

# Stormwater Best Management Practices (BMPs)

Stormwater BMPs help protect water quality by preventing or reducing the delivery of pollutants to our streams and lakes. Simple BMPs, such as dripline trenches and rain gardens, are easy to design and install, and go a long way to protecting Parsons Creek.



Dripline Trench



Infiltration Steps



Rain Barrels



Rain Gardens



Rubber Razors



Waterbars



Buffers



Pervious Walkways



Vegetated Swales



Drywells

## Stormwater Resources for Homeowners

*New Hampshire Homeowner's Guide to Stormwater Management*, NH DES

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/homeowner-guide-stormwater.pdf>

*Vegetation Management for Water Quality Fact Sheet*, NH DES.

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/sp-5.pdf>

*Native Shoreland/Riparian Buffer Plantings for New Hampshire*, NH DES.

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/native-shoreland-plantings.pdf>

*Rain Garden App for iPhones*

<https://rgapp.nemo.uconn.edu/>

New Hampshire Department of Environmental Services  
29 Hazen Dr, Concord, NH 03302

*We all have a role to play in watershed protection...*

## 10 Easy Steps you can take to improve water quality

1. Dispose of chemicals and wastes properly.
2. Regularly pump your septic system.
3. Pick up after your pets.
4. Reduce your use of pesticides and chemical fertilizers.
5. Reduce impervious surfaces on your property.
6. Patch bare soil areas with native vegetation or mulch.
7. Maintain a natural vegetated buffer zone around your property.
8. Cut your lawn at a higher setting – shorter lawns require more water and fertilizers.
9. Attend watershed meetings or volunteer at a watershed clean-up.
10. Spread the word and stay informed!

**Protecting water quality doesn't have to be hard! There are simple things that any renter or homeowner can do to help keep Parsons Creek beautiful.**

## What is Nonpoint Source (NPS) Pollution?

**Nonpoint source (NPS) pollution** is also known as stormwater runoff or polluted runoff. Stormwater runoff from rain and snowmelt picks up soil, nutrients, and other pollutants as it flows across the land and washes into waterbodies.

### POLLUTED RUNOFF

Also called **NPS** or **nonpoint source pollution**. Soil, fertilizers, septic waste and other pollutants from diffuse sources across the landscape that are carried into a waterbody by rainfall.

Runoff from developed land is a major source of nutrients for most waterbodies. Runoff from developed areas has 5 to 10 times the number of pollutants compared to runoff from forested areas.

Other activities that contribute to nutrients in surface waters are lawn & garden fertilizers, faulty septic systems, using soap in or near the water, erosion, dumping or burning leaves, and feeding ducks and other waterfowl.

The nutrient phosphorus is food for algae and other plants and is found in soils, septic waste, pet waste, and fertilizers. Bacteria can also contaminate a waterbody and can be found in stormwater runoff, faulty septic systems, pet waste, and areas where wildlife tends to congregate. Polluted runoff often results in small changes that, over time, damage the ecology, aesthetics, and economy of our water resources.

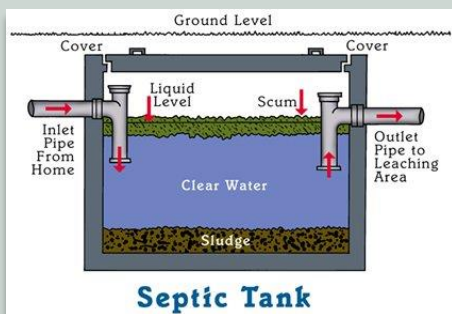


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# SEPTIC SYSTEMS & WATER QUALITY

Why it's important to properly maintain your system

Wastewater enters your septic tank from your house. Heavy solids sink to the bottom and greases, oils and lighter solids rise to the top to form a layer of scum. Naturally occurring bacteria decompose the biodegradable waste. Liquids flow out of the tank into the leach field, where bacteria, viruses and nutrients are removed. Eventually wastewater reaches groundwater.



**Improperly maintained septic systems can contaminate ground water and surface water with nutrients and pathogens.** A properly designed, installed, and maintained system will function well throughout its **20-30-year lifespan**.

**To ensure proper functioning and lengthen the life of your septic system, remember to:**

- Know where your septic tank and leach field are located
- Find out how old your system is and the last time it was pumped
- Pump it out regularly (every 2-3 years)
- Conserve water and limit flushing (especially in waterfront homes with high use during the summer months)
- Limit the use of garbage disposals
- Dispose of fats and grease properly
- Dispose of chemicals properly
- Direct stormwater runoff **away** from your leach field

## THREE Functions of Your Septic System

1. Removal of Solids
2. Bacterial Action
3. Storage

## Local Septic System Pumper & Haulers

Philbrick Septic Tank Service – Portsmouth, NH 603-436-0315

Felix Septic Services – Portsmouth, NH 603-319-1301

Greg's Septic Service – Stratham, NH 603-778-2865

LW Morgridge & Son – Eliot, ME 207-439-1250

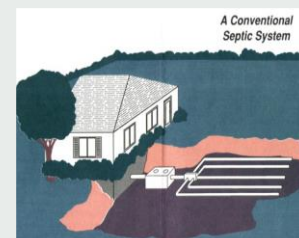
Epping & Exeter Septic Tank Service – Epping, NH 603-659-8150

## Bacteria and Water Resources

High concentrations of fecal indicator bacteria in waterbodies can lead to posted **advisories at swimming beaches and closure of shellfish beds**. These bacteria are used to signal **human health risks** such as gastrointestinal, respiratory, eye, ear, nose, throat, and skin infections transmissible to humans through the consumption of contaminated fish and shellfish, skin contact, and/or ingestion of water.

New Hampshire Beaches Program regularly samples the surf zone of many New Hampshire Beaches including Wallis Sands Beach where Parson's Creek Outlets to the Atlantic Ocean. To find current advisories in your area, visit the NH Beach Inspection Program website:

<https://www.des.nh.gov/water/healthy-swimming/public-beaches#:~:text=The%20NHDES%20Public%20Beach%20Inspection,the%20potential%20of%20health%20risks.>



## Septic System Resources for Homeowners

NH Department of Environmental Services – Subsystems Bureau Septic System Fact Sheets

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/ssb-13.pdf>

Granite State Designers & Installers Association – NH Association of Septic System Professionals

<https://gsowa.org/>