SARAH LAWRENCE COLLEGE

CENTER FOR THE URBAN RIVER AT BECZAK

SAW MILL & HUDSON RIVER STAKEHOLDER REPORT

This research is part of the lower Hudson urban waters collaborative in partnership with the Bronx River Alliance and Riverkeeper. Data as part of this research is also shared with partner databases such as Riverkeeper and the Community Water Quality Testing program.

A SPECIAL THANK YOU TO OUR PROGRAM FUNDER CONEDISON FOR THEIR CONTINUED SUPPORT OF THIS PROJECT

conEdison, inc.

SEPTEMBER 2025

It is no secret, I am a huge fan of Autumn. If you have received these reports for a while now, you have borne witness to how emotional this season makes me. There is a bittersweet feeling about the seasonal change; but, the cold crisp air feels almost like a sigh of relief after a summer of sweltering heat. There is something about this time of year that makes me crave a connecting with nature. I want to witness for myself the 3d art of morning dew on a bright green leaf. I want to hear the run of the chipmunks across the forest detritus as they prepare for the brutal weather ahead. I want to pitch a tent on a patch of grass; my body subconsciously telling me - now is the time to do this before it is too late! It almost feels as though this time of year is preparing for a soft reset on the northeastern US environment. I ponder how the species who call the river home begin adapting to the changing water temperatures and I am on the lookout for migrating bird making a short stop over in our marsh. I encourage you to take a moment yourself and experience the change in our environment. You'd be surprised to see how your own perspective has changed too.

MONTHLY WEATHER SUMMARY

Despite near drought-like conditions at the end of this summer, every sampling date this season has taken place under wet weather conditions. These sudden and often quick rainstorms have very much impacted bacterial counts across the season causing higher than average bacterial counts across all samples.

