

INDOT Transportation Separate Storm Sewer System (TS4) Permit

May 12, 2026

INDOT MS4 Partnership Annual Meeting

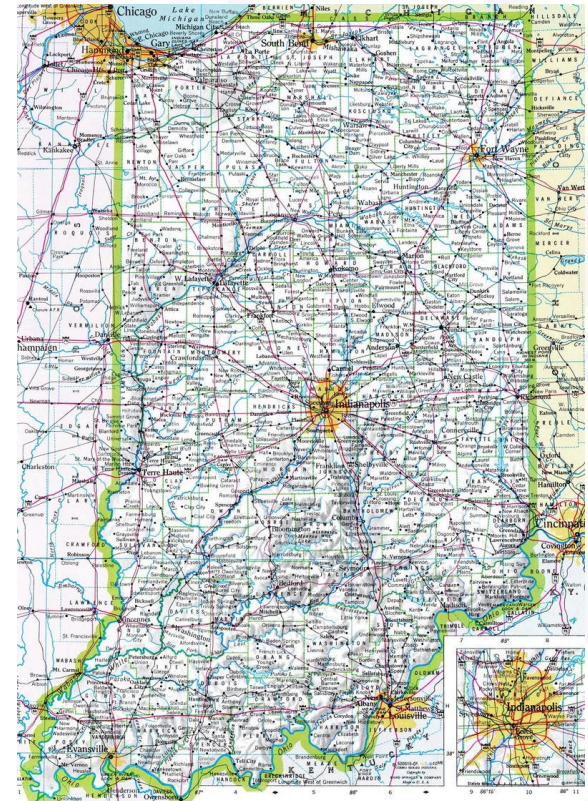
Outline

- Introductions
- Background (Why a TS4?)
- Process
- Permit Outline
- Next Steps
- Post-Construction Stormwater Management Project
- Resources



Why a TS4?

- INDOT doesn't fit the MS4 mold
 - State of Indiana
 - Linear – 11,000 centerline miles
 - 4,800 miles within another MS4
 - Buildings and grounds (rest areas, welcome centers, district and subdistrict offices, maintenance facilities)
- What is our boundaries for the permit?
 - All ROW or overlap with another MS4
 - Program – statewide practices and behaviors
- Compliance
 - “ordinance or other regulatory mechanism”
 - “local requirements”
 - Design Manual, Standard Specifications



Process

- Consultant support (HNTB) draft development
- INDOT agency perspective and draft approval
- Goals
 - Eliminate confusion generated by MS4 permit language
 - Requirements applicable to the agency
 - Organization facilitates compliance
- Information collection
 - EPA requirements
 - IDEM requirements
 - Other TS4 permits
- IDEM draft approval
- Permit issuance



Permit Outline

- 1.0 General Permit Coverage
- 2.0 Permittee Responsibilities
- 3.0 Stormwater Quality Management Plan (SWQMP)
- 4.0 Legal Authority
- 5.0 Public Education and Outreach Program
- 6.0 Illicit Discharge Detection and Elimination
- 7.0 Construction Site Stormwater Run-off
- 8.0 Post-construction Stormwater Run-off
- 9.0 Department of Transportation Operations, Pollution Prevention, and Good Housekeeping
- 10.0 Training
- 11.0 Biennial Program Reporting
- 12.0 TMDL Implementation and Discharge Limitations to Impaired Waters
- 13.0 Standard Conditions
- Appendix A. Definitions

Permit No.
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Indiana Department of Environmental Management
Office of Water Quality, Surface Water and Operations Branch
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Indianapolis, Indiana 46204
(317) 232-8670
Toll Free (800) 451-8027
www.idem.IN.gov

In compliance with the provisions of the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 ([33 U.S.C. 1251](#), et seq., the "Act"), Title 13 of the Indiana Code, Articles 5 and 15 of Title 327 the Indiana Administrative Code, and regulations adopted by the Environmental Rules Board, the Indiana Department of Environmental Management (IDEM) is issuing this NPDES permit to regulate discharges of stormwater from the Indiana Department of Transportation (INDOT) Transportation Separate Storm Sewer System (TS4) into waters of the State of Indiana.

In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Indiana Department of Environmental Management no later than one-hundred eighty (180) days prior to the date of expiration.

