



Building Inspection Department City of De Pere

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Sec. 26.5 STORM DRAINAGE

A. **Clear Water.** Clear water shall include water from roof drains, surface drains, foundation water drains, cistern overflows, refrigerator cooling waters and water from air conditioning equipment.

B. **Discharge to Sanitary Sewers.** No person shall discharge any clear water by means of sump pump or roof drains into any sanitary sewer, and no person shall permit rain or surface water to drain directly into any sanitary sewer.

C. **Discharge to Storm Sewer.** All clear water shall discharge directly into a storm sewer where such sewer is available, and the Director of Public Works may direct such connection if he deems it necessary and in the public interest.

1. **Permit Required.** No person shall open any street, alley or other public place for the purpose of connecting to a storm sewer or other terminal without first obtaining from the Director of Public Works a written permit to open such street, alley or public place.

2. **Inspection.** Any person receiving a permit to connect to a storm sewer shall notify the Street Superintendent whenever the work is ready for inspection. All work shall be left uncovered until examined and approved by him.

D. **Discharge to Public Streets.** No person shall discharge any clear water directly into a public street or alley from November 1 thru March 31, inclusive. No person shall discharge any clear water directly into a public street or alley from April 1 thru October 31, inclusive, without first obtaining from the Director of Public Works, a written permit to do so.

E. **Discharge onto Sidewalks.** No person shall permit the drainage of water directly onto any sidewalk or other public area.

F. **Other Discharges.** Where a storm sewer is not available, the discharge of clear water shall be either:

1. Into an underground conduit leading into a drainage ditch or dry well;
2. Onto the ground surface at least one foot from the building foundation and directed toward the front or rear lot line.

Such discharge shall not be directed so as to flow on adjacent property nor shall the discharge be

allowed to accumulate and create ponds of standing water or other public nuisance. Nothing contained in this subsection shall act to relieve a person from complying with the other provisions of this section.

G. Correction; Penalty. Any person who is the owner of any building or land wherein there is a violation of the provisions of this section, shall cause the violation to be corrected within a maximum of sixty (60) days after being notified in writing by the Director of Public Works or Sewer Inspector, whose duty it shall be to enforce this section. Any person who shall thereafter continue to violate the provisions of this section shall be subject to the forfeiture provided for violation of this chapter. Nothing in this section shall preclude the City from maintaining any other appropriate action to prevent or remove a violation of this section.

Sec. 26-6 SUMP PUMP INSTALLATION

A. Installation Required: Discharge Regulated. The installation of sump pumps shall be required in all residential, commercial, and industrial buildings constructed after July 17, 1973. The effluent from all sump pumps installed pursuant hereto shall be discharged directly into the storm sewer where such sewer is available or can be made available.

B. Permits Required: Inspection. Any person applying for the plumbing permit under this code shall certify to the issuing officer or department that a sump pump shall be installed within such building and shall submit plans and specifications relating to the connection of such pump to the storm sewer. The Plumbing Inspector or other officer, prior to issuing any permits, shall review and approve said plans and specifications. Any installation connection hereunder shall be performed in such manner to allow for inspection by the Plumbing Inspector.

Storm Water and Rain Gardens

The awareness and importance of protecting the waters of the state and replenishing the underground aquifers have become more prevalent in the last decade. According to the 2000 EPA National Water Quality Inventory, urban storm water runoff and discharges from storm sewers are a major contributor to a reduced level of water quality in the United States. Wisconsin averages 31 inches of rainfall annually and 45 inches of snowfall generating billions of gallons of storm water runoff, which can cause flooding, erosion, destroy natural habitat, and cause storm sewers to become inundated.

The Rain Garden is a simple way to manage storm water and one of the most popular new perennial garden designs that can be constructed at a minimal cost. Rain Gardens are shallow depressions planted with perennial deep-rooted plants (typically native wildflowers and prairie grasses) that receive storm water runoff from impervious surfaces (rooftops, sidewalks, driveways, parking lots).

