



110 ALLAN STREET
LOWER BURRELL
PENNSYLVANIA 15068

TELE: 724-594-0326

FAX: 724-594-0328

WWW.STREAMLINEENGINEERING.NET

**JOINT APPLICATION
PENNSYLVANIA WATER OBSTRUCTION AND
ENCROACHMENT PERMIT AND U.S. ARMY CORPS
OF ENGINEERS SECTION 404 PERMIT**

**PROPOSED QUAKER VALLEY SCHOOL DISTRICT
NEW HIGH SCHOOL CAMPUS**

**LEET TOWNSHIP, EDGEWORTH BOROUGH &
LEETSDALE BOROUGH
ALLEGHENY COUNTY, PENNSYLVANIA**

Prepared For:

**QUAKER VALLEY SCHOOL DISTRICT
100 LEETSDALE INDUSTRIAL DRIVE
SUITE B
LEETSDALE, PENNSYLVANIA 15056**

Prepared By:

**STREAMLINE ENGINEERING INC.
110 ALLAN STREET
LOWER BURRELL, PA 15068**

PROJECT NO. 21-109

**JANUARY 24, 2025
REVISED APRIL 8, 2025
REVISED AUGUST 14, 2025
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Joint Permit Application

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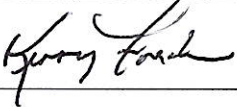
ATTACHMENT J
Environmental Assessment



CHAPTER 105 ENVIRONMENTAL ASSESSMENT FORM

Item
Included Location

Note: The Department may waive a specific information requirement in writing, at the request of the Applicant, during the pre-application review process if the Department determines the information is not necessary to complete the review.			
Module S1: Project Summary			
<i>This module is intended to organize information in order to present an overall summary of the project scope, certain key information requirements and when applicable, a comprehensive view of the overall project and related projects.</i>			
A. Provide an overall project description and If the answer to the question below is YES , address CEA requirements; otherwise proceed to S1.B Comprehensive Environmental Assessment (CEA) when applicable. Answer the following question:			Sup S1A
Does the "overall" project require more than one Ch. 105 permit in more than one county or will the project be completed in more than one phase?			
☐ Yes ☒ No			
B. Provide information related to the project purpose, need, water dependency and summarize the amount and type of resources present and the temporary and permanent impacts proposed to those resources.			Sup S1B
Module S2: Resource Identification and Characterization			
<i>This module is intended to organize information related to the identification of the resources present on the project site and to characterize those resources that may be affected by the proposed project.</i>			
A. Provide the standard resource identification information, location map, wetland determination or delineation reports; watercourse reports; identification and qualifications of preparers; location map, and answer the related questions.			Sup S2A
Is the site located within or adjacent to any of the following; or within 100 feet of items vii or viii?			
i. National, state or local park, forest or recreation area	☐ Yes ☒ No		NA
ii. National natural landmark	☐ Yes ☒ No		NA
iii. National wildlife refuge, or Federal, state, local or private wildlife or plant sanctuaries	☐ Yes ☒ No		NA
iv. State Game Lands	☐ Yes ☒ No		NA
v. Areas identified as prime farmland	☒ Yes ☐ No		SupS2Av
vi. Source for a public water supply	☐ Yes ☒ No		NA
vii. A National Wild or Scenic River or the Commonwealth's Scenic Rivers System	☐ Yes ☒ No		NA
viii. Designated Federal wilderness area	☐ Yes ☒ No		NA
B. Identify all aquatic resources present on the project site and provide an identifier, the resource type; size of the resource(s); fishery designations, Ch. 93 uses and special protection status; and Exceptional Value (EV) wetland analysis.			Sup S2B
C. Provide the following information related to habitat for Federal threatened and endangered (T&E) plant and animal species or State T&E species or species of special concern - copies of search forms or search receipts; identification of avoidance and minimization efforts taken to resolve identified conflicts.			Sup S2C
Did the PNDI search or agency coordination identify any potential conflicts?			NA
If the above is answered YES ; answer the following two questions related to PNDI Coordination:			NA
a. Is the applicant utilizing a sequential review of the PNDI coordination?	☐ Yes ☐ No		NA
b. Is the applicant utilizing a concurrent review of the PNDI coordination?	☐ Yes ☐ No		NA
D. Characterize the aquatic resources: riverine, wetland and lacustrine present on the project site that are proposed to be directly or indirectly affected by the project. Including but not limited to the following, resource classification information, Level 2 rapid condition assessment results, discussion of resource functions, characterization of riparian properties and any other relevant information or studies conducted.			Sup S2D
Module S3: Identification and Description of Potential Project Impacts			
<i>This module is intended to organize and present information concerning the potential impacts or effects of the proposed project in this application. Impacts related to the "over all" project that are proposed under related but separate application(s) should be addressed as part of the CEA Policy response under S1.A.</i>			
A. Provide a summary table of the proposed temporary and permanent direct and indirect impacts for each effected resource category (e.g. riverine, wetlands and lacustrine resources).			Sup S3A
B. If any questions from S2.A Standard Information Response questions were answered YES, discuss in detail any potential impacts to those resource(s).			Sup S3B
IMPORTANT NOTE: If either item vii or viii from S2.A is answered YES, the project is not eligible as a "Small Project Application" type. Complete all applicable sections of the EA form for the standard application type unless an item was otherwise waived by the Department in writing (see previous Note on waiving of information requirements).			

	Item Included	Location
C. Provide a table(s) of all proposed water obstruction(s), encroachment activities and dams (e.g. subfacility codes) and provide an identifier, the subfacility code and description, resource identifier from S2.B , latitude and longitude, the proposed temporary and permanent direct and indirect impacts and subfacility details.	☒	Sup S3C
D. Provide a discussion of how the proposed subfacility(ies) individually and in combination directly and/or indirectly impact the identified resource(s) and the effects on the applicable resource functions: hydrologic, biogeochemical, habitat, recreation, any other environmental impacts and the effects on the property or riparian rights of owners upstream, downstream or adjacent to the project.	☒	Sup S3D
E. Antidegradation Analysis - The applicant should demonstrate consistency with State antidegradation requirements as described in the Water Quality Antidegradation Implementation Guidance Policy Document Number 391-0300-002. Project application information provided below in S3.F, G and H may be cross-referenced.	☒	Sup S3E
F. Alternatives Analysis - The scope and extent of this analysis should be commensurate with the size and scope of the proposed project impacts <i>in this</i> application, information provided in S4.A below, related to avoidance and minimization efforts, may be cross-referenced.	☒	Sup S3F
G. Potential Secondary Impact Evaluation - Identify and describe environmental impacts on adjacent land and water resources associated with but not that direct result of the project.	☒	Sup S3G
H. Identify and evaluate the potential cumulative environmental impacts of this project and other potential or existing projects like it, and the impacts that may result through numerous piecemeal changes to the wetland resource.	☒	Sup S3H
Module S4: Mitigation Plan		
<i>This module is intended to organize and present information concerning actions undertaken in accordance with the definition of Mitigation in Title 25 Pa. Code Chapter 105 - §105.1, 105.16, 105.18a(a)(3), 105.18a(b)(7), 105.20a, and 105.21 as related to the potential impacts or effects of the proposed project <i>in this</i> application.</i>		
A. Identify and discuss any measures taken that resulted in avoiding or minimizing unavoidable resource impacts, provide detailed responses for individual proposed impact area(s) and the project as a whole.	☒	Sup S4A
B. Identify and discuss any repair, rehabilitation or restorative actions taken to rectify an impacted resource, provide detailed responses for individual proposed impact area(s) and the project as a whole. Identify and discuss any proposed preservation and maintenance operations that will be taken to reduce or eliminate an impact during the life of the project.	☒	Sup S4B
C. Provide the results from application of the Pennsylvania Function-Based Aquatic Resource Compensation Protocol. Identify and discuss any actions undertaken to provide compensatory mitigation, a detailed discussion of the proposed compensation actions and how they will offset the lost resource functions, include a comparison of the results from Section 6.0 of the Pennsylvania Function-Based Aquatic Resource Compensation Protocol with the results from Section 5.0. When applicable provide detailed plans including performance standards and success criteria.	☒	Sup S4C
Answer the following question. If the answer to the question is YES , provide the information regarding the mitigation credit provider; otherwise provide a detailed mitigation plan. If the application proposes to utilize both mitigation bank or in lieu fee credits and conduct permittee responsible mitigation; both the credit provider and mitigation plan information shall be submitted.	☐	Sup S4C
Does the applicant propose to utilize an approved mitigation bank or PA's in lieu fee program to provide all or a portion of the compensation?	☒ Yes ☐ No	Sup S4C App E
D. When applicable, provide a plan to monitor the identified actions proposed in S4.B and/or S4.C compensatory mitigation area. Applicants should utilize the Department's Design Criteria and the USACE's RGL 08-03 - (http://www.usace.army.mil/Portals/2/docs/civilworks/RGLS/rgl08_03.pdf) to develop monitoring plans for compensatory mitigation proposals. The plan should include performance standards/success criteria, duration and timeframes of monitoring, monitoring report template, and template remedial action or adaptive management plan.	☒	App E
Note: All or portions of this Module likely apply to "Small Project" type applications and waiver of this section should be discussed during any pre-application meetings or prior to application submittal.		
CERTIFICATION		
I certify that the above statements, attachments including those labeled and identified as Enclosures, and all conclusions are true, correct, and based upon current environmental principles and science, to the best of my knowledge and belief.		
	6.10.2026	
Signature	Date	

ENVIRONMENTAL ASSESSMENT

MODULE S1: PROJECT SUMMARY

S1.A: Overall Project Description:

The purpose of the project is to provide a state-of-the-art high school campus for the students in the Quaker Valley School District (QVSD). The new high school campus is the culmination of planning that began in the 1960s, when the Leetsdale High School, which dates from 1926, was converted to the Quaker Valley High School. Studies performed from 2013-2016 indicated that utilizing the current high school site for a new school would not be a viable long-term solution. A siting study was then performed to identify potential sites for the new high school campus. QVSD decided that the Three Rivers Trust property, which is within one mile of the existing high school, was the best option for the new high school campus. In May of 2017, QVSD purchased the 107.96 acres of high ground in Leet Township and 39.21 acres in Edgeworth Borough from the Three Rivers Trust and bought an additional 11.424 acres of adjacent land in Leetsdale Borough as the future site for a new high school campus.

The site is a residential property on a ridge line containing three homes. One of the homes was the Muotta Mansion on the William Walker Estate located in Edgeworth Borough. The previous landowner, Three Rivers Trust, had plans to develop the site into a Bed and Breakfast Manor and had moved the Muotta Mansion from its original foundation in Edgeworth Borough along the ridge 1000 feet to Leet Township to make way for a new mansion. Three Rivers Trust abandoned the project leaving the homes on the property vacant and leaving a deep foundation for the new mansion unfinished. The NPDES permit (NPDES No. PAI050216003) which was issued for the work was terminated in February 2022 (ACCD File No. ESP-01234).

QVSD plans to develop 69.6 acres of the 158 acres of property. The property is mainly wooded with the exception of the ridge top where the woods were cleared for the Muotta Mansion estate and for the Three Rivers Trust development. QVSD plans to remove the foundation built for the new mansion and grade this area as an open area. No structures or further development is planned in Edgeworth Borough. The main development will be in Leet Township where QVSD plans to build a 2-story school, tennis courts, athletic field, and parking areas. Camp Meeting Road will be realigned at the main school entrance to allow for sight distance. A new entrance road is proposed off Camp Meeting Road at the base of the hillside.

The property is currently accessed by multiple drives. The main access is directly off of Camp Meeting Road at the crest of the ridge. Other entrances are the driveway to the abandoned house on Camp Meeting Road, and the entrance to the abandoned housing development near the base of the hillside on Camp Meeting Road. These two entrances are not suitable for access to the school. A new entrance road is proposed off Camp Meeting Road at the base of the hillside which has adequate sight distance.

The site is a ridge separating the Ohio River from an unnamed tributary (UNT) to Little Sewickley Creek. Little Sewickley Creek is a Chapter 93 High Quality-Trout Stocking (HQ-TSF) which is impaired by highway runoff. The UNT flows for 1096 feet along the northern boundary of the property, and is outside of the

project LOD. The existing wooded area between the planned project and the UNT spans 400 to 1300 feet. This wooded area will be protected during construction and remain as a riparian area. Therefore, no impacts to the UNT to Sewickley Creek are anticipated.

The property south of the ridge where the majority of the development will occur drains to several other UNTs toward the Ohio River. However, due to industrial development and rechanneling near the Ohio River, the UNTs discharge to Little Sewickley Creek. These UNTs are designated as UNT1, UNT1A, UNT2, UNT3, UNT4/5, and UNT6, and are HQ-TSF in accordance MS4 of Leetsdale Borough authority.

An Aquatic Resources Report was prepared in 2018 by Skelly & Loy, Inc., for the entire 140-acre Three Rivers Trust property (Skelly & Loy, 2018). The Report described six wetlands found on the property, all in close proximity to Little Sewickley Creek and the UNT of Little Sewickley Creek, and well outside of the project's Limit of Disturbance (LOD).

Streamline conducted an independent study specific to the project's LOD of 69.6 acres and a 150-foot buffer. After careful evaluation of the site, three areas exhibiting wetland characteristics and six stream resources were identified within the project's LOD.

- Wetland W1: 1278 square feet (0.03 acre). Wetland W1 is a spring-fed wetland located in a depressional area on the south-facing hillside near Camp Meeting Road.
- Wetland W2: 462 square feet (0.01 acre). Wetland W2 is located on the fringe of a frequently ponded area on UNT-1. The ponded area is upstream of a plugged 30-inch diameter culvert on UNT-1 for an abandoned housing site development at a sanitary sewer crossing. The plugged culvert causes water to pond at the upstream end of the culvert after rain events, resulting in hydrologic conditions supporting wetland conditions.
- Wetland W3: 280 square feet (0.006 acre). Wetland W3 is a seep-fed wetland located on the hillside at an outfall of a storm pipe. The pipe discharges to a catch basin in a ditch along a roadway constructed as part of an abandoned housing development. The wetland lies between the outfall of the pipe and the roadway ditch.
- Stream UNT1: Intermittent. UNT is 845 feet long within the Limit of Disturbance (LOD), including an 80-foot-long culvert and a 38-foot-long culvert with a 22-foot-long riprap apron. The inlet of the shorter culvert is currently clogged with sediments, creating a ponding area. UNT1 originates upland of Camp Meeting Road and crosses onto QVSD property via a storm drain pipe. The stream flows generally south-southeast to join UNT2 near the southwest corner of the property.
- Stream UNT1A: Intermittent. UNT1A is 22 feet of open channel and 195 feet of storm piping within the project LOD. UNT1A originates at Wetland W3, and is piped to discharge at an endwall at the plugged culvert ponding area on UNT1. The open channel portion of UNT1A is the short reach from the endwall to the headwall of the plugged culvert at Wetland W2.

