that methylene chloride or 1,4-dioxane are currently present in groundwater being treated. In review of quarterly influent sampling results from 2015 to present (refer to Table A-2 of the Annual Operations Reports), there has been only one detection (1/22/15) for methylene chloride. Methylene chloride had some low reported detections in individual collection wells in 2015 and 2016 (refer to Table A-1 of the Annual Operations Reports). Those results were laboratory qualified (estimated or found in blanks), with no detections since that time. Similarly the 1,4-dioxane was detected twice in collection well CW-15A over the last 4 years. The results were low or laboratory qualified. Lastly, vinyl chloride was detected in low concentrations in the untreated influent; and is represented by the data listed in Module 2 (Feb. 2018).

On April 22, 2019, I sent a follow up TD email to Harley Davidson requesting additional sampling.
On May 15, 2019, a revised Module 2 for treated groundwater was received that included the additional sampling requested.

1. In order to properly review the renewal application, the Department needs treated groundwater sample results for all the parameters present in the untreated groundwater.
    a. When I ran the Toxics Screening Analysis for the parameters detected in the untreated groundwater, cis-1,2-Dichloroethene (cis-1,2-DCE) was the only parameter detected at a high enough concentration to be of potential concern in the treated groundwater if not adequately treated. This was based on the untreated groundwater sample results provided on Module 2 as part of the amendment received on February 13, 2018. Note: Since 1,1- Dichloroethane and 1,1,1-Trichloroethane (TCA) weren't detected in the untreated groundwater at a high enough concentration to be of concern (per the Toxics Screening Analysis), additional treated groundwater samples aren't needed for these 2 parameters.
        i. Provide three (3) treated groundwater sample results for the following parameter, which was detected in the untreated groundwater at a high enough concentration to be of concern and not reported in the treated groundwater: cis-1,2-Dichloroethene (cis-1,2-DCE).
        ii. Since 3 samples are required and they must be 1 week apart, submit a revised Module 2 Sample Results for Treated Groundwater to my attention by June 15, 2019.

On April 23, 2019, I sent an email to verify the location of Outfall 003 prior to running PENTOXSD.
On April 23, 2019, a response to the April 23, 2019 email was received from Harley Davidson (response in italics)

1. Per the outfall latitude/longitude (39° 59' 22.28" / -76° 43' 20.90") on the application and the site plan, the discharge appears to be to Trib 08059 to Codorus Creek.
   When we went through the process to relocate the GWTS discharge from essentially a point on site to the Codorus Creek. PADEP reviewed the application and gave HD authorization for the discharge point to be on the east side of the flapper valve at Codorus Creek; and that the point is considered to be Codorus Creek. The concern was that they did not want a discharge pipe through the Army Corp levee or in the pipe of the flapper valve due to the risk to impact potential flooding.

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.	003	Design Flow (MGD)	0.576
Latitude	39º 59' 22.28"	Longitude	-76º 43' 20.90"
Quad Name	York	Quad Code	1932
Wastewater Description:	Groundwater Cleanup Discharge		

Receiving Waters	Codorus Creek (WWF, MF)	Stream Code	08032
NHD Com ID	57467537	RMI	9.3
Drainage Area	256 mi^2*	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	34.8*	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	338	Slope (ft/ft)	0
Watershed No.	7-H	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	ALGAE, CAUSE UNKNOWN, FLOW REGIME MODIFICATION, FLOW REGIME MODIFICATION, FLOW REGIME MODIFICATION, HABITAT ALTERATIONS, SILTATION, TOXICITY		
Source(s) of Impairment	CHANNELIZATION, CHANNELIZATION, URBAN RUNOFF/STORM SEWERS, URBAN RUNOFF/STORM SEWERS, URBAN RUNOFF/STORM SEWERS, URBAN RUNOFF/STORM SEWERS, URBAN RUNOFF/STORM SEWERS		

Nearest Downstream Public Water Supply Intake	Wrightsville Boro Municipal Authority		
PWS Waters	Susquehanna River	Location	Hellam Twp, York Co
PWS RMI	29	Distance from Outfall (mi)	16

*USGS StreamStats: Pennsylvania. (Basin Delineation from April 22, 2019, see Figure 3)

Changes Since Last Permit Issuance:
The groundwater extraction wells that supply the groundwater to the GWTS have changed. These changes affected the Average Flow to Outfall 003. The Maximum Flow and Design Flow have remained unchanged.

Note: When Harley Davidson (HD) went through the process to relocate the GWTS discharge from essentially a point on site to the Codorus Creek. PADEP reviewed the application and gave HD authorization for the discharge point to be on the east side of the flapper valve at Codorus Creek; and that the point is considered to be Codorus Creek. The concern was that they did not want a discharge pipe through the Army Corp levee or in the pipe of the flapper valve due to the risk to impact potential flooding.

Treatment Facility Summary

Treatment Facility Name: Former York Naval Ordnance Plant

Currently, the groundwater can be extracted from 17 pumping wells (CW-1, CW-1A, CW-2 through CW-7, CW-7A, CW-9, CW-13, CW-15A, CW-17, CW-20, CW-21, CW-22, and CW-23) operating in 3 separate areas designated as the Northeast Property Boundary Area (NPBA), the West Parking Lot (WPL) Area, and the Southern Boundary Area (SPBA). (see Figure 2, location of the extraction wells and collections areas for the GWTS (*Figure 1-2 from the Groundwater Extraction and Treatment System Annual Operations Report for the Period January 1 through December 31, 2018 Former York Naval Ordnance Plant*)). All extracted groundwater is piped to a central GWTS located in the groundwater treatment building (Building 41A). The treatment system consists of a 2600-gallon equalization (EQ) tank; a 5-foot diameter by 47-foot high packed tower aerator (PTA) capable of treating up to 400 gallons per minute of groundwater by air stripping technology; and a 10,000-pound vapor-phase granular activated carbon (GAC) unit for PTA off-gas treatment.

Extracted groundwater is pumped from the EQ tank to the top of the PTA. Redux 525 sequestering agent is injected into this flow at an approximate rate of 20 ppm to prevent calcium scale deposits on the packing material (and effluent pump system). Groundwater is then evenly distributed over the top of the polypropylene packing and flows down through the packed section of the PTA, while a 4000-cubic-foot-per-minute centrifugal blower draws fresh air up through the PTA column. The VOCs are effectively “stripped” from the water and then adsorded to the GAC in the air-phase.

