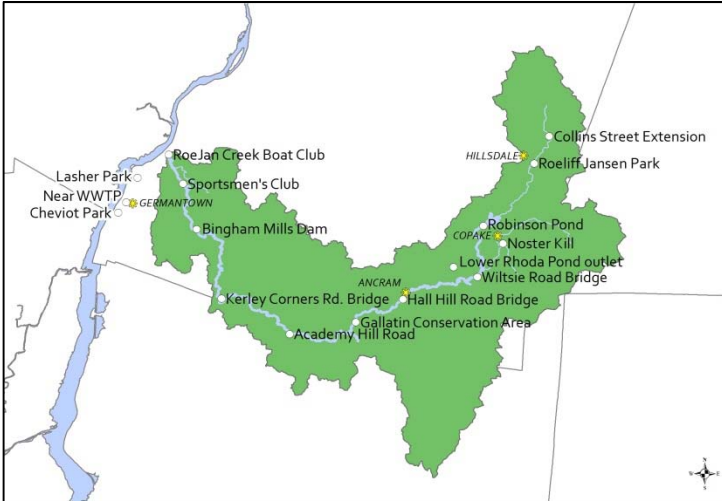


Roeliff Jansen Kill

Community *Enterococcus* Monitoring Results, 2016-17



Who Is Testing the Water?

Riverkeeper and our partners have tested the water at over 450 locations throughout the Hudson River Estuary and its watershed. Riverkeeper, the [Roe Jan Watershed Community](#), watershed residents, and Bard Water Lab have monitored water quality in the Roeliff Jansen Kill since 2016. This work is made possible by Trout Unlimited and its members, Bard Water Lab and the NYS Environmental Protection Fund through the Hudson River Estuary Program of NYSDEC.

Why Test for Fecal Contamination?

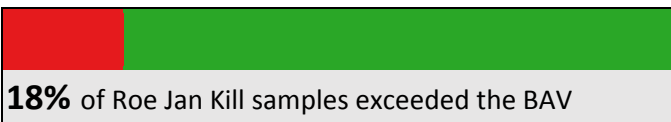
People should be able to get into the water for swimming, boating, playing and wading, and they need to know if it is safe to do so. If untreated waste is present in the water, there is a greater chance that pathogens may be present, and a greater chance that contact with the water will make us sick. Sources of fecal contamination may include sewage infrastructure failures, inadequate sewage treatment, street runoff, septic system failures, agricultural runoff, and wildlife.

What Is *Enterococcus*?

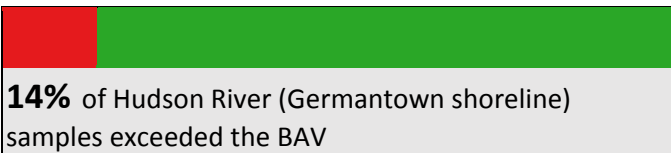
Enterococcus (“Entero”) is a type of bacteria that lives in the guts of humans and other animals. The Entero commonly found in the environment usually does not make people sick. It is an indicator of fecal contamination, similar to coliforms and *E. coli*. To reduce risk of illness from exposure to fecal contamination, the EPA’s Recreational Water Quality Criteria include three thresholds for the concentration of Entero in water that should not be exceeded. Two thresholds are presented here: the Beach Action Value (BAV), a threshold for each sample of water; and the Geometric Mean (GM), a threshold for the weighted average of many samples. Both are measured in Entero cells per 100 mL of water. Single samples should not exceed the BAV of 60 and the geometric mean (“average”) of samples should not exceed the GM of 30.

Roeliff Jansen Watershed Water Quality Snapshot

Roe Jan Watershed community scientists collected 169 routine Entero monitoring samples in 2016 and 2017 (once per month from May to October). Samples were collected in the creek and in the Hudson River along the Germantown shoreline, near the mouth of the Roe Jan. Results from the two areas are summarized separately below. Our study is designed to learn about broad trends. The data can help inform choices about recreation, but cannot predict future water quality at any particular time and place.



EPA GM Threshold	Roe Jan Kill GM
30	28



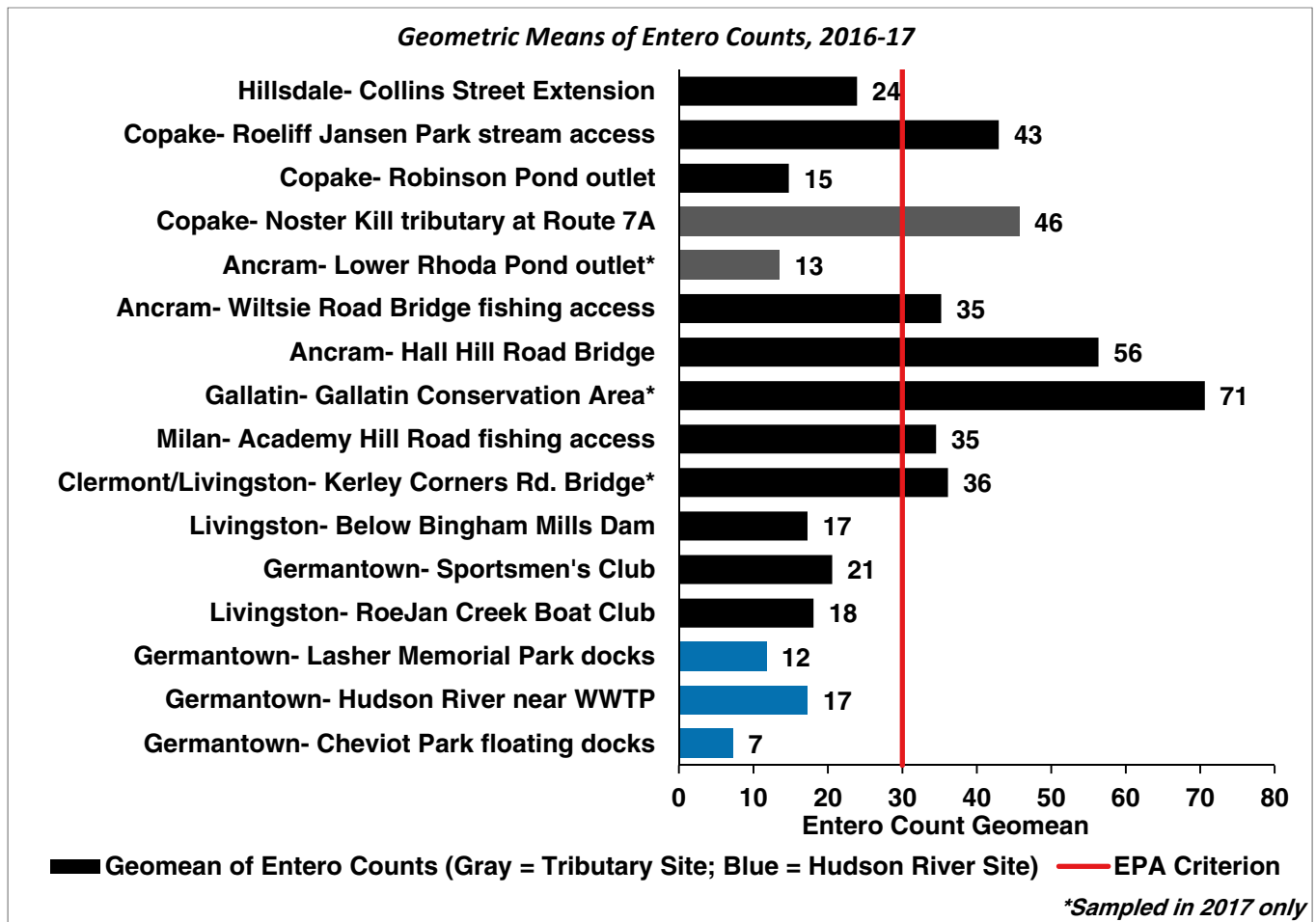
EPA GM Threshold	Hudson River GM
30	11

Roeliff Jansen Watershed and Nearby Hudson River Wastewater Infrastructure Snapshot

The Roe Jan headwaters are in the Massachusetts-New York border, and the kill flows through rural and agricultural communities before reaching the Hudson between Germantown and Livingston. There are few sewered areas in the watershed, based on available data. There is a municipal septic system in Hillsdale and a wastewater treatment plant in Germantown (outside of the watershed boundary) that discharges into the Hudson River.

2 public wastewater treatment facilities	6 miles of pipes	26 average pipe age	Needs not estimated
--	------------------	---------------------	---------------------

How's the Water in the Roeliff Jansen Kill?



What Can We Do with This Information?

These results show that the Roeliff Jansen Kill has swimmable water quality most of the time, in most places. Average Entero counts exceed the EPA threshold at some Roe Jan sites; however, some exceedances are slight and more sampling is needed to account for year-to-year variation. The overall average counts in this watershed are the lowest of any tributary that Riverkeeper and our partners have sampled. Counts in the neighboring Saw Kill and Catskill and Esopus Creeks are all slightly higher (study durations vary). Practices that preserve good water quality, such as septic system maintenance and green infrastructure, should be emphasized.

To see all the results visit riverkeeper.org/water-quality/citizen-data/roeliff-jansen-kill

To learn about the Roe Jan Watershed Community visit www.roejanwatershed.org