This permit is issued on: _____

This permit is effective on: _____

This permit expires on: _____

Martha Clark Mettler
Assistant Commissioner
Office of Water Quality

Permit Outline

1.0 General Permit Coverage

1.1 Permit area

TS4 conveyances and outfalls within rights-of-way and owned and operated facilities

Defines TS4 to include roadways (I, U.S. and state, buildings and grounds)

Excludes local roadways, private roadways, state-owned roadways outside of other MS4 limits, or Indiana Toll Road

1.2 Authorized Discharged

Within designated MS4s

Stormwater and allowable non-stormwater discharges

Discharge prohibitions

2.0 Permittee Responsibilities

3.0 Stormwater Quality Management Plan (SWQMP)

4.0 Legal Authority

- Based on state legislation, may need expansion, will require cooperation from adjoining MS4s
- Contract law
- INDOT Standards

TS4

Permit Outline

5.0 Public Education and Outreach Program

Statewide media opportunities, cooperation with local government entities, support to related activities, program details

6.0 Illicit Discharge Detection and Elimination

Discharges entering TS4 conveyances

Outfall prioritization and inspection

Cooperate with IDEM and local government entities

Mapping

7.0 Construction Site Stormwater Run-off

8.0 Post-Construction Stormwater Run-off



Permit Outline

9.0 Department of Transportation Operations, Pollution Prevention, and Good Housekeeping

9.1 Roadway Runoff Management

9.2 Facilities

9.3 Non-traditional infrastructure

9.4 Rest Areas and Welcome Centers

9.5 Winter Storm Management

10.0 Training (general and specific requirements for IDDE, construction, PCSM, and facilities and maintenance)

11.0 Biennial Program Reporting

12.0 TMDL Implementation and Discharge Limitations to Impaired Waters

13.0 Standard Conditions (follows EPA requirements)

Appendix A. Definitions (clarifies definition if different from source)



Next Steps

- IDEM draft review
- Re-coordination/discussion between IDEM/INDOT
- IDEM provide draft to EPA for review and approval
- Goal is to have permit approved and issued prior to expiration of current permit or extension of current permit until approval
- Dependent on IDEM timeline with other permit development
- INDOT – pre-permit issuance
 - Education and division implementation requirements
 - Evaluate existing programs to determine areas in compliance, modification required, or new development



PCSM Program Development and Implementation

- Post-Construction Stormwater Management (PCSM)
 - Planning, designing, constructing, and maintaining PCBMPs
 - Five year + partnership with HNTB
- Post-Construction Stormwater Best Management Practice (PCBMP)
 - Most effective and practical means of preventing or reducing non-point source pollution
 - Helps achieve water quality and quantity goals
 - Can be structural or non-structural (activity based, such as using less salt to de-ice roads)
- RSP 626-R-796
- Design Memo 26-01



PCSM Program Development and Implementation

- Criteria – Low maintenance, within existing or minimal additional ROW
- Structural PCBMPs for INDOT projects:
 - Dry Grass Swales (turf or native grass)
 - Vegetated Filter Strips
 - Dry Detention (modified)
 - Wet Swale
 - Wet Retention Pond
 - Infiltration (swale or basin)
 - Proprietary Devices (i.e. Hydrodynamic Separators)
- INDOT Green Infrastructure = **GRASS!**
- Modified to include features protecting Karst



Dry Grass Swale, Hendricks County, Indiana

Target Pollutant

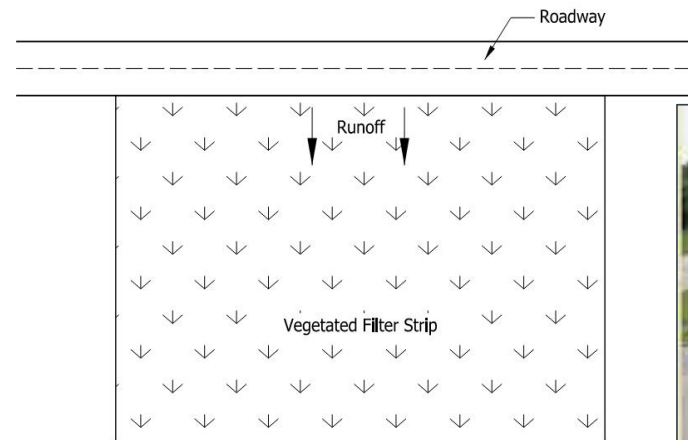
- Sediment
 - Most common water pollutant (US EPA)
 - Primary pollutant in stormwater run-off from pavement
 - Permanent measure target
- Design to 80 % sediment removal rate as Total Suspended Solids (TSS)
 - When 80% TSS removal is achieved, other contaminants and floatables are removed as well



