

# The Pembroke Stormwater Times

Spring 2022



## WATER QUALITY FRIENDLY LANDSCAPING PRACTICES

Landscape maintenance can have considerable impacts on water quality. The nutrients required for upkeep (including nitrogen and phosphorous found in fertilizers) can run off properties and into local waterbodies. Choices made by landscapers can mitigate this harmful runoff and promote sustainable and attractive landscapes. Landscape professionals are important partners in protecting water quality, this addition of The Pembroke Stormwater Times highlights landscaping strategies to promote water quality.

- 1. Reduce the Lawn Area's Square Footage:** Consider limiting lawn area to locations where grass will grow easily and will be used for outdoor activities. Planting low-maintenance ground-covers, trees, flowers, and shrubs, can help infiltrate water into the soil preventing erosion, while reducing the amount of area required for fertilizing.
- 2. Utilize Native Grasses:** Instead of conventional turf choose native grasses and ground coverings. Having evolved in New Hampshire, native vegetation require less water, herbicides, fertilizers, and trimming.
- 3. Mow and Aerate:** Cut grass to a height of three inches, trimming no more than one-third of the blade to encourage stronger roots. Also, aerate the lawn to help soil breathe, further promoting strong root systems.
- 4. Plan Pervious Walkways and Patios:** Impervious surfaces installed in yards are sources of runoff. Instead install pervious walkways and patio areas that can look like traditional yard features but have a stone-filled reservoir underneath for infiltrated water.
- 5. Install Rain Gardens:** A visually appealing and effective way to reduce runoff is by implementing a sunken flat-bottom garden that uses soil and plants to capture, absorb, and treat stormwater.
- 6. Construct Vegetated Swales:** A shallow vegetated channel will direct runoff while the plants help to stabilize soil, reduce erosion, and absorb or slow some of the runoff.
- 7. Use Soil Tests as a Guide:** Visit: <https://extension.unh.edu/programs/soil-testing-services> to have soil tested. In some cases, simply adjusting the soil pH or organic matter can be the only treatments needed to improve a lawn.

## MUNICIPAL UPDATE

The Town continues its initiatives aimed at improving water resource quality and quantity.

This year, we will look at even more ways to contribute to these goals by inventorying Town-owned properties and infrastructure to assess best management practices that can be employed to increase stormwater treatment and infiltration.

These incremental steps help achieve the overall goal, which is healthy rivers and clean, abundant drinking water for the town.

We will continue to provide information to the public on these ongoing efforts. For more information, check out our website:

[www.ThinkBlueSuncook.org](http://www.ThinkBlueSuncook.org)

8. **Properly Dispose of Debris:** Leave mulched grass clippings on the lawn to naturally fertilize and prevent evaporation while reducing the amount of water needed. Keep yard debris away from storm drains, waterbodies, and wetlands.

9. **Institute Buffers:** Plan and maintain naturally vegetated buffers around the property and along any waterbodies present. These vegetated areas help slow down and clean any runoff from the yard area.



*Photo of rain garden Woodman Museum Dover: Soak NH Great Bay Sustainability Plan*

10. **Fertilize with Care:** Nitrogen and phosphorus are essential nutrients for the growth of plants, but with runoff can cause pollution in water resources. Fertilizer's ability to make lawns lush and green can cause the overgrowth of algae, producing algal blooms that block sunlight from aquatic plants and remove oxygen from underwater organisms. The following fertilization characteristics should be considered to promote proper use and help mitigate the risk of dangerous runoff:

- **Quantity:** Square footage of the area you plan to treat with fertilizer determines how much to use, measure beforehand and only use what is needed. Lawns older than ten years usually need less nitrogen, so apply only half the amount directed by the product's bag. For all lawns, apply no more than four times per year.
- **Timing:** Apply no earlier than spring green-up and no later than mid-September to ensure the proper soil temperature for grass to take up the nutrients fully.
- **Location Regulations:** Ensure local and state laws allow fertilization application, for example fertilizer is prohibited within 25 feet of waterbodies in New Hampshire.
- **Type:** The importance of selecting the proper fertilizer cannot be overstated. Use slow-release fertilizer to avoid excess nutrients unless new turf is needed quickly. Avoid combination products that include both pesticides and fertilizer unless certain it is needed. And select a product with low or no phosphorus unless the soil test indicates otherwise. The fertilizer formula depicts the relative percentages of nitrogen (N), phosphorous (P), and potassium (K), always in this order.

## Want to Learn More and Get Trained?

Landscape professionals hoping to gain more knowledge and become trained in stormwater management or ecological landscaping for water quality are encouraged to sign up for **Soak up the rain NH** trainings. This program of NH Department of Environmental Services provides information about how properties create stormwater pollution and how to prevent it.



*Photo of rain excess nutrients in waterbody: Soak NH Homeowner's Guide to Stormwater Management*

## More Resources:

- Soak up the Rain NH: [www4.des.state.nh.us/SoakNH/](http://www4.des.state.nh.us/SoakNH/)
- NH-MS4 Regional Stormwater Coalitions: [www4.des.state.nh.us/nh-ms4/](http://www4.des.state.nh.us/nh-ms4/)
- UNH Extension Education Center: [www.extension.unh.edu/agriculture-gardens/landscaping/landscaping-water-quality](http://www.extension.unh.edu/agriculture-gardens/landscaping/landscaping-water-quality)
- ThinkBlueSuncook: [www.thinkbluesuncook.org](http://www.thinkbluesuncook.org)

This flyer is intended for educational purposes as part of Pembroke's Municipal Separate Storm Sewer System (MS4) requirements. Check out more at [www.thinkbluesuncook.org](http://www.thinkbluesuncook.org).



### Town of Pembroke

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