- Stream UNT2: Perennial. UNT2 within the project site extends from Camp Meeting Road to an existing culvert under Beaver Street in Leetsdale. The total length of UNT2 within the project site is 1357 feet, which includes one 95-foot-long culvert. This length excludes 383 feet of UNT2 that exits the property to flow through property owned by the Municipal Authority of Edgeworth Borough (MAEB) before re-entering the project property upstream of Beaver Street.
- Stream UNT3: Intermittent. UNT3 is a 95-foot-long channel within the LOD connecting Wetland W1 to UNT1.
- Stream UNT4/5: Ephemeral. UNT4/5 is 524 feet long within the LOD, including a 28-foot-long 18-inch diameter culvert at the driveway to an abandoned residence and a 33-foot-long rock apron at the outfall of a roadway storm drain pipe under Camp Meeting Road. UNT4/5 is a single stream with divided flow that conveys the same roadway drainage. UNT4/5 receives road drainage from Camp Meeting Road that flows in the UNT4 channel. The drainage overflows the partially clogged driveway culvert and has eroded another channel (UNT5) parallel to UNT4. Therefore, UNT4 and UNT5 convey the same flow and are considered as one stream with a divided flow section. UNT4/5 dissipates in washout areas in the wooded area upstream of UNT1.
- Stream UNT6: Ephemeral. UNT6 is 465 feet long, including an 80-foot-long 18-inch diameter culvert that crosses an old access road to the abandoned residential development through the site. UNT6, a tributary to UNT2, drains an area of the lower hillside, discharging to UNT2 near the MAEB pump house along Camp Meeting Road.

The field work was conducted in September and October 2023, and February through July 2025. No other streams or wetlands were identified within the LOD. Field confirmation of wetlands and streams was performed by the PADEP and the USACE on May 21, 2025. The Pittsburgh District of the U.S. Army Corps of Engineers (USACE) performed a jurisdictional determination for the project. The USACE in the Memorandum for Record dated November 17, 2025, states that UNT 4/5 and UNT6 were determined to be non-jurisdictional due to the lack of relatively permanent flows.

Because the anticipated disturbance area exceeds 1 acre and a portion of the project area is within a HQ watershed, an Individual NPDES permit application has been submitted for the development.

The project area is located outside the 500-year floodplain, as shown on the Flood Insurance Rate Map (FIRM) for Allegheny County, PA Panel 154 of 558, Map Number 42003C0154H, dated September 26, 2014.

A PNDI (April 4, 2025) was generated for the property. The PNDI resulted in no impacts anticipated.

A bog turtle survey is not required for project sites in Allegheny County.

The anticipated timeline of construction is November 2026 – October 2029.

S1.B: Project Purpose, Need, Water Dependency, Summary of Amount & Type of Resources, and of Temporary and Permanent Impacts

Purpose. The purpose of the project is to provide a state-of-the-art high school campus for the students in the Quaker Valley School District. The new high school campus is the culmination of planning that began in the 1960s when the Leetsdale High School, which dates from 1926, was converted to the Quaker Valley High School.

Studies performed from 2013-2016 indicated that utilizing the current high school site for a new school would not be a viable long-term solution. A siting study was then performed to identify potential sites for the new high school campus, and the School District acquired the parcels composing the proposed site in 2017-2018.

Water Dependency. The project includes three stream crossings and filling in ephemeral stream UNT4/5 and a portion of ephemeral stream UNT6. The water dependency for the project is based on the following site constraints for site access and available area for stormwater management facilities.

- i. The topography of the site is steep, except for the ridge where the school will be built and near the confluence of UNT1 with UNT2 at the base of the hillside. Available area for the placement of stormwater ponds downstream of the school campus within the property boundaries is limited due to the steep terrain.
- ii. The optimal location for stormwater management facilities is downstream of the proposed development. The most suitable location for the required large stormwater management facilities is downstream of the development.
- iii. A second entrance to the school is needed. A new entrance off Camp Meeting Road near the base of the hillside that provides adequate sight distance will require a crossing of UNT2 and two crossings of UNT1.
- iv. UNT1, UNT1A, and UNT3 are considered to be intermittent streams based on site observations and potential connection to groundwater or to wetlands.
- v. UNT2 is considered to be perennial based on site observations and potential connection to groundwater.
- vi. UNT4/5 is a divided channel created by uncontrolled roadway drainage flows. UNT4/5 is considered to be ephemeral based on site observations and the absence of a connection to groundwater. This designation has been confirmed by a JD by the USACE.
- vii. UNT6 cuts diagonally across the hillside to a ravine, and ultimately discharges to UNT2 near the MAEB pump station. UNT6 is ephemeral, based on site observations and the absence of a connection to groundwater. This designation has been confirmed by a JD by the USACE.
- viii. The proposed development reduces impacts to UNT1 and UNT2 to the extent practicable by shifting the stormwater facilities away from the perennial and intermittent streams.
- ix. The project is in a special protection HQ-TSF watershed. Riparian buffers will be required along the intermittent and perennial streams.

Summary and Amounts of Resources. Wetland W1 is a palustrine emergent wetland with an area of 1278 square feet (0.0293 acre). Wetland W1 will not be impacted by the project.

Wetland W2 is a palustrine emergent wetland with an area of 462 square feet (0.011 acre). Wetland W2 will not be impacted by the project.

Wetland W3 is a palustrine emergent wetland with an area of 280 square feet (0.006 acre). Wetland W3 will not be impacted by the project.

UNT1 is an intermittent stream with a total length of 845 feet. UNT1 will be impacted by the project.

UNT1A is an intermittent stream with a total length of 217 feet. UNT1A will not be impacted by the project.

UNT2 is a perennial stream with a total length of 1357 feet. UNT2 will be impacted by the project.

UNT3 is an intermittent stream with a total length of 95. UNT3 will not be impacted by the project.

UNT4/5 is an ephemeral stream with a total length of 524 feet. UNT4/5 will be impacted by the project.

UNT6 is an ephemeral stream with a total length of 465 feet. UNT6 will be impacted by the project.

The UNT to Little Sewickley Creek outside of the LOD will not be impacted by the project. The UNT is located along the northeastern boundary of the project property and lies well outside of the project's LOD, separated by a wooded area. The foundation pad for the proposed school will be graded out and the area restored. No impacts to the UNT to Little Sewickley Creek are anticipated, and resources for the stream are not considered in the environmental assessment.

A summary of the types and amounts of the resources is provided in Table S1.B-1. The 100-year flood was determined to be within the channel banks for the streams. Hydraulic analyses using HEC-RAS (see Attachment L of the Joint Permit Application) determined that the existing channels of streams UNT1, UNT1A, UNT2, UNT3, UNT4/5, and UNT6 can convey the 100-year peak flows within their respective channels. The reported Resource Areas in Table S1.B-1 are based on the areas of the 100-year flood limits determined by the HEC-RAS modeling for pre-development conditions.

Table S1.B-1 Summary of Aquatic Resource Amounts and Types Present in the Study Area

Aquatic Resource	Aquatic Type	Total Length (ft)	Existing Culvert & Riprap Apron Length (ft)	Net Resource Length (ft)	Floodplain Width (ft)	Resource Width (ft)	Total Resource Area ⁴ (sq ft)
W1	Wetland	---	---	---	---		1,278
W2	Wetland	---	---	---	---		462
W3	Wetland	---	---	---	---		280
UNT1	Riverine	845	140	705	0	11.5	8,457.5
UNT1A	Riverine	217	195	22	50 ¹	2	1,534
UNT2	Riverine	1,357	95	1,262	0	11.5	14,750.5
UNT3	Riverine	95	0	95	0	6	570
UNT4/5	Riverine	524	28 & 33	463	0	3.5	1,662.5
UNT6	Riverine	465	80	385	0	8	3,200
Totals		3,503	571	2,932	0		32,194.5
Total (ac)							0.74
UNT to Little Sewickley Creek	Riverine	1096	---	1,096	---		---

¹ The open channel of UNT1A is located in the ponding area upstream of the plugged culvert on UNT1. Its resource area is 195 ft x 2 ft + 22 ft x (50 + 2 ft).

² Resource Area is based on the total length of the resource, per PADEP and USACE criteria.

³ The UNT to Little Sewickley Creek lies outside the LOD and is, therefore, excluded from the Total Resource Area.

⁴ Resource area is calculated based on the stream width for the open channel reaches x open channel length + the culvert diameter for the culverted reaches multiplied by the culverted length for each of the UNTs. The riprap apron is excluded for UNT4/5.

Permanent and/or temporary impacts are anticipated to streams UNT1, UNT2, UNT4/5, and UNT6. No impacts are anticipated to Wetlands W1, W2, or W3, or to streams UNT1A or UNT3. The types and amounts of the impacts to the aquatic resources within the LOD are summarized in Table S1.B-2. All predicted permanent impacts to the resources will be direct. Impacts which are located within another impact are indicated as an overlap, and are not counted.

Table S1.B-2 Summary of Anticipated Impacts to Aquatic Resources Present in the Study Area

Aquatic Resource	Aquatic Type	Total Resource Area (sf)	Proposed Activity & Length (ft)	Proposed Permanent Impacts Area (sq ft)		Proposed Temporary Impacts Area (sq ft)	
				Direct	Indirect	Direct	Indirect
W1	Wetland	1,278	No Activity	0	0	0	0
W2	Wetland	462	No Activity	0	0	0	0
W3	Wetland	280	No Activity	0	0	0	0
UNT1	Riverine	9,718	Culvert 1: 48" Dia. 98' x 11.5'	1,127	0	0	0
			Riprap Apron 10: 26' x 11.5'	299	0	0	0
			Culvert 2: 48" Dia. 98' x 11.5'	1,127	0	0	0
			Riprap Apron 11: 26' x 11.5'	Overlap	0	0	0
			Remove Culvert: 30" x 80'	200	0	0	0
			Channel Restoration	Overlap	0	0	0
			Channel Work at Culvert 1 Inlet: 27 ft x 11.5 ft	310.5	0	0	0
			Remove Utility Crossing 1 ft x 11.5 ft	11.5	0	0	0
			Outfall: Storm pipe	Overlap	0	0	0
			Outfall: Storm pipe	Overlap	0	0	0
			Pump Around	0	0	24	0
			Diversion Channel Outfall	0	0	69	0
			Diversion Channel Outfall	0	0	69	0
UNT1A	Riverine	1,534	No Activity	0	0	0	0
UNT2	Riverine	15,606	Culvert 3: 60" Dia. 90' x 11.5'	1,035	0	0	0
			Riprap Apron 9: 34' x 11.5'	391	0	0	0
			Storm Pipe Outfall	Overlap	0	0	0
			Remove Utility 568' less 124' for Culvert 3 & Riprap Apron 9 x 1'	444 (less Overlap)	0	0	0
			Utility Crossing: OH E/T/C	Overlap	0	0	0
			Pump Around	0	0	24	0
UNT3	Riverine	570	No Activity	0	0	0	0
UNT4/5	Riverine	1,834	Remove Culvert: 28' x 1.5'	Overlap	0	0	0
			Stream Fill 374' x 3.5', 28' x 1.5'	1,351	0	0	0
			Channel Work 89' x 3.5'	311.5	0	0	0
UNT6	Riverine	3,720	Fill 161' x 8', 80' x 1.5'	1,408	0	0	0
			Culvert Removal	Overlap	0	0	0
			Outfall, SWMF2	24	0	0	0
			Riprap Apron 6, SWMF2	160	0	0	0
			Utility Crossing, Sanitary	8	0	0	0
			Utility Crossing, OH E/T/C	8	0	0	0
			Rock Apron 1	0	0	80	0
Total (sq ft)				8215.5	0	266	0
Total (ac)				0.188	0	0.006	0

Wetland W1 lies outside of the cut-fill line for the project, and will be protected during construction. Wetland W1 is, therefore, not anticipated to be impacted.

Two new culverts, each 98 feet long, will be installed with riprap aprons to carry the new entrance road over UNT1. The existing 80-foot-long culvert on UNT1 will be removed, and the stream channel restored. An exposed gas line crossing of UNT1 will be removed.

The existing 95-foot-long culvert on UNT2 will remain, and one new culvert, 90 feet in length with a riprap apron will be installed to carry the new entrance road over UNT2. A stormwater outfall will be situated within the endwall of the culvert. The existing gas line along UNT2 will be removed, and relocated to along Camp Meeting Road.

The upstream reaches of UNT4/5 and UNT6 will be removed by the project's grading operations. The lower reach of UNT4/5 will be modified.

The impact lengths in Table S1.B-2 reflect the anticipated impacts for the project. The Aquatic Resource Impact Table (ARIT) in Appendix A presents an itemized accounting of the predicted impacts to aquatic resources.

Potential impacts during construction will be mitigated through implementation of the Erosion and Sedimentation Control Plan.

MODULE S2: RESOURCE IDENTIFICATION AND CHARACTERIZATION

S2.A: Standard Resource Identification Information

Preparation of the Environmental Assessment. Streamline Engineering, Inc. prepared the *Environmental Assessment* and the *Wetland Determination & Stream Resource Evaluation (WD&SRE) Report* dated 11/10/2023, revised 1/24/2025, 4/8/2025, 8/14/2025, and June 10, 2026.

Streamline Engineering, Inc.
110 Allan Street
Lower Burrell, PA 15068

The *WD&SRE Report* is provided in Appendix B of the *Environmental Assessment*. The identified wetland and water resources are described in detail in the *WD&SRE Report*. The qualifications of the preparers are provided in Appendix F of the *WD&SRE Report*.

The site is shown on the U.S.G.S. 7.5-minute topographic quadrangle Ambridge, PA, provided as Figure 1 in the *WD&SRE Report*.

S2.A.v. Prime Farmland

Philo silt loam (Ph) and Rayne silt loam 3-8% slopes (RycB) are classified as prime farmland. The Philo soils are located outside of the project's Limit of Disturbance (LOD), and occupy 0.4 acre (0.2% of the total property area). Rayne RycB soils are located at the crest of the ridge, and occupy 13.6 acres (8.1% of the total property area). Soils information is provided in Appendix A of the *WD&SRE Report*.

S2. B: Identify all Aquatic Resources Present that may be Affected on the Project Site:

A search on the U. S. Fish and Wildlife Service's website for the National Wetland Inventory (NWI) Map shows no classifications for the wetlands or for the streams. Based on site observations, UNT1, UNT1A, and UNT3 are considered to be R4SBC: Riverine-Intermittent-Stream Bed-Seasonally Flooded, and UNT2 is considered to be R3SBC: Riverine-Perennial Upper-Stream Bed-Persistent Surface Water. No resource type code is provided for ephemeral streams. UNT4/5 and UNT6 are considered ephemeral, and have no classification designation. Little Sewickley Creek is identified on the NWI Map as R4SBC. A copy of the NWI Map is provided as Figure 2 in the *WD&SRE Report*.

A past study conducted by Skelly & Loy, Inc. in 2018 found wetlands near Little Sewickley Creek and the UNT to Little Sewickley Creek, but no wetlands within the project LOD. UNT1 and UNT2 were identified and mapped out as streams. The roadway drainage (UNT4/5) was identified as roadway drainage. Ravines near the pump house were described in the report, but were not delineated as a stream. The resource map from the Skelly & Loy report is provided in Appendix C.

The USACE performed a jurisdictional determination for the project. The USACE in the Memorandum for Record dated November 17, 2025, states that UNT 4/5 and UNT6 were determined to be non-jurisdictional due to the lack of relatively permanent flows. A copy of the Memorandum is included in Appendix D.