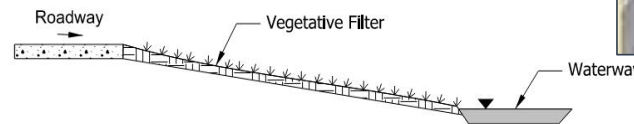
Sediment-laden run-off in Marsh River (MN) – pca.state.mn.us

PCBMP Program Development and Implementation

- Benefits to others
 - Evaluation and design criteria
 - Standard design details
- Resources available at <https://www.in.gov/indot/engineering/environmental-services/storm-water/>



Plan View

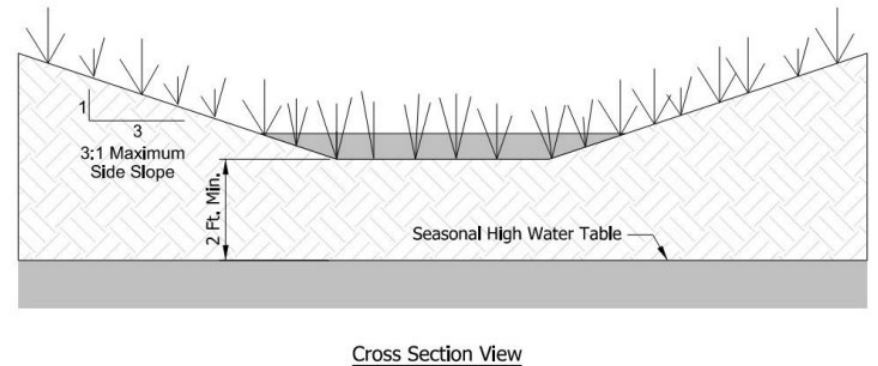
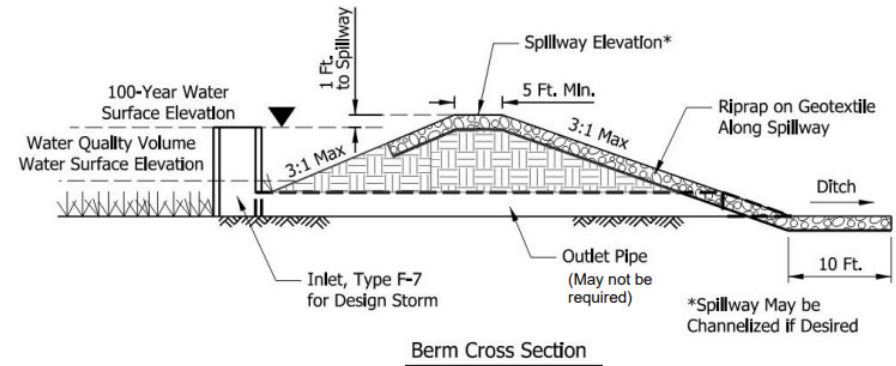
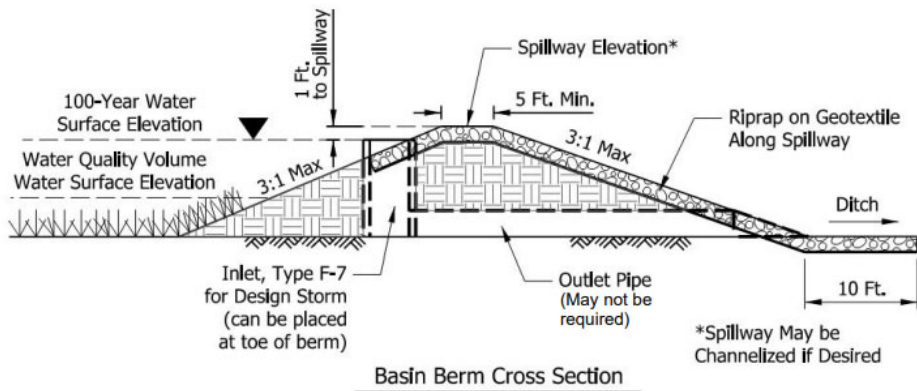
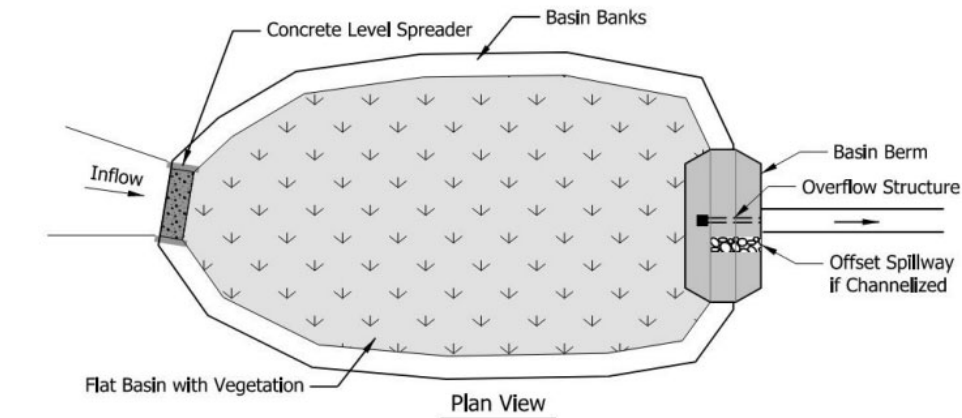