The treated groundwater flows by gravity to a wet well (effluent pump station) located on the north side of Building 41 A where it is pumped approximately 1600 feet via an 8-inch underground force main to Outfall 003 and discharged to Codorus Creek.

The WPL area wells include CW-9, CW-13, CW-15A, CW-17, and CW-20; the SPBA wells include CW-21, CW-22, and CW-23; and the NPBA wells include CW-1 through CW -7A).

The planned future operations will include pumping and treating groundwater from 5 West Campus/WPL wells (CW-9, CW-13, CW-15A, CW-17, and CW-20) and 3 East Campus/SPBA wells (CW-21, CW-22, and CW-23). The remainder of the East Campus/NPBA pumping wells will remain off, but functional, pending completion of their approved shutdown monitoring studies. The SPBA wells became operational on October 31, 2018. The WPL and SPBA wells will continue operation pending completion of groundwater remedial investigations, remedial alternatives analysis, and final remedy selections.

See Figure 4, Schematic of Groundwater and Discharge Flows (*from the Amended Permit Renewal, received 2/13/2018*)

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Industrial	Physical (Industrial Waste)	Gas Phase Separation	No Disinfection	0.576

Changes Since Last Permit Issuance: The only changes were to the extraction wells being used to pump contaminated groundwater to the GWTS.

Compliance History	
Summary of DMRs:	**Quarterly eDMRs have been submitted since the fourth quarter of 2008.** *pH, Methylene Chloride, Tetrachloroethylene, 1,1-Dichloroethylene, Vinyl Chloride, and Trichloroethylene* **Monthly eDMRs have been submitted since September 2008.** *Flow* DMR results from Jan 2015-Aug 2019 **1,1-Dichloroethylene** was reported as non-detect for Avg Mo, Daily Max, and IMAX *(detection limit ranged from 0.001 to 0.0002 mg/L)* **Methylene Chloride** was reported as non-detect for Avg Mo, Daily Max, and IMAX *(detection limit ranged from 0.001 to 0.0003 mg/L)* **Tetrachloroethylene** was reported as non-detect for Avg Mo, Daily Max, and IMAX *(detection limit ranged from 0.001 to 0.0002 mg/L)* **Trichloroethylene** was reported as non-detect for Avg Mo, Daily Max, and IMAX *(detection limit ranged from 0.001 to 0.0002 mg/L)* **pH** was consistently between 6.0 and 9.0 SU **Vinyl Chloride** was reported as non-detect for Avg Mo, Daily Max, and IMAX *(detection limit ranged from 0.002 to 0.0003 mg/L)* **Average flow** was 0.317 MGD for the period from January 2015 through July 2019, according to the average monthly results reported for January 2015 through July 2019. **Maximum daily flow** was 0.402 MGD for the period from January 2015 through July 2019, according to the monthly reported Daily Max results. No permit limits were exceeded in the past 5 years.
Summary of Inspections:	DEP conducted a complaint inspection on 04/25/2016. No violations were noted. DEP conducted a compliance evaluation on 07/30/2015. No violations were noted.

Other Comments: There have been no violations reported for this facility. There are not any open violations for the facility

Summary of Influent data to GWTS and data collected at Outfall 003 for 2017 and 2018:

- See Table A-2: Water Quality Analyses (January 1, 2017 – December 31, 2017) *from the Groundwater Extraction and Treatment System Annual Operations Report for the Period January 1 through December 31, 2017 Former York Naval Ordnance Plant* (Figure 5)

- See Table A-2: Water Quality Analyses (January 1, 2018 – December 31, 2018) *from the Groundwater Extraction and Treatment System Annual Operations Report for the Period January 1 through December 31, 2018 Former York Naval Ordnance Plant* (Figure 6)

Development of Effluent Limitations

Outfall No. 003 **Design Flow (MGD)** .576
Latitude 39º 59' 22.28" **Longitude** -76º 43' 20.90"
Wastewater Description: Groundwater Cleanup Discharge

Chemical Additives

On June 4, 2015, Harley Davidson submitted a New Chemicals Additives Request Form for Redux-525 to DEP – Central Office for review and approval.
On January 21, 2016, Redux-525 was added to the approved list.
On February 10, 2016, Harley Davidson submitted (via email) the Chemical Additives Notification Form for Redux-525.
The maximum usage rate for Redux 525 is 332.7 lbs/day. This is the only chemical additive to be used at the facility.

Water Quality-Based Limitations

A "Toxics Screening Analysis" (Attachment A) determined the following parameters were candidates for PENTOXSD Modeling: Tetrachloroethylene (PCE), Trichloroethylene (TCE), Vinyl Chloride, 1,1-Dichloroethylene, and 1,2-cis-Dichloroethylene.

The maximum concentration for the parameters was taken from the Module 2 untreated groundwater sample results included with the amendment received on February 13, 2018.
The exception was Methylene Chloride which has not been detected in the influent; therefore, the influent detection limit of 2 ug/L was utilized (taken from the Groundwater Extraction and Treatment System Annual Operations Reports for 2017 and 2018)

Development of Effluent Limitations

Since the purpose of the groundwater treatment system is to treat for contaminated groundwater, limitations were established based on the maximum concentrations of pollutants in the untreated groundwater to evaluate the effectiveness of the treatment system.

PENTOXSD was run on the pollutants of concern as determined from the Toxics Screening Analysis.
The PENTOXSD Analysis Results and Modeling Input Data are attached (Attachment B).