TABLE S2.B-1: SUMMARY OF AQUATIC RESOURCES

Water Resource	Resource Identifier	Resource Type ^{1,2,3,4}	Chapter 93 Designation	Fishery Designation	Total Resource Length (Ft)	Resource Size - Area (Sq Ft)
Wetland	W1	PEM ¹	HQ-TSF	---	94	1,278
Wetland	W2	PEM	HQ-TSF	---	17	462
Wetland	W3	PEM	HQ-TSF	---	30	280
UNT1	R1	R4SBC	HQ-TSF	---	845	8457.5
UNT1A	R1A	R4SBC	HQ-TSF	---	217	1,534
UNT2	R2	R3UB1F	HQ-TSF	---	1,357	14,750.5
UNT3	R3	R4SBC	HQ-TSF	---	95	570
UNT4/5	R4	---	HQ-TSF	---	524	1,662.5
UNT6	R6	---	HQ-TSF	---	465	3,200

¹ PEM – Palustrine Emergent

² R4SBC – Riverine-Perennial Upper-Stream Bed-Seasonally Flooded

³ R3UB1F – Riverine-Intermittent-Stream Bed-Persistent Surface Water

⁴ No NWI Resource Type assigned for ephemeral streams

S2. C: Information for Federal Threatened and Endangered (T&E) Plant and Animal Species or State T&E Species or Species of Special Concern

The Pennsylvania National Diversity Inventory (PNDI) search for the project site indicates no known impacts from the PA Game Commission (PGC), PA Department of Conservation and Natural Resources (PDCNR), PA Fish and Boat Commission (PFBC), or the U.S. Fish and Wildlife Service (USFWS). The PNDI receipt (review dated 4-5-2025) is provided in Appendix E of the *WD&WRE Report*.

S2. D: Aquatic Resources Characterization

1. Riverine Resources

TABLE S2.D-1: CHARACTERIZATION OF RIVERINE RESOURCES

Water Resource	Resource Identifier	Gradient Class	Watershed Size (WS)	PA Level 2 RAP
UNT1 to Little Sewickley Creek	R1	3 - High	1 - Headwater	0.61
UNT1A to Little Sewickley Creek	R1A	3 - High	1 - Headwater	0.31
UNT2 to Little Sewickley Creek	R2	3 - High	1 – Headwater	0.59
UNT3 to Little Sewickley Creek	R3	3 - High	1 - Headwater	0.50
UNT4/5 to Little Sewickley Creek	R4	3 - High	1 - Headwater	0.41
UNT6 to Little Sewickley Creek	R6	3 - High	1 - Headwater	0.48

The PA Riverine Condition Level 2 Rapid Assessment Protocol analyses are provided in Appendix E.

UNT1 flows through a mostly wooded area to join UNT2. UNT1 receives runoff flows from upstream residential areas and Camp Meeting Road drainage. The upstream residential areas do not have

stormwater management. The stream slope is steep and the channel is incised due to accelerated erosion exacerbated by the upstream piping along Camp Meeting Road. The hillside upon which the stream flows is considered to be landslide-prone. A sanitary sewer line parallels UNT1 through the project site. The total length of UNT1 is 845 feet, which includes the two existing culverts totaling 118 feet in length and the existing riprap apron (22 feet). UNT1 has been determined to have sufficient hydraulic capacity to pass the 100-year flow within its channel banks (see JPA Attachment L). The representative top width and channel depths of UNT1 are 11.5 feet and 6.0 feet, respectively. The stream lacks a floodplain. Woody debris and fallen limbs were observed throughout the reaches. The water quality is characteristic of runoff from residential areas. Habitat conditions are likely limited due to the steep stream gradient and the flashiness of runoff events. Stream sampling points 1 and 3 are on UNT1.

UNT1A originates at the outlet of a storm drain at Wetland W3. The flow exits the pipe and flows through Wetland W3 for approximately 30 feet to a catch basin in the ditchline of the old roadway. The flow is then piped for 195 feet to the ponding area upstream of the plugged culvert on UNT1. From the endwall in the ponding area, UNT1A flows in an open channel for 22 feet to join UNT1 at the plugged culvert. UNT1A has a bed width of 24 inches and a channel depth of 2 inches. The stream is assumed to have a floodplain width of 50 feet for its length of open channel in the ponding area. The channel has a silted bottom and has no vegetation or evidence of macroinvertebrates. UNT1A is considered to be intermittent due to its connection to Wetland W3 and observation of flow during site visits. Stream sampling point 4 is on UNT1A.

UNT2 receives runoff from upstream residential areas and road drainage. The stream slope is steep and the channel is incised due to accelerated erosion exacerbated by the upstream flows and piping along Camp Meeting Road. The hillside above the stream is considered to be landslide-prone. A sanitary sewer line and a gas line run parallel to UNT2 through the project site, and a pumping station is located in the stream's lower reach. The total length of UNT2 is 1357 feet, which includes one existing culvert of 95 feet in length. UNT2 has been determined to have sufficient hydraulic capacity to pass the 100-year flow within its channel banks (see JPA Attachment L). The representative top width and channel depth of UNT2 are 11.5 feet and 6.0 feet, respectively. The stream lacks a floodplain, and the channel contained woody debris and fallen limbs. The water quality is characteristic of runoff from residential areas. Habitat conditions are limited due to the stream gradient and flashiness of runoff events. Stream sampling points 2 and 5 are on UNT2.

UNT3 is a 95-foot-long stream that outlets from Wetland W1 and flows to UNT1. The stream is a steep gradient channel that appears to originate at a breach in a berm around the wetland. Flow has been observed in the channel only in response to storm events. Representative dimensions of UNT3 are a bottom width of 2 feet, a top width of 6 feet, and a channel depth of 3 feet. The stream does not have a floodplain. The channel banks did not have any vegetation. No evidence of aquatic macroinvertebrates was found. UNT3 is considered to be intermittent based on its wetland source. Sampling point 6 is on UNT3.

UNT4/5 is a 524-foot-long stream that receives roadway drainage from Camp Meeting Road. The flow passes through a culvert under the driveway to an abandoned residence, then splits into two channels, UNT-4 and UNT-5. Representative dimensions of UNT4/5 are a bottom width of 1.25 feet, a top width of 3.5 feet, and a channel depth of 1.5 feet. The channels dissipate at washout areas in the woods. The

channel banks do not have any vegetation. No evidence of macroinvertebrates was found. UNT4/5 is considered to be ephemeral. Sampling points 7 and 8 are on UNT4/5.

UNT6 is a 465-foot-long stream that flows southward across the hillside to enter UNT2 near the Edgeworth Borough water pump station. The stream drains an area characterized by several ravines. No flow was observed in the stream. Representative dimensions of UNT6 are a bottom width of 3 feet, and top width of 8 feet, and a channel depth of 1.5 feet. No macroinvertebrates were found in the stream. UNT6 is considered to be ephemeral. Sample point SS-9 was taken on UNT6.

2. Wetland Resources

TABLE S2.D-2: CHARACTERIZATION OF WETLAND RESOURCES

Water Resource	Resource Identifier	Hydrogeomorphic Class	Cowardin Vegetation Class	Palustrine Community Classification	PA Level 2 RAP
Wetland	W1	Depression-Temporary (DFA)	PEM	Sparse Vegetation Group	0.70
Wetland	W2	Man-made (clogged pipe)	PEM	Herbaceous Wetland Group	0.75
Wetland	W3	Man-made (Storm drain outlet)	PEM	Herbaceous Wetland Group	0.83

The PA Wetland Condition Level 2 Rapid Assessment Protocol analyses are provided in Appendix E. Photographs are provided in Appendix D of the WD&WRE Report.

Wetland W1 is a Palustrine Emergent (PEM) wetland located east of UNT1 near where UNT-1 enters the project site. Wetland W-1 is a very shallow depression along a swale that may have served as a sediment trap during previous residential site development activities at the site. Remnants of a breached berm with a section of culvert pipe lying on the ground down gradient of W-1 were observed. Very shallow water ponding is present within W-1, and the puddled water presently is filled with decaying leaf matter. The wetland is a depressional feature with no defined outlet. The wetland is primarily bare ground with stands of Japanese stilt grass (*Microstegnum vimineum* – facultative upland) as the only vegetation observed. Wetland functions were evaluated in accordance with Chapter 105.1.

Wetland W2 is a Palustrine Emergent (PEM) wetland located on UNT-1 upstream of a plugged culvert. The culvert was an outlet for a small ponding area that has become filled with sediments so as to completely bury the inlet of the culvert. The wetland is a fringe wetland around the area that is subject to ponding. The wetland is considered a man-made depressional feature caused by the clogged outlet. The wetland vegetation includes *Equisetum arvense* and *Platanus occidentalis*. Wetland functions were evaluated in accordance with Chapter 105.1.

Wetland W3 is a Palustrine Emergent (PEM) wetland located at the outlet of a clogged storm drain pipe along the roadway for the abandoned housing development. The flow seeps out of the pipe and flows over

the ground to a catch basin in the ditchline of the roadway. The wetland vegetation includes *Festuca pratensis* and *Fallopia convulvulus*. Wetland functions were evaluated in accordance with Chapter 105.1.

Serving Natural Biological Functions. Wetlands W2 and W3 have greater variety of vegetation than Wetland W1. Wetlands W1 and W2 are subject to occasional to frequent ponding of water. Wetlands W1, W2, and W3 may serve as habitat for amphibians to lay their spawn and salamanders lay their egg masses in ponded water in early spring. Mammals may use the areas as a food source for adult, breeding adults, spawn, and or eggs, browse the vegetation, or use the ponded water as a water source. Birds may eat the seeds of the vegetation.

Evidence of macroinvertebrates was found in UNT1 and UNT2. No evidence of macroinvertebrates was found in UNT1A, UNT3, UNT4/5, or UNT6. UNT4/5, and UNT6 are ephemeral, and offer limited natural biological functions emphasizing aquatic conditions. UNT1A is mostly contained in storm piping, with the only open reach in the ponding area at the plugged culvert. Its biological functions are considered secondary to those for Wetland W2 and the ponding area. UNT3 is short and extremely steep, and is considered to have minimal biological functions.

Providing Areas for Study of the Environment or as Sanctuaries or Refuges. The potential of the wetlands or streams for providing areas for study or as sanctuaries or refuges is low. All three wetlands are small in area and on private property. Wetland W1 is located on a steep hillside. Wetland W2 is the result of the plugged culvert on UNT1. Wetland W3 is dependent upon flows seeping from the clogged storm drain pipe.

The streams are steep and deeply incised. Access into the stream channels is difficult. Evidence of macroinvertebrates was found in UNT1 and UNT2, but not in the other streams.

Maintaining Natural Drainage Characteristics, Sedimentation Patterns, Salinity Distribution, Flushing Characteristics, Natural Water Filtration Processes, Current Patterns or Other Environmental Characteristics. Surface water runoff in an eroded channel (UNT4/5) bypasses Wetland W1. A small amount of possible groundwater seepage appeared to exist at the upslope edge of the wetland; however, heavy rainfall had occurred in the previous week. Wetland W2 has formed due to the absence of maintenance in the small pond and culvert on UNT1. Wetland W3 may have formed due to the absence of maintenance on the storm drain pipe which has become buried at its outlet, resulting in attenuation of storm flows from the pipe.

All of the streams exhibit incised channels, indicating flash flood conditions from the Camp Meeting Road drainage and upland housing developments. UNT4/5 in particular are erosion channels that have developed due to Camp Meeting Road drainage being discharged onto the property.

Shielding Other Areas from Wave Action, Erosion or Storm Damage. Not applicable to the wetland or streams within the LOD.

Serving as a Storage Area for Storm and Flood Waters. The wetlands and streams are situated on steep hillsides. The streams are high-gradient, and offer minimal storage area for storm or flood waters. The

small pond near the outlet of UNT-1 has become filled with sediment, completely burying the inlet of its discharge culvert.

Providing a Groundwater Discharge Area that Maintains Minimum Baseflows. Wetland W1 offers storage to provide baseflow to UNT3. Wetlands W2 and W3 are the result of surface flows, specifically from storm events. The steep hillside upon which the wetlands and streams are located is not conducive to providing a groundwater discharge area.

Serving as a Prime Natural Recharge Area where Surface Water and Groundwater are Directly Interconnected. Wetland W1 is 0.03 acres in size on steep terrain with very limited opportunity for recharge to UNT3 due to slope, soils and shallow decomposed rock. Wetlands W2 and W3 are smaller, are the result of man-made conditions, and offer minimal potential to provide natural recharge areas.

Preventing Pollution. No opportunity is present.

Providing Recreation. No opportunity is present. The streams are steep and deeply incised. The wetlands and streams are difficult to access due to the steep hillside.

3. Lacustrine Resources – No lacustrine resources are present on the project site.

MODULE S3: IDENTIFICATION AND DESCRIPTION OF POTENTIAL PROJECT IMPACTS

S3. A: Summary Table of Proposed Impacts

Anticipated impacts are summarized in Table 3.A-1. The ARIT is provided in Appendix A.

TABLE S3.A-1: SUMMARY OF PROPOSED PERMANENT AND TEMPORARY IMPACTS

Water Resource	Resource Identifier	Resource Type	Chap 93 Designation	Impact Type	Impact Description	Impact Area (Sq ft)
Wetland	W1	PEM	HQ-TSF	None	None	0
Wetland	W2	PEM	HQ-TSF	None	None	0
Wetland	W3	PEM	HQ-TSF	None	None	0
UNT1	R1	R4SBC	HQ-TSF	Permanent, Direct	Utility Demo 1	11.5
UNT1	R1	R4SBC	HQ-TSF	Permanent, Direct	Culvert Demo 1	200
UNT1	R1	R4SBC	HQ-TSF	Permanent, Direct	Channel Work 1	310.5
UNT1	R1	R4SBC	HQ-TSF	Permanent, Direct	Channel Work 2	0 - Overlap
UNT1	R1	R4SBC	HQ-TSF	Permanent, Direct	Culvert Crossing 1	1,127
UNT1	R1	R4SBC	HQ-TSF	Permanent, Direct	Riprap Apron 10	299
UNT1	R1	R4SBC	HQ-TSF	Permanent, Direct	Culvert Crossing 2	1,127
UNT1	R1	R4SBC	HQ-TSF	Permanent, Direct	Riprap Apron 11	0 - Overlap
UNT1	R1	R4SBC	HQ-TSF	Permanent, Direct	Utility Crossing 1	0 - Overlap
UNT1	R1	R4SBC	HQ-TSF	Permanent, Direct	Utility Crossing 2	0 - Overlap
UNT1	R1	R4SBC	HQ-TSF	Temporary, Direct	Pump Around 1	24
UNT1	R1	R4SBC	HQ-TSF	Temporary, Direct	Outfall 3, Channel D1	69
UNT1	R1	R4SBC	HQ-TSF	Temporary, Direct	Outfall 4, Channel D2	69
UNT1A	R1A	R4SBC	HQ-TSF	None	None	0
UNT2	R1	R3UB1F	HQ-TSF	Permanent, Direct	Utility Demo 2	444
UNT2	R2	R3UB1F	HQ-TSF	Permanent, Direct	Culvert Crossing 3	1,035
UNT2	R2	R3UB1F	HQ-TSF	Permanent, Direct	Riprap Apron 9	391
UNT2	R2	R3UB1F	HQ-TSF	Permanent, Direct	Outfall 1	0 - Overlap
UNT2	R2	R3UB1F	HQ-TSF	Permanent, Direct	Utility Crossing 3	0 - Overlap
UNT2	R2	R3UB1F	HQ-TSF	Permanent, Direct	Utility Crossing 4	0 - Overlap
UNT2	R2	R3UB1F	HQ-TSF	Temporary, Direct	Pump Around 2	24
UNT3	R3	R4SBC	HQ-TSF	None	None	0
UNT4/5	R4	---	HQ-TSF	Permanent, Direct	Culvert Demo 2	0 - Overlap
UNT4/5	R4	---	HQ-TSF	Permanent, Direct	Stream Fill 1	1,351
UNT4/5	R4	---	HQ-TSF	Permanent, Direct	Channel Work 3	311.5
UNT6	R6	---	HQ-TSF	Permanent, Direct	Culvert Demo 3	0 - Overlap
UNT6	R6	---	HQ-TSF	Permanent, Direct	Stream Fill 2	1,408
UNT6	R6	---	HQ-TSF	Permanent, Direct	Outfall 2	24
UNT6	R6	---	HQ-TSF	Permanent, Direct	Riprap Apron 6	160
UNT6	R6	---	HQ-TSF	Permanent, Direct	Outfall 5	8
UNT6	R6	---	HQ-TSF	Permanent, Direct	Utility Crossing 5	8
UNT6	R6	---	HQ-TSF	Permanent, Direct	Utility Crossing 6	8
UNT6	R6	---	HQ-TSF	Temporary, Direct	Rock Filter 1	80

Overlaps in the impact areas noted in Table S3.A-1 occur where one (or more) impacts coincide with another impact, such as a proposed Channel Change will occur within a Culvert Crossing. Where an overlap occurs, only the impact area of the larger impact activity is quantified in the table.

