

What needs to be included in the PCSM Plan for each proposed MRC BMP?

Per the latest MRC document, Delaware County Conservation District needs to determine if DEP must review the MRC BMP. Please list in your MRC narrative any or all of these items that exist that will trigger review by DEP.:

1. The total drainage area to any individual MRC BMP exceeds 3 acres or the total impervious area to any individual MRC BMP exceeds 1.5 acres.
2. The applicant proposes an overall increase in impervious area (including gravel, stone, etc.) that exceeds 10 acres.
3. The MRC BMP will be designed to discharge to waters classified as impaired due to siltation/sediment or flow alterations, regardless of whether the water is under an approved Total Maximum Daily Load (TMDL).

Your Narrative should have an introduction that includes the following information :

DEP assigned reviewer name: (Leave Space for District to fill in)

County Conservation District reviewer name: (Leave Space for District to fill in)

Applicant name and phone number:

Consultant name and phone number:

For each proposed MRC BMP, the applicant's professional engineer should provide at least 2 hard copies of the following items:

1. A completed and signed/sealed MRC Design Summary sheet (See Attached)
2. Construction drawings/details with critical design elevations for the subject MRC BMP
3. The drainage area mapping to the subject MRC BMP
4. Worksheets 4 and 5 pertinent to the subject MRC BMP
5. Calculations pertinent to the subject MRC BMP
6. Stormwater H&H models pertinent to the subject MRC BMP (for 1" runoff, 1-year/24-hour, and 2-year/24-hour storm events).
7. Each MRC BMP should have its own unique identifier (e.g. "MRC #1 for PAC090021") for referencing purposes
8. Each MRC BMP should have its own section or appendix (with all of the items listed above addressing the 13 MRC design standards) in the PCSM Report for efficient reviewing purposes.
9. For each MRC BMP, the professional engineer should document and demonstrate that the specific MRC BMP design addresses each and all of the 13 MRC design standards listed in the MRC document dated May 15, 2019 (the design standards start on page 4 of the MRC document) in narrative form with cross references to the items listed above. This should be a 1 to 2 page document with each design standard (1-13) listed, along with how and where each design standard is addressed in their attached section or appendix of their PCSM Report. This documentation/demonstration should also be provided in the respective section or appendix in the PCSM Report for each MRC BMP..



MANAGED RELEASE CONCEPT (MRC) DESIGN SUMMARY
Complete One Design Summary Sheet for Each BMP Designed for MRC

GENERAL INFORMATION

Applicant Name: _____ Project Name: _____
 Applicant Address: _____ Municipality: _____
 City, State, Zip: _____ County: _____
 Permit Type: NPDES PAG-02 NPDES IP ESCGP ESP

	Pre-Development	Post-Development	Change
Impervious Area (acres):			

MRC BMP INFORMATION

MRC BMP Type: _____ Stormwater BMP Manual Section: _____

Will the BMP Include Vegetation? Yes No

If Yes, Identify Proposed Vegetation: _____

For Non-Vegetated BMPs Will There Be Pre- or Post-Treatment? Yes (Pre-) Yes (Post-) No

If Yes, Identify Proposed Pre- or Post-Treatment: _____

Name of Surface Water to Receive MRC BMP Discharges: _____

Designated Use of Surface Water: _____ Existing Use of Surface Water (if different): _____

Is the Surface Water Impaired? Yes No

If Yes, Identify Cause(s): _____

Will the BMP Have a Liner? Yes No

If Yes, Identify the Type or Liner Material: _____

BMP Media Description: _____

Are Any Deviations from MRC Design Standards Proposed? Yes No

If Yes, Identify Deviations: _____

MRC BMP DESIGN VALUES AND STANDARDS

Parameter	Design Value	Design Standard
Actual Contributing Impervious Area to BMP (acres)		
Equivalent Contributing Impervious Area to BMP (acres)		
MRC BMP Release Rate (cfs)		No greater than 0.01 cfs / acre of equivalent contributing impervious
BMP Footprint Area (ft ²)		
Total Drainage Area to BMP (acres)		
Bottom BMP Elevation (ft)		

MRC BMP Design Summary

Parameter	Design Value	Design Standard
2-Yr/24-Hr Storm Ponding Depth (ft)		1 ft (recommended) (2 ft max)
Max. Ponding Depth (ft)		4 ft (max)
Overflow Bypass Elevation (ft)		
Media Depth (ft)		2 ft (min) – 4 ft (max)
Media Void Space (%)		
Internal Water Storage (IWS) Depth (ft)		
Top of IWS Elevation (ft)		
Underdrain Pipe Diameter (in)		
Underdrain Orifice Diameter (in)		
Underdrain Outlet Elevation (ft)		
IWS Used for Routing (%)		50% max
Separation Distance (Groundwater) (ft)		1 ft (min) (2 ft recommended)
Infiltration Rate (in/hr)		
1-Yr/24-Hr Pre-Development Peak Rate (cfs)		
2-Yr/24-Hr Post-Development Peak Rate (cfs)		1-Yr/24-Hr Pre-Development Peak Rate (or per approved Act 167 Plan)
10-Yr/24-Hr Post-Development Peak Rate (cfs)		10-Yr/24-Hr Pre-Development Peak Rate
50-Yr/24-Hr Post-Development Peak Rate (cfs)		50-Yr/24-Hr Pre-Development Peak Rate
100-Yr/24-Hr Post-Development Peak Rate (cfs)		100-Yr/24-Hr Pre-Development Peak Rate
a. Total 2-Yr/24-Hr Runoff Volume Managed by BMP (cf)		
b. Total 1.2-inch/2-Hr Runoff Vol. Permanently Removed (cf)		
c. 2-Yr/24-Hr Volume Managed (cf)		Difference of a. and b.
Ponding Time @ 2-Yr/24-Hr Storm (hrs)		72 hrs max
Ponding Time @ 10-Yr/24-Hr Storm (hrs)		72 hrs max
Ponding Time @ 50-Yr/24-Hr Storm (hrs)		72 hrs max
Ponding Time @ 100-Yr/24-Hr Storm (hrs)		72 hrs max

Licensed P.E. Name

Licensed P.E. Signature

License No.

Date

*Licensed
Professional's
Seal*