Comparison of Effluent Limitations and Parameters from 2010 NPDES Permit and Draft NPDES Permit:

	2010 NPDES Permit Limits Renewal			**Proposed 2019 NPDES Permit Limits Renewal**				
Parameter	*Ave Monthly*	*Max Daily*	*Inst. Maximum*	**Ave Quarterly**	**Max Daily**	**Inst. Maximum**	**Max Concentration Untreated GW***	**Pollutant of Concern****
Flow (MGD)	*xxx*	*xxx*	*xxx*	**xxx**	**xxx**	**xxx**	n/a	n/a
pH (SU)	*From 6.0 to 9.0 inclusive*			**From 6.0 to 9.0 inclusive**			n/a	n/a
Tetrachloroethylene (mg/L)	*0.168*	*0.336*	*0.420*	**0.123**	**0.246**	**0.307**	0.638	yes
Trichloroethylene (mg/L)	*0.567*	*1.134*	*1.417*	**0.448**	**0.896**	**1.12**	0.561	yes
1,1-Dichloroethylene	*0.012*	*0.024*	*0.030*	**0.012**	**0.024**	**0.030**	0.123	Yes
Vinyl Chloride	*0.420*	*0.840*	*1.050*	**0.004**	**0.008**	**0.010**	0.010	Yes
Methylene Chloride	*0.987*	*1.974*	*2.467*	**Removed Parameter**			<0.002	No
1,2 cis-Dichloroethylene	*Parameter not in 2010 Permit*			**0.460**	**0.920**	**1.15**	1.050	Yes

** from Module 2 (received with February 13, 2018 Amendment.*
*** According to Toxics Screening Analysis (Figure 7)*

Explanation of changes to the effluent limitations and parameters from the 2010 NPDES Permit renewal:

1. **Tetrachloroethylene**
    a. Draft limits for this parameter are slightly more stringent than the 2010 Permit Limits
    b. The Chapter 93 Water Quality Criteria for Tetrachloroethylene changed from 0.8 ug/L to 0.69 ug/L since the last renewal. Since the water quality criteria became slightly more stringent, the proposed permit limitations are slightly more stringent.

2. **Trichloroethylene**
    a. Draft limits for this parameter are slightly more stringent than the 2010 Permit Limits.
    b. The Chapter 93 Water Quality Criteria for Trichloroethylene changed from 2.7 ug/L to 2.5 ug/L since the last renewal. Since the water quality criteria became slightly more stringent, the proposed permit limitations are slightly more stringent.

3. **1,1-Dichloroethylene**
    a. Draft limits for this parameter are the same as the 2010 Permit Limits
    b. The Chapter 93 Water Quality Criteria for 1,1-Dichloroethylene changed from 0.057 ug/L to 33 ug/L since the last renewal. Since the water quality criteria became much less stringent, PENTOXSD recommended effluent limitations were much less stringent.
    c. Due to antibacksliding rules apply, the 2010 permit effluent limitations will remain in effect.

4. **Vinyl Chloride**
    a. Draft limits for this parameter are significantly more stringent than the 2010 Permit Limits
    b. The Chapter 93 Water Quality Criteria for Trichloroethylene changed from 2 ug/L to 0.025 ug/L since the last renewal. Since the water quality criteria became significantly more stringent, the proposed permit limitations are significantly more stringent.
    c. The more stringent limits for Vinyl Chloride is obtainable since Vinyl Chloride has been reported as non-detect at a method detection limit that ranged from 0.002 to 0.0003 mg/L, which is below the draft limits being proposed.

5. **Methylene Chloride**
    a. Recommend removing this parameter from the proposed permit.
    b. Methylene Chloride was not indicated as a parameter of concern according to the Toxics Screening Analysis.
    c. It has not been detected in the effluent or influent over the past few years.

6. **1,2 cis-Dichloroethylene**
    a. Recommend adding this parameter to the proposed permit.
    b. 1,2 cis-Dichloroethylene has been detected in the untreated groundwater.
    c. It was indicated as a parameter of concern according to the Toxics Screening Analysis. And indicated to establish limits based on PENTOXSD Most Stringent WQBEL.

Part C Special Conditions

I. Other Requirement (standard)

II. Chemical Additives

III. Groundwater Cleanup – Volatile Organic Compounds; Air Stripper
Note: Copied from Part C of the 2010 NPDES Permit with minor edits.

A. Sludges and other solids shall be handled and disposed of in compliance with 25 Pa. Code, Chapters 262, 263, and 264 (related to permits and requirements for landfilling and storage of hazardous sludge) and applicable federal regulations, the Federal Clean Water Act, RCRA and their amendments. The permittee is responsible to obtain or assure that contracted agents have all necessary permits and approvals for the handling, storage, transport and disposal of solid waste materials generated as a result of wastewater treatment.

B. The permittee shall conduct annual sampling and analysis of the influent to the treatment facility for the pollutants listed in Part A.1.A of this permit. The annual influent analysis results shall be submitted to the Clean

Water Program annually. If the permittee analyzes for any other pollutant and/or performs any analysis more frequently than annually, the results shall be reported.

C. There shall be no discharge of stripper tower cleaning wastewaters to waters of the Commonwealth. Cleaning wastewaters shall be discharged to the sanitary sewer or hauled off site for proper disposal.

D. The permittee shall operate the treatment facilities approved herein on a continual basis. If accidental breakdown or normal periodic maintenance should cause cessation of operation, the permittee shall take satisfactory measures to ensure the treatment works are placed back in operation at the earliest possible time. The permittee shall orally report to the Department within 24 hours of an unanticipated temporary shutdown of the treatment facility that is longer than 24 hours in duration or at least 24 hours prior to an anticipated maintenance shutdown.

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 003, 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	Average Monthly	Daily Maximum	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Min	XXX	9.0	XXX	1/quarter	Grab
1,1-Dichloroethylene	XXX	XXX	0.012	0.024	XXX	0.030	1/quarter	Grab
1,2 cis-Dichloroethylene	XXX	XXX	0.460	0.920	XXX	1.150	1/quarter	Grab
Tetrachloroethylene	XXX	XXX	0.123	0.246	XXX	0.307	1/quarter	Grab
Trichloroethylene	XXX	XXX	0.448	0.896	XXX	1.120	1/quarter	Grab
Vinyl Chloride	XXX	XXX	0.004	0.008	XXX	0.010	1/quarter	Grab

Compliance Sampling Location: Outfall 003

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☒	PENTOXSD for Windows Model (see Attachment B)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☒	Toxics Screening Analysis Spreadsheet (see Attachment A)
☒	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:

