COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

SCM 3.4.6 SPREADSHEET
VEGETATED CONVEYANCE
INSTRUCTIONS

Draft, October 30, 2026

Introduction

The Department of Environmental Protection (DEP) has developed the SCM 3.4.6 Spreadsheet (Spreadsheet) to calculate volume and water quality management credits when a Vegetated Conveyance SCM is proposed for new land development or as a retrofit to implement Section 3.4.6 of the Pennsylvania Post-Construction Stormwater Management (PCSM) Manual. This spreadsheet calculates credit for Vegetated Conveyance SCMs, including two variations (Wet Swale and Segmented Amended Soil Swale (SASS)). Conveyance channels are not PCSM SCMs and do not receive credit. Bioswales are a variation of Vegetated Conveyance but credit for Bioswales is calculated in the SCM 3.5 Spreadsheet.

The Spreadsheet was designed using the latest version of Microsoft Excel® and is in Excel macro workbook (XLSM) format.

Users should check DEP's website periodically for updates to the spreadsheet and instructions by visiting www.dep.pa.gov/constructionstormwater and selecting "E&S Resources". In general, DEP/CCD will accept older versions of the spreadsheet no more than 6 months following the revision date of the spreadsheet. DEP/CCD also reserves the right to request completion of the latest version of the spreadsheet for any project.

Questions on the use of the spreadsheet can be directed to the Bureau of Clean Water at **RA-EPCHAPTER102@pa.gov**.

General Information

It is important that the user follow these instructions carefully. Omission of data in any cell designed for data entry may result in the failure of important calculations.

If prompted by Excel after opening the spreadsheet, enable editing and macros. *Note that you may need to add additional Trusted Locations in the Trust Center Settings of Excel in order to run the macros*. These locations may include server drives and/or locations where you intend to save the file for use. The following steps may be taken:

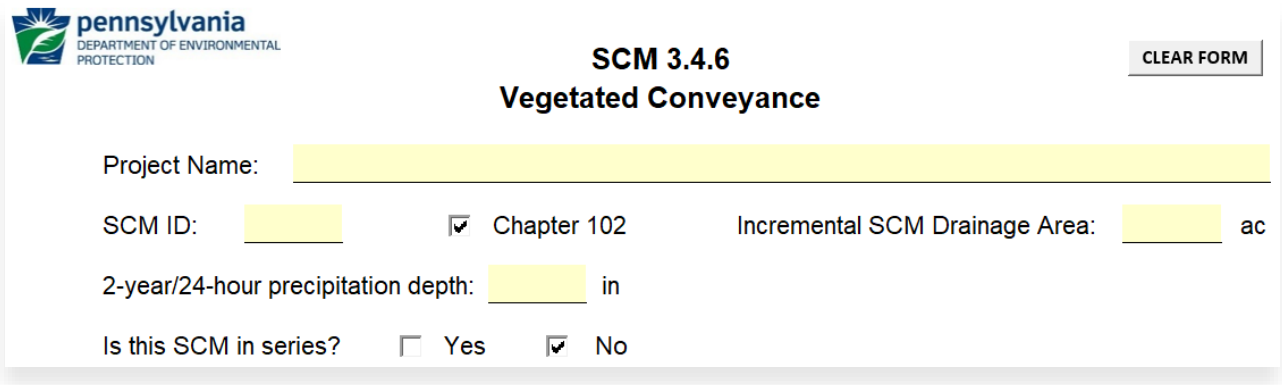
1. Excel Options > Trust Center > Trust Center Settings > Trusted Locations
2. Check the box to "Allow Trusted Locations on my network"
3. Select "Add new location"
4. Browse to select the folder (or server) where the file will be saved, check the "Subfolders of this location are also trusted" box, and then OK.

The top of the worksheet contains a "Clear Form" button. The user may click on the "Clear Form" button at any time to delete **all** data from the current worksheet. All cells available for data entry or selection from a drop-down menu are highlighted. **The user may use the Tab, arrow, or Enter keys to move from cell to cell. Using the mouse to click from cell to cell may result in validation errors**.

Care must be taken to enter the data in the correct order identified in these instructions to avoid potential errors with the calculations and logic. For example, skipping a cell may prevent a calculation or produce an error message. The spreadsheet is protected. Formulas are not visible but are explained in this document. Validation that exists in the spreadsheet is highlighted and explained in this document.

Completing the Spreadsheet

General Section



- **Project Name** – Enter the Project (Site) Name as reported on the NOI, application, and/or plan submitted to DEP/CCD.