S3. B: Detailed Discussion of Impacts to Module S2.A Facilities

S3.B.v. The Philo silt loam soils are situated at isolated areas along the northern and southern bases of the ridge, outside of the project's LOD. The Philo soils will not be disturbed by the project.

The Rayne silt loam (3-8% slopes) soil is situated at the crest of the ridge. The soil has been previously disturbed by the construction of the paved roadway and other activities along the ridge prior to the QVSD acquiring the property. The area occupied by this soil within Leet Township will be excavated to construct the foundation pad for the proposed high school campus. The Rayne soil within Edgeworth Borough will not be disturbed, but will be revegetated where currently disturbed.

S3. C: Table of Water Obstructions, Encroachments, and Dams

Construction of the proposed new high school campus will include utility demolitions on UNT1 and UNT2; the removal of one culvert on UNT1 (80 feet); and the installation of three culverts (2 culverts of 98 feet each on UNT1, and one culvert of 90 feet on UNT2). One culvert each will be removed on UNT4/5 and on UNT6. UNT4/5 and a portion of UNT6 will be filled. Tables S3.C-1 through S3.C-23 summarize the subfacilities associated with the impacted resources.

Table S3.C-1 Subfacility Details – UNT1

Subfacility Type	OTHER Utility Removal				
Id	Utility Demo 1 UNT1 to Little Sewickley Creek (R1)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	6.71
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	16.55
Description			Activity Length		
Remove existing exposed gas line - Permanent, Direct			1 ft L x 11.5 ft W		

Table S3.C-2 Subfacility Details – UNT1

Subfacility Type	OTHER Remove Existing Culvert				
Id	Culvert Demo 1 UNT1 to Little Sewickley Creek (R1)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	2.06
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	17.23
Description			Activity Length		
Remove existing 80 lf of 30-inch diameter culvert - Permanent, Direct			80 ft L x 2.5 ft W		

Table S3.C-3 Subfacility Details – UNT1

Subfacility Type	CW Channel Work				
Id	Channel Work 1 UNT1 Little Sewickley Creek (R1)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	5.00
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	15.49
Description			Activity Length		
Channel work 1 at inlet to Culvert 1 – Permanent, Direct			27 ft L x 11.5 ft W		

Table S3.C-4 Subfacility Details – UNT1

Subfacility Type	STRS Stream Restoration				
Id	Channel Work 2 UNT1 to Little Sewickley Creek (R1)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	2.15
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	17.08
Description			Activity Length		
Stream restoration after removal of the existing culvert (Culvert Demo 1) – Permanent, Direct			Overlaps with Culvert Demo 1 - no incremental impact		

Table S3.C-5 Subfacility Details – UNT1

Subfacility Type	CULV Culvert Crossing				
Id	Culvert Crossing 1 UNT1 to Little Sewickley Creek (R1)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	5.00
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	15.49
Description			Activity Length		
Culvert 1 – Permanent, Direct			98 ft L x 11.5 ft W		

Table S3.C-6 Subfacility Details – UNT1

Subfacility Type	CW Riprap Apron (Culvert 1)				
Id	Riprap Apron 10 UNT1 to Little Sewickley Creek (R1)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	3.89
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	15.49
Description			Activity Length		
Riprap apron for Culvert 2 – 26 ft - Permanent, Direct			26 ft L x 11.5 ft W		

Table S3.C-7 Subfacility Details – UNT1

Subfacility Type	CULV Culvert Crossing				
Id	Culvert Crossing 2 UNT1 to Little Sewickley Creek (R1)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	2.90
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	15.99
Description			Activity Length		
Culvert 2 – Permanent, Direct			98 ft L x 11.5 ft W		

Table S3.C-8 Subfacility Details – UNT2

Subfacility Type	CW Riprap Apron (Culvert 2)				
Id	Riprap Apron 11 UNT1 to Little Sewickley Creek (R1)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	2.13
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	17.06
Description			Activity Length		
Riprap apron for Culvert 2 – 26 ft - Permanent, Direct			Overlaps with Culvert Demo 2 –no incremental impact		

Table S3.C-9 Subfacility Details – UNT1

Subfacility Type	PIPE Utility Crossing				
Id	Utility Crossing 1 UNT1 to Little Sewickley Creek (R1)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	4.60
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	15.48
Description			Activity Length		
Storm pipe crossing at Culvert 1 – Permanent, Direct			Overlap with Culvert 1 – no incremental impact		

Table S3.C-10 Subfacility Details – UNT1

Subfacility Type	PIPE Utility Removal				
Id	Utility Crossing 2 UNT1 to Little Sewickley Creek (R1)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	2.70
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	16.29
Description			Activity Length		
Storm pipe crossing at Culvert 1 – Permanent, Direct			Overlap with Culvert 1 – no incremental impact		

Table S3.C-11 Subfacility Details – UNT2

Subfacility Type	OTHER Utility Removal				
Id	Utility Demo 2 UNT2 to Little Sewickley Creek (R2)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	00.15
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	18.98
Description			Activity Length		
Remove existing gas line along UNT2 – Permanent, Direct			444 ft L x 1 ft W (partial overlap with Culvert Crossing 3 & Riprap Apron 9)		

Table S3.C-12 Subfacility Details – UNT2

Subfacility Type	CULV Culvert Crossing				
Id	Culvert Crossing 3 UNT2 to Little Sewickley Creek (R2)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	33	Lat. Seconds	59.40
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	18.19
Description			Activity Length		
Culvert 3 – Permanent, Direct			90 ft L x 11.5 ft W		

Table S3.C-13 Subfacility Details – UNT2

Subfacility Type	CW Channel Work				
Id	Riprap Apron 9 UNT2 to Little Sewickley Creek (R2)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	33	Lat. Seconds	58.46
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	17.43
Description			Activity Length		
Riprap Apron for Culvert 3 – Permanent, Direct			Culvert Crossing 3 - 34 ft L x 11.5 ft W		

Table S3.C-14 Subfacility Details – UNT2

Subfacility Type	OUTFL EW24.3 Roadway Stormwater Pipe				
Id	Outfall 1 UNT2 to Little Sewickley Creek (R2)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	33	Lat. Seconds	58.51
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	17.58
Description			Activity Length		
15" Dia. Storm pipe across driveway – Permanent, Direct			Overlap with Riprap Apron 9		

Table S3.C-15 Subfacility Details – UNT2

Subfacility Type	PIPE Utility Crossing				
Id	Utility Crossing 3 UNT2 to Little Sewickley Creek (R2)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	33	Lat. Seconds	58.89
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	17.71
Description			Activity Length		
Storm pipe crossing –Permanent, Direct			Overlap with Culvert 3 – no incremental impact		

Table S3.C-16 Subfacility Details – UNT2

Subfacility Type	PIPE Utility Crossing				
Id	Utility Crossing 4 UNT2 to Little Sewickley Creek (R2)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	33	Lat. Seconds	56.40
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	16.02
Description			Activity Length		
OH E/T/C crossing – Permanent, Direct			Overlap with Utility Demo 2 – no incremental impact		

Table S3.C-17 Subfacility Details – UNT4/5

Subfacility Type	OTHER Removal of Existing Culvert				
Id	Culvert Demo 2 UNT4/5 to Little Sewickley Creek (R4)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	2.62
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	16.43
Description			Activity Length		
Removal of driveway culvert – Permanent, Direct			Overlap with Stream Fill 1		

Table S3.C-18 Subfacility Details – UNT4/5

Subfacility Type	CW Channel Work				
Id	Stream Fill 1 UNT4/5 to Little Sewickley Creek (R4)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	5.72
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	12.37
Description			Activity Length		
Fill in stream – Permanent, Direct			374 ft L x 3.5 ft W + 28 ft L x 1.5 ft W		

Table S3.C-19 Subfacility Details – UNT4/5

Subfacility Type	CW Channel Work				
Id	Channel Work 3 UNT4/5 to Little Sewickley Creek (R4)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	5.77
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	14.50
Description			Activity Length		
Channel modification of remainder of existing UNT4/5 – Permanent, Direct			89 ft L x 3.5 ft W		

Table S3.C-20 Subfacility Details – UNT6

Subfacility Type	OTHER Removal of Existing Culvert				
Id	Culvert Demo 3 UNT6 to Little Sewickley Creek (R6)				
County	Allegheny		County	Allegheny	
Lat. Degrees	40	Lat. Degrees	34	Lat. Degrees	00.07
Long. Degrees	-80	Long. Degrees	12	Long. Degrees	15.91
Description			Activity Length		
Removal of Culvert on Abandoned Road – Permanent, Direct			Overlap with Stream Fill 2		

Table S3.C-21 Subfacility Details – UNT6

Subfacility Type	CW Channel Work				
Id	Stream Fill 2 UNT6 to Ohio River (R6)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	33	Lat. Seconds	59.41
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	15.73
Description			Activity Length		
Fill in Stream – Permanent, Direct			161 ft L x 8 ft W + 80 ft L x 1.5 ft W		

Table S3.C-22 Subfacility Details – UNT6

Subfacility Type	OUTFL SWMF2 Principal spillway outfall				
Id	Outfall 2 UNT6 to Little Sewickley Creek (R6)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	33	Lat. Seconds	56.76
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	15.29
Description			Activity Length		
SWMF2 Principal Spillway Outfall – Permanent, Direct			3 ft L x 8 ft W		

Table S3.C-23 Subfacility Details – UNT6

Subfacility Type	CW Principal spillway outfall				
Id	Riprap Apron 6 UNT6 to Little Sewickley Creek (R6)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	33	Lat. Seconds	56.68
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	15.29
Description			Activity Length		
Riprap Apron 6 for SWMF2 Principal Spillway Outfall – Permanent, Direct			20 ft L x 8 ft W		

Table S3.C-24 Subfacility Details – UNT6

Subfacility Type	PIPE Sanitary Sewer Line Crossing				
Id	Utility Crossing 5 UNT6 to Little Sewickley Creek (R6)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	33	Lat. Seconds	57.06
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	15.29
Description			Activity Length		
Sanitary sewer line crossing – Permanent, Direct			1 ft L x 8 ft W		

Table S3.C-25 Subfacility Details – UNT6

Subfacility Type	CW OH E/T/C Crossing				
Id	Utility Crossing 6 UNT6 to Little Sewickley Creek (R6)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	33	Lat. Seconds	56.50
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	15.40
Description			Activity Length		
Overhead Electric/Telephone/Communication lines crossing – Permanent, Direct			1 ft L x 8 ft W		

Table S3.C-26 Subfacility Details – UNT6

Subfacility Type	OUTFL Reinforced Soil Slope Underdrain				
Id	Outfall 2 UNT6 to Little Sewickley Creek (R6)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	33	Lat. Seconds	58.03
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	15.55
Description			Activity Length		
SWMF2 Principal Spillway Outfall – Permanent, Direct			1 ft L x 8 ft W		

Table S3.C-27 Subfacility Details – UNT1

Subfacility Type	OTHER Pump Around				
Id	Pump Around 1 UNT1 to Little Sewickley Creek (R1)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	5.36
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	15.47
Description			Activity Length		
Pump Around – Temporary, Direct			24 ft L x 1 ft W		

Table S3.C-28 Subfacility Details – UNT2

Subfacility Type	OTHER Pump Around				
Id	Pump Around 2 UNT2 to Little Sewickley Creek (R2)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	34	Lat. Seconds	00.29
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	19.41
Description			Activity Length		
Pump Around – Temporary, Direct			24 ft L x 1 ft W		

Table S3.C-29 Subfacility Details – UNT1

Subfacility Type	OUTFL Outfall of Diverted Flow				
Id	Outfall 3 UNT1 to Little Sewickley Creek (R6)				
County	Allegheny		County	Allegheny	
Lat. Degrees	40	Lat. Degrees	33	Lat. Degrees	59.54
Long. Degrees	-80	Long. Degrees	14	Long. Degrees	07.33
Description			Activity Length		
Outfall for Diversion Channel D1 to UNT1 - Temporary, Direct			6 ft L x 11.5 ft W		

Table S3.C-30 Subfacility Details – UNT1

Subfacility Type	OTUTFL Outfall of Diverted Flow				
Id	Outfall 4 UNT1 to Little Sewickley Creek (R6)				
County	Allegheny		County	Allegheny	
Lat. Degrees	40	Lat. Degrees	34	Lat. Degrees	06.89
Long. Degrees	-80	Long. Degrees	12	Long. Degrees	5.98
Description			Activity Length		
Outfall for Diversion Channel D2 to UNT1 - Temporary, Direct			6 ft L x 11.5 ft W		

Table S3.C-31 Subfacility Details – UNT6

Subfacility Type	OTHER E&S Control - Rock Filter 1				
Id	Rock Filter 1 UNT6 to Little Sewickley Creek (R6)				
County	Allegheny		Municipality	Leet Twp.	
Lat. Degrees	40	Lat. Minutes	33	Lat. Seconds	56.34
Long. Degrees	-80	Long. Minutes	12	Long. Seconds	15.44
Description			Activity Length		
Erosion & sediment control BMP – rock filter – Temporary, Direct			10 ft L x 8 ft W		

The project will result in direct, permanent impacts to UNT1, UNT2, UNT4/5, and UNT6. No wetland impacts are predicted. The project will result in 330 linear feet of permanent, direct impacts to UNT1, 568 linear feet of direct, permanent impacts to UNT2, 491 linear feet of direct, permanent impacts to UNT4/5, and 254 linear feet of direct, permanent impacts to UNT6. UNT1 will have 13 linear feet of direct, temporary impacts, UNT2 will have 1 linear foot of direct, temporary impacts, and UNT6 will have 11 linear feet of direct, temporary impacts.

