

Rain Garden/Bioretention Example Maintenance Schedule

Soil

- Visually inspect and repair erosion *monthly*. Use small stones to stabilize erosion along drainage paths.
- Check the pH *once or twice a year*. Apply an alkaline product, such as limestone, *if needed*.

Mulch

- Re-mulch any void areas by hand *as needed*.
- *Every 6 months, in the spring and fall*, add a fresh mulch layer.
- *Once every 2 to 3 years, in the spring*, remove old mulch layer before applying new one.

Plants

- *Immediately after the completion of cell construction*, water plant material for 14 consecutive days unless there is sufficient natural rainfall.
- *When trees have taken root, or at least by 6 months*, remove stakes and wires.
- *Once a month (more frequently in the summer)*, visually inspect vegetation for disease or pest problems.
- If treatment is warranted, use the least toxic approach.
- *Twice a year, from March 15th to April 30th and October 1st to November 30th*, remove and replace all dead and diseased vegetation considered beyond treatment.
- *During times of extended drought*, look for physical features of stress (unrevived wilting, yellow, spotted or brown leaves, loss of leaves, etc.). Water in the early morning *as needed*.
- Weed *regularly, if needed*.
- Prune excess growth *annually or more often, if desired*. Trimmed materials may be recycled back in with replenished mulch or land filled if there is a concern of heavy metals accumulation.

General

- *After rainstorms*, inspect the cell and make sure that drainage paths are clear and that ponding water dissipates over 4-6 hours. (Water may pond for longer times during the winter and early spring.)
- **KEEP IN MIND, THE BIORETENTION CELL IS NOT A POND. IT SHOULD NOT PROVIDE A BREEDING GROUND FOR MOSQUITOES. MOSQUITOES NEED AT LEAST 4 DAYS OF STANDING WATER TO DEVELOP AS LARVA.**

New Jersey's Department of Environmental Protection states in their bioretention systems standards that accumulated sediment and debris removal (especially at the inflow point) will normally be the primary maintenance function. Other potential tasks include replacement of dead vegetation, soil pH regulation, erosion repair at inflow points, mulch replenishment, unclogging the underdrain, and repairing overflow structures. There is also the possibility that the cation exchange capacity of the soils in the cell will be significantly reduced over time. Depending on pollutant loads, soils may need to be replaced within 5-10 years of construction. (*Low Impact Development (LID): A Literature Review*. United States Environmental Protection Agency Office of Water. EPA-841-B-00-005. October 2000.)