



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

Erosion Potential (EP) Analysis For Chapter 102 Permits

Applicant Name: Quaker Valley School District Project Site Name: Quaker Valley High School New Campus

Discharge Point (DP) ID: DP-1 During Construction Following Construction

- An EP Analysis is not required because:
 - Stormwater discharges will be directly to surface waters through an outfall or storm sewer.
 - A new channel will be designed and constructed to convey runoff in accordance with DEP's E&S Manual. *The channel is designed per Leet Township SW Ordinance 2018-4 for the 100-year event.*
 - A level spreader is proposed and calculations are provided to demonstrate sheet flow below the level spreader.
 - Flow path characteristics will not change and calculations are provided to demonstrate that the 10-year/24-hour storm discharge rate will not increase.

Conveyance Information

Type of Conveyance:

- Existing channel/swale or other flow path that will be partially improved
- Existing channel/swale or other flow path that will not be improved

Distance to Property Boundary: _____ ft Distance to Surface Water or Storm Sewer: _____ ft

Flow Path Information

The entire flow path is shown on: E&S PCSM Plan Drawings

Plan Drawing No(s): _____

Description of land cover of flow path: _____

- Photographs of the flow path are attached.

Critical Section Data:

Peak discharge rate at 10-year/24-hour storm (attach calculations or model output): _____ cfs

Slope: _____ % Soil type(s): _____ Soil Erodibility (k) factor: _____

Maximum Allowable Velocity: _____ fps Source: _____

Maximum Allowable Shear: _____ psf Source: _____

Calculated Maximum Velocity: _____ fps (Attach calculations or model output)

Calculated Maximum Shear: _____ psf (Attach calculations or model output)

Source of topographic data for flow path: _____

- The flow path will be improved as described below.

Affected Landowners:

- Stormwater discharges will not flow off-site.

Landowner Name	Address	Phone No.	Email

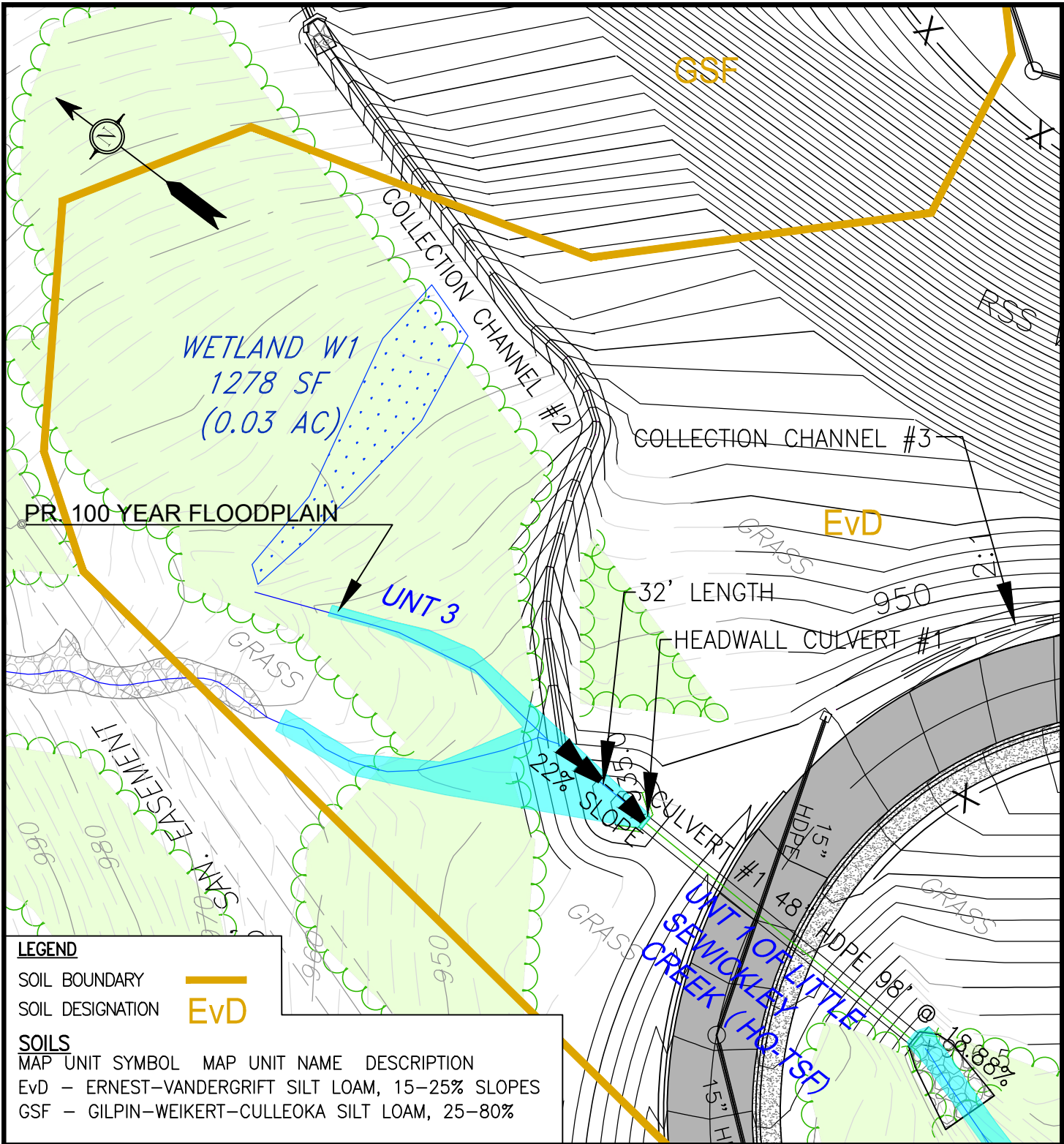
- Landowner consent has been or will be obtained for stormwater discharges.