- **SCM ID** – Enter the SCM ID as is identified on plan drawings and PCSM Module 2. A legal instrument, easement or other recording will be needed to ensure long-term protection.

- **Chapter 102** – Check the box next to "Chapter 102" if the SCM is being implemented to comply with Chapter 102 PCSM requirements, otherwise uncheck the box.

- **Incremental SCM Drainage Area** – Enter the drainage area to the Vegetated Conveyance SCM *as measured at the SCM outlet.* The SCM area should not be included in the Incremental SCM Drainage Area value. If the SCM is downstream of another SCM and receives flows from that SCM, do not include the drainage area of the other SCM. The maximum Incremental SCM Drainage Area is 10 acres. If drainage area exceeds 10 acres, a deduction in volume and water quality management credit is applied as follows: Incremental SCM Drainage Area – 10 / 10 (e.g., a 10% deduction applies when the Incremental SCM Drainage Area is 11 acres).

- **2-Year/24-Hour Precipitation Depth** – Enter the 90th upper confidence interval statistic for the 2-year/24-hour precipitation depth using NOAA Atlas 14 or other published sources, in inches.

- **Is this SCM in series?** – Check the appropriate box (Yes or No). If Yes, select whether the SCM ("SCM 1") is upstream or downstream of another SCM ("SCM 2"). Then select the SCM type for "SCM 2". The options are PCSM Objective B, PCSM Objective C, and PCSM Objective D (refer to Table 3-1 of the draft PCSM Manual). For example, if the Vegetated Conveyance SCM is upstream of a wet basin used for rate control, select "PCSM Objective D." Then enter the SCM ID for "SCM 2", as identified in the PCSM Plan.

- **This SCM discharges** – If the SCM is ***downstream*** of another SCM in series, select from the dropdown list the location where the SCM discharges to. The options are Off-Site and to a downstream (Objective A, B, C, or D) SCM. If the SCM is ***upstream*** of another SCM this question is not displayed.

- **SCM Inflow** – If the SCM is downstream of another SCM in series, enter the flow received by the SCM from the upstream SCM at the 2-year/24-hour storm event, in cubic feet (CF). This inflow should not be part of the Incremental SCM Drainage Area.

Drainage Area Characterization Section

☑ ***Drainage Area Characterization***

Post-Construction Drainage Area Rows: ☑ ***Calculate runoff automatically***

Post-Construction Drainage Area Cover Type	Area (ac)	HSG	Off-Site	2-Year/24-Hour Runoff (CF)
			☐	

	Post-Construction Values		
	Total	Off-Site	Project Site
Runoff Volume (CF):			

- **Post-Construction Drainage Area** – Select the Post-Construction Drainage Area Cover Types from the dropdown lists and enter their areas and HSG Soil Types for the SCM's drainage area to calculate the post-construction 2-year/24-hour runoff. If the area is located outside of the project site boundary check the box in the "Off-Site" column. If the user prefers to calculate runoff for each Land Cover / Soil Type combination separately, uncheck the "Calculate runoff automatically" box and enter the values into the column for "2-Year/24-Hour Runoff (CF)."

  Post-construction runoff volumes are calculated for the total drainage area, any off-site areas, and the project site (the difference between total drainage area and off-site area) in cubic feet (CF). This information is used to evaluate volume management credit.

  NOTE 1 – For non-Chapter 102 projects (e.g., MS4 projects), at least 20% of the drainage area must be impervious in order to generate volume management credit.

Design Standards Section

☑ ***Design Standards***

Variation:

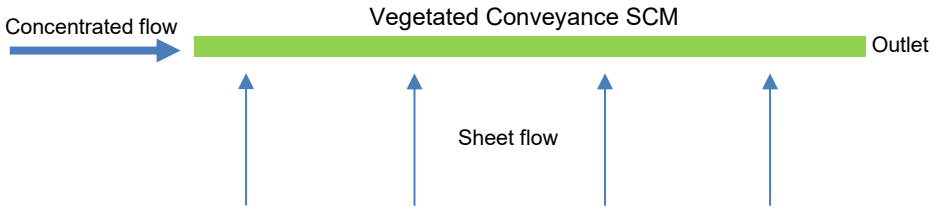
Parameter	Standard	Design Value
Vegetated Conveyance SCM length, minimum (ft)	25	
Concentrated flows will be discharged to the SCM		
Channel cross-section shape		
Plan-view horizontal width @ 6-inch flow depth (ft)		
Vegetation to be planted		
Soil media depth (in)		

- **Variation** – Select "Segmented Amended Soil Swale" or "Wet Swale" if either of these variations to the standard Vegetated Conveyance SCM will be designed in accordance with the PCSM Manual, otherwise select "None". Select "Segmented Amended Soil Swale" or "Wet Swale" only where the SCM meets the applicability and design criteria for that variation in Section 3.4.6 of the PCSM Manual.