S3. D: Discussion of how the proposed subfacilities individually and in combination directly and/or indirectly impact the identified resources and the effects on applicable resource functions

Wetlands W1, W2, and W3, and streams UNT-1A and UNT-3 will not be impacted by the project, and no change in the hydrologic functions in these wetlands or streams is anticipated. A discussion of the impact of the proposed subfacilities on the remaining aquatic resources is described below.

Hydrologic Functions: The land cover and hydrologic response for runoff reaching UNT1 will not be changed significantly by the project. The flows from UNT1 will be moderated by SWMF1, which will accept runoff from both a portion of the Quaker Heights residential development and the athletic field site. Runoff volumes and peak flows are, therefore, anticipated to decrease, which would tend to lessen the “flashiness” of the watershed. Base flow conditions may be impacted due to the slight reduction in drainage area. Post-development flood flow velocities will be somewhat reduced from pre-development flood flows due to the proposed stormwater management and the reduction in drainage area. An existing culvert will be removed, a portion of the stream channel will be restored, and two new culverts with riprap aprons are proposed. UNT1 has sufficient hydraulic capacity to convey the peak flow for the 100-year event.

The land cover and hydrologic response for runoff reaching UNT2 will not be significantly changed by the project. The land cover within most of the UNT2 watershed will not change, and the bioretention ponds and the SWMF facilities provide volume, rate, and water quality controls for the stormwater runoff. The bioretention ponds are designed with MRC facilities to handle the up to the 2-year event. One culvert (Culvert 5, 90 feet long with a 32-foot riprap apron) is proposed in the UNT2 channel. Runoff peak flows are not anticipated to be increased. The UNT2 channel has sufficient hydraulic capacity to convey the peak flow for the 100-year event.

UNT4/5 and a portion of UNT6 will be filled. These streams are ephemeral, and have minimal hydrologic functions for groundwater recharge, or for storm and flood water storage and control.

Biochemical Functions: The biochemical functions of UNT1 will not be significantly altered by the project. The stream will experience a loss in runoff flows from the project areas which are currently mostly wooded or meadow. Flows from the project will be collected and conveyed to one of the two stormwater management facilities by separate channels, and UNT-1 will continue to flow in its present alignment and length.

The biochemical functions of UNT2 are not expected to change significantly by the project. The bioretention ponds and the stormwater management facilities, SWMF1 and SWMF2, lie upstream of UNT2; therefore, UNT2 will receive the full stormwater volume, rate, and quality benefits to be provided by these facilities.

Habitat Function: The habitat function of UNT1 will be reduced due to the proposed net reduction in open channel length. An existing 80-foot-long culvert on UNT1 will be removed and the stream restored. Two new culverts with riprap aprons, totaling 240 feet, will be installed for the new entrance road. The habitat functions of UNT1 may be currently limited due to the steepness of the existing channel, and no significant lessening of the channel slopes will occur due to the project. Observed aquatic life consisted of planaria and isopod, so some habitat does exist in the pooling areas. Similar habitat will likely exist after construction, but the length of stream habitat will be reduced. Stream habitat width will remain unchanged. Impacts to mammals, birds, and amphibians are anticipated to be slight, if any.

The habitat function of UNT2 will be reduced slightly due to the proposed reduction in open channel area. Observed aquatic life consisted of aquatic snail, planaria, isopod, and water strider. The same habitat will exist following construction, but the length of stream habitat will be reduced due to the 90-foot-long culvert. Stream habitat width will remain unchanged. Impacts to mammals, birds, and amphibians are anticipated to be slight, if any. UNT2 is downstream of the stormwater facilities providing volume, rate, and water quality controls, so no other significant changes are anticipated.

UNT4/5 and UNT6 offer minimal habitat function due to their ephemeral nature. Impacts to mammals, birds, and amphibians are anticipated to be slight, if any.

Recreation: The recreational functions of the existing streams UNT1, UNT2, UNT4/5, and UNT6 are minimal. Streamflow is not sufficient to maintain a fishery (all streams have been observed to have no flow at times).

Riparian Rights: The impacted stream reaches are within the project property. The impacts are not anticipated to extend beyond the LOD. Flood flows for storm events will be reduced to a limited extent at the downstream project limit due to the stormwater management. Streamflows are not used by any downstream property owners. UNT2 is effectively culverted from Beaver Street to State Route 65, from which the flow is directed to a channel that discharges to Little Sewickley Creek. The project will not alter the riparian rights of downstream landowners.

S3. E: Antidegradation Analysis

The project LOD is limited to 69.6 acres of the total 158-acre property. The project will permanently impact 0.19-acre of the total 0.74-acre of resources identified within the LOD. Several of these impacts will actually provide benefit, such as the channel restoration for the removed culvert on UNT1, and the removal of existing utilities crossing along UNT1 and UNT2. The project will avoid construction near the UNT to Little Sewickley Creek. The site will be graded such that the majority of the project LOD will drain to UNT1, UNT2, and UNT6. Minor reductions in the areas currently draining to the watershed of UNT to Little Sewickley Creek are proposed to allow collection and conveyance of areas within the LOD to be re-directed to UNT1 and UNT2. Small areas within the LOD currently draining to the UNT to Little Sewickley Creek will continue to drain to the UNT. The runoff from these areas will pass through ABACT erosion and sediment controls prior to discharge to the UNT to any of the streams.

material will be installed in the streams at the outfalls of proposed culverts. Areas not intended as roads, sidewalks, or other impervious surfaces will be restored as lawns or meadows.

The majority of runoff collected and conveyed to UNT1 or UNT2 will pass through bioretention ponds before being discharged to one of two stormwater management facilities (SWMF1 and SWMF2). SWMF1 is an underground detention facility and SWMF2 is a dry extended detention pond. The bioretention ponds will be coupled with underground Managed Release Concept (MRC) facilities.

Work in high quality watersheds require 150-foot riparian buffers. Leet Township Ordinance 2018-4 requires riparian areas within 35 feet of stream banks. The protected existing and the proposed riparian areas along UNT1 and UNT2 will provide shading and cooling of stream flows.

S3. F: Alternatives Analysis

See the *Project Purpose* (Attachment H) of the Joint Permit Application.

S3. G: Potential Secondary Impact Evaluations

The project will provide stormwater management for the upstream, off-site residential area. The stormwater management provided by SWMF1 and SWMF2 will result in reduced peak flows to UNT2 and to the Beaver Street culvert in Leetsdale. Improvements to the drainage along Camp Meeting Road are also proposed, and the collected runoff will be directed to SWMF1 for volume, rate, and water quality benefits. Runoff from off-site area from the Quaker Heights will be collected and directed to SWMF1 for stormwater management.

The LOD maintains more than 150-foot clearance from the UNT to Little Sewickley Creek at the far east side of the property, and 150-foot riparian buffers are provided for UNT1, UNT2, and UNT3. Runoff volumes and flows to the UNTs under post-construction conditions will be less than or equal to those under pre-construction conditions. Water quality to the UNTs will not be degraded.

Flows from the athletic field will discharge to SWMF1, which will provide stormwater volume, rate, and water quality controls. SWMF1 will discharge to UNT1. The school building site will drain to the MRCs and bioretention ponds and then to SWMF2. SWMF2 will discharge to UNT6.

The project E&S controls will be implemented per the approved E&SC Plan and as needed during construction.

S3. H: Identify & Evaluate Potential Cumulative Environmental Impacts

No potential cumulative impacts are anticipated to wetlands or to the streams. The project will not be constructed in phases, and no additional development at the site is planned.

A separate project is under consideration which involves improvements to Camp Meeting Road and UNT2 within Leetsdale Borough. The project under consideration would involve improving traffic safety conditions (sight lines, etc) at the intersection of Camp Meeting Road and Beaver Street, and is not directly associated with the proposed QVSD High School Campus project.

MODULE S4: MITIGATION PLAN

S4. A: Avoidance and Minimization Measures

The project scope has been limited to constructing the proposed high school campus. The project LOD has been limited to 69.6 acres of the 158-acre property. The project avoids impacts to the UNT to Little Sewickley Creek and to UNT3. An existing wooded riparian buffer of greater than 150 feet will protect the UNT. Impacts to UNT1, UNT2, and UNT6 are primarily limited to cutouts for the new entrance road. Riparian buffers are established for UNT1, UNT2, and UNT3. Runoff from impacted areas will be collected and directed to the stormwater management facilities draining to UNT1, and UNT6.

Impacts in Edgeworth Borough are avoided to the extent practicable, with the only work to be limited to filling the abandoned house foundation and stockpiling topsoil during construction. Stockpiling the topsoil will preserve the prime farmland soils (RycB) present in this location.

Stream reaches on UNT1, UNT2, and UNT6 will be preserved and/or enhanced with riparian buffers in accordance with Chapter 102 and Leet Township requirements. In order to satisfy Act 162 (35 P.S. §691.402) and regulations at 25 PA Code §102.14 regarding earth disturbance activities within 150 feet of intermittent/perennial Special Protection waters, offsetting is proposed to be satisfied by converting an existing riparian buffer to a riparian forest buffer at a separate location from the project within the Little Sewickley Creek watershed. The *Replacement Riparian Forest Buffer Management Plan (Plan)* and Riparian Buffer Module 4 of the National Pollutant Discharge Elimination System (NPDES) permit application under DEP permit file PAD020098 detail the buffer impacts and 'allowable activities' exempt from offsetting under PA Code §102.14(f)(2)(i-ii).

S4. B: Repair, Rehabilitation, and Restorative Actions

The Rayne prime farmland soil (RycB) located along the ridge will be stockpiled and used in the revegetation of the site.

Mitigation bank credits are proposed to provide the required mitigation for the loss of stream and floodplain.

Riparian buffers and planting areas beyond the top of channel bank will be established along the unimpacted reaches of UNT1 and UNT2 in accordance with Leet Township requirements. Riparian buffer lengths are 340 feet along UNT1 and 550 feet along UNT2, with total areas of 17,000 sq ft (UNT1) and 19,250 sq ft (UNT2).

An existing gas line that runs parallel to and within the UNT2 channel will be relocated and the pipe removed. One existing exposed gas line crossing of UNT1 will be removed.

Once the construction is completed, operation and maintenance of the aquatic resources will be incorporated into the normal operation and maintenance responsibilities of the high school campus. Typical activities would include monitoring the performance of the streams, stormwater management facilities, vegetated areas, and runoff collection and conveyance facilities. Repair, restoration, or replacement of the site and facilities will be performed in accordance with the project's *Operation and*

Maintenance Plan in the PCSM Plan and *Mitigation Monitoring Plan*. Refer to the *Mitigation Monitoring Plan* in Section S4.D for further information.

S4. C: Pennsylvania Function-Based Aquatic Resource Compensation Protocol

The Level 2 Assessment Protocol evaluations were performed for the wetland and the streams. The Level 2 evaluations are presented in Appendix E. Sediment stressor and water quality stressor indices for UNT1 are anticipated to remain the same, due to the unchanged upstream, off-site runoff conditions in the watershed. On-campus stormwater management controls (bioretention ponds) are designed to prevent degradation of the runoff from the campus for up to the 2-year event. The bioretention pond will be built over underground MRC facilities, which will provide associated water quality benefits.

Sediment stressor and water quality stressor indices for UNT2 are anticipated to marginally improve due to the treatment provided by SWMF1 and SWMF2. The proximity of Camp Meeting Road and its storm drainage system will limit the improvement for UNT-2.

The QVSD proposes mitigation bank credits for mitigation of the stream impacts. Once the impacts and mitigation requirements are established, the QVSD will evaluate its options for achieving the applicable mitigation.

Riparian buffers required by Leet Township are also proposed to mitigate for the stream impacts and protect the streams.

Replacement forested riparian buffers in the Devil's Hollow Conservation Area are proposed as mitigation for forested riparian areas lost at the site due to the project. Information on the proposed replacement plan is provided in Appendix F and in the *Replacement Riparian Forest Buffer Management Plan* prepared by Civil & Environmental Consultants, Inc..

S4. D: Mitigation Monitoring Plan

A mitigation monitoring plan for the riparian buffers is provided in Appendix F. The monitoring plan establishes responsibilities, frequency of inspections, and appropriate remedial actions to be performed.

APPENDIX A
Aquatic Resource Impact Table



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATERWAYS ENGINEERING AND WETLANDS

Applicant's Name / Client Quaker Valley School District

AQUATIC RESOURCE IMPACT TABLE
FOR PENNSYLVANIA CHAPTER 105 WATER OBSTRUCTION AND ENCROACHMENT APPLICATION

Please begin to complete the Aquatic Resource Impact Table by including the Applicant's Name / Client (upper right of the page) for each page. Also, complete the Project / Site Name (upper left of the table) and the date of application package submission (upper right of the table, under Applicant's Name / Client). Then complete one row of data for each regulated (PA DEP Chapter 105) structure or activity and type of impact for the proposed project based on the instructions for each column below; add additional worksheets if needed. Provide completed Aquatic Resource Impact Table with **Chapter 105 Water Obstruction and Encroachment application**; DO NOT submit instructions or example (page 1 or 2) for this table.

	DEP Permit Number:	leave blank, it will be completed by DEP upon permit issuance.
	Project Information	<i>provide the appropriate information based on the details on each impact for the project</i>
	Structure / Activity Identifier:	provide a unique identifier for each regulated structure and/or activity being proposed, typically a name and number; this same unique identifier should be used in all aspect of the permit application package.
	Aquatic Resource Type	<i>provide the type of aquatic resource (based on watercourse, floodway or wetland) being impacted;</i>
	Watercourse:	provide the type of watercourse being impacted: perennial or intermittent stream
	Floodway:	provide the type of floodway being impacted: crossing or paralleling to the stream
	Wetland:	provide the type of wetland being impacted: HGM Preferred , or the Palustrine Community Classification Group
	Latitude (nad83):	provide the latitude of the aquatic resource impact in decimal degrees (most online mapping tools provide this by clicking or right clicking).
	Longitude (nad83):	provide the longitude of the aquatic resource impact in decimal degrees (most online mapping tools provide this by clicking or right clicking).
	Waters Name:	provide the name of the stream or other body of water (if available). eMapPA can assist in locating names.
	PA Code Chapter 93 Designation:	provide the Chapter 93 designation for the aquatic resource (i.e. HQ-CWF, WWF, EV, MF and for wetlands EV or Other) to Identify Chapter 93: Use eMapPA , or designation in Chapter 93 , and identify Existing Use if more protective.
	PA DEP Chapter 105 Impacts	<i>provide the appropriate information based on the details on each impact for the project</i>
	Work Proposed:	provide the type of work proposed to impact the resource; aerial utility line, horizontal drill/boring, trench excavation or placement of fill
	PADEP Impact Type:	provide the type of aquatic resource impact; temporary or permanent.
	ACOE Impact Type:	provide the type of aquatic resource impact under section 404; temporary or permanent
	Watercourse Impact:	provide the length and width in feet of impact, indicate "n/a" if impact is to a wetland.
	Floodway Impact:	provide the length and width in feet of direct and indirect/secondary 100-year floodway impact, indicate "n/a" if impact is to a wetland.
	Wetland Impact:	provide the length and width in feet of impact to wetlands; indicate "n/a" if impact is to a watercourse.
	Army Corps Impacts: Entered only if Different from DEP Impacts	
	Watercourse Impact:	provide the length and width in feet of impact, indicate "n/a" if impact is to a wetland. If no impact to 404 Jurisdictional areas (ACOE Impacts) but there are DEP impacts, enter 0
	Wetland Impact:	provide the length and width in feet of impact to wetlands; indicate "n/a" if impact is to a watercourse. If no impact to 404 Jurisdictional areas (ACOE Impacts) but there are DEP impacts, enter 0

PADEP Impact Type: temporary or permanent.

