

PARSONS CREEK

AND NEARBY PUBLIC BEACHES & ESTUARIES

CITIZEN GUIDE TO BACTERIA IN SURFACE WATERS RYE, NEW HAMPSHIRE

WHAT HAS BEEN DONE

MONITORING (2004-Present)

- ⊗ Annual sampling to monitor pollution trends
- ⊗ Special studies: beach seep sampling, watershed investigations, canine tracking

WATERSHED BASED PLAN (2011)

- ⊗ Stormwater and faulty septic systems are causing bacterial contamination to the creek which then flows to the beach
- ⊗ Action plan to reduce pollution
- ⊗ Formal plan accepted by NHDES aids in grant funding

WHAT WILL BE DONE

CWSRF / ARPA Grant (2022-24)

- ⊗ Water quality & DNA testing to ID sources
- ⊗ Update septic database
- ⊗ Study sea level & groundwater rise effects
- ⊗ Additional outreach, helps meet NHDES requirements
- ⊗ Consider ordinance requiring septic evaluation when property transfers

319 Grant Phase I (2012-14)

- ⊗ Four water quality improvement installations to protect the creek and beach
- ⊗ Septic system database
- ⊗ Septic survey to update septic database
- ⊗ Promoted awareness of bacteria pollution

319 Grant Phase II (2015-17)

- ⊗ Installed 2-4 water quality improvement projects on town property
- ⊗ Rye ordinance requiring septic system maintenance in watershed
- ⊗ Cost-share agreement to assist with evaluating and fixing failing septic systems
- ⊗ Continued outreach program



GET INVOLVED!

For more information, please contact:

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SOURCES OF BACTERIA ENTERING WATERWAYS

ANIMAL WASTE

- ⊗ Pets
- ⊗ Livestock
- ⊗ Wildlife

UNTREATED HUMAN SEWAGE

- ⊗ Combined Sewer Overflows (CSOs)
- ⊗ Malfunctioning septic systems
- ⊗ Leaky sewer lines



STORMWATER RUNOFF

Once in waterways, bacteria concentrations can increase or decrease depending on temperature, sunlight, turbidity, salinity, dissolved oxygen, nutrients, toxins, and predation.

BACTERIA THREATEN PUBLIC SAFETY AND AQUATIC LIFE

Bacteria are an indicator of pathogens that cause gastrointestinal illness in humans. These pathogens can be ingested directly in water and shellfish or indirectly via skin contact.

Fecal contamination can come from multiple, diffuse sources and can change dramatically depending on environmental conditions. Some wastewater leaks are underground and not immediately apparent. For these reasons and more, **fecal contamination is very difficult to track and manage**. Fecal contamination remediation is a long process that requires coordination and cooperation among municipalities, businesses, and residents.

CITIZEN QUICK TIPS

MAINTAIN SEPTIC SYSTEMS

- ⊗ Regularly pump system every 2-3 yrs
- ⊗ Evaluate system if it is older than 20 yrs
- ⊗ Use only non-toxic cleaners (e.g., bleach kills microbes necessary for waste decomposition)
- ⊗ Know where your system is and monitor the area for dampness, odors, seeps

REDUCE STORMWATER RUNOFF

- ⊗ Vegetate bare soil
- ⊗ Enhance buffers near waterways
- ⊗ Set lawn mower to 3 inches; leave grass clippings to recycle nutrients
- ⊗ Divert roof runoff to vegetation for water infiltration

MINIMIZE HOUSEHOLD POLLUTION

- ⊗ Reduce or eliminate use of fertilizers, herbicides, and pesticides
- ⊗ Recycle all materials, most especially hazardous waste products
- ⊗ Compost yard waste; pick up pet waste
- ⊗ Be aware of oil/gas drips, detergents, and winter sand/salt that may be washing off your property

