

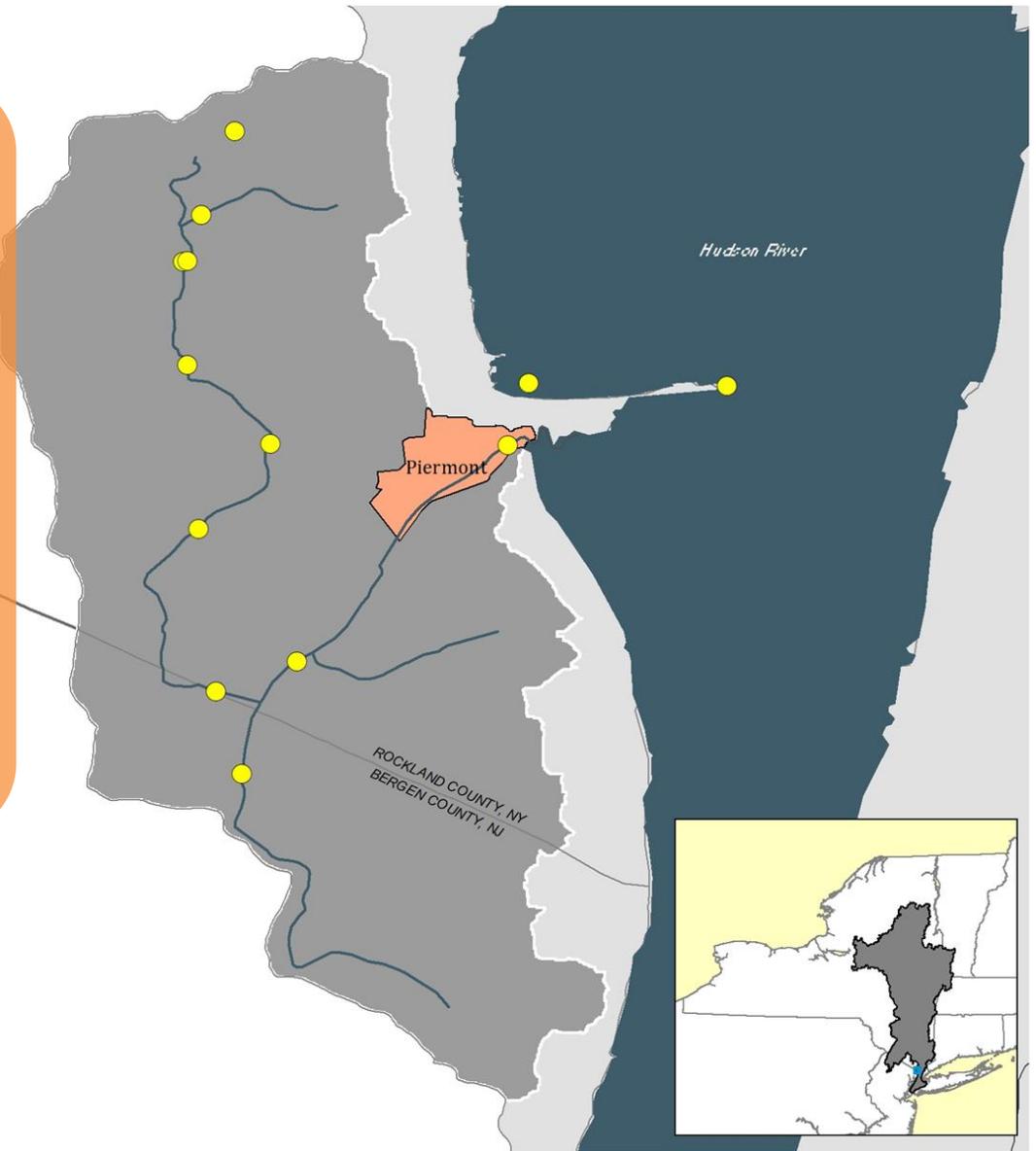
SPARKILL CREEK

Community Water Quality Monitoring Results

2012-2020

Solutions Spotlight

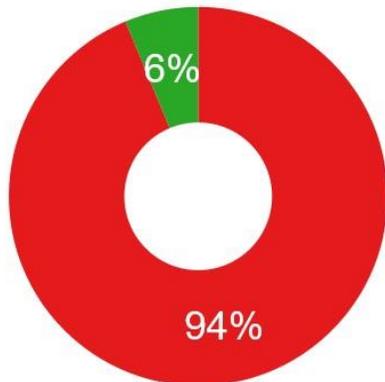
In late 2019 the Sparkill Creek Watershed Alliance acted on Entero monitoring data and information from other studies and requested that the Orangetown Town Board prioritize sewage leak detection in the Sparkill Creek. DNA-based source tracking in 2020 confirmed human waste as a source of Entero in Sparkill Creek. Sewage leak detection can help to find the sources of contamination into the creek, and direct the repairs that are needed to improve water quality.



- Sampling Locations
- Village Boundaries
- Sparkill Creek Watershed
- Hudson River Watershed

What portion of our samples were safe for swimming?

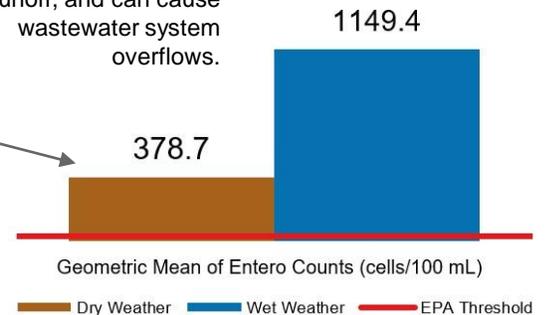
Samples collected at non-tidal sites rarely met the EPA guideline for safe swimming.



How does weather affect bacteria levels?

Bacteria levels are much greater after rainfall, which causes runoff, and can cause wastewater system overflows.

In dry weather, levels are more than ten times higher than the safe swimming threshold.



More: Explore a watershed map, data from each sampling site, and other info at

www.riverkeeper.org/water-quality/citizen-data/sparkill-creek.

Learn about the Sparkill Creek Watershed Alliance at www.sparkillcreek.org/.

Community Science

The water quality data presented here are based on an analysis of 510 samples collected since 2012 by Sparkill Creek Watershed Alliance. Samples are collected monthly (May to October) and processed at Lamont-Doherty Earth Observatory. To get involved, contact Sebastian Pillitteri at spillitteri@riverkeeper.org.

Why We Measure Bacteria

Fecal indicator bacteria such as *Enterococcus* (“Entero”) usually do not make us sick. But because they live in the guts of warm-blooded animals, when these bacteria are present in water, pathogens that can make us sick may also be present.

Sources of fecal bacteria may include sewer overflows and failures, inade-

quate sewage treatment, urban or farm runoff, septic system failures, wildlife and contaminated sediment.

While research continues, the EPA has set thresholds to define if water is safe for swimming based on decades of science relying on measurements of these bacteria. Data are shown in Entero cells per 100 mL.