Permanent Impacts are those areas affected by a water obstruction or encroachment that consist of both direct and indirect impacts that result from the placement or construction of a water obstruction or encroachment and include areas necessary for the operation and maintenance of the water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water.

Temporary Impacts are those areas affected during the construction of a water obstruction or encroachment that consists of both direct and indirect impacts located in, along or across, or projecting into a watercourse, floodway or body of water that are restored upon completion of construction. This does not include areas that will be maintained as a result of the operation and maintenance of the water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water (these are considered permanent impacts).

NOTE: Form 3150-PM-BWEW0557 or equivalent must be submitted for a Joint Permit Application. Applicants may choose to submit their own version of this table, as long as the minimum information is included, with additional columns placed to the right in a spreadsheet format. Many applicants choose to provide additional information or data to help DEP reviewers understand the type of aquatic resource, its condition, the nature of the impact, or simply to cross-reference the impact locations to maps, plans, or other application materials. Additional information often allows for a more efficient DEP review, and cross references to corresponding supplemental information is helpful and leads to less questions.

Applicant's Name / Client Quaker Valley School District

AQUATIC RESOURCE IMPACT TABLE
FOR PENNSYLVANIA CHAPTER 105 WATER OBSTRUCTION AND ENCROACHMENT APPLICATION

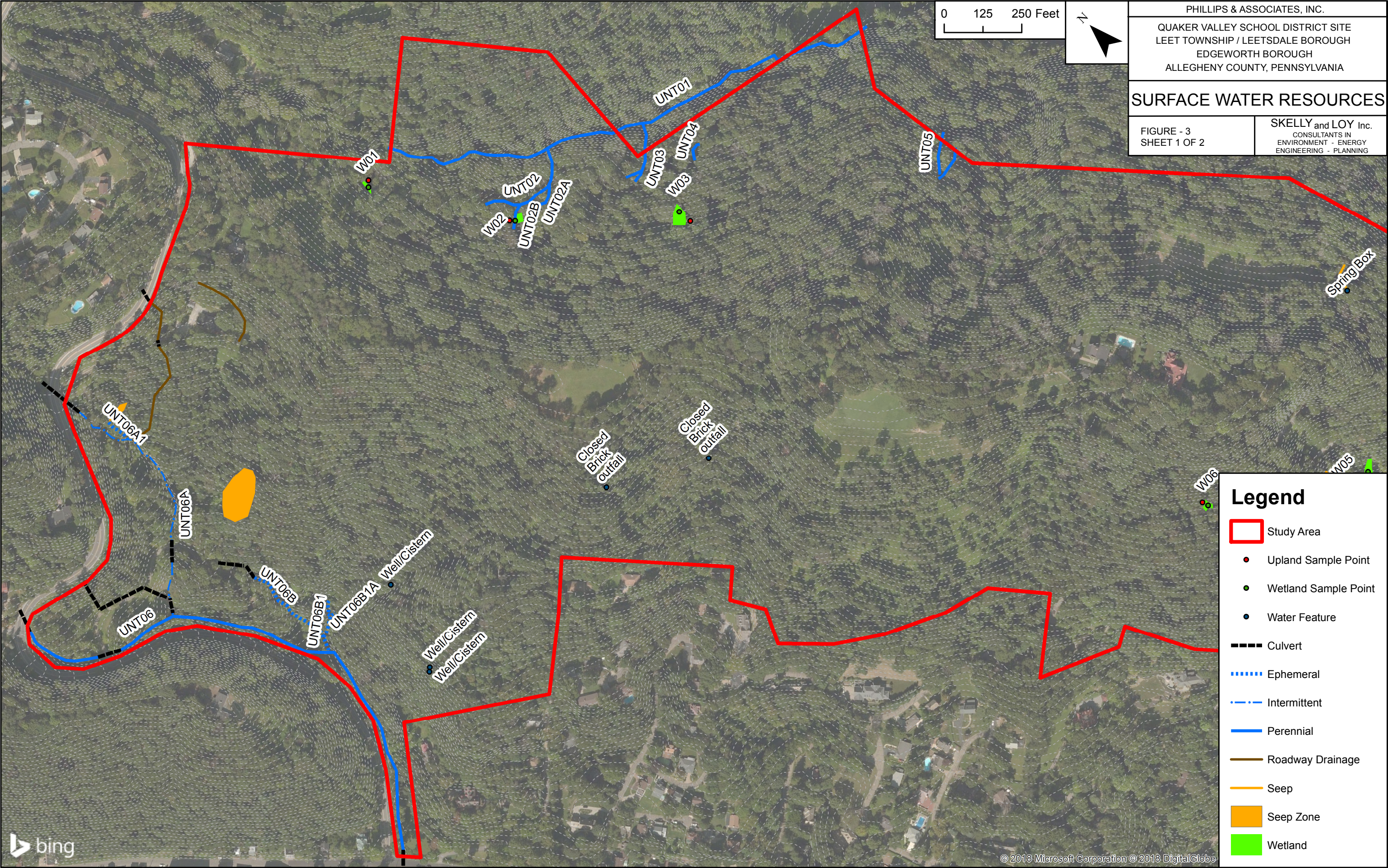
Project / Site Name: <u>QVSD High School Campus</u>							Date: <u>6-10-2026</u>							
DEP USE ONLY	Project Information						PA DEP / 105						Enter Only If Different from DEP Impacts Army Corps Impacts:	
PADEP Permit Number	Structure / Activity unique identifier	Aquatic Resource Type	Latitude dd nad83	Longitude dd nad83	Waters Name	PA Code Chapter 93 Designation	Work Proposed	DEP Impact Type temp / perm	ACOE Impact Type temp / perm	Watercourse Impact <i>Top of Bank to Top of Bank</i>	Floodway Impact <i>Top of Bank Landward</i>	Wetland Impact Dimensions	Watercourse Impact	Wetland Impact
										Length and Width in feet	Length and Width in feet	Length and Width in feet	Length and Width in feet	Length and Width in feet
	Utility Demo 1	Intermittent	40.56853	-80.20459	UNT1 Little Sewickley Creek	HQ-TSF	Remove existing gas line crossing on UNT1	Perm	Perm	1 – 11.5	0 - 0	n/a	-	-
	Culvert Demo 1	Intermittent	40.56724	-80.20478	UNT1 Little Sewickley Creek	HQ-TSF	Remove existing culvert	Perm	Perm	80 - 2.5	0 - 0	n/a	-	-
	Channel Work 1	Intermittent	40.56806	-80.20429	UNT1 Little Sewickley Creek	HQ-TSF	Channel Modification at Culvert 1 inlet	Perm	Perm	27 - 11.5	0 - 0	n/a	-	-
	Channel Work 2	Intermittent	40.56751	-80.20441	UNT1 Little Sewickley Creek	HQ-TSF	Channel Restoration at removed existing culvert	Perm	Perm	Overlap with Demo 2	0 - 0	n/a	-	-
	Culvert Crossing 1	Intermittent	40.56806	-80.20429	UNT1 Little Sewickley Creek	HQ-TSF	Culvert 1	Perm	Perm	98 - 11.5	0 - 0	n/a	-	-
	Riprap Apron 10	Intermittent	40.56775	-80.20431	UNT1 Little Sewickley Creek	HQ-TSF	Riprap Apron 10 for Culvert 1	Perm	Perm	26 - 11.5	0 - 0	n/a	-	-
	Culvert Crossing 2	Intermittent	40.56748	-80.20443	UNT1 Little Sewickley Creek	HQ-TSF	Culvert 2	Perm	Perm	98 - 11.5	0 - 0	n/a	-	-
	Riprap Apron 11	Intermittent	40.56727	-80.20174	UNT1 Little Sewickley Creek	HQ-TSF	Riprap Apron 11 for Culvert 2	Perm	Perm	Overlap with Culvert Demo 2	0 - 0	n/a	-	-
	Utility Crossing 1	Intermittent	40.56806	-80.20429	UNT1 Little Sewickley Creek	HQ-TSF	Storm pipe crossing	Perm	Perm	Overlap with Culvert 1	0 - 0	n/a	-	-
	Utility Crossing 2	Intermittent	40.56748	-80.20443	UNT1 Little Sewickley Creek	HQ-TSF	Storm pipe crossing	Perm	Perm	Overlap with Culvert 2	0 - 0	n/a	-	-
	Utility Demo 2	Perennial	40.56573	-80.20453	UNT2 Little Sewickley Creek	HQ-TSF	Remove existing gas line along UNT2	Perm	Perm	444-1 excluding overlap w/ Culvert 3, Riprap Apron 9 & Outfall 1	0 - 0	n/a	-	-
	Culvert Crossing 3	Perennial	40.56650	-80.20504	UNT2 Little Sewickley Creek	HQ-TSF	Culvert 3	Perm	Perm	90 - 11.5	0 – 0	n/a	-	-
	Riprap Apron 9	Perennial	40.56624	-80.20483	UNT2 Little Sewickley Creek	HQ-TSF	Riprap Apron 9 for Culvert 3	Perm	Perm	34 - 11.5	0 – 0	n/a	-	-
	Outfall 1	Perennial	40.56630	-80.20487	UNT2 Little Sewickley Creek	HQ-TSF	Storm Drain Pipe from new driveway at Culvert 3 endwall	Perm	Perm	Overlap with Riprap Apron 9	0 – 0	n/a	-	-
	Utility Crossing 3	Perennial	40.56636	-80.20491	UNT2 Little Sewickley Creek	HQ-TSF	Storm pipe crossing	Perm	Perm	Overlap with Culvert 3	0 - 0	n/a	-	-
	Utility Crossing 4	Perennial	40.56570	-80.20444	UNT2 Little Sewickley Creek	HQ-TSF	OH E/T/C crossing	Perm	Perm	Overlap with Utility Demo 2	0 - 0	n/a		
	Culvert Demo 2	Ephemeral	40.56862	-80.20329	UNT4/5 Little Sewickley Creek	HQ-TSF	Remove existing culvert	Perm	Perm	Overlap with Stream Fill 1	0 - 0	n/a	-	-

FOR PENNSYLVANIA CHAPTER 105 WATER OBSTRUCTION AND ENCROACHMENT APPLICATION

[illegible]

APPENDIX B
Wetland Determination & Stream Evaluation
Report

APPENDIX C
Skelly & Loy Figure



PHILLIPS & ASSOCIATES, INC.	
QUAKER VALLEY SCHOOL DISTRICT SITE LEET TOWNSHIP / LEETSDALE BOROUGH EDGEWORTH BOROUGH ALLEGHENY COUNTY, PENNSYLVANIA	
SURFACE WATER RESOURCES	
FIGURE - 3 SHEET 1 OF 2	SKELLY and LOY Inc. CONSULTANTS IN ENVIRONMENT - ENERGY ENGINEERING - PLANNING

Legend

- Study Area
- Upland Sample Point
- Wetland Sample Point
- Water Feature
- Culvert
- Ephemeral
- Intermittent
- Perennial
- Roadway Drainage
- Seep
- Seep Zone
- Wetland

APPENDIX D
USACE JD Memorandum



DEPARTMENT OF THE ARMY
PITTSBURGH DISTRICT, CORPS OF ENGINEERS
WILLIAM S. MOORHEAD FEDERAL BUILDING
1000 LIBERTY AVENUE
PITTSBURGH, PA 15222-4186

December 2, 2025

Regulatory Division
LRP-2025-00070

Quaker Valley School District
Attn: Charlie Gauthier
100 Leetsdale Industrial Drive
Suite B
Leetsdale, Pennsylvania 15056

Dear Mr. Gauthier:

Reference is made to your request for review of an approved jurisdictional determination, received on August 20, 2025. A delineation of the proposed Quaker Valley High School new campus project area located in Leetsdale, Allegheny County, Pennsylvania (Lat/Long: 40.564806, -80.198603) was performed in September-October 2023 and February-July 2025.

The Corps of Engineers' (Corps) authority to regulate waters of the United States is based on the definitions and limits of jurisdiction contained in 33 CFR 328. Navigable waters, their tributaries, and surrounding wetlands are waters of the United States subject to the provisions of Section 404 of the Clean Water Act. Based on information provided, a Corps' site visit dated May 21, 2025, and a desktop review, it has been determined that UNT-4/5 and UNT-6 are non-jurisdictional given their lack of relatively permanent flows to downstream traditional navigable waters (TNW).

This letter contains an approved jurisdictional determination (AJD) for your subject site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the Great Lakes and Ohio River Division Office at the following address:

Suzanne Chubb, Regulatory Program Manager
USACE, Great Lakes & Ohio River Division
550 Main Street, Room 10-780, CELRD-PD-O
Cincinnati, Ohio 45202-3222
(513) 218-1243
suzanne.l.chubb@usace.army.mil

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 C.F.R. part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address within 60 days.

It is not necessary to submit an RFA form to the Division office if you do not object to the determination in this letter.

The AJD included herein has been conducted to identify the location and extent of the aquatic resources for purposes of the Clean Water Act within the locations identified in your request. No jurisdictional determinations were requested over the remaining project area nor is one required in order to pursue permits under Section 404 of the Clean Water Act. This delineation may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of an NRCS Certified Wetland Determination with the local USDA service center, prior to starting work.

This delineation verification will remain valid for a period of five years from the date of this letter, unless new information warrants revision of the delineation. Every effort should be made to avoid impacts to the aquatic resources on-site. If stream or wetland impacts are proposed to jurisdictional resources, this office should be contacted to discuss permit requirements.

If you have any questions, please contact Jeremy N. Roberts by phone at (412) 395-7181 or email at Jeremy.N.Roberts@usace.army.mil. Please complete our customer survey online and provide us with feedback at <https://regulatory.ops.usace.army.mil/customer-service-survey/>.

Sincerely,

//SIGNED//

Alyssa B. Barkley
Chief, South Branch
Regulatory Division

Enclosure(s)
AJD Memorandum for Record (7 pgs.)
Project Area Drawing (1 pg.)

cc:
PADEP



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, PITTSBURGH DISTRICT
WILLIAM S. MOORHEAD FEDERAL BUILDING
1000 LIBERTY AVENUE
PITTSBURGH, PA 15222-4186

CELRP-RG

17 NOV 2025

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Approved Jurisdictional Determination in accordance with the "Revised Definition of 'Waters of the United States'"; (88 FR 3004 (January 18, 2023) as amended by the "Revised Definition of 'Waters of the United States'; Conforming" (8 September 2023) ,¹ [LRP-2025-00070] [(MFR 1 of 1)]²

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.³ AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.⁴

On January 18, 2023, the Environmental Protection Agency (EPA) and the Department of the Army ("the agencies") published the "Revised Definition of 'Waters of the United States,'" 88 FR 3004 (January 18, 2023) ("2023 Rule"). On September 8, 2023, the agencies published the "Revised Definition of 'Waters of the United States'; Conforming", which amended the 2023 Rule to conform to the 2023 Supreme Court decision in *Sackett v. EPA*, 598 U.S., 143 S. Ct. 1322 (2023) ("*Sackett*").