Profile View

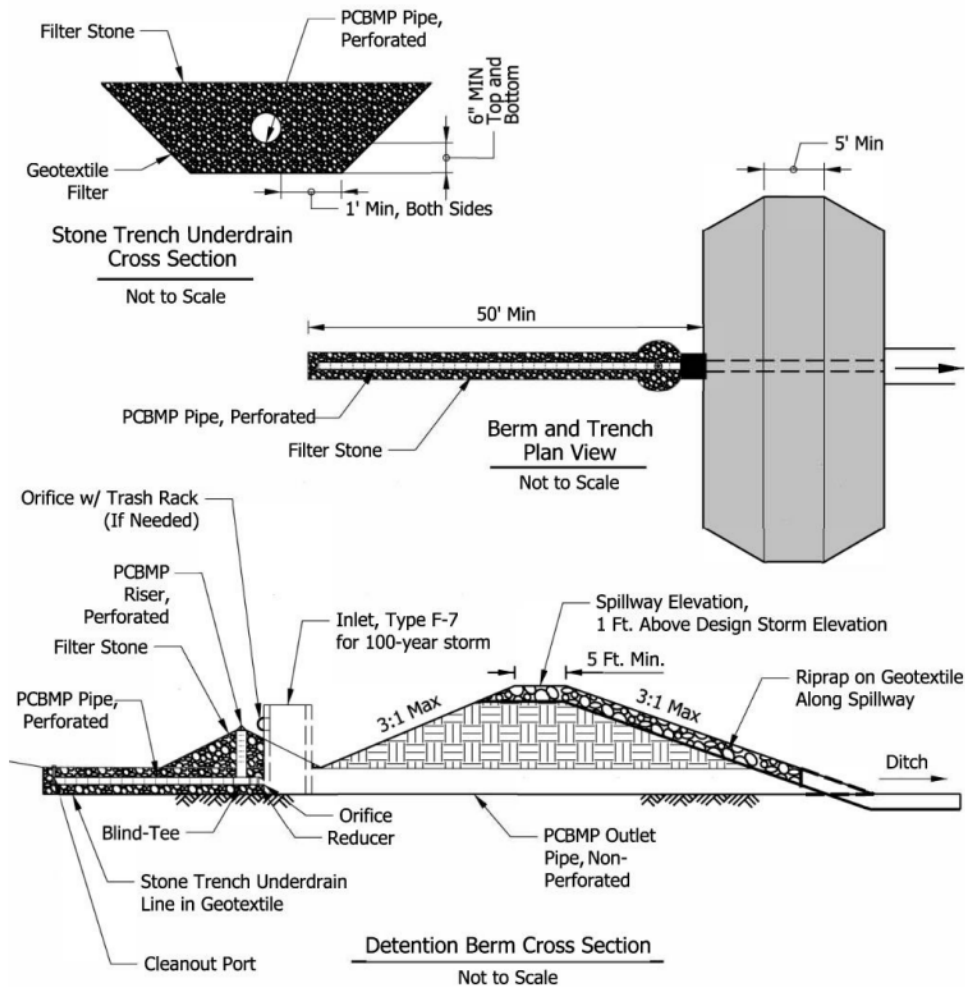


Vegetated Filter Strip – dot.state.oh.us

Infiltration Basin and Swale Details



Detention Berm Detail

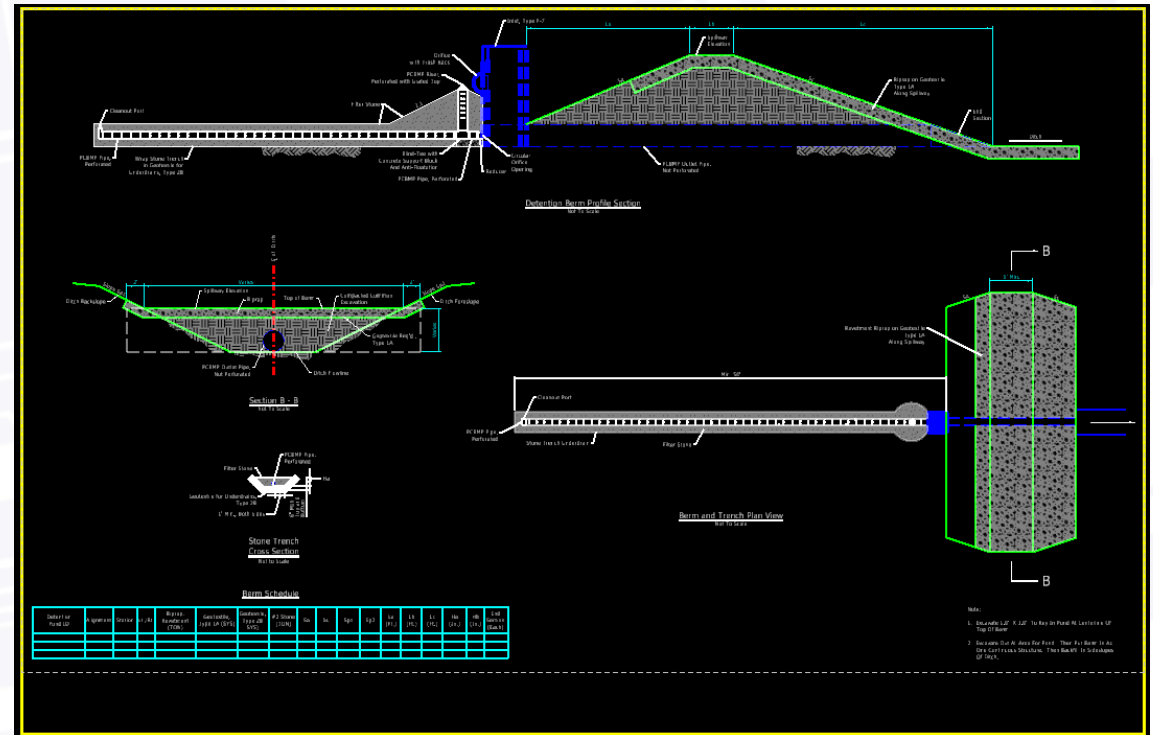


CADD Templates

- Templates available here:

<https://www.in.gov/indot/engineering/environmental-services/storm-water/>

- Includes 5 detention outlet structure templates and 1 template for swales
- INDOT QPL for trash racks to be released soon



Resources

- INDOT/Regulatory agency multi-disciplinary team development of RSPs, Standard Drawings, and guidance
- Goal – speed permitting process, consistent field implementation
- INDOT Construction Stormwater Management Field Guide (May 2025)
- SWQM Training
 - Field Guide based training
 - EPA Construction Inspection Training Course
- Temporary Causeway (RSP and RSPd – 205-B-326)
- Bridge Demolition Field Guide
- Cofferdam (RSP for bank sides)
- Dewatering (205 Spec in 2028 Standard Spec)
- Wildlife friendly erosion control blanket (RSP and QPL)
- Wildlife crossings (RSP TBD)
- Articulated block (RSP TBD)
- ITM 803 Update for PAM (polyacrylamide) usage as a flocculent
- Bently Infrastructure Cloud Construction Stormwater Inspection App

Questions?

