



**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES
EROSION AND SEDIMENT CONTROL (E&S) MODULE 1**

Applicant: Upper Dublin Township

Project Site Name: Upper Dublin Township Building

Surface Water Name(s): UNT to Wissahickon Creek

Surface Water Use(s): TSF, MF

E&S PLAN INFORMATION

1. Describe the existing topographic features of the project site and the immediate surrounding area.
The existing project site is a Township Municipal campus with a Township/Police building, a public works building, other support structures, parking lots, driveways, and laydown areas.

2. Complete the following table for soils present at the project site.

Map Unit Symbol	Map Unit Name	Acres	HSG	% of Disturbed Area	Depth (ft)	Hydric
BwA	Buckingham Silt Loam	0.0	B/D	0	8.25	<input type="checkbox"/>
LaB	Lansdale Loam	0.2	B	3	5	<input type="checkbox"/>
UdtB	Udorthents, Shale and Sandstone	0.1	C	1	8.25	<input type="checkbox"/>
UgB	Urban Land	9.6	C	96	varies	<input type="checkbox"/>
UusB	Urban Land-Udorthents, Shale and Sandstone Complex	0.6	A	0	8.25	<input type="checkbox"/>

Discuss any soil limitations and how the E&S Plan was designed to address those limitations.

Accordint to PA DEP Appendix E, soil limitations include cutbacks cave (OSHA standards to be utilized during trenching and excavation), corrosive to concrete/steel (precautions taken to protect underground pipes, conduits, and storage tanks), easily erodible (check E&S facilities frequently; immediately stabilize and limit time of exposure), depth to saturated zone/seasonal high water table (appropriate means to handle water in excavation provided), low strength/landslide prone (precautions taken to provide slope failure), slow percolation (soil testing actually indicates this is not true), piping (compaction and suitable bedding utilized), frost action (measures taken to prevent damage), and wetness (appropriate means to handle water in excavation provided)

If Hydric soils are present, is a wetland determination attached to this module? Yes No N/A

If soils are known to be contaminated, 1) identify the pollutants exceeding Act 2 standards in the space provided below, 2) identify the extent of soil contamination on an E&S Plan Drawing that is attached to this module, and 3) describe the methods that will be used to avoid or minimize disturbance of the contaminated soils in the space provided below.

N/A

3. Describe the characteristics of the earth disturbance activity, including the past, present and proposed land uses and the proposed alteration to the project site.

Currently the project area is the Township campus, which has existed since 1964. The proposed land use is as a Township campus with reconstructed buildings and site improvements.

4. Describe the volume and rate of runoff from the project site and its upstream watershed area.

The project area drains to 2 separate discharge pionts which both discharge to an UNT of the Wissahickon Creek. Discharge point 001 is located in the southwestern corner of the site in a 36" pipe that discharges to a swalk along Route 309 and then under Route 309 to the UNT of the Wissahickon Creek and has been design to reduce runoff rate and volume by decreasing impervious surfacea and area. Discharge point 002 is in the southeastern portin of the site in a 36" pipe that is conveyed via pipe to the same culvern under Route 309 to the UNT of the Wissahickon Creek and utilizes a raingarden to address the rate and volume requirements.

5. Check boxes to indicate all BMPs that will be installed or implemented, identify plan numbers for the BMPs, and describe any deviations from the E&S Manual.

E&S BMPs	Plan No(s). Identified	Plan No(s). for O&M	Deviation(s) from E&S Manual
<input checked="" type="checkbox"/> Rock Construction Entrance	C601	C602	using approved alternate rock construction entrance
<input type="checkbox"/> Rock Construction Entrance with Wash Rack			
<input type="checkbox"/> Rumble Pad			
<input type="checkbox"/> Wheel Wash			
<input type="checkbox"/> Temporary and Permanent Access Roads			
<input type="checkbox"/> Waterbar			
<input type="checkbox"/> Broad-based Dip			
<input type="checkbox"/> Open-top Culvert			
<input type="checkbox"/> Water Deflector			
<input type="checkbox"/> Roadside Ditch			
<input type="checkbox"/> Ditch Relief Culvert			
<input type="checkbox"/> Turnout			
<input type="checkbox"/> Compost Sock Sediment Trap			
<input type="checkbox"/> Temporary Stream Crossing			
<input type="checkbox"/> Temporary Wetland Crossing			
<input type="checkbox"/> Turbidity Barrier (Silt Curtain)			
<input type="checkbox"/> Dewatering Work Areas			
<input checked="" type="checkbox"/> Pumped Water Filter Bag	C602	C602	
<input type="checkbox"/> Sump Pit			
<input checked="" type="checkbox"/> Waste Management	C602	C602	
<input checked="" type="checkbox"/> Concrete Washout	C601	C602	
<input checked="" type="checkbox"/> Compost Filter Sock	C601	C602	
<input type="checkbox"/> Compost Filter Berm			
<input type="checkbox"/> Weighted Sediment Filter Tube			
<input checked="" type="checkbox"/> Rock Filter Outlet	C602	C602	
<input type="checkbox"/> Silt Fence (Filter Fabric Fence)			
<input type="checkbox"/> Reinforced Silt Fence			
<input type="checkbox"/> Super Silt Fence (Super Filter Fabric Fence)			