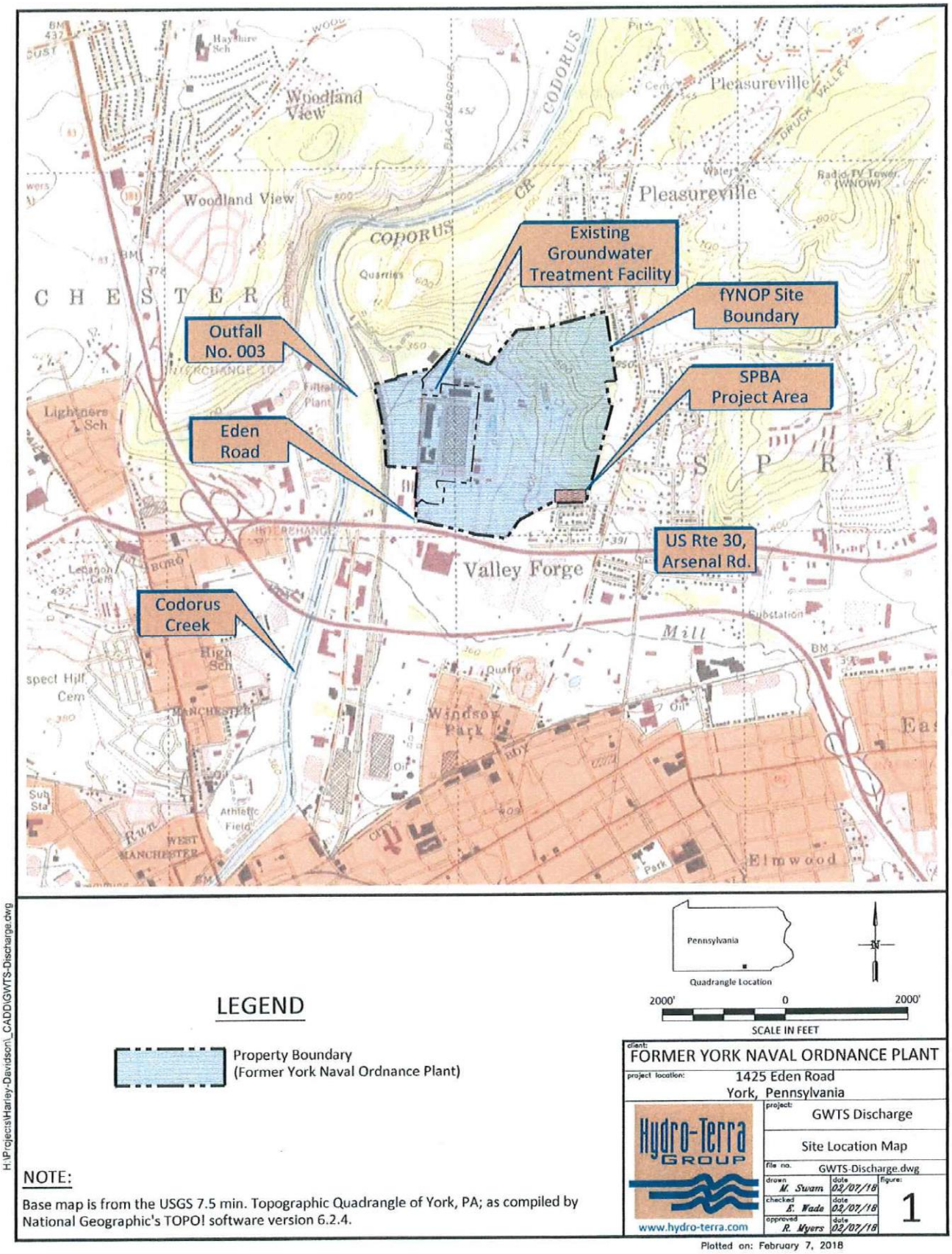


Figure 1. Location of the facility, GWTS, and Outfall 003 (*Figure 1 from the Amended Permit Renewal, received 2/13/2018*)