- Rain Gardens capture and detain rainwater runoff, thus allowing water to infiltrate back into the soil and replenish the underground aquifers.
- Rain Gardens protect communities from flooding and drainage problems.
- Rain Gardens are planted with native wetland and prairie wildflowers and grasses. These perennial plants naturally grow in this area and many of them are hardy, requiring very little maintenance. The aesthetic quality is the most rewarding aspect of this storm water system.
- Rain Gardens provide food and shelter for a myriad of butterflies and birds, and can attract mosquito-eating insects like dragonflies.

Rain Gardens require little work and know-how – it's not complicated by any measure of the word. All you need is a shovel and a sound back. A rain garden can be an attractive method to prevent runoff on to the neighbor's property from roof downspouts and sump pump discharge. It can add aesthetics to the yard and offer a natural habitat for butterflies and birds.

Sizing the Rain Garden

The surface area of the Rain Garden will be up to the individual and their budget. An average 70 to 150 square foot garden will provide some storm water runoff control. A typical residential rain garden can range from 100 to 400 square feet. Rain Gardens may be smaller than this, but they will limit the number of plants and varieties of plants in the garden. The size of the Rain Garden will depend on how deep the garden will be, soil type, and the amount of impervious area.

Cost of the Rain Garden

The cost of a Rain Garden will vary depending on the size, who does the work, and where the plants are purchased. If a person does their own work on the rain garden and buys the plants, the average cost could be approximately \$3 to \$5 per square foot. For more information, you can go to the DNR website and find the Rain Garden How-to Manual at <http://www.dnr.state.wi.us/runoff/pdf/rg/rgmanual.pdf> or the Building Inspection website at www.de-pere.org.

Frequently asked questions

Does a rain garden form a pond?

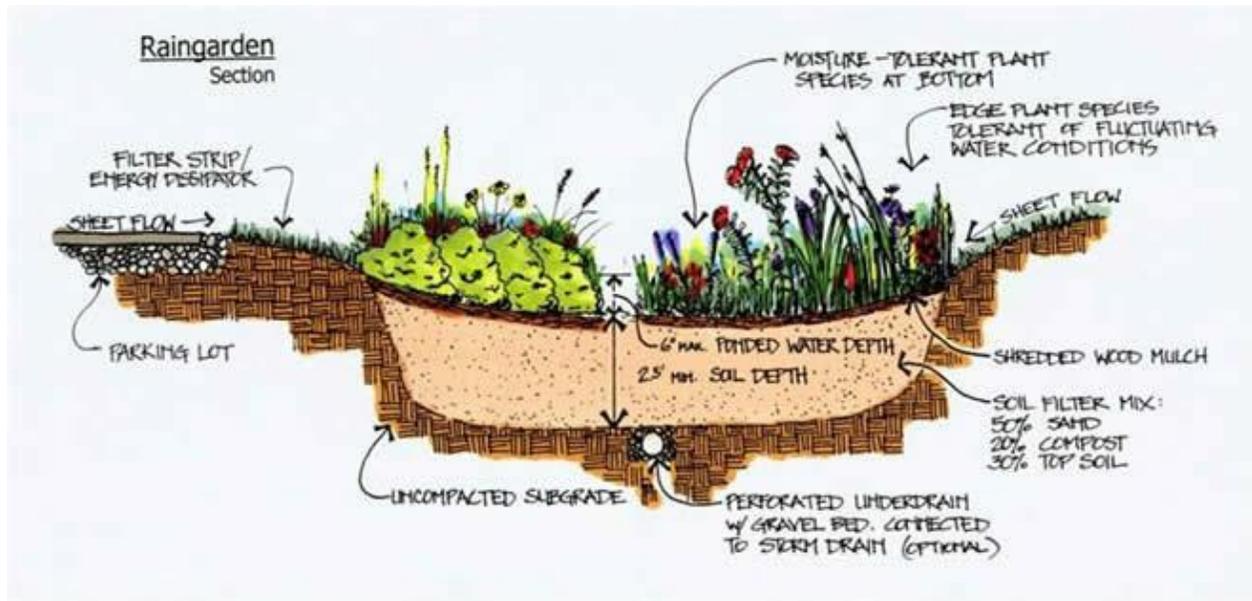
- **No. The rain water will soak in so the rain garden is dry between rainfalls.**

Are they a breeding ground for mosquitoes?