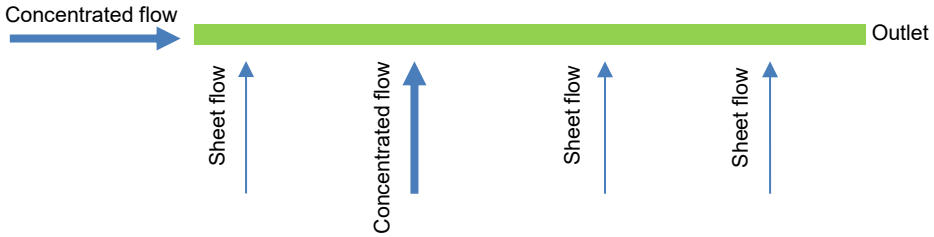
- **Vegetated Conveyance SCM length (ft) –** Enter the length of the Vegetated Conveyance SCM, in feet. The standard and minimum value that can be entered is 25.

- **Concentrated flows will be discharged to the SCM** – Select TRUE if concentrated flows will be introduced to the SCM at any location, otherwise select FALSE. If TRUE is selected, the following information may be applicable:

  - **Location(s) of concentrated inflow points** – select either "Entrance only", "Entrance and along length", or "Along length only" from the dropdown list. For example, in the figure below the user should select "Entrance only" (energy dissipator not shown).



In the following figure, "Entrance and along length" should be selected.



  - **Energy dissipation measures will be installed to prevent accelerated erosion** – Select TRUE if an energy dissipator (e.g., riprap apron, forebay, etc.) will be installed at each concentrated inflow point, otherwise select FALSE. A credit deduction of 25% applies if energy dissipation will not be provided.

  - **Concentrated flows will be discharged into the SCM within 100 feet of the SCM outlet** – This statement appears if the user indicates that concentrated inflow points will exist along the length of the SCM and the length of the SCM exceeds 100 feet. Select TRUE if concentrated inflow points will exist within 100 feet of the outlet or terminus, otherwise select FALSE.

  - **The Inflows Worksheet has been completed** – This statement appears if the user indicates that there will be concentrated flows discharged to the SCM and either 1) the SCM length is less than 100 feet or 2) there will be concentrated flows discharged into the SCM within 100 feet of the SCM outlet when SCM length exceeds 100 feet. When either of these combinations applies, an Inflows Worksheet becomes available and must be completed in order to calculate credit.

Concentrated Inflows

No. concentrated inflow points within 100 feet of the SCM outlet:

Inflow Point No.	Flow Path Length (ft)	Drainage Area (ac)	Runoff Volume (CF)	Average Velocity (fps)	Residence Time (min)	Volume Credit?	WQM Credit?
1							

Complete the Inflows Worksheet as follows:

- **No. concentrated inflow points within 100 feet of the SCM outlet** – Select the number of concentrated inflow points that will be located within 100 feet upstream from the SCM outlet or terminus from the dropdown list.
- **Flow Path Length (ft)** – Enter the distance, in feet, from the inflow point to the SCM outlet or terminus; this value may not exceed 100 feet or be less than 25 feet (i.e., inflow points less than 25 feet from the outlet are not eligible for credit).
- **Drainage Area (ac)** – Enter the tributary drainage area to the concentrated inflow point, in acres. For example, if a roof leader is directed to the SCM, enter the area of the roof drained to the inflow point.
- **Runoff Volume (CF)** – Calculate (separately) and report the runoff volume, in CF, to the inflow point at the 2-year/24-hour storm.
- **Average Velocity (fps)** – Calculate (separately) and report the average velocity of stormwater in the flow path, following discharge, at the 1-year/24-hour storm event, in feet per second (fps).
- **Residence Time (min)** – Flow Path Length is divided by Average Velocity to determine hydraulic residence time, in minutes.
- **Volume Credit?** – This column identifies whether runoff to the concentrated inflow point is eligible for volume management credit. Volume management credit applies if either 1) the tributary drainage area to the concentrated inflow point is less than or equal to 25% of the Incremental SCM Drainage Area, or 2) the Residence Time is at least 9 minutes.
- **WQ Credit?** – This column identifies whether runoff to the concentrated inflow point is eligible for water quality management (WQM) credit. WQM credit applies if Residence Time is at least 9 minutes.

