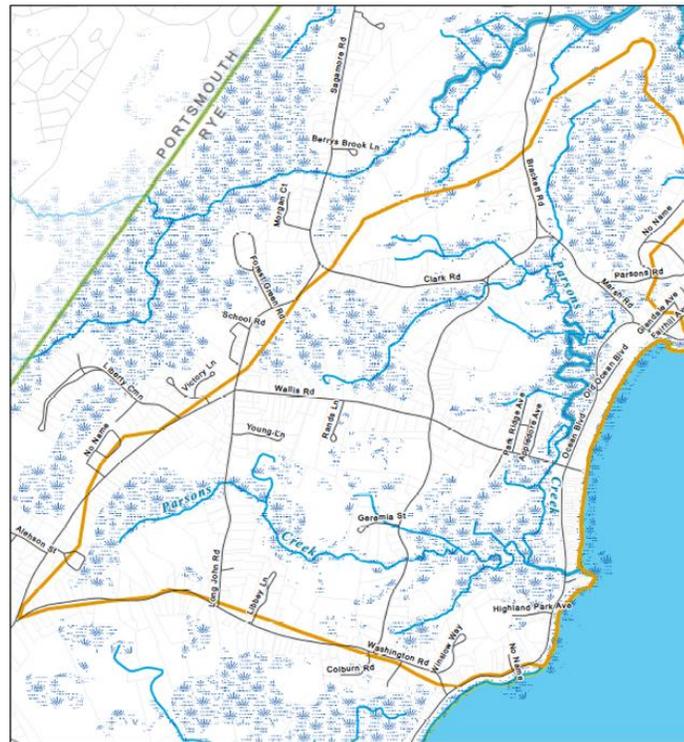


REPLACING YOUR SEPTIC SYSTEM IN THE PARSONS CREEK WATERSHED



The Parsons Creek Watershed

- The Parsons Creek watershed has been classified as **impaired** by the State of New Hampshire **due to high levels of bacteria**.
- High levels of bacteria in the creek can reach the beaches along the shoreline, **possibly making it unsafe for swimming**.
- Studies have shown that **sources of bacteria include septic systems**, stormwater runoff, and wildlife.
- **The Town of Rye has been working to clean up Parsons Creek** through grants and town-funded projects.



Parsons Creek Watershed - Rye, NH

Watershed Boundary NWI Wetlands Town Boundary
Waterbody Streams Roads
Parcels

HydroAnalysis

Data Source: NH Grant, NH, NWI
Projection: NAD 1983 NAD State Plane FIPS 2800
Map Created by: Whitney A. Baker, WB GIS Services
October 2017

For more information about the Parsons Creek watershed and to see what the Town of Rye is doing to address bacteria in Parsons Creek, visit <https://www.town.rye.nh.us/parsons-creek-watershed-environment>



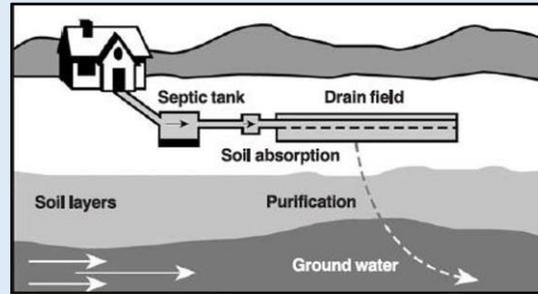
Funding for this project was provided in part by a Watershed Assistance Grant from the NH Department of Environmental Services with Clean Water Act Section 319 funds from the U.S. Environmental Protection Agency. Updated with NHDES CWSRF ARPA funding, 2023.

Conventional Septic Systems

In the proper setting, conventional septic systems work fine to treat bacteria and other pollutants in wastewater. Some factors that limit the effectiveness of conventional systems include:

1. **Shallow depth to water table or bedrock** - There must be enough soil to treat bacteria before it reaches groundwater. At least four feet of good soil is recommended below leach fields. **Much of the Parsons Creek Watershed (PCW) is characterized as having shallow seasonal high water tables.**
2. **Soils that drain too fast or too slow** - If soils drain too fast, the organisms that break down waste do not have enough time to treat it. If they drain too slow, wastewater may pond at the surface. **Most of the soils in the PCW are poorly suitable for onsite wastewater disposal.**
3. **Close proximity to surface waters and wetlands** - Systems too close to waterbodies and wetlands do not have adequate space to treat wastewater before it reaches surface water. **Almost half of the properties in the PCW are within 50 feet of a waterbody or wetland.**

Many properties in the Parsons Creek watershed are not ideal for Conventional Septic Systems



A conventional septic system includes a septic tank and leach field. Most treatment occurs in the soil below the leach field. For properties without adequate soil to treat the wastewater, incomplete treatment may occur causing high levels of bacteria and other pollutants to enter groundwater and nearby surface waters.

If your property does not have the proper conditions to treat wastewater with a conventional system, alternative septic systems may be a better option.

Alternative systems provide more complete treatment of wastewater by:

1. **Increasing the depth** to the water table or bedrock to allow for more natural treatment of pollutants.
2. **Providing more complete treatment** within the unit so that what comes out of the system is "cleaner" water.

The following table provides alternative systems that are appropriate for these different conditions. System installers and the Town of Rye can help you determine the appropriate system for your property.

Goal of Alternative System	Examples of Alternative Systems
Increase the depth to the water table or bedrock	Mounded System
Increase treatment of bacteria within the system	Aerobic Treatment Unit Recirculating Sand Filter Constructed Wetland Trickling Filter Membrane Bioreactor UV Disinfection