

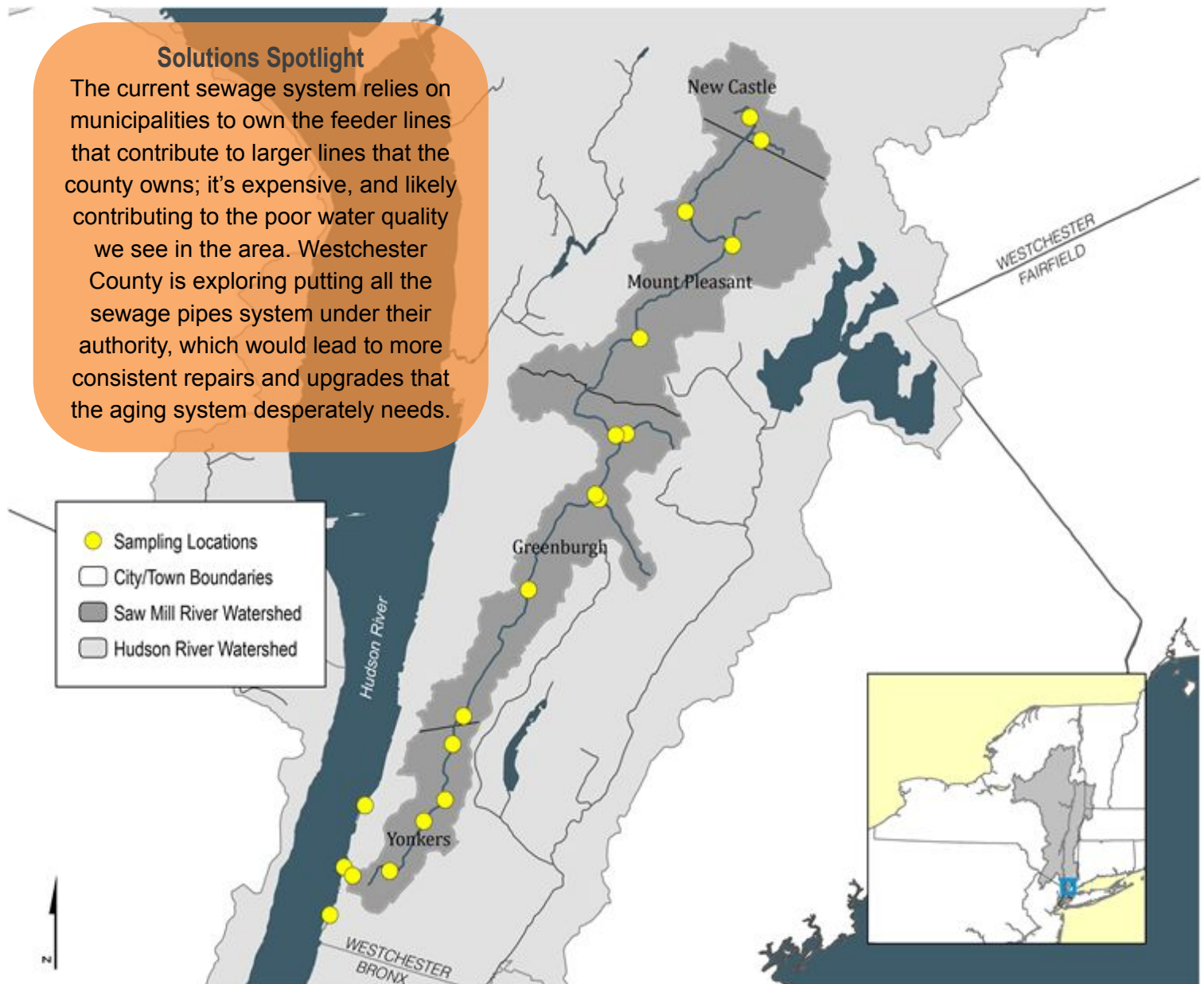
# SAW MILL RIVER

## Community Water Quality Monitoring Results

2015-2022

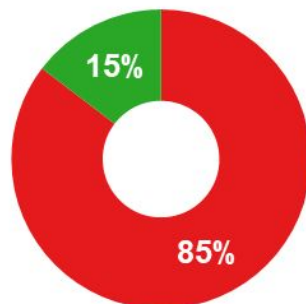
### Solutions Spotlight

The current sewage system relies on municipalities to own the feeder lines that contribute to larger lines that the county owns; it's expensive, and likely contributing to the poor water quality we see in the area. Westchester County is exploring putting all the sewage pipes system under their authority, which would lead to more consistent repairs and upgrades that the aging system desperately needs.



### What portion of samples were safe for swimming?

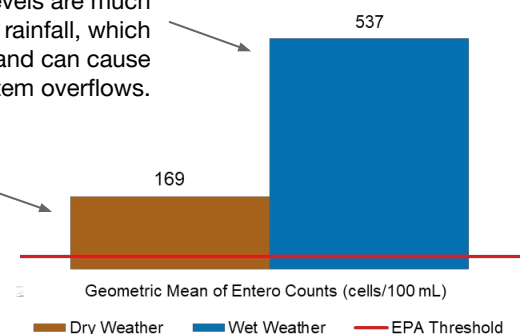
No one swims in average (geometric mean) water, so to help understand risk this graph shows the percent of samples that met the single sample EPA guidelines for safe swimming, and the percent of samples that didn't.