- **Channel cross-section shape** – Select the shape of the channel when viewed as a cross-section. Note that for the SASS variation, trapezoidal must be selected in order to generate credit.
- **Channel bottom width, maximum (ft)** – For trapezoidal channels only, enter the width of the channel bottom, in feet. The standard is 6 feet (maximum). A value exceeding 6 feet cannot be entered. Channels with larger widths should be designed as a bioswale (see SCM 3.5 Spreadsheet).
- **Plan-view horizontal width @ 6-inch flow depth (ft)** – This standard is shown when the SASS variation is not selected. Determine the horizontal width (perpendicular to the direction of flow) of the water surface elevation at a flow depth of 6 inches, in feet. This width must take into account channel geometry. This value is used with Vegetated Conveyance SCM length to determine the area where volume management credit is evaluated. For the SASS variation, the channel bottom width is used to determine area for volume management credit.

- **Vegetation to be planted** – Select "Turf grasses", "Deep-rooting native plants and/or shrubs", or "Grasses and deep-rooting native plants" from the dropdown list.

- **Soil media depth (in)** – Enter the planned depth of soil media in the SCM, in inches. For the SASS variation and when Grasses and deep-rooting native plants or Deep-rooted native plants and/or shrubs will be planted, the standard is 12 inches (minimum); otherwise the standard is 6 inches (minimum). A deduction in volume management credit of 25% applies if the minimum media depth is not provided. Media depth is used to calculate ET void space and infiltration/ET void space recovery credit.

- **Average longitudinal slope (%)** – Enter the average slope over the length of the SCM, in percent. The maximum slope (average over the length of the SCM) is 25% (a value exceeding 25% cannot be entered).

- **Grade control measures will be incorporated** – If the average longitudinal slope exceeds 4%, grade control measures are recommended. Select TRUE or FALSE from the dropdown list. A deduction in volume management credit of 25% applies if grade control measures are not incorporated when the average longitudinal slope exceeds 4%.

- **Grade control measures that will be installed** – If TRUE is selected for the previous design value, select the type of grade control measures that will be installed. The options are "Porous check dam(s)" (e.g., rock), "Non-porous check dam(s)" (e.g., concrete), "Rock/gabion control structure(s)", "Drop structure(s)", and "Other".

  NOTE 2 – Porous check dams may be used to reduce velocity, increase travel time, provide grade control, and temporarily detain runoff; however, porous check dams do not provide additional volume management credit under the design storm analysis method. Non-porous check dams may provide additional volume management credit where they create discrete ponded surface storage and the design demonstrates adequate storage volume and infiltration capacity.

- **Number of grade control measures** – If grade control measures will be installed, enter the number of measures (i.e., check dams, drop structures, etc.) that are planned within the SCM.

- **Check dam height (in)** – If porous or non-porous check dams will be installed, enter the height of the check dams, in inches (up to a maximum of 24 inches).

- **Stored volume behind each non-porous check dam (CF)** – If non-porous check dams will be installed, enter the volume of stormwater that will be stored behind each check dam (i.e., do not enter the total stored volume behind all check dams, just one), in CF, when water is at the height of the check dam and considering the geometry and slope of the channel. Do not include media storage (volume above the top of media only). This volume is considered for volume management credit when non-porous check dams are used.

- **Ponding area behind each non-porous check dam (SF)** – If non-porous check dams will be installed, enter the area of ponding behind each check dam (i.e., just one), in square feet (SF), when water is at the height of the check dam and considering the geometry and slope of the channel. This area is considered for volume management credit when non-porous check dams are used.

- **Non-porous check dam ponding time, maximum (hrs)** – Calculate and enter the design ponding time behind each non-porous check dam. The standard is 48 hours (maximum). An allowance of 10% is provided. If design ponding time exceeds 110% of the standard, a deduction in volume management credit applies as follows:

  Design Ponding Time – (Ponding Time Standard * 1.1) / (Ponding Time Standard * 1.1)

- **Flow Depth @ 2-year/24-hour storm, maximum (in)** – Calculate and enter the depth of flow in the SCM at the 2-year/24-hour storm event, in inches. The standard is 12 inches (maximum).

- **Flow Depth @ 10-year/24-hour storm, maximum (in)** – Calculate and enter the depth of flow in the SCM at the 10-year/24-hour storm event, in inches. The standard is 18 inches (maximum).