Kerry L. Frech, P.E.

06/12/2026

Name of Individual Completing Form

Date



LEGEND

SOIL BOUNDARY ———
 SOIL DESIGNATION **EvD**

SOILS

MAP UNIT SYMBOL	MAP UNIT NAME	DESCRIPTION
EvD	ERNEST-VANDERGRIFT SILT LOAM, 15-25% SLOPES	
GSF	GILPIN-WEIKERT-CULLEOKA SILT LOAM, 25-80%	

Map Reference:
 1. FIELD SURVEY OF PROPERTY BOUNDARY, UTILITIES, EASEMENTS, RIGHT OF WAYS, PHYSICAL STRUCTURES, ETC. BY DENNIS DULL LAND SURVEYING, 120 KLINE AVE., N. VERSAILLES, PA 15137.
 2. AERIAL TOPOGRAPHIC MAPPING DATED 4-20-22, BY THE THRASHER GROUP, INC., 600 WHITE OAK BLVD., P.O. BOX 940, BRIDGEPORT, WV. 26330.

**EROSION POTENTIAL ANALYSIS
 QUAKER HIGH SCHOOL
 LEET TOWNSHIP, LEETSDALE AND EDGEWORTH BOROUGHS
 ALLEGHENY COUNTY, PENNSYLVANIA**

STREAMLINE ENGINEERING, INC
 110 ALLAN STREET LOWER BURRELL, PA, 15068
 TELEPHONE 724-594-0326
 PROJECT NO. 21-109

FIGURE EPA-1

Scale: 1"=40'

Date: 6/12/2026



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Erosion Potential (EP) Analysis For Chapter 102 Permits

Applicant Name: Quaker Valley School District Project Site Name: Quaker Valley High School New Campus

Discharge Point (DP) ID: DP-2 During Construction Following Construction

- An EP Analysis is not required because:
 - Stormwater discharges will be directly to surface waters through an outfall or storm sewer.
 - A new channel will be designed and constructed to convey runoff in accordance with DEP's E&S Manual.
 - A level spreader is proposed and calculations are provided to demonstrate sheet flow below the level spreader.
 - Flow path characteristics will not change and calculations are provided to demonstrate that the 10-year/24-hour storm discharge rate will not increase.