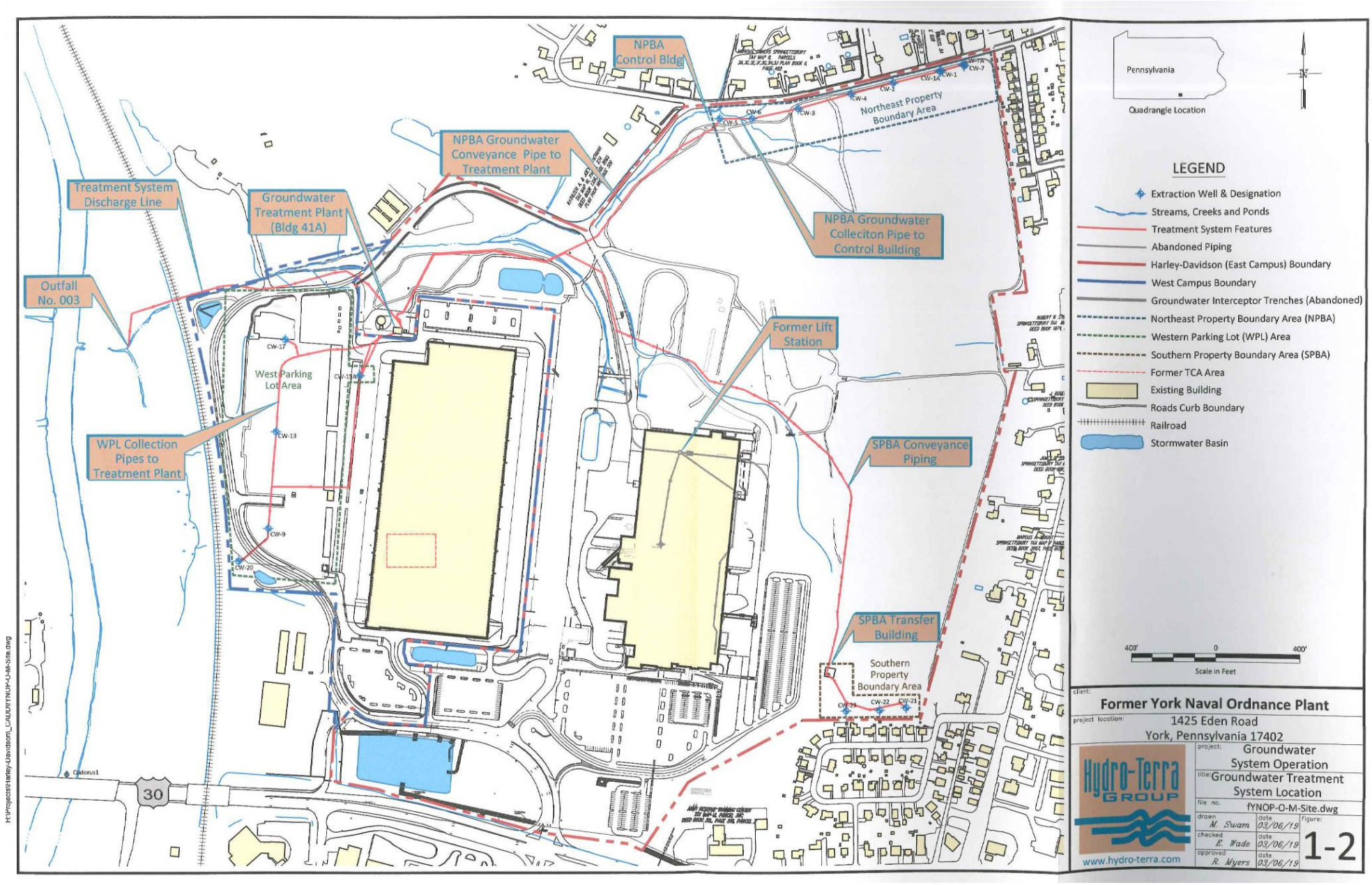
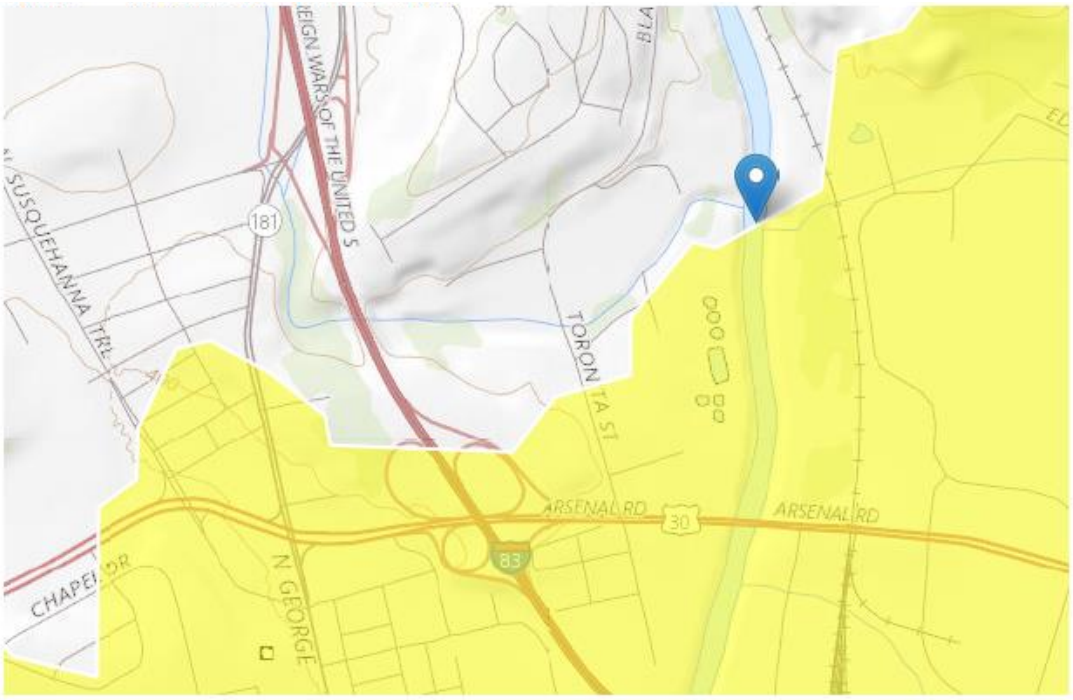


Figure 2. Site Plan. (*Figure 1-2 from the Groundwater Extraction and Treatment System Annual Operations Report for the Period January 1 through December 31, 2018 Former York Naval Ordnance Plant*)

Harley Davidson Motor Company Ops Inc. / former York Naval Ordnance Plant (fYNOP). NPDES Permit No PA0085677.

Region ID: PA
Workspace ID: PA20190422152610376000
Clicked Point (Latitude, Longitude): 39.98972, -76.72330
Time: 2019-04-22 11:26:25 -0400



Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	256	square miles	4.78	1150

Low-Flow Statistics Flow Report [Low Flow Region 1]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	SEp
7 Day 2 Year Low Flow	61	ft^3/s	46	46
30 Day 2 Year Low Flow	76.6	ft^3/s	38	38
7 Day 10 Year Low Flow	34.8	ft^3/s	51	51
30 Day 10 Year Low Flow	43.6	ft^3/s	46	46
90 Day 10 Year Low Flow	59.7	ft^3/s	41	41

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Figure 3. Basin Delineation from April 22, 2019 (USGS StreamStats: Pennsylvania)