These flow depth standards are not applicable if non-porous check dams are used. For each of the flow depth standards, an allowance of 10% is provided. If design flow depth exceeds 110% of the standard, a deduction in volume management credit applies as follows:

Design Flow Depth – (Flow Depth Standard * 1.1) / (Flow Depth Standard * 1.1)

- **Elevation @ top of conveyance embankment (ft msl)** – Enter the elevation at the top of the conveyance embankment in feet above mean sea level at the location along the length of the SCM with the smallest slope. If the slope is approximately uniform along the SCM's length, enter the elevation at the mid-point of the SCM's length.

- **Water surface elevation @ 10-year/24-hour storm, maximum (ft msl)** – Enter the water surface elevation at the 10-year/24-hour storm within the SCM. The standard is the elevation at the top of the conveyance embankment (i.e., overflows at the 10-year/24-hour storm event should not occur). A deduction in volume management credit of 50% applies if water surface elevation at the 10-year/24-hour storm is greater than the elevation at the top of conveyance embankment.

- **Inflow velocity @ 10-year/24-hour storm, maximum (fps)** – If the SCM will receive concentrated flows enter the inflow velocity at the terminus of the energy dissipator at the 10-year/24-hour storm event. If there are multiple concentrated inflows report the inflow velocity at the point with the highest flow rate at the 10-year/24-hour storm. The standard is 2.0 fps (maximum). If design inflow velocity exceeds 110% of the standard, a deduction in volume management credit applies as follows:

Design Inflow Velocity – (Inflow Velocity Standard * 1.1) / (Inflow Velocity Standard * 1.1)

- **Embankment side slopes, maximum (%)** – Enter the planned embankment side slopes, in percent. The recommended maximum is 33% (3:1) (a deduction does not apply if steeper slopes must be used).

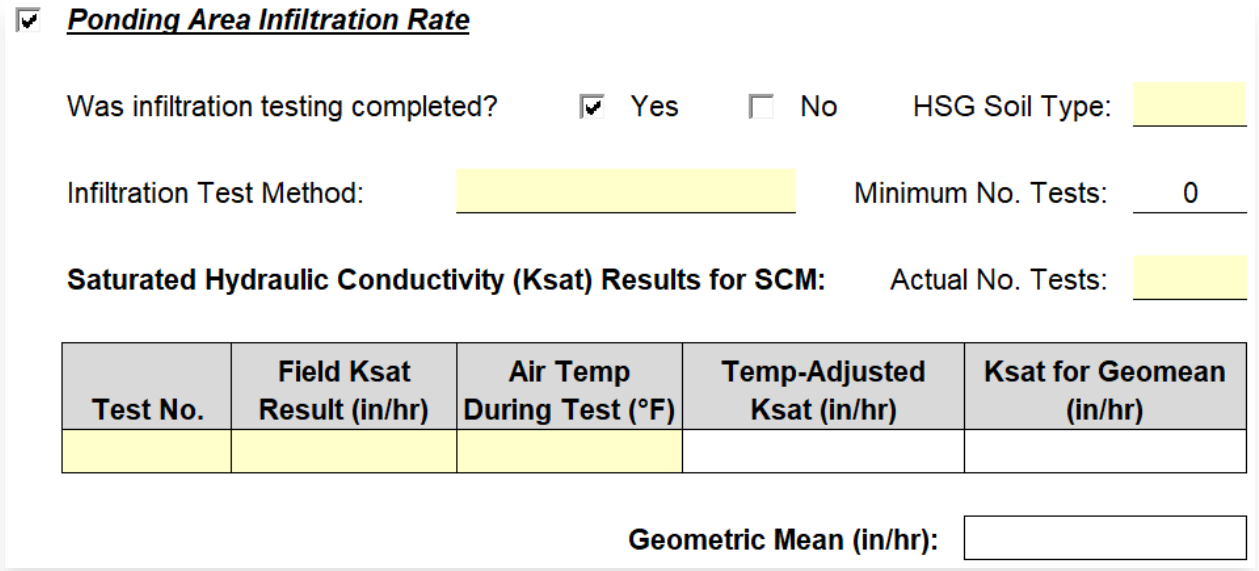
- **An underdrain will be installed** – Select TRUE if a perforated underdrain will be installed, otherwise select FALSE. If an underdrain will be installed, volume management credit for infiltration does not apply (ET void space recovery credit may be applicable).

- **An impermeable liner will be installed** – Select TRUE if an impermeable liner will be used to prevent infiltration, otherwise select FALSE. If an impermeable liner will be installed, volume management credit for infiltration does not apply (ET void space recovery credit may be applicable).