Conveyance Information

Type of Conveyance:

- Existing channel/swale or other flow path that will be partially improved
- Existing channel/swale or other flow path that will not be improved

Distance to Property Boundary: _____ ft Distance to Surface Water or Storm Sewer: _____ ft

Flow Path Information

The entire flow path is shown on: E&S PCSM Plan Drawings

Plan Drawing No(s): _____

Description of land cover of flow path: _____

- Photographs of the flow path are attached.

Critical Section Data:

Peak discharge rate at 10-year/24-hour storm (attach calculations or model output): _____ cfs

Slope: _____ % Soil type(s): _____ Soil Erodibility (k) factor: _____

Maximum Allowable Velocity: _____ fps Source: _____

Maximum Allowable Shear: _____ psf Source: _____

Calculated Maximum Velocity: _____ fps (Attach calculations or model output)

Calculated Maximum Shear: _____ psf (Attach calculations or model output)

Source of topographic data for flow path: _____

- The flow path will be improved as described below.

Affected Landowners:

Stormwater discharges will not flow off-site.

Landowner Name	Address	Phone No.	Email

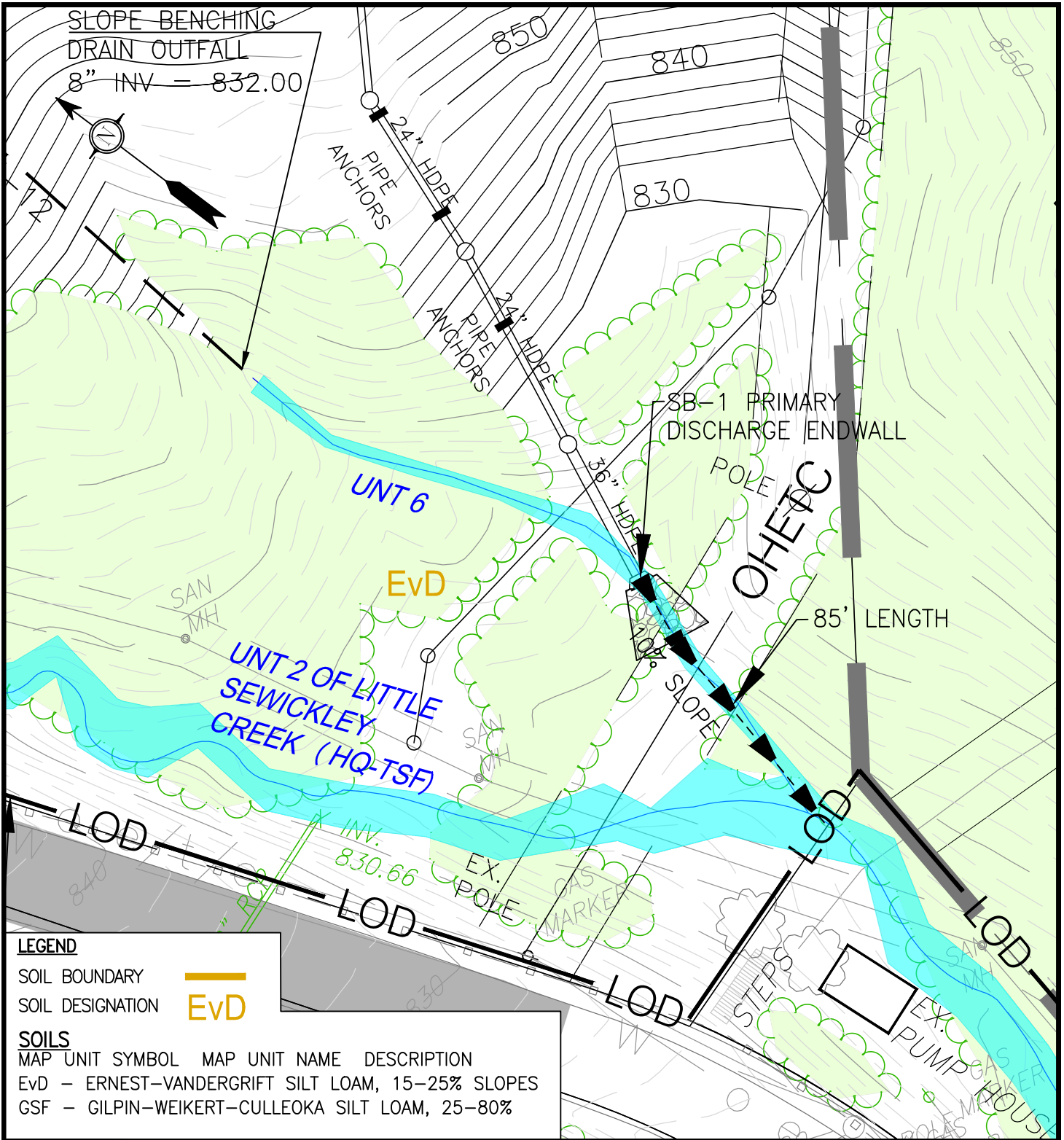
- Landowner consent has been or will be obtained for stormwater discharges.