Timespan: 8/11/25 - 9/11/25

Percent of month impacted by rain events*: 10%

Total rain fall amounts for the month: 1.48 inches

*At least 0.1" of rainfall recorded on a single day

PHOTO OF THE MONTH

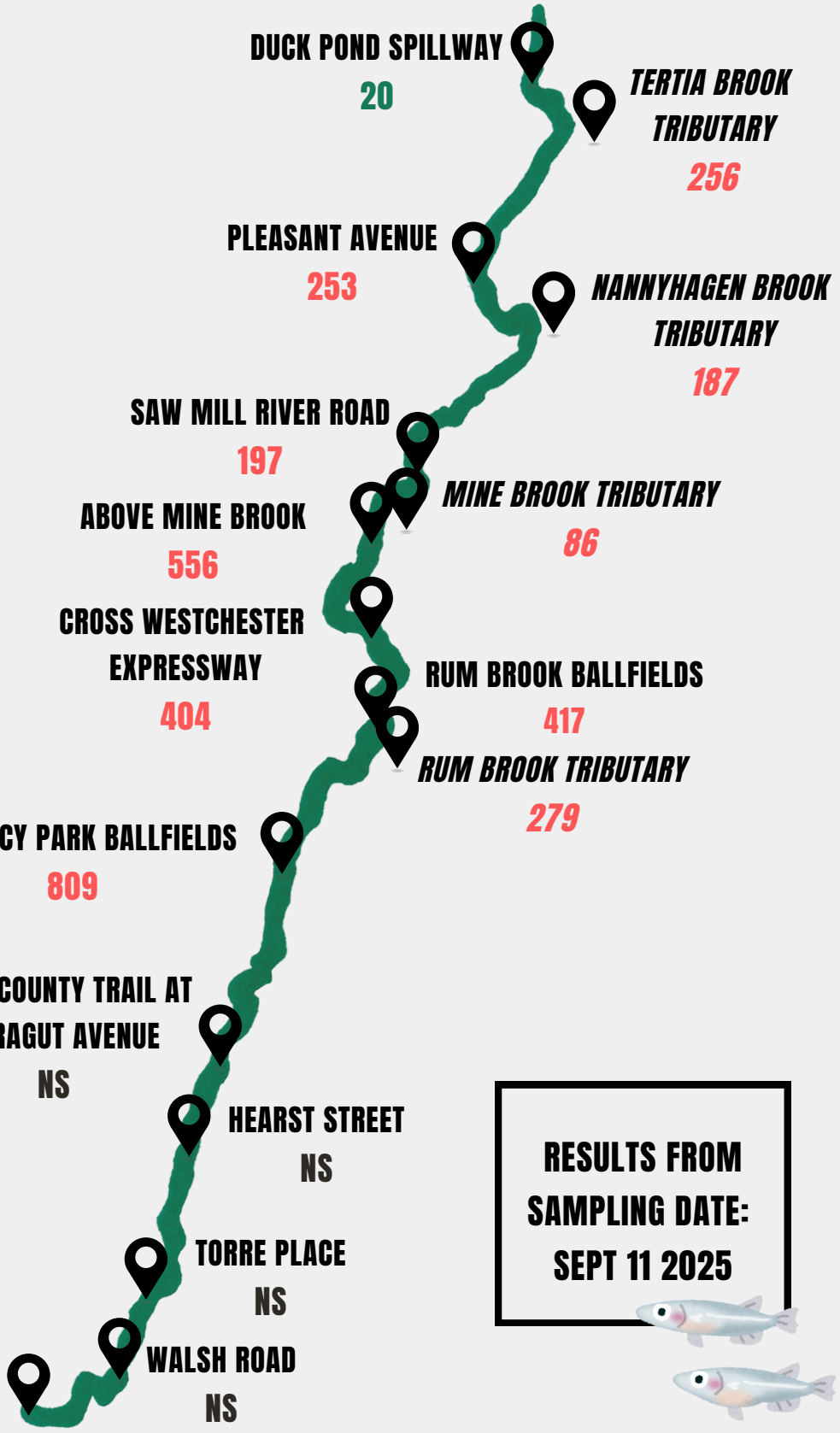
PHOTO CREDIT: HELEN MEURER

LOCATION: PLEASANT AVENUE - PLEASANTVILLE

SAW MILL RIVER FECAL INDICATOR BACTERIA DATA

Results are measured in Most Probable Number (MPN) of colony forming *Enterococcus* bacteria per 100 mL sample.

EPA recommends public notification and possible temporary beach closure for a single Enterococcus sample above 60 cells/ 100 mL. Samples testing above this threshold appear in **red** on the Riverkeeper website, while those below it appear in **green**. To avoid exposure to chronic contamination, the geometric mean, a weighted 30-day average, should not exceed 30 cells/ 100 mL. To avoid exposure to occasional high levels of contamination, no more than 10% of samples should exceed 110 cells/ 100 mL.

