Stormwater Management in Your Backyard
for Master Gardeners and Environmental Stewards

Part 3: Rain Garden Maintenance

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Rain gardens are **low** maintenance gardens, not **no** maintenance gardens!
Maintenance Measures

1. Inspections
2. Watering
3. Landscape Fabric and Mulch
4. Soil Testing
5. Weeding
6. Pruning
7. Mowing
8. Sediment removal as necessary
9. Cleaning of Gutters
10. Re-planting as necessary
11. Harvesting Plants
12. Prepare a Photo Journal
1. Inspections

• What am I inspecting for?
  
  – Weeds and invasive plants
  
  – Plant health
  
  – Excessive sediment
  
  – Movement of sediment within the rain garden
1. Inspections

- When am I inspecting?
  - Prior to growing season
  - End of growing season
  - After large storm events
  - During weather extremes
Rain Garden Maintenance

1. Inspections

Observe the rain garden during rain events and note any problems or successes.

- **Problem:** Gullying after rain event
- **Solution:** Add a berm and/or plants

- **Success:** Withstood rain event

Walnut Avenue Elementary School, Union County

Hanson House/Hanson Park Conservancy, Union County
1. Inspections

- Rain Garden Site Visit Worksheet (Post-Installation)
2. Watering

New rain gardens will need to be watered for the first one or two years until the garden is established!
3. Landscape Fabric and Mulch
3. Landscape Fabric and Mulch

• Apply mulch twice per year until groundcover establishes.
4. Soil Testing

- Soil should be tested every 3 years.

- pH should be in an acidic range
  - If pH is <5.2, apply limestone
  - If pH is >7.0 to 8.0, add aluminum sulfate or sulfur to reduce pH according to recommendations.

- Soil amendments should only be added when no storms are expected.

- Refer to RCE Fact Sheet 797, download from: http://njaes.rutgers.edu/pubs/
5. Weeding

- Weeding more often will limit the amount of time you will have to spend weeding.

- Watch for overly-competitive species.

- Some weeds can be aggressively spreading underground by rhizomes.

RCE’s NJ Weed Gallery: http://www.rce.rutgers.edu/weeds

USDA PLANTS Database: http://plants.usda.gov
5. Weeding

Be on the lookout for these invasive species in your rain garden:

Wisteria

Japanese Knotweed
5. Weeding

Be on the lookout for these invasive species in your rain garden:

- Thistle
- Wild Cucumber

Photos by Betty Ann Kelly
6. Pruning

- Pruning directs growth of plants, improves health, and increases production of flowers and fruits.

- How does pruning a rain garden differ from my other gardens?
  - In a rain garden, dense shrub growth is encouraged to provide increased filtering capacity.
6. Pruning

• Tattered and discolored plants should be cut back after spring arrives and growth is 4-6” tall.

• “Deadheading” plants will also lead to succeeding new growths.

• **THINNING**: basically, thinning out. This type of pruning removes entire branches back to the main trunk or major branches to the ground.
  – Expected result: large, open shrub

• **HEADING**: also known as heading back. This type of pruning removes only part of a branch.
  – Expected result: growth of multiple branches in place of single branch, thus a more dense shrub.
Rain Garden Maintenance

7. Mowing

• After the growing season, it will be necessary to remove stems and seedheads. These can be left for habitat and in some areas, aesthetics.

• A string trimmer can be used to maintain over-competitive growths.

• Dead plant materials can also be removed by a string trimmer or mower, if the mowing deck can be raised to cut at 6-8”.

© Original Artist
7. Mowing

- Mowing native grasses should occur two times a year in your rain garden.

  - Initial mowing can be done after the first few weeks of growth – early Spring.

  - Final mowing can be completed after ground nesting birds have hatched the next generation usually near mid-May.
Rain gardens can provide winter interest!
8. Re-Planting as necessary

• After the first season, it may be obvious what plants were successful and what plants do not work for your rain garden.

  – Over the growing season, was the weather drastically different than the conditions the basin was designed to retain?

  – Was flow too fast through the basin, damaging health?

  – Is flow being incorrectly diverted from the rain garden?
Rain Garden Maintenance

8. Re-Planting as necessary

- Replace dead or diseased plant material
- Re-seed the berm if there are areas of exposed soil
- Replace rocks that may be diverting flow out of the garden
- Build up areas where more protection is needed
9. Sediment Removal as necessary

- Since the rain garden serves the purpose of catchment, sediment will tend to accumulate within the garden.

- This is a sign of success – this soil would have been directed straight to the local waterways without your efforts!
9. Sediment Removal as necessary

- With a flat shovel, remove soil that has accumulated in the basin. Avoid the vegetation!

- There is no exact schedule for when this should be done. Try to monitor sediment accumulation, especially after all heavy storm events.

- Be sure that sediment is not churning up from exposed areas of the rain garden. Flow should be dissipated to avoid these situations, which are likely to occur in the early stages of stabilization.

- Core aerate or cultivate bare areas annually if surface becomes clogged with fine sediments.
10. Cleaning of Gutters

- Make sure rain gutters are clear of debris.

- If the flow of water is blocked in the gutter, the rain water will have difficulties getting to your rain garden.
11. Harvest Plants

- Collect seeds and cuttings from successful plants in the rain garden and use them for the new season.

- Plant more of the successful species in the rain garden as necessary.
12. Prepare a Photo Journal

Take photographs from the same location for consistency

Installation

6 Months

Fanwood Memorial Library, Union County
12. Prepare a Photo Journal

Take photographs from the same location for consistency

1 Year 6 Months

Fanwood Memorial Library, Union County

The Future
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