Kerry L. Frech, P.E.

06/12/2026

Name of Individual Completing Form

Date



Map Reference:
 1. FIELD SURVEY OF PROPERTY BOUNDARY, UTILITIES, EASEMENTS, RIGHT OF WAYS, PHYSICAL STRUCTURES, ETC. BY DENNIS DULL LAND SURVEYING, 120 KLINE AVE., N. VERSAILLES, PA 15137.
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FIGURE EPA-2

Scale: 1"=40'

Date: 6/12/2026

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	32.29	3	729	121,386	-----	-----	-----	UNT1 Pre
2	SCS Runoff	37.47	3	729	139,728	-----	-----	-----	UNT2A REACH 2.1 Pre
3	Combine	69.76	3	729	261,114	1, 2	-----	-----	UNT 2 REACH 2.2 PRE
4	SCS Runoff	12.87	3	723	36,755	-----	-----	-----	UNT2B Pre
5	SCS Runoff	2.725	3	723	7,609	-----	-----	-----	UNT3 Pre
6	SCS Runoff	4.906	3	729	18,241	-----	-----	-----	UNT4/5 Pre
7	SCS Runoff	16.01	3	726	57,410	-----	-----	-----	UNT6 Pre
8	Combine	95.76	3	726	355,280	1, 2, 4, 7	-----	-----	POA1 Total Pre
9	Manual	2.700	3	828	143,887	-----	-----	-----	SWMF1 Underground Detention
10	SCS Runoff	24.41	3	729	90,114	-----	-----	-----	UNT1 Post
11	Combine	25.02	3	729	234,002	9, 10	-----	-----	UNT 1 Total and Culvert 1 and 2
12	SCS Runoff	38.27	3	729	142,547	-----	-----	-----	UNT2A Post
13	Combine	63.29	3	729	376,547	11, 12	-----	-----	UNT2 REACH 2.2 and Culvert 5
14	SCS Runoff	12.69	3	723	36,228	-----	-----	-----	UNT2B Post
15	SCS Runoff	2.891	3	723	8,040	-----	-----	-----	UNT3 Post
16	SCS Runoff	5.991	3	723	17,341	-----	-----	-----	UNT6 Post Uncontrolled
17	Manual	11.13	3	744	194,330	-----	-----	-----	SWMF2 Detention Basin
18	Combine	13.61	3	729	211,672	16, 17	-----	-----	Total UNT6
19	Combine	86.04	3	726	624,448	13, 14, 18	-----	-----	POA1 Post Total
QVSD H&H 2026-05-20.gpw					Return Period: 10 Year			Friday, 06 / 19 / 2026	