

Post-Construction Stormwater Management

Frequently Asked Questions

Several documents referenced below can be found here: [INDOT Stormwater Engineering](#). If you would like to submit a question to be included in this list, please send to PCSM@indot.IN.gov. We appreciate your feedback!

- 1. When determining the value for net added impervious surface, do cross overs or other temporary pavements count?**
 - a. No, only permanent impervious surface is included in the calculation.
- 2. According to Table 1 in DM 22-22, my project does require PCBMPs. Please provide more guidance for what should be done to credit measures already included in the design through supporting calculations and how do we designate as a post-construction stormwater measure?**
 - a. Credit measures already included in the design means if there are detention ponds/swales, infiltration ponds/swales, grass swales etc., already included in the design, perform calculations per the Post-Construction Stormwater Management guidance document to show they provide water quality treatment. Even if the full 80% TSS target removal cannot be achieved, perform the calculations to show some removal is achieved.
 - b. To designate as a PCBMP, include the measures in the plans and give each measure a preliminary asset identification number per the guidance document “PCSM Asset Naming Guidance” on the INDOT stormwater engineering webpage.
 - c. In some cases, it is necessary to examine for measures to add or modify, which means design changes may be needed in addition to the water quality calculations. A swale may need to be modified (geometric changes or adding native grasses), or a detention basin outlet structure may need to be modified to provide a longer residence time, for example. If these modifications result in the need for additional ROW, consult with the INDOT PM.
 - d. All PCSMs require a report. See the “PCSM Submittal Requirements” document on the INDOT stormwater engineering webpage.
- 3. Can you please elaborate on what counts as the “same receiving stream”?**
 - a. Two outfalls are considered to drain to the same receiving stream if they both drain to the first solid blue line on a USGS topo map. See the “Treating in Another Outfall” document found on the INDOT Stormwater Engineering webpage for a graphical representation.
- 4. I have two projects with two DES numbers but under one INDOT contract. They both require a CSGP; however, their combined net added impervious surface is just over an acre. Do we consider them one project or two for determining how much net added impervious surface there is (and therefore if PCBMPs are required)?**

- a. The net added impervious surface of separate projects shall be combined when determining PCSM requirements when all the following conditions are met:
 - The projects are owned by the same project sponsor.
 - The projects are less than or equal to 0.25 miles of the closest point of each other.
 - The projects outlet to the same perennial stream based on the 1:24,000 USGS Topo Quad solid blue line streams.
- 5. How do you treat added pavement in a different outfall if you can't treat it in the outfall it is located in?**
 - a. We have created a supplemental guidance document for this scenario. Please see the "Treating in Another Outfall" document.
- 6. Please provide clarification on naming convention.**
 - a. PCBMP naming must be provided in the report exhibits and plans per the "PCSM Asset Naming Guidance" document found on the INDOT stormwater engineering webpage.
- 7. How should we show the geometry of PCBMPs in plan view?**
 - a. For hydrodynamic separators, they will be part of a storm sewer system, so they can be shown as manholes. They should be called out with their preliminary asset identification number (see "PCSM Asset Naming Guidance") and have the water quality treatment rate called out as well. For all other PCBMPs, they should be shown as polygons. Please see the "PCSM Submittal Requirements" document.
- 8. What should I do if I'm not able to meet the sediment removal rate as total suspended solids (TSS) of 80% or hydraulic residence time of 9 minutes (not enough space in right-of-way, geometry/site constraints, slope, etc.)?**
 - a. Please refer to the "Treating in Another Outfall" document found on the INDOT Stormwater Engineering webpage.
- 9. If I'm already designing a detention basin for a job, does that automatically qualify as a PCBMP or do I have to specifically design one? Can it be the same or does it have to be separate?**
 - a. A detention basin does not automatically count as a water quality PCBMP; however, the design can be modified per the guidance document to be a water quality PCBMP.
- 10. What is the INDOT Qualified Products List and where can I find it?**
 - a. The INDOT qualified products list is a list of products preapproved for use on INDOT projects. If there is a qualified products list for a given product, and one is not chosen off that list, then a proprietary materials request must be submitted with a specific reason why a product can't be chosen off the approved list. It is located here: [Qualified Products List](#)

11. What is the difference between a PCSM and PCBMP?

- a. PCSM stands for Post-Construction Stormwater Management. It is the program itself that manages Post-Construction Stormwater Best Management Practices, PCBMPs. PCBMPs are the structural measures themselves (dry detention pond, infiltration basin, etc.).

12. Why do some PCBMPs have 1 letter in the name and others have 2 letters in the name? What's the difference?

- a. The second letter is only to be used if the PCBMP is protecting a karst feature or if it is serving some other purpose besides stormwater management.

13. How do I determine what county number to use for naming PCBMPs?

- a. [Indiana County Code Numbers](#)

14. How do I find what reference post numbers to use for naming PCBMPs?

- a. [INDOT Reference Posts](#)

15. Do proposed compacted aggregate shoulders count as impervious surface?

- a. Yes, but they count in both the existing and proposed conditions.

16. Are check dams required for all swales?

- a. No, check dams are only required when the slope is too steep to get a 9-minute hydraulic residence time.

17. Can check dams for swales be constructed in the median?

- a. No, check dams cannot be constructed in the median. Swales (for water quality), unlike detention facilities, can be constructed in the median, just not with check dams.

18. Are PCBMPs allowed to be placed in jurisdictional streams?

- a. No, PCBMPs should not be placed in jurisdictional streams. Existing site photos can help determine if a stream is ephemeral or perennial.

19. Are PCBMPs allowed in the floodplain?

- a. Yes, water quality PCBMPs are allowed to be placed in the floodplain due to the difference in time of concentration for a PCBMP and the stream producing the floodplain.

20. Is a detention pond that is not being used for water quality and only being used for peak flow mitigation still considered a PCBMP? Does it need named using the naming convention for PCBMPs?

- a. Yes, all detention ponds are PCBMPs (just not for water quality treatment) and should be named accordingly for asset management purposes. However, detention design should be coordinated through INDOT Hydraulics.

21. If there are multiple PCBMPs that drain to the same outlet, how do you differentiate between the names?

- a. Use decimal places in the mile markers and NB and SB, etc., if needed.