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. For the purposes of this AJD, we have relied on Section 10 of the Rivers and Harbors Act of 1899 (RHA),⁵ the 2023 Rule as amended, as well as other applicable guidance, relevant case law, and longstanding practice in evaluating jurisdiction.

¹ While the Revised Definition of "Waters of the United States"; Conforming had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.

² When documenting aquatic resources within the review area that are jurisdictional under the Clean Water Act (CWA), use an additional MFR and group the aquatic resources on each MFR based on the TNW, the territorial seas, or interstate water that they are connected to. Be sure to provide an identifier to indicate when there are multiple MFRs associated with a single AJD request (i.e., number them 1, 2, 3, etc.).

³ 33 CFR 331.2.

⁴ Regulatory Guidance Letter 05-02.

⁵ USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

CELRP-RG

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), [LRP-2025-00070]

1. SUMMARY OF CONCLUSIONS.

- a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).
 - i. UNT-4/5 (524 linear foot) – non-jurisdictional
 - ii. UNT-6 (431 linear feet) – non-jurisdictional

2. REFERENCES.

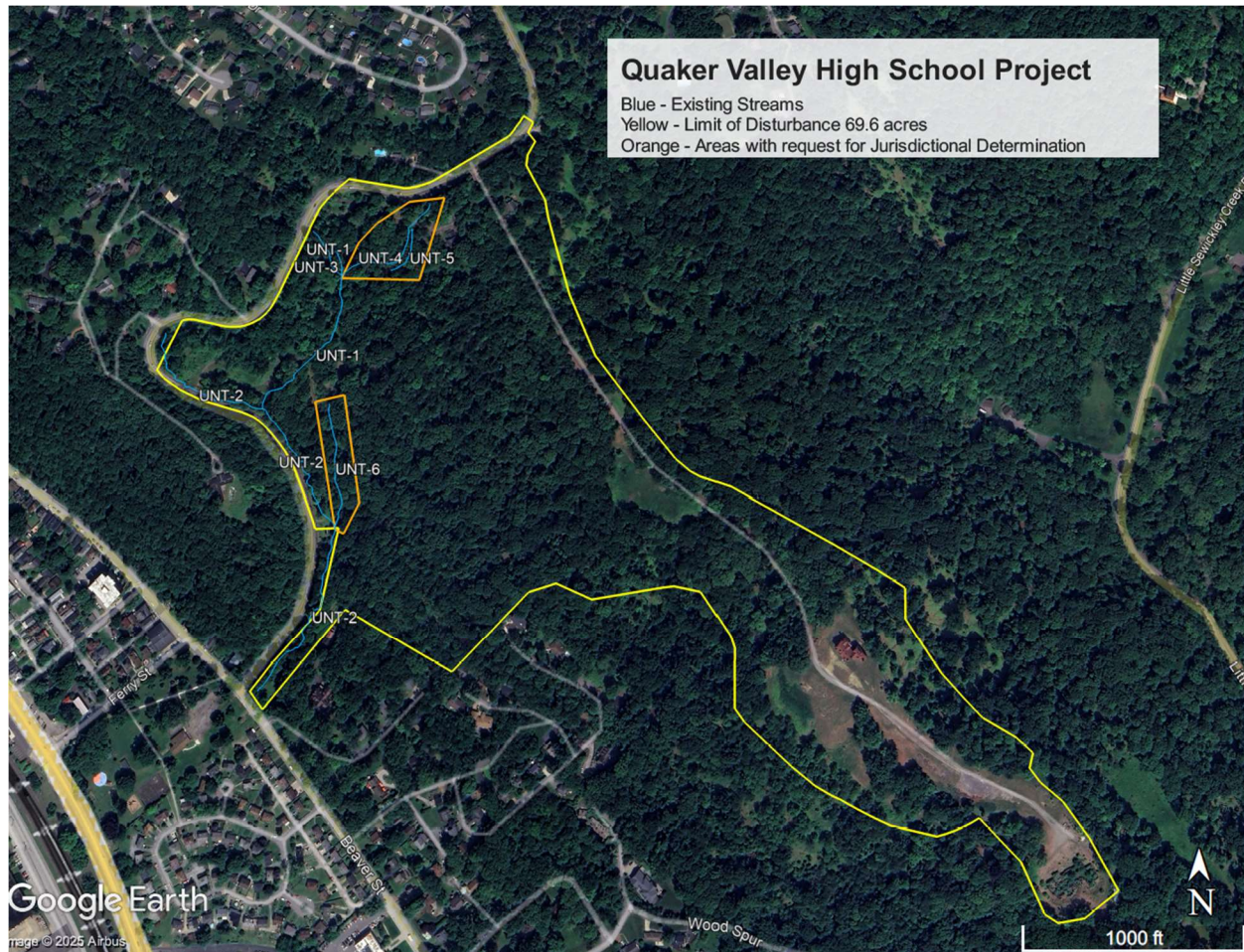
- a. “Revised Definition of ‘Waters of the United States,’” 88 FR 3004 (January 18, 2023) (“2023 Rule”)
- b. “Revised Definition of ‘Waters of the United States’; Conforming” 88 FR 61964 (September 8, 2023)
- c. *Sackett v. EPA*, 598 U.S. 651 (2023), 143 S. Ct. 1322 (2023)
- d. Memorandum to the Field Between the U.S. Department of the Army, U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency Concerning the Proper Implementation of “Continuous Surface Connection” Under the Definition of “Waters of the United States” Under the Clean Water Act (March 12, 2025)

3. REVIEW AREA.

- a. The Review Area is limited to the perimeter of the aquatic resources under evaluation of this AJD (see 3(b) below). This area is depicted on the attached, JD review map as the “AJD determination boundary”. The Review Area is located in Leetsdale, Allegheny County, Pennsylvania. The AJD review area is within a subset of a larger project area which will be evaluated under no JD.
- b. UNT-4/5, 524 linear feet/655 square feet (Lat/Long: 40.568509, - 80.203336)
- c. UNT-6, 431 linear feet/1,383 square feet (Lat/Long: 40.565703, - 80.204270)

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4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), THE TERRITORIAL SEAS, OR INTERSTATE WATER TO WHICH THE AQUATIC RESOURCE IS CONNECTED. Ohio River⁶ (Pittsburgh District Public Notice No. 12-2, Dated January 11, 2012)
5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, THE TERRITORIAL SEAS, OR INTERSTATE WATER.
 - a) UNT-4/5 - UNT-4 is a non-relatively permanent tributary originating at an outfall on the southern edge of Camp Meeting Road. This tributary flows into

⁶ This MFR should not be used to complete a new stand-alone TNW determination. A stand-alone TNW determination for a water that is not subject to Section 9 or 10 of the Rivers and Harbors Act of 1899 (RHA) is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established.

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SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), [LRP-2025-00070]

a washout area and dissipates into upland. Though this resource lacks a direct surficial connection to a TNW, the nearest downslope tributary is UNT-1 which flows into UNT-2. UNT-2 empties into Little Sewickley Creek before flowing into the Ohio River, a TNW.

- b) UNT-6 - UNT-6 originates along an abandoned access road and generally flows north to south until its confluence with UNT-2 near the Edgeworth Township Water Authority pump house along Camp Meeting Road. UNT-2 empties into Little Sewickley Creek before flowing into the Ohio River, a TNW.

6. SECTION 10 JURISDICTIONAL WATERS⁷: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10.⁸

N/A

7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the 2023 Rule as amended, consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the 2023 Rule as amended. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.

a. Traditional Navigable Waters (TNWs) (a)(1)(i): N/A

b. The Territorial Seas (a)(1)(ii): N/A

c. Interstate Waters (a)(1)(iii): N/A

⁷ 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions.

⁸ This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR part 329.14 to make a determination that water is a navigable water of the United States subject to Section 10 of the RHA.

- d. Impoundments (a)(2): N/A
- e. Tributaries (a)(3): N/A
- f. Adjacent Wetlands (a)(4): N/A
- g. Additional Waters (a)(5): N/A

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

- a. Describe aquatic resources and other features within the review area identified in the 2023 Rule as amended as not “waters of the United States” even where they otherwise meet the terms of paragraphs (a)(2) through (5). Include the type of excluded aquatic resource or feature, the size of the aquatic resource or feature within the review area and describe how it was determined to meet one of the exclusions listed in 33 CFR 328.3(b).⁹ N/A
- b. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the 2023 Rule as amended (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water).
N/A
 - i) UNT-4/5 (524 linear foot), 1st order stream. Both the top and bottom extent of UNT-4/5 exists within the review area. UNT-4/5 begins on its own right outside of the intersection of other streams and is therefore 1st order under Strahler stream order. UNT-4/5 is a single stream with divided flow that conveys the same drainage from Camp Meeting Road. The entire 524 linear foot reach of UNT-4/5 was considered under this review. The stream begins at the base of Camp Meeting Road, travels through a culvert under an abandoned driveway, and ends dissipating into a flatter area where it loses its ordinary high water mark (OHWM). The hillside area where the steep slope of the stream has evidently worn into the earth shows sign of bed & bank as well as cleared or wracked leaf litter within waterway indicating recent flow. Those areas are also somewhat incised. Prior site visits conducted by the applicant indicated that no flow was observed in this channel; however, the day of the Corps’ site visit included some precipitation and flow was observed. Though this waterway lacked a uniform channel with OHWM to downstream tributaries, it may be possible to describe the flat area as a natural break given the evident accumulation of material there may have

⁹ 88 FR 3004 (January 18, 2023)

obscured a previously existing OHWM – or flow is occurring just subsurface through larger material or fissures. The flatter area was also somewhat concave within the northern braid of the UNT and would convey flows to downstream tributaries if significant; however, it is evident that substantial flows of this magnitude are not frequent nor powerful enough to carve new surficial features which would indicate a regular flow in the bottom areas. The southern braid of this UNT also loses continuity with the OHWM and dissipates into upland; however, unlike the northern braid, the southern braid lacks concave landform. Most importantly, however, it is evident that the stream flow within UNT-4/5 is non-relatively permanent given it only appears to flow in response to precipitation. The Corps has considered the physical evidence in applying the definition of waters of the U.S. and has determined that UNT-4 is excluded under the definition of waters of the U.S. given its non-relatively permanent flow.

- ii) UNT-6 (431 linear feet), 1st order. Both the top and bottom extent of UNT-6 exists within the review area. UNT-6 begins on its own right outside of the intersection of other streams and is therefore 1st order under Strahler stream order. The entire 431 linear foot reach of UNT-6 was considered under this review. The stream begins as a culvert/inlet under an abandoned access road which flows into a channel that empties into UNT-2. Several large valley swales appear to intersect with UNT-6; however, these swales do not convey any significant flows as evidenced by their lack of physical presenting features (e.g. bed & bank, clearing of debris, etc.). UNT-6 near its confluence with UNT-2 appears to include more physical features of OHWM (such as bed & bank and wracking of loose debris and materials) than its upper portions. No flow was observed the day of the Corps site visit nor has flow been observed by the applicant during prior site visits. Wracking of loose materials was observed within its channel as well as more-significant wracking of detritus at the confluence of UNT-6 and UNT-2 which demonstrates that some amount of flow occurs in this area. Though other non-relatively permanent waterways were flowing at the time of the site visit, UNT-6 was not. The Corps has considered the physical evidence in applying the definition of waters of the U.S. and has determined that UNT-6 is excluded under the definition of waters of the U.S. given its non-relatively permanent flow.

9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.

- a. In-office evaluation conducted 23-24 JUL 2025; Review of updated wetland delineation report (revised August 14, 2025) conducted 17 NOV 2025.

CELRP-RG

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), [LRP-2025-00070]

- b. Corps site visit dated 21 MAY 2025.
 - c. Google Earth (Airbus, CNES/Airbus, Landsat/Copernicus, NASA, Maxar Technologies, USDA/FPAC/GEO, USGS): various dates 2005-2016.
 - d. USGS National Map Viewer: Ambridge 2023 US Topo.
 - e. PAMAP Program – Topographic Contours, 2-foot. 2006-2008, DCNR PAMAP Program.
 - f. Personal phone call. Mr. Douglas Ford, Street Commissioner, Leetsdale Borough. July 23, 2025, 11:00. Mr. Ford assisted with providing information regarding the flow path of UNT-2 after reaching the enclosure at Beaver Street. The waterway flows under Henli Park then south-southeast along Route 65 before entering Little Sewickley Creek and then the Ohio River, a TNW.
10. OTHER SUPPORTING INFORMATION. The Corps ran the Antecedent Precipitation Tool (APT) for the day of the site visit (21 APR 2025) and found that wetness conditions were rated as “normal” for the prior 60 days before the site visit – meaning that average precipitation fell within the 30-70th percentile of the previous 30-year normal range of precipitation for that same seasonal period. Within the prior 60-90 days, wetness condition was dry, though this is weighted far less than the two prior months where conditions were normal. According to the APT, after weighting, the site conditions were normal with regard to average wetness. The Palmer Drought Severity Index (PDSI), however, rated the day of the site visit within “incipient drought” conditions. The PDSI considers a wider range of considerations as well as forecasts within a longer range of time than a single day or weeks. Additionally, incipient status describes a slight divergence from near normal conditions and thus does not describe extreme or even moderate drought conditions. The Corps has considered the results from the APT and have determined that the climatic conditions encountered during the day of the Corps site visit were within a normal range for this time and season.
11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR’s structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.

U.S. Army Corps of Engineers (USACE) NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL		Form Approved - OMB No. 0710-0003 Expires 2027-10-31
For use of this form, see Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, and Section 103 of the Marine Protection, Research, and Sanctuaries Act; the proponent agency is CECW-COR.		
DATA REQUIRED BY THE PRIVACY ACT OF 1974		
Authority	The authorities for requesting this information are Sections 9, 10, 13, and 14, Rivers and Harbors Act of March 3, 1899; Section 404, Clean Water Act; and Section 103 Marine Protection Research and Sanctuaries Act of 1972.	
Principal Purpose	This information serves as notification to affected parties regarding the USACE administrative appeal options and process, as well as to facilitate requests for appeal of USACE decisions with which they disagree.	
Routine Uses	Routine uses will include: (a) To serve as notification to affected parties of the Corps administrative appeal options and process and to facilitate requests for appeal of Corps decisions with which they disagree. (b) Records may be referred to the Department of Justice for possible criminal prosecution. (c) Records may be referred to other Federal, State, and local agencies for evaluation and enforcement purposes.	
Disclosure	Disclosure of this information is voluntary on your part. However, failure of individual to provide requested information could result in inability to determine all pertinent information regarding a Department of the Army permit matter.	
The Agency Disclosure Notice (ADN)		
The Public reporting burden for this collection of information, 0710-0003, is estimated to average 1 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil . Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.		
PURPOSE: This form is used to facilitate the initiation of the administrative appeals process. The appeals process allows an affected party to pursue an administrative appeal of certain Corps of Engineers decisions with which they disagree.		
Upon release, this form will also be available on the Corps website https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/		
Applicant: Quaker Valley School District	File Number: LRP-2025-00070	Date: 2025-12-02
Documents Attached (<i>select all that apply</i>):		Form Reference Section:
☐	INITIAL PROFFERED PERMIT (<i>Standard Permit or Letter of Permission</i>)	A
☐	PROFFERED PERMIT (<i>Standard Permit or Letter of Permission</i>)	B
☐	PERMIT DENIAL WITHOUT PREJUDICE	C
☐	PERMIT DENIAL WITH PREJUDICE	D
☒	APPROVED JURISDICTIONAL DETERMINATION	E
☐	PRELIMINARY JURISDICTIONAL DETERMINATION	F
SECTION I		
The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/appeals/ or Corps regulations at 33 CFR Part 331.		
A: INITIAL PROFFERED PERMIT: <i>You may accept or object to the permit</i>		
ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.		
OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.		

