

**PUTNAM VALLEY
CENTRAL SCHOOL
DISTRICT
PUTNAM VALLEY, NY**

**MS4PY6 STORMWATER
PROGRAM**

**FACT SHEET # 4
DECEMBER 2015**

**DISCONNECTING YOUR
DOWNSPOUTS FROM YOUR
STORM SEWER**

**FOR MORE INFORMATION CONTACT
YOUR STORMWATER COORDINATOR:**

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1. DOWNSPOUT DISCONNECTION

Rain that runs off your roof and directly into a storm sewer pipe can be redirected to your lawn or garden by disconnecting your downspout. If your garden is located at a higher elevation than the outlet of your downspout, you can collect the roof runoff in a rain barrel or underground cistern and pump the water to your garden when you need to water the garden. Alternatively if your garden is at a lower elevation and less than 10 feet away, you can re-direct the water by gravity. You have two choices. You can redirect the water via an underground pipe or you can utilize an open grassed or stone-lined swale. Disconnecting your downspouts from a storm sewer pipe provides many environmental benefits:

- **Reduce Demand on our Storm Sewer System:** By re-directing the roof runoff into your yard or garden, you are reducing the volume of runoff to the storm sewer system
- **Reduce Stormwater Pollution to Nearby Water Bodies:** Stormwater is treated onsite thereby reducing stormwater pollution to our rivers, streams and nearby lakes
- **Onsite Groundwater Replenishment:** Not only are you helping move water away from your building foundation, the water that infiltrates through a garden replenishes the local groundwater
- **Street and Basement Flooding:** Rain gardens allow about 30% of the rain water to soak into the ground thereby reducing street and basement flooding
- **Improving the Environment:** Through photosynthesis, plants in your garden remove carbon dioxide and replenish the air with oxygen. Through evapo-transpiration

plants also replenish the moisture in the air, which in turns increase our rainfall, especially beneficial in the arid regions of the west.

2. SITE CONSIDERATIONS BEFORE DISCONNECTING THE DOWNSPOUT

Before disconnecting your down spouts:

- **Downspout Discharge:** Find out where the runoff from your downspout discharges. Are the downspouts draining to your lawn or are they connected to a storm sewer pipe, drywell or infiltration trench? If your downspout drains into a drywell or infiltration trench that is functioning properly, you may not need to disconnect the downspout
- **Location and Roof Area:** Locate the downspout and estimate the area of roof draining into your downspout
- **Slopes:** Do not disconnect downspouts on slopes over 10% and add or remove soil to make sure that the slope of the ground allows water to flow away from the building foundation
- **Drainage Area:** the area that you drain to must be at least 10% of the roof area for the rain to soak safely into the ground
- **Property Limiting Factors:** The end of the downspout must be at least 5 feet from the neighboring property and at least 3 feet from the public sidewalk
- **Downspout Extensions:** Avoid adding downspout extensions across a patio, walkway or driveway, unless you intend burying the downspout below these areas
- **Downspout Drainage:** Do not release rainwater over a septic field, near an underground oil tank or near a drinking water well.

3. UTILIZING A RAIN BARREL

Installing a rain barrel is simple and easy. A rain barrel is a container that stores water from the downspout of a rooftop gutter. Rain barrels have a spigot at the bottom that attaches to a garden hose. Rain barrels hold about 40 to 75 gallons of water. Rain barrels can weigh up to 500 lbs. when full so it is important to place the barrel on firm level surfaces such as cement blocks or pavers. Elevating the barrel will help the water to drain more easily due to gravity.

4. USES OF ROOFTOP RUNOFF COLLECTION

Rooftop runoff collection can be utilized for:

- **Irrigating Your Lawn**
- **Watering Your Garden**
- **Watering Indoor/Outdoor Plants**
- **Filling Outdoor Fountains**
- **Washing Your Car**
- **Washing the Exterior of Your House**

5. STORMWATER POLLUTION IMPACTS

When rain falls on natural areas, such as a forest or meadow, it is slowed down, filtered by soil and plants, and allowed to soak back into the ground. When rain falls on impervious surfaces like rooftops, roads, and parking lots, rain does not soak into the ground, and storm water runoff is created. Stormwater runoff picks up pollution such as fertilizer, pesticides, sediment, motor oil, litter, and pet and yard waste. It delivers these pollutants to local streams and rivers. Finally, when we develop our land and increase the amount of paved surfaces, the water cycle is changed. Less rainfall and snowmelt sinks into the ground and more polluted runoff flows rapidly over our land into our lakes, rivers and streams.