- **No. Mosquitoes need 7 to 12 days to lay and hatch eggs, and standing water in the rain garden will last for a few hours after most storms. Mosquitoes are more likely to lay eggs in bird baths, storm sewers, and lawns than in a sunny rain garden. Also rain gardens attract dragonflies, which eat mosquitoes!**

Do they require a lot of maintenance?

- **Rain gardens can be maintained with little effort after the plants are established. Some weeding and watering will be needed in the first two years and perhaps some thinning in later years as the plants mature.**

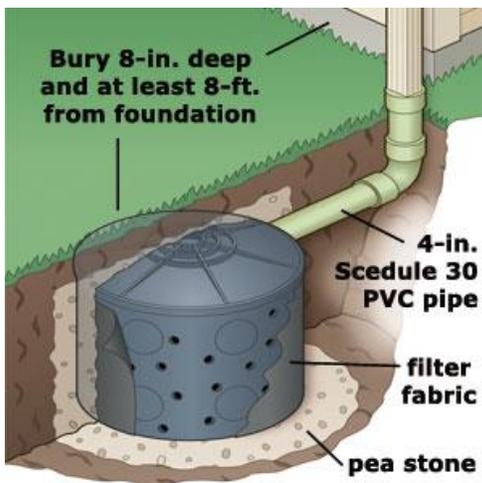
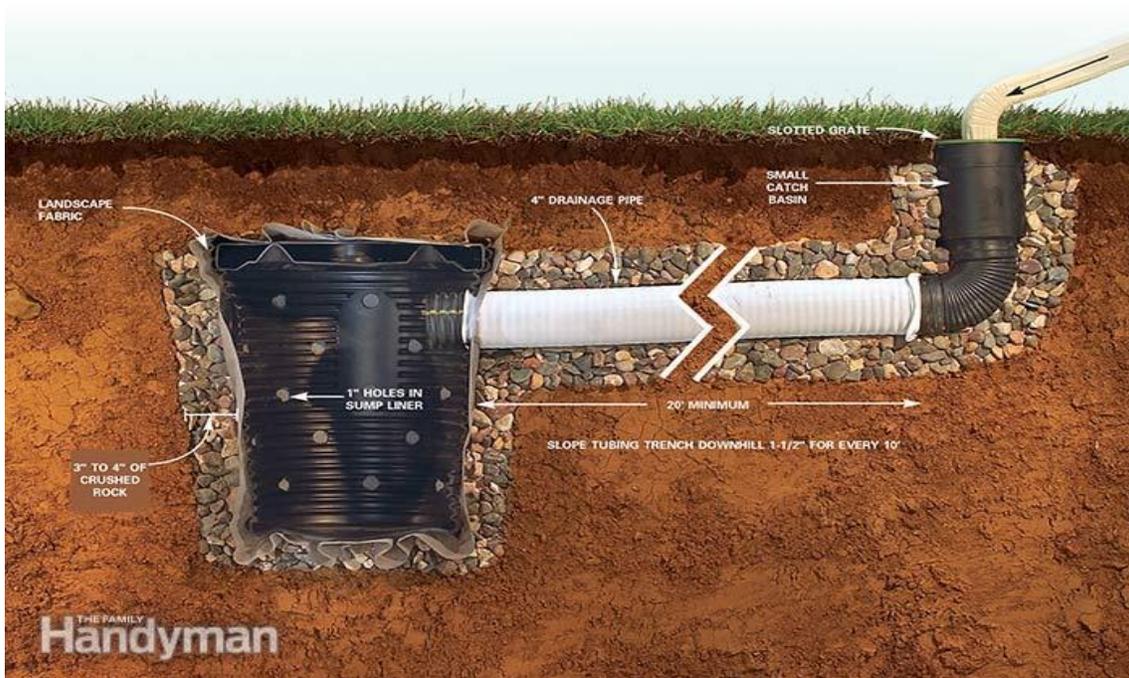


Where should the rain garden go?

Home rain gardens can be in one of two places – near the house to catch only roof runoff or farther out on the lawn to collect water from the lawn and roof. To help decide where to put a rain garden, consider these points:

- The rain garden should be at least 10 feet from the house so infiltrating water doesn't seep into the foundation.
- Do not place the rain garden directly over a septic system. • It may be tempting to put the rain garden in a part of the yard where water already ponds. Don't! The goal of a rain garden is to encourage infiltration, and your yard's wet patches show where infiltration is slow.
- It is better to build the rain garden in full or partial sun, not directly under a big tree.
- Putting the rain garden in a flatter part of the yard will make digging much easier. For example, a rain garden 10 feet wide on a 10% slope must be 12 inches deep to be level, unless you import topsoil or use cut and fill.

YARD CATCH BASINS & FRENCH DRAINS



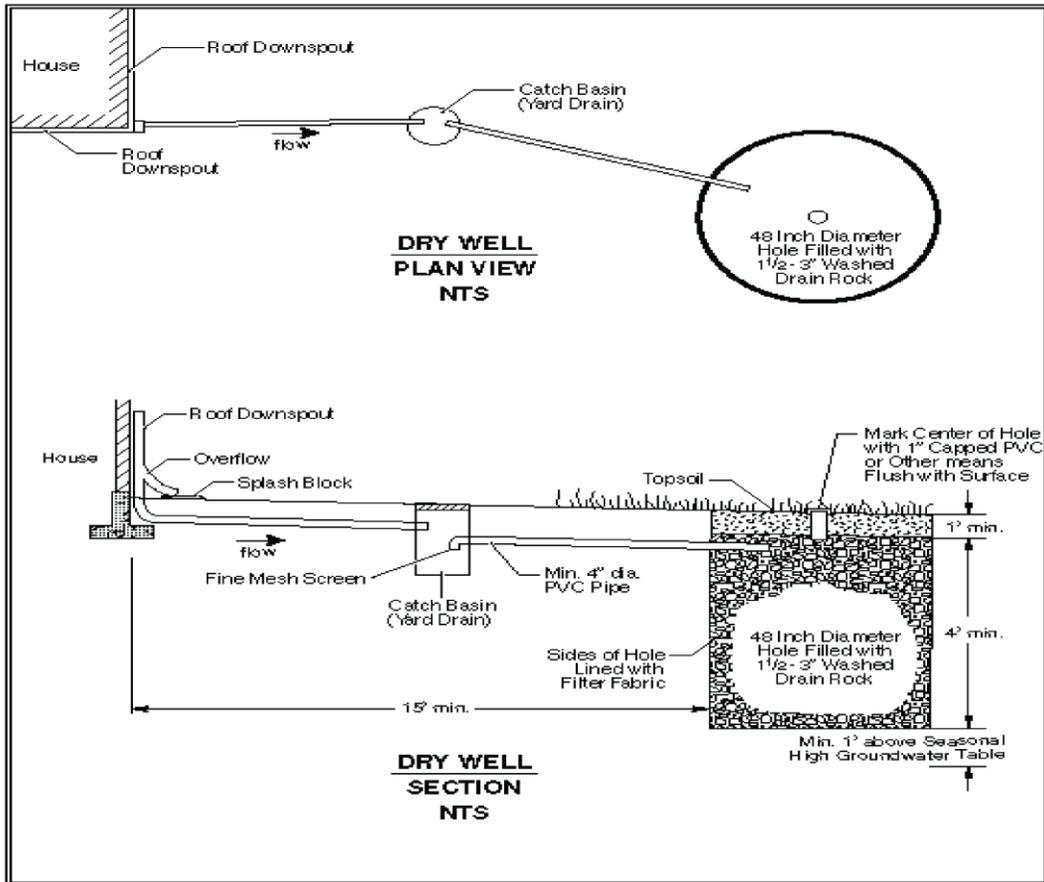


Figure 3.4 – Typical Downspout Infiltration Drywell

Source: King County