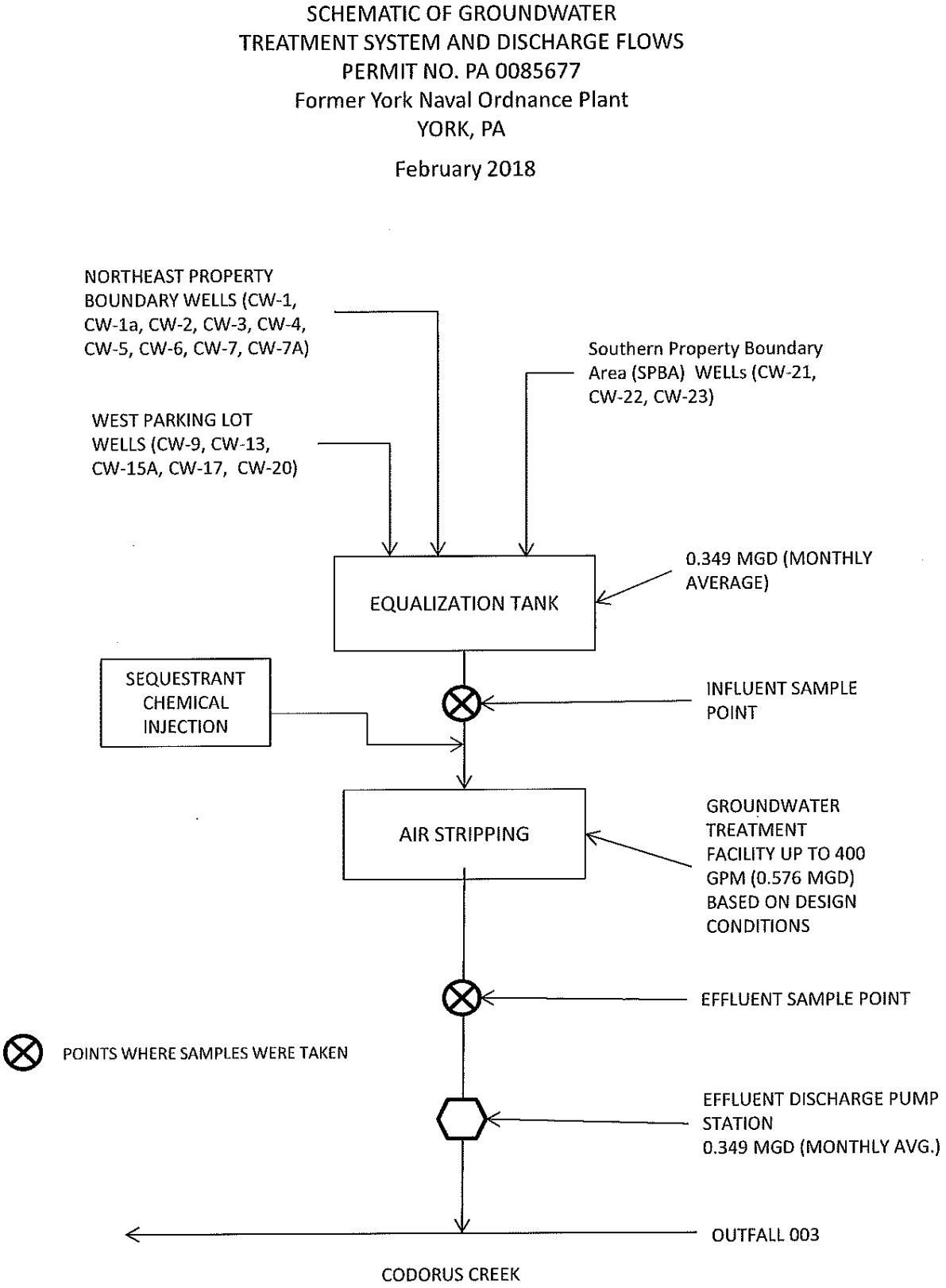


Figure 4. Schematic of Groundwater and Discharge Flows (*from the Amended Permit Renewal, received 2/13/2018*)

TABLE A-2
WATER QUALITY ANALYSES
PACKED TOWER AERATOR SAMPLES (January 1, 2017 - December 31, 2017)
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

Sample ID Lab ID Sample Date Parameter	Units	Outfall #003 GWTS WW 8796277 1/19/2017 Result	Outfall #003 GWTS WW 8946707 4/19/2017 Result	Outfall #003 GWTS WW 9112285 7/20/2017 Result	Outfall #003 GWTS WW 9284737 10/26/2017 Result
1,1-DICHLOROETHENE	ug/l	N.D.@0.5	N.D.@0.5	N.D.@0.5	N.D.@0.5
TETRACHLOROETHENE	ug/l	N.D.@0.5	N.D.@0.5	N.D.@0.5	N.D.@0.5
TRICHLOROETHENE	ug/l	N.D.@0.5	N.D.@0.5	N.D.@0.5	N.D.@0.5
METHYLENE CHLORIDE	ug/l	N.D.@0.5	N.D.@0.5	N.D.@0.5	N.D.@0.5
VINYL CHLORIDE	ug/l	N.D.@0.5	N.D.@0.5	N.D.@0.5	N.D.@0.5
TOTAL VOCs	ug/l	0	0	0	0

Sample ID Lab ID Sample Date Parameter	Units	Influent to #003 GWTS WW 8796276 1/19/2017 Result	Influent to #003 GWTS WW 8946708 4/19/2017 Result	Influent to #003 GWTS WW 9112286 7/20/2017 Result	Influent to #003 GWTS WW 9284736 10/26/2017 Result
1,1,1-TRICHLOROETHANE	ug/l	270	130	140	93
1,1-DICHLOROETHANE	ug/l	8.1	8.1	7.8	6.8
1,1-DICHLOROETHENE	ug/l	49	30	26	23
1,2-DICHLOROETHANE	ug/l	N.D.@1	N.D.@0.2	N.D.@1	N.D.@0.5
CHLOROBENZENE	ug/l	N.D.@1	N.D.@0.2	N.D.@1	N.D.@0.5
CHLOROFORM	ug/l	N.D.@1	0.4 J	N.D.@1	N.D.@0.5
METHYLENE CHLORIDE	ug/l	N.D.@2	N.D.@0.2	N.D.@2	N.D.@0.5
TETRACHLOROETHENE	ug/l	380	390	520	400
TRICHLOROETHENE	ug/l	240	240	270	200
VINYL CHLORIDE	ug/l	1.5 J	1	N.D.@1	1.0 J
CIS 1,2-DICHLOROETHENE	ug/l	330	240	240	200
TRANS 1,2-DICHLOROETHENE	ug/l	N.D.@1	1.0 J	N.D.@1	1.6 J
TOTAL VOCs	ug/l	1277	1039	1204	923

All Analysis Performed by Eurofins Lancaster Laboratories Environmental (ELLE) - Lancaster, PA
ug/l - micrograms per liter
J - Estimated value ≥ the Method Detection Limet (MDL) and < the Limit of Quanitation (LOQ or RL)
N.D.@1 - not detected at indicated concentration
PTA Infl. - Official sample name is "influent to #003 GWTS"
PTA Effl. - Official sample name is "outfall #003 GWTS"

Page 1 of 1

Figure 5. Table A-2: Water Quality Analyses January 1, 2017 – December 31, 2017 (*from the Groundwater Extraction and Treatment System Annual Operations Report for the Period January 1 through December 31, 2017 Former York Naval Ordnance Plant*)

TABLE A-2
WATER QUALITY ANALYSES
PACKED TOWER AERATOR SAMPLES (January 1, 2018 - December 31, 2018)
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