B: PROFFERED PERMIT: *You may accept or appeal the permit*

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C. PERMIT DENIAL WITHOUT PREJUDICE: *Not appealable*

You received a permit denial without prejudice because a required Federal, state, and/or local authorization and/or certification has been denied for activities which also require a Department of the Army permit before final action has been taken on the Army permit application. The permit denial without prejudice is not appealable. There is no prejudice to the right of the applicant to reinstate processing of the Army permit application if subsequent approval is received from the appropriate Federal, state, and/or local agency on a previously denied authorization and/or certification.

D: PERMIT DENIAL WITH PREJUDICE: *You may appeal the permit denial*

You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: APPROVED JURISDICTIONAL DETERMINATION: *You may accept or appeal the approved JD or provide new information for reconsideration*

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- **RECONSIDERATION:** You may request that the district engineer reconsider the approved JD by submitting new information or data to the district engineer within 60 days of the date of this notice. The district will determine whether the information submitted qualifies as new information or data that justifies reconsideration of the approved JD. A reconsideration request does not initiate the appeal process. You may submit a request for appeal to the division engineer to preserve your appeal rights while the district is determining whether the submitted information qualifies for a reconsideration.

F: PRELIMINARY JURISDICTIONAL DETERMINATION: *Not appealable*

You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision you may contact:		If you have questions regarding the appeal process, or to submit your request for appeal, you may contact:	
Name:	Jeremy Roberts	Name:	Suzanne Chubb, Regulatory Program Manager
Street Address, City, State:	USACE Pittsburgh District, Regulatory Division 1000 Liberty Avenue, Suite 2005 Pittsburgh, PA 15222	Street Address, City, State:	USACE, Great Lakes & Ohio River Division 550 Main Street, Room 10-780, CELRD-PD-O Cincinnati, Ohio 45202-3222
Phone:	412-598-4730	Phone:	(513) 218-1243
Email:	jeremy.n.roberts@usace.army.mil	Email:	suzanne.l.chubb@usace.army.mil

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: *(Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. Use additional pages as necessary. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)*

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation and will have the opportunity to participate in all site investigations.

Email address of appellant and/or agent

Telephone number

Signature of appellant or agent

Date

Quaker Valley High School Project

Blue - Existing Streams

Yellow - Limit of Disturbance 69.6 acres

Orange - Areas with request for Jurisdictional Determination

UNT-1
UNT-3

UNT-4 UNT-5

UNT-1

UNT-2

UNT-2

UNT-6

UNT-2

Little Sewickley Creek Rd

Little

Ferry St

Beaver St

Wood Spur

Google Earth

Image © 2025 Airbus



1000 ft

APPENDIX E
Level 2 Rapid Assessment Protocol
Evaluations

APPENDIX F

Mitigation Plan



MITIGATION PLAN

1. INTRODUCTION

The proposed Quaker Valley School District (QVSD) high school project will involve permanent impacts to four streams (UNT1, UNT2, UNT4/5, and UNT6). The permanent impacts on UNT1 are for two proposed culverts with riprap aprons, one utility (gas line) crossing removal and removal of an existing culvert. The permanent impacts to UNT2 are a culvert with riprap apron, a stormwater outfall, and removal of a gas line that runs parallel to and within the channel. UNT4/5 and a portion of UNT6 will be filled in. No wetland impacts will occur.

The goal of the Mitigation Plan is to offset the environmental losses resulting from unavoidable impacts to waters of the U.S.

Riparian buffers will be established along UNT1 (intermittent), UNT2 (perennial), and UNT3 (intermittent). To satisfy Act 162 (35 P.S. §691.402) and regulations at 25 PA Code §102.14 regarding earth disturbance activities within 150 feet of intermittent/perennial Special Protection waters, offsetting is proposed to be satisfied by converting an existing riparian buffer to a riparian forest buffer at an off-site location within the Little Sewickley Creek watershed. The *Replacement Riparian Forest Buffer Management Plan (RRFBM Plan)* prepared by Civil & Environmental Consultants, Inc. (May 2026) and Riparian Buffer Module 4 of the National Pollutant Discharge Elimination System (NPDES) permit application under DEP permit file PAD020098 detail the buffer impacts and 'allowable activities' exempt from offsetting under PA Code §102.14(f)(2)(i-ii).

The RRFBM Plan proposes creation of a minimum of 0.67 acre of new forested riparian buffer at two offset planting areas in the Devil's Hollow Conservation Area in Bell Acres Borough. The Conservation Area has been managed by Allegheny Land Trust since 2016.

The goal of the offsite mitigation plan is to establish 60% uniform native tree and shrub cover after five (5) years within the proposed offsetting areas.

2: OBJECTIVE

The major components of the proposed high school project are the high school campus with associated roadways and stormwater management facilities. The site will have a main existing access road off Camp Meeting Road. A second access road will be needed for the school for safety and emergency reasons. The proposed second road would be from Camp Meeting Road, beginning near the base of the west-facing hillside. The culverts on UNT2 and UNT1 will be required as the road winds its way from Camp Meeting Road up the steep hillside to the campus.

Table 1 presents the predicted impact lengths, impact areas, and the lengths of the loss of open channel. The loss of open channel takes into account the lengths of existing culverts on the streams. The removal of the gas lines is considered an impact, but will not result in the loss of any open channel.

TABLE 1 SUMMARY OF STREAM IMPACTS

AQUATIC RESOURCE	IMPACT LENGTH (FT)	IMPACT AREA (SQ FT)	LENGTH, LOSS OF OPEN CHANNEL (FT)
UNT1	349	3,293.5	240
UNT2	470	1,751	122
UNT4/5	491	1662.5	463
UNT6	261	1,568	181
TOTAL	1,604	8,275	1,039

Creation of a minimum of 0.67 acre of new forested riparian buffer is proposed at two offset planting areas in the Devil's Hollow Conservation Area.

Leet Township Ordinance 2018-4 requires riparian buffer easements along streams. Invasive plant management and supplemental plantings are proposed within the riparian buffers. The proposed plantings at the project site are presented on the Landscape Plan.

3: SITE SELECTION

The proposed site is the Devil's Hollow Conservation Area in Bell Acres Township within the Little Sewickley Creek watershed, approximately one mile northeast of the project site. Two sites within the Conservation Area are proposed for the offset mitigation. The two offset planting areas are adjacent to Tributary 36659 to Little Sewickley Creek and the Ann Coburn Memorial Hiking Trail (Parcel 816-H-74). The Devil's Hollow Conservation Area has been managed by Allegheny Land Trust since 2016. The proposed sites are shown on the figures in Attachment 2 of the RRFBM Plan. Tree planting area 1A/1B is 0.54 acre, and tree planting area 2 is 0.13 acre. The planting sites are located in non-forested areas adjacent to approximately 630 linear feet of intermittent/perennial stream (490 feet in Tree Planting Area 1A/1B and 140 feet in Tree Planting Area 2). Planting Areas 1A/1B are located 0.25-mile east of the parking area adjacent to the existing hiking trail. Planting Area 2 is located at a trail head adjacent to an existing parking area of Sevin Road

4: SITE PROTECTION

The School District will own and have control over the riparian buffer zones at the school site. The School District will be responsible for operation and maintenance of the property, including for long term protection of the riparian buffers.

The offsite mitigation site is managed by the Allegheny Land Trust as a conservation area. The Western Pennsylvania Conservancy (WPC) maintains a conservation easement on the Devil's Hollow Conservation Area which prevents structures, and requires the properties to remain "forever wild". The easement is recorded in the Allegheny County Department of Real Estate, Recorder of Deeds, Book Volume 3684, Page 61.

5: BASELINE INFORMATION

UNT1 is a steep-gradient stream. Flow from the 100-year event is contained within the channel with no floodplain. UNT1 has a representative bank height of 6 feet, a bottom width of 6 feet, and a top width of 11.5

feet. The channel is incised on a steep slope on the hillside and exhibits significant fallen tree debris and accelerated erosion due to the upgradient Camp Meeting Road drainage system.

UNT2 within the project site flows parallel to Camp Meeting Road. Flow from the 100-year event is contained within the channel with no floodplain. UNT2 is a steep gradient stream with a representative bank height of 6 feet, a bottom width of 6 feet, and a top width of 11.5 feet. The channel is incised near the base of the hillside. The stream exhibits accelerated erosion due to the steep topography and rapid runoff conditions from the road drainage system.

Stream UNT4/5: Ephemeral. UNT4/5 is 524 feet long within the LOD, including a 28-foot-long 18-inch diameter culvert at the driveway to an abandoned residence and a 33-foot-long rock apron at the outfall of a roadway storm drain pipe under Camp Meeting Road. UNT4/5 is a single stream with divided flow that conveys the same roadway drainage. Representative dimensions of UNT4/5 are a bottom width of 1.25 feet, a top width of 3.5 feet, and a channel depth of 1.5 feet.

Stream UNT6: Ephemeral. UNT6 is 465 feet long, including an 80-foot-long culvert that crosses an old access road to the abandoned residential development through the site. UNT6 has a representative bank height of 3.0 feet, a bottom width of 3 feet, and a top width of 8 feet.

Baseline information on the Devil's Hollow Conservation Areas is provided in the RRFBM Plan.

6: DETERMINATION OF CREDITS

Determination of the number of mitigation credits applicable to this project will be made by the PADEP and the USACE.

7: MITIGATION WORK PLAN

The losses of the streams will require mitigation. Specifics of the mitigation work plan will be developed once the mitigation requirements are established.

The on-site riparian buffer zones are based on the preservation and protection of undisturbed reaches of UNT1, UNT2, and UNT3.

At the offset mitigation sites, plantings will involve trees zones with average minimum widths of a total 150 feet as measured perpendicular from the top of the adjacent streambank consisting of Zone 1 (0-50 feet undisturbed native trees) and Zone 2 (50-150 feet, managed native trees and shrubs).

8: MAINTENANCE PLAN

The Contractor for the school construction will be responsible for implementation and the initial success of the riparian buffers and planting areas. Contractor responsibilities will include control of predation on the plantings, control of invasives, temporary irrigation to facilitate growth, and the replacement of diseased or damaged plantings during the first year of growth.

Once construction of the high school campus is completed, the QVSD Director of Facilities will be responsible for the operation and maintenance of the riparian buffers and planting areas. The QVSD will monitor the

buffers and planting areas for predation, invasive species, and diseased and damaged plants, and remove and replace such plants as may be needed.

9: PERFORMANCE STANDARDS

The goal of this plan is to establish 60% uniform native tree and shrub cover after five (5) years within the proposed offsetting areas. The following categories of performance standards are considered for the project:

1. Hydrological standards – Monitoring of the hydraulic capacities of the stream channels and culverts. The hydraulic capacities should not be diminished by more than 10% by flow area.
2. Geomorphological Standards – Monitoring of the channel stabilities, including bank erosion rates and sediment transport.
3. Biological standards – Monitoring the success rate of the plantings. Achieve a minimum success rate of 60% for the shrubs and trees, and 80% for the graminoid vegetation cover. Maintain habitat quality for aquatic and riparian species.
4. Water quality standards - Ensure sediment loads are within acceptable limits to maintain water quality.

The list of performance standards is presented in Table 2.

TABLE 2 PERFORMANCE STANDARDS

Aquatic Resource	Performance Standard Category	Performance Standard	Measurable	Observable
UNT1	Hydrological	Hydraulic Capacity	Yes	Yes
UNT1	Geomorphological	Stream Banks Stability	No	Yes
UNT1	Biological Standards	Success of Riparian Trees & Shrubs	Yes	Yes
		Success of Graminoids	Yes	Yes
UNT1	Water Quality	Water Quality	Yes	Yes
UNT2	Hydrological	Hydraulic Capacity	Yes	Yes
UNT2	Geomorphological	Stream Banks Stability	No	Yes
UNT2	Biological Standards	Success of Riparian Trees & Shrubs	Yes	Yes
		Success of Graminoids	Yes	Yes
UNT2	Water Quality	Water Quality	Yes	Yes

10: MONITORING REQUIREMENTS

A minimum monitoring period of 5 years is anticipated. The requirements for the five-year monitoring of the on-site riparian buffers are listed in Table 3. The monitoring requirements for the offsetting mitigation sites are described in the Plan.

TABLE 3 MONITORING REQUIREMENTS

Monitoring Event	Replacement Wetland, Riparian Buffers, & Planting Areas	Frequency
Year 0 (As-Built)	As-built Survey of Plantings (Types & Numbers)	• Visual, every 6 months
Year 1	• Survey of Plantings (Types & Numbers) • Stream Channel Stability/Hydrology	• Visual, every 6 months
Year 2	• Vegetation (Section V) • Stream Channel Stability/Hydrology	• Visual, every 6 months
Year 3	• Vegetation • Stream Channel Stability/Hydrology	• Visual, annually if no problems in years 1-2; every 6 months otherwise
Year 4	• Vegetation • Stream Channel Stability/Hydrology.	• Visual, annually if no problems in years 1-2; every 6 months otherwise
Year 5	• Vegetation • Stream Channel Stability/Hydrology	• Visual, annually if no problems in years 1-2; every 6 months otherwise

11: LONG-TERM MANAGEMENT PLAN

After performance standards are achieved, the project will enter the phase of long-term management. Operation and maintenance of the mitigation areas will be incorporated into the normal operation and maintenance responsibilities of the QVSD at the school site and the and the Allegheny Land Trust at the Devil's Hollow Conservation Area, according to the above monitoring schedule.

Long-term financing for operation and maintenance at the school site will be provided by the School District. The site is expected to remain as School District property for perpetuity.

In case of observing underperformance of the monitoring standards, a repair will be planned. For areas of underperforming vegetative cover, the appropriate action of repair, restoration, or replacement of the vegetation will take place.

12: ADAPTIVE MANAGEMENT PLAN

The PADEP and/or the U. S. Army Corps of Engineers will be notified if mitigation fails to achieve the necessary performance standards as specified in the mitigation plan. Corrective actions and additional monitoring will take place. If necessary, an alternative mitigation plan will be developed.

13: FINANCIAL ASSURANCES

No financial assurance is assumed necessary to ensure funding is available to implement the approved mitigation plan or to implement corrective measures if additional work is required to ensure the success of the mitigation activities. The QVSD will guarantee the requisite funding is available should additional work at the school site is required.