

Managing Stormwater in Allenstown

ISSUE VI | SPRING 2022

Stormwater, or runoff, is the water that flows as a result of rain or snowmelt. Stormwater travels across pavement and other surfaces collecting sediment, chemicals, and pollutants, including but not limited to motor oil, gasoline, lawn chemicals, pet waste, and deicing chemicals. It can carry these harmful pollutants directly into waterways, contaminating water used for drinking, recreation, and for local wildlife.

Residents of Allenstown enjoy the benefits of the town's location along the Merrimack and Suncook Rivers and it is of the utmost importance to maintain the quality of these waters to the highest standards. There are many steps that the town and residents can take to protect waterways and drinking water. This flyer is just one in a series about how residents and business owners can do their part. Read on to learn more.

10 Tips For Water Quality Friendly Landscaping

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 harmful runoff and promote sustainable and attractive landscapes. Landscape professionals are important partners in protecting water quality. The following tips highlight 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 Surfaces: Impervious patios and walkways are sources of runoff. Instead install pervious yard features that can look like traditional patios and walkways that have a stone-filled reservoir underneath that stores 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.



Photos from Soak up the Rain NH

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.

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 all yard debris away from storm drains, waterbodies, and wetlands.

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

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 pesticide and fertilizer unless you are 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 encourage 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.

Additional Resources:

Soak up the Rain NH—www4.extension.unh.edu/tags/home-lawn-care

UNH Extension Education Center—www.extension.unh.edu/agriculture-gardens/landscaping/landscaping-water-quality

Think Blue Suncook—<http://thinkbluesuncook.org>