Sample ID Lab ID Sample Date Parameter	Units	Outfall #003 GWTS WW 9407158 1/15/2018 Result	Outfall #003 GWTS WW 9564859 4/18/2018 Result	Outfall #003 GWTS WW 9711432 7/19/2018 Result	Outfall #003 GWTS WW 9866121 10/24/2018 Result
1,1-DICHLOROETHENE	ug/l	N.D.@0.5	N.D.@0.5	N.D.@0.5	N.D.@0.2
TETRACHLOROETHENE	ug/l	N.D.@0.5	N.D.@0.5	N.D.@0.5	N.D.@0.3
TRICHLOROETHENE	ug/l	N.D.@0.5	N.D.@0.5	N.D.@0.5	N.D.@0.2
METHYLENE CHLORIDE	ug/l	N.D.@0.5	N.D.@0.5	N.D.@0.5	N.D.@0.2
VINYL CHLORIDE	ug/l	N.D.@0.5	N.D.@0.5	N.D.@0.5	N.D.@0.3
TOTAL VOCs	ug/l	0	0	0	0

Sample ID Lab ID Sample Date Parameter	Units	Influent to #003 GWTS WW 9407157 1/15/2018 Result	Influent to #003 GWTS WW 9564858 4/18/2018 Result	Influent to #003 GWTS WW 9711431 7/19/2018 Result	Influent to #003 GWTS WW 9866120 10/24/2018 Result
1,1,1-TRICHLOROETHANE	ug/l	45	110	88	78
1,1-DICHLOROETHANE	ug/l	5.7	6	5.8	4.9
1,1-DICHLOROETHENE	ug/l	9.3	23	14	15
1,2-DICHLOROETHANE	ug/l	N.D.@1	N.D.@1	N.D.@1	N.D.@0.1
CHLOROBENZENE	ug/l	N.D.@1	N.D.@1	N.D.@1	N.D.@0.1
CHLOROFORM	ug/l	N.D.@1	N.D.@1	N.D.@1	0.4 J
METHYLENE CHLORIDE	ug/l	N.D.@2	N.D.@2	N.D.@2	N.D.@0.1
TETRACHLOROETHENE	ug/l	550	320	370	280
TRICHLOROETHENE	ug/l	210	180	190	140
VINYL CHLORIDE	ug/l	N.D.@1	1.1 J	N.D.@1	0.6 J
CIS 1,2-DICHLOROETHENE	ug/l	120	240	210	150
TRANS 1,2-DICHLOROETHENE	ug/l	N.D.@1	N.D.@1	5.1	0.7 J
TOTAL VOCs	ug/l	940	879	883	668

All Analysis Performed by Eurofins Lancaster Laboratories Environmental (ELLE) - Lancaster, PA
ug/l - micrograms per liter
J - Estimated value ≥ the Method Detection Limet (MDL) and < the Limit of Quanitation (LOQ or RL)
N.D.@1 - not detected at indicated concentration
PTA Infl. - Official sample name is "influent to #003 GWTS"
PTA Effl. - Official sample name is "outfall #003 GWTS"

Page 1 of 1

Figure 6. Table A-2: Water Quality Analyses January 1, 2018 – December 31, 2018 (*from the Groundwater Extraction and Treatment System Annual Operations Report for the Period January 1 through December 31, 2018 Former York Naval Ordnance Plant*)

ATTACHMENT A

Toxics Screening Analysis

TOXICS SCREENING ANALYSIS
WATER QUALITY POLLUTANTS OF CONCERN
VERSION 2.7

CLEAR FORM

Facility: **Harley Davidson (fYNOP)** NPDES Permit No.: **PA0085677** Outfall: **003**
Analysis Hardness (mg/L): **100** Discharge Flow (MGD): **0.576** Analysis pH (SU): **7**
Stream Flow, Q_{7-10} (cfs): **34.8**

Parameter	Maximum Concentration in Application or DMRs (µg/L)		Most Stringent Criterion (µg/L)	Candidate for PENTOXSD Modeling?	Most Stringent WQBEL (µg/L)	Screening Recommendation
Total Dissolved Solids			500000			
Chloride			250000			
Bromide			N/A			
Sulfate			250000			
1,4-Dioxane			N/A			
Trichloroethylene		561	2.5	Yes	448.571	Establish Limits
Tetrachloroethylene		638	0.69	Yes	123.806	Establish Limits
Vinyl Chloride		10	0.025	Yes	4.486	Establish Limits
1,1-Dichloroethane		26	N/A	No		
1,1-Dichloroethylene		123	33	Yes	1265.493	No Limits/Monitoring
1,2-cis-Dichloroethylene		1050	12	Yes	460.179	Establish Limits
1,1,1-Trichloroethane		403	610	No		
Methylene Chloride		2	4.6	No		

PA0085677 Toxics Screening Analysis Spreadsheet Aug 2019, 8/29/2019

ATTACHMENT B

PENTOXSD Analysis Results

PENTOXSD Analysis Results

Recommended Effluent Limitations

SWP Basin	Stream Code:	Stream Name:
07H	8032	CODORUS CREEK

RMI	Name	Permit Number	Disc Flow (mgd)
9.30	Harley Davidson	PA0085677	0.5760

Parameter	Effluent Limit (µg/L)	Governing Criterion	Max. Daily Limit (µg/L)	Most Stringent WQBEL (µg/L)	Most Stringent WQBEL Criterion
1,1-DICHLOROETHYLENE	1265.493	THH	1974.373	1265.493	THH
1,2 cis-DICHLOROETHYLENE	460.179	THH	717.954	460.179	THH
TETRACHLOROETHYLENE	123.806	CRL	193.157	123.806	CRL
TRICHLOROETHYLENE	448.571	CRL	699.843	448.571	CRL
VINYL CHLORIDE	4.486	CRL	6.998	4.486	CRL

PENTOXSD

Modeling Input Data

Stream Code	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope	PWS With (mgd)	Apply FC
8032	9.30	338.00	256.00	0.00000	0.00	☑

Stream Data

	LFY	Trib Flow	Stream Flow	WD Ratio	Rch Width	Rch Depth	Rch Velocity	Rch Trav Time	Tributary Hard	Tributary pH	Stream Hard	Stream pH	Analysis Hard	Analysis pH
	(cfsm)	(cfs)	(cfs)		(ft)	(ft)	(fps)	(days)	(mg/L)		(mg/L)		(mg/L)	
Q7-10	0.13	0	0	0	0	0	0	0	100	7	0	0	0	0
Qh		0	0	0	0	0	0	0	100	7	0	0	0	0

