Rain Garden Inspection and Maintenance
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
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
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/

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Soil Testing for Home Lawns and Gardens

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Soil testing can provide information about how to enhance the beauty and productivity of a lawn, landscape planting, or vegetable garden. Whether your goal is a lush, green lawn or a large harvest of vegetables, soil fertility testing is the place to start. It helps by determining a soil’s need for lime and fertilizer. Regular soil tests are also a part of a sound environmental management plan for your home and garden. Proper soil and fertility management will reduce the potential for water contamination from fertilizers. By knowing the plant nutrition needs of your lawn and gardens, you can prevent the overapplication of fertilizers, which may result in excess nutrients reaching streams or groundwater.

When to Sample

The best time to take a soil sample is after harvest in the fall or before spring fertilization. Do not sample shortly after a time, fertilizer, or manure application or when the soil is excessively wet. For lawns, late summer sampling will prepare you for fall fertilization. Soil testing should be repeated every 2–3 years.

Where can I get a soil test kit?

Soil test sampling kits are available for a fee from most of Rutgers Cooperative Extension’s county offices, which are listed in the blue pages of your telephone book under county government. Kits are also available from the Rutgers Soils Laboratory, located at the Cook College Campus in New Brunswick. Separate soil samples will need to be taken from areas used to grow different types of plants. For example, separate soil test kits should be used for lawns and vegetable garden areas.

Samples from rhododendron, azalea, and other broad-leaves should be kept separate from other shrub areas. Also sample separately areas that have previously received different lime or fertilizer treatments and areas that are noticeably different in plant or soil quality. For further information, visit our web site, www.rce.rutgers.edu/soiltestinglab.

How to take a soil sample

The Rutgers Soils Laboratory uses state-of-the-art instruments and methods of soil analysis. The soil test, however, can only be as good as the soil sample collected, so it is very important to use proper sampling techniques. The objective of sampling is to collect a random sample that will best represent the average fertility of the sample area. Depending on the size of the area to be sampled, collect about 10 to 15 cores or slices of soil while walking in a random pattern over the area to be tested.

Although a soil sampling probe is the most convenient tool to use, a garden trowel or spade also works well.
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

Photo by Betty Ann Kelly
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.
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".
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?

Photo by Linda Brazaitis
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

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

Take photographs from the same location for consistency.

Fanwood Memorial Library, Union County