



PROTECTING AND ENHANCING THE NATURAL ENVIRONMENT THROUGH COMPREHENSIVE ENVIRONMENTAL PROGRAMS

DISCONNECTION OF ROOFTOP & NON-ROOFTOP RUNOFF

In urban areas, rooftop downspouts are commonly connected to drain tiles that feed the sewer or storm drain system. The cumulative effect of thousands of connected downspouts can greatly increase the annual number, magnitude, and duration of sewer or storm drain overflow events. Downspout disconnection is the process of redirecting roof runoff onto pervious infiltration surfaces, most commonly a lawn. This reduces the amount of directly connected impervious area in a drainage area.

Disconnected Rooftop Runoff Areas. Compared to a non-rooftop system, this strategy involves disconnecting the rooftop drainage pipe and allowing it to soak into a pervious surface such as a lawn or rain garden. Rooftop disconnection involves directing flow from downspouts onto vegetated areas where it can soak into or filter over the ground. This disconnects the rooftop from the sewer/storm drain system and reduces both runoff capacity and pollutants delivered to receiving waters.

Disconnected Non-Rooftop Areas. Non-rooftop disconnection involves directing flow from impervious surfaces, such as driveways, streets and sidewalks onto vegetated areas where it can soak into or filter over the ground.



Residential disconnection of rooftop runoff onto grass
 (source: Chesapeake Stormwater Network)

Who is responsible for this maintenance?
 As the property owner, you are responsible for all maintenance of your disconnection of rooftop & non-rooftop runoff.

WHY IT'S IMPORTANT TO MAINTAIN YOUR DISCONNECTION OF ROOFTOP & NON-ROOFTOP RUNOFF

An unmaintained disconnection of rooftop & non-rooftop runoff may:

- Cause erosion in areas.
- Cause stormwater to be directed over impervious surfaces increasing the amount going directly into storm drains and water ways.

MAINTENANCE & MONITORING

FREQUENCY*	ACTIVITY*
Seasonally	<ul style="list-style-type: none"> • Remove leaves, debris, and other foreign matter from rooftop drain.
Semi-annually	<ul style="list-style-type: none"> • Check for erosion and repair if necessary. • Replenish mulch as needed. • Repair or replace damaged gutter and downspout.
* Follow manufacturer's guidelines	

Troubleshooting Issues

Symptom	Possible Cause	Solution
Sediment is accumulating in the infiltration area	Runoff collecting sediment may be occurring near the flow path or washing off paved surfaces.	Establish the longest overland flow path after disconnection at 40 to 75 feet to allow infiltration. Limit applications to areas with steep slopes.
Erosion	Flow path incorrect	Establish the longest overland flow path after disconnection at 40 to 75 feet to allow infiltration. Limit applications to areas with steep slopes.
Standing water	Clogging	If standing water occurs longer than 48 hours, the infiltration area may be clogged. Remove any accumulated leaves, organic materials and sediment.

INVASIVE PLANTS

“Invasive” describes a species that, when introduced into an ecosystem aggressively establishes itself at the expense of native plants or animals (*Maryland Department of Natural Resources*). Regularly inspect vegetation and remove invasive/nuisance plant species. For more information on invasive plants in Maryland, please go to the Maryland Department of Natural Resources website at: <http://dnr.maryland.gov/invasives/Pages/default.aspx>.



Disconnection of rooftop runoff directed onto a rain garden
(source: Brian Ash)