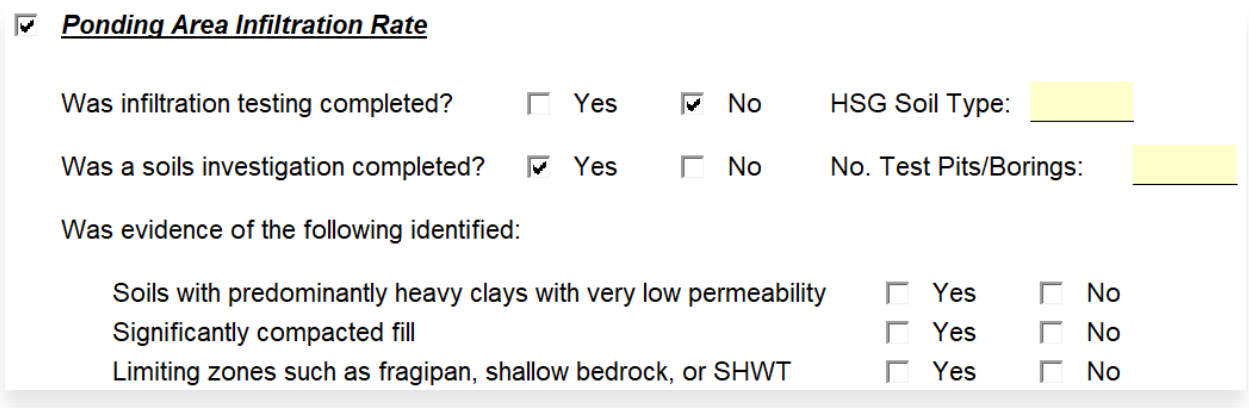
- **Height of subsurface berms, minimum (in)** – If the SASS variation is selected, enter the height of subsurface berms that will be constructed, in inches. The standard is one-half the depth of soil media with a minimum of 6 inches and maximum of 12 inches. When the minimum height is not met there are deductions inherent in the volume crediting calculations as explained further below.

- **Number of subsurface berms** – If the SASS variation is selected, enter the number of subsurface berms planned throughout the length of the SCM.

Ponding Area Infiltration Rate Section



- **Was infiltration testing completed?** – Check the appropriate box to indicate whether infiltration testing was completed.
- **HSG Soil Type** – Select the predominant Hydrologic Soil Group (HSG) soil type for the native soils within the SCM. This information is not needed for the SASS variation.
- **Infiltration Test Method** – If infiltration testing was completed, select the infiltration testing method used from the dropdown list.
- **Minimum No. Tests** – If infiltration testing was completed, a recommendation on the minimum number of tests is made based on Appendix B, Table B-4 of the PCSM Manual. Tests should be uniformly distributed along the length of the SCM and should not be located more than 200 feet apart wherever possible.
- **Actual No. Tests** – If infiltration testing was completed, select the actual number of infiltration tests completed from the dropdown list.
- **Saturated Hydraulic Conductivity (Ksat) Results for SCM** – If infiltration testing was completed, enter the Test ID No., the Ksat result determined in the field (inches/hour), and the air temperature (or preferably water temperature) at the time of the test. A temperature-adjusted Ksat is calculated. If the field Ksat result is not zero (0), the "Ksat for Geomean" result is the same as the temperature-adjusted Ksat. If the field Ksat result is 0, the "Ksat for Geomean" is set to 0.1. A geometric mean of all "Ksat for Geomean" results is calculated and displayed.



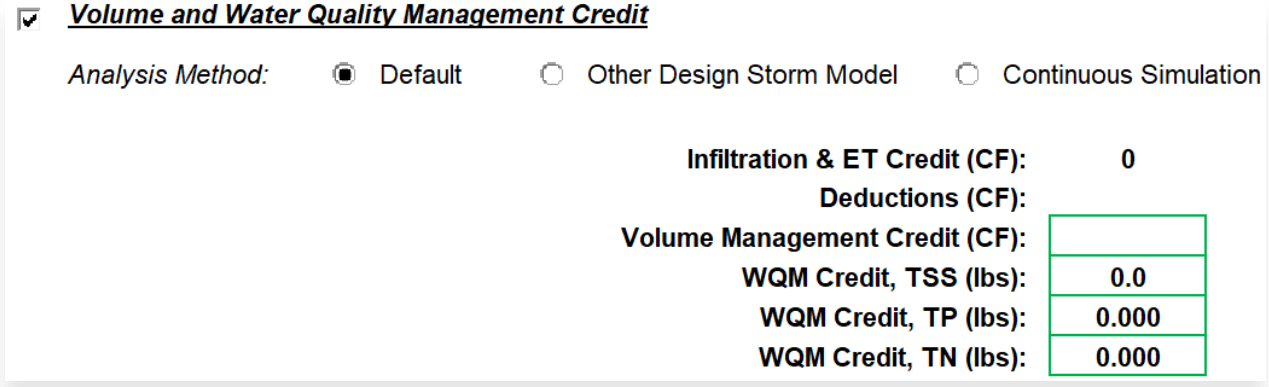
- If infiltration testing was not completed, enter the HSG Soil Type and complete the remaining information as follows:

