

## What is a rain garden or bioretention area?

Bioretention areas are typically planted with native plants and have three layers: mulch; a soil, sand, and organic material layer; and a stone layer. An optional perforated pipe within the stone layer collects and directs rainwater from large storms to a storm drain or swale. Bioretention areas are often located in parking lots or road medians.

Rain gardens are very similar to bioretention areas except do not have a buried perforated pipe. They usually collect rainwater from gutters, driveways, and sidewalks.



### Who is responsible for this maintenance?

As the property owner, you are responsible for all maintenance of your rain garden or bioretention area.

## SUGGESTED MAINTENANCE ACTIONS\*

### MONTHLY

- Regularly check for erosion of the soil layer and surrounding areas draining to the rain garden or bioretention area.
- Remove weeds and plants that do not belong.
- Check for and remove any obstructions or blockage of flow along inflow areas or pipes.
- Check the area a few days after rainfall to make sure the water does not pond on the surface for more than 48 hours.

### AS NEEDED

- Remove leaf litter to ensure that the flow of rainwater is not blocked.
- Cut back and remove dead stems of herbaceous plants.
- Replenish and redistribute mulch to a total depth of 3 inches.
- Inspect and maintain, or replace components and plants.
- Water new plants during initial establishment (first 18 months) and during extreme droughts as appropriate.

### DO NOT:

- Apply excess salt and sand around your property during the winter months as this could harm plants and lead to blockages.
- Store snow or leaves in your rain garden or bioretention area.
- Use fertilizers or pesticides in your rain garden or bioretention area as they are usually not needed and can contribute to water pollution.
- Remove or alter your rain garden or bioretention area. If you claimed your rain garden or bioretention area for the Stormwater Credit Program, removing or modifying it can result in loss of credit.

*\* Please refer to the Maryland Stormwater Design Manual, Volumes I and II for minimum requirements and procedures for maintaining BMPs. This document serves as the official guide for stormwater management principles, methods, and practices in the State of Maryland. Visit <http://bit.ly/MDESMDM>.*

### WHY IT'S IMPORTANT TO MAINTAIN YOUR RAIN GARDEN/BIORETENTION

An unmaintained rain garden or bioretention area may:

- Stop filtering the rainwater and allow trash and pollutants to enter into our local streams.
- Be difficult or expensive to restore if left unmaintained.
- Allow water to pool on the surface long enough to allow mosquitoes or other insects to breed (longer than 3 days).

## Troubleshooting Issues

Symptom	Possible Cause	Solution
Poor Plant Health	You plants may be the wrong plant type for your shade and moisture conditions or they may be smothered by weeds.	Remove dead or disease plants and plant new vegetation as needed. Also be sure to regularly remove weeds and other invasive plants.
Standing water for 2 or 3 days after a rainstorm.	Clogging due to leaf litter, sediment, or debris accumulation.	Remove any visible debris from the surface. If a bioretention area, where possible, inspect the perforated pipe for blockages.
Erosion or bare soil	The rainwater is moving too fast and/or vegetation is lacking or nonexistent.	Stabilize the eroded areas by planting new vegetation. Consider using rocks to slow the flow of rainwater.
No mulch or visibly reduced mulch	Mulch naturally decomposes over time. Large storms can also move mulch.	Replenish mulch to a total depth of 3 inches across the entire area. Use of double-shredded mulch recommended.

## Recommended timeframes for routine maintenance

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Remove sediment, leaves and debris		•			•			•			•	
Remove trash	•	•	•	•	•	•	•	•	•	•	•	•
Weeding					•	•	•	•	•	•		
Pruning		•							•	•	•	
Mulching	— As needed —											
Watering, replanting, erosion control	— As needed —											

## Typical Rain Garden/Bioretention Profile (for illustrative purposes only)

