

Parsons Creek Watershed, Rye, NH

~ Phase 1~

**Stormwater Management, Water Quality
Protection and Septic System
Improvements**

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History

- The Parsons Creek watershed is approximately 2.3 square miles;
- The creek drains to the Atlantic Ocean;
- Listed on the NHDES 2010 Surface Water Quality Assessment as impaired for primary contact recreation (bacteria), fish consumption (mercury and PCBs), and shellfishing (bacteria, dioxin, mercury, and PCBs).

2013-2014 Accomplishments

- The Town of Rye collaborated with NHDES Beach Program and FB Environmental Associates for the ultimate goal of this project to restore water quality in Parsons Creek. ;
- Implemented Best Management Practices (BMPs) to control the flow of stormwater runoff, which included planting along Marsh Road, Brackett Road, Wallis Road and installation of a rain garden the summer of 2013;
- Coordinated with DES Subsurface and FB on updating of septic records to Identify ways to better enable the Town to track septic systems, the year in which they were installed, and if in proper working condition. This was done by research and a door-to-door survey during summer of 2014;
- Targeted water quality sampling was conducted throughout the watershed. The goal of this sampling is to locate and identify bacteria sources in the Parsons Creek watershed and prioritize these sources for remediation

Stormwater Education and Outreach Programs

- A webpage was created on the Town's website
http://www.town.rye.nh.us/pages/RyeNH_Environment/index
- Hosted an event at the Farmer's Market in the Town and talked to residents about Parsons Creek and handed out fliers for a public outreach event;
- FB Environment hosted a workshop at a resident's house on Brackett Road where septic along with stormwater BMPs were discussed; and
- The Septic Sniffing Dogs returned to Wallis Beach.

The Grant and Beyond

- As part of the grant, FB Environmental continually monitored the watershed with regular testing for two years;
- The Town had the Septic Sniffing Dogs in 2013 and again in 2014 to help identify “hot spots”;
- The Town hired FB Environmental for additional testing in the identified hot spots with a 24 hour sampling.

Bacteria Monitoring

- In the September 18, 2014 Memo from FB the results of the 24 Hour Rye Beach Sampling were outlined and recommended next steps;
- 319 Grant: Phase 2 for additional monitoring and protection of Parsons Creek Watershed has been applied for and waiting for GNC approval; and
- The Town has committed to increased areas for further Bacteria Monitoring.

Monitoring for 2015

- FBE to begin sampling seeps from the beach near the mouth of Parsons Creek at Low tide on a weekly basis. This area was indicated during 24 hour sampling in 2014. The actual source has not been identified and It was recommended to continue monitoring these seeps to access level of contamination to project human health

Extending the monitoring

- The Beach between the outlet to Parsons Creek and Wallis Sands State Park is very popular destination for local residents and tourists.
- There are many private homes located along this stretch of the beach that rely on private septic systems.
- Additional monitoring will be conducted to identify and sample other seeps that may contain harmful levels of bacteria under both wet and dry conditions during low tide.

Watershed Monitoring

- In 2013 and 2014, FBE sampled fixed locations throughout Parsons Creek during low tide to assess bacteria concentrations under different weather conditions at different times of the year. This sampling will continue in 2015 to assess changes in bacteria concentrations and to identify new “hotspots” of bacterial contamination.

Phase 2 Next Steps

- Identify possible BMP sites and complete installation of two to four BMPs on town property;
- Develop evaluation and replacement program;
- Provide DES with documentation of septic ordinance language, and the list of homeowners participating in evaluation and replacement.