

# REGULATORY RAIN GARDEN MAINTENANCE AND INSPECTION GUIDANCE

## 1. OVERVIEW

Rain gardens are designed and sited to intercept and detain runoff from impervious areas such as rooftops and driveways, allowing runoff to seep into the ground where pollutants are filtered out instead of entering stormdrains and waterways. Rain gardens are similar to normal gardens and can be planted with a variety of species, but regular inspection and maintenance are critical to ensure that rain gardens function as designed. Maintenance should be performed per the schedule below as part of routine park maintenance operations:

## 2. SCHEDULE

Maintenance & Inspection Activities	Recommended Frequency**			
	Weekly	Monthly	Annually	After Large Storms
Inspect new rain garden after first two precipitation events of at least 1.0 inch				X
For first 3 years rain gardens must receive 1 inch water per week including rainfall. If new trees and shrubs are present, water weekly until soil at depth of roots is moist	X			
Remove any weedy or invasive plants	X			
<b>Never</b> add fertilizer to rain garden or apply pesticides to plants	X	X	X	X
Remove trash, organic debris, and pet waste from within and around gardens	X			X
If mowing and weed-whacking turf around the gardens, direct clippings away from the infiltration beds	X			
Check for standing water lasting over 48 hours after a storm event, indicating clogged surface layer. Remove surface 2" and replace with fresh soil mixture and shredded non-dyed hardwood mulch.*	X			X
Remove sediment build-up from sediment forebay and any flow channels*		X		X
Prune trees and shrubs to encourage growth in the spring or fall, and in early spring cut back dead plant material to 1/3 of its height.		X		X
Remove and replace perennials as needed with approved native plants to maintain ground cover. Annuals may also be used to maintain ground cover.		X		
Check for and repair soil erosion gullies within the gardens		X		X
Periodic replacement of mulch*		X		
Check for and fill animal burrows in or around rain gardens		X	X	
Check signage and report if missing or faded, clean if tagged			X	X

\* Sediment and mulch shall be disposed of offsite in a pre-approved location

\*\* All inspections/activities are intended to be performed during the growing season, and on an as-needed basis

### 3. TROUBLESHOOTING AND LONGTERM MAINTENANCE

Some maintenance and inspection considerations are beyond the basics and may require some troubleshooting.

- A major cause of tree and shrub loss is planting them too deep. When planting, keep trunk flare at or a little above existing ground level and when backfilling do not cover trunk flare. Mulch should be at least 4 inches away from the trunk.
- Erosion within the system can signal different problems depending on its location.
  - If erosion is occurring **through the garden** in the form of rills and gullies then flow paths must be considered and energy dissipators, such as rock, adjusted or added.
  - If erosion is occurring **at the edges of the garden** then runoff is entering at other points in addition to the inlet area. Check that edges are intact or construct a berm if necessary to correct this.
  - If erosion is occurring **near the overflow** then the garden may be too small to handle the amount of water it is receiving. Consider enlarging the rain garden.
- If plants must be replaced remember to choose some that tolerate both wet & dry conditions. Use the Rhode Island Coastal Plant Guide at <http://cels.uri.edu/testsite/coastalPlants/CoastalPlantGuide.html/>
- Do not fertilize or add compost as a soil amendment to rain gardens. Part of the function of a rain garden is to trap and remove nutrient loads. Compost and fertilizers are both sources of nutrients, and native plants do not need additional fertilizer.
- For assistance with diagnosing the cause of poor plant health, contact URI Master Gardeners March-October, Monday-Thursday, 9:00 am – 2:00 pm at **(401) 874 – 4836** or by email at [gardener@uri.edu](mailto:gardener@uri.edu).
- For assistance identifying aggressive weeds and invasive species, refer to the URI weed identification guide year-round at <https://web.uri.edu/riss/in-the-weeds-a-guide/>