MAINTAINENCE
MAINTENANCE MEASURES

**WEEKLY TASKS:**
1. Watering
2. Weeding
3. Inspecting

**ANNUAL TASKS:**
1. Mulching
2. Pruning
3. Re-planting
4. Removing sediment
5. Soil Testing
6. Harvesting Plants
7. Cleaning of Gutters
8. Replacing materials (stone, landscape fabric)
WEEKLY INSPECTIONS (identify)

1. Invasive plants and weeds
   - Are there plants other than what was installed present in the rain garden?

2. Plant health
   - Is the soil around plants moist?
   - Do plants show signs of stress?
3. Runoff Flow (during a rain event)
   - Is runoff entering the garden via the forebay?
   - Is there excess sediment, trash or pet waste in the rain garden?

4. Movement of sediment within the rain garden
   - Are there signs of erosion anywhere within the rain garden
     - around the edges = create berm to discourage flow at that point
     - at the overflow = rain garden is too small, increase size
WEEKLY MAINTENANCE TASKS (ACTION)

1. Weed
   1. Keep weeds at bay (but make sure you don’t pull rain garden plants!)
   2. Watch out for aggressive invasive species

2. Water
   1. Make sure plants get at least 1” of water per week during the first 1-2 growing seasons
   3. Remove excess sediment, trash or pet waste
   4. Prevent erosion (create berm, increase rain garden size)
WEEKLY MAINTENANCE

- Observe the rain garden during rain events and note any successes

**Success:** Stormwater runoff picks up oil and grease from the parking lot, flows through a curb cut, and into a rain garden. The rain garden traps the nonpoint source pollutants before they reach the nearby lake.
WEEKLY MAINTENANCE: EROSION INSPECTION

- Observe the rain garden during rain events and note any problems

Problem: Gullying after rain event

Solution: Add a berm, more plants, river rocks, and/or more mulch
MAINTENANCE MEASURES

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ANNUAL MAINTENANCE: MULCHING

• Add mulch every spring to maintain a three inch mulch layer in your rain garden
ANNUAL MAINTENANCE: PRUNING

- Cut back dead vegetation, flowers, and tattered or unwieldly plants in late winter/early spring
ANNUAL MAINTENANCE: PRUNING

- Directs plant growth
- Improves plant health
- Increases production of flowers + fruit
HOW DOES PRUNING A RAIN GARDEN DIFFER FROM OTHER GARDENS?

- In a rain garden, dense shrub growth is encouraged to provide an increase in filtering capacity.
TYPES OF PRUNING

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

• **HEADING (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.

• **DEADHEADING**: This type of pruning removes the spent flowers of an herbaceous plant.
  • *Expected result*: increased blooming throughout the season.
WHEN TO PRUNE?

- Prune summer and fall flowering trees and shrubs in the dormant season (late winter/early spring)
- Prune spring flowering trees and shrubs soon after their flowers fade
- **SPECIAL NOTE!** Plants such as hydrangeas, roses and clematis - some of these flower in spring, some in summer or fall, some flower repeatedly
- **BE CAREFUL!** Avoid pruning plants between June 15th – October 15th, as it stimulates new growth that may not be able to withstand the hard frosts in October
ANNUAL MAINTENANCE: REPLANTING

- Remove or replace plant material that did not thrive
ANNUAL MAINTENANCE: REMOVING SEDIMENT

• Since the rain garden serves the purpose of catchment and filtering runoff, sediment will tend to accumulate within the garden. This sediment would have otherwise run directly into the local waterways.
ANNUAL MAINTENANCE: REMOVING SEDIMENT

• 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, so try to monitor sediment accumulation, especially after all heavy storm events.
ANNUAL MAINTENANCE: REMOVING SEDIMENT

• 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.
ANNUAL MAINTENANCE: SOIL TESTING

- Soil should be tested every 3 years
- pH should be in the 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
- Do not fertilize the rain garden
ANNUAL MAINTENANCE: HARVESTING PLANTS

- Collect seeds and cuttings from successful plants in the rain garden and use them in other parts of your landscape
ANNUAL MAINTENANCE: CLEANING GUTTERS

• Make sure that any gutters connected to the rain garden are clear of debris

• You may have to clean the gutters more frequently if you have large trees in close proximity
ANNUAL MAINTENANCE: REPLACING MATERIALS

• Add more river rocks, if necessary
• Re-position river rocks that may be diverting rainwater flow
• Add mulch
• Re-seed the berm if there are areas of exposed soil
BEFORE and AFTER MAINTENANCE

BEFORE

AFTER
A RAIN GARDEN OVER TIME

At time of installation
Springfield Township Municipal Annex Building
Springfield, NJ

First growing season

Second growing season

Third growing season

Fourth growing season
REMEMBER: rain gardens are LOW maintenance gardens, not NO maintenance gardens!