About the Sparkill Creek

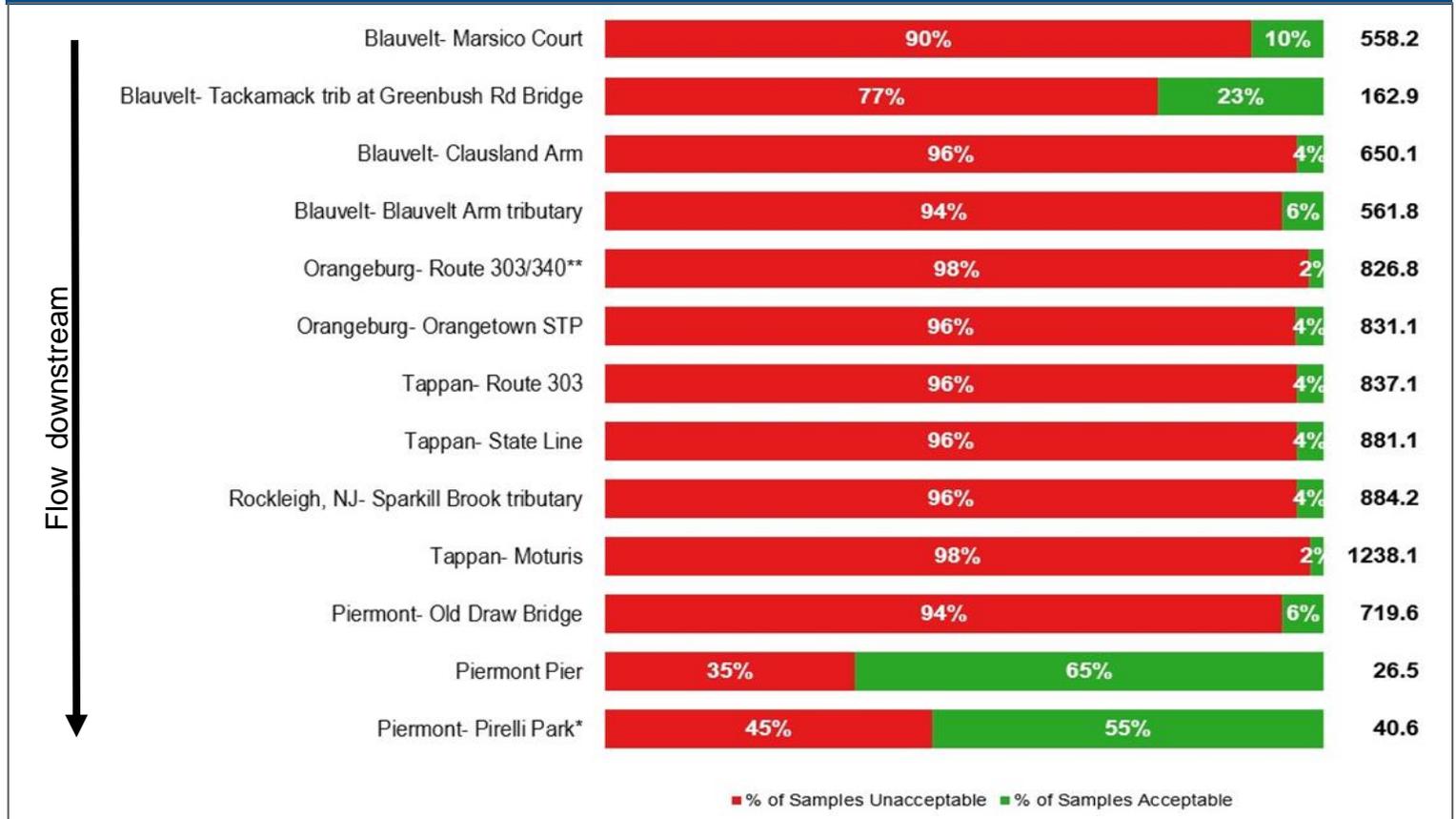
After flowing through neighborhoods and commercial and industrial areas in New York and New Jersey, the Sparkill Creek feeds Piermont Marsh, one of the four wetlands that make up the Hudson River National Estuarine Research Reserve.

Signs of Progress

In 2020, the Sparkill Creek Watershed Alliance collected nutrient data through a DEC-led citizen science program. The work will continue in 2021-2022. The additional data will be used to update the state’s official stream assessment, improving municipalities’ ability to compete for state infrastructure funding.

What portion of samples at each site were unacceptable for swimming? EPA threshold: single sample should not exceed 60

How high were bacterial levels? EPA threshold: Geometric mean should not exceed 30



*Sampling at this site began in 2013. **This site was not sampled in 2017.