  - **Was a soils investigation completed?** Check the appropriate box to indicate whether a soils investigation was completed. The investigation may or may not involve test pits or borings at the designer's discretion; enter the number of test pits or borings if applicable.

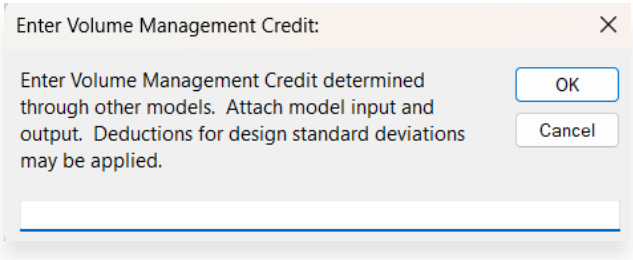
    If a soils investigation was not completed, volume management and WQM credit do not apply with the exception of the SASS variation.

  - **Was evidence of the following identified** – Check the appropriate box for each limiting zone. If Yes is selected for any limiting zone, infiltration void space recovery credit does not apply (ET void space recovery credit may apply).

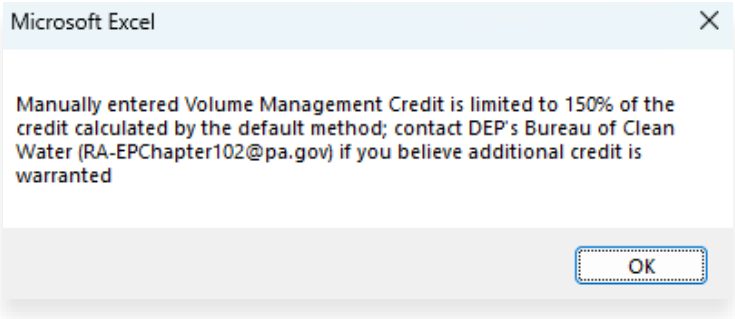
Volume and Water Quality Management Credit Section



- **Analysis Method** – Select the method used to analyze the SCM's performance by checking the appropriate box. If "Default" is checked, credit calculations are performed using the procedures explained in "Infiltration and "ET Credit" below. Check the box for "Other Design Storm Model" if a different model is used that evaluates the 2-year/24-hour storm precipitation depth but does not rely on the Curve Number method (e.g., Green-Ampt, Horton, others). Check the box for "Continuous Simulation" if a dynamic model is used to evaluate SCM performance through a long-term precipitation data set (e.g., EPA's SWMM). If a selection is made that is not "Default", Volume Management Credit must be manually entered, which must be supported by the submission of model inputs and outputs. An input box will be displayed for manual entry of the credit determined by modeling:



Enter a valid whole number and click "OK". The entered value will be displayed as Volume Management Credit, less any deductions for design standard deviations. If a number is entered that exceeds 150% of the credit calculated by the default method, a message is displayed and a value equal to 1.5 times the credit calculated by the default method is populated into the Volume Management Credit cell.



- **Infiltration & ET Credit (CF)** – The table below shows the methods used to calculate Infiltration & ET Credit when the default method is used for various scenarios.

