

STORMWATER PROJECTS SUBJECT TO THE RI DEM GROUNDWATER DISCHARGE PROGRAM PERMITTING QUESTIONS AND ANSWERS

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What are the Regulations an applicant must comply with for a groundwater discharge of stormwater?

RI DEM “Rules for the Discharge of Non-Sanitary Wastewater and Other Fluid To or Below the Ground Surface” (June 2012), also known as the “Groundwater Discharge Rules.”

What is a regulated groundwater discharge of stormwater pursuant to the RI DEM Groundwater Discharge Program?

A groundwater discharge of stormwater is the disposal of collected stormwater either:

- On the ground surface in a manner and location where it may adversely impact the groundwater resource; or
- Directly below the ground surface (e.g., into a dry well or subsurface chambers).

DEM has discretion on some discharges to the ground surface – not all stormwater discharges to the surface are regulated; see discussion below. There is no discretion on discharges directly below the ground surface – all are subject to Groundwater Discharge Program permitting.

What is a an Underground Injection Control (UIC) discharge of stormwater?

A UIC discharge is a type of groundwater discharge that is defined by federal law and is regulated by RI DEM pursuant to the federal USEPA Underground Injection Control Program. A UIC stormwater discharge is the discharge of stormwater directly **below** the ground surface – it does not infiltrate from the ground surface. The only best management practices (BMPs) in the RI Stormwater Design and Installation Standards Manual (Stormwater Manual) that are UIC discharges are underground infiltration trenches, underground chamber systems and dry wells (see Stormwater Manual Section 5.3).

Does it make a difference if the groundwater discharge of stormwater is designated a UIC discharge or not?

No. The application form and review is the same. The permit issued will either have a UIC number or Groundwater Discharge (GWD) number.

Which stormwater BMPs for water quality treatment in the RI Stormwater Manual are subject to Groundwater Discharge Program permitting?

BMPs from Section 5.3 of the Stormwater Manual “Infiltration Practices”: surface infiltration basins and trenches, underground trenches and chamber systems, and dry wells. However, these BMPs are exempt from Groundwater Discharge Program Permitting when used to treat stormwater from any residential property where the project will result in the creation or disturbance of less than 10,000 square feet of impervious area.

Stormwater from Land Uses with Higher Potential Pollutant Load (LUHPPLs) identified in the Stormwater Manual Standard 8 shall not be infiltrated to groundwater. Any BMP to manage stormwater from a LUHPPL activity must be lined, unless the stormwater has been adequately treated for the pollutant of concern as determined by DEM. Stormwater management proposals for a LUHPPL activity where the stormwater is to be treated for the pollutant of concern and then infiltrated is subject to Groundwater Discharge Permitting, regardless of the type of infiltration BMP utilized (including those BMPs that infiltrate from the ground surface in other sections of the Stormwater Manual (see next question)).

Why are Permeable Paving (Stormwater Manual Section 5.4), Filtering Systems (sand filter, organic filter, bioretention system, tree filter -- Stormwater Manual Section 5.5) and Dry Swales (Stormwater Manual Section 5.7) exempt from Groundwater Discharge Program permitting (if not LUHPPL) even when if they infiltrate (i.e., they are unlined)?

DEM has determined that when these surficial discharge BMPs are constructed in accordance with the Stormwater Manual, the threat to groundwater is minimized, and therefore, it is not necessary for permit review by the Groundwater Discharge Program. However, these BMPs will be reviewed for compliance with the Stormwater Manual as part of overall project review if the project is subject to one of the other stormwater permitting programs, i.e. Freshwater Wetlands Program, the Water Quality Certification Program, the RI Pollutant Discharge Elimination Program, or the CRMC Coastal Management Program.

Unlike the infiltration systems always subject to Groundwater Discharge Program review, which utilize the subsurface environment for treatment, these filter systems are constructed to treat stormwater before discharge to the subsurface. Permeable paving infiltrates the precipitation that falls directly on it; unlike other BMPs that collect stormwater and discharge the concentrated pollutant load in one location. This dispersed infiltration to the subsurface minimizes the impact of the stormwater on groundwater.

Are BMPs that are used to meet only the stormwater **quantity** control requirements of the Stormwater Manual and which discharge to groundwater also subject to Groundwater Discharge Program permitting (the water quality volume is addressed by another BMP)?

Because DEM has discretion in regards to discharges to the surface, it has been determined that surface basins for quantity control do not require a permit since the water quality volume has been treated. However, since BMPs that discharge directly to the subsurface are designated as a federal UIC discharge (underground trenches, underground chambers and dry wells), these BMPs when used for stormwater quantity control are subject to Groundwater Discharge Program permitting.