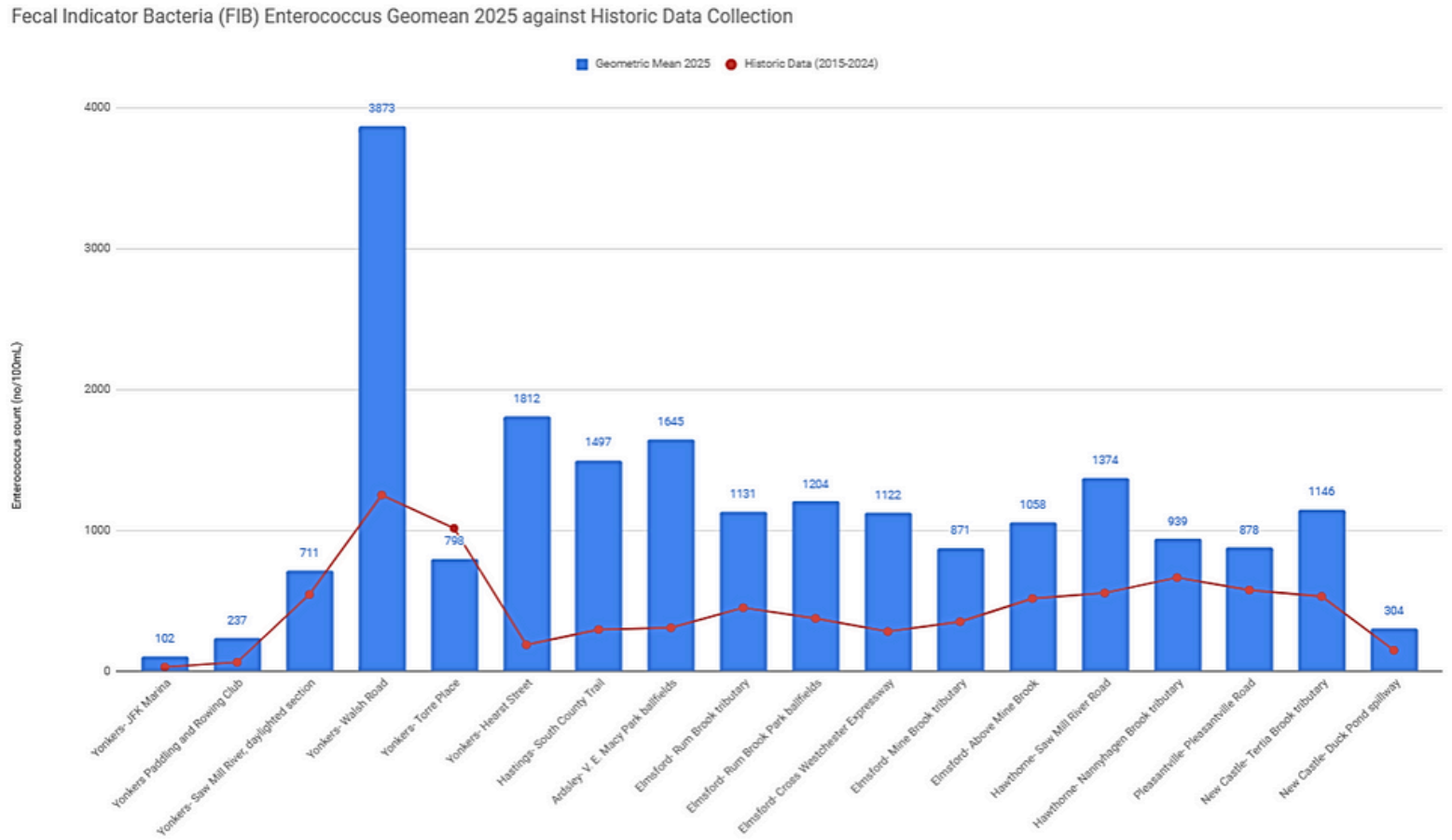


[HUDSON RIVER]
JFK MARINA BOAT LAUNCH
5794

[HUDSON RIVER]
YONKERS PADDLING AND ROWING CLUB
98

RESULTS FROM SAMPLING DATE: SEPT 11 2025

THE DATA SO FAR



DATA SUMMARY

This weeks data was a mixture of surprise and expected as I browsed the data information results from the bacterial testing. Sites that have had historically lower bacterial counts, such as JFK Marina, had very odd and high amounts this week. Sites that have been historically within the safe range of water quality returned to its average range after being very impacted by rain over the past few samples. Often times as the season becomes cooler and there are less wet weather events, we see many of the sites data resulting in lower bacterial counts.

Percent of samples that fail to meet EPA criteria limits this month: 71%

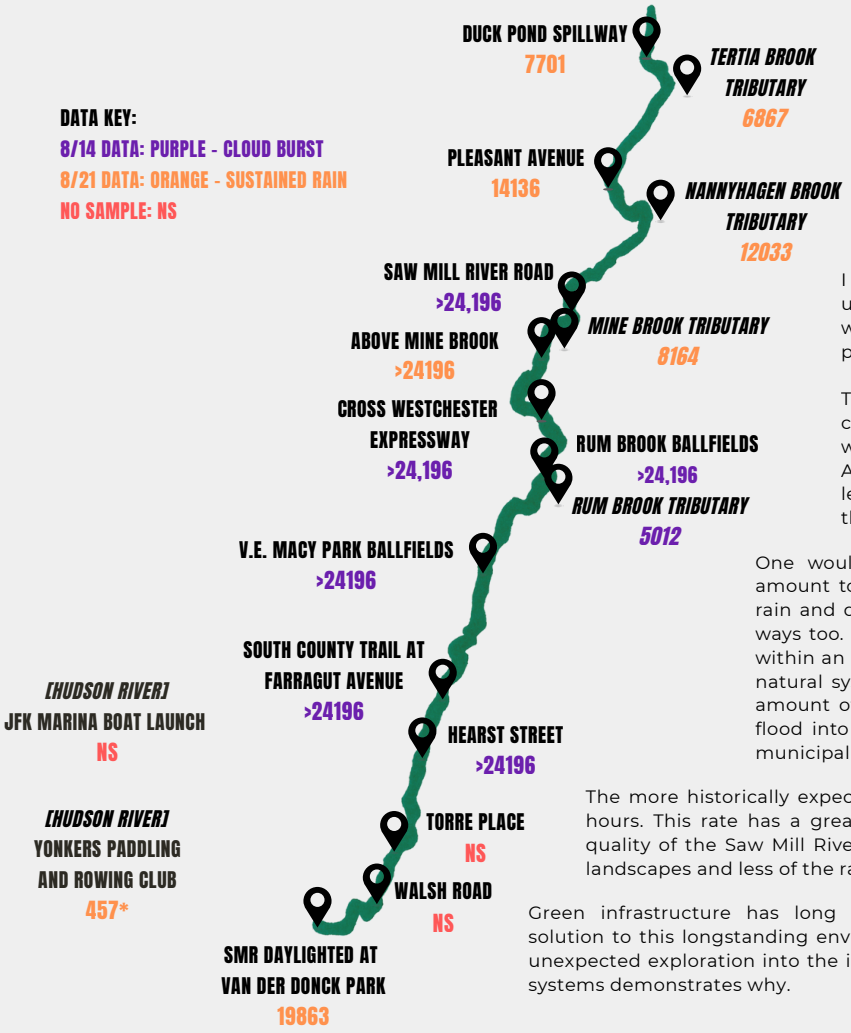
Sampling location of notice this month: V.E. Macy Park Ballfields