### How high were the bacteria levels?

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

Even in dry weather, levels exceed the safe swimming threshold by a significant amount.



**More:** Explore a watershed map, data from each sampling site, year-to-year patterns and other info at [www.riverkeeper.org/water-quality/citizen-data/saw-mill-river](http://www.riverkeeper.org/water-quality/citizen-data/saw-mill-river).

## Community Science

The water quality data presented here are based on an analysis of 1387 samples collected since 2015 by community scientists. (No samples were collected in 2020.) Samples are collected twice per month from May to October and processed by the Sarah Lawrence College Center for the Urban River at Beczak. To get involved, contact Katie Lamboy at [klamboy@sarahlawrence.edu](mailto:klamboy@sarahlawrence.edu).

### 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.

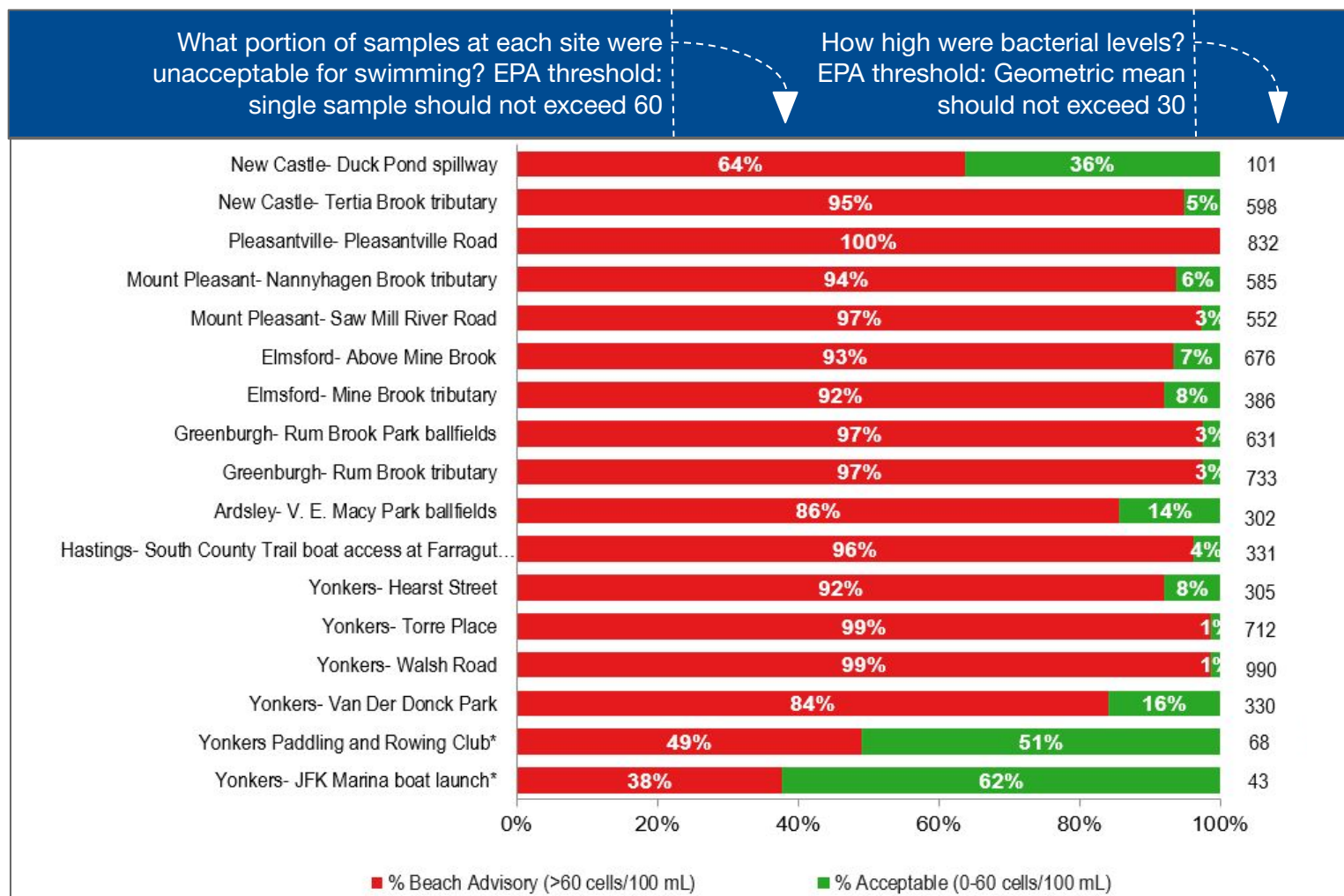
While research continues, the EPA has set thresholds to define if water is safe for swimming based on decades of science relying on measurements of these bacteria. Data are shown in Entero cells per 100 mL.

## A Little About the Saw Mill

No, it's not just a parkway! The Saw Mill River flows more than 20 miles from Chappaqua to Yonkers. The river has been extensively disturbed to make way for transportation and wastewater infrastructure, and for flood control.

## Signs of Progress

Sarah Lawrence faculty are currently conducting a sewage pollution source tracking study utilizing qPCR. The study will quantify the amount of fecal bacteria in the Saw Mill originating from humans, dogs, and birds, helping guide management decisions.



\*These Hudson River sites were sampled weekly in 2015-2016, twice monthly beginning in 2017.