E&S BMPs	Plan No(s). Identified	Plan No(s). for O&M	Deviation(s) from E&S Manual
<input type="checkbox"/> Sediment Filter Log (Fiber Log)			
<input type="checkbox"/> Wood Chip Filter Berm			
<input type="checkbox"/> Straw Bale Barrier			
<input type="checkbox"/> Rock Filter			
<input type="checkbox"/> Vegetative Filter Strip			
<input checked="" type="checkbox"/> Inlet Filter Bag	C601	C602	
<input type="checkbox"/> Stone Inlet Protection			
<input type="checkbox"/> Runoff Conveyance (Channel)			
<input type="checkbox"/> Bench			
<input type="checkbox"/> Top-of-Slope Berm			
<input type="checkbox"/> Temporary Slope Pipe			
<input type="checkbox"/> Sediment Basin			
<input type="checkbox"/> Sediment Trap			
<input type="checkbox"/> Riprap Apron			
<input type="checkbox"/> Flow Transition Mat			
<input type="checkbox"/> Stilling Basin (Plunge Pool)			
<input type="checkbox"/> Stilling Well			
<input type="checkbox"/> Energy Dissipater			
<input type="checkbox"/> Drop Structure			
<input type="checkbox"/> Earthen Level Spreader			
<input type="checkbox"/> Structural Level Spreader			
<input type="checkbox"/> Surface Roughening			
<input checked="" type="checkbox"/> Vegetative Stabilization	C601	C602	
<input checked="" type="checkbox"/> Erosion Control Blanket	C601	C602	
<input type="checkbox"/> Soil Binders			
<input type="checkbox"/> Sodding			
<input type="checkbox"/> Cellular Confinement Systems			
<input type="checkbox"/> Alternative:			
<input type="checkbox"/> Alternative:			

Table 1 – For PAG-01 applicants, complete the requested information for each selected E&S BMP, where applicable.

Site Access BMPs									
BMP Name	No.	Length (ft)	Width (ft)	% Slope	Spacing (ft)	Length of Upslope Drainage (ft)	Culvert Diameter (in)	Soil Type in Ditch	E&S Manual Figure/Detail No.
Rock Construction Entrance (RCE)									
RCE with Wash Rack									
Temporary and Permanent Access Roads – Crowned Roadway									
Temporary and Permanent Access Roads – Insloped Roadway									
Waterbar									
Broad-based Dip									
Open-top Culvert									
Water Deflector									
Roadside Ditch									
Ditch Relief Culvert									
Sediment Barriers / Filters									
BMP Name	DA (ac)	Diameter (in)	Storage Capacity (cf)	Trap Height (in)	% Slope	Slope Length Above Barrier (ft)	Barrier Height (in)	E&S Manual Figure/Detail No.	
Compost Sock Sediment Trap									
Compost Filter Sock									
Compost Filter Berm									
Silt Fence (Filter Fabric Fence)									
Super Silt Fence									
Sediment Filter Log									
Weighted Sediment Filter Tube									
Straw Bale Barrier									
Wood Chip Filter Berm									
Toe-of-Slope Berm									

Table 1 – For PAG-01 applicants, complete the requested information for each selected E&S BMP, where applicable.