This sampling location in Ardsley has been a consistently troublesome site when rain takes place within the weeks timeframe of sample collection. In 2024 (despite wet weather) this site consistently surprised us with some of its lowest bacterial results to date. This year has taken a turn for the worst as V.E. Macy results have consistently exceeded past 700 all season. This site was part of an aquatic macroinvertebrates study conducted by CURB in 2021. This study resulted in a water quality rating score of “poor” based on the then active Isaak Walton League of America (IWL) macroinvertebrate biodiversity water quality rating scale. Despite its water quality fluctuation over the years, the river at V.E. Macy Park is still a recreational and environmental favorite of many, including myself.

PHOTO CREDIT: SARITA EISENSTARK
LOCATION: V.E. MACY PARK

(THE DISTINGUISHED RIVER)

A SECTION OF OUR NEWSLETTER DEDICATED TO THE GREAT EVER CHANGING RIVERS



To accommodate sampler vacation and travel plans, I altered the the sampling schedule for the month of August. I thought to myself, the 1 week range of sampling shouldn't be so spaced out that it would make a large difference. We already have a fairly historied record of the sites and know which ones have consistently terrible water quality (when we are looking at bacterial contamination). What I didn't find myself thinking about was the forecast. At no point in the scheduling did I think, what would happen if either, or, both dates would be impacted by rain.

I think part of this really had to do with the fact that our summer up to this point was considered fairly "dry". Unlike in past years where our summers felt trapped indoors, this summer provided a plethora of opportunity for people to enjoy fun in the sun!

The first sampling week in August took place on the 14th (color coded on the left in purple) with an average rainfall range of 0.5"-1" within 24 hours of the sampling date. The second sampling week in August took place one week later on the 21st (color coded on the left in orange) with an average rainfall of 0.9"-1.2" within 24 hours of the sampling date.

One would expect the second sampling date with the greater rainfall amount to have worst bacterial counts. However, because the amounts of rain and duration it has fallen in greatly differs it impacts river in different ways too. Within 24 hours of sampling for the 8/14 date, 0.1486" of rain fell within an approximate 2 hour window. This rate of rain fall is too fast for the natural system to absorb the excess water. Compounded with an extreme amount of non-permeable surfaces within our watershed causes runoff to flood into pipe systems causing a rapid inflow and infiltration of separate municipal separate storm sewer systems.

The more historically expected rainfall on 8/21 had a calculated 1.11" over an approximate 16 hours. This rate has a greater sustained rate and although not perfect, impacts the water quality of the Saw Mill River less. The rate of rainfall allows time for absorption into natural landscapes and less of the rainfall floods into the weakened sewage system.

Green infrastructure has long been a championed solution to this longstanding environmental issue. This unexpected exploration into the impacts of rain on our systems demonstrates why.

Have a distinguished river highlight or upcoming event you'd like to share?
Email your submission for the month of October to KLamboy@sarahlawrence.edu.

PARTNER SPOTLIGHT

The **Hudson River Environmental Conditions Observing System** (HRECOS) is an environmental monitoring network collecting high-frequency water quality and weather data in and along the Hudson River. The network (maintained by a collaboration of governmental, academic, and private institutes) provides the information needed to understand, manage, and protect the river for years to come.

To learn more about the HRECOS network and check out the live data, **check out this link**.

PHOTO CREDIT: HRECOS