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	AFC PMF	CFC PMF	THH PMF	CRL PMF	Disc Hard (mg/L)	Disc pH
Harley Davidson	PA0085677	0	0	0.576	0	0	0	0	0	100	7

Parameter Data

Parameter Name	Disc Conc (µg/L)	Trib Conc (µg/L)	Disc Daily CV	Disc Hourly CV	Steam Conc (µg/L)	Stream CV	Fate Coef	FOS	Crit Mod	Max Disc Conc (µg/L)
1,1,1-TRICHLOROETHANE	55555	0	0.5	0.5	0	0	0	0	1	0
1,1-DICHLOROETHYLENE	55555	0	0.5	0.5	0	0	0	0	1	0
1,2 cis-DICHLOROETHYLENE	55555	0	0.5	0.5	0	0	0	0	1	0
METHYLENE CHLORIDE	55555	0	0.5	0.5	0	0	0	0	1	0
TETRACHLOROETHYLENE	55555	0	0.5	0.5	0	0	0	0	1	0
TRICHLOROETHYLENE	55555	0	0.5	0.5	0	0	0	0	1	0
VINYL CHLORIDE	55555	0	0.5	0.5	0	0	0	0	1	0

Stream Code	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope	PWS With (mgd)	Apply FC
8032	6.60	330.00	265.00	0.00000	0.00	☑

Stream Data

	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Rch Velocity (fps)	Rch Trav Time (days)	Tributary Hard (mg/L)	Tributary pH	Stream Hard (mg/L)	Stream pH	Analysis Hard (mg/L)	Analysis pH
Q7-10	0.13	0	0	0	0	0	0	0	100	7	0	0	0	0
Qh		0	0	0	0	0	0	0	100	7	0	0	0	0

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	AFC PMF	CFC PMF	THH PMF	CRL PMF	Disc Hard (mg/L)	Disc pH
		0	0	0	0	0	0	0	0	100	7

Parameter Data

Parameter Name	Disc Conc (µg/L)	Trib Conc (µg/L)	Disc Daily CV	Disc Hourly CV	Steam Conc (µg/L)	Stream CV	Fate Coef	FOS	Crit Mod	Max Disc Conc (µg/L)
1,1,1-TRICHLOROETHANE	0	0	0.5	0.5	0	0	0	0	1	0
1,1-DICHLOROETHYLENE	0	0	0.5	0.5	0	0	0	0	1	0
1,2 cis-DICHLOROETHYLENE	0	0	0.5	0.5	0	0	0	0	1	0
METHYLENE CHLORIDE	0	0	0.5	0.5	0	0	0	0	1	0
TETRACHLOROETHYLENE	0	0	0.5	0.5	0	0	0	0	1	0
TRICHLOROETHYLENE	0	0	0.5	0.5	0	0	0	0	1	0
VINYL CHLORIDE	0	0	0.5	0.5	0	0	0	0	1	0

PENTOXSD Analysis Results

Hydrodynamics

SWP Basin	Stream Code:	Stream Name:
07H	8032	CODORUS CREEK

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope	Depth (ft)	Width (ft)	WD Ratio	Velocity (fps)	Reach Trav Time (days)	CMT (min)
Q7-10 Hydrodynamics											
9.300	33.28	0	33.28	0.89107	0.0006	0.956	95.632	100.04	0.3738	0.4414	536.99
6.600	34.45	0	34.45	NA	0	0	0	0	0	0	NA
Qh Hydrodynamics											
9.300	158.99	0	158.99	0.89107	0.0006	1.885	95.632	50.733	0.8869	0.1860	202.193
6.600	163.87	0	163.87	NA	0	0	0	0	0	0	NA

PENTOXSD Analysis Results

Wasteload Allocations

RMI	Name	Permit Number
9.30	**Harley Davidson**	**PA0085677**

AFC

Q7-10: **CCT (min)** 15 **PMF** 0.167 **Analysis pH** 7 **Analysis Hardness** 100

Parameter	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)
1,1-DICHLOROETHYLENE	0	0	0	0	7500	7500	54315.96
TETRACHLOROETHYLENE	0	0	0	0	700	700	5069.49
TRICHLOROETHYLENE	0	0	0	0	2300	2300	16656.89
VINYL CHLORIDE	0	0	0	0	NA	NA	NA
1,2 cis-DICHLOROETHYLENE	0	0	0	0	NA	NA	NA

CFC

Q7-10: **CCT (min)** 536.99 **PMF** 1 **Analysis pH** 7 **Analysis Hardness** 100

Parameter	Stream Conc. (µg/L)	Stream CV	Trib Conc. (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)
1,1-DICHLOROETHYLENE	0	0	0	0	1500	1500	57522.41
TETRACHLOROETHYLENE	0	0	0	0	140	140	5368.758
TRICHLOROETHYLENE	0	0	0	0	450	450	17256.72
VINYL CHLORIDE	0	0	0	0	NA	NA	NA
1,2 cis-DICHLOROETHYLENE	0	0	0	0	NA	NA	NA

THH

Q7-10: **CCT (min)** 536.99 **PMF** 1 **Analysis pH** NA **Analysis Hardness** NA

Parameter	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)
1,1-DICHLOROETHYLENE	0	0	0	0	33	33	1265.493
TETRACHLOROETHYLENE	0	0	0	0	NA	NA	NA
TRICHLOROETHYLENE	0	0	0	0	NA	NA	NA
VINYL CHLORIDE	0	0	0	0	NA	NA	NA

PENTOXSD Analysis Results

Wasteload Allocations

RMI	Name	Permit Number						
9.30	**Harley Davidson**	**PA0085677**						
1,2 cis-DICHLOROETHYLENE			0	0	0	0	12	12	460.179

CRL

Qh: **CCT (min)** 202.193 **PMF** 1

Parameter	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)
1,1-DICHLOROETHYLENE	0	0	0	0	NA	NA	NA
TETRACHLOROETHYLENE	0	0	0	0	0.69	0.69	123.806
TRICHLOROETHYLENE	0	0	0	0	2.5	2.5	448.571
VINYL CHLORIDE	0	0	0	0	0.025	0.025	4.486
1,2 cis-DICHLOROETHYLENE	0	0	0	0	NA	NA	NA