Runoff Conveyance BMPs													
BMP Name	Temporary	Design Storm	DA (ac)	Multiplier	Qr (cfs)	Q (cfs)	Manning's n	Va (fps)	V (fps)	D (ft)	d (ft)	Flow Depth Ratio	E&S Manual Figure/Detail No.
Vegetated Channel	<input type="checkbox"/>												
Sodded Channel	<input type="checkbox"/>												
Riprap Channel	<input type="checkbox"/>												
Energy Reduction BMPs													
BMP Name	Downstream Distance to Drainage Course (ft)		Downstream % Slope	DA (ac)	Discharge (cfs)	Manhole Depth (ft)	Inflow Pipe Diameter (in)	Outlet Pipe Diameter (in)	E&S Manual Figure/Detail No.				
Level Spreader													
Drop Structure													
Stilling Basins / Wells													
BMP Name	Pipe Diameter (in)	Discharge (cfs)	Well Diameter (in)	Depth of Well Below Invert (ft)	Basin Depth (ft)	Median Riprap Size (in)	Distance from Discharge Pipe to Basin Center (ft)	E&S Manual Figure/Detail No.					
Stilling Basin													
Stilling Well													
Other BMPs													
BMP Name	DA (ac)	Pipe Diameter (in)	Berm Height (in)	Length (ft)	% Slope	Vertical Spacing (ft)	Channel Depth (ft)	Riprap Size	Riprap Thickness (in)	Initial Width (ft)	Terminal Width (ft)	E&S Manual Figure/Detail No.	
Temporary Slope Pipe													
Bench													
Rock Filter													
Riprap Apron													

For selected BMPs not identified in Table 1, report the name of the BMP and the Figure or Detail No. from the E&S Manual that will be used for design and implementation (PAG-01 only).

BMP Name	E&S Manual Figure/Detail No.	BMP Name	E&S Manual Figure/Detail No.

6. All applicable Standard E&S Worksheets from Appendix B of the E&S Manual have been completed and are attached.
7. Other worksheets or calculations equivalent to Appendix B of the E&S Manual have been completed and are attached.
8. Identify the E&S Plan Drawing number(s) that describes the sequence of BMP installation and removal in relation to the scheduling of earth disturbance activities, prior to, during and after earth disturbance activities that ensure the proper functioning of all BMPs.
9. Supporting E&S calculations have been completed and are available upon request (PAG-01 only).
10. Supporting E&S calculations are attached to the NOI/application.
11. Plan drawings consist of standard Figures/Construction Details in E&S Manual (PAG-01 only).
12. Plan drawings have been developed for the project and are attached to the NOI/application.
13. BMPs will be inspected on a weekly basis and after measurable storm events (i.e., at least 0.25 inch).
14. Identify the following information relating to temporary stabilization measures on an E&S Plan Drawing and identify the Drawing No. below: 1) vegetative species, 2) % pure live seed, 3) seed application rate, 4) fertilizer type, 5) fertilizer application rate, 6) mulch type, 7) mulching rate, and 8) liming rate.
E&S Plan Drawing No(s): **C602**
15. Identify the following information relating to permanent stabilization measures on an E&S Plan Drawing and identify the Drawing No. below: 1) vegetative species, 2) % pure live seed, 3) seed application rate, 4) fertilizer type, 5) fertilizer application rate, 6) mulch type, 7) mulching rate, 8) liming rate, 9) anchor material, 10) anchoring method, 11) rate of anchor material application, 12) topsoil placement depth, and 13) seeding season dates.
E&S Plan Drawing No(s): **C602**
16. Describe the procedures that will be taken to ensure that recycling or disposal of materials associated with or from the project site will be conducted properly.
The contractor is responsible to ensure that the proper measures for recycling or disposal of materials will be undertaken. During construction wastes are anticipated to consist of packaging materials, debris, demolished material, and construction materials. Soil disposal sites must be approved by the local conservation district. This note is also on the E&S detail sheet.
17. Identify the presence of any naturally occurring geologic formations or soil conditions that may have the potential to cause pollution during earth disturbance activities. If such formations or conditions exist, identify BMPs that will be implemented to avoid or minimize potential pollution.
No naturally occurring geologic formations or soil conditions that may have the potential to cause pollution during earth disturbance activities are known or anticipated on this site.
18. Identify whether the potential exists for thermal impacts to surface waters from the earth disturbance activity. If such potential exists, identify BMPs that will be implemented to avoid, minimize, or mitigate potential thermal impacts.
Thermal impacts are avoided because the project will result in a reduction of impervious surface. The use of compost socks to limit ponding and use of chapter 102 BMPs is provided to further address thermal impacts.

19. The E&S Plan has been planned, designed, and will be implemented to be consistent with the PCSM Plan.

20. If applicable, identify existing and proposed riparian forest buffers on E&S and PCSM Plan Drawings and identify the Drawing No(s) below (select N/A if not applicable).

E&S Plan Drawing No(s): N/A

PCSM Plan Drawing No(s):

E&S PLAN DEVELOPER

I am trained and experienced in E&S control methods.

I am a licensed professional.

Name: Justin Q. Massie

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License Type: Professional Engineer

Exp. Date: 9/30/2023

Justin Q. Massie
E&S Plan Developer Signature

5-24-2023
Date