

Title: 'Garden' to Improve Water Quality

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The progression of spring in New Hampshire can be measured by the start of Maple Month, flocks of American Robins on slushy lawns, and golden daffodils popping, but a long-time local measurement is based on the length of 'mud season'. Warmer days allow the surface of roads, driveways and walkways to melt while the deep frost prevents snowmelt from soaking into the ground. Spring is the perfect time to find areas on your property where snowmelt carves little streams and forms puddles, allowing you to follow the paths of spring runoff. Understanding where and how runoff from your property navigates can help you better understand how your actions impact other people's quality of life and the health of the environment far beyond property lines.

Our spring runoff can transport dissolved road salt, nitrogen and phosphorus from pet waste, and sediments which have been proven to pollute drinking water, contribute to harmful algae blooms, and impact plant life. At the small scale, it is common to find dead patches of lawn near pet waste or along driveways where snow melt was used, like salt or calcium. Snowmelt and storm water can dilute those particles and transport them further across the landscape, ending up in local rivers and lakes. Now is the perfect time to note the areas of spring runoff on your property. Simple yet affective improvements can be created using basic hand tools and native plants readily available at your local nursery. 'Rain gardens' are a landscape feature that allow snowmelt and storm water to become trapped in a swale or basin where it filters through layered woodchips, gravel, and sand to trap contaminants while clean water soaks into the ground, recharging aquifers. Planting native flowers and shrubs that grow best in wet habitat can create a self-sufficient landscape feature that will remain practical throughout the year. Later in summer, runoff from thunderstorms can transport sediment and lawn fertilizer- a proven contributor to harmful algae blooms.

Rain Gardens are different than a typical road-side drainage ditch. The goal is to trap water and allow it to soak into the ground, instead of transporting that water directly into storm drains, rivers and lakes. Larger commercial applications of Rain Garden can still meet requirements necessary to handle greater amounts of storm water. Altering a drainage basin or settling pond's liner material from riprap to layered aggregate with native plants can create a more environmentally friendly and aesthetically pleasing landscape feature.

Understanding the scope of spring runoff now can provide you the time to plan your Rain Garden before NH's growing season begins near Memorial Day. Avoid using dyed bark mulch, chemical fertilizer, and plants treated with pesticide to improve the practicality of your

Rain Garden. The UNH Cooperative Extension is a great county-level resource for more information, and the NH Department of Environmental Services' (NH DES) 'SOAK Up the Rain' program provides tutorials and info sheets to help plan your unique garden.

The Squam Lakes Association (SLA) was recently awarded grant funding from the NH Charitable Foundation to create multiple interactive Rain Gardens on our campus, which will occur this spring. These gardens will retain runoff from the campus hillside and input from a foundation drain before it reaches Piper Cove. Rain Gardens will be located in conjunction with Pollinator Gardens, which together will improve water quality and increase food for pollinators like bees and butterflies. This interactive area will be located along the SLA campus waterfront, and the outdoor portions remain open to the public at 534 US Rout 3 in Holderness. Lakes Region Conservation Corps members aim to use the site to provide educational programming, informational signs will describe beneficial features and identifying plant species, all while acting as an example for others to replicate a similar technique on their property. To visit Rain Gardens already in place, check out NH DES' website to find 'SOAK Partners' located across the state, and remember: creating basic drainage improvements to your property can enact lasting impacts that reach far beyond your footprint, ensuring the health of natural resources for years to come.



Snowmelt flowing from a thawing driveway carries muddy water toward Big Squam Lake on a sunny March day