Infiltration Testing	Non-Porous Check Dams	Limiting Zone(s) Present	SASS Variation [1]	Liner or Underdrain Present	Crediting Method
TRUE	FALSE	FALSE	FALSE	FALSE	Eq. 1 + Eq. 2
TRUE	TRUE	FALSE	FALSE	FALSE	Eq. 1 + Eq. 2 + Eq. 3
FALSE	FALSE	FALSE	FALSE	FALSE	Eq. 2
FALSE	FALSE	TRUE	FALSE	FALSE	Eq. 4
FALSE	FALSE	FALSE	TRUE	FALSE	Eq. 2 + Eq. 4
FALSE	TRUE	FALSE	FALSE	FALSE	Eq. 4
TRUE OR FALSE	TRUE OR FALSE	TRUE OR FALSE	TRUE OR FALSE	TRUE	Eq. 4

1 – SASS = Segmented Amended Soil Swale

Equation (Eq.) 1: Infiltration Credit = Vegetated Conveyance SCM Length (ft) * Plan-view horizontal width @ 6-inch flow depth (ft) * (Geometric Mean Ksat (inches/hour) * (1 ft/12 inches) * 0.9) * 6 hours

Equation (Eq.) 2: Infiltration and ET Void Space Recovery Credit = Vegetated Conveyance SCM Length (ft) * Plan-view horizontal width @ 6-inch flow depth (ft) * Soil media depth (ft) * Infiltration/ET recovery factor (Appendix D, Table D-7 of PCSM Manual)

Equation (Eq.) 3: Non-Porous Check Dam Credit = Number of check dams * Stored volume behind each non-porous check dam (CF) **OR** Number of check dams * Ponding area behind each non-porous check dam (SF) * (Geometric Mean Ksat (inches/hour) * (1 ft/12 inches) * 0.9) * Non-porous check dam ponding time (hrs), **whichever is less**

Equation (Eq.) 4: ET Void Space Recovery Credit = Vegetated Conveyance SCM Length (ft) * Plan-view horizontal width @ 6-inch flow depth (ft) * Soil media depth (ft) * ET recovery factor (Appendix D, Table D-8 of PCSM Manual)

NOTE 3 – For the SASS variation, Equation 2 is used to calculate credit (Infiltration and ET Void Space Recovery) for amended soils up to the height of the subsurface berms and Equation 4 is used to calculate credit (ET Void Space Recovery) for media above the height of the subsurface berms. The total credit is the sum of these values.

NOTE 4 – For the Wet Swale variation, ET Void Space Recovery Credit applies per Equation 4.

If there are deductions, the deductions are subtracted from the calculated or manually entered Infiltration & ET Credit to determine Volume Management Credit. If the total volume routed to the SCM (from the project site) is less than the calculated or entered Infiltration & ET Credit, the total volume routed is the Volume Management Credit.

For non-Chapter 102 projects (e.g., MS4 projects), Volume Management Credit is calculated when the Incremental SCM Drainage Area consists of at least 20% impervious surfaces.

If concentrated inflows are not eligible for volume management credit (as determined on the Inflows Worksheet), the 2-year/24-hour runoff is subtracted from the volume routed to the SCM as determined in the Drainage Area Characterization section. For example, if 5,000 CF is calculated to be the 2-year/24-hour runoff from the project site to the SCM and there is a concentrated inflow point contributing 1,000 CF that is not eligible for credit, the 1,000 CF is removed from the 5,000 CF total and the revised runoff value of 4,000 CF is used as the cap on volume management credit.

- **Water Quality Management (WQM) Credit (lbs)** – WQM Credit is calculated when the following are true: 1) the Chapter 102 indicator is checked; 2) the SCM discharges off-site or to a downstream Objective D SCM; 3) Volume Management Credit has been calculated or entered; and 4) the Design Standards section has been completed. The steps for calculating WQM Credit are as follows:

  1. Land cover-based loads for Total Suspended Solids (TSS), Total Phosphorus (TP) and Total Nitrogen (TN) are calculated using the equation below:

     Event Mean Concentration (EMC) for land cover and pollutant (see Appendix G of the draft **PCSM Manual**) x runoff volume per land cover at 2-year/24-hour storm x 6.24 x 10^{-5} (conversion factor)

  2. Total Volume Management Credit is subtracted from Total Volume Routed to SCM (minus off-site runoff, if applicable) to determine the SCM outflow volume. If there are ineligible concentrated inflow points, the 2-year/24-hour runoff associated with those inflow points is added to the SCM outflow volume.

  3. The pollutant loads associated with the outflow volume are determined as follows:

     SCM Outflow Volume x Median Outflow Concentration (MOC) (i.e., 13.7 mg/L, 0.18 mg/L, and 0.63 mg/L for TSS, TP and TN, respectively) x 6.24 x 10^{-5} (conversion factor)

  4. The difference between land cover-based loads and outflow loads represents the pollutant load captured and treated by the SCM, i.e., WQM Credit.

The user of the spreadsheet should enter their name and company after reading the certification statement.

Revision History

Date	Version	Revision Reason
10/30/2026	1.0	Original Draft