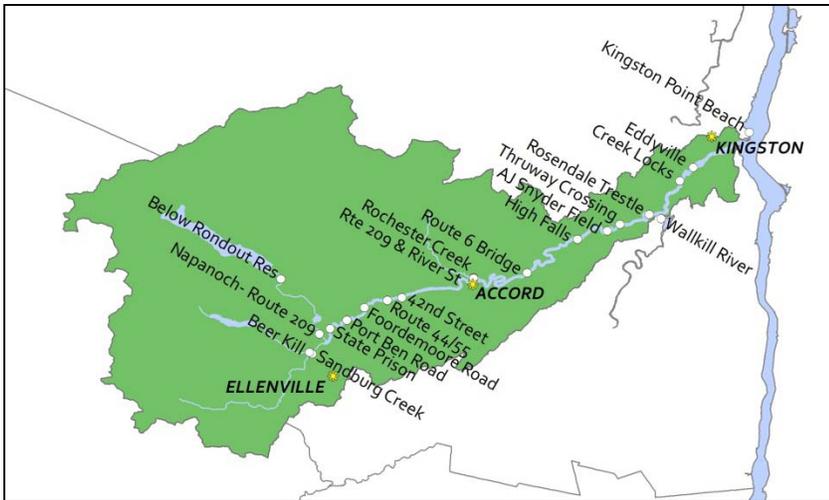


# Rondout Creek Community Water Quality Monitoring Results, 2012-17



## Who Is Testing the Water?

Riverkeeper and our partners have sampled over 450 locations throughout the Hudson River Estuary and its watershed. Riverkeeper, the Rochester and Wawarsing Environmental Conservation Commissions, and watershed residents have tested the water in the Rondout Creek and its tributary the Wallkill River since 2012. This work is made possible by funders including the NYS Environmental Protection Fund through the Hudson River Estuary Program of NYSDEC and

Riverkeeper members.

## 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 combined sewer overflows, sewage infrastructure failures, inadequate sewage treatment, urban 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.

## Rondout Watershed Water Quality Snapshot

Rondout Watershed community scientists have collected 627 routine monitoring samples (once per month from May to October) to date. Results from the non-tidal portion of the creek are presented 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.



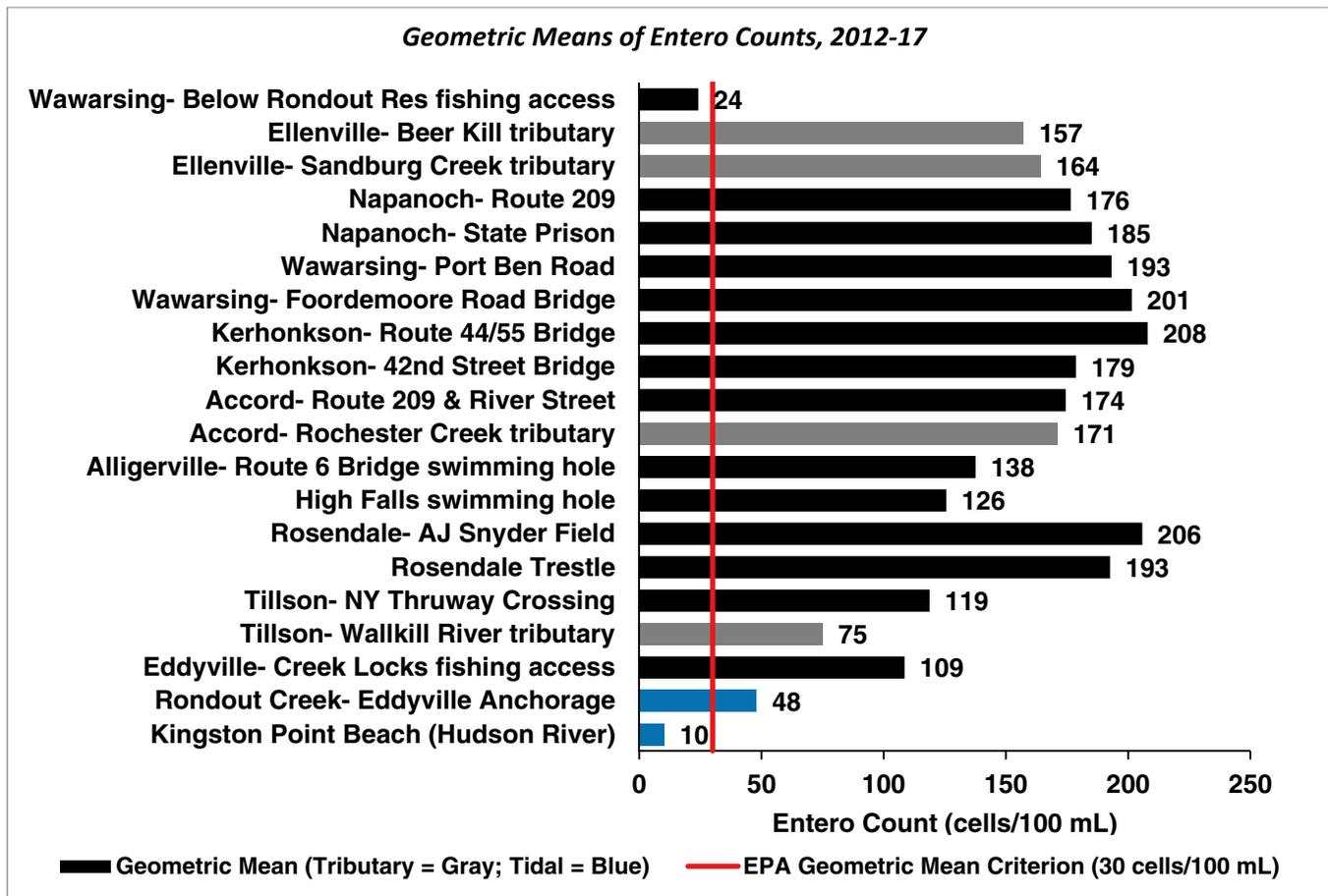
EPA GM Threshold	Rondout Creek GM
30	<b>141</b>

## Rondout Watershed Wastewater Infrastructure Snapshot

The lower Rondout Creek flows through a largely agricultural valley with several small communities before reaching the Hudson River at Kingston. The City of Kingston has combined sewers. The city's wastewater treatment facility and the combined sewer overflows are located in Rondout Creek, but collection system pipes extend into the Esopus Creek Watershed. (Limited information is available about pipe locations, so the total pipe mileage is attributed to the Rondout Watershed for this estimate.)

\$15 Million in needs	8 public wastewater treatment facilities	163 miles of pipes	64 average pipe age
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## How's the Water in the Rondout Creek?



## What Can We Do with This Information?

These results show that the Rondout Watershed has elevated Entero counts, particularly in the Wawarsing and Rosendale reaches of the creek. Entero counts at almost all Rondout Creek sampling sites exceed EPA thresholds by multiples. Overall, the Rondout Watershed has lower Entero counts than several other tributaries that Riverkeeper and our partners have sampled, but higher Entero counts nearby watersheds such as the Esopus Creek and Catskill Creek. Possible solutions to improve water quality are: repairing wastewater infrastructure to prevent leaks and spills, especially during wet weather; restoring vegetated stream buffers; and installing green infrastructure to reduce stormwater runoff.

To see all the results visit [riverkeeper.org/water-quality/citizen-data/rondout-creek](http://riverkeeper.org/water-quality/citizen-data/rondout-creek).