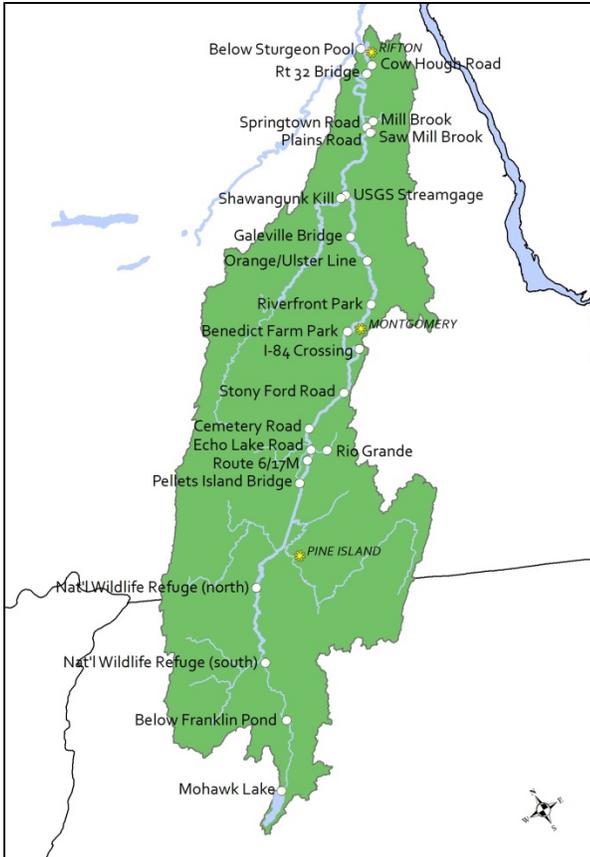


Walkkill River

Community Water Quality Monitoring Results, 2012-2017



Who Tests the Water?

Riverkeeper and our partners have sampled over 450 locations throughout the Hudson River Estuary and its watershed. Riverkeeper, the Gardiner and Montgomery Conservation Advisory Commissions, and watershed residents have tested the water in the New York section of the Walkkill River since 2012. We began sampling the New Jersey section of the river in 2015. 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.

Walkkill Watershed Water Quality Snapshot

Walkkill Watershed community scientists have collected 800 routine monitoring samples (once per month from May to October) to date. Results 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 | Walkkill River GM |
|------------------|-------------------|
| 30 | 433 |

Wallkill Watershed Wastewater Infrastructure Snapshot

The Wallkill River flows out of New Jersey through a largely agricultural valley that is dotted with small communities, several villages and the City of Middletown. It is tributary to the Rondout Creek, and is one arm of the largest tributary to the tidal Hudson River.

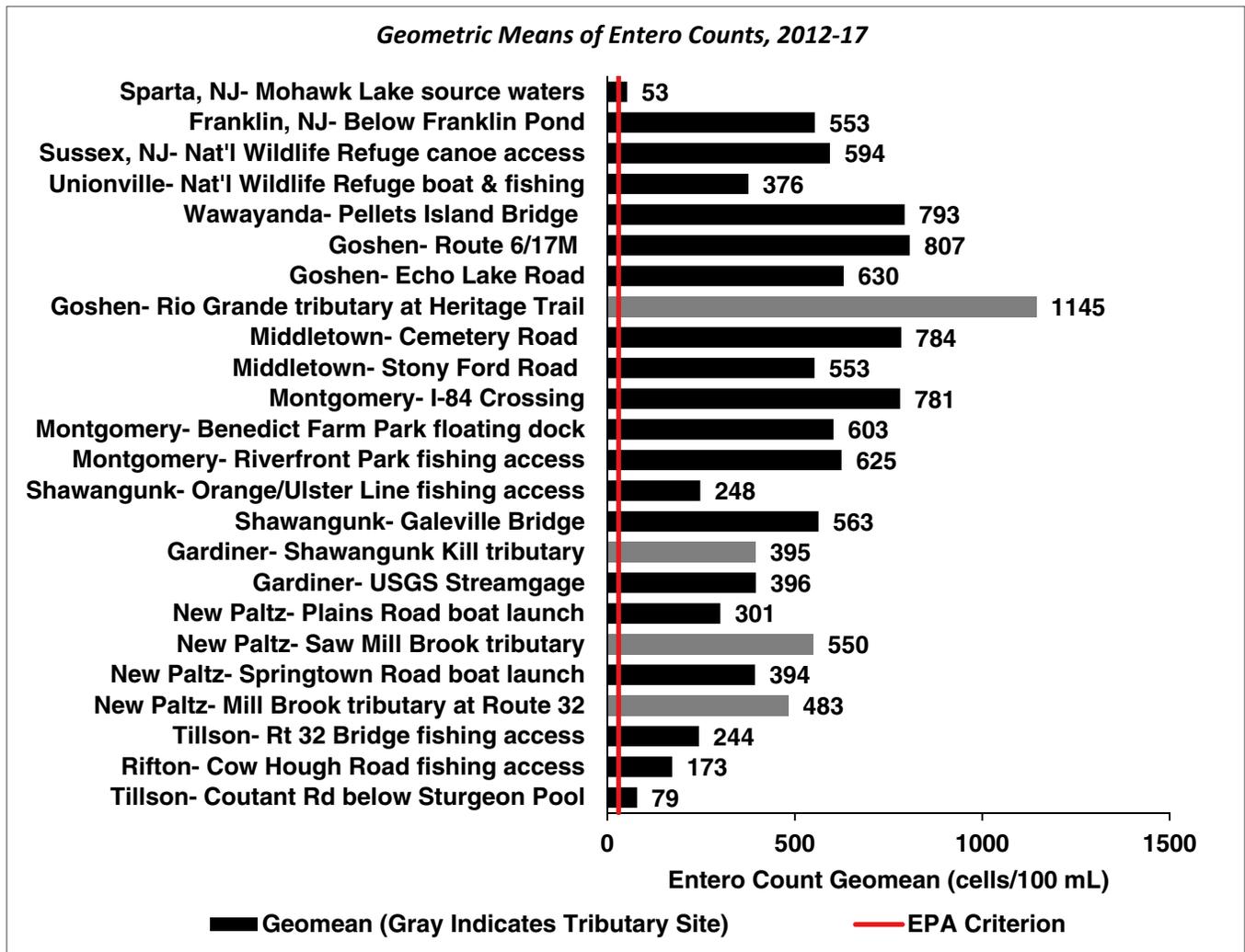
\$72 Million in needs

19 public wastewater treatment facilities

308 miles of pipes

67 average pipe age

How's the Water in the Wallkill River?



What Can We Do with This Information?

These results show that Entero counts are elevated throughout the Wallkill Watershed, and particularly in Goshen, Middletown and Montgomery. Average Entero counts from our Wallkill River samples are nearly three times as high as the Rondout Creek, its neighbor and receiving water. In fact, the Wallkill's longterm average Entero count is higher than all but two other tributaries that Riverkeeper and our partners have sampled. Possible solutions to improve water quality are: repairing wastewater infrastructure to prevent leaks and spills, and upgrading to eliminate overflows of untreated sewage; restoring vegetated stream buffers; and installing green infrastructure to reduce stormwater runoff.

To see all the results visit riverkeeper.org/water-quality